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herausgegeben von INGO PINI und WALTER MÜLLER

BEIHEFT 9

The Middle Minoan Three-Sided Soft Stone Prism A Study of Style and Iconography

Maria Anastasiadou

THE MIDDLE MINOAN THREE-SIDED SOFT STONE PRISM

A STUDY OF STYLE AND ICONOGRAPHY

by

MARIA ANASTASIADOU

Volume 1



VERLAG PHILIPP VON ZABERN

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VORWORT DER HERAUSGEBER

Die vergleichsweise einfachen, oft flüchtig in Steatit gearbeiteten Dreiseitigen Prismen mögen im Vergleich zu den Meisterwerken der ägäischen Hartsteinglyptik auf den ersten Blick als unscheinbar gelten. Erst die eingehende Beschäftigung mit dieser einheitlichen Denkmälergruppe innerhalb der mittleren Bronzezeit lässt den Reiz einer vielfältigen, Mensch und Tier einbeziehenden ornamentalen Ikonographie erkennen, die zugleich eine wichtige Quelle der Information in einer Zeit ohne lesbare Schrift ist.

Maria Anastasiadou arbeitete an ihrem anspruchsvollen, viel Akribie erfordernden Thema über fünf Jahre in der Marburger Forschungsstelle des CMS und nutzte die Gelegenheit, die modernen Abdrücke nahezu sämtlicher Dreiseitigen Prismen unter dem Stereomikroskop des Instituts eingehend und sorgfältig zu studieren. Das Ergebnis war eine wissenschaftliche Arbeit, die als mustergültige Grundlagenforschung in einem Teilgebiet der ägäischen Glyptik die Aufnahme in die Beiheftreihe des CMS voll und ganz rechtfertigt. Das von Ingo Pini angeregte und betreute Forschungsvorhaben wurde 2009 als Dissertation des Archäologischen Seminars der Marburger Philipps-Universität angenommen. Mit druckfertigen Zeichnungen der Autorin und Abdruckphotos aus den Archiven des CMS bebildert, war das Manuskript so vorbildlich ausgeführt, dass es, abgesehen von wenigen Korrekturen, als Vorlage für den Druck dieses Beiheftes verwendet werden konnte. Es kann daher binnen Jahresfrist erscheinen. Zugleich ist es die letzte Publikation des Corpus der minoischen und mykenischen Siegel unter der Betreuung der Akademie der Wissenschaften und der Literatur, der hier nochmals für die über 50 Jahre währende Unterstützung des für die Erforschung der ägäischen Bronzezeit so wichtigen Vorhabens gedankt wird.

Die Bearbeitung der Druckvorstufe bis zum Erstellen der druckfertigen PDF-Dateien lag in den bewährten Händen von Matthias Nolte, dem unser Dank für seine umsichtige Arbeit gebührt. Für den reibungslosen Ablauf des Drucks danken wir der Firma Bercker Graphischer Betrieb in Khevelaer.

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Dezember 2010

I. Pini — W. Müller

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I am especially thankful to excavators, museums, and collectors who have granted me the permission to include unpublished material in my thesis, as well as to museums which have allowed me to handle the Minoan seals in their collections personally. The Heraklion Museum granted me the permission to handle 20 unpublished pieces under its courtesy, for which I am very grateful. My particular thanks are expressed to Nota Dimopoulou Rethemiotaki and Athanasia Kanta who dealt with my request to publish the relevant pieces. To the Heraklion Museum I am also thankful for allowing me to study and personally handle published Minoan seals kept there during a research visit in 2006. Apart from the then director Nota Dimopoulou-Rethemiotaki, I would also like to thank Vaso Marselou for her help during my work in the museum.

The Cabinet des Médailles of the Bibliothèque nationale de France gave me the permission to handle two unpublished prisms from its collection. Moreover, they allowed me to study the MM seals kept there during a visit in 2006. I am therefore indebted to the director of the department Michel Amandry and the curator Mathilde Avisseau Broustet.

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Marburg, December 2010





GENERAL ABBREVIATIONS*

ARCHAEOLOGICAL PERIODS

EB	Early Bronze
EH	Early Helladic
EM	Early Minoan
FN	Final Neolithic
MB	Middle Bronze
MBA	Middle Bronze Age
MH	Middle Helladic
MM	Middle Minoan
LB	Late Bronze
LBA	Late Bronze Age
LH	Late Helladic
LM	Late Minoan
LN	Late Neolithic

KEEPING PLACES

Agios Nikolaos, Arch. Mus.: Archaeological Museum of Agios Nikolaos Ann Arbor, Kelsey Mus.: Kelsey Museum of Archaeology, Ann Arbor Athens, Nat. Arch. Mus.: National Archaeological Museum, Athens Berkeley, Hearst Mus.: Phoebe A. Hearst Museum of Anthropology, Berkeley Berkeley, Un. Cal. Near East. Stud.: University of California, Department of Near Eastern Studies, Berkeley

^{*} For abbreviations of literature, see pp. 436–440.

GENERAL ABBREVIATIONS

Berlin, Pr. Coll. Grumach: Private Collection Grumach, Berlin Berlin, Staatl. Mus.: Staatliche Museen zu Berlin, Antikensammlung Bonn, Ak. Kunstmus.: Akademisches Kunstmuseum, Bonn Bonn, Pr. Coll. Müller: Private Collection Müller, Bonn Boston, Mus. Fine Arts: Museum of Fine Arts, Boston Bristol, Pr. Prop. Betts: Private Property Betts, Bristol Cambridge, Fitzw. Mus.: The Fitzwilliam Museum, Cambridge Cambridge, Fogg Art Mus.: Fogg Art Museum, Cambridge Chania, Arch. Mus.: Archaeological Museum of Chania Copenhagen, Nat. Mus.: National Museum of Denmark, Copenhagen Crete, Pr. Prop.: Private Property, Crete Dresden, Staatl. Kunstsamml. Alb.: Staatliche Kunstsammlungen Dresden – Albertinum Geneva, Mus. Art. Hist.: Musée d'Art et d'Histoire, Geneva Germany, Pr. Prop.: Private Property Haifa, Nat. Mar. Mus.: National Maritime Museum, Haifa Heraklion, Arch. Mus.: Archaeological Museum of Heraklion Jerusalem, Bible Lands Mus.: Bible Lands Museum Kea, Arch. Mus.: Archaeological Museum of Kea Liverpool, World Mus.: World Museum Liverpool London, Br. Mus.: The British Museum, London Los Angeles, Mus. Cult. Hist.: Museum of Cultural History, Los Angeles Malia, Exc. Storer.: Excavation Storeroom, Malia Marburg, Pr. Coll. Wiegandt: Private Collection Wiegandt, Marburg Munich, Staatl. Antikensamml.: Staatliche Antikensammlungen, Munich Munich, Staatl. Münzsamml.: Staatliche Münzsammlung Munich Malibu, Getty Mus.: J. Paul Getty Museum, Malibu New York, Metr. Mus.: The Metropolitan Museum of Art, New York New York, Pr. Coll. Rosen: Private Collection Rosen, New York New York, Pr. Coll. Velay: Private Collection Velay, New York

GENERAL ABBREVIATIONS

Oxford, Ashm. Mus.: The Ashmolean Museum of Art and Archaeology, Oxford Paris, Cab. Méd.: Cabinet des Médailles, Paris Philadelphia, Mus. Arch. Anthr.: University of Pennsylvania Museum of Archaeology and Anthropology, Philadelphia Rethymnon, Arch. Mus.: Archaeological Museum of Rethymnon Siteia, Arch. Mus.: Archaeological Museum of Siteia Toronto, Royal Ont. Mus.: Royal Ontario Museum, Toronto Vienna, Kunsth. Mus.: Kunsthistorisches Museum Vienna Zurich, Mus. Rietb.: Museum Rietberg, Zurich Zurich, Pr. Coll. Bollmann: Private Collection Bollmann, Zurich

OTHER

BL.	body length
ca.	circa
cm	centimeters
diam.	diameter
fig./figs.	figure/figures
Giam	Giamalakis collection
H.	height
Hi	hieroglyph
init.	initially
L.	length
m	meters
mm	millimeters
Met	Metaxas collection
no./nos.	number/numbers
p./pp.	page/pages
pers. comm.	personal communication

GENERAL ABBREVIATIONS

pl./pls.	plate/plates
pres.	preserved
SF.	seal face(s)
SH.	stringhole
tbl.	table
' ' for place names	when a place name is written in quotation marks, the piece is reported to have come from there
*	the author has personally handled the piece

TRANSLITERATION OF THE GREEK

α	a	αι	ai
β	V	αυ	au
γ	g	81	ei
δ	d	ຍບ	eu
3	e	01	oi
ζ	Z	ου	ou
η	i	γγ	gg
θ	th	γκ	gk
l	i	μπ	mp
κ	k	ντ	nt
λ	1		
μ	m		
ν	n		
ξ	X		
0	0		
π	p		
ρ	r		
σ	S		
τ	t		
υ	У		
φ	f		
χ	ch		
ψ	ps		
ω	0		

XXI

ILLUSTRATION CREDITS

Unless otherwise stated, outline drawings are made by the author and photographs of seals and their impressions are the courtesy of the CMS archive.

TOPIC AND OBJECTIVES

The focus of the present work is a group of seals defined by shape, material, cutting technique, and date but not by style.¹ The existence of more than 600 examples of MM three-sided soft stone/material prisms – hereafter prisms – renders them the most represented seal shape in MM Crete and raises questions regarding the significance of the form in that society.² The current study is seen as a first step towards understanding the MM prism and aspires to offer seal research a firm basis for the investigation of the question of its function in MM society.

The purpose of the book is twofold. Firstly, it attempts to assess the place of the prism in soft stone MM glyptic. Two basic questions are posed with regard to that subject. The first is whether the prisms are stylistically homogeneous; and the second concerns the relationship of these seals to contemporaneous soft stone seals of other forms. Iconographic and stylistic considerations as well as the use of different stones or materials, suggest that the prisms belong to various groups which can be connected to different 'workshops'.³ Topics addressed are: the characteristics of the seals produced in each 'workshop', the possibility of localising/dating more precisely these 'workshops', and whether they may have also produced seals of other forms.

Despite the often enigmatic character of the representations and the great interest they have generated, the iconography of the prisms has not been a subject of systematic analysis.⁴ For that reason, the second goal of the present work is the study and analysis of the prism iconography. Each device is classified according to its qualities and its variations, possible meanings, and different functions in the composition are discussed. The compositional principles employed and the effects created by the resulting images are also analysed and the nature of the images is explored. Moreover, the relationship of the images met on the prisms to those encountered on contemporaneous hard stone seals is discussed. Finally, the ways according to which new devices are created are also discussed.

¹ Style is a coordinate of iconography, material, and cutting technique.

² 625 pieces are included in this study.

³ The term '*workshop*' is used to refer to one or more workshops which were producing stylistically similar seals and were active in the same region at the same time period. When the term is not placed in quotation marks it refers to one workshop.

⁴ This is perhaps due to the large number of existing representations. Through the multi-faced character of the prisms, which is one of their most interesting features, the number of faces that require studying surpasses 1700. The number of individual motifs, which vary from one to eight on each face, is more than 4.500.

An examination of the combinations of the devices/images met on the three sides of each piece falls outside the scope of this study.⁵ This would be a suitable focus for a work concentrating on one of the groups of prisms detected in the course of this research, the Malia/Eastern Crete Steatite Prisms. On these prisms, the combinations of various devices/ images on the different sides of the seal or also on one seal face create the impression of an attempt to communicate some kind of message. Any study aspiring to explore the subject of the frequency of the different combinations of devices/images on the prisms should, apart from the prisms themselves, also take into consideration seals of other shapes which belong to the Malia/Eastern Crete Steatite Group.

Further subjects which fall outside the scope of this study are the use of the prisms as this is reflected on sealings impressed by prisms⁶ as well as the relationship of prism iconography to the iconography of contemporaneous pottery.⁷

STATE OF RESEARCH

As part of his interest in Aegean scripts, Sir Arthur Evans was the first to pay attention to the prisms and devote separate sections of his work to them. In 'Primitive pictographs and a prae-Phoenician script from Crete and the Peloponnese', published in 1894, he divides these seals into two classes.⁸ Those of class II have elongated seal faces and are engraved with hieroglyphic inscriptions as well as representational and ornamental devices. The prisms of class III are seen as more 'primitive' and as 'distinctly earlier in style'. They have shorter, compact seal faces, are engraved with representational or ornamental devices, and do not show hieroglyphs. Evans sees the devices of the prisms of this latter class as pictographs and suggests that many of them indicate 'the quality and pursuits of their owner'. Furthermore, he also sees these pictographs as progenitors of the Cretan hieroglyphs which appear on the prisms of class II and on the hard stone three-sided prisms.⁹ He therefore suggests that the gradual conventionalisation of such devices led to the creation of the hieroglyphic signs. Regarding their provenance and dating, Evans sees the prisms as indigenous to Crete and

⁵ For an attempt to pursue such questions, see van Effenterre – van Effenterre 1974. Also, Weingarten 1991, 12–14, 17. For a brief summary of these works, see pp. 6–7, 9–10. For the meaning of the terms *device* and *image* as they are used in this study, see p. 13.

⁶ Sealings impressed by prisms are only of interest insofar as they provide evidence regarding the distribution of the various groups. They have not been included in the catalogue because, most often, it is impossible to say with certainty from what seal form an impression was made. Moreover, the existing prisms offer extensive material for a comprehensive iconographic analysis.

⁷ For a thorough investigation of the relationship between the iconography of MM seals and MM pottery, see Walberg 1986, 6–56, 139–142, especially 39–56. For an essay on the comparison of the compositions of Minoan pottery and Minoan seals, see Walberg 1989.

⁸ Class II and class III. Class I is represented by hard stone three-sided prisms which show a high quality of engraving and bear elaborate ornamental images and hieroglyphic inscriptions. The summary on this article draws on Evans 1894, 325–345.

⁹ These he classifies in class I. For this class, see footnote 8.

takes into account iconographic considerations and comparisons with Egyptian material to date them to EM II/EM III–MM I.¹⁰

In 'Further discoveries of Cretan and Aegean script: With Libyan and Proto-Egyptian comparisons', published in 1897, Evans builds on his initial study, naming the prisms with the compact seal faces 'early pictographic prism-seals' and those with elongated seal faces as transitional prisms 'with conventionalised pictographs'.¹¹ To these, he adds a third class represented by a prism¹² and some other seals engraved with linear devices. Noting the irregular section of this latter prism and the crude character of its engraving, Evans suggests that the three-sided prisms came about from the smoothing out and axial perforation of natural occurring splinters of steatite. Furthermore, in its devices, he sees progenitors of linear script signs.¹³

The same ideas were put forward in *Scripta Minoa*, I, which appeared in 1909.¹⁴ The patterns of the prism with the linear devices are characterised as an 'anticipation of alphabetic forms'. The prisms with the compact form and the 'pictographic designs' are considered to have originated "somewhat before the close of the 'EM' Age". Those with elongated seal faces and hieroglyphic inscriptions are classified as seals of 'the conventionalized pictographic or hieroglyphic type – class A' and are considered clearly MM.¹⁵ Pieces with elongated seal faces which do not bear hieroglyphic inscriptions are seen as transitional between the compact prisms which are not inscribed and the elongated ones which are. However, unlike the previous works, these are now treated alongside the class of compact prisms.

In the *Palace of Minos at Knossos*, I, published in 1921, Evans considers EM II as the date when the compact prisms began to be produced.¹⁶ However, EM III is seen as the period in which these prisms encountered their highpoint. By contrast, the elongated prisms with hieroglyphic inscriptions are seen as clear products of MM I.

In *Die frühkretischen Siegel* (1928), Friedrich Matz accepts Evans's classification of the prisms and gives a catalogue of the hitherto published prisms, as well as of some new pieces not discussed in *Scripta Minoa*, I.¹⁷ The author also states that unpublished examples of the

¹⁰ For the terminology used for dating, see 'Appendix 1' footnote 2196.

¹¹ 'Early pictographic prism-seals' are the prisms of class III of Evans 1894; transitional prisms 'with conventionalised pictographs' are the prisms of class II of Evans 1894. In the paper of 1897, Evans uses the term *conventionalised pictographs* instead of *hieroglyphs*. This summary draws on Evans 1897, 328–349.

¹² 62.

¹³ Further classifications follow which do not include prisms. In a fourth category, Evans classifies mostly hard stone seals with elaborate ornamental devices and hieroglyphic inscriptions (Evans 1897, 336–342 [these are the seals of class I of Evans 1894]). In a fifth category, he discusses hard stone Petschafte with hieroglyphs and other devices (Evans 1897, 342–346). In another class, he refers to seals and other objects with 'linear signs' (Evans 1897, 346–349).

¹⁴ Evans 1909, 115–118, 130–138.

¹⁵ For the seals of class B, see Evans 1909, 138–144 (these are the seals of class I of Evans 1894).

¹⁶ This summary draws on Evans 1921, 123–124, 195–196.

¹⁷ The following summary draws on Matz 1928, 24–25, 101, 103–128. For Scripta Minoa, I, see Evans 1909.

prisms with the 'pictographic script' do not deserve further mention because of their similar shape, poor artistic quality and the, as a rule, poor workmanship. He sees the prismatic form as a Minoan adaptation of the Near Eastern cylinder seal. In examining the character of the early Cretan seals and their relationship to Egyptian, Near Eastern, and southeast European seals, Matz draws amply on the iconography and style of the representational images of the prisms. In the course of his discussion he reaches the conclusion, among others, that these seals were manufactured for and used by the poor. This was suggested to him by the crude configuration of the shape, the use of a 'cheap' local material, the iconography rich in scenes of everyday life, the claim that lions were not depicted on these seals, as well as the fact that only a few representatives of the form had come to light in the Mesara tholoi.

In 'À travers trois gemmes prismatiques' (1932), Fernand Chapouthier suggests, based on comparisons with EM, MM II, and MM III/LM I seals, a MM I dating for the prisms.¹⁸ In his 1946 article, 'La glyptique crétoise et la continuité de la civilisation minoenne', the same author draws attention to the major role of the prisms in the Protopalatial glyptic of Malia and suggests that these seals were in use there during the whole duration of the Protopalatial period.¹⁹ Finally, in the short essay 'De l'origine du prisme triangulaire dans la glyptique minoenne' (1951), Chapouthier differs from Matz's assessment of the prisms' provenance putting forward the hypothesis that the Minoan prism came about from the adoption and reshaping of the Hittite gable.

Then, in an article published in 1957 entitled 'Des ateliers de pierres gravées a Mallia', André Dessenne announced the discovery in 1956 of a cluster of seal cutters' workshops situated 200 m to the west of the palace in Malia.²⁰ 102 seals, most of which were three-sided prisms, were reported to have come from the area. On the basis of the pottery context, the seals are dated to MM I/MM II which in the terminology used in Malia at the time of Dessenne corresponds to MM I.²¹ The iconography and the evidence for manufacture method were touched on briefly. The author ends by announcing that he has been able to distinguish two or three different hands on the new seals.

Later, in 1958, Agnès Xenaki Sakellariou published 59 prisms of the Giamalakis collection in *Le cachets minoens de la collection Giamalakis*.²² As the text had been written before the discovery of Dessenne's workshops, the newly-discovered seals are not mentioned. With regard to dating, the author refers to the difficulty in dating the prisms of the type published by Evans, noting that the method of engraving and the fact that some of the prisms had been found in Prepalatial contexts would support a Prepalatial date. On the other hand, she remarks on the fact that some prisms come from contexts which were also used in Protopalatial times or bear hieroglyphs. According to Sakellariou, the former observation would not rule out a Protopalatial dating while the latter would even suggest

¹⁸ Chapouthier 1932, 183–184, especially 184.

¹⁹ Chapouthier 1946, 79–82.

²⁰ Dessenne 1957.

²¹ Poursat 1974, 111.

²² The following summary draws on Xenaki Sakellariou 1958 a, 8–19, 21–22, 92, 451.

it. Pieces which do not bear hieroglyphs are not seen as necessarily earlier than those which do. Due to these difficulties, the author prefers to refer to all the prisms as archaic prisms. By convention, all examples which lack hieroglyphic inscriptions are treated with Prepalatial glyptic, while two pieces which bear hieroglyphs on one side are categorised with the Protopalatial seals. Two prisms with ornamental images on all sides composed of centred-circles and lines are also catalogued as Protopalatial. With reference to their geographical locus, in a footnote the author further puts forward the hypothesis that the archaic prisms were connected with eastern Crete.²³

In the same year Xenaki Sakellariou's 'Sur le cachet prismatique minoen' appeared.²⁴ The article deals with all kinds of Minoan prismatic seals, such as soft stone and hard stone three-sided and four-sided prisms and the three-sided gables made of soft materials. In contrast to Dessenne, the author speaks not of many, but of one workshop in Malia. She also notes that the discovery of this workshop confirms her dating of the prisms and verifies her hypothesis that eastern Crete played a major role in the manufacture of the prismatic seals. Furthermore, she brings together evidence which suggests that the prismatic seals are more widely distributed in eastern than in central Crete. Dividing the three-sided prismatic seals into three categories according to the shape of their seal faces, the author comments on the origin and development of the form, seeing it as first appearing in the Prepalatial period but becoming popular over the course of the Protopalatial period. Evans's opinion that the three-sided prismatic form was indigenous to Crete and was inspired by natural forms is also supported. Furthermore, the author also draws attention to the prevalence of representational images on this kind of seal and suggests that the adoption and wide use of this seal shape is connected with the floruit of representational images, pictographs, and hieroglyphs.

In his discussion of the EM and MM seals in *Cretan Seals* (1960), Victor Kenna mentions neither the Malia Workshop and the seals recovered there nor Xenaki Sakellariou's article on the prismatic seals.²⁵ The author connects the prisms mainly to northern and central Crete,²⁶ while taking up Evans's division of the prisms into EM II/EM III examples which do not show hieroglyphs and MM I examples which do. In addition, he puts forward the hypothesis that the rounded prismatic shape of the upper vertebrae of a mammal, which he sees as having an amuletic character, could have served as the inspiration for the creation of the prism. In the majority of prisms, Kenna sees seals which had an amuletic as opposed to a sphragistic character and suggests that slowly at the end of EM III, such seals start to lose their amuletic character and begin to acquire a sphragistic function. As a consequence of this, by MM I, the prisms with hieroglyphic inscriptions are commonly used for sealing. Finally, he suggests that the quality of engraving of many MM I prisms shows an obvious decline, as he believes is also the case with other seals of that period.

²³ Xenaki Sakellariou 1958 a, 92, footnote 1.

²⁴ Xenaki Sakellariou 1958 b.

²⁵ The following summary draws on Kenna 1960, 13–48.

²⁶ Kenna 1960, 22 footnote 1.

In *Greek Gems and Finger Rings* of 1970, Sir John Boardman speaks of Archaic Prisms I and II.²⁷ Archaic Prisms I coincide with Evans's compact prisms which do not bear hieroglyphs. With respect to distribution, Boardman suggests that these seals seem to be connected chiefly with eastern, northern, and central Crete. Regarding dating, he has three points to make. Firstly, since some prisms come from contexts in which EM ivory seals also occur and show iconographic similarities to them, this may be indicative of at least partial contemporaneity. Secondly, Boardman suggests that there is a difference between the iconography of the prisms which have been found in the Mesara and the 'commonest type of prism' and that the former could be somewhat earlier than the latter. Lastly, the 'commonest' prisms are dated to MM I and, more likely, to the Protopalatial period. Regarding the putative amuletic character of the seals, while sceptical about it, he does not rule out the possibility that these seals did indeed have such a value as opposed to a sphragistic character. Finally, following Evans, Boardman also suggests a connection between the devices of these seals and the hieroglyphs met on other prisms.

Regarding the dating of the prisms from the Malia Workshop, Boardman cites the excavators who set their context at the end of MM I/early MM II. These prisms are considered representative examples of Archaic Prisms II. They are described as having rectangular, elongated ellipsoidal or, more rarely, squarish 'old-fashioned' seal faces.²⁸ Their iconography is largely similar to that of the Archaic Prisms I, although here also hieroglyphic inscriptions are met. Regarding distribution and dating, Boardman mentions that these prisms do not seem to have been particularly popular in southern Crete and therefore suggests continuity between them and the later hieroglyphic hard stone prisms, seeing this as a possible indication that Archaic Prisms II were still being made in MM II. Moreover, he notes the lack of sealings impressed by such prisms.

In their 1974 article, 'Vers une grammaire de la glyptique créto-mycénienne', Henri and Micheline van Effenterre make a first attempt to examine the relationships between the devices met on the three seal faces of the prisms.²⁹ They consider these seals to be personal objects and suggest that their three faces could provide information related to the identity and/or the qualities of their owners. After examining more than 350 prisms, they develop a typology of motifs which appear on these seals; this is then used to assess the frequency and kind of motif combinations that appear on the three sides of the prisms. By doing so, the authors close with a range of conclusions. They suggest for example, that each prism is individual and that there are many different kinds of motif combinations. They also note that there are more prisms without depictions of humans than with and suggest that animal depictions play a very important role in prism iconography. In addition, the question is raised as to whether representations. If so, such depictions could be translated as personal names or descriptions of human actions. Furthermore, the authors

²⁷ The following summary draws on Boardman 1970, 23–31.

²⁸ Boardman 1970, 28.

²⁹ van Effenterre – van Effenterre 1974.

pose the question of whether the motif combinations on prisms could correspond to a system of the type praenomen – nomen – cognomen. They end by suggesting that such attempts to explore the relationships between the devices on the seal faces of the prisms should be pursued further.

In 'L'Atelier de sceaux de Malia et la chronologie des sceaux protopalatiaux', which appeared in the same year, Jean-Claude Poursat states that new sondages and excavations took place in Malia starting in 1965.³⁰ These revealed that the Workshop is situated near a large architectural complex named Quartier Mu and that both this and the Workshop date to MM IIB.³¹ Dating the seals that came to light at the Workshop to MM II, he suggests that a large proportion of them are contemporaneous with its destruction, i.e. MM IIB. He notes that stylistic differences between the seals of the Workshop are probably indicative of manufacture by different hands or workshops rather than of chronological differences. Consequently, the question is raised as to whether one can, in the light of the new evidence, continue to date the so called archaic prisms to the Prepalatial period.

The seals which came to light in the Malia Workshop were published in 1977 in CMS II,2.³² Mentioning both Dessene's and Poursat's dating of the context, the authors state that new excavations in the area of the Workshop will have the objective of verifying its dating conclusively.³³

Paul Yule was the first to provide an accurate definition of the prisms, in his 1980 monograph, *Early Cretan Seals: A Study of Chronology*.³⁴ He refers to the existence of 466 examples, names their material 'serpentine', notes that their sides meet at sixty degree angles, and draws attention to the difference between prisms and the 'superficially similar Gables'. He saw no reason for distinguishing 'archaic' from later pieces and suggested a MM IB–MM III dating for all prisms.

Yule classifies the prisms found in the Mesara and stylistically related seals of other forms in his Platanos Goat Complex and Petaloid/Star Group; he dates them to MM IA/ MM IB and MM IB/MM II respectively. The Malia Workshop prisms and stylistically related seals of other forms were assigned by Yule to his Malia Workshop Complex and dated to MM IB/MM II.

In *Le palais de Mallia et la cité minoenne*, II, published in the same year, Henri van Effenterre discusses in detail the seals which had come to light in Malia.³⁵ First, he draws attention to the large number of seals which come from the town. He continues by discussing the ways in which the seals recovered there came to light, their characteristics, their find spots, and their value for research into Maliote glyptic. He stresses the important fact that

³⁰ Poursat 1974.

³¹ MM IIB in Knossian terms, or the end of MM II in the Malia ceramic sequence (for an overview of the ceramic dating in Quartier Mu, see Poursat – Knappett 2006, 193–194).

³² CMS II,2 nos. 86-98.

³³ Platon – Pini – Salies in CMS II,2, xii; Dessenne in CMS II,2, 109.

³⁴ The following summary draws on Yule 1980 a, 66–67, 211–215.

³⁵ The following summary draws on van Effenterre 1980, 543–578.

the seals recovered in the Malia Workshop come from a securely dated MM IIB context. Prepalatial, Protopalatial, Neopalatial, and Postpalatial glyptic as well as the sealings of the town are discussed separately.

In a section devoted to the Malia Workshop,³⁶ van Effenterre gives an overview of previous research, presents the output of the Workshop, and draws attention to the large number of prisms recovered. He discusses in detail the iconography of the seals from the Workshop and their manufacture method, as attested in rough outs, trial pieces, unfinished seals, and tools that came to light in the area of Quartier Mu. Moreover, the author notes that while the Workshop prisms show a general uniformity, specific 'mannerisms' attest to the work of more than one hand. According to van Effenterre, these hands could be those of the craftsperson's family. He suggests that more than 50 % of the seals from Buildings A and B in Quartier Mu were manufactured in the neighbouring workshop, but also mentions that other seals found in the Quartier should be attributed to other Protopalatial workshops.

Considering the Protopalatial seals from Malia that were not recovered in the Workshop,³⁷ van Effenterre draws attention to the large number of prisms as opposed to seals of other forms, and discusses iconography, style, and contextual evidence, which indicated a Protopalatial dating. Before ending his discussion of Protopalatial seals, van Effenterre highlights the fact that the steatite used for seals recovered in the Workshop differs noticeably in colour from those found elsewhere. He notes that iconography and material suggest that not all prisms from Malia are contemporaneous. Proposing a MM IB date for many of the pieces found outside Quartier Mu, he suggests that the prisms which have come to light there are MM II or MM IIB.

In Fouilles exécutées à Mallia. Le Quartier Mu, II. Vases de pierre et de métal, vannerie, figurines et reliefs d'applique, éléments de parure et de décoration, armes, sceaux et empreintes (1980), Jean-Claude Poursat publishes the seals and sealings which came to light in the area of Buildings A and B at Quartier Mu.³⁸ The author suggests that the prisms and some other seals from there are products of the neighbouring workshop. Other pieces from these buildings are considered to be either earlier than this workshop or products of other MM II workshops active in Malia. Steatite is seen as being reserved for the manufacture of old shapes, such as prisms, whereas other materials, e. g. hard stones and faience, as having been used to cut new forms, such as Petschafte. The opinion is also expressed that older seals, seals of a 'traditional' style, and more 'modern' ones can all coexist in one period. The author further points out that among the published sealings, only a few could have been impressed by steatite seals related stylistically to those represented in the neighbouring workshop. Attention is also drawn to the fact that there were no matches between extant seals and the sealings found in Quartier Mu. This seemed to indicate that the seals found in the Quartier were not intended to have a sphragistic function within it.

³⁶ van Effenterre 1980, 551–561.

³⁷ van Effenterre 1980, 561–570.

³⁸ The following summary draws on Poursat in Detournay – Poursat – Vandenabeele 1980, 157–229, 233.

Again, in his 1981 article, 'L'atelier des sceaux et le Quartier Mu de Mallia: Étude comparée des sceaux découverts',³⁹ Poursat undertakes a comparative study of the seals found in the Malia Workshop and those recovered in Buildings A and B of Quartier Mu. He notes that the seal cutters' workshops mentioned by Dessenne were actually one workshop situated within the house of the seal engraver and underlines the MM IIB date of the building and its context. The opinion is repeated that while the prisms and some other seals from Buildings A and B were manufactured in the neighbouring workshop, other pieces were probably products of earlier or other MM IIB Maliote workshops. Among others, the conclusion is reached that seals which might appear 'primitive' need not be older in date than others which are more precisely and finely engraved. The Seal Cutter's Workshop is seen as one of the last Protopalatial workshops in Malia. Poursat raises the question as to whether prisms whose iconography does not find parallels among seals of this workshop could be attributed to an earlier Maliote workshop. He concludes by underlining the need for further stylistic studies of Minoan seals in order to help distinguish, localise, and date the production of different workshops.

In a later article, 'Fonction et usage des sceaux en Crète à l'époque des premiers palais: Quelques remarques' (1989), Poursat stresses the difficulty of ascertaining whether seals like the prisms had an amuletic or sphragistic use.⁴⁰ The fact that some sealings from Buildings A and B in Quartier Mu were impressed by prisms suggests to him that these seals, whose function had in the past been seen as amuletic, were also used for sealing purposes. Noting that many seals may have possessed a dual function, Poursat argues that the question is not whether the seals had an amuletic or sphragistic use, but rather how to distinguish between seals of an official character and non-official character. He concludes that the primary use of the prisms seems to have been non-official. The hypothesis is then put forward that the prisms could have served in a religious administration, as did similar soft stone seals in northern Mesopotamia during the 3rd millennium.

Eberhard Thomas in 'Zur stilistischen Beurteilung kretischer Siegel', published in the same year,⁴¹ divides the seals of soft material from the Malia Workshop into four groups. He sees in them the gradual genesis of the style of the Workshop, its development, floruit, and decline. He considers whether it is possible to discern different 'hands' working on these seals and then draws attention to certain clusters which could be attributed to the same 'hand'. Regarding distribution, Thomas mentions that seals from other sites which on stylistic and iconographic criteria can be connected to three of the groups in question have find spots limited to northeastern Crete. As for Malia itself he notes that it stands out as one of the most important, if not the most important production centre for these seals.

In The Transformation of Egyptian Taweret into the Minoan Genius: A Study in Cultural Transmission in the Middle Bronze Age (1991), Judith Weingarten suggests that the images

³⁹ Poursat 1981.

⁴⁰ Poursat 1989.

⁴¹ Thomas 1989.

on the seal faces of some prisms are interrelated and have a symbolic meaning.⁴² She presents a table illustrating prisms which depict a *'Pole' slung with 'String vessels'* on one face. She observes that these seals often bear quadrupeds or heads of quadrupeds on one of the other sides. Weingarten therefore suggests a possible connection between such combinations of images and later images of a Minoan Genius associated with vessels or quadrupeds.

John Younger excludes the bulk of the prisms from his *Bronze Age Aegean Seals in their Middle Phase (ca. 1700–1550 B. C.)* published in 1993.⁴³ His 'Middle Phase' begins with the introduction of the horizontal spindle and the engraving of hard stone seals. By these criteria, the majority of the Malia Workshop prisms are considered too early for this period as are the sealings from Room XXV of Phaistos. However, prisms which show hieroglyphic inscriptions as well as those prisms engraved with centred-circles on all sides are included in the study, presumably on the strength that they are considered contemporaneous with the author's 'Middle Phase'.⁴⁴

In 'Les sceaux prismatiques minoens: chronologie et évolution' (1995) Jean-Claude Poursat attempts to trace the evolution of the three-sided prismatic form.⁴⁵ He suggests a MM IA dating for a few prisms and gables with three engraved sides, none of which is connected stylistically with the prisms which came to light at the Malia Workshop. The genesis of the three-sided prismatic form is sought among MM IA prisms and gables with three engraved sides belonging to Yule's Border/Leaf Complex. Fundamental questions, raised by Poursat, are precisely when and how prisms came to be one of the most widelyrepresented shapes in MM II, i.e. did they evolve gradually or develop suddenly during MM II. He goes on to suggest that the majority of three-sided soft stone and hard stone prisms were in fact manufactured in MM II and that the adoption of the shape was, at least partially, connected to the use of hieroglyphs.

In Fouilles exécutées à Mallia. Le Quartier Mu, III. Artisans minoens: Les maisonsateliers du Quartier Mu, which appeared in 1996, Poursat publishes 26 seals, most of which are prisms, recovered in the area of the Seal Cutter's Workshop after 1971.⁴⁶ The tools which came to light in Quartier Mu and could be associated with the manufacture of seals are also published. Commenting on the finds, the author tries to reconstruct the manufacturing process, with the help of the rough outs and trial pieces recovered there. With regard to the prisms, he expresses the opinion that their 'primitive' character is connected with their material and the cutting techniques. Poursat also draws attention to the fact that the Workshop was destroyed violently at the end of MM II; hence he suggests that the seals recovered there were produced immediately before the destruction of the building. Furthermore, he expresses the opinion that the size of the Workshop and the

⁴² The following summary draws on Weingarten 1991, 12–14, 17.

⁴³ The following summary draws on Younger 1993, ix, xxi, xxiii, xxiv, 45–49, 63–68, 163–164.

⁴⁴ For the seals and sealings included in the study in question, see also Younger 1993, 189–212.

⁴⁵ Poursat 1995.

⁴⁶ The following summary draws on Poursat 1996, 104–110.
overall stylistic homogeneity of the seals recovered do not support the view that more than one hand was active there. Finally, he points out that prisms found elsewhere at Malia and further afield display differences in iconography and style.

Jean-Claude Poursat and Elsa Papatsarouha address two main issues related to the style of the steatite prisms in their joint article, 'Les sceaux de l'Atelier de Malia: Questions de style', published in 2000.⁴⁷ First, they try to define the 'Zeitstil' to which the prisms of the Malia Workshop belong. Then, they attempt to deal with the styles indicative of workshops or hands represented within this 'Zeitstil'. They write 'Style' with a capital S when referring to 'Zeitstil' and 'style' with a small s when they refer to personal styles.

The 'Style de Malia' is mainly represented by steatite prisms cut with hand tools. The iconography of these seals is seen as an amalgam of the iconography of older Styles. Poursat and Papatsarouha consider the MM I prisms and gables with three engraved sides mentioned in Poursat's earlier article⁴⁸ as the direct predecessors of the 'Style de Malia'. They show that the seals of this Style are mainly distributed in Malia and the neighbouring areas and that further examples come from eastern and central Crete. Attention is drawn to the fact that the distribution of these prisms is similar to that of the hieroglyphic script and the opinion is expressed that this could suggest that prisms and hieroglyphic script were part of the same administrative and perhaps socio-political system.

Poursat and Papatsarouha continue by defining the stylistic characteristics of the Malia Workshop and point out that this is one of the chronologically later styles of the 'Style de Malia'. In addition, they consider the homogeneity of its production and reach the conclusion that, with a few exceptions, the seals which came to light there are stylistically homogeneous.

The authors also assess the distribution of the seals produced in the Malia Workshop, finding that only a limited number of examples recovered elsewhere belong to it. Among these are mainly pieces found in areas neighbouring Malia. Some clusters of prisms are presented which are attributed to other workshops of the 'Style de Malia'. Taking these points into consideration, the authors suggest that within the domain of the 'Style de Malia' a uniform sphragistic system based on similar iconographic codes existed.

In his 'Stil als Bedeutungsträger in der minoischen Glyptik der Palastzeit', published in the same year, Eberhard Thomas draws attention to the existence of two different regional styles which are encountered on MM II seals.⁴⁹ One is mainly seen on prisms of the type recovered in the Malia Workshop. Such prisms are found chiefly in Malia itself, which is seen as a major – if not the major – production centre, and also in northeastern Crete. The second regional style is met on seals which generally bear ornamental images and exhibit regular intaglios. The main production centres for these seals, among which are also some prisms, are Phaistos and Knossos. Thomas argues that such prisms are indicative of contact

⁴⁷ Poursat – Papatsarouha 2000.

⁴⁸ Poursat 1995, 210–11. For a short summary of this article, see p. 10.

⁴⁹ The summary of Thomas's ideas draws on Thomas 2000, 305–307.

between the two regional styles, inasmuch as the shape is considered northeastern in distribution but the style of engraving is central Cretan.

STRUCTURE OF THE WORK

The first chapter is devoted to the definition of the characteristics of the prism, its distribution, and dating. First, the shape, the materials, the tools and the cutting techniques used for the manufacture of these seals, as well as the manufacturing process are discussed. Next, I examine the available evidence for distribution and context, which may provide indications for dating. Finally, an overview of the Seal Cutter's Workshop at Malia, where a large number of prisms has come to light, is provided.

The second chapter focuses on the 10 style groups which have been detected among the prisms. For each group the discussion follows a similar pattern. First, I review the characteristics of the prisms themselves and, when appropriate, consider their stylistic and iconographic features. Secondly, non-prismatic seals that are related or that belong to the group are discussed. Then, any sealings that were impressed by seals attributable to the style group in question are presented. Finally, I deal with questions of distribution and dating.

The iconography of the prisms is discussed in the third chapter. The devices are divided into motifs – here defined as those representations which cannot be broken down into their constituent elements in a meaningful way – and composite devices, which are patterns put together from other devices. First, the nature and function of the devices met on the prisms is discussed. Each type of device, i.e. motifs and the various kinds of composite devices, are classified in a typology. Motifs and representational composite devices are organised according to their nature, whereas the ornamental composite devices are categorised in accordance with the decorative schemes they exhibit. In the following section, I examine the ways in which the compositions are put together; the nature of the images met on the prisms; and their relationship to the images encountered on contemporaneous hard stone seals. A fourth section is devoted to the process of creating new devices. Finally, I consider the iconography of the prisms which come from the Seal Cutter's Workshop in Malia.

The text is followed by seven appendices. In the first, I summarise the datable contexts in which the prisms presented in the first and second chapter were found. Appendix 2 lists alphabetically the find places of seals considered in the second chapter. In both these appendices, the seals in question can be found in the footnotes. In Appendix 3, I set out the reasons for excluding four pieces from this study, which in certain respects resemble MM prisms. Appendix 4 gives an overview of the function of the devices. Appendix 5 presents graphically the basic ornamental schemes according to which devices with ornamental character have been named. Appendix 6 gives an overview of the devices as they are defined in this study and, finally, Appendix 7 categorises the devices according to their nature.

ORGANISATION OF THE WORK

The research underpinning the present work was undertaken in the Archive of the CMS in Marburg. The descriptions of cutting techniques and intaglios, as well as stylistic considerations, are based on observations made by the author after studying the impressions of all the prisms and of most other seals dealt with in this study. This has enabled me to observe certain technical details, e.g. in respect of style and configuration of the intaglios, that are not always visible in the photographs published in the CMS.

As regards iconography, the representations are always described from the impression. The general term *device* is used to refer to iconographic units meant to be seen as entities. Under devices are classified motifs and composite devices. Motifs are defined as units which cannot be meaningfully broken down into their individual elements. Composite devices are units composed by the fusion or very close fitting of other iconographic units. Composite devices are divided into representational composites, compounds, and miscellaneous composite devices.

The use of italics for the name of a device and the capitalisation of its first letter, e.g. *Man in profile*, indicates that reference is made to a type or scheme defined and treated separately in this study. The devices are listed alphabetically in the concordance Names of the Devices and Device Numbers. In the case of composite devices, the inclusion in one italicised phrase of two or more devices is shown by the capitalisation of the first letter of the relevant devices. In a *'Pole' slung with 'String vessels'* for example, are contained the motifs *'Pole'* and *'String vessels'*. Both these motifs and the composite device which they constitute can be found in the aforementioned concordance. Appendix 7 presents the devices on the basis of more general descriptions, e.g. man and animal.

Shapes denoted by Latin characters, e.g. Z and S, are always capitalised. When such characters constitute part of italicised devices, their capitalisation does not necessarily indicate the existence of a separate type/scheme. The *Disc S-spiral* for example, is a single motif which cannot be broken down into its constituent elements. On the other hand, the *Running S-spiral* is a composite device composed of more than one *S-spiral*. In such cases, the reader is advised to search for the device in question, e.g. the *Disc S-spiral* and the *Running S-spiral*, in the concordance Names of the Devices and Device Numbers, to ascertain whether it is a motif or a composite device.

The term *image* is used to refer to the whole representation depicted on the seal face. Images can consist of one device only, e.g. **5 a**, or of more than one device, e.g. **5 b**. The term *composition* has a dual reference. Firstly, it refers to the way(s) in which the various devices are combined with each other in an image. Secondly, depending on the context, *composition* can also refer to a combination of two or more devices in an image, as opposed to a combination of two or more devices in a new iconographic unit, i.e. a composite device.

The difficulty in distinguishing between the various kinds of devices and assigning each to a category should be pointed out. Differentiation based on objective criteria was almost impossible at times, for instance between certain '*Papyrus flowers*' and *J-spirals*, such

as **510 b** and **171 b** respectively. In some cases, e.g. the motif U, it has proved difficult to establish the boundaries of a device and define whether it constitutes a unit or part of a larger entity. At other times difficulties in understanding how a device was created hindered attempts to assign it to a particular category definitively. The supplementation *Two-armed whirls* **92 a** and **468 a** for example could well be seen as repetition *Two-armed whirls* instead. In all such cases the classification has been carried out on the basis of the author's understanding of the material, itself based on years of studying its iconography. However, any individual classification should be seen only as a suggestion and by no means taken as absolute.

Naming all the different devices has been especially problematic. Certain conventions, established for the purposes of this study, have been followed, e.g. that *head* of a creature describes the depiction of a head without a neck; *bust*, a unit consisting of a head with a neck; and *protome*, a device composed of the head and torso of a creature. However, exceptions are made and there are cases of depictions displaying small variations, which in other cases are taken as indicative of different devices classified under one type. This is the case with the *Profile head of a 'bull'* **115 a** for example, which, while actually a bust, is classified with the head **69 a** which constitutes the same hieroglyph. In naming the ornamental devices, the schemes shown in Appendix 5 have been taken into consideration.

The designation of the devices differs in some respects from that made in other works dealing with MM iconography.⁵⁰ First and foremost, I have tried to classify the material as clearly as possible with regard to MM *seal* iconography, giving less weight to EM and LM glyptic or the iconography of MM pottery. The resulting designations, in my view, therefore offer a better understanding of MM glyptic.

In the catalogue,⁵¹ the seals are arranged according to the museum or collection in which they are currently housed, listed alphabetically. Museum inventory numbers and CMS numbers are provided, wherever possible. For pieces not in the CMS, I make reference to the publications which initially alerted me to their existence. Outline drawings of the seal faces of the pieces not illustrated elsewhere can be found in *plates 128–131*. In these plates, the stringhole channel runs from the top to the bottom of the page. When available, information on the find spot and context date of the seal is provided. Data on the material, the shape of the seal faces, the configuration of the profile, and the dimensions of the seal follow. The dimensions are given in centimetres. Listed first is the length of the seal face, namely the dimension running in line with the stringhole channel. Subsequently, the technique, the characteristics of the intaglios, and the state of preservation of the piece are given. Finally, the images on the three seal faces are described and the group of prisms in which the piece belongs is stated.

⁵⁰ E.g. Walberg 1976; Yule 1980 a. Compare for example the '*Papyrus flowers*' **135** c and **197** a with Walberg's C-spirals in Walberg 1976, 182 fig. 37 nos. 4, 5; and the *Comb swastika* **57** b with Yule's Cross with Zwickelfüllung in Yule 1980 a, pl. 20 Motif 29 no. 3.

⁵¹ Part 2.

Most of the information provided is based on the CMS volumes or other publications containing the seal in question and on data available in the CMS Archive. However, information on the shape of the seal faces, the configuration of the profile, the technique, the quality of the workmanship, the state of preservation, and the iconography depends largely on observation made during the course of this study, by examining photographs and impressions of the seals in the CMS Archive. The dimensions of many pieces are based on measurements of the impressions made by the author. An asterisk next to the publication indicates that I have personally handled the piece in question and thus the information provided is based mainly on my own observations. Context dating draws on information provided by the excavators in the relevant publications and, where possible, is refined by judgements of pottery experts in specialist works. Unless otherwise stated, the seals included in this study and published in the CMS as *dubitandae* or not published there at all are considered by the present author to be genuine.

In the figures, the photographs of the seals and the drawings are frameless. The photographs and the drawings adapted from other publications are not shown to scale; on the other hand, the drawings made by the author are unless otherwise stated depicted in scale 2:1. Outline drawings are used to render the devices shown in the figures of the third chapter and the plates 1-125.⁵² This choice reflects the aim of the chapter, which is to handle the iconography independently of the style. Iconographic elements cut inside a device, e.g. the animal's coat on **5 a**, are outlined within the device, their surface being covered by hatching. The arrangement of some unidentifiable and some ornamental devices, e.g. the *"Bell"* and the *J-spiral* respectively, is conventional; it is not certain that these devices or at least all their examples were meant to be seen in the way they are arranged in the plates. In the plates, the catalogue number and CMS number (if published therein) is provided under each device.

⁵² For the plates, see Part 2.

SHAPE

CHARACTERISTICS OF THE SHAPE

The term *three-sided prism* is borrowed from geometry to refer to an axially symmetrical seal shape with triangular cross section and a total of five faces, i.e. a pentahedron (*fig.1*). As a rule, the three 'slanting' faces of the prism – hereafter seal faces – are engraved, each with a different image. The two triangular faces – hereafter profiles – are pierced in the centre by the stringholes. The channel joining the profiles runs along the axis of the seal.⁵³

⁵³ Basic criteria for defining the shape of a seal are the geometrical shape of its body and the direction of the stringhole channel. Seals which have a triangular prismatic body and stringhole channel which runs vertically to their axis, thus piercing through two of the 'slanting' faces, such as CMS II,1 nos. 461, 486, and 487 are not seen as three-sided prisms. The reason for this is that by their piercing, the two 'slanting' faces are defined as the back of the seal. The axial perforation of seals with axially symmetrical geometrical shapes, e.g. three-sided prisms, four-sided prisms, or cylinders, creates the potential of rotary movement when impressing the seal. The whole area around the axis of the seal can serve as a field for engraving even if it is not always used that way. On the other hand, a perforation which runs vertically to the axis of a seal which has one of the aforementioned geometrical shapes will create an object which can only be used to stamp a sealing surface vertically, e.g. a seal which is similar in concept to buttons and Petschafte (for an overview of the shapes of Minoan seals, see Yule 1980 a, 24-31; for a detailed account of the various seal shapes, see Yule 1980 a, 31-117). Good examples for illustrating the importance of the direction of the stringhole channel for the determination of the shape of the seal are CMS II,1 nos. 11, 74, and 126. Being made of the lower canine of a wild boar, all these seals are triangular and have an axial cavity (for the characteristics of boar's tusk, see Krzyszkowska 1990, 47-48, 75). However, the position of the stringhole channel and, as a consequence, that of the engraving, differs in each of them. The stringhole channel of CMS II,1 no. 11 is located vertically to the axis of the seal and runs through two (?) of the long faces on their upper part in such a way that only the two triangular faces become suitable for engraving. The positioning of the perforation in the upper part of the seal body makes the triangular face which is placed further away from it more appropriate for engraving. For that reason, the seal can be seen as a gable-shaped variation on a stamp cylinder (see also Yule 1980 a, 91). On the other hand, the positioning of the stringhole channel under the interfacial edge of the two semi-ellipsoidal faces of CMS II,1 no. 74 defines these two faces as the back of the seal and makes the third 'slanting' face appropriate for receiving engraving. In this case, the concept of the seal resembles that of buttons. Finally, the triangular pulp cavity of CMS II,1 no. 126 serves as a stringhole channel such that the triangular faces are made unusable for engraving and all three 'slanting' sides are offered as potential fields for engraving. The concept of this last seal is similar to that of the three-sided prisms, four-sided prisms, and cylinder seals. Thus, in these three cases of seals with similar geometrical shapes, the direction of the stringhole channel creates three different seal shapes with a gable-shaped section, i.e. a stamp cylinder (CMS II,1 no. 11), a button (CMS II,1 no. 74), and a gable (CMS II,1 no. 126) (for a discussion on this last shape and its differentiation from the prisms, see pp. 20-22).



Fig. 1 The MM three-sided soft stone prism: a. frontal view of a profile; b. oblique view (the latter adapted from Yule 1980 a, 28).



Fig. 2 Prism with slightly convex seal faces.

Some unfinished pieces have only one or two engraved seal faces.⁵⁴ Apart from these, only two apparently finished pieces bear engraving on one side only, i.e. **107** from Tholos B or Γ at Platanos, and **221** from the Agora in Malia. The fact that the first was deposited in a tomb and the second is abraded suggests that these are finished pieces.

In the majority of cases, the seal faces are flat (*fig. 1*). In a few rare cases, a frontal view of the profiles creates the impression that the seal is somewhat swollen, suggesting that its seal faces are very slightly convex (*fig. 2*).⁵⁵

Ellipsoidal seal faces are the most common.⁵⁶ Apart from these, round, rectangular, trapezoidal, semi-ellipsoidal, and irregular faces are also encountered.⁵⁷ A face is designated elongated ellipsoidal/rectangular when the difference between length and breadth of face equals or is larger than 6 cm.⁵⁸ Faces with a curvilinear outline which, at first glance, creates

⁵⁴ E.g. **138**, **139**, **156**. **34** is puzzling in view of the fact that although it has only two engraved seal faces it is somewhat abraded, which would suggest that it was in use and thus finished. However, the fact that parts of sides b and c are broken off as well as the fact that the quadruped on side a seems to be incomplete would suggest rather that the piece was not finished (broken during engraving [?]). Unlike the MM prisms, LM three-sided prisms often have only two or one engraved side, e.g. CMS II,3 no. 254; CMS III nos. 505, 506.

⁵⁵ Also described as flat in the catalogue because the term *convex* would be misleading in terms of their configuration. ⁵⁶ E.g. **48**, **55**.

⁵⁷ Round: e.g. 45. Rectangular: e.g. 70, 182. Trapezoidal: e.g. 62. Semi-ellipsoidal: e.g. 98. Irregular: e.g. 299.

⁵⁸ Less than 6 cm: e.g. **70**, **183**. 6 cm or larger: e.g. **311**, **394**.



Fig. 3 a. Gable-shaped prism; b. Wedge-shaped prism.



Fig. 4 Examples of various configurations of the profiles of prisms: a. with broad, flat interfacial edges; b. with grooves around the seal faces; c. with very deep grooves which set off the seal faces from the body of the seal; d. with grooves only on the profile (adapted from CMS VI); e. with scratch marks on the profile.

the impression of a square or rectangular shape respectively are referred to as compressed round or compressed ellipsoidal.⁵⁹

Most often, the three seal faces have approximately the same shape and size, the seal being perfectly axially symmetrical (*fig. 1*). Occasionally, two faces which are ellipsoidal or semi-ellipsoidal are narrower than the third, so creating gable-shaped prisms (*fig. 3 a*).⁶⁰ In some rare cases, one face is narrower than the remaining two, so that the seal resembles a wedge (*fig. 3 b*).

The seal faces meet each other at the interfacial edges. In pieces which are workshop fresh, these are broad and flat forming distinct areas between any two seal faces (*fig. 4 a*). In 42.2 % of the prisms for which an entire view was available, three grooves form a complete triangle around the stringhole on the profiles.⁶¹ Most often, a single 'fused groove'

⁵⁹ E.g. 2, 10, 349.

⁶⁰ E.g. **98**, **124**.

⁶¹ In 9.2 % of the studied prisms, the only view available was that of the seal faces. In these cases, it has not been possible to establish the existence or not of grooves.



Fig. 5 Examples of non-canonical stringholes: a. eight-shaped; b. acentric.

emanates from each of the angles of this triangle and runs along the interfacial edges (*fig. 4 b, c*). As a result of this, each seal face is outlined by a groove. In rare cases, the grooves form a triangle on the profiles only, the interfacial edges remaining plain (*fig. 4 d*).⁶² This phenomenon could reflect a situation in which the grooves where initially seen as a means of differentiating between the three seal faces and a subsequent perception of them as a simple feature of the seal form. The depth and breadth of the grooves varies. They range from thin and very shallow to broad and very deep. Depending on the configuration of the grooves, the seal faces can be scarcely, moderately, or very markedly set off from each other and from the body of the seal.⁶³

In some cases, scratch marks can be discerned either all around the seal faces or only on the profiles (*fig. 4 e*).⁶⁴ The fact that occasionally such marks appear as part of grooves could suggest that they are either incipient or obliterated grooves.⁶⁵ In other cases, they could simply represent subsidiary tool marks created during the processing of the stone.⁶⁶ In a small number of cases, the seal faces are slightly set off plastically from the body of the seal.⁶⁷ This feature can but need not be combined with grooves.

The profiles are roughly equilateral triangles or else, in the cases of gable-shaped or wedge-shaped pieces, isosceles triangles. Profiles configured as isosceles triangles have either three acute angles or two acute and one right angle. Pieces with rectangular seal faces have flat profiles. By contrast, on pieces with curvilinear seal faces, the corners of the profiles slope inwards, thereby lending a convex quality to the resulting profile. Occasionally, in such examples the surface of the triangle outlined by the grooves extends

⁶² E.g. **464**. In this example, the lack of grooves on the interfacial edges does not seem to be due to abrasion but instead seems to represent the original state of the prism. For similar effects created by abrasion, see p. 23.

⁶³ E.g. **104**, **105**, **217**. The configuration of the seal faces on these pieces is easily comparable to that of the seal faces on the cube CMS II,1 no. 64 and to those on some stamp rings and bottles, e.g. CMS II,1 nos. 14, 21, 26, 28, 31–36. ⁶⁴ E.g. **491**, **495**, **504**.

⁶⁵ E.g. **70**, **190**.

⁶⁶ E.g. **60**. Such scratches could have been created for example when the seal was being given its shape.

⁶⁷ E.g. 23, 300, 417, 577.

further than the seal faces so that the body of the seal is longer than its engraved faces.⁶⁸ Seal faces which are set off from the body of the seal plastically can project further than the triangle formed around the stringhole. In these cases, the profiles appear slightly concave.⁶⁹

In the majority of examples, the stringhole is round and is placed at approximately the centre of the profile (*fig. 1 a*). However, keyhole-shaped or eight-shaped stringholes as well as acentric perforations are also encountered (*fig. 5*).⁷⁰ Most likely, the first two represent two attempts to correctly align the stringhole channel opened from opposite ends of the prism.⁷¹

The prisms range in length from 0.70-2.80 cm with most examples ca. 1.00-2.00 cm. By length is meant the dimension which runs in line with the axis of the seal and thus with the stringhole channel. This can be the longer dimension of the seal faces or, occasionally, their shorter dimension.⁷²

DIFFERENTIATION FROM GABLES

Gables are seals which physically resemble prisms.⁷³ Like the prisms, they also have a triangular cross section, three faces which have the potential to be engraved, and two triangular profiles whose centre is pierced by the stringhole. However, they are distinguished from prisms in three basic aspects. First, the gable presents faces of differing size and shape: one is large, while two are markedly narrower (*fig. 6*). The larger face can be round, ellipsoidal, or more seldom, rectangular. The most common shape for the narrower seal faces is that of a semicircle or a semi-ellipse but occasionally they can also be round, ellipsoidal, or rectangular.⁷⁴

Secondly, since the three faces vary in size, the gable is axially asymmetrical. Its profiles are flat isosceles triangles with two acute and one obtuse angle or, in rare occasions, a right angle.⁷⁵ The broader angle is formed at the interfacial edge of the two narrower faces (*fig. 6*). Because of the wide angle formed at their joint and their smaller size, these faces

⁶⁸ E.g. **21**.

⁶⁹ E.g. **577**.

⁷⁰ Keyhole-shaped or eight-shaped stringholes: e.g. **65**, **133**, **436**, **540**, **557**. Accentric perforations: e.g. **4**, **252**, **290**, **299**.

⁷¹ Evely 1993, 155. The possibility that one of the combined stringholes on one profile of **133**, whose engraving on the horizontal spindle cannot be ruled out, is a marking that served to affix the seal in a dop stick seems rather vague (for such markings, see Evely 1993, 155, 161). This is due to the fact that none of the twin holes is superficial as they both penetrate the stone.

⁷² E.g. **73**, **84**.

⁷³ E.g. CMS II,1 nos. 126, 155, 158, 287, 346, 393; CMS II,2 nos. 14, 53, 215, 310–312; CMS IV no. 121; CMS XI no. 140; XII no. 3D.

⁷⁴ Semicircular or semi-ellipsoidal: e.g. CMS II,2 nos. 53, 215, 311; CMS XI no. 140. Round: e.g. CMS II,2 no. 260. Ellipsoidal: e.g. CMS II,1 no. 287; CMS IV no. 121. Rectangular: e.g. Demargne 1939, 122 fig. 1.

⁷⁵ E.g. Dimopoulou 2000, 28 no. 5. The semicircular shape of two faces and the fact that they are engraved with the same image suggest that the seal is a gable.



Fig. 6 Example of a gable.



Fig. 7 The gable CMS VI no. 14.

create the impression of a single unit, providing a slightly arched back for the larger face. This impression is intensified in cases of gables such as CMS VI no. 14. In this example, only the large face and the curved parts of the narrow faces are outlined by grooves, the interfacial edge of the narrow faces remaining plain (*fig.* 7).

Thirdly, while the large seal face of the gable always carries engraving, the narrower faces need not be engraved.⁷⁶ When engraved, the narrow seal faces either show different images, as is the case with the prisms, or similar images, which are always different from the engraving on the large seal face.⁷⁷ Narrow faces bearing similar devices were probably not intended for sealing but functioned instead as the decorated back of the seal.

The evidence suggests that, as opposed to prisms, the gables have a main face, the base, and two secondary faces whose initial function was to serve as the back of the seal.⁷⁸ The concept of these pieces is clearly different from that of the prisms whose three sides are equally important and have the same function, i.e. to serve as sealing devices. Prisms can

⁷⁶ For some gables with one engraved face, see CMS II,1 nos. 94, 97, 155, 346, 373.

⁷⁷ Different images: e.g. CMS II,1 no. 389; CMS II,2 nos. 215, 311, 312; CMS XII no. 3D; Demargne 1939, 122 fig. 1. Similar images: e.g. CMS II,1 no. 496; CMS II,2 no. 53; Dimopoulou 2000, 28 no. 5.

⁷⁸ This opinion has already been expressed by Xenaki Sakellariou 1958 b, 459.

stand on any of the three seal faces as opposed to gables which are meant to stand on the larger seal face.

The existence of gables with three faces engraved with different devices could suggest that with time (?) the three faces acquired the same significance and were meant to serve sphragistic purposes. As a criterion for differentiating between gable-shaped prisms and gables with three engraved faces, a size difference of 4 mm between the large and the narrower seal faces of each piece has been set.⁷⁹ In gable-shaped prisms, this size difference is less than 4 mm, whereas in gables it equals or exceeds that number. As a result, the profiles of the gable-shaped prisms are high triangles whose one angle can be a right angle but not exceed 90°. On the other hand, the profiles of the gable-shaped prisms are flat triangles whose one angle is always obtuse (compare *fig. 3 a* and *fig. 6*). It would seem that whereas the ideal of the craftsperson who manufactured a gable-shaped prism was the creation of an axially symmetrical form, in the case of the gable, the creation of an asymmetrical form was deliberate.

Alteration of the Shape by Abrasion

It is not always easy to differentiate between abrasion caused by effects of deposition and wear and tear brought about by use in ancient times. For that reason, when the cause of abrasion is unknown, the general term *abraded* is used to refer to the state of the seal. The term *weathered* is only used when it is considered certain that the abrasion came about by the action of natural processes whereas the term *worn* presupposes wear and tear caused by use.



Fig. 8 Different state of preservation of the prisms: a. workshop fresh; b. unfinished; c. d. abraded.

Pieces which are workshop fresh are crisp and show sharp edges and flat interfacial edges (*fig.* 8 *a*). Unused steatite intaglios often display a milky coat on their surface.⁸⁰ Saw and file marks in the form of rough or fine lines respectively can often be discerned on the surface of unfinished pieces (*fig.* 8 *b*).

⁷⁹ For the gable-shaped prisms, see p. 18.

⁸⁰ For this coat, see p. 31.

The main effect of abrasion is the rounding of the seal edges (*fig.* 8 *c*–*d*). The flat surface between the seal faces on the interfacial edges disappears. Rounded breaks can sometimes cause confusion regarding the exact shape of the seal (*fig.* 8 *d*). This is the case with **208** where it is not immediately clear whether the seal is a gable-shaped prism or a canonical prism whose two seal faces have become narrower by a break on their interfacial edges and its subsequent rounding by abrasion.⁸¹ A deepening approximately halfway along one of the interfacial edges on certain abraded pieces could also represent a rounded break.⁸²

Very often, the grooves which outline the seal faces are obliterated. The process of this obliteration starts from the interfacial edges, the parts of the grooves which run on the profiles being the last to be worn away. Most often, the seal faces of abraded prisms which have grooves only on the profiles were originally outlined by these grooves.⁸³

Occasionally, one side of the stringhole is elongated in such a way that the latter takes the shape of a non-canonical ellipse (*fig 8 c*). This deformation is caused by the action of the string. On the other hand, an occasional uniform flare at the open ends of the stringhole channel⁸⁴ is not necessarily brought about by the string but could also be connected with the process of drilling.⁸⁵

Intense abrasion can result in more or less severely obliterated motifs, so that a piece can appear to have only one or two engraved seal faces.⁸⁶ Rounded seal edges, shiny surfaces, and a soapy texture suggest that blank seal faces were initially engraved. In the case of centred-circles consisting of more than one concentric ring, it is often difficult to tell whether the external rings were also initially crescent-shaped or whether part of the intaglio has been obliterated.⁸⁷

Most often, rounded edges and breaks as well as shallow intaglios are the result of wear and tear on the seals in ancient times. Rounded breaks could have come about not only by wear and tear but also by the refinishing of a broken seal. They are of particular interest as they suggest that the seals continued being used even after they were broken.

DERIVATION OF THE SHAPE

Several Bronze Age three-sided prisms are known from areas outside the Aegean (*fig. 9*). The so called Karnak prism is a three-sided prism of black steatite said to have been bought in Karnak, Egypt (*fig. 9 a*).⁸⁸ Ward dates it on stylistic and iconographic grounds to the Sixth

⁸¹ The second possibility seems more likely because a considerable part of the devices which are cut on the two narrower seal faces is missing.

⁸² E.g. the deepening on **128**.

⁸³ This seems to be the case for example with **15**, **64**, **96**. For these grooves, see pp. 18–19.

⁸⁴ E.g. **571**.

⁸⁵ As shown in the experimental work of Gorelick – Gwinnett (Gorelick – Gwinnett 1979, 20–21, 32).

⁸⁶ E.g. 38 b, 38 c, 378 b, 381 c, 382 b, 385 a-c.

⁸⁷ E.g. the outer rings of the triple centred-circles **359 b**, **359 c**.

⁸⁸ Evans 1897, 362–363 fig. 28; Evans 1909, 123 fig. 58. Information on this piece from Evans 1897, 362.



Fig. 9 Bronze Age three-sided prisms from areas outside the Aegean: a. bought in Egypt (adapted from Evans 1909, 123 fig. 58); b. from Bahrain (adapted from Weisgerber 1980, 86 fig. 15); c. from Oman (adapted from Weisgerber 1980, 85–86 fig. 15); d. Syrian (?) (adapted from Erlenmeyer – Erlenmeyer 1958, pl. XXIX fig. 1 a–c, pl. XXX fig. 9); e. from Turkestan (adapted from Schmidt 1908, 169 no. 400, pl. 45 no. 8).

Dynasty or the immediately following period.⁸⁹ Another piece has come to light in Bahrain (*fig. 9 b*).⁹⁰ The seal, whose profiles show a triangular frame around the stringhole, is cut in soft stone. According to the excavator, this piece belongs stylistically and iconographically to the Harappan Culture. A variation on a three-sided prism is a seal with trapezoidal section, which comes from Oman (*fig. 9 c*).⁹¹ The piece is made of soft stone and was excavated from a Maysar-1 context. According to the excavator, the style and iconography of this seal suggest local production, imitating Harappan prototypes.⁹² A three-sided prism from a private Swiss collection is published in Erlenmeyer – Erlenmeyer as Syrian (*fig. 9 d*).⁹³ The piece is carved on soft stone, has grooves which extend only on the interfacial edges, and is dated by the authors to the 3rd millennium. Finally, a three-sided prism has come to light

⁸⁹ Ward 1971, 91.

⁹⁰ Weisgerber 1981, 218–219, fig. 54.

⁹¹ Weisgerber 1980, 85–86 fig. 15. Information on this piece from Weisgerber 1980, 73, 83, 85–87.

⁹² Weisgerber 1980, 86-87; Weisgerber 1981, 219.

⁹³ Erlenmeyer – Erlenmeyer 1958, pl. XXIX fig. 1 a–c, pl. XXX fig. 9. Information on this piece from Erlenmeyer – Erlenmeyer 1958, 352–355.

in Anau, Turkestan (*fig. 9 e*).⁹⁴ The piece is apparently made of soft stone and has come to light in a context dated to the Anau Culture III. According to its excavator, it belongs to the first half of the 2^{nd} millennium or somewhat later and is an import into the area from western Asia, perhaps Syria.

All the above prisms are dated to the 3rd or 2nd millennium and are either local products or imports from neighbouring Eastern cultures. On chronological grounds, an influence from some of these examples on the creation of the Minoan prism, whose first representatives are dated no earlier than MM IA,⁹⁵ would seem possible. However, apart from their shape, these seals show no other elements shared by Minoan seals. This fact, as well as the rarity of the form outside the Aegean, the great numbers of examples which come from Crete, and the lack on the island of any three-sided prism with devices foreign to the Minoan repertoire and recognisable as belonging to another culture could suggest an indigenous and independent genesis of the Cretan prism.

Various opinions have been expressed concerning the appearance of the form on the island. Evans was of the opinion that the prism was a Minoan invention created by smoothing out, engraving, and axially perforating triangular splinters of stone.⁹⁶ Matz on the other hand, saw the three-sided prism as the Cretan variation on the Near Eastern cylinder seal. He considered that the three-sided shape better served the Minoan principles of decoration than the cylinder seal from which it originated.⁹⁷ Chapouthier linked the Cretan prism to the Hittite gables with one engraved face, which were widespread in Cappadocia and North Syria at the end of the 3rd millennium.⁹⁸ In the Minoan seal, he saw a form that came about by the adoption of the Anatolian gable, its subsequent engraving on all three faces, and its final transformation to a three-sided prism. This transformation would be connected, according to him, with the need to facilitate the sealing process with all three seal faces. Xenaki Sakellariou agreed with Evans in that she saw the Cretan threesided prism as a Minoan invention inspired by naturally occurring shapes.⁹⁹ Moreover, she believed that the adoption of a form with three engraved sides led to the engraving of the smaller sides of the already existing gable, a seal which up to this point had only one seal face.¹⁰⁰ Kenna also saw the form as an independent Minoan creation inspired by a natural, in his opinion possibly organic, shape. He put forward the hypothesis that the rounded prismatic shape of the upper vertebra of a mammal could have served as the inspiration for the creation of this kind of seal.¹⁰¹ He suggested that this vertebra not only had a convenient

⁹⁴ Schmidt 1908, 169 no. 400, pl. 41 no. 10, pl. 45 no. 8. Information on this piece from Schmidt 1908, 166, 169, 182–183.

⁹⁵ For this subject, see pp. 56–58, 147.

⁹⁶ Evans 1897, 330. For an earlier argumentation of Evans in favour of the indigenous character of the prisms, see Evans 1894, 324–335, especially 330–335.

⁹⁷ Matz 1928, 101.

⁹⁸ Chapouthier 1951, 42–44.

⁹⁹ Xenaki Sakellariou 1958 b, 458.

¹⁰⁰ Xenaki Sakellariou 1958 b, 458–459.

¹⁰¹ Kenna 1960, 29.



Fig. 10 Examples of cylinder seals with more than one seal face: a. three panelled cylinder seal, Djemdet Nasr period (adapted from Erlenmeyer – Erlenmeyer 1958, pl. XLIV fig. 76); b. four panelled cylinder seal, Early Dynastic Period (adapted from Flinders Petrie 1917, pl. VII 163); c. four-panelled cylinder seal, Middle Kingdom (adapted from Frankfort 1939, pl. XLVI o, p, q).

shape and size for wearing but also had an amuletic character. In his opinion, this latter could have led to the creation of a stone seal which had a similar shape as the vertebrae and consequently, carried a similar amuletic significance. Finally, Poursat rejected Evans's and Xenaki Sakellariou's opinion that the form was inspired by natural stone shapes. He considered this possibility unlikely because most of the earlier prisms and gables, which he saw as sometimes typologically indistinguishable, are made of ivory and not of stone.¹⁰² He saw the three-sided prism as a Cretan creation which came about in an attempt to combine more than one faces in one seal and suggested that this process can be best followed in gables and three-sided prisms of Yule's Border/Leaf Complex, which are earlier than the bulk of the MM three-sided prisms.¹⁰³

Among the above mentioned authors, only Matz and Chapouthier saw a foreign influence in the creation of the Cretan three-sided prism. Matz's opinion that the Minoan prism is a transformation of the Near Eastern cylinder seal could be supported by the fact that the profiles of a certain kind of early Mesopotamian three-faced cylinder seal of the Djemdet Nasr period are somewhat similar to the profiles of some three-sided prisms with deep grooves around the seal faces (*fig. 10 a*).¹⁰⁴ In these cylinder seals, the field is divided along its length into three panels, each of which represents a separate seal face bearing different or similar images.¹⁰⁵ At first glance, a connection between the two shapes would not seem

¹⁰² Poursat 1995, 211–212. Poursat gives the term *ivory* following the descriptions on CMS II,1. In this volume, the term was often used erroneously for describing a variety of soft whitish materials, such as bone, boar's tusk, and white paste. Corrections on the material of the seals can be found on the copy of CMS II,1 which is kept in the CMS Archive in Marburg and on the CMS Seal Database which will be available on the internet.

¹⁰³ Poursat 1995, 210–212.

¹⁰⁴ Erlenmeyer – Erlenmeyer 1958, 358–359, pl. XXX fig. 10; 361, pl. XLIV fig. 76. Compare for example Erlenmeyer – Erlenmeyer 1958, 361, pl. XLIV fig. 76 to the profile of **105**.

¹⁰⁵ Erlenmeyer – Erlenmeyer 1958, 358–359, pl. XL fig. 58; Doumet 1992, 22 no. 20.

implausible. The concept of these cylinders seems very similar to that of the Minoan threesided prism, even if the cylindrical shape of the cylinder seal would still allow it to roll over while impressing, as opposed to the triangular section of the three-sided prism which does not allow unhindered rolling. The grooves of the Minoan three-sided prisms could be seen as remnants of the features which initially divided the cylinder seal into more than one panel.

However, the evidence does not allow such a correlation. If the Minoan prism was inspired by such cylinder seals, the grooves would have no reason to extend on the profiles but would instead only run on the interfacial edges, such as is the case with the three-sided prism shown in *fig. 9 d.*¹⁰⁶ Apart from that, no panelled cylinder seals are known from Crete. More to the point, consideration of two four-panelled Egyptian cylinders with different configurations, one dating to the Early Dynastic Period and the other to the Middle Kingdom,¹⁰⁷ would suggest that independent experimentations resulting in similar products can take place in different places and periods and need not always be connected to each other (*fig. 10 b, c*).¹⁰⁸

Leaving aside the panelled cylinder seals, Matz's view does not take into consideration two basic facts. The first is the scarcity of Eastern cylinder seals from Cretan contexts which can be dated with certainty to a time earlier than that of the genesis of the Minoan three-sided prism.¹⁰⁹ The second is that examples of Minoan cylinder seals already exist in MM I and continue being produced in MM II.¹¹⁰ The fact that the cylinder seal had already been adopted or was being adopted by the Minoans at the time of the genesis of the three-sided prism and the contemporaneous use of the two forms in MM II suggests that there was a clear differentiation between the two seal shapes and speaks against the opinion that the one derives from the other.

Chapouthier's view that the three-sided prism came about by the adoption of the Hittite gable, the subsequent engraving of all its sides, and its transformation into a seal whose three engraved sides could be used for sealing does not take into consideration the fact that

¹⁰⁶ This could in a way be related to such cylinder seals. The only Minoan (?) prisms with grooves only on the interfacial edges are **364** and **368**. For more on these prisms, see the section 'The British Museum Prisms', pp. 141–143.

¹⁰⁷ Early Dynastic Period: Flinders Petrie 1917, 10–11, pl. VII 163. Middle Kingdom: Frankfort 1939, 299, pl. XLVI o, p, q.

¹⁰⁸ For the subject of independent experimentations resulting in similar products, see also Yule 1987, 166–167.

¹⁰⁹ The only example of a foreign cylinder seal which has been found in a context which predates the genesis of the prisms is the North Syrian CMS V Suppl. 1B no. 332. The context of the piece is reported to have contained EM II, EM III, and MM I sherds (CMS Suppl. 1B, 315). Apart from that, stray finds of cylinder seals which are dated to a time earlier than the genesis of the prisms have also been recovered from the island, such as the Early Dynastic CMS II,2 nos. 206, 287.

¹¹⁰ MM I: e.g. CMS IV nos. 100–102; CMS V Suppl. 3 nos. 137–138; CMS XI no. 73. MM II: e.g. CMS II,2 no. 59; CMS XII no. 79. For the dating of CMS IV nos. 100–102 in MM IA late/MM IB, see Sbonias 1995, 59–60, 118. For more examples of Minoan cylinder seals, see Panagiotopoulos 2002, 85–86 with footnote 825.



Fig. 11 Examples of seals made from boar's tusk: a. stamp cylinder with two seal faces; b. stamp cylinder with one seal face; c. gable-shaped button; d. gable with one seal face (adapted from Panagiotopoulos 2002, pl. 44 no. E10); e. gable with three seal faces.

the gable with one engraved side already existed in Crete as early as EM III¹¹¹ and thus predates the Anatolian variant. If the hypothesis of eastern provenance of the shape of the Minoan gable were to be pursued, it would also be possible to turn to Neolithic/Chalcolithic gables from greater Mesopotamia.¹¹² However, in this case it would be impossible to justify the large lapse of time between these examples and the first Minoan gables of the EM III. Moreover, no evidence of imported gables exists from early contexts in Crete.

For these reasons, it would seem justifiable to search for the genesis of the form within the island itself. With the exception of Poursat who sees the genesis of the prism in the desire to create a multi-faced seal, the remaining authors saw the three-sided prism as a

¹¹¹ Yule 1980 a, 57–58.

¹¹² For some such examples, see Homès-Fredericq 1970, 13, pls. IV 56, V 58, XII 165.

form whose creation was inspired by naturally occurring shapes, whether these be splinters of stone or pieces of bone. This opinion, albeit modified to a certain extent, can be supported by the evidence provided by EM seals. Various early stamp cylinders and gables made of boar's tusk have a roughly prismatic shape and a triangular opening which runs in line with their 'slanting' faces (fig. 11).¹¹³ The opening is a natural feature of the lower canines of the wild boar.¹¹⁴ In the EM II/EM III gable-shaped stamp cylinders CMS II,1 nos. 11 and 12, the stringhole channel runs vertically to the line of the axis of the seal, such that the triangular faces serve as seal faces (fig. 11 a, b).¹¹⁵ The stringhole channel also runs vertically to the seal axis in the contemporaneous gable-shaped button CMS II,1 no. 74 (fig. 11 c).¹¹⁶ However, in this example, not the triangular but the larger round face bears the engraving. The three 'slanting' faces of the Prepalatial gable Panagiotopoulos 2002, 155 no. E10 from the MM I/MM II upper layer of Tholos E in Archanes are free to be engraved because the triangular pulp cavity serves as a stringhole channel (fig. 11 d).¹¹⁷ However, similarly to CMS II,1 no. 74, only the broad face is engraved. This changes in the MM IA late/MM IB gables CMS II,1 nos. 126 and 287 whose triangular pulp cavity serves as a stringhole channel and all 'slanting' faces are engraved (fig. 11 e).¹¹⁸

The above examples show that from an early stage in Minoan glyptic, a natural triangular prismatic shape had been in use which went through several experimental stages in the process of its transformation to a seal. These were mainly connected with choosing the direction of the perforation and the faces to be engraved. Since in all the aforementioned seals the raw material and geometrical shape remain the same, it would be logical to consider these pieces as the products of experimentation with various ways of configuring a seal.

At a somewhat later stage and with the increasing use of stone for the manufacture of seals, the seal shapes which were made from bone would be imitated in stone. Of particular interest for the transition from the use of bone to that of stone is the fact that the two stringholes of the Archanes gable have a different shape, the one being triangular and the other circular (*fig. 11 d*). While the triangular end corresponds to the pulp cavity of the tooth, the round one is, according to Panagiotopoulos, artificially bored.¹¹⁹ The need to bore one end would have come about from the desire to use as a stringhole channel the pulp cavity on a seal made from the part of the boar's tusk in which the cavity ended.¹²⁰ This piece could be seen as a link between the tusk gables with axial stringhole channel and

¹¹³ CMS II,1 nos. 11, 12, 74, 126, 287; Sakellarakis 1981, 526, pl. 170 nos. 4–5, fig. 6 no. 2.

¹¹⁴ Krzyszkowska 1990, 47.

¹¹⁵ For the dating of these seals, see Sbonias 1995, 74.

¹¹⁶ For the dating of this seal, see Sbonias 1995, 74.

¹¹⁷ For the dating of this seal, see Panagiotopoulos 2002, 55.

¹¹⁸ For the dating of this seal, see Sbonias 1995, 108.

¹¹⁹ Panagiotopoulos 2002, 155.

¹²⁰ For the use of the same part of the tusk for the manufacture of another seal, see CMS II,1 no. 11 (while the triangular pulp cavity is visible at the centre of side a, it is not seen on side b). For the section of a boar's tusk, see Krzyszkowska 1990, 48 fig. 20.

the ones made of other materials and which, lacking a natural axial opening to serve as a stringhole channel, were artificially bored in line with their long faces.

As regards the development of the prism, one possibility would be that it developed as an independent form which imitated the shape of seals made of bones whose shape is closer to that of the prisms than that of the gables. However, the fact that the 'slanting' sides of most of the existing prisms are engraved suggests that the development of the geometrical shape of the three-sided prism was closely connected with the desire to engrave three seal faces. This, as well as the almost total lack of prisms made of bone,¹²¹ could be taken as an indication that the form developed from a triangular shape whose three sides were already engraved. As Chapouthier noted, the existence of stone gables with three seal faces could have led to the modelling of the shape of the stone seal in such a way that all its engraved sides could be comfortably used for sealing.¹²² From that point of view, Poursat's opinion that the development of the canonical prism originates in the need to create a seal with more than one seal face seems justified.

Not only the geometrical shape, but also the idea of engraving more than one face of the seal seems to have had its roots on the island. The fact that the EM II/EM III stamp cylinder CMS II,1 no. 111 has two seal faces suggests that multi-faced seals exist from the very start of Minoan glyptic. Their production increases with time and by MM IA/MM IB, the habit of engraving more than one face of a seal has become a common decorating practice mainly for stamp cylinders but also for discs, cubes, and various other forms.¹²³ Within this framework, it would seem natural that also the triangular axially perforated prismatic forms would at some point start receiving engravings on more than one face.

¹²¹ The material of **399** could be steatite, bone, or some kind of paste.

¹²² Chapouthier 1951, 43-44.

¹²³ Stamp cylinders: e.g. CMS II,1 nos. 83, 224, 382, 392. Discs: e.g. CMS II,1 no. 268. Cubes: e.g. CMS II,1 nos. 64, 368. Other forms: e.g. CMS II,1 nos.147, 148, 152, 374, 391. For a dating of these seal forms, see Sbonias 1995, 47–48, 56–61; Yule 1980, 91.

MATERIAL

The great majority of prisms are made of soft materials.¹²⁴ Among these, stone is the most common, whereas artificial substances and perhaps bone are used more rarely. Occasionally, medium-hard stones are also employed.¹²⁵

All the materials are of local provenance (*fig. 12*). Steatite is the most common of all and represents 95.4 % of the used materials. The stone, composed largely of the mineral talc, is an aggregation of various minerals and has Mohs hardness 1-2.¹²⁶ It is the softest stone used for the manufacture of Minoan seals¹²⁷ and can easily be engraved with hand tools.¹²⁸ Because it is so soft, it can be carved with a single cut by a blade,¹²⁹ a technique which can create results similar to wood carving.¹³⁰ The stone has a soapy texture and appears in various colorations of matt or pale translucent white, yellow, green, brown, and black. The occasional opacity of a whitish variety can sometimes create the impression that the stone is not steatite, as is the case with **89** and **227**. A milky white coat often appears on the surface of the intaglios. This is most often met on pieces which are workshop fresh and does not seem to be inherent to the stone. It is probably a reaction of the material to external factors, such as the use of the seal, deposition circumstances, or, more probably, the engraving process.¹³¹

In comparison to the sources of other soft stones, the known sources of steatite occur infrequently on the island.¹³² A noteworthy outcrop is found in north-central Crete near the modern village Fodele whereas two large deposits are encountered in the neighbourhood of the Dikti mountains, one in the Sarakina Valley and the other in the Katharo Plateau.¹³³

¹²⁹ Müller in CMS III, 17.

¹²⁴ The term *soft materials* refers to those materials which can be engraved by hand tools as opposed to hard materials which can only be cut by tools mounted on an horizontal spindle and operated by fast rotary motion. The hardness of materials is measured by the Mohs scale of mineral hardness, which characterises the scratch resistance of various minerals through the ability of a harder material to scratch a softer material (for the Mohs scale, see Schumann 1989, 22–23). Easily engraved by hand are materials whose hardness is less than Mohs 4. Most Minoan seals which are made of such materials are cut freehand. Materials with hardness Mohs 4–5 are characterised as medium-hard as they can still, albeit with greater difficulty, be engraved with hand tools. Minoan seals made of such materials are cut either freehand or, most often, with tools rotated on the spindle. Hard materials have hardness greater than Mohs 5. Since they are not suitable for freehand engraving, the Minoan seals which are made of such materials are cut with tools operated on the spindle.

¹²⁵ For a discussion of the three-sided prisms which are cut from medium-hard stones, see pp. 36–37.

¹²⁶ Müller in CMS III, 17.

¹²⁷ The material of the 'white pieces', which was a certain kind of paste, must have been even softer (Walter Müller, pers. comm.).

¹²⁸ For more information on this stone, see Müller in CMS III, 17–18.

¹³⁰ Walter Müller, pers. comm. For examples of intaglios resembling wood carvings, see 5.

¹³¹ Müller in CMS III, 17–18.

¹³² Becker 1976, 363.

¹³³ Near Fodele: Becker 1976, 371. Sarakina Valley: Warren 1969, 130; Becker 1976, 368. Katharo Plateau: Becker 1976, 368–369.



Fig. 12 Soft stone and medium-hard stone sources in Crete (data from Seager 1910; Evans 1935; Warren 1969; Becker 1976; Hughes Brock 2000): ●/O steatite; ■/□ chlorite; ▲/△ breccia; ● sepiolite (the outline shapes show possible sources). The most important outcrops are marked with numbers: 1 Fodele; 2 Spili; 3 Vorizia; 4 Kamares – Zaros; 5 Miamou – Krotos; 6 Katharo Plateau; 7 Sarakina Valley.

The east Cretan sources seem to be the most plausible candidates for Minoan exploitation since steatite prisms are widely distributed in the eastern part of the island.¹³⁴ However, no evidence exists so far to link these sources to any Bronze Age activity.¹³⁵

Chlorite is the second most commonly used material for the manufacture of the prisms. The stone constitutes 2.6 % of the used materials. It belongs to the schist family and is mostly composed of chlorite minerals. The variety used in Minoan glyptic has a hardness Mohs 2–3.¹³⁶ Despite the fact that the stone is somewhat harder than steatite, it is still very soft and can easily be engraved with hand tools. While often scratching and chafing are required in order for it to be engraved, examples of chlorite prisms whose intaglios have been created by single cuts also exist.¹³⁷ The material is rougher than steatite but when abraded or smoothed out its surface also acquires a soapy texture. Its colour varies from green to brown and black, the green and brown varieties becoming considerably darker when abraded. Due to this latter characteristic, a distinctive feature of the stone is a dark surface patterned with lighter spots representing strokes which reveal the original colour of the stone. Only green and black varieties are used for the manufacture of the prisms.

¹³⁴ For this subject, see the section 'Malia/Eastern Crete Steatite Prisms', pp. 63–115, especially pp. 112–114.

¹³⁵ Warren considers that neither the Fodele nor the Katharo sources were in use by the Minoans (Warren 1969, 140). On the other hand, due to their proximity to Malia from where come a great number of steatite prisms, Müller sees the Katharo sources as the most plausible candidate for the Minoan exploitation of the material (Müller in CMS III, 18).

¹³⁶ Müller in CMS III, 19.

¹³⁷ Scratching and chafing: e.g. **31 a–c**, **57 a–c**, **60 a**. Single cuts: e.g. **105 a–c**, **217 b**. I am indebted to Walter Müller for his readiness to provide valuable guidance on the subject of differentiation between the various ways in which hand tools were manipulated for engraving soft stones.

In older publications the stone is often identified as black or green steatite or as black marble.¹³⁸

Various chlorite sources have been identified in Crete. The most extensive outcrops have been located in the vicinity of the Mesara in south-central Crete, one near the town of Vorizia, one between the villages Kamares and Zaros, and one to the south in the area around the villages Miamou and Krotos.¹³⁹ Another noteworthy outcrop has been located further west in the vicinity of the town of Spili.¹⁴⁰ While no evidence of ancient mining from these sources exists, the concentration of large chlorite outcrops in south-central Crete, which is the only area where chlorite prisms have come to light,¹⁴¹ would suggest that one or more of these sources were used for the extraction of the material in Minoan times.¹⁴²

The remaining 2 % of the materials used for the manufacture of the prisms are mediumhard stones, other soft stones and minerals, and artificial substances. Breccia, pebble stone, and pseudo-jasper are the medium-hard stones represented.¹⁴³ The term *breccia* refers to structure, not composition, and is used to denote bedrock composed of angular pieces bonded together in a matrix of a different material.¹⁴⁴ The matrix can be clay, limestone, or pebble¹⁴⁵ and the enclosed pieces any soft or hard stone. Because the hardness of the matrix can only vary from soft to medium-hard,¹⁴⁶ it is the hardness of the enclosed pieces which determines the overall hardness of the rock. This can be soft or, most often, medium-hard or hard.¹⁴⁷

The three breccia prisms are manufactured from an orange and black stone which seems to be similar or to belong to the Kakon Oros variety.¹⁴⁸ Warren describes one kind of this breccia as being composed of a yellow limestone matrix with enclosed black dolomite pieces and another as a 'black dolomite matrix with red pieces and veins, which are themselves sometimes outlined by white calcite veins'.¹⁴⁹ **457** and **577** seem to be

¹³⁸ Black/green steatite: e.g. chlorite seals in CMS II,1, such as **103** and **104**. Black marble: e.g. **341**.

¹³⁹ Near Vorizia: Becker 1976, 370. Between Kamares and Zaros: Becker 1976, 364. Around Miamou and Krotos: Becker 1976, 365.

¹⁴⁰ Becker 1976, 369–370.

¹⁴¹ For this subject, see the section 'Mesara Chlorite Prisms', pp. 120–134, especially p. 134.

¹⁴² Warren considers these sources as the most plausible candidates for the extraction of the chlorite which was used for the manufacture of Minoan stone vases from EM II–LM I (Warren 1969, 130). Moreover, he notes that the use of chlorite for vases is most popular in the Mesara. This information and the fact that it is mostly chlorite that is used for the manufacture of prisms which come from the area suggest an extensive use of the stone in the Mesara in MM times. For the chlorite prisms of the Mesara, see the section 'Mesara Chlorite Prisms', pp. 120–134.

¹⁴³ Breccia: **440**, **457**, **577**. Pebble stone: **282**, **328**. Pseudo-jasper: **353**.

¹⁴⁴ Warren 1969, 127; Müller in CMS III, 17.

¹⁴⁵ Müller in CMS III, 17.

¹⁴⁶ Soft: when it is clay or soft limestone. Medium-hard: when it is pebble (Walter Müller, pers. comm.).

¹⁴⁷ If pieces of soft stone are enclosed in a soft matrix, the breccia will also be soft. The breccias used in Minoan glyptic range from medium-hard to hard.

¹⁴⁸ The term *Kakon Oros variety* refers to the specific variety of the stone and not to its provenance. Sources of this variety of breccia have also been located elsewhere in the island (for these sources, see below).

¹⁴⁹ Warren 1969, 127.

manufactured of a stone very similar to the first while **440** is similar to the second kind of the Kakon Oros variety. The first type would have Mohs hardness equivalent to that of the enclosed dolomites, i.e. $3\frac{1}{2}$ -4.¹⁵⁰ Medium-hard breccias can be engraved with difficulty with hand tools by scratching and chafing.

The Kakon Oros to the east of Heraklion is the best known deposit of breccias.¹⁵¹ Other sources, mainly in the eastern part of the island, have been reported in the areas of Viannos, Agios Nikolaos, Kalo Chorio Mirampelou, Pseira, and Sellia.¹⁵² It would seem probable that **577**, which came to light on Pseira, was made of local material as Seager noted the existence of large deposits of breccia of the Kakon Oros type near the site.¹⁵³ However, in the publication of the piece, Nikolaidou remarks that there are no sources for the type of breccia from which the prism is made on Pseira itself.¹⁵⁴

The term *pebble stone* refers to various kinds of limestone which have been abraded by water transportation or the surge of the sea.¹⁵⁵ The pebble stones used for the prisms have hardness Mohs 4,¹⁵⁶ a light ochre colour, and can be engraved with hand tools by scratching and chafing. Pebble stones are found all over the coastline of Crete and their at times convenient shape and smooth appearance would have led to their collection for the manufacture of the odd seal.

Pseudo-jasper is a conventional designation for a certain kind of limestone which is similar in its appearance to jasper but softer, having hardness ca. Mohs 4–5.¹⁵⁷ Like jasper, the stone occurs in brownish red, green, or black varieties and has a relatively rough texture. As a rule, pseudo-jasper is cut with fast rotating tools mounted on the horizontal spindle,¹⁵⁸ **353** being the only possible exception cut with hand tools (?).¹⁵⁹

Three pieces are made of soft materials which could represent clay minerals. According to CMS VI, **523** is sepiolite or a related clay mineral.¹⁶⁰ **171** shows similar qualities;¹⁶¹ **191**

¹⁵⁰ Schumann 1989, 72.

¹⁵¹ Evans 1935, 234–235; Warren 1969, 127.

¹⁵² Evans 1935, 234–235; Warren 1969, 127; Becker 1976, 371.

¹⁵³ Seager 1910, 37 and pl. VIII.

¹⁵⁴ Nikolaidou 1998, 111.

¹⁵⁵ Müller in CMS III, 21.

¹⁵⁶ Walter Müller, pers. comm.

¹⁵⁷ The designation of the stone follows the standardised terminology of the CMS (see Müller in CMS III, 15 footnote 30). For details, see Müller in CMS III, 21 ('Kalkstein'). The information provided here draws on this paragraph and on data provided by personal communication with Walter Müller.

¹⁵⁸ E.g. an unpublished three-sided prism kept at the Heraklion Museum. For the horizontal spindle, see pp. 43–44. ¹⁵⁹ CMS II,2 no. 79 is engraved partly with hand tools and partly with tools operated on the spindle. For more on this

subject, see 'Appendix 3', pp. 307-308.

¹⁶⁰ CMS VI no. 83; CMS VI, 19; Hughes Brock 2000, 111. For a seal which is indisputably made of sepiolite, see CMS V Suppl. 3 no. 374.

¹⁶¹ While examining the prism in the Heraklion Museum, the author described its material as 'stone (?), ash grey colour, very light, similar to white pieces but not the exact same material'. These features seem very similar to those of **523** (CMS VI no. 83; for the material of this piece, see also CMS VI, 19).

is described in CMS II,2 in an identical way to 171,¹⁶² which could suggest that the two pieces are made of the same material. Sepiolite is a clay mineral¹⁶³ with hardness Mohs 2–2½ but becomes even softer when wet.¹⁶⁴ The mineral is very light, has a porous texture, a whitish colour, and like steatite, can be easily engraved with a single cut by a blade.¹⁶⁵

Good sources of sepiolite are found in southern Crete in the area south of Krotos and in the form of pebbles in the wider area of Lentas.¹⁶⁶ The mineral is also found in the area of Gerakari in the Amari valley.¹⁶⁷ Its role in Minoan glyptic is minimal, which suggests that no systematic exploitation of any sources was undertaken. Instead, chance finds of sepiolite must have served as an additional raw material for the manufacture of seals.

Three or four prisms are manufactured from artificial substances, two or three from a kind of paste and one possibly from faience or a related vitreous material.¹⁶⁸ The term *paste* refers to a soft malleable mixture composed of one or more powdered minerals, some artificial substance(s), and a binding agent.¹⁶⁹ After the mass is partly or fully dry, it is used as a material for seals.¹⁷⁰ Its hardness is comparable to steatite, i.e. Mohs 1–2. Like steatite, this material can be carved with a single cut by a blade and when half dry, possibly even more easily.¹⁷¹ The paste of which the prisms are made is related to that used for some of the 'white pieces' but it is not the same.¹⁷² Possible remains of a greenish and brownish glaze on **258**¹⁷³ could indicate that, like the 'white pieces', these seals were also originally glazed and hence fired. The paste used for the manufacture of the prisms has a yellowish beige colour.

Faience is a synthetic vitreous substance consisting of 'a body material composed of crushed quartz or sand, lime and an alkali' and 'coated with a glaze composed of the same

¹⁶² They are both described as 'grauweißer Stein' and not, as with other pieces which have a similar appearance, as white or light coloured steatite, e.g. CMS II,2 nos. 102, 145, 165, 176.

¹⁶³ Hughes Brock 2000, 111.

¹⁶⁴ Schumann 1989, 88.

¹⁶⁵ Walter Müller, pers. comm.

¹⁶⁶ Hughes Brock 2000, 111.

¹⁶⁷ Hughes Brock 2000, 111.

¹⁶⁸ Paste: **252**, **258**, **A.5** (?). **A.5** is either soft stone or some kind of paste. Sbonias notes that **252** is either stone or mass (Sbonias 2010, 203). According to Walter Müller, the severe cracks on the piece indicate exposure to strong heat and would speak in favour of paste. Soft stones such as steatite become hard when exposed to large temperatures (Walter Müller, pers. comm.). Faience or a related vitreous material: **395**.

¹⁶⁹ As is the case with the material of the 'white pieces', the exact constitution of this paste remains elusive. For the constitution of the material of the 'white pieces', see Pini 1990, 123–124.

¹⁷⁰ Pini 1990, 123–124.

¹⁷¹ According to Pini, when half dry, the paste from which the 'white pieces' are manufactured would have the softness of leather (Ingo Pini, pers. comm.).

¹⁷² Information for **252** in Sbonias 2010, 203, 220; for **258** in the CMS Archive. For the material of the 'white pieces', see Pini 1990, 123–124.

¹⁷³ Information in the CMS Archive.

ingredients'.¹⁷⁴ The resultant mass is malleable¹⁷⁵ such that it can be formed by hand or in a mould.¹⁷⁶ It is believed that, at least when in a half dry state, the material is soft enough to be engraved with a blade. When the desired form is achieved, it receives glazing and is then fired.¹⁷⁷

The only prism made of a vitreous material is **395** from the Helladic mainland. The material used has a powdery texture with small craters on the surface and a yellowish beige colour. The texture suggests faience or a related substance,¹⁷⁸ i.e. a material different from that of the similarly coloured **252** and **258**. This is the only known prism made from such a substance¹⁷⁹ and, if it was actually made in Crete, it probably constituted an individual attempt to employ in glyptic a technique which had already started to flourish in other media at the beginning of the MM period.¹⁸⁰

399, which is described in CMS XII as ivory, seems to lack the characteristic structure of this material.¹⁸¹ For that reason, it is considered more possible that the piece is made of bone, steatite, or paste. Like steatite and paste, bone is soft and can easily be engraved with a single cut by a blade.

The Use of Medium-Hard Stones for the Manufacture of Prisms

The three-sided prisms which are cut from medium-hard stones can be classified into three categories. The first includes seals engraved freehand or by the employment of fast moving drills and files applied to the fixed seal from above.¹⁸² The second is represented by one piece which seems to have been engraved partly freehand and partly by the use of fast rotating tools operated on the horizontal spindle.¹⁸³ The third category includes pieces cut by tools mounted on the spindle.¹⁸⁴

¹⁷⁴ Panagiotaki et al. 2006, 191–192.

¹⁷⁵ Polinger Foster 1979, 2; Panagiotaki et al. 2006, 193.

¹⁷⁶ Panagiotaki et al., 2006, 193.

¹⁷⁷ Panagiotaki et al., 2006, 194.

¹⁷⁸ A precursor of faience? (Walter Müller, pers. comm.).

¹⁷⁹ A three-sided prismatic bead of 'pale blue faience' which comes from a LM IA context in Pyrgos at central Crete is unengraved (Evans 1928, 75–76, fig. 34 f).

¹⁸⁰ Polinger Foster 1979, 59.

¹⁸¹ Walter Müller, pers. comm. This observation is made under the constraint of having to deduce the structure of the material from the CMS photographs. For the characteristic structure of ivory (lamination), see Krzyszkowska 1990, 34–36, 41–47, 57.

¹⁸² **282**, **353** (?), **440**, **457** (?), **577**. For the techniques used to cut **353** and **457**, see footnote 189. It is not certain whether **328** was engraved by fast moving drills applied to the fixed seal from above or by tools operated on the spindle. For this subject, see pp. 45–46. For the tools and the techniques which were employed for engraving the prisms, see pp. 37–47.

¹⁸³ CMS II,2 no. 79. For more on this piece, see 'Appendix 3', pp. 307–308.

¹⁸⁴ CMS II,2 nos. 150, 168; CMS XII no. 94. Younger identifies the material of the last piece as conglomerate (Younger 1987, 13). However, its description would more likely suggest breccia (for the differences between the two stones, see Warren 1969, 127, 130).

Three-sided prisms made of medium-hard stones are included in this study only when they belong to the first category, i.e. when they have been engraved with a so called soft material technique.¹⁸⁵ The technique and iconography of such pieces point to them as marginal representatives of the prisms. The three-sided prisms of the third category are engraved with the technique that was common for cutting hard stones and therefore belong to a different stylistic environment. The piece belonging to the second category is cut with both soft material and hard stone techniques and hence placed halfway between soft material and hard stone engraving.

Moreover, certain elements of the prisms of the first category also place these seals between soft material engraving and hard stone engraving. On **440 a**, the tubular drill has been used to create perfect circles put together in a device which is otherwise only encountered on hard stone seals.¹⁸⁶ The traces of a first attempt to create the left circle under this element could suggest a lack of familiarity with the harder stone. The fact that all sides of the prisms **353** and **457** show hieroglyphic inscriptions brings them close to hard stone glyptic.¹⁸⁷ Whereas this trait is found only once on a soft stone prism, it is very common in the iconography of hard stone three-sided and four-sided prisms.¹⁸⁸ Moreover, the great care in the execution of the intaglios which, at first glance,¹⁸⁹ create the impression that they were cut with tools which were operated in the spindle¹⁹⁰ as well as the elaboration of some of the motifs which function as hieroglyphic signs,¹⁹¹ place these two pieces on the cusp between soft material and hard stone engraving.

TOOLS AND TECHNIQUES

Three techniques are used in the MM period for engraving seals. In this study, these are named the freehand technique, the vertical pressure technique, and the mechanical spindle

¹⁸⁵ For a detailed discussion of the soft material techniques, see pp. 38–43, also 44–47. Despite the difficulty in determining the exact way in which **328** was cut (see footnote 182), the piece is included in this study because it is part of a group of prisms which are cut in soft materials and show very similar iconography and technical execution. For this group, see pp. 45–46, 150–152 (the White Prisms Cluster).

¹⁸⁶ E.g. CMS XII no. 93 b.

¹⁸⁷ For these pieces, see also pp. 68–70, 99–100. (the Cluster of the Medium-Hard Hieroglyphic Prisms).

¹⁸⁸ Soft stone prism: **69**. Hard stone three-sided and four-sided prisms: e.g. CMS XII nos. 105–107, 109–110, 117.

¹⁸⁹ The intaglios of the two pieces are too deep and some of their walls are too vertical to have been engraved on the spindle (e.g. the vertical walls of the *Disc* on **457 b**). Moreover, some of the intaglios have a flat base which was probably created by cutting with a blade and chafing (such as the *Double axe* **353 a** and the *Disc* **457 b**). Also, irregularities on the intaglios of **457** suggest intensive chafing. However, the possibility that some of these intaglios were first created by tools operated on the spindle and then deepened by freehand abrasive work cannot be ruled out. ¹⁹⁰ The curving outlines of the *Double axe* **353 a**, the '*Arrow*'b **353 c** and **457 a**, and the '*Key sistrum'/'plough'* **457 c**, are characteristic of engraving with tools which are operated on the spindle (*fig. 20 b, d*). For that reason, there

exists the possibility that these seals copy devices from hard stone seals.

¹⁹¹ Characteristic of hard stone engraving are the lines which issue from the sides of the *Shamrock b* **353 b** and of the *'Arrow' b* **353 c** (*fig. 20 c, d*) (for the first compare the respective motifs on CMS VI no. 105 d; CMS X no. 312 c; CMS XII no. 105 b. For the second, compare those on CMS IV no. 29D b; CMS XII no. 105 a).

technique. The first two, which can be referred to as soft material techniques, are mostly used for engraving soft materials. The third is mainly employed for cutting hard stones, being thus a hard stone technique. The employment of each of these methods can be deduced by their results and by iconographic evidence of seal engraving from other cultures.¹⁹²

It is mainly the freehand technique and the vertical pressure technique which are employed for cutting prisms. However, it is possible that the mechanical spindle technique was used for engraving individual pieces.

FREEHAND TECHNIQUE

The freehand technique was employed from the very start of Minoan glyptic. The tools are manipulated with free hands at all angles against the seal, which is either held with one hand or is fixed in front of the engraver. The great majority of the devices cut on prisms were produced by freehand engraving.

For cutting soft materials, the knife seems to have been the most widely employed tool. The initial faceting of the seal could easily be achieved by its use, although saw and abrasive work would also serve.¹⁹³ The blade would be suitable for all engraving processes, from scratching guidelines with its point to cutting through and paring away the stone. Burins and points are further candidates for these jobs¹⁹⁴ but the convenience of the blade which can be used in different ways would have made it, at least in the case of the softest materials, widely used. For working steatite and other materials of the same hardness, no abrasives would be required.¹⁹⁵ On the other hand, abrasive materials would often have been applied for cutting through the somewhat harder chlorite and, most probably always, for medium-hard stones.¹⁹⁶ Stone slabs, splinters, or powdered stone would have served as abrasives and polishers.¹⁹⁷

The tools would have been made of obsidian or metal,¹⁹⁸ with metal being a more plausible candidate for work on medium-hard stones.¹⁹⁹ Metal saws, pointed and slant-edge burins, scrapers/tranchets, needles/points as well as obsidian blades, bone awls, and possible whetstones have been found in Quartier Mu, partly in the vicinity of the Seal Cutter's Workshop.²⁰⁰ While the fact that these tools come from a wider area within the

¹⁹² For an Egyptian depiction of engraving a seal with the freehand technique, see Evely 1993, 95 fig. 41, 5. For a representation of the Roman horizontal spindle, see Evely 1993, 159 fig. 65 above.

¹⁹³ Evely 1993, 150.

¹⁹⁴ Evely 1993, 152.

¹⁹⁵ Evely 1993, 150–152.

¹⁹⁶ Walter Müller, pers. comm.

¹⁹⁷ Evely 1993, 111–116, 152.

¹⁹⁸ Evely 1993, 150–152.

¹⁹⁹ Gorelick – Gwinnett 1992, 61.

²⁰⁰ Poursat 1996, 106–109.



Fig. 13 Intaglios cut in the freehand technique: a., b. steatite; c. chlorite; d. breccia.

Quartier does not allow a conclusive association with the Workshop,²⁰¹ it is possible that at least some of them belonged to its equipment.

Most often, the intaglios engraved with the freehand technique show irregularities and rough tool marks (fig. 13 b, d). When cutting through steatite or other materials of the same hardness, the blade penetrates the surface with one cut at either vertical or slightly slanting angles creating characteristically deep and clear intaglios (fig. 13 a). This cut is often enough to create the design but some chafing or abrasive work is also frequently used to improve and achieve uniformity (fig. 13 b). Two combined cuts create intaglios with V-profiles²⁰² whereas further widening and flattening of the surface between the cuts results in characteristic board-like intaglios, Evely's 'blanks', with angular U-profiles (fig. 13 a, b).²⁰³ The final paring out cuts often penetrate somewhat deeper than the inner flattened surface of the intaglio creating a distinctive outline which underlines the abandonment of abrasive work (fig. 13 b). While not as common, 'blanks' with no outlines and ones with U-profiles are also found.²⁰⁴ In these cases, care has been taken to soften the harsh angles created by the penetration of the blade by chafing or the use of abrasives.²⁰⁵ Occasionally, 'cup sinkings' with irregular outlines and flat bases are actually circular 'blanks' created by cutting.²⁰⁶ Shallow scratching can be incipient engraving or, in cases where it is very irregular, it can suggest apprenticeship or trial work.²⁰⁷

As a rule, freehand work on chlorite requires more chafing than in steatite. More intensive chafing is observed for example in the creation of deep neatly cut 'blanks'.²⁰⁸ On the other hand, the existence of clear V-profiles formed by the combination of deep single cuts suggests that this material can also be cut by the use of a blade only.²⁰⁹ Shallow

²⁰⁶ E.g. **64 b**.

²⁰¹ Poursat 1996, 106.

²⁰² _____.

²⁰³ . Evely 1993, 148, 149.

²⁰⁴ _ _ _ .

²⁰⁵ E.g. **269** a, **269** c.

²⁰⁷ Incipient engraving: e.g. **163 b**. Apprenticeship or trial work e.g. **181**.

²⁰⁸ E.g. **60 a**, **60 b** (Walter Müller, pers. comm.).

²⁰⁹ E.g. 104.

V-profiles and U-profiles are indicative of either a greater difficulty in cutting the stone or, more probably, a different engraving method (*fig. 13 c*). In these cases, the engraving is not the result of deep forcible penetration of the blade but of more intensive horizontal chafing probably assisted by some abrasive. Curvilinear lines are often shaped by a combination of smaller linear elements.²¹⁰

For medium-hard stones, the use of saw and abrasive work for faceting the seal seems more probable than the use of the blade. For the engraving process, abrasive would have been required. Shallow intaglios with V- and U-profiles which indicate greater difficulty in penetrating the stone characterise freehand engraving of such stones (*fig. 13 d*). The U-shaped intaglios are testimonies of intensive horizontal chafing possibly combined with some abrasive action. Longer curvilinear lines are often replaced by more than one straight line connected at an angle.²¹¹

VERTICAL PRESSURE TECHNIQUE

The vertical pressure technique was in operation from EM II onwards.²¹² The tools are applied vertically or at a slight angle to the face of the seal which is fixed.²¹³ They are not manipulated freehand, but with a constant backwards and forwards rotary or linear movement which generates fast motion. The rotary power can be produced either by the hands of the craftsperson who turns the shaft of the drill between his/her two palms²¹⁴ or most likely by a fiddle bow operated by one hand.²¹⁵ In both cases, a means of holding the drill in position would be necessary, whether this be an assistant, a device applied vertically to the free end of the drill,²¹⁶ or in the case of the fiddle bow, the engraver's free hand. The technique is only used for the production of centred-circles, lines, and 'cup sinkings', a feature which suggests that it was unsuitable for the production of other shapes. At the outset of its employment in EM II, the technique was only used in a linear repetitive manner.²¹⁷

Fast backwards and forwards rotary motion can, as already mentioned, be generated by a fiddle bow. Vertical pressure tools were used for engraving the seal and for opening the stringhole channels. Saws/files²¹⁸ and drills were, at least when cutting into stones

²¹⁰ E.g. the inner part of the *Coil spiral* **336** c.

²¹¹ E.g. the lines on **577 b**.

²¹² E.g. the seals of Sbonias's Grid/Bone Complex (Sbonias 1995, 74–79).

²¹³ Betts 1989, 12.

²¹⁴ Rotary power, albeit slower, can also be generated by the use of one hand for turning if the other needs to keep the drill in place.

²¹⁵ For an image of a similar modern method for drilling stringhole channels, see Müller 2000, 201 fig. 5.

²¹⁶ E.g. Müller 2000, 201 fig. 5.

²¹⁷ See Sbonias's Grid/Bone Complex (Sbonias 1995, 74–77).

²¹⁸ Saws are tools with dentation on one or two sides and are mainly used for cutting through the material. Files achieve cutting through abrasion brought about by the use of repetitive backwards and forwards motion. Files can either resemble saws but have no dentation, in which case they are mostly used to create straight lines in the

harder than steatite, possibly combined with some abrasive.²¹⁹ Solid drills would be used for opening the stringhole channel²²⁰ and for creating 'cup sinkings'. The fact that the existing centred-circles are perfectly centred, suggests that a special kind of drill was used for their creation. This can be named the toothed drill and is envisaged as a three-, four-, or multiple-pronged tool with longer middle spike, so that it can be securely fixed to the stone when applied vertically onto it.²²¹ Fast backwards and forwards rotary motion of the tool would have opened a round cavity at the point where the middle prong was fixed and one or more circles at the point of motion of the side prongs.²²² Another less likely candidate for creating such motifs would be a cup drill. This would have been composed of a solid drill with a semi-globular cup-shaped implement attached to its body.²²³ In one case, a piece otherwise engraved freehand also displays the use of the tubular drill employed with fast motion.²²⁴

For the creation of 'cup sinkings', the combined use of the solid and tubular drill is also attested to (*fig. 14*).²²⁵ Some of the 'cup sinkings' on **58 a**, **58 c**, **84 b**, and **219 a** have a diameter 0.25-0.30 cm and show a circular core (*fig. 14 a-c*). In the first two cases, this core corresponds to the unengraved surface while in the third it is engraved shallower than the rest of the intaglio. This peculiarity does not seem to belong to the iconography of the devices but instead suggests that the 'cup sinkings' in question are left unfinished. It seems that in order to open these 'cup sinkings', a solid drill was inserted inside a tubular drill and the combination was then presented to the seal face and rotated backwards and forwards under vertical pressure. The tubular drill would have been used first to open a circular cavity and after that, the solid drill would have been employed to abrade the raised to hollow out the rest or at least some of the other 'cup sinkings' found on the same seal faces. The same process leaves very distinctive traces in the intaglios of MM hard stone three-sided prisms²²⁷ and is extensively used in talismanic seals. In these latter examples,

²²³ CMS II,2, xvi–xvii fig. 1.

²²⁴ **440 a**.

intaglios; or else they can be splinters or blocks of stone or organic material used to give the seal its final form by reducing roughly-shaped pieces to a perfect form and by rounding sharp angles.

²¹⁹ Experiments by Gorelick – Gwinnett and other researchers have shown that drilling with flint on steatite does not require abrasive (Gorelick – Gwinnett 1979, 30).

²²⁰ Gorelick – Gwinnett 1992, 60–61; Evely 1993, 150, 152; Poursat 1996, 106; Müller 2000, 199–202.

²²¹ Betts 1989, 10; Evely 1993, 151 fig. 64 shaped bit, 80 fig. 34 toothed.

²²² Each of the rings of the centred-circles of **409 b** is composed of two lunettes. In these cases, the drilling seems to have taken place in two operations. First, the drill would have been held obliquely against the seal face and rotated backwards and forwards, so that the one half of the ring and the central dot was created and then, the same would have been done in the opposite direction.

²²⁵ I am indebted to Walter Müller for discussing with me the process by which 'cup sinkings' were opened by the combined employment of these two tools.

²²⁶ E.g. **88 c** and **184 a** where the 'cup sinkings' are finished.

²²⁷ E.g. CMS II,2 nos. 79 a, 230 a, 230 c; CMS III no. 181 a, 181 c; CMS VI nos. 95 b, 98 a, 98 c, 99 a, 99 c, 105 b, 106 b; CMS VII no. 45 a–c; CMS XII no. 93 a, 93 c.



Fig. 14 'Cup sinkings' opened by the combined use of a tubular and a solid drill: a. the hindquarters and the chest of the *Agrimi*; b. the upper *Head of 'dog/lion with hook'*; c. the upper 'String vessel'; d. the ends of the Cross pommée.

'cup sinkings' often show a so called 'collar'²²⁸ which is not very different from the 'outline' of the 'cup sinkings' of **184 a** (*fig. 14 d*). Onassoglou sees the preference for this technique for opening 'cup sinkings' as the result of the greater suitability of the tubular drill, as opposed to the solid drill, for deeply cutting and hollowing out the stone.²²⁹

The most likely answer to the question of why the core of the 'cup sinkings' was only partly or not at all removed in the aforementioned prisms is either that the use of the solid drill was forgotten or that it was considered unnecessary. The latter seems to have been the case in **58 a** (*fig. 14 a*). Here the chest of the animal seems also to have been made solely with the tubular drill. However the drill-marks are partly obscured by the existence of two lines – one connecting the boring to the neck of the animal, another linking it to the hindquarters. It seems possible that these lines constitute a successful attempt to 'cover' the core of this boring.

While the fiddle bow would probably have been made of wood and string, the remaining tools would have been made of either obsidian or metal,²³⁰ with obsidian being a more plausible candidate for the drills used to open the stringhole channel.²³¹ Wood or reed operating with the use of an abrasive, constitute further candidates for drills.²³² The thick edge of the tool used to open hollow 'cup sinkings', the great depth into which it penetrates, and the small inner diameter differ markedly from the configuration of the first tubular drills used on medium-hard and hard stones. Betts has convincingly argued that the tubular drill is an invention connected with hard stone engraving and the use of the horizontal spindle.²³³ It therefore seems possible that another kind of tubular drill, perhaps one made

²²⁸ Onassoglou 1985, 180.

²²⁹ Onassoglou 1985, 180.

²³⁰ Evely 1993, 150–152.

²³¹ Poursat 1996, 106.

²³² Evely 1993, 152, 157.

²³³ Betts 1989, 10–12.

of some organic material²³⁴ and employed only in combination with a solid drill in order to create 'cup sinkings' was in use in the case of the 'cup sinkings' with a 'collar'. However, the thinness of the walls of the tubular drill used in **184 a**, its diameter of 0.20–0.25 cm, and the fact that it comes from the Malia Workshop, in the vicinity of which metal tubular drills with a diameter 0.20 cm have been recovered,²³⁵ could suggest that the tubular drill used here was made of metal (*fig. 14 d*).

The drills, if not all the tools used for cutting medium-hard stones, would more probably have been made of metal.²³⁶ The fact that such a tubular drill has been used in the intaglio of a breccia prism²³⁷ shows that this tool was available and allows for the supposition that it could have been used for opening the stringhole channel of at least some of the prisms cut in medium-hard stones.²³⁸ At the Malia Workshop, metal tubular drills were employed for engraving medium-hard and hard stones.²³⁹ Moreover, the use of the tool for opening the stringhole channel of a cornelian piece has been verified.²⁴⁰

MECHANICAL SPINDLE TECHNIQUE

The mechanical spindle technique makes its appearance in MM II with the introduction of the horizontal spindle.²⁴¹ The spindle is 'supported in a wooden frame between two uprights'.²⁴² Different implements can be attached to it in various ways, such as small disc wheels and drills to one or both ends and larger metal or stone wheels as well as polishing blocks on its body. The spindle is then rotated backwards and forwards by means of a fiddle-bow operated by an assistant, so that the engraver can freely manipulate the seal, by holding it in their hands or having it attached on a dop,²⁴³ against the various implements which rotate at high speed.²⁴⁴ The mechanical spindle technique frees both the hands of the engraver and the seal so that the later can be presented to the various implements at all

²³⁴ Reed?

²³⁵ Poursat 1996, 106–107.

²³⁶ Gorelick – Gwinnett 1992, 61.

²³⁷ **440 a**.

²³⁸ Gorelick – Gwinnett argue in favour of the use of a copper tubular drill for opening the stringhole channel of MM medium-hard and hard stone seals (Gorelick – Gwinnett 1992, 61).

²³⁹ CMS II,2 nos. 128, 150, 168.

²⁴⁰ Poursat 1996, 106–107.

²⁴¹ Betts 1989, 13. Betts names the device a bow lathe (Betts 1989, 12). Gorelick – Gwinnett note that, strictly speaking, the term *lathe* refers to a device that turns the object while the tools are presented to it (Gorelick – Gwinnett 1979, 25). This would describe an apparatus functioning in the same way as the potter's wheel and different from the seal cutting device where the tools are turned and the seal is presented to them. For that reason, Gorelick's – Gwinnett's term horizontal spindle is preferred by the present author.

²⁴² Betts 1989, 13.

²⁴³ For a modern reconstruction of a dop, see Müller 2000, 198 fig. 2. For a dop stick, see Evely 1993, 159 fig. 65 down left.

²⁴⁴ Betts 1989, 13. For a modern reconstruction of such a spindle, see Müller 2000, 195–198.

angles and all possible shapes can be created. However, on prisms, if employed at all,²⁴⁵ the technique is only used for the production of centred-circles, lines, and 'cup sinkings'.

Disc wheels with various breadths of edges²⁴⁶ and solid as well as tubular drills can be attached to the spindle and used for cutting the intaglios. Files and polishers, used for faceting the seal, can also be operated on the spindle.

The spindle implements would have been made of stone or metal,²⁴⁷ organic materials being further likely candidates for drills and polishing blocks. Abrasives, while possibly required when cutting medium-hard stones, would have been unnecessary for cutting softer materials.

VERTICAL PRESSURE TECHNIQUE VERSUS MECHANICAL SPINDLE TECHNIQUE

The similarity of the devices and the intaglios created by the two techniques which produce fast motion does not always allow the positive identification of the one or the other by their results.²⁴⁸ The use of the vertical pressure technique is considered certain in cases where fast motion drills are used in intaglios which are otherwise engraved freehand (*fig. 15 h*).²⁴⁹ However, in cases of intaglios which are engraved only with lines, centred-circles, and 'cup sinkings', it is often impossible to define the way in which the fast motion tools were operated.

Some iconographic observations relating to the configuration of the devices created by the two techniques on seals of various materials can provide some indication as to the way they were created. Centred-circles with multiple rings are only attested in soft materials, and the majority are perfectly centred. On the other hand, most examples of centred-circles encountered in hard stones are imperfectly centred.²⁵⁰ The absence of centred-circles with multiple rings and the fact that the centred-circles on hard stone seals are imperfectly centred could suggest that on these seals centred-circles were created by separate operations, one for cutting the central dot and one for engraving the surrounding ring. This suggests that engravers using the spindle had no special implement for creating centred-circles in a single operation.²⁵¹ Thus it seems likely that even after the introduction

²⁴⁵ For more on this subject, see below 'Vertical pressure technique versus mechanical spindle technique', especially p. 45–46.

²⁴⁶ Onassoglou 1985, 173–179, fig. 3 C1, C2.

²⁴⁷ Betts 1989, 13; Evely 1993, 155–157.

²⁴⁸ I am indebted to Walter Müller for his readiness to discuss the characteristics of the intaglios created by the two techniques.

²⁴⁹ E.g. **92 a**, **188 b**, **288 b**, **307 c**, **569 c**. In these examples, the 'cup sinkings' and the centred-circles have been executed with the vertical pressure technique whereas the remaining elements have been cut freehand. In such cases, the use of the spindle seems improbable because if this piece of equipment were available it would have been used for cutting all devices.

²⁵⁰ E.g. CMS VII no. 45 a.

²⁵¹ E.g. a toothed/cup drill specifically designed for use in the spindle or a composite drill assembled from a solid drill fixed within one or more tubular drills of different diameters.



Fig. 15 Examples of intaglios cut in fast motion techniques. In a.-d. are shown prisms and a cushion which could have been cut with the mechanical spindle technique (adapted from Dimopoulou 2000, 30 fig. 2 no. 18, 31 fig. 3 no. 28). In the intaglio depicted on h. only the 'cup sinkings' have been executed with the vertical pressure technique.

of the spindle centred-circles on soft materials continued to be executed with the vertical pressure toothed/cup drill.²⁵²

One must also consider the possibility that a group of prisms cut in whitish soft and medium-hard materials were engraved by tools operated in the spindle (*fig. 15 a–c*).²⁵³ The intaglios of these pieces have characteristically smooth walls marked by fine parallel striation. Most, but perhaps not all, centred-circles are perfectly centred.²⁵⁴ The lines have V- or U-shaped profiles and cut through both or one of the seal face edges, in this latter case, tapering towards their other edge.²⁵⁵ The 'cup sinkings' have perfectly round outlines and conical profiles.

One of these prisms, **258**, and the cushion Dimopoulou 2000, 36 no. 28 are so similar that their engraving in the same technique cannot be doubted (*fig. 15 a, b, d*). Cushions were created because of the greater suitability of their convex faces for engraving on the spindle. This, as well as the very regular intaglios of the two pieces could suggest that they and the remaining related prisms were engraved by tools mounted on the spindle. In favour

²⁵² For these drills, see p. 41.

²⁵³ 252, 258, 328, 395, A.5.

²⁵⁴ One of the centred-circles on **328 b** seems to be imperfectly centred.

²⁵⁵ 252 b, 252 c, 258 a-c, A.5 a-c.

of this could also speak the fact none of these seals shows centred-circles with multiple rings.

The perfectly centred centred-circles on CMS VI no. 99 c, which is made of hard stone and is cut on the spindle, attest to the fact that such devices can also be created by the mechanical spindle technique. The circles which surround the 'cup sinkings' on CMS VI no. 99 c and those on CMS VI no. 99 b were probably created by the same tubular drill. This would mean that the centred-circles on CMS VI no. 99 c were either cut by a composite drill attached to the spindle and composed of a solid and a tubular drill, the tubular being the one used for cutting the circles on CMS VI no. 99 b; or more probably, that the centredcircles on CMS VI no. 99 c were formed in two separate operations, the central dots and the circles being marked with paint or scratching before the presentation of the stone to the rotating tools.

Despite the above evidence, the possibility that the pieces of the group in question were engraved by vertical pressure tools cannot be ruled out. Two further observations support this view. Certain steatite seals display very similar 'cup sinkings' with conical profiles that are combined with centred-circles showing multiple rings. In addition **259**, most probably engraved in the vertical pressure technique, comes from Poros Katsampas, where **258** and the cushion Dimopoulou 2000, 36 no. 28 were also found.

THE INTAGLIOS ENGRAVED BY THE TECHNIQUES WHICH PRODUCE FAST MOTION

Centred-circles, lines, and 'cup sinkings' created by the vertical pressure and the mechanical spindle technique show perfect outlines and have regular and smooth intaglios with fine striations on their walls (*fig. 15*). Lines are variously deep and show V- and U-profiles. They can have the same width all along their length and extend over the edges of the seal face (*fig. 15 b, e*).²⁵⁶ In other cases, they cut through one edge of the seal face but stop within it, showing an occasional tapering at the exit (*fig. 15 a, b*).²⁵⁷ Shallow lines with tapering edges constrained within the seal face are also encountered (*fig. 15 f*).²⁵⁸

The rings of the centred-circles often have deep, upwards slightly widening U-profiles, but V-profiles, and angular U-profiles also occur. Often, the central 'cup sinking' penetrates the stone deeper that the surrounding rings.²⁵⁹ On most occasions, the inner rings of centred-circles with multiple rings are deeper than the outer rings, the latter often resembling only superficial scratches.²⁶⁰ Some rings are not closed but actually form crescents (*fig. 15 g*). In

²⁵⁶ E.g. **83 a**, **133 c**, **259 b**. Such lines can suggest the use of a file applied vertically onto the fixed seal. This technique was used in EM II for the creation of grids, such as those on CMS II,1 nos. 11 a, 13, 17, 20, 26.

²⁵⁷ E.g. the lines on **252 b**, **252 c**, **258 a–c**, **259 a**. Such results can theoretically be produced by both manipulation against wheels and also the use of file.

²⁵⁸ E.g. **21 a**, **442 b**, **442 c**. Tapering points can often suggest the use of fast rotating wheels (Evely 1993, 158; compare also the lines on CMS VI no. 98 c which is cut on the spindle). However, filing can also create similar results.

²⁵⁹ E.g. **320 a–c**.

²⁶⁰ E.g. **320 a–c**.
centred-circles with multiple rings, these are the outer, shallower rings. This could indicate that, in these cases, the inner ring and the central 'cup sinking' were created by one action whereas the outer ring(s) were cut in a separate operation.

The outlines of the 'cup sinkings' are round whereas their profiles are V-or U-shaped.²⁶¹ 'Cup sinkings' with V-profiles are deep but their slanting walls create a characteristically soft impression (*fig. 15 a–d*).²⁶² 'Cup sinkings' with U-profiles can either be fairly shallow and have slanting walls or be deep and penetrate the stone vertically (*fig. 15 h*).²⁶³ In the case of a seal which is otherwise engraved in the vertical pressure technique, it is uncertain whether the flat based 'cup sinkings' with slightly triangular outlines have been created freehand or by vertical pressure tools.²⁶⁴

THE PROCESS OF MANUFACTURE

The discovery of numerous unfinished prisms in the Seal Cutter's Workshop at Malia sheds light on the process of the manufacture of these seals.²⁶⁵ The first step for the creation of a prism would be to cut a piece of the raw material to the approximate size of the desired seal and to give it a roughly triangular shape. Parallel lines along the length of small pieces of debitage produced by sawing suggest the employment of the saw for this operation.²⁶⁶ After that, the piece would receive its final form by filing. Fine parallel lines running vertically or slightly diagonally to the length of the prism are a witness to this action, which concentrates first on the faces and then moves on to the smoothing of the angles.²⁶⁷

The perforation of the stringhole channel is the operation which causes the most accidents. As a rule, this seems to have taken place before the engraving.²⁶⁸ However, the existence of a few pieces with engraved sides and unfinished stringhole channels attest also to the opposite procedure.²⁶⁹ To make sure that the drill does not accidentally take a slanting direction while piercing and cause the fracture of the stone, the action takes place in two separate operations. The drilling starts from both profiles and the two channels meet, not always perfectly aligned, in the centre of the stone.²⁷⁰

²⁶¹ V-shaped: e.g. **133 a**, **252 b**, **252 c**, **258 a–c**, **328 a**, **328 b**.

²⁶² While the exact technique employed for the creation of such 'cup sinkings' is not clear, their conical smooth profiles are not inconsistent with Evely's description of borings created by drills operated on the spindle: "a symmetrical 'entry and exit' pattern, of a crisply pointed or neatly rounded form, with regular and parallel striations in the furrow itself' (Evely 1993, 77). For tapering borings on soft stones, see also Gorelick – Gwinnett 1987, 19 fig. 8 a; 20 figs. 10 a, 10 b, 11.

²⁶³ Shallower with slanting walls: e.g. 282. Deep penetrating the stone vertically: e.g. 187.

²⁶⁴ A.2 b, A.2 c. In these cases, the operation of the tools on the spindle can be ruled out.

²⁶⁵ For the Malia Workshop, see pp. 59–62.

²⁶⁶ Poursat 1996, 105.

²⁶⁷ Poursat 1996, 106.

²⁶⁸ Poursat 1996, 106. To the best knowledge of the author, no prism exists which doesn't have a stringhole channel.

²⁶⁹ E.g. 150, 159, 168, 173, 211.

²⁷⁰ The process of opening the stringhole channel from the two profiles is attested in **251**.

After the engraving, the final polish follows,²⁷¹ which gives shine and obliterates any traces of sawing and filing.

'TRIAL' PIECES

Three unfinished pieces from the Malia Workshop have irregular intaglios largely created by what seem to be random cuts (*fig. 16 a*).²⁷² In some cases, a roughly recognisable design can be made out, such as a human figure or a ship.²⁷³ The incongruence in the quality of these intaglios with the quality of most Malia Workshop seals suggests that they are the work of an inexperienced hand,²⁷⁴ who could perhaps have been experimenting on pieces rejected by the head craftsperson.



299 is of special interest because of the contrasting quality of its intaglios. As opposed to **299 a** which is skilfully engraved with an animal attack scene, **299 b** and **299 c** show irregular, linear cuts of the type met on the three aforementioned prisms from the Malia Workshop. A badly designed *Scorpion* can be made out in **299 c** (*fig. 16 b*). While the lack of file marks attests to the receiving of final polishing the lack of rounded edges and the

of file marks attests to the receiving of final polishing, the lack of rounded edges and the flat interfacial edges suggest that the seal is hardly used. Further characteristics of the piece are two irregular trapezoidal seal faces, one accentric stringhole which almost touches the edges of **299 b**, and a small break into the stringhole channel in the intaglio of **299 b**. It is therefore possible that **299 a** was engraved by an experienced craftsperson before the piece was abandoned for some reason²⁷⁵ and passed on to an inexperienced person who engraved the remaining sides.

²⁷¹ Poursat 1996, 106.

²⁷² **157**, **181**, **211**. The fact that they are unfinished is attested by the file marks on their seal faces. There exists the possibility that also **152** and **204**, both of which come from the Malia Workshop, were apprenticeship or exercise pieces.

²⁷³ Human figure: **157 a** (see *Man in profile*). Ship: **181 b** (see *Ship*).

²⁷⁴ For more on these pieces, see pp. 77–78 (the Irregular Cut Style).

²⁷⁵ Perhaps due to the chipping at the hindquarters of the *Bovine*? It is also possible that the piece was rejected because

159 from the Malia Workshop is engraved only with 'cup sinkings' (*fig. 16 c*). The fact that the piece is broken and bears file marks could suggest that it broke during manufacture – while piercing the stringhole channel (?) – and was then used for practising vertical drilling. Similar might have been the case with **180** although the fact that the seal face is broken halfway along one of the 'cup sinkings' could suggest that the break was caused while drilling it.²⁷⁶

Deep lines cut through the seal face edges and through the images on **304**, becoming partly integrated into the motifs (*fig. 16 d*). More irregular but also deep scorings cut through the motifs of **33 a** and **33 c** without making sense as an organic part of them. Since the engraving of the representational motifs on these seals displays a certain competence, the existence of such lines in their intaglios is bewildering. The CMS suggests that the deep lines on **304 a** and **304 c** were engraved later than the rest of the intaglios.²⁷⁷ However, the fact that the arms of the "*Ladder band*" **304 b** also cut through the seal face edges and are as deeply engraved as the lines on **304 a** and **304 c** would imply that the engraving was created at a single stage. A possible explanation for this phenomenon would be that such lines represent experimentation with filing for the production of straight lines. The fine execution of some motifs on these seals could suggest they were for some reason rejected and subsequently used as trial or practice pieces. CMS III no. 114 a also shows similar lines which are, however, more successfully linked to the depicted device.

While **79** is made of steatite, its intaglios are unusually smooth and shallow. This feature suggests chafing and perhaps the use of some abrasive. Characteristic is the preference for straight lines as is obvious by the use of lines for rendering the legs of the *Spider*, the connection of the *Spider* and the *Head of an agrimi* by a *Bar*, and the image put together of lines on **79** b.²⁷⁸ Also in this case, the engraver could have been experimenting with the potential of creating straight lines by filing.

ASSESSING THE QUALITY OF WORKMANSHIP

Alongside the description of each prism in the catalogue there also appears, inter alia, an estimation of the quality of workmanship. Each piece is assessed with regard to the rest of the prisms. Among the existing examples can be recognised smaller or larger familiarity with the material and the tools, different degrees of care in the execution of the intaglios, and different degrees of dexterity. Since the prismatic shape is on most occasions well executed, the evaluation of the workmanship is mostly based on the way in which the intaglio has been worked.

the perforation process from one profile took a slightly slanting course and pierced through the neighbouring side **299 b**. This would have happened before engraving **299 b** and **299 c** but after engraving **299 a**.

²⁷⁶ **154 c** and **220 c** might have been similarly used. However, the small number of preserved 'cup sinkings' on these pieces does not allow ruling out the possibility that these consisted part of other motifs.
²⁷⁷ CMS III, 313.

⁻⁻⁻⁻ CIVIS III, 515.

²⁷⁸ For the devices of the composition, see *Line K* and *Line/Bar*.

Differences in technique and the hardness of the used materials as well as abrasion can distort one's perception of the quality of workmanship. The assessment takes into account that the use of different techniques results in intaglios which show different degrees of regularity. Both **101** and **258**, for example, are described as being of very good workmanship despite the fact that the intaglio of the former is clearly more irregular than that of the latter. This difference is due to the different technique used to carve each piece great familiarity with the material and dexterity in the use the tools and the execution of the devices is evident.

The hardness of the material is also taken into consideration in the attempt to estimate the quality of workmanship. Engraving medium-hard stones with hand tools, for example, will only allow the creation of shallow intaglios. Thus, despite the shallow and somewhat loose intaglio, the workmanship of **577** is described as good because freehand work on breccia is a much more demanding task than it is in steatite. The successful attempt to carve this material with tools and techniques created for work on soft materials shows care and dexterity in the engraving.

Abrasion can often create a false impression with regard to the quality of workmanship. Most often, the crisp intaglios of pieces which are workshop fresh create an impression of skilful engraving as opposed to intensely abraded intaglios of the same competence, which can appear amateurish in comparison. Comparing the heavily abraded **578 b** and the scarcely and moderately abraded **501 a** and **367 b** respectively clearly shows how much the impression of skilfulness can depend on the degree of abrasion. Although all three pieces are of good workmanship, the partly obliterated intaglio of **578 b** creates the false impression of hasty execution.²⁷⁹

DISTRIBUTION, DATING, AND FIND PLACES

Only 25 % of the prisms included in this study have a secure provenance.²⁸⁰ Some of them come from closed, albeit not always well-stratified, contexts and others are stray finds.

²⁷⁹ Compare also **578 a** to **367 c**.

²⁸⁰ The collection of the material finished in 2007 (exceptionally, **A.21** was included at a later stage because of its interesting iconography). Excavators and guards of archaeological sites are considered absolutely trustworthy sources. The information provided by other people who hand in a piece and, as a consequence, by collectors and art dealers is not 100 % secure. The finder can for various reasons – fear of raising the interest of the Greek Archaeological Service in their property or that of potential 'treasure hunters', in order to raise the value of a piece by citing a known archaeological site as the find place – give false information regarding the find place of the piece(s) he/she hands in.

FIND PLACES OF PRISMS WITH SECURE PROVENANCE AND DATING OF THEIR CONTEXTS²⁸¹

Palaikastro

Block B, Courtyard 11: 87.

Block B, Room 37: 88. The room was part of a LM house (?).

Ossuary Ta Ellinika: 89. Context MM I/MM IIA (?).

Ossuary Tou Galeti i Kefala: 78. Context MM I/MM II.

Kato Zakros

House C (?): 77.

Pit I (?), about the mouth of: 76. The pottery from the pit is MM III/LM IA.

Pseira

Plateia Building: 577. Context LM IB.

Mochlos

Excavation dump: **3**.

Grave X: 95. Context MM/LM I.

Kavousi

Burial Cave: **8**, **9**. The pottery from the cave was mainly MM I, but forms with EM III parallels were also found. The contexts were disturbed but the fact that **9** was found inside one of the two larnakes suggests that the seals did actually belong to the burials. The recovery of two vessels of the 'Chamaizi' type, examples of which have also been found at the MM IIB destruction layer of the Quartier Mu, allows for the hypothesis that the cave was used down to the MM II period.

Trapeza

Ossuary (?)²⁸² *Cave*: **129**. Most pottery is EM II–MM I but some MM II and MM III sherds were also found.

Agios Charalampos

Ossuary Cave: **4–6**, **10**. The pottery in the cave was FN–MM IIB with a few LN and LM I–LM III sherds.

²⁸¹ For the relevant bibliography, see 'Appendix 1'.

²⁸² For the subject of the character of this cave as an ossuary as opposed to a burial cave, see footnote 2442.

Malia

Agora: 221. Surface find.

Palace, northeast border area of: **385**. Surface layer which could have contained excavation dump from the Palace.

Palace, Room ε: 219. Context MM II.

Palace (?), southwest of: A.1.

Pierres Meulières: 116. Area of the 'Maison des Morts', near the Cist Grave 1.

Quartier Γ : **115**. The exact find circumstances of the piece are unknown. The houses of the Quartier were in use from the end of EM–MM III.

Quartier Δ *, Bulding* Π : **A.21**. The piece was found in a LM I context.

Quartier E, House E: **126**. The house shows signs of occupation from MM I–LM III. The exact find circumstances of the piece are unknown.

Quartier E, House E β : **218**. The piece was found in a MM II context.

Quartier Mu, Building A and immediate neighbouring area: 223–227, 238.283

Quartier Mu, Building B and immediate neighbouring area: 222, 250.

Quartier Mu, Potter's Workshop and immediate neighbouring area: 249, 253, 254, 256.

Quartier Mu, Seal Cutter's Workshop and immediate neighbouring area: **134–212**, **220**, **228–237**, **239–248**, **251**, **255**, **257**.

Among the aforementioned prisms of Quartier Mu are excavated pieces and stray finds. The context of the excavated pieces is MM IIB. From Dessenne's Workshop α surface finds were often recovered which were partly accumulated during a longer period of time.

Quartier Mu, South Workshop: 7. The piece could come from a MM IB fill.

Quartier N: **1**, **2**. **1** was found in a sondage under the LM IIIB layer, context LM I (?). The context of **2**, which is workshop fresh, is LM IIIA2/B.

Unknown finding spot: 117.

²⁸³ For the dating of Quartier Mu, see below.

Smari

Trouli, Complex A, Room 2: 260. Context MM II.

Knossos

Profitis Ilias Cemetery, Grave VII: 133. Context MM III.

Poros Katsampas

Building with Frescoes : **258**. The building dates to the early LM IA ("the so-called 'transitional' MM IIIB–LM IA").

Buildings or filling deposits outside or below the 'Building with Frescoes': 259. Context MM II.

Koumasa

Tholos A: **86**. The pottery from the tholos is reported to belong to EM III–MM I. However, the recovery in the tomb of the cushion CMS II,1 no. 146 would suggest that the grave was still used in MM II. The stratigraphy was disturbed but the seals come from the upper burial layers. Vases reported to have come from the area between the Tholos A and the Tholos B date to EM III–MM I/MM IIA.

Apesokari

Tholos B: 216, 217.

Platanos

Tholos B: **103–106**. The tholos was in use from EM III–MM II but finds of MM IA–MM II predominate. The stratigraphy was disturbed.

Tholos B or Γ : **107**. Tholos Γ was in use from EM III–MM I.

Moni Odigitria

Tholos B, East Room C (not used for burials): **252**. According to the excavator, the seal was found in the upper layers of an EM III/MM IA context.

Agia Triada

Tholos A: **101**, **102**. The tholos was in use from EM II–MM II.

Agia Eirini, Kea

Grave 31: **359**. The grave is dated to middle/late MBA, to a phase which possibly corresponds to MM IIB/MM IIIA.

Midea, Argolis

Acropolis: **395**. The piece was found in the layers of earth and stones deposited above the LH IIIB2 destruction layer. The pottery from these deposits was MH–LH IIIB2.

DISTRIBUTION

Pieces with secure provenance

Prisms have been recovered in central and eastern Crete as well as in two locations outside the island (*fig. 17 a*). The greatest concentration is observed in Malia where 79 % of the pieces have come to light. More than 80 % of these were recovered in the Seal Cutter's Workshop. 11 % of the material comes from nine locations in eastern Crete and 7 % from five sites in the Mesara. The Heraklion – Knossos area has yielded 2 % of the examples and 1 % has been recovered in sites outside the island, at Agia Eirini in Kea and at Midea in the Argolis. Apart from Malia, more than one piece has been recovered in Platanos, Agios Charalampos, Palaikastro, Kato Zakros, Mochlos, Kavousi, Apesokari, Agia Triada, and Poros Katsampas.²⁸⁴

It becomes clear that the majority of examples come from a single location, a seal workshop which collapsed at a time when it was producing a large quantity of prisms. By contrast, only minimal numbers of other seal forms were being produced in this workshop immediately prior to the destruction. The fact that prisms have come to light in most parts of the Malia town would support the idea that this settlement played a significant role in the production of these seals. The 11 % which represents the pieces coming from the town,²⁸⁵ excluding those from the Workshop and the fragments from Quartier Mu which can be identified with certainty as products of the Workshop, is rather high when compared with the 11 % which represents the prisms recovered in the rest of east-central and eastern Crete and the 9 % which corresponds to the pieces recovered in central Crete.²⁸⁶ While the fact that Malia is the best researched MM town has to be taken into consideration, the limited number of pieces from sites like Palaikastro and Kato Zakros suggests that Malia was one of the most important, if not the most important, production centre of the prisms.

The prisms which come from the Mesara tholoi and those from the Heraklion – Knossos area represent individual examples in contexts which contained numerous seals of other

²⁸⁴ Malia: 124 pieces, 100 of which come from the workshop. Apart from these latter, at least five of the pieces recovered in other areas within the Quartier Mu seem to have originally come from the workshop (222, 238, 250, 253, 254, and perhaps 225). Platanos: 5 pieces. Agios Charalampos, Palaikastro: from each place 4 pieces. Kato Zakros, Mochlos, Kavousi, Apesokari, Agia Triada, Poros Katsampas: from each place 2 pieces.

²⁸⁵ 17 pieces.

²⁸⁶ The border between central and east-central Crete is taken to be the notional line Epano Archanes–Ligortynos– eastern border of the Asterousia mountains.



Fig. 17 Distribution of the prisms: a. find places of prisms with secure provenance: 1. Palaikastro; 2. Kato Zakros;
3. Pseira; 4. Mochlos; 5. Kavousi; 6. Trapeza; 7. Agios Charalampos; 8. Malia; 9. Smari; 10. Knossos;
11. Poros Katsampas; 12. Koumasa; 13. Apesokari; 14. Platanos; 15. Moni Odigitria; 16. Agia Triada;
(17. Agia Eirini, Kea; 18. Midea, Argolis). b. find places of prisms with secure and uncertain provenance:
1. Palaikastro; 2. Epano Zakros; 3. Kato Zakros; 4. Lamnoni; 5. Nea Praisos; 6. Sitanos; 7. Sykia; 8.
Adromyloi; 9. Lithines; 10. Siteia; 11. Pseira; 12. Mochlos; 13. Tourloti; 14. Lastros; 15. Kavousi; 16.
Pacheia Ammos; 17. Gournia; 18. Koprana; 19. Lato i Etera; 20. Kritsa; 21. Elounta; 22. Kasteli; 23.
Neapoli; 24. Anaulochos; 25. Milatos; 26. Malia; 27. Vrachasi; 28. Krasi; 29. Trapeza; 30. Pinakiano; 31.
Psychro; 32. Agios Charalampos; 33. Kato Metochi; 34. Gonies; 35. Askoi; 36. Avdou; 37. Mochos; 38.
Potamies; 39. Kalo Chorio Pediados; 40. Gouves; 41. Smari; 42. Kasteli; 43. Choumeri; 44. Ligortynos; 45. Koumasa; 46. Apesokari; 47. Platanos; 48. Gortys; 49. Moni Odigitria; 50. Kamilari; 51. Agia Triada; 52. Agios Onoufrios; 53. Choumeri; 54. Axos; 55. Gonies; 56. Poros Katsampas; 57. Knossos; 58. Artsa; (59. Agia Eirini, Kea; 60. Midea, Argolis; 61. Egypt).

forms.²⁸⁷ In the Mesara, the majority of prisms have been recovered from Tholos B in Platanos. However, the significance of this predominance, if any, is not clear.

A comparison of the distribution of pieces with secure and uncertain provenance

The addition to the distribution map of pieces with uncertain provenance does not significantly change the picture created above (*fig. 17 b*). Concentrations are observed in the east-central and eastern part of the island, the Mesara plain, and the Heraklion – Knossos area. Many clusters of find places are now observed outside Malia. A significant concentration of find spots is seen to the south of Malia and another in the Lasithi Plateau. Scattered find places appear in the area of the Mirampelo eparchy as well as along the coastline of the Mirampelo gulf from Elounta to Mochlos. Another concentration is observed at the far eastern part of the island in the area defined by Palaikastro, Sykia, Lithines, and Zakros. In the Mesara, quite a significant cluster of find places is observed in areas where tholos tombs have come to light, while a new find place is also reported to the northeast of the plain. To the north, three find spots are added in the west-central part of the island. Two pieces are said to have come from Egypt.

Again, the largest concentration of finds is observed at Malia, the town having yielded 59 % of the pieces with provenance. 29 % of the remaining prisms have been recovered in other areas of east-central and eastern Crete. From the Mesara comes 7 % of the material, from the Knossos – Heraklion area 3 %, from the west-central part of the island less than 1 %, and from places outside Crete 1 %. Apart from Malia, most of the added locations are represented by single finds. In the Mesara, Platanos and Moni Odigitria stand out as having yielded 27 % and 23 % of the prisms recovered in the plain or its vicinity respectively. 70 % of the pieces from the Knossos – Heraklion area come from Knossos.

The evidence confirms the opinion that the prisms enjoyed great popularity in Malia, which stands out as a vital centre of their production. The form was also popular in the surrounding area of this town and in the eastern part of the island.²⁸⁸ On the other hand, these seals seem to have been less favoured in central Crete.

DATING

With the exception of the pieces recovered from Quartier Mu, only a very limited number of prisms has been recovered in well stratified contexts. According to its excavator, one piece has MM IA as terminus post quem non.²⁸⁹ The excavator of another piece suggests

²⁸⁷ For the seals from Agia Triada, see CMS II,1 nos. 6–103; from Koumasa CMS II,1 nos. 133–169; from Platanos CMS II,1 nos. 241–349; from Profitis Ilias CMS II,2 nos. 43–68; from Poros Katsampas Dimopoulou 2000. The seals from Apesokari and Moni Odigitria still await publication.

²⁸⁸ Xenaki Sakellariou points out this fact even before the discovery of the workshop (Xenaki Sakellariou 1958 a, 92 footnote 1; 1958 b, 451, 455).

²⁸⁹ **252**. See below and p. 147.

that it could have come from a MM IB layer.²⁹⁰ One further example is reported to come from a tholos used down to MM I but the recovery of MM II seals in the same tomb suggests that it was still in use in MM II.²⁹¹ Three pieces have been recovered in contexts in which MM I pottery was predominant but in all cases indications exist that the contexts were used later in MM.²⁹² Five examples come from MM I/MM II and MM II contexts whereas the excavated pieces from Quartier Mu were found in the MM IIB destruction layer.²⁹³ One example comes from a MM IIB/MM IIIA and another from a MM III grave.²⁹⁴ Individual pieces have been recovered in an early LM IA, a possible LM I, a LM I, and a LM IB context.²⁹⁵ Finally, one example came to light in a LM IIIA2/B context.²⁹⁶

The large number of pieces recovered in the MM IIB destruction layer of Quartier Mu suggests that the prisms reached their floruit in MM II. The dating of the beginning and end of prism production must be assisted by stylistic considerations. The piece reported to have come from a context no later than MM I at Moni Odigitria belongs stylistically to a group of prisms which reached its floruit in MM II/MM III.²⁹⁷ This feature could suggest that the tomb where it was found was in use until later in the MM period. For that reason, this prism cannot be taken as secure evidence that the production of the prisms started in MM I. As regards the recovery of a prism from a MM IB layer, it is not certain that the piece did actually belong to this layer.²⁹⁸

One indication as to the inception of prism development is provided by **62** from 'Kalo Chorio Pediados'. The piece finds good stylistic parallels among seals whose shapes are well placed in EM III/MM IA. Moreover, its engraving is stylistically comparable to that of two stone blocks from the Palace of Knossos which were dated by Evans to the early MM.²⁹⁹ Further support for a MM I date for the onset of prism production is provided by a group of prisms from the Mesara which find stylistic parallels among seals dated to late MM IA/MM IB.³⁰⁰

While the shape loses its popularity after the end of MM II, some pieces seem still to have been produced in MM III and perhaps in early LM I (?).³⁰¹ This is suggested not only by the contexts of the prisms but also by the contexts of seals of other forms which are

²⁹⁰ 7.

²⁹¹ **86**. For the dating of the Tholos A of Koumasa, see p. 381.

²⁹² 8, 9, 129.

²⁹³ MM I/MM II and MM II contexts: **78**, **89**, **219**, **259**, **260**. Quartier Mu: **7**, **138–209**, **220**, **222–224**, **226**, **228–235**, **238**, **247**, **248**, **251**, **253**, **256**.

²⁹⁴ MM IIB/MM IIIA grave: 359. MM III grave: 133.

²⁹⁵ Early LM IA context: **258**. Possible LM I context: **1**. LM I context: **A.21**. LM IB context: **577**.

²⁹⁶ **2**.

²⁹⁷ **252**. For the group in which this piece belongs, see the section 'Central Crete Ornamental Prisms', pp. 148–159, especially pp. 150–152, 158–159.

²⁹⁸ 7.

²⁹⁹ For the dating of this piece, see p. 147.

³⁰⁰ For these prisms, their related seals, and their dating, see pp. 122–126, 128–131, 134–136.

³⁰¹ For a discussion of the dating of **258** which comes from an early LM IA context, see pp. 158–159.

stylistically related to certain prisms.³⁰² Given the general absence of prisms from contexts later than LM IB, **2**, which has been discovered in a Postpalatial context, is seen as a much older heirloom or chance Postpalatial find.

To summarise then, context evidence and stylistic considerations suggest that the prismatic form first evolved during MM IA and persisted as late as MM III/early LM IA but that the floruit of three-sided soft stone prisms was undoubtedly the MM II period.

THE FIND PLACES

With one exception all pieces from Malia have been recovered in the residential part of the town. The great majority of examples come from a seal cutter's workshop³⁰³ and are fragments discarded after accidental damage during the engraving process. Most of the remaining pieces came to light in the various town quarters. Only one example has been recovered in the Palace and two from its vicinity.³⁰⁴ These three pieces are the only existing prisms coming from a Minoan palace or its immediate vicinity. The prism which does not come from the residential part of the town was recovered in a neighbouring burial site.³⁰⁵

In the rest of east-central and eastern Crete, more pieces come from burial than from residential contexts.³⁰⁶ This raises the question as to whether the prisms had a greater, or at least different value, in places outside Malia. Pieces from burial and ossuary caves in Kavousi and Lasithi are workshop fresh or only slightly abraded, a feature which might indicate a purely funerary purpose.³⁰⁷ However, the fact that other pieces from burial contexts in Mochlos and Palaikastro are considerably abraded suggests intense use before their final deposition.³⁰⁸

In the Mesara, no prisms have been recovered in residential contexts, which could be connected with the absence of excavated settlements in the area. Most pieces found in the tombs show signs of abrasion, which would suggest that they were in use before their final deposition.³⁰⁹ **252** from Moni Odigitria seems, as Sbonias notes, not to have had a funerary purpose since it was found in one of the compartments of the tholos which was not used for burials.³¹⁰

Two prisms from the Heraklion – Knossos area come from a residential context and one was recovered in a grave.³¹¹ The first two examples come from a residential and industrial quarter of the settlement in Poros Katsampas in which also a seal cutter's and jewellery

³⁰² For the dating of some prisms in MM II/MM III, see pp. 158–159.

³⁰³ For the Seal Cutter's Workshop in Malia, see pp. 59–62.

³⁰⁴ Palace: **219**. Vicinity of the Palace: **385**, **A.1** (?).

³⁰⁵ **116**.

³⁰⁶ Burial contexts: **3–6**, **8–10**, **78**, **89**, **95**, **129**. Residential contexts: **76**, **77**, **87**, **88**, **260**, **577**.

³⁰⁷ Workshop fresh: 5, 6, 9, 129. Slightly abraded: 4, 8, 10.

³⁰⁸ **95**, 78.

³⁰⁹ E.g. **101**, **102**, **216**, **217**, **103**, **106** but not **107** which is apparently workshop fresh.

³¹⁰ Sbonias 2010, 203.

³¹¹ Residential context: **258**, **259**. Grave: **133**.

workshop of a somewhat later date has come to light.³¹² They are both workshop fresh and show close stylistic similarities with seals found in the broader area dating from MM I–LM IA.³¹³ It could be suggested that the two prisms represent fresh products of a 'workshop' which was already producing seals in MM I. The third piece comes from a grave in the Profitis Ilias cemetery and is workshop fresh, suggesting that it had a clear funerary purpose.

The prism from Agia Eirini, Kea was recovered in a burial context.³¹⁴ Its considerable abrasion suggests intense use before deposition. Finally, the Midea prism, also considerably abraded, comes from a residential context.³¹⁵

THE SEAL CUTTER'S WORKSHOP AT MALIA

The Seal Cutter's Workshop at Malia is briefly presented here because of the significance of its discovery for the study of prisms.³¹⁶ The Workshop was excavated in 1956 by André Dessenne³¹⁷ at which time most of the seals also came to light.³¹⁸ Further research motivated by the lack of precise dating and the need for a clear plan of the architectural remains was undertaken in 1965 and 1977 by Jean-Claude Poursat.³¹⁹

The building forms part of Quartier Mu, a town quarter situated at approximately 140 meters northwest of the Malia Palace.³²⁰ The Quartier consists of two large buildings of probably official nature, Building A and B, surrounded by seven smaller constructions, five of which have been identified as houses of craftspeople.³²¹ The quarter seems to have been constructed in early MM II and was certainly destroyed in MM IIB.³²² After this date it was not reoccupied.³²³

The Workshop is situated to the north and northeast of the two large buildings. The actual working space consists of part of a two storey house identified by Poursat as the house of the craftsperson and family.³²⁴ The working area was restricted at the northernmost room of the upper storey.³²⁵ The building, which stands partly on earlier constructions of unknown function, was possibly erected at the start of MM II.³²⁶

³¹² Late LM IA (Dimopoulou 2000, 34–35).

³¹³ For these seals, see Dimopoulou 2000, 28 no. 5; 32 nos. 6, 7; 34 no. 19; 36 no. 28.

³¹⁴ **359**.

³¹⁵ **395**.

³¹⁶ For a detailed discussion of the Malia Workshop, see Poursat 1996, 7–22, 103–110, 149–153.

³¹⁷ Dessenne 1957, 123–127. For a short summary of this paper, see p. 4.

³¹⁸ Poursat 1996, 7.

³¹⁹ Poursat 1996, 7.

³²⁰ Poursat in Poursat – Godart – Olivier 1978, 13.

³²¹ Poursat in Poursat - Godart - Olivier 1978, 26-27; Poursat in Detournay - Poursat - Vandenabeele 1980, 231-

^{232;} Poursat 1992, 9.

³²² Poursat in Poursat – Godart – Olivier 1978, 25.

³²³ Poursat in Poursat – Godart – Olivier 1978, 13.

³²⁴ Poursat 1996, 7.

³²⁵ Poursat 1996, 7, 13 fig. 4; 15, 19 fig. 8.

³²⁶ Poursat 1996, 7.

Raw material in the form of blocks of steatite, smaller pieces of other stones, e.g. schist, breccia, and rock crystal, as well as various tools have been recovered within and in the vicinity of the Workshop.³²⁷ A total of 140 seals have been found in the building and the immediately surrounding area.³²⁸ Most finds are seal fragments discarded after accidental damage during the engraving process. This is clearly attested to by the fact that most pieces have not received a final polishing. The seals represent, as Poursat points out, the production of the Workshop in the period immediately before the MM IIB destruction of the building.³²⁹

77.8 % of the seals recovered are soft stone prisms. This disproportionally large number suggests that the Workshop was either specialising in this type of seal or that, prior to the destruction, it had been working on a special order. In no other Minoan context is such a large preponderance of a single seal form attested.

Steatite engraved in the freehand technique assisted by vertical drilling for the creation of 'cup sinkings' is used for the manufacture of 91.4 % of the seals. Prisms, four-sided prisms, conoids and truncated conoids, as well as hemicylinders are most often made of this material.³³⁰ Other soft materials are only represented by individual pieces, e.g. schist for a button and white paste for a half-ovoid.³³¹ In order to manufacture Petschafte, only medium-hard and hard stones are used whereas two three-sided prisms and a foliate back are cut in harder stones.³³² Medium-hard and hard stone seals are cut by tools operated on the horizontal spindle.

The existence of large amounts of raw steatite, the clear predominance of steatite seals, the lack of large amounts of other raw materials, and most importantly, the fact that steatite seals with similar iconography come from various other locations in Malia³³³ suggest that the Workshop was mainly working with that material. Of great interest is the fact that, with one exception,³³⁴ the few medium-hard and hard stone seals represented lack the stringhole channel³³⁵ and some of them are not engraved at all. This could suggest that while the craftsperson was experimenting, often successfully, with engraving harder stones, he/she

³²⁷ Poursat 1996, 103, 106–109.

³²⁸ CMS II,2 nos. 86–198; CMS II,3 no. 151; Poursat 1996, 104–105 nos. HM 2520–HM 3023.

³²⁹ Poursat 1996, 110.

³³⁰ Four-sided prisms: e.g. CMS II,2 nos. 108 (?), 153, 157, 185; Poursat 1996, 104 nos. HM 2520, HM 2521. Conoids and truncated conoids: e.g. CMS II,2 nos. 96, 97, 127, 142, 166, 173 (CMS II,2 nos. 142 and 166 are fragments of one piece); Poursat 1996, 104 no. HM 2524. Hemicylinders: e.g. CMS II,2 nos. 135, 141, 161 (?). ³³¹ Schist: CMS II,2 no. 149. White paste: CMS II,2 no. 109.

³³² Petschafte: CMS II,2 nos. 128, 129, 130, 136. Three-sided prisms: CMS II,2 nos. 150, 168. Foliate back: CMS II,2 no. 148.

³³³ For the prisms which come from other places in Malia, see pp. 78–85. For other seals, e.g. CMS II,2 nos. 76, 77, 80.

³³⁴ Poursat 1996, 105 HM 2655 bis. A deep crack along the breadth of this seal could perhaps have been caused while working on the stringhole channel.

³³⁵ CMS II,2 nos. 128, 129, 130, 136, 148, 150, 168. See also the medium-hard stone three-sided prism CMS II,2 no. 79 from the town of Malia and the quartz Petschaft CMS III no. 109 which also lack the stringhole channel.

had not yet mastered the art of piercing such materials for the creation of the stringhole channel.

The steatite seals display a varied repertoire of representational and ornamental devices, as well as those constituting hieroglyphic signs executed in a summary fashion.³³⁶ Humans, animals, plants, and various objects stand individually or are combined with each other on the seal face. Repetition and supplementation compounds are common.³³⁷ Descriptive, 'pictographic', and ornamental images as well as hieroglyphic inscriptions are found.³³⁸

The iconography of the harder stones is similar to that of the steatite pieces. A different iconographic tendency is represented by a schist button decorated with centred-circles and short strokes.³³⁹ A 'white piece' which belongs to a clearly defined MM IA–MM IB group does not seem to have been produced at the Workshop.³⁴⁰

THE ROLE OF THE SEAL CUTTER'S WORKSHOP AS A SUPPLIER OF PRISMS IN THE TOWN OF MALIA

The large dimensions of Buildings A and B, the rich finds, the recovery in them of hieroglyphic documents, and their immediate proximity to a series of workshops speak in favour of an official character³⁴¹ and suggest that the workshops were controlled by the authority lodged in them. The large quantity of prisms that came to light at the Seal Cutter's Workshop raises the question of its role as a supplier of prisms for the two buildings and for the town of Malia in general.

21 seals and 34 sealings of different seals have been recovered in the destruction layer of the two buildings; another 10 seals are either surface finds or lack precise provenance.³⁴² 8 of the seals are prisms and 6 steatite seals of other forms which belong stylistically to the same group as the steatite seals found at the Workshop.³⁴³ Three sealings impressed on clay documents can be attributed with certainty to such steatite seals.³⁴⁴ Also the prisms found in Malia outside Quartier Mu belong stylistically to the same group of seals.³⁴⁵

Stylistic considerations suggest that some of the aforementioned seals were manufactured at the MM IIB workshop³⁴⁶ whereas others were the products of other Maliote (?)

³³⁶ For a discussion of the iconography of the prisms which come from the workshop, see pp. 365–369.

³³⁷ For the repetition compounds, see pp. 304–317; supplementation compounds, pp. 317–323.

³³⁸ For the nature of the images encountered on the prisms, see pp. 341–356.

³³⁹ CMS II,2 no. 149.

³⁴⁰ CMS II,2 no. 109. For the dating of the group, see Sbonias 1995, 118.

 ³⁴¹ Poursat in Poursat – Godart – Olivier 1978, 26–27; Poursat in Detournay – Poursat – Vandenabeele 1980, 231–232.
 ³⁴² For the seals, see Detournay – Poursat – Vandenabeele 1980, 157–191; 238, 250. For the sealings, see Detournay

⁻ Poursat - Vandenabeele 1980, 192-229; CMS II,6 nos. 176-209.

³⁴³ Detournay – Poursat – Vandenabeele 1980, 166–167 no. 236, 171–175 nos. 240–243, 176 no. 245. For the group in question, see the section 'Malia/Eastern Crete Steatite Prisms', pp. 63–115.

³⁴⁴ Detournay – Poursat – Vandenabeele 1980, 221 nos. R 31–R 33, 220 figs. 310–312.

³⁴⁵ For the large majority of the prisms from Malia, see the section 'The Malia/Eastern Crete Steatite Prisms', pp. 63–115

³⁴⁶ For a detailed discussion of the prisms which come from places in Malia outside the MM IIB workshop and for

workshops.³⁴⁷ Since the MM IIB workshop building was erected at the start of MM II, it would seem likely that some of the prisms found scattered throughout the town were the products of one or more hands working in a workshop active in this building earlier in MM II.

their relationships to it, see pp. 78-85.

³⁴⁷ **2** for example, belongs to a cluster of prisms whose characteristics are not represented on the seals which come from the Workshop. For this cluster, see pp. 82–84.

Iconography, and to a certain extent material, technique, and characteristics of the shape allow the division of the prisms into various groups which can in certain cases be connected with specific regions of Crete. Often, the prisms of each group are part of a greater assemblage of seals which show similar characteristics. Discussed below are the various groups of prisms: the Malia/Eastern Crete Steatite Prisms, the Prisms with EM III/MM I Influences, the Mesara Chlorite Prisms, the Dawkins Prism, the Phaistos Agrimi Prism, the British Museum Prisms, the Platanos Prism with the Cable Devices, the Kalo Chorio and Psychro Prisms with the Cable Devices, the Platanos Ornamental Prism, and the Central Crete Ornamental Prisms. Seals of other forms which belong with them are also taken into consideration.

MALIA/EASTERN CRETE STEATITE PRISMS

92 % of the existing material belongs to this group, including all but one of the prisms recovered at the Malia Workshop (*fig. 18*).³⁴⁸ The majority of examples are cut in steatite. Occasionally, other soft stones/minerals, such as sepiolite, and medium-hard stones are used.³⁴⁹ Most often, the seal faces are ellipsoidal or compressed ellipsoidal, but round and rectangular faces are also met (*fig. 18*, ellipsoidal/compressed ellipsoidal: *a, b, d, f, h–x*; round/rectangular: *c, e, g*). Many of the ellipsoidal and some of the compressed ellipsoidal and rectangular seal faces are elongated (*fig. 18 l–n, p, w, x*). Grooves around the faces are common.

Most of the devices are engraved freehand. Often, vertical pressure drills are used for the creation of 'cup sinkings' or occasionally, centred-circles (*fig. 18 a, j, u, v*). Deep intaglios with flat board-like interiors and vertical or slanting outline walls which often penetrate the stone deeper than the interiors are common and are often seen as characteristic of the group

³⁴⁸ 1–6, 8–15, 16 (?), 17–20, 22, 24–27, 29, 30, 32, 33–44, 46–55, 58, 59, 61, 63–82, 84–97, 99, 100, 108–111, 113– 120, 122–132, 134–159, 161–215, 218–224, 226–251, 253–257, 260–275, 277–289, 291–301, 304–319, 321–327, 329–332, 333 (?), 334, 335, 338–340, 342–356, 360–363, 365–367, 369–387, 389–394, 396, 397, 400–408, 410– 430, 431–438, 439 (?), 440, 441, 443–449, 450, 451–455, 456–481, 482 (?), 483–502, 504–548, 549 (?), 550–591, 593–595, 597–601, 603, 605, A.1, A.3, A.4, A.6, A.7 (?), A.8, A.9, A.11–A.21. The group coincides partly with Yule's Malia Workshop Complex (Yule 1980 a, 212–213) and Poursat's – Papatsarouha's Style de Malia (Poursat – Papatsarouha 2000, 257–261). Some pieces included in the group are handled by Yule in his Hieroglyphic Deposit Group (Yule 1980 a, 215–219). 160 which comes from the Malia Workshop is categorised with the Prisms with EM III/MM I Influences.

³⁴⁹ Sepiolite: e.g. **523**. Medium-hard stones: e.g. **282**, **577**.



579 c (XI 298 c) a.



118 b (II,2 225 b) e.



154 a (II,2 111 a)





198 b (II,2 174 b)



318 b (III 195 b)



m.



u. **199 c** (II,2 175 c)



5 b (V Suppl. 1A 43 b)

b.



81 c (II,2 214 c) f.



307 c (III 221 c)



577 a (V Suppl. 3 356 a) n.



110 c (II,2 272 c) r.



V. **16 a** (I 426 a)





STYLE GROUPS

c.

k.

0.

498 a (VI 34 a)



269 c (III 177 c)



492 b (VI 52 b)



539 b (IX 18 b)



511 c (VI 32 c) S.



3 b (V 25 b) W.



147 b (II,2 102 b) d.



283 a (III 179 a)

h.



450 b (XII 48 b)



319 a (III 196 a) p.



158 b (II,2 116 b)

t.



x. **30 a** (XI 11 a)

(*fig. 18 d, i, m, o, p, w*). Occasionally, the intaglios are smoothed out by further chafing or are created only by chafing such that they acquire more or less regular U-shaped profiles (*fig. 18 g, n*). Intaglios created by the joint of two slanting cuts met in such a way that a line with a variously wide V-profile is created are also common (*fig. 18 e, k, l*). Frequent are motifs composed of 'cup sinkings' linked by elements created by freehand paring out of the stone (*fig. 18 a, u*).³⁵⁰

The representational element predominates. Humans, animals, parts of humans or animals, fictional creatures, plants, as well as various objects and constructions constitute the representational repertoire (*fig. 18 a–n*). Flowers, leaves, blossoms, and various toothed motifs which resemble branches³⁵¹ are some of the commonest floral devices (*fig. 18 i, o, p*). Lines, blobs, triangles, crosses, stars, whirls, swastikas, and spirals are common ornamental motifs (*fig. 18 m, q–x*).

Representational composites, repetition compounds, supplementation compounds, and border compounds are frequently met (*fig. 18 l, q, s, u*). Among the repetition compounds, especially favoured are radiating or rotating patterns composed of representational or floral devices and patterns composed of parts of representational devices (*fig. 18 s*).³⁵² Motifs which function as signs of the hieroglyphic script are also met (*fig. 18 w, x*).

When centred-circles are met, they are either integrated in representational or ornamental devices which are otherwise cut with the blade³⁵³ or are composed with each other in repetition compounds such as *Cross patterns* and *Rows (fig. 18 j, v)*.³⁵⁴ In this latter case, they are often combined on the seal face with other devices which are cut freehand (*fig. 18 v*).³⁵⁵ Both or at least one of the other sides of the seals on which centred-circles are met are cut freehand and show devices other than ones composed of lines, blobs, and centred-circles.³⁵⁶ On these seals, lines are very rarely created by filing.³⁵⁷

The images can be composed of single devices or, most often, by combinations of more than one device. The devices are combined with each other paratactically or along the lines of rotational or reflection symmetry (*fig. 18 a, c, f, l, m, p, x*). The strategies of flanking and angle/curve-filling are also commonly used (*fig. 18 i*).³⁵⁸ Fillers, and especially lines and triangles are very popular (*fig. 18 d, m, w, x*).

³⁵⁰ See also **579** c.

³⁵¹ For the most common of these motifs, see "Saw branch", 'Fir branch', 'Fern branch', 'Centipede branch'.

³⁵² For further examples of such repetition compounds, see 82 b, 91 c, 182 c, 226 b, 270 a, 361 a, 446 b, 497 c, 505 b, 529 a, 564 c, 567 a, 575 b.

³⁵³ E.g. **92 a**, **288 b**, **307 c**, **468 a**, **569 c**, **586 a**, **586 b**. The arms of the device on **363 c** are cut freehand whereas the 'cup sinkings' are, as the centred-circle, vertically drilled.

³⁵⁴ E.g. 16 a, 333 b, 380 a, 392 b, 572 a. Centred-circles are encountered on the following prisms of the group: 16, 92, 100, 288, 307, 333, 363, 380, 382, 392, 468, 569, 586.

³⁵⁵ See also **392 b**.

³⁵⁶ Two sides of **100** and **333** are engraved in the vertical pressure technique. **586** shows centred-circles on two sides, but these are in both cases combined with elements which are engraved freehand.

³⁵⁷ Only on **333 b**, **333 c**.

³⁵⁸ E.g. **215** c.

Descriptive, 'descriptive with symbol',³⁵⁹ 'pictographic', and ornamental images as well as hieroglyphic inscriptions are encountered (*fig. 18*, descriptive: *a*, *g*, *h*; 'pictographic': *f*, *l*; ornamental: o-v; inscriptions: *w*, *x*). Of these, descriptive images are the most common, making up 55.6 % of the representations whose nature can be identified. Of the remaining, 33.9 % are ornamental images, 6.6 % are 'pictographic' images, and 3.9 % are hieroglyphic inscriptions.³⁶⁰ Among the descriptive images, not only still but also narrative images are met, such as animal attacks or suckling scenes (*fig. 18 h*). 'Pictographic' images and hieroglyphic inscriptions are characteristic of the group and, with one exception, are not met in connection with any other prisms.³⁶¹

THE PRISMS AS CARRIERS OF SCRIPT

In the motifs of the steatite prisms which he does not identify as script Evans sees 'pictographic designs' which reproduce information regarding their owners and further speaks of a linear transgression from such devices to hieroglyphic signs of a fully developed script.³⁶² In the seals which bear hieroglyphic inscriptions, he sees two grades of development, one represented by those of class A whose inscriptions represent an archaic form and one evident on those of class B which show script of a fully developed form. Soft stone seals and predominantly prisms are associated with class A. The inscriptions are simple and, when met on prisms, they often adorn only one seal face, the other sides bearing 'pictographic designs'. With class B are associated hard stone seals. In them, is represented the fully developed script which shows more elaborate images and longer inscriptions. When script is found on three-sided prisms and four-sided prisms, most or all of the seal faces bear inscriptions. 'Pictographic designs' of the type found on the previous class are not met.

More recent research has shown that the inscriptions on soft and hard stone seals constitute part of one system of writing on which archaic and more developed forms cannot be distinguished.³⁶³ The distinction noted by Evans is based on stylistic considerations³⁶⁴ and represents an actual difference in technique, style, and the role played by hieroglyphs on soft and hard stone seals.

By encompassing soft stone seals which show hieroglyphs, Evans's class A includes most inscribed Malia/Eastern Crete Steatite Prisms. Despite the fact that among soft stone seals, prisms of this group are the commonest bearers of inscriptions, only 7 % of them and,

³⁵⁹ E.g. **113 a**.

³⁶⁰ The nature of 13.8 % of the images met on this group cannot be identified.

³⁶¹ The exception is **336 b**. For this image, see p. 125.

³⁶² Evans 1909, 130-144.

³⁶³ For a corpus of the inscriptions of the Cretan hieroglyphic script, see CHIC.

³⁶⁴ Already noted by Sbonias and Karnava (Sbonias 1995, 108; Karnava 2000, 196). Yule followed Evans in the distinction of two forms of the hieroglyphic script (Yule 1980, 169–171).



Fig. 19 Hieroglyphic inscriptions met on Malia/Eastern Crete Steatite Prisms.

as already noted, 3.9 % of their seal faces are inscribed.³⁶⁵ As Evans remarks, inscriptions are most commonly met on elongated seal faces which are suitable for bearing script.³⁶⁶ On most occasions, they are found on one seal face, the others bearing images of different nature.³⁶⁷ Only 17 % of the inscribed prisms show hieroglyphic inscriptions on two seal faces and 7 % on all three seal faces.³⁶⁸

As a rule, the inscriptions consist of two or three signs which are at times combined with fillers, such as lines, spirals, triangles, and perhaps various floral motifs (*fig. 19*).³⁶⁹ The elaboration of the signs which is characteristic of hard stone seals is not present. Of special interest is the prevalence of one sign group,³⁷⁰ i.e. the CHIC signs 044 – 049, and the fact that apart from this, only three further sign combinations are met more than two times (*fig. 19 a*).³⁷¹ The prevailing sign group is most common on those prisms which are

³⁶⁵ The prisms which bear hieroglyphic inscriptions are **3**, **29**, **30**, **32**, **35**, **53**, **69**, **89**, **99**, **108**, **115**, **132**, **148**, **158**, **251**, **279**, **291**, **327**, **353**, **379**, **422**, **434**, **438**, **445**, **457**, **468**, **477**, **483**, **384**, **500**, **518**, **519**, **525**, **552**, **561**, **580**. Also perhaps **75**, **128**, **538**, **543**. The CHIC is followed as the authority by which motif combinations are interpreted as hieroglyphic inscriptions. However, despite their exclusion from the CHIC, the combinations **75 a**, **75 c**, **128 b**, **538 c**, and **543 c** have also been counted as hieroglyphic inscriptions (for these combinations, see also footnote 2088). Also Karnava and Jasink see as hieroglyphic inscriptions more motif combinations than the CHIC. For more on this subject, see footnote 2087.

³⁶⁶ Evans 1909, 134. But not always, e.g. the inscriptions **500 b** and **538 c** (?) which are engraved on short ellipsoidal seal faces.

³⁶⁷ Also in Evans 1909, 134–135.

³⁶⁸ On two seal faces: **35**, **75** (?), **89**, **422**, **434**, **477**, **525**. On three seal faces: **69**, **353**, **457**. **519** is a peculiar case as, according to the CHIC and Jasink, the inscriptions on it are composed from the combination of the hieroglyphs of each two sides (CHIC no. 259; Jasink 2009, 114, 117, 128, 130, 156). Because of this peculiarity and the reservations of the present author regarding the identification of the device **519 a** as the CHIC sign 049, the seal is not included in the number of prisms which show inscriptions on three faces. For the reservations of the author regarding the identification of the device **166**7. See Karnava 2000, 192, for the percentages of hieroglyphic three-sided prisms (both hard and soft stone ones) in which all three sides or less than three sides exhibit hieroglyphic inscriptions.

³⁶⁹ Jasink sees floral motifs as part of the inscription and not as fillers (Jasink 2009, 13–21, 127–128, 138).

³⁷⁰ For the term *sign group*, see Karnava 2000, 195.

³⁷¹ CHIC signs 010 - 038, CHIC signs 057 - 034 - 056, CHIC signs 044 - 005. For this subject, see pp. 345-346,



Fig. 20 Hieroglyphic inscriptions on Malia/Eastern Crete Steatite Prisms which show elements which bring them close to hard stone hieroglyphic seals.

inscribed on one side only and is the only combination met on the prisms recovered at the Malia Workshop.³⁷²

The relatively small number of hieroglyphic inscriptions, the fact that in most cases, each piece bears one inscription, the prevalence of one sign group, the small number of signs combined on the inscriptions, and the lack of elaboration set these prisms apart from the hard stone hieroglyphic seals.³⁷³ A much greater acquaintance with the hieroglyphic script is shown by the significantly larger number of different inscriptions in hard stone seals, the common combination of three or four signs, the elaboration of script signs and fillers, and the fact that multi-faced hard stone seals are for the most part inscribed on all their faces.³⁷⁴

Three prisms stand out among the rest on the strength of the fact that they display somewhat more complex inscriptions on all their three sides (*fig.* 20).³⁷⁵ Typical of this group is the fact that they include combinations of three signs while one inscription is put together of four signs (*fig.* 20 a). The quality of the workmanship of two of these pieces, which are cut on medium-hard stone, is very high (*fig.* 20 b-d). Great care has been taken in the execution of the intaglios which, at first glance, create the impression of

^{355.} For the possible significance of the sign group CHIC signs 044 – 049, see footnote 2091.

 $^{^{372}}$ However, the existence of a different hieroglyphic inscription on side a of the breccia three-sided prism CMS II,2 no. 168 which also comes from the workshop suggests that its hieroglyphic repertoire was not restricted to this combination. Steatite seals with different hieroglyphic inscriptions have been recovered from other places in Malia and the Quartier Mu (e.g. **115 a**; Detournay – Poursat – Vandenabeele 1980, 171–175 nos. 241–243).

³⁷³ For the hieroglyphic seals in general, see Krzyszkowska 2005, 95–98. The term *hieroglyphic seal* refers to 'any seal bearing at least one Hieroglyphic inscription' (Karnava 2000, 161).

³⁷⁴ For some examples of hard stone hieroglyphic seals, see CMS II,2 nos. 256, 316; CMS III no. 229; CMS VI nos. 91, 93; CMS XII nos. 105, 106, 110, 10D. For the possible reasons for the connection of hard stone seals with more elaborated hieroglyphic inscriptions, see Poursat 2000, especially 189, 190; Karnava 2000, 192–194; also this current work, pp. 357–358). For a further comparison of the iconography of the soft stone prisms to that of hard stone seals, see the section 'Images exclusive to soft stone glyptic', pp. 356–358.



b.

Fig. 21 Hieroglyphic four-sided prisms of the Malia/Eastern Crete Steatite Group: a. a piece which belongs stylistically well within the group; b. a piece which is reminiscent of hard stone hieroglyphic seals on account of its elaborate hieroglyphic inscriptions on all sides.

being cut with tools operated in the spindle.³⁷⁶ Moreover, the motifs are characterised by a tendency for elaboration which places them close to hard stone hieroglyphic seals.³⁷⁷ The more complicated inscriptions and the elaboration place these two seals in Evan's class B.

Pieces showing similar tendencies as the hieroglyphic prisms are also found among the inscribed steatite four-sided prisms. Here too, a group of seals with simple hieroglyphic inscriptions on one or two sides, which belong to Evan's class A, can be juxtaposed with another of pieces which show inscriptions on three or four sides (*fig. 21*).³⁷⁸ Most often, the workmanship on these latter seals is of high quality, the images are variously elaborated by the use of supplements or fillers, and the inscriptions are composed of three or more signs.³⁷⁹ Similar traits are also met on some steatite seals of other forms.³⁸⁰ Such soft and mediumhard stone seals combine elements of soft and hard stone engraving and are situated on the

³⁷⁶ For this subject, see footnote 190.

³⁷⁷ For this subject, see footnote 191.

³⁷⁸ Simple hieroglyphic inscriptions on one or two sides: CMS IV no. 128; CMS XII no. 70; CHIC no. 279. Inscriptions on three or four sides: CMS III no. 235; CMS X no. 52; Chapouthier 1946, 81 fig. 3 no. 7; Pelon 1965, 2 fig. 1; also the stepped rectangular plates CMS II,2 nos. 217, 315.

³⁷⁹ But, as is the case also with the prisms, e.g. **69**, not always. See for example the linear execution of the motifs on Chapouthier 1946, 81 fig. 3 no. 7. For supplements, see pp. 163–164, also pp. 317–319; for fillers, pp. 327–330. ³⁸⁰ E.g. the Petschaft CMS III no. 103.

cusp between the soft stone tradition which is represented by the majority of the prisms and the hard stone tradition as this is seen on the hard stone hieroglyphic seals.

The small number of prisms with hieroglyphic inscriptions and the predominance among those which show script of pieces inscribed only on one side suggests that the preference for the use of prisms in MM is not connected with the need to convey information on their three sides by the use of the hieroglyphic script.³⁸¹ This contrasts not only with hard stone three and four-sided hieroglyphic prisms in which inscriptions on all seal faces are common, but also with the multi-faced seals of the 'Archanes Script' Group.³⁸² As a rule, when inscribed, seals of this group bear inscriptions on all seal faces.³⁸³ Only by accepting Evans's idea that the devices which cannot be identified as hieroglyphs also bear some semantic meaning could the predominant function of the prisms of this group be seen as carrying information. However, such a supposition cannot be proven on the present evidence.³⁸⁴

STYLISTIC CONSIDERATIONS

The summary rendering and similar ways in which the devices on the seals of the group are cut are obstacles in the path of any attempt to distinguish traits which could be indicative of a workshop or the idiosyncrasy of a hand. Using the customary techniques, experienced craftspeople would easily duplicate devices from other seals or 'pattern books'³⁸⁵ or even trace them from templates producing seals very similar to pieces not cut at their workshop.

The large number of the prisms recovered at the Malia Workshop as well as the fact that most of them are the contemporaneous production of one workshop offer a unique possibility for assessing the significance of iconography, technique, and material for the recognition of the idiosyncrasies of a workshop or hand. For that reason, this material is discussed separately in the section below. Following this, prisms with secure provenance from Malia which have not been recovered in the Workshop are discussed, before the rest of the material is handled.

³⁸¹ This could be proven wrong if Jasink's opinion is accepted that more devices than those categorised in the CHIC as hieroglyphs are actually signs of the hieroglyphic script (for this subject, see Jasink 2009, 189–195).

³⁸² Hard stone three and four-sided hieroglyphic prisms with inscriptions on all seal faces: e.g. CMS II,2 nos. 256, 296, 316; CMS IV no. 137; CMS VI nos. 91, 94, 101, 103, 104, 105; CMS X no. 312; CMS XI no. 14; CMS XII nos. 106, 109, 110. For the 'Archanes Script' Group, see Sbonias 1995, 107–113. For the possible reasons of the differences in the use of hieroglyphs on hard and soft stone three- and four-sided prisms, see pp. 357–358.

³⁸³ Sbonias 1995, 109. For some examples of such seals, see CMS II,1 nos. 393, 394; CMS VI nos. 13, 14. The only example where not all seal faces are inscribed is CMS II,1 no. 391.

³⁸⁴ For the significance of descriptive and 'pictographic' images, see pp. 349–356.

³⁸⁵ For the possible use of 'pattern books' from the Minoan seal engravers, see also Poursat 1977, 208.

The prisms from the Malia Workshop

The prisms found at the Workshop are dated to MM IIB.³⁸⁶ With the exception of two examples cut in sepiolite or another soft mineral/stone,³⁸⁷ all other pieces are engraved in steatite. The freehand manipulated blade is the most commonly used tool whereas vertical pressure drills are often employed for the creation of 'cup sinkings'. The use of the toothed/ cup drill is not attested.³⁸⁸

Descriptive, 'pictographic', and ornamental images as well as hieroglyphic inscriptions are met.³⁸⁹ No prism with hieroglyphic inscriptions on more than one side is represented.

Thomas's approach

The seals from the Workshop have already been an object of research by Eberhard Thomas.³⁹⁰ This author distinguishes six stylistic tendencies among the recovered pieces which he considers representative of a chronological evolution. Of them, one consists partially of prisms while with three, prisms constitute the greater part. Four prisms are seen as showing Prepalatial influences which they combine to a certain extent with later stylistic and iconographic tendencies.³⁹¹ The majority of remaining pieces are considered representatives of two stylistic tendencies, an older and a younger one, in which the evolution of the 'style' represented on the prisms at its acme can be followed. Finally, one piece is seen as showing the degenerated 'style' of the period in which the prisms met their decline.³⁹²

160, **171**, **185**, and **205** are seen as demonstrating influences from Prepalatial seals which come from the Mesara tholoi.³⁹³ **160**, which in the present study is excluded from the Malia/ Eastern Crete Steatite Prisms, could indeed be partially compared to some Prepalatial seals.³⁹⁴ As Poursat – Papatsarouha point out, the posture of the human figure **160 a** finds parallels in those of the figures on the stamp cylinders CMS II,1 no. 385 a and CMS II,1 no. 310 a.³⁹⁵ More to the point, the plastic curvature of the figure's buttocks and calves and the possible fine fishbone pattern carved in the triangular board-like intaglio of its chest (?)³⁹⁶

³⁸⁶ See pp. 59–60, 74–75, 114–115.

³⁸⁷ **171**, **191**. Despite the fact that it was not recovered there, **523** which is cut on sepiolite can also be attributed with certainty to the Malia worskhop on stylistic criteria. For more on this piece, see p. 77 (the Hasty Cut Style). ³⁸⁸ For this tool, see p. 41.

³⁸⁹ For the nature of the images met on the prisms, see pp. 341–356. For a detailed discussion of the iconography of the prisms which come from the Workshop, see pp. 365–369.

³⁹⁰ Thomas 1989.

³⁹¹ **160**, **171**, **185**, **205**.

³⁹² **163**.

³⁹³ Thomas 1989, 277–279.

³⁹⁴ For this piece, see the section 'Prisms with EM III/MM I Influences', pp. 115–120.

³⁹⁵ Poursat – Papatsarouha 2000, 264. However, compare the pose of the *Man in profile* **160 a** to that of the man **502 a**. The first stamp cylinder is made of hippo ivory and the second of stone.

³⁹⁶ It is not certain that this fishbone pattern does actually exist. It cannot be discerned in the photograph of the

might well be compared to those of the figure on the hippo ivory stamp cylinder CMS II,1 no. 222 a. Similar fishbone patterns are typically employed in order to render the mane of lions and venation of leaves on hippo ivory EM III/early MM IA seals.³⁹⁷ On the other hand, the *S-whirl of Busts of a dog/lion* **160 b** is a characteristic MM II device and does not find parallels on earlier seals. Thus, the piece could perhaps be seen as combining Prepalatial with Protopalatial elements.

Turning to **205**, at first glance, style and iconography set it off from the rest of the Workshop prisms. Its iconography is unique and its exact engraving is created by the combination of two slanting cuts, the 'blanks' which are so characteristic of the Workshop not being represented. These peculiarities, the round seal faces, and the significant depth of the grooves surrounding the engraved faces have led not only Thomas but also Poursat – Papatsarouha to compare the piece to **104** from Platanos and subsequently to the seals of Yule's Platanos Goat Complex.³⁹⁸

However, as opposed to 205, 104 is made of chlorite and not of steatite.³⁹⁹ The depth of the grooves of 205 is markedly smaller than that of the Platanos prism whereas no iconographic parallels which could suggest influence exist between 205 and any of the seals of the Platanos Goat Complex. On the other hand, both iconography and technical execution of the intaglios of 205 a and 205 c are easily comparable to those of 370 c and 213 c respectively, which belong to typical Malia/Eastern Crete Steatite Prisms. For that reason, 205 cannot be seen as showing influences from any of the Mesara seals.

The iconography of **205**, the rounded curves of its intaglios, and their broad V-shaped profiles do not find parallels among the pieces of the Workshop. However, a look at the technical execution of the intaglios of the three sides of **370** suggests that **205** would not be out of place there. Whereas the cross on **370 c** is cut in the same way as that on **205 a**, the face of the animal on **370 b** is configured as a flat board-like intaglio with deeper outline. Thus, it seems that different technical executions can be connected with the depicted device or the mood of the engraver at the time of their execution and need not always be suggestive of different workshops or hands. Moreover, neither the nearly round faces of **205** nor its

impression which is published in the CMS but can perhaps be made out in the photograph of the seal published there. While the author has examined the piece in the Heraklion Museum, attention was not paid to this detail because at the time of the examination, the subject of whether this element existed or not had not arisen. However, the fact that in the notes kept for this seal by the author nothing is mentioned, could suggest that this element does not exist. ³⁹⁷ E.g. CMS II,1 nos. 228, 241, 248 a, 250 b. Such seals belong to Sbonias's Lions/Spiral Group and Leaves/Ivory Group (for these groups, see Sbonias 1995, 89–102; for their dating, see Sbonias 1995, 98–99, 101).

³⁹⁸ Thomas 1989, 278; Poursat – Papatsarouha 2000, 264. For Yule's Platanos Goat Complex, see Yule 1980, 211. For **104**, see pp. 124–125 (the Agrimi/Scorpion Cluster).

³⁹⁹ Thomas considers that both pieces are made of the same black steatite (Thomas 1989, 278). On the other hand, Yule clearly states that the seals of the Platanos Goat Complex "are in dull 'serpentine', dissimilar to the shiny soft stone of the Malia Workshop Complex" (Yule 1980, 211). Modern research by Walter Müller has helped identify this stone as chlorite (the stone is identified as chlorite in the copy of the CMS II,1 kept in the CMS Archive in Marburg).

deep grooves are foreign to the Workshop.⁴⁰⁰ Under this scope and despite the peculiarities of **205**, the piece cannot be excluded with certainty from the production of the Workshop.

The last two prisms in which Thomas sees earlier influences, **171** and **185**, do not seem to differ in any way from the rest of the products of the Workshop. It has been noted above that round seal faces are not unknown there.⁴⁰¹ More to the point, while the iconography of **171** is not paralleled among the seals recovered at the site, stylistic considerations suggest that the piece fits well within the production of the Workshop.⁴⁰² Moreover, the device **171 a** finds good parallels not only on earlier seals as Thomas seems to suggest⁴⁰³ but also on Malia/Eastern Crete Steatite Prisms.⁴⁰⁴ Apart from that, the only exact parallel for the device **171 b** is met on **362 c**, a typical Malia/Eastern Crete Steatite Prism with elongated seal faces. Furthermore, the soft stone used for the piece is also employed in the manufacture of **191** from the Workshop and possibly **523**, which is attributed to it on stylistic and iconographic grounds with certainty. Turning to **185**, its intaglios find very good stylistic and iconographic parallels among the pieces recovered in the Workshop.⁴⁰⁵ For these reasons, earlier influences on these pieces can be ruled out.

Among the rest of the prisms, Thomas makes out three 'styles'.⁴⁰⁶ The first, seen as still close to Prepalatial glyptic, is the 'style' of round and angular forms. The intaglios of the seals of this 'style' combine deep, round, rolling shapes with angular ones to create images composed of one or more devices. The images are either paratactic or show pictures of everyday life. The second 'style' is that of square cut and angular forms and is considered representative of the acme of the Workshop. It is represented by pieces which display angular, square-shaped and often board-like intaglios. Most images have a static character and show single figures whereas when more figures are combined on one seal face, they are arranged paratactically. Third is the 'style' of the schematic and flat relief, which, according to Thomas, represents the degeneration of the Workshop.⁴⁰⁷ This is represented by one piece engraved with shallow lines and showing schematic ornamental devices.

A closer look at Thomas's approach proves it inappropriate for the classification of the Workshop prisms into stylistic groups. More often than not, the pieces categorised as representatives of the two main 'styles' combine both these tendencies on their seal faces. **155** for example, is seen as a representative of the round and angular forms 'style' despite the fact that the technical execution and iconography of **155** c cannot be seen as different from those of **134 b** and **147 a** which are classified by the same author with the square cut

⁴⁰⁰ For examples of prisms with round seal faces from the workshop, see **151** and **204**; for examples with deep grooves, see **174** and **177**.

⁴⁰¹ See footnote 400.

⁴⁰² See p. 77 (the Hasty Cut Style).

⁴⁰³ Thomas 1989, 279.

⁴⁰⁴ **44 b**, **95 c**.

⁴⁰⁵ Compare for example **183**. See also p. 77 (the Hasty Cut Style).

⁴⁰⁶ **177** is not classified with any of his 'styles' because it is seen as iconographically and stylistically unique with reference to the rest of the seals which come from the workshop (Thomas 1989, 282 footnote 32).

⁴⁰⁷ Thomas 1989, 279–284.

and angular forms 'style'. **135** and **143** are also seen as representatives of the first tendency although **135 b**, **143 a**, and **143 b** would fit much better with the second 'style'. And **145** is classified with the second 'style' although **145 b** shows the characteristics of the first.

Thomas mentions that both styles can appear on one seal and sees in this phenomenon the transition from the one tendency to the other.⁴⁰⁸ At the same time, he poses the question whether this could also suggest that more than one hand could have worked on one piece.⁴⁰⁹ However, this view does not take into consideration the fact that *most* prisms show characteristics of both 'styles'. According to the present author, the combination of different stylistic traits on the three seal faces of the prisms from the Workshop shows that larger room for variation should be allowed within the personal style of each craftsperson. While the two tendencies described by Thomas do actually exist, they are not enough to suggest the existence of two different 'styles' corresponding to different hands or different time periods. A 'style' connected to a hand, 'workshop', or time period can only then be defined when constantly recurring traits appear *on all three seal faces* of the relevant prisms, such that these stand out clearly from the rest of the related material.

Thomas's last 'style' is represented by **163**, a piece considered of poor quality and seen as showing the last stage of the stylistic development of the Workshop prisms.⁴¹⁰ The reason for this estimation is that the intaglio is schematic and shallow. However, the author does not take into account the fact that the placement of the motifs on the seal face is correct. The execution of the design is, with the exception of the fact that the line is thinner than usual, comparable to that of many other pieces from the Workshop.⁴¹¹ In the opinion of the present author, the thinner and shallower line is an indication that the engraving is unfinished.⁴¹² Evely notes that the engraving would start from the combination of two slanting cuts creating a thin line. The latter would then be gradually broadened by the execution of new cuts along the length of the old.⁴¹³ In favour of an unfinished intaglio would also speak the fact that **163 b** is engraved with a sketch of an angular C-spiral which seems to represent incipient engraving.⁴¹⁴

Thomas's approach presupposes that the seals found at the Workshop were amassed in its area during a considerable amount of time before the destruction throughout which the style of the Workshop met with its birth, development, and decline. However, against this supposition speaks the small size of the Workshop and the fact that the majority of the recovered seals are rejected pieces. It would seem illogical for the craftsperson to have kept in his/her confined working space more than the most recently rejected pieces until they filled the container where they were discarded. Moreover, stylistic considerations show

⁴⁰⁸ Thomas 1989, 282.

⁴⁰⁹ Thomas 1989, 282 footnote 33.

⁴¹⁰ Thomas 1989, 281.

⁴¹¹ E.g. **171 a**, **210 a**, **253 b**.

⁴¹² The possibility is also mentioned by Thomas (Thomas 1989, 281 footnote 27).

⁴¹³ Evely 1993, 149.

⁴¹⁴ This seal face is not published in the CMS.

that with a few exceptions,⁴¹⁵ the bulk of recovered prisms constitute a stylistically and iconographically homogenous group. For these reasons, it would seem reasonably logical to assume that the majority of pieces were manufactured at the immediate time before the destruction of the building.⁴¹⁶

The stylistic tendencies represented among the prisms of the Workshop

The present study has discerned three different stylistic tendencies among the prisms recovered in the Workshop. Criterion for differentiating between these tendencies is the demonstration of the elements which define each of them on all three sides of one piece. The iconography on pieces of the three styles differs only to a certain extent. The existence among the output of one workshop of iconographically similar but stylistically different intaglios could be taken as an indication of the operation of different hands. Poursat suggests that the confined space of the Workshop⁴¹⁷ would not allow the simultaneous work there of more than one craftsperson.⁴¹⁸ However, it is not thought impossible by the present author that two seated people could work together or even alternately in a space of this size. The third style consists of a few pieces of very poor workmanship which could be attributed to a person not directly connected to the craft and thus not considered a permanent tenant of this space.

Most pieces are representatives of a tendency which can be named the Deep Cut Style (*fig. 22 a–d*).⁴¹⁹ Characteristic are deep cut 'blanks' with flat floors outlined by cuts which penetrate deeper into the stone than the floors creating a typical outline effect.⁴²⁰ Often the joints of the outlines and the floors as well as those between the constituent elements of the motifs remain unconcealed such that a very schematic impression is created.⁴²¹ Other times, in cases of some animal depictions, greater care is taken to smooth out such joints so that softer, rounder, full-bodied intaglios are formed.⁴²² The various components of the intaglio are well bonded such that firm and compact devices are created.

⁴¹⁵ **160**, **205** (?), **256**. For these pieces, see the discussion above.

⁴¹⁶ For this subject, see also Poursat 1981, 160.

⁴¹⁷ 3×3 m.

⁴¹⁸ Poursat 1996, 110.

⁴¹⁹ From the workshop: 134, 135, 136, 137, 138, 140, 141, 142, 143, 144, 145, 146, 147, 148, 150, 151, 153, 154, 155, 156, 158, 161, 162, 164, 165, 166, 169, 170, 172, 174, 175, 176, 177 (?), 178, 179, 182, 186, 187, 188, 189, 190, 191, 192, 193 (?), 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 205 (?), 206, 209, 212, 220, 228, 229, 230, 231, 232, 234, 235, 236, 237 (?), 239, 240 (?), 241, 242, 244, 245, 246 (?), 251, 254, 255, 257. Other forms: CMS II,2 nos. 96, 97, 108, 127, 142, 157, 161, 166, 173, 195; Poursat 1996, 104 nos. HM 2521, 2524. Not from the workshop but produced in it: 120, 238, 322, 323 (?), 354, 356 (?), 496, 501; see also the sections 'Prisms with secure provenance from Malia which were not recovered in the workshop', pp. 78–85, and 'The rest of the material', pp. 85–100.
⁴²⁰ E.g. 142 b, 145 a, 145 c, 154 a, 198 b, 228 a.

⁴²¹ E.g. 155 c.

⁴²² E.g. 143 c, 155 b, 169 a, 177 a, 177 b.



Fig. 22 Examples of Malia Workshop prisms: a.-d. Deep Cut Style; e.-h. Hasty Cut Style; i.-l. Irregular Cut Style.

The intaglio floors are often totally flat but more anomalous ones are also met.⁴²³ The cuts, often executed by a single move, are steady and decisive. 'Cup sinkings' can be cut out in the same way as the rest of the intaglio but most often, they are drilled. They frequently show a slightly triangular outline but perfectly round examples are also met.⁴²⁴ Often they penetrate the stone vertically and have flat bases or, more rarely, they are shallower and have convex profiles.⁴²⁵ Both cutting out and drilling of a 'cup sinking' can be met on a single surface.⁴²⁶ For that reason, the choice of the method cannot be taken as indicative of the operation of one hand.

⁴²³ Flat: e.g. **154 a**, **198 b**, **228 a**, **239 a**. More anomalous: e.g. **190 a**, **190 b**, **196 b**.

⁴²⁴ Triangular outline: e.g. **158 a**, **180**. Round: e.g. **188 b**.

⁴²⁵ Flat bases: e.g. **187 a**, **187 b**. Convex profiles: e.g. **188 b**.

⁴²⁶ e.g. 145 b.

Representational motifs and among them depictions of animals in particular predominate. As a whole, the devices are dexterously executed with an easiness in the manipulation of the tools which indicates great familiarity with the craft.

Shallower intaglios created by the joint of two slanting cuts, less 'blanks', and sparing use of 'cup sinkings' characterise the pieces of the second style; this can be named the Hasty Cut Style (*fig. 22 e–h*).⁴²⁷ The elements of the representational motifs which in the previous cluster were often represented by 'cup sinkings', i.e. head, chest, pelvis of humans, rump of animals, and bodies of vessels, are now gouged out. 'Cup sinkings' are found only in connection with ornamental devices and among those only on one occasion is vertical drilling documented.⁴²⁸ The engraving is quicker, more flowing, and less compact than that of the previous cluster.

Among the pieces cut in this style two clusters can be discerned.⁴²⁹ The engraving in the seals of the first cluster shows a certain familiarity with the craft as opposed to that of the pieces of the second which are engraved with a clumsiness that would befit a beginner's hand (first cluster: *fig. 22 f, g*; second cluster: *fig. 22 e, h*). The cuts in the second cluster are less decisive and created by multiple operations. The intaglios are less regular, show intensive gouging, and uneven 'blanks'. Multiple uncertain cuts create a hasty impression while plenty of correction takes place. Whether the two clusters correspond to two different hands or represent the first and more advanced works of one hand is unclear.

Hieroglyphs are not met on the existing pieces of the Hasty Cut Style. Among the ornamental devices, *S-spirals* are favoured, *Cross pommée* are rare, and *Swastikas* are not represented. Popular is the combination of an animal or bird with a branch or triangle in front of it. '*Beetles*' are common, *Whirls* show no central cup sinking, *Waterfowls* have long bent leg with claw-like toes and no feathers, the *Heads of an agrimi* have no beard, whereas *Dogs/lions* are not met.

Four pieces belong to the Irregular Cut Style which is characterised by intaglios created by irregular, unsteady cuts which occasionally create the vague sketch of a device (*fig. 22* i-l).⁴³⁰ The cuts are thin, shallow, and very rickety whereas 'blanks' are not met. 'Cup sinkings' created by drilling are attested.⁴³¹

The poor quality of the workmanship of the prisms of the Irregular Cut Style points to a totally inexperienced hand. Dessenne names this person 'le gâcheur'⁴³² and Poursat identifies him as an apprentice.⁴³³ Given the small amount of these pieces and the very bad

⁴²⁷ From the workshop: a. 139 (?), 149 (?), 163 (?), 167, 171, 173, 184, 207, 208, 210, 243, 247, 253. Other seals: CMS II,2 nos. 141, 153; Poursat 1996, 104 no. HM 2653 (?). b. 168, 183, 185, 233. Other seals: CMS II,2 nos. 135, 152; Poursat 1996, 104 no. 2520 (?). Not from the workshop but produced in it: a. 451, 523, 546, 556, 588. b. 250.
⁴²⁸ 184 a.

⁴²⁹ See footnote 427: a, b.

⁴³⁰ **152** (?), **157**, **181**, **211**. Other seals: CMS II,2 no. 99. In half of the examples, e.g. **157** and **181 b**, the sketch of a motif can be made out; in the rest, no device is discernible.

⁴³¹ **152 a**.

⁴³² Dessenne 1957, 127.

⁴³³ Poursat 1996, 110.

quality of the intaglios, it is also possible that the four pieces were engraved by a person not actively engaged in the craft.⁴³⁴

204 has deep cut intaglios and vertically penetrating 'cup sinkings' which would speak in favour of its classification with the Deep Cut Style. However, the unfortunate execution of the devices designates the piece as an exercise or an apprenticeship piece. **159** and **180** are probably rejected pieces used for trial drillings.⁴³⁵

The pieces recovered in the Workshop constitute only part of its original production. It is certain that more seals had found their way out of it and were in use before its destruction. The fact that apart from the often repeated motifs, many devices and images are represented among its products only once⁴³⁶ is an indication that its iconographic repertoire would have been wider than the one represented by the finds recovered in its territory.

Some prisms which have not been found at the Workshop have been included among its production.⁴³⁷ These are considered its certain products on account of their iconography and style. Other pieces which show similar stylistic traits to the Workshop prisms but whose iconography does not find direct parallels among them have not been included in its production. For many of these seals, some of which are handled below, the possibility that they were manufactured there cannot be ruled out.

Prisms with secure provenance from Malia which were not recovered in the Workshop

Poursat sees all prisms which come from the Buildings A and B of Quartier Mu as products of the Seal Cutter's Workshop.⁴³⁸ **250** from the vicinity of Building B has been included by the present author among the products of the Workshop on iconographic and stylistic grounds.⁴³⁹ **238** from Building A whose fragmentary preservation does not allow a stylistic evaluation, must have also come from there. This would be suggested by the fact that it is a fragment which is workshop fresh.

222 from Building B and **249** from the Potter's Workshop can also be added to the production of the Seal Cutter's Workshop on stylistic grounds (*fig. 23 a*).⁴⁴⁰ The two pieces build a stylistic and iconographic cluster with three other seals, **278** from 'Lasithi', **367**, and **501**. Common for the cluster is the depiction of a seated *Man in profile* with a hand projected in front touching the *Head of an agrimi* or a *Bovine*, a '*Pole' slung with 'String vessels'* combined or not with a *Man in profile*, as well as a seated *Pig/boar* with slightly protruding belly.⁴⁴¹ The seal faces of these seals are ellipsoidal or most often elongated

⁴³⁴ E.g. a child or an adolescent (the drillings on **152 a** could not have been made by a young child).

⁴³⁵ For these pieces, see also p. 50.

⁴³⁶ E.g. 134 a, 149 a, 158 b, 168 b, 171 a, 171 b, 178 a, 182 c, 187 a, 187 b, 190 a-c, 193 a, 198 a, 206 b.

⁴³⁷ See the section 'Not from the workshop but produced in it' in the footnotes 419, 427.

⁴³⁸ Poursat in Detournay – Poursat – Vandenabeele 1980, 188–189.

⁴³⁹ See the section 'Not from the workshop but produced in it', b., in the footnote 427.

⁴⁴⁰ Poursat also attributes these two seals to the Malia Workshop (Poursat in Detournay – Poursat – Vandenabeele 1980, 189; Poursat 1996, 104–105).

⁴⁴¹ Man in profile with a hand projected in front touching the Head of an agrimi or a Bovine: e.g. 222 b, 501 b; also



Fig. 23 Examples of prisms from places in Malia outside the Workshop which could have been produced there.

ellipsoidal. 'Blanks' with deep outlines and the use of 'cup sinkings' are common whereas the devices often appear somewhat elongated.

Technical execution and certain iconographic features of the prisms of the cluster find close parallels to some prisms of the Deep Cut Style. The standing *Men in profile* **367 b** and **501 a**, the seated *Men in profile* **222 b**, **249 c**, **278 c**, and **501 b**, the *Bovine* **278 c**, the *Swastika* **249 b**, the *Head of an 'ox'* **249 c**, and the '*V*-blossoms' **249 c** find good parallels on similar devices from the Workshop.⁴⁴² On the other hand, the technical execution of the *Heads of an agrimi* **222 b** and **501 b** differs from that of similar motifs of the Deep Cut Style.⁴⁴³ However, in the light of the aforementioned similarities the lack of comparable execution on similar motifs from the Workshop is considered accidental. It has been noted above that similar motifs can be cut in different ways which alone are not indicative of different styles.⁴⁴⁴

Turning to 227 from Building A, the engraved images are more complicated than the bulk of the images represented in the Workshop (*fig. 23 b*). However, they are easily comparable to the more complex images of **187** of the Deep Cut Style. The technical execution of the *Men in profile* **227 a** in particular is easily comparable to that of the figures **187 a** and **187 b**.⁴⁴⁵ Moreover, the thematic of **227 a** is partially comparable to that of **187 a** whereas as on **227 c**, a ladder band *Border* originally enclosed the image **187 c**.⁴⁴⁶ These considerations as

²⁷⁸ c. '*Pole' slung with 'String vessels'* combined or not with a *Man in profile*: e.g. 278 a, 367 b, 501 a. Seated *Pig/ boar* with slightly protruding belly: e.g. 249 a, 501 c.

⁴⁴² Compare the standing *Men in profile* to the figure **198 a** whose upper body is however not created by a cup sinking; compare the seated *Men in profile* to **186 c**, **190 b** (this especially to the composition **278 c**), **203 a**, **220 a**; compare the *Bovine* to **143 c**, **198 c**; compare the *Swastika* to **143 a**, **195 c**; compare the *Head of an 'ox'* to **154 a**, **174 b**; compare the *'V-blossoms*' to **196 a**.

⁴⁴³ E.g. **174 a**, **195 a**, **198 a**. These devices are created by a drilled 'cup sinking' for the head and cutting by a blade for the muzzles and the ears. On the other hand, the *Heads of an agrimi* **222 b** and **501 b** are created only by cutting by a blade.

⁴⁴⁴ For this subject, see pp. 73–75.

⁴⁴⁵ Heads and torsos are represented by drilled 'cup sinkings' and the remaining parts of the body by linear elements. ⁴⁴⁶ No photograph of this side, which is fragmentarily preserved, is published in the CMS.



Fig. 24 Prisms from places in Malia outside the Workshop whose relationship with it is not clear.

well as the fact that the piece comes from the vicinity of the Workshop would support the idea that it constitutes part of its production.

Apart from the scorpion **226 c**, which is comparable to the same but more schematically executed device on the four-sided prism CMS II,2 no. 153 c, the iconography of **226** from Building A does not find good parallels among the pieces which come from the Workshop (*fig. 24 a, b*). On the other hand, its devices are iconographically and stylistically easily comparable to those of **115** from Quartier Γ in Malia (*fig. 24 c, d*). The two pieces are mainly connected by the occurrence of a repetition two-armed whirl composed of floral motifs on one seal face (*fig. 24 a, c*). The centre of both whirls shows similar hatching whereas the thick venation of the *Paisleys* **115 b** brings to mind that of the body of the *Scorpion* **226 c**.

The intaglio of the *Profile head of a 'bull'* **115 a** is rounder than most intaglios which come from the Workshop. However, a similar feature is also found on **177 a** and **177 b** of the Deep Cut Style. Moreover, the flowing curve of the animal's horn finds a good parallel on the curve of the horn of the *Head of a 'goat'* **178 a**. These considerations do not allow the possibility to be ruled out that **226** and **115** constitute products of the Workshop.

The two pieces form a cluster with another three seals which come from Malia. The first two are the signets CMS II,2 no. 77 from Quartier Γ and Detournay – Poursat – Vandenabeele 1980, 171 no. 240 from Quartier Mu which show the same rounded intaglios

as **115 a**.⁴⁴⁷ The third is the four-sided prism Pelon 1965, 2 fig. 1 from Quartier E. The side b of this seal is iconographically and stylistically easily comparable to **226 a** whereas the carefully executed hieroglyphs and the deep and rounded intaglios of the remaining sides are reminiscent of the devices on **115 a**.

The fragmentary preservation of **225** from the vicinity of Building A which could be attributed to the Deep Cut Style could suggest that the piece constitutes one of the rejections of the Workshop. On the other hand, although the iconography of **223** from Building A is not represented in the Workshop group, its bumpy intaglios could suggest affiliation with the Hasty Cut Style (*fig. 24 e*). However, the fact that the piece is substantially abraded would indicate that it was in use at the time of the destruction.

224 from the same building forms a cluster with 1 from Quartier N, **219** from the Malia Palace, **27**, **58**, **81** from 'Artsa', **88** from Palaikastro, **589** from 'Malia', and **590** from the 'neighborhood of Lamnon' (*fig. 24 f-h*). These pieces combine on their seal faces two or more of the following motifs: A standing ruminant – at times with forwards slanting front legs – with another device in front of it, a regardant crouching *Dog/lion*, a *Man in profile* touching a '*Pole' slung with 'String vessels'*, a *Cross pommée* or a *Triskeles pommée with 'Lily flowers' as angle supplements*, a procession of *Men in profile*, and an '*Arrow' b.*⁴⁴⁸ Characteristic are deep 'cup sinkings' and a lot of correction resulting in untidy anomalous 'blanks'. In two cases, hollow 'cup sinkings' are attested whose core is either left undisguised or hidden under linear cuts (*fig. 24 h*).⁴⁴⁹

It is uncertain whether these pieces were manufactured at the Workshop because their iconography and style are not immediately recognisable as belonging there. In any case, it is considered possible that they are the product of one hand or workshop. A free selection is observed in the combination of the motifs, e.g. the standing ruminant is not always combined with the same motif and the *Dog/lion* appears both as a single motif and also combined with other devices. This, as well as similarities in the execution of the intaglios, would speak against the hypothesis that the pieces are the works of more than one craftsperson copying motifs from a seal he/she had in front of him/her. Instead, it would seem more probable that they were created by one person alternately combining devices from their own iconographic repertoire or following the orders of their clients.⁴⁵⁰ The fact that four of these pieces come from Malia and one from the neighbouring Artsa would suggest that the pieces were manufactured at Malia.

⁴⁴⁷ For a discussion of these seals, see footnote 551.

⁴⁴⁸ Standing ruminant with another device in front of it: **1 a**, **27 c**, **58 a**, **81 c**, **88 a** (with no device characteristic of the cluster on the other two sides), **219 a**, **224 a**, **589 c**; for a similar composition, see also **374 a**. Regardant crouching *Dog/lion*: **1 c**, **27 b**, **58 b**, **219 b**, **589 b**, **590 b**. *Man in profile* touching a '*Pole'slung with 'String vessels'*: **1 b**, **81 a**, **219 c**. *Cross pommée* or *Triskeles pommée with 'Lily flowers' as angle supplements*: **58 c**, **590 c**. Procession of *Men in profile*: **27 a**, **589 a**. '*Arrow' b*: **27 c**, **224 c**.

⁴⁴⁹ **58 a**, **58 c**, **219 c**. For a discussion of such 'cup sinkings', see pp. 41–42.

⁴⁵⁰ For the subject of the person responsible for the choice of the depicted devices, see pp. 355–356 and footnote 648.



Fig. 25 Prisms from places in Malia outside the Workshop which were probably not manufactured there.

256 from the Potter's Workshop is considered by Poursat to be a possible exercise coming from the Seal Cutter's Workshop (*fig. 25 a*).⁴⁵¹ However, the fact that the piece is wholly preserved, that it is not workshop fresh, and that it shows well executed motifs would speak against this hypothesis and in favour of the idea that the seal was in use at the time of the destruction of the Workshop.

The aforementioned piece is part of a cluster consisting of prisms which show on one side a plainly rendered quadruped whose parts are created by the combination of two broad, slanting, and not particularly deep cuts.⁴⁵² 'Blanks' are not met whereas 'cup sinkings' appear only in connection with ornamental devices. The depicted animals are most often a *Dog/lion* or an *Agrimi*. The legs are rendered in a simple linear manner and in some cases they are characteristically short. The overall impression is that of a simple, flowing, loose execution. *Triskeles pommée* and *Cross pommée*, *Whirls of 'Beaked' busts*, and *Whirls* are the most common ornamental devices connected with the cluster.

While the technical execution of the pieces is not dissimilar to that of **205** from the Workshop,⁴⁵³ these seals do not find good stylistic parallels among the rest of the material recovered there. Apart from **256** which comes from Malia and **82** which was found in Kavousi, no other piece has a provenance.

2 from Quartier N can be set apart from the products of the Workshop because it does not find any stylistic or iconographic parallels among the prisms recovered there (*fig. 25 b, c*). The piece constitutes part of a cluster of seals which have compact shape and compressed ellipsoidal seal faces which can, at times, appear almost rectangular or square.⁴⁵⁴ Often,

⁴⁵¹ Poursat 1996, 105.

⁴⁵² 82, 111, 401, 404 (?), 459; also 215, which is engraved exclusively with ornamental motifs.

⁴⁵³ Execution and iconography of the *Agrimia* on these pieces are also easily comparable to the chlorite **104 b** from Platanos (for this piece, see p. 124). However, the use of steatite and iconographic considerations (the *Whirls of Beaked' busts*, the *Triskeles Pommée*, the *Cross Pommée*, the *Whirls*, and the *Dogs/lions*) suggest that these prisms belong to the Malia/Eastern Crete Steatite Group.

⁴⁵⁴ 2, 5, 6, 61, 68, 84 (?), 85, 97, 125, 129, 213, 260, 270, 285, 289, 296 (?), 303, 338, 339, 375 (?), 376, 377, 391, 402, 408, 415, 420, 426, 458, 460, 488, 492, 504, 505, 515, 520, 524, 547, 558, 559, 568.
the stringhole channel runs in line with the shorter dimension of the seal faces whereas elongated seal faces and grooves are not met.

One can observe a preference for representational devices whereas the ornamental devices are mainly represented by whirls, swastikas, and repetition compounds composed of representational or floral motifs. Spirals and Z-shaped devices are not met. A variety of repeatedly recurring patterns, some of which are not represented outside the cluster, are characteristic: 'Men with semicircular body', large Amphorae with belly handles or large Vessels without handles, Headless waterfowls, Fish occupying the largest part of the seal face, Heads of an 'ox' with T-shaped horns, combinations of three or four whirls, Spiders with angular legs, Swastikas of "Saw branches", Stars of 'Wheat stalks', devices or compositions put together from "Toothed sickles", whirls of 'Beaked' busts, Heads of a 'dog/lion with hook', fictional creatures, 'II-legs', regardant Waterfowls with long beaks and feathered tails, 'Centipede branches', and Pigs/boars with semicircular body and crossed legs.⁴⁵⁵ Most common is the occurrence of a single device or two devices on one seal face but images which combine more than two devices are also met.⁴⁵⁶ Paratactic combinations as well as combinations of two motifs arranged in 180° rotational symmetry are favoured. Descriptive, ornamental, and perhaps also a few 'pictographic' images are met.⁴⁵⁷ Among the descriptive images, narrative syntheses are extremely rare.⁴⁵⁸ Hieroglyphic inscriptions are absent.459

Compact, often squat devices as well as clear cut, well-defined intaglios of good to very good workmanship are the rule. The distinctively deep intaglios are created by broad decisive cuts and display 'blanks' with flat floors or broad V-profiles. Only little correction takes place and the engraving appears precise and clean. The use of the drill for the creation of 'cup sinkings' is not particularly popular. Details like mouths or muzzles, claws or hoofs, and fur or feathers are executed by broad dynamic cuts. Mouths and muzzles in particular are often elongated and bar-shaped.

With the exception of three pieces, the seals of the cluster which have a provenance have been found at Malia, its neighbouring area, and various locations on the Lasithi Plateau.⁴⁶⁰

⁴⁵⁵ 'Men with semicircular body': e.g. 5 c, 85 a. Amphorae with belly handles/large Vessels without handles: e.g. 2 c,
270 c. Headless waterfowls: e.g. 6 c, 85 a. Fish: e.g. 68 b, 376 b. Heads of an 'ox': e.g. 376 c, 460 a. Combinations of whirls: e.g. 129 a, 420 c. Spiders: e.g. 285 c, 339 a. Swastikas of "Saw branches": e.g. 270 b, 339 b. Stars of 'Wheat stalks': e.g. 391 b, 524 a. Devices or images composed of "Toothed Sickles": e.g. 415 b, 504 a. Whirls of 'Beaked' busts: e.g. 84 c, 408 b. Heads of a 'dog/lion with hook': e.g. 84 b, 289 b. Fictional creatures: e.g. 260 a, 492 b. 'II-legs': e.g. 285 a, 558 b. Regardant Waterfowls: e.g. 338 b, 488 b. 'Centipede branches': e.g. 6 a, 85 a. Pigs/ boars with semicircular body and crossed legs: e.g 338 c, 568 a.

⁴⁵⁶ E.g. 5 b, 5 c, 61 c, 85 b, 125 b, 460 c.

⁴⁵⁷ 'Pictographic' (?): e.g. **125 c**, **504 b**. For the difficulty of differentiating descriptive from 'pictographic' images, see pp. 345, 347–349.

 $^{^{\}rm 458}$ As narrative is understood the image 5 c.

⁴⁵⁹ The "Trowel" (?) **5 c** does not function as a script sign.

⁴⁶⁰ Malia: **2** (Malia); **68, 84, 85, 213, 285, 289, 488** ('Malia'). Neighbouring area of Malia: **61** ('Mochos'); **260** (Smari). Lasithi Plateau: **5, 6** (Agios Charalampos); **129** (Trapeza); **270, 296** ('Lasithi'). Pieces from other regions:

As the majority of examples come from Malia, the prospect that this workshop was located there seems possible.

A.21 from Quartier Δ is well preserved. The piece does not find iconographic parallels among the steatite seals from the Workshop. Stylistically it does not show any elements which align it with or distance it from the products of the Workshop. It could either have been manufactured there or in another workshop utilising similar materials and techniques.

218 from Quartier E can be attributed to the Workshop (*fig. 23 c*). The *Head of a 'ram'* **218 b** is iconographically and stylistically easily comparable to the same motifs on **156 a** and **162 b** from there. Moreover, the *Protomes of a bovine* **218 c** find good stylistic parallels to the foreparts of the *Bovines* **155 b** and **196 a**. The fact that two-armed whirls of animal parts are not unknown at the Workshop⁴⁶¹ proves that the concept is not foreign to it. The lack among the pieces recovered there of two-armed whirls of *Protomes of a bovine* and of the variation of the *Man in profile* **218 c** are further indications that the repertoire of this workshop was larger than that represented on the pieces recovered in its territory.

The state of **126** from Quartier E and **385** from the vicinity of the Palace does not allow their stylistic evaluation. On the other hand, **221** from the Agora is well preserved. It constitutes the only wholly preserved prism which is not workshop fresh but is engraved only on one side (*fig. 25 d*).⁴⁶² The linear rendering of the body of the *S-spiral* as well as the rounded outlines and intaglios of the *Trefoils* which create fuller, less schematic devices distance this piece somewhat from the prisms of the Workshop. However, the lack of engraving on its other sides which could assist further its stylistic evaluation does not allow a verification of the hypothesis that the seal was not created there.

The execution of the *Heads of an agrimi* on **116 b** from Pierres Meulières is easily comparable to that of the similar head on **222 b** which probably comes from the Workshop (*fig. 23 d*).⁴⁶³ Moreover, the slanting sharp cuts of all intaglios are comparable to the cuts of which the *Agrimi* **193 a** which also comes from the Workshop is composed. Thus, it is possible that **116** was manufactured at the Workshop.

116 forms a cluster with 487 from 'Malia' and the sealing CMS II,6 no. 193 from Quartier Mu. A very similar *Spider* with eight legs connects the three pieces. Although the different shape of the seal faces creates a more elongated and squatter version of the same motif, stylistic considerations bring the three pieces together. The slanting and sharp cut creates a somewhat hasty impression. The two body parts are roughly triangular, positioned at some distance to each other, connected by a relatively long straight element, and gouged instead of drilled.

The affinity of the two prisms is also noted in the technical execution of their remaining intaglios. Noteworthy is how the heads of the *Heads of an agrimi* **116 b** and the leaves of the *Quatrefoil* **487 c** are created by the combination of two slanting concave cuts whose

^{492 (&#}x27;neighbourhood of Heraklion'); 125 ('Elounta'); 339 ('Siteia').

⁴⁶¹ E.g. the animal whirls **149 a**, **182 c**.

⁴⁶² The state of **34**, which only has two engraved sides, is puzzling. For more on this subject, see footnote 53.

⁴⁶³ For **222**, see pp. 78–79.



Fig. 26 Cluster of the Full-Figured Bovine.

edges meet such that a narrow cavity which is not flattened to a 'blank' is created between them.

The rest of the material

An assessment of the rest of the material reveals on the one hand the existence of more pieces close to the Malia Workshop prisms; and on the other, the more diverse character of the Malia/Eastern Crete Steatite Prism which is not exclusively connected to the stylistic tendencies represented in the Workshop. Influences from other seal groups, local preferences, idiosyncrasies of a craftsperson or workshop, and progressive tendencies create pieces which differ markedly from the material recovered there.

177 from the Workshop, 424, 433, and 531 are assembled in the Cluster of the Full-Figured Bovine (*fig. 26*).⁴⁶⁴ The pieces are brought together on the basis of the depiction

⁴⁶⁴ **440**, which is cut in breccia, also shows a similar quadruped on one side. However, the animal here is composed of four variously sized 'cup sinkings' connected by linear cuts. This difference in the technique is due to the larger difficulty of engraving the harder stone with a blade. The broad chest can be rendered much more easily by the drilling of a large 'cup sinking' than by freehand engraving. **440 a** is engraved with a *Pair of Circles*, a device atypical for the group and typical of hard stone engraving (for this subject, see p. 109, also pp. 37, 42–43 and footnote 552). While the possibility that **440** was manufactured by the same person as its steatite counterparts cannot be ruled out, it cannot be supported by stylistic considerations.



Fig. 27 Cluster of the Flat 'Blanks'.

on one seal face of a *Bovine* with characteristically full-figured body and four linear legs (*fig. 26 a, c, e, g*). Characteristic of the configuration of the animal is the rounded outline of chest and rump. Especially the latter hangs heavy from the waist of the quadruped. The deep intaglios are formed as 'blanks' with angular or rounded U-profiles.⁴⁶⁵ All but one animal are standing, their hindquarters being situated higher than their chests such that the back legs either terminate higher than the front legs or are markedly longer than these. The animal **433 b** has only two legs which show hooves and are crossed under the body. The other sides of the pieces of the cluster are engraved with various motifs showing 'blanks' with flat floors and hardly discernible or no outlines at all (*fig. 26 b, d, f, h*).⁴⁶⁶ The iconographic but also stylistic similarity of the quadrupeds on these seals as well as the similarities in the execution of the intaglios on their other sides could suggest their engraving by one hand. If that is the case, the pieces would be products of the Malia Workshop where **177** also comes from.

The Cluster of the Flat 'Blanks' consists of pieces showing board-like intaglios which often lack deeper outline walls, precision in the execution, and recurring iconographic themes (*fig. 27*).⁴⁶⁷ A crouching or seated/lying *Dog/lion*, the frontal head of a ruminant, and a *Waterfowl* are the most popular devices. Detailed observation reveals certain stylistic and iconographic similarities of these seals and those of the previous cluster. The *Protomes of a bovine* **352 a** and **373 a** are stylistically and iconographically easily comparable to the foreparts of the *Bovines* **424 b** and **531 a** (*figs. 26 c, e; 27 a*).⁴⁶⁸ The soft, rounded intaglio on **352 a** is easily comparable to that of the animals **177 a**, **424 b**, and **531 a** (*figs. 26 a, c, e; 27 a*). The uplifted hindquarters of the *Pig/boar* **441 b** are reminiscent of the rump

⁴⁶⁵ Angular U-profiles: **424 b**, **433 b**. Rounded U-profiles: **177 a**, **531 a**.

⁴⁶⁶ E.g. the *Unidentifiable quadruped* **177** b, the *Profile head of a 'bull'* **424** a, the *Waterfowl* **424** c, the *Head of a 'ram'* **433** a, and the *Jug* **531** c.

⁴⁶⁷ 72 (?), 326 (Lasithi), 352 (Malia), 373, 393 (?), 435, 441, 450 (?), 465, 475, 483, 506, 532, 539, 555, 548, 584 (Malia), 595. Compare the execution of the heads of the *Protomes of a bovine* 393 c to the execution of the heads of the *Dogs/lions* 497 c. Also, compare the intaglios of 393 c and 497 c to the intaglios of 394 c. For 394, see pp. 95–96 (the Cluster of the Progressive Tendencies).

⁴⁶⁸ Compare the plump bodies, the short linear legs, and the overall body posture of these figures.



Fig. 29 Cluster of the Clear Cut Hieroglyphs.

of the full-figured *Bovines* whereas its pose and the configuration of its hooves find a good parallel on the animal **433 b** (*figs. 26 a, c, e, g; 27 c*). The technical execution of the waterfowl **465 c** is comparable to that of the bird **424 c**⁴⁶⁹ and the shape of the face of the animals **465 a**, **475 a**, and **532 a** is easily comparable to that of the animal **433 a** (*figs. 26 d*, *f; 27 b*, *d*). The upper body of the human figure **72 a** is rendered in a similar way to the body of the quadruped **177 b** and the configuration of the animal head under the figure's legs can be compared to that of the small *Unidentifiable motif IX* **177 a**. These considerations could suggest a connection of at least some of the pieces of the cluster with the Malia Workshop despite the fact that seals with similar iconography do not come from there.⁴⁷⁰

11, 37, 600, A.15, and A.20 from 'Malia', constitute the Cluster of the Uncomplicated Images (*fig. 28*). The pieces are engraved with simple images mostly composed of one or two devices. Their intaglios show drilled 'cup sinkings' and are either formed as 'blanks' or have V-profiles. Typical motifs are a *Whirl*, a *Swastika*, the frontal head of a ruminant, and a '*Pole' slung with 'String vessels'* with a horizontal *Bar* above it. These pieces are loosely connected and the lack of a feature particularly characteristic to them does not allow their attribution to one hand.

⁴⁶⁹ Compare especially the way in which the heads and the tails of the animals are rendered.

⁴⁷⁰ However, compare the *Heads of an agrimi* 450 a to those on 174 a, 195 a, 199 a of the Deep Cut Style.



Fig. 30 Cluster of the Man with the Swollen Knees.

3 from Mochlos, **89** from Palaikastro, and **525** make up the Cluster of the Clear Cut Hieroglyphs (*fig. 29*). The pieces, which are engraved to a high standard, show hieroglyphic inscriptions on one or two sides.⁴⁷¹ 'Blanks' with flat floors and no outlines as well as well-defined clear cuts are characteristic. Two pieces show the same and the third a similar inscription on one side (*fig. 29 a–c*). The other sides of these prisms are engraved with various skilfully executed motifs (*fig. 29 a–c*). The very high quality and the similar iconography of **3** and **89** could suggest that they constitute the products of the same 'workshop', if not hand.⁴⁷² The seals are not stylistically dissimilar to prisms of the Deep Cut Style from the Workshop although pieces with such clear intaglios are not represented there.

86, **452**, and **573** are brought together in the Cluster of the Man with the Swollen Knees (*fig. 30*). **86 a** and **573 b** show a standing *Man in profile* of similar dimensions with broad triangular torso and tall legs with bulging knees (*fig. 30 a, b*). The heads are cut and not drilled, the open mouth is rendered by a thin cut for each lip, the torso is configured as a flat 'blank' without deeper outlines, and the arms issue from the upper side of the torso to reach the height of the knees broadening characteristically downwards. **452 c** shows a similar figure of smaller dimensions which does not have swollen knees (*fig. 30 c*). However, head, lips, arms, torso, and legs of the man are similarly executed as those of the previous figures.⁴⁷³ **452** and **573** are also comparable by the similarity in the execution of the quadrupeds on their other sides. Both *Agrimia* **452 a** and **573 a** have a broad flat chest, a small upwards lifted rump, a long tub-shaped muzzle, similarly configured back and front legs, as well as triangular hooves. The similarity in the execution of the human figures on the three pieces and the stylistic similarities of the animals **452 a** and **573 a** which are shown in different poses suggest that the three seals were cut by the same hand or 'workshop'. The pieces

⁴⁷¹ 3 b, 89 a, 89 b, 525 a, 525 b.

⁴⁷² **525** could also be attributed to the same 'workshop' although its iconography differs from that of the other two seals.

 $^{^{473}}$ Also compare the three figures to that on 15 b.



Fig. 31 Cluster of the Motionless Figures (b.-d. adapted from Yule 1980 b, pls. II, III).



Fig. 32 Cluster of the Hasty Slanting Cut.

are not stylistically and iconographically⁴⁷⁴ dissimilar to the prisms of the Malia Workshop although no particular elements can support their attribution to it.

Eight pieces are brought together in the Cluster of the Motionless Figures (*fig. 31*).⁴⁷⁵ Characteristic of these pieces are stiff and motionless devices as well as rectangular seal faces. Most devices are schematically rendered by straight cuts but the existence of nicely curved elements betrays a familiarity with the craft.⁴⁷⁶ A smaller cluster shows very similar iconography, characteristic of which are a standing *Man in profile* with chevron-shaped arms, a *Lizard*, and a "*Ladder band*" slung with 'String vessels' (fig. 31 a–c).⁴⁷⁷ The peculiar iconography of some pieces,⁴⁷⁸ which is on some occasions not paralleled outside the group,⁴⁷⁹ the rectangular seal faces, and the idiosyncratic stiffness of the devices can create the impression that these seals are not Minoan. However, the fact that the authenticity of

⁴⁷⁴ Running S-spirals with 'Papyrus flowers' as curve supplements for example are encountered on prisms from the Malia Workshop, e.g. compare **168** c to **86** c (fig. 30 d).

⁴⁷⁵ **14**, **36**, **46**, **405**, **421**, **432**, **480**, **541**.

⁴⁷⁶ E.g. the tentacles of the 'Squid' a **14 c**; the tail of the *Dog/lion* **36 b**.

⁴⁷⁷ **14**, **46**, **421**, **432**, **541**.

⁴⁷⁸ **36**, **46**, **405**, **421**, **432**, **541**.

⁴⁷⁹ E.g. the variation of the "Ladder band" slung with 'String vessels '46 c and 421 a and the Lizard 46 a and 432 b.







Fig. 34 Cluster of the Bulky Quadruped.

others cannot be disputed⁴⁸⁰ does not support this suggestion.⁴⁸¹ It would seem likely that at least the pieces of the iconographic sub-cluster are the products of one hand. The three pieces which have a provenance are said to come from eastern Crete.⁴⁸²

The Cluster of the Hasty Slanting Cut is assembled from pieces whose intaglios often have V-profiles created by hasty slanting cuts (*fig. 32*).⁴⁸³ The cluster can be subdivided in pieces showing a preference for the depiction of a crouching *Dog/lion* and a "*Horn bar*" *slung with 'String vessels* and in those on which two or three *Jugs* with long pointed beaks arranged in 180° rotational symmetry are combined in an image (*fig. 32 a, b, d*).⁴⁸⁴ It is possible that the pieces of each sub-cluster were created by one hand. Whereas the technical execution of these seals is not dissimilar to that met on seals of the Hasty Cut Style, drilled 'cup sinkings' are here widely used (*fig. 32 a, b*).⁴⁸⁵ The *Heads of an agrimi* **70**

⁴⁸⁰ **14**, **480**.

⁴⁸¹ The only piece which could be seen as more suspicious is **405**. The depiction on **405 b** of a ship with a flag (?) or a sail (?) makes the image look awkward as the depiction of a flag on a Minoan artefact would be an anachronism. While sails with inner cross hatching are common on ships of the talismanic style (such as those on CMS VI no. 467; CMS VIII no.106; CMS X no. 100; CMS XIII no. 14), in these cases the sail extends on both sides of the mast. ⁴⁸² **36** ('Epano Zakros'), **46** ('eastern Crete'), **480** ('Mirampelo').

⁴⁸³ **65**, **70**, **118** (?), **263**, **324**, **334**, **562**.

⁴⁸⁴ Pieces showing a preference for the depiction of a crouching *Dog/lion* and a "*Horn bar*" *slung with* '*String vessels*': **65**, **70**, **118** (?), **562**. Pieces combining in an image two or three *Jugs* with long pointed beaks: **263**, **324**, **334**. ⁴⁸⁵ The information on the provenance of the pieces does not allow the localisation of the cluster: **65** ('neighbourhood







c.

499 b (VI 31 b)



499 a (VI 31 a) d.

Fig. 36 Cluster of the Crouching 'Sheep'.

c are on the one hand stylistically similar to the same motifs of this style, but on the other, lack the pointed edges on the two sides of the forehead which are characteristic of similar devices on seals of the Hasty Cut Style (figs. 22 g; 32 c).

472 from 'central Crete' and 491 from 'eastern Crete' are brought together in the Cluster of the Plain Quadruped (fig. 33). The pieces show plainly rendered quadrupeds on one and two sides respectively.⁴⁸⁶ The animals have full, plump, and somewhat elongated bodies as well as squat proportions. The intaglios are either board-like 'blanks' or more often have V- or U-profiles and a bumpy interior. Also perhaps related to the cluster is 431 which has, however, very deep and regular intaglios.487 The cluster is not very homogeneous as the remaining sides of the pieces do not show common elements. Iconographically, the guadrupeds are close to the guadrupeds of the prisms clustered around 256.488

of Malia'), 118 ('Krasi'), 263 ('Lasithi'), 324 ('Mesara').

⁴⁸⁶ **472 b**, **491 b**, **491 c**.

⁴⁸⁷ Compare the quadrupeds on the seals of the cluster to the plainly rendered *Dog/lion* **431 b**. Compare to a certain extent the intaglios of 431 to the intaglios of 482. For 482, see pp. 94–95 (the Prism with the T-Shaped Head of an 'Ox'). ⁴⁸⁸ For this cluster, see p. 82.

33, **39**, and **124** from 'Malia', constitute the Cluster of the Bulky Quadruped (*fig. 34*). The seals show on one or two seal faces quadrupeds with voluminous bodies rendered by two broad 'cup sinkings', one for the chest and one for the rump.⁴⁸⁹ A 'cup sinking' also sits on the edge of their muzzle. Less full-bodied but still comparable to these animals is the *Dog/lion* on CMS XII no. 3D a which shows the same pose as the quadrupeds **33 c** and **39 a** and 'cup sinkings' on the edges of its, in this case open, mouth. While the iconography on the other sides of the pieces varies, characteristic is a preference for the frequent use of 'cup sinkings' as elements of the motifs and as fillers as well as the presence of unconcealed tool marks in the intaglios.⁴⁹⁰ The similarities between the seals of the cluster could suggest that they are the products of one hand or 'workshop'.

48 from 'Moni Odigitria', **67** and **346**, both from 'Malia', and **365** are brought together in the Cluster of the Dynamic Cut (*fig. 35*). The intaglios of these pieces have V-profiles created by long decisive cuts. Deep drilled 'cup sinkings' are widely used whereas board-like intaglios are missing. A *Man in profile* with open mouth composed of 'cup sinkings' linked by straight cuts, *Daggers* with long blades, as well as long and dense spikes issuing from the motifs are typical for the cluster.⁴⁹¹ The pieces are iconographically and stylistically so close that their engraving by one hand is considered very possible.⁴⁹²

372 and **499** constitute the Cluster of the Crouching 'Sheep' (*fig. 36*). The iconography and technical execution of the two pieces are very similar. The intaglios have V-shaped profiles created by the combination of two slanting cuts.⁴⁹³ Drilling is used for the creation of the 'cup sinkings' whereas 'blanks' are not met. Both pieces show a crouching 'Sheep' on one seal face and a procession of two *Men in profile* on another.⁴⁹⁴ The two seals are so similar that their attribution to one hand would seem possible.

349 from 'Choumeri', **351** from 'Kasteli', **386**, and **414** constitute the Cluster of the Squat Figures (*fig. 37*).⁴⁹⁵ The seals have a similar form and iconography and show certain similar stylistic traits. They have compressed round or ellipsoidal seal faces which appear squarish. A standing or seated *Man in profile*, a crouching *Agrimi* or *Dog/lion*, and *Amphorae* with belly handles or *Jugs* are the commonest motifs.⁴⁹⁶ Each seal face bears one or at the most two devices. The intaglios are deep and configured as 'blanks' with flat floors whereas

⁴⁸⁹ **39** a, **124** c, **33** b, **33** c.

⁴⁹⁰ 'Cup sinkings' as elements of the motifs: e.g. **33 b**, **39 a**, **39 c**, **124 a**; CMS XII nos. 3D b, 3D c. 'Cup sinkings' as fillers: e.g. **33 b**, **124 b**. For tool marks on the intaglios, e.g. **33 c**, **124 b**, **124 c**.

⁴⁹¹ Man in profile: **48 b**, **346 b**. Daggers: **48 a**, **67 b**, **346 c**, **365 c**. Devices with spikes: **48 a**, **67 a**, **365 a**.

⁴⁹² For a comparison of **48 a** and **67 a**, see also Poursat – Papatsarouha 2000, 267.

⁴⁹³ The execution of the motifs of **499** can be better seen on the photographs of the seals than on their impressions published on the CMS.

⁴⁹⁴ 'Sheep': **372 a**, **499 b**. Men in profile: **372 b**, **499 a**.

⁴⁹⁵ For the relation of this cluster to the Cluster of the Muscular Men, see p. 94.

⁴⁹⁶ **349** and **386** show the same devices on all three sides. The deep intaglios and the configuration of the *Amphorae* bring to mind the cluster assembled around **2** from Malia. However, the iconography of the Cluster of the Muscular Men which is related in some way to the Cluster of the Squat Figures does not allow the classification of the latter with the cluster assembled around **2**.



386 a (VIII 100 a) a.

389 b (XI 122 b)

а



b.



386 b (VIII 100 b) c.

Fig. 37 Cluster of the Squat Figures.



513 b (VI 46 b) b.



130 b (II,2 245 t c.

Fig. 38 Cluster of the Muscular Men.



351 b (IV 13D b) d.



283 a (III 179 a) d.

'cup sinkings' are not used. However, some stylistic differences are noted among pieces of the cluster. Whereas the human figures **349 a** and **386 a** are squat proportioned and have a broad triangular-shaped upper body, their outlines differ significantly (*fig. 37 a, b*). **349 a** has stick-like legs whereas the legs of **386 a** are bent at the knees and the buttocks and chins are slightly bulged out. The upper body of **386 a** has slightly bulging sides, such that a more rounded but also bulky torso is created. The quadrupeds **349 b** and **386 b** represent a more delicate and a more robust version of the same animal, although their grain-shaped rumps are very similar (*fig. 37 c*). Stylistically, easily comparable to **386 b** is **351 b** (*fig. 37 d*). The pieces of the cluster are not so close that they could be attributed to one hand.

Six prisms are brought together in the Cluster of the Muscular Men (*fig. 38*).⁴⁹⁷ The seals are connected by depictions of humans with voluminous legs as well as those of full-bodied and relatively full-figured quadrupeds.⁴⁹⁸ Buttocks, calves, and occasionally thighs of the human figures are bulged out in an attempt to create more naturalistic images. Among the depictions, a more schematic and a more expressive tendency can be distinguished. The legs of the figures of the first tendency are less voluminous and the upper part of their body

⁴⁹⁷ **130** ('Kato Metochi'), **283**, **389**, **498** ('Kasteli Pediados'), **513** ('Milatos'), **564**. Also belonging to the cluster is the four-sided prism CMS VI no. 25 ('Malia').

⁴⁹⁸ Humans: **130 b**, **283 a**, **389 b**, **513 b**, **564 a**. **498** is included to the cluster because of the iconographic and stylistic similarity of the *Man in profile* **498 c** to that on **389 a**. Quadrupeds: **130 c**, **283 b**, **389 c**, **513 c**, **564 b**.



Fig. 39 Cluster of the Head of an Agrimi with Forward Directed Muzzle.

is triangular (*fig. 38 c*).⁴⁹⁹ The figures of the second tendency are more filled out as they have legs with expressive curves and bodies with slightly bulging outlines (*fig. 38 a*).⁵⁰⁰ The fact that the two tendencies are met on the two seal faces of one prism⁵⁰¹ shows that such differences cannot be associated with the operation of different hands. It would seem possible that at least some of the pieces of the cluster are the products of one hand.⁵⁰²

A comparison between the figure **386 a** of the Cluster of the Squat Figures and those on **283 b** and **564 a** of the Cluster of the Muscular Men could suggest that the two clusters are connected in a way.⁵⁰³ The figures on the three prisms are squat proportioned, show more or less bulging outlines, and have an open mouth created by the combination of deep, broad cuts. The pieces of the two clusters which have a provenance come from the broader area around Malia.⁵⁰⁴

The form, iconography, and technical execution of **335** and **407** bring them together in the Cluster of the Head of an Agrimi with Forward Directed Muzzle (*fig. 39*). The two pieces are gable-shaped, have compressed ellipsoidal or rectangular seal faces and do not show grooves. Both are engraved with the *Head of an agrimi* and a *Swastika* on two seal faces. The execution of the *Heads of an agrimi* is characteristic. Unlike other examples, the muzzle and the horns are placed more to the front and closer to each other, such that the head stands on its underside and not at the lower edge of the muzzle. No 'cup sinkings' are used in the engraving whereas the seal faces bear either single devices or a main device and a filler. It is possible that the two pieces were manufactured by the same hand.

Because of its idiosyncratic iconography and style, **482** is classified by itself as the Prism with the T-Shaped Head of an 'Ox' (*fig. 40*). The simplistic configuration of its devices is unique among the prisms of the group. The *Head of an 'ox'* **482 a** is better described as

⁴⁹⁹ E.g. **130 b**, **389 a**.

⁵⁰⁰ E.g. **283 b**, **389 b**.

⁵⁰¹ **389 a, 389 b**.

⁵⁰² E.g. 283, 389, 498.

⁵⁰³ Manufactured by the same 'workshop' or hand? For the Cluster of the Squat Figures, see pp. 92–93.

⁵⁰⁴ Cluster of the Muscular Men: **130** ('Kato Metochi'), **498** ('Kasteli Pediados'), **513** ('Milatos'); CMS VI no. 25 ('Malia'). Cluster of the Squat Figures: **349** ('Choumeri'), **351** ('Kasteli').







Fig. 41 Cluster of the Progressive Tendencies.

a T-shaped motif whereas the quadrupeds **482 b** are composed of two curved lines with a slight bulge on their upper part denoting the head and two lines rendering the legs. The circular configuration of the *Wedges* **482 c** is comparable to the similar composition of the *Wedges* **431 b**.⁵⁰⁵ The deep, thick linear intaglios are very summarily rendered. Devices, technical execution, and compositions of the piece find very good parallels on the engraving of the disc CMS V no. 28.⁵⁰⁶ The two pieces could possibly be attributed to one hand.

55, 269, and 394 constitute the Cluster of the Progressive Tendencies. The motifs of 394 are more dexterously executed and the images are more complicated than those of the bulk of the prisms (*fig. 41 a*). The outlines of the *Agrimia* 394 a are nicely curved and the 'blanks' are softened such that more naturalistic depictions are created. Fine cuts are used for the horns and the beard of the quadrupeds adding to the creation of graceful devices. On 394 c, great care is taken in rendering all parts of the *Protomes of a horned ruminant*. The symmetrical composition of eight animal heads on 394 b creates an ornamental image that differs from the rest of the images met on prisms which do not combine so many devices.

Turning to **269**, the execution of the quadruped **269** c is unique (*fig. 41 c*). The animal is the only immediately recognisable example of a *Bull* on prisms, a motif popular in LM glyptic.⁵⁰⁷ The plastic rendering of the body differs from other intaglios in that care

⁵⁰⁵ The deep intaglios of this piece are perhaps comparable to a certain extent to those of **482**.

⁵⁰⁶ **482 b** is perhaps also comparable to CMS II,1 no. 491 (?).

⁵⁰⁷ E.g. CMS II,6 nos. 38, 43; CMS II,7 no. 41; CMS VI no. 181.

has been taken not only to smooth out the 'blanks' but to plastically model their surface such that the actual configuration of the body and thus the volume of the muscles can be discerned.⁵⁰⁸ The pose of the *Agrimi* **269 a** is unprecedented among the prisms and could constitute an attempt to depict an animal lying on the ground as it is seen from top view (*fig.* 41 b).⁵⁰⁹ The interiors of the animal bodies on **269 a** and **269 b** are dexterously smoothed out such that more rounded and soft intaglios are created.

The devices of **394** and **269** escape the schematic character which is typical of most devices in the group and show a desire for elaboration and greater proximity to natural forms. The two pieces could be the products of one very dexterous hand. This would be suggested by the very similar flute-shaped intaglios of the animal bodies on **269 a**, **269 b**, **394 a**, and **394 c**. Also, certain iconographic similarities between the devices of the two pieces cannot be attributed to chance. The *Agrimia* **269 a** and **394 a** have similarly bent front legs, rounded rumps, and similarly rendered hooves with dew claws. Comparable are the drop-shaped ears of the *Agrimi* **269 a** with those of the *Heads of an 'ox'* **394 b**. Also the configuration of the former animal's head is very similar to that of the *Heads of an agrimi* **394 b**.⁵¹⁰

Turning to **55**, its iconography partly anticipates LM tendencies (*fig. 41 d*). **55 a** is engraved with the earliest example of a Minoan dragon, a motif mainly met in the LM period.⁵¹¹ Moreover, the use of 'cup sinkings' for rendering the eyes and nostrils of the *Head of a 'ram*'**55 b** does not find parallels in MM glyptic but is common on LM iconography.⁵¹² The intaglios of the motifs in question are very smooth and rounded lacking deeper outlines, a feature which suggests care and dexterity in their execution.

493 and **549** are assembled in the Cluster of the Triangular Scorpion (*fig. 42*). The two pieces show a very similar *Scorpion* with triangular body and small square head on one seal face (*fig. 42 a, c*). **493 c** is engraved with a composition of triangular *Leaves* and **549 b** shows a leaf-shaped device with triangular body (*fig. 42 b, d*).⁵¹³ Both the leaves and the leaf-shaped device have fishbone venation. The iconographic similarities between the two prisms could suggest cutting by one hand. However, it is also possible that the one piece is a copy of the other or that the similarities between the *Scorpions* are due to the existence

⁵⁰⁸ Similarly rendered is the animal on the signet CMS II,2 no. 77.

⁵⁰⁹ For a somewhat similar contorted pose on another seal of the Malia/Eastern Crete Steatite Group, see CMS VI no. 25 c. For the possibility of an attempt to depict an animal lying on the ground as it is seen from top view, see pp. 298, 301.

⁵¹⁰ The way the *Protomes of a bovine* **393 c** and the bodies of the *Dogs/lions* **497 c** are executed brings to mind the bodies of the *Protomes of a horned ruminant* **394 c**. The rumps and back legs of the quadrupeds **497 c** are similar to those of the animals **269 a**, **269 b**, and **394 a**. Particularly interesting is the fact that the joint between lower and upper back leg of the animals **497 c** is configured in the same way as that of the animals **269 a** and **269 b**. Of great interest is also the fact that the intaglios on the other two sides of **497** and **393** show schematic motifs and board-like interiors. For **393**, see also p. 87 (the Cluster of the Flat 'Blanks').

⁵¹¹ For this motif, see 'Minoan dragon'. For 'cup sinkings' as lips, see also the Dog/lion CMS XII no. 3D a.

⁵¹² E.g. CMS II,3 nos. 225, 338; CMS II,4 no. 157; CMS XII no. 162 a.

⁵¹³ For this latter, see Unidentifiable device XXXV.



Fig. 43 Cluster of the Man and the Ruminant.

of 'pattern books' distributed among the various workshops. This is because while **493** is a typical representative of the Malia/Eastern Crete Steatite Prisms, the cross hatching on the *Scorpion's* body **549 a** and on the larger *Paisley* **549 c** is atypical for the group. On the other hand, it brings to mind the configuration of the manes of some lions of Sbonias's Lions/Spiral Group and the internal hatching of paisleys on certain hippo ivory seals.⁵¹⁴ For that reason, it is possible that **549** would belong better with the Prisms with EM III/MM I Influences.⁵¹⁵

113, **286**, and **560** constitute the Cluster of the Man and the Ruminant (*fig. 43*). The pieces have compressed ellipsoidal or rectangular seal faces and no grooves. The repertoire is clearly representational. Most often occurring motifs are standing *Men in profile*, *Agrimia*, *Headless ruminants*, and heads of a ruminant. All but one image⁵¹⁶ are outlined by a *Border* on the inner side of which are firmly attached the feet of the figures. The quadrupeds have four stick-like legs whereas the knees of the humans are rendered by protuberances. Drilled flat based 'cup sinkings' are used for the creation of heads, muzzles, hands, and the foreparts and rumps of the animals.

⁵¹⁶ **113 c**.

⁵¹⁴ Lions: e.g. CMS II,1 no. 224 a. *Paisleys*: e.g. CMS II,1 no. 282. For Sbonias's Lions/Spiral Group, see Sbonias 1995, 89–99.

⁵¹⁵ Stylistically similar to **549** are also CMS X no. 211 and Kanta 1999, pl. LXXXIV MO 579 right.

The iconography of the cluster shows elements which connect it to the Malia/Eastern Crete Steatite Prisms but also some which are most common in the glyptic of central Crete. The '*Pole' slung with 'String vessels'* **113 c** is a device almost exclusive to the Malia/Eastern Crete Steatite Group.⁵¹⁷ The animal echelons **286 b** and **560 c** (?)⁵¹⁸ find a good iconographic parallel to the image **269 c** whereas the '*Figure-of-eight shield'* **113 a** is comparable to the same motifs on **13 a** and **490 c** (*fig. 43 b*). The small *Headless dogs/lions* **113 b** are reminiscent of the suckling *Headless ruminants* **294 a** and **425 b**. The image **425 b** is further connected to that on **113 b** by the feature of the quadrupeds stepping on the inner side of the border. Also iconography and composition of **425 c** are easily comparable to the image **286 a**.

The contorted seated/lying pose of the ruminants **113 b** and **560 b** finds one parallel among the poses of the animals met on the remaining Malia/Eastern Crete Steatite Prisms (*fig. 43 c*).⁵¹⁹ The pose is commoner on bone/hippo ivory seals from the Mesara, although there it is connected with lions and not ruminants.⁵²⁰ The 'cup sinkings' in which the arms of two figures terminate⁵²¹ find parallels with those of the figures on the reel Chatzi Vallianou 1987, pl. 192 e from Sopata Kouse⁵²² but also with those of the figure **428 a** of a Malia/Eastern Crete Steatite Prism (*figs. 43 d, 72 a*). The scene of the mating *Agrimia* **113 a** is unique among the Malia/Eastern Crete Steatite Prisms (*fig. 43 a*). The only known such mating scene from an early period is that on the hippo ivory conoid CMS II,1 no. 369 from Siva. Finally, the *Dagger* crossing the waist of the figure **560 a** is paralleled in the dagger of the figure on the convex side of the bone hemicylinder Oxford, Ashm. Mus., 1938.790 which comes from 'near Knossos',⁵²³ a piece rejected by Kenna as a forgery, rehabilitated by Gill, and rejected once more by Hughes Brock (*fig. 43 d*).⁵²⁴

Iconography, style, and form support the attribution of these prisms to one hand. Despite the fact that most of their images find iconographic parallels on Malia/Eastern Crete Steatite Prisms certain influences from the bone/hippo ivory glyptic of central Crete are evident. For that reason, the possibility that the pieces were manufactured in central Crete cannot be ruled out. Interestingly, **113** comes from 'Kamilari (?)'; on the other hand though, **286** is reported to come from 'Lasithi'.

Some seal faces engraved with devices composed of centred-circles show iconographic elements reminiscent of the glyptic of central Crete (*fig. 44*).⁵²⁵ The substitution of the scrolls

⁵¹⁷ For an example of the device encountered on a stamp cylinder from the Mesara, see CMS II,1 no. 300 b.

⁵¹⁸ If an animal echelon is actually depicted here. For this subject, see footnote 2115. For animal echelons on prisms, see p. 351.

⁵¹⁹ **517 b**. Also compare to a certain extent the pose to the pose of the Agrimi **269 a**.

⁵²⁰ E.g. CMS II,1 nos. 249, (250 a), 252 a, 295 b.

⁵²¹ 286 c, 560 a.

⁵²² For this seal, see pp. 137–138.

⁵²³ Evans 1921, 196 footnote 4.

⁵²⁴ Kenna 1960, 154; Gill 1967, 114-118; Hughes Brock 1989, 83-84.

⁵²⁵ 16 a, 288 b, 333 b, 333 c, 380 a, 382 c, 392 b, 569 c, 572 a. The pieces to which these seal faces belong are classified as Malia/Eastern Crete Steatite Prisms because iconography and cutting technique of their other faces are



Fig. 44 Malia/Eastern Crete Steatite Prisms with centred-circles whose compositions show influences from the glyptic of central Crete.

of spirals by centred-circles, such as this seen on **288 b** and **569 c**, is mostly associated with the MM chlorite seals of central Crete (*fig. 44 a*).⁵²⁶ However, the resulting compositions in the chlorite seals differ considerably from those met on the Malia/Eastern Crete Steatite Prisms.⁵²⁷ Repetition compounds composed of centred-circles are common on the Central Crete Ornamental Prisms.⁵²⁸ However, on the latter, only filed lines or vertically drilled 'cup sinkings' are combined with the centred-circles in one image. On the other hand, the elements combined with repetition compounds of centred-circles on the Malia/Eastern Crete Steatite Prisms are as a rule cut freehand (*fig. 44 b, c*). The exception to this is **333**, whose cutting technique and iconography suggest greater influence from the glyptic of central Crete (*fig. 44 d*). Centred-circles, cup-sinkings, and lines on **333 b** and **333 c** are engraved with the vertical pressure technique whereas the *Disc grid* **333 c** is a device characteristic of seals of the Central Crete Ornamental Group.⁵²⁹

353 from 'Pinakiano' and **457** constitute the Cluster of the Medium-Hard Hieroglyphic Prisms (*fig. 20 b–d*).⁵³⁰ The pieces, cut in medium-hard stones and showing hieroglyphic inscriptions on all their sides, stand out among the rest of the prisms on account of their more complex inscriptions, more elaborate iconography, and very good workmanship.⁵³¹ The intaglios are deep and have very regular U-profiles, such that it impossible to say with certainty whether they were created freehand or they were deepened with freehand

typical for this group. Compare for example 92 c to 450 b; 288 c to 70 c; 307 b to 436 c; 392 a to 145 a.

⁵²⁶ E.g. CMS VI no. 114; CMS II,5 nos. 188, 189. For a discussion of some of the chlorite seals of central Crete, see the section 'Mesara Chlorite Prisms', pp. 120–134; for chlorite seals with centred-circles, see especially p. 131. ⁵²⁷ On the chlorite seals for example, the patterns are often formed by motifs which do not coalesce into a unit. For some examples of such patterns, see footnote 526.

⁵²⁸ Compare for example **16 a** to **290 c**, **320 c**, **A.10 b**; **333 b** to **359 b**, **359 c**, **409 a**; **392 b** to **21 a**, **409 b**. For the Central Crete Ornamental Prisms, see pp. 148–159.

⁵²⁹ E.g. CMS II,2 no. 5 b; CMS II,5 nos. 12–14.

⁵³⁰ These prisms belong to Yule's Hieroglyphic Deposit Group (for the group, see Yule 1980 a, 215–219).

⁵³¹ For these pieces, see also pp. 37, 68–70.



Fig. 45 Examples of indiosyncratic engraving on Malia/Eastern Crete Steatite Prisms.

abrasive action after being cut with tools operated on the spindle.⁵³² The iconography, style, and material of the two pieces, which must have been cut at the same 'workshop', brings them close to hard stone hieroglyphic seals.⁵³³ Also belonging to the cluster is the pseudo-jasper stepped rectangular plate CMS II,2 no. 217 from 'Gouves' which is engraved with hieroglyphs on all sides.

Some pieces do not find iconographic or stylistic parallels among other seals of the group. One of them is **75** whose devices on two sides could represent hieroglyphic signs or attempts to imitate hieroglyphs (*fig. 45 a*).⁵³⁴ Another piece is **422** whose peculiar execution of the hieroglyphic signs on **422 a** and **422 b** raises doubts regarding its authenticity.⁵³⁵ Peculiar is the iconography and execution of the *Quatrefoil* **461 c**, the *Man in profile* and the *Agrimi* **602 a** and **602 b** respectively, the *Head of an agrimi* and the "*Bulb branch*" **605 b** and **605 c** respectively, and the overall synthesis on **A.16 c** (*fig. 45 c, d*). However, the existence on the other sides of these pieces of devices which are not foreign to the MM repertoire and style would seem to problematise any judgment of them as modern.⁵³⁶ Finally, neither the iconography nor the style of any of the seal faces of **439**, **593**, **A.11**, and **A.13** find good MM parallels (*fig. 45 b*). Nonetheless, the mediocre workmanship of these seals as well as the lack on some seal faces of clearly recognisable devices would speak against the hypothesis that they are forgeries.⁵³⁷

⁵³² For this subject, see pp. 37, also footnotes 189–191.

⁵³³ For this subject, see pp. 37, 68–70.

⁵³⁴ For the possibility of reading some devices as imitations of hieroglyphs, see pp. 355.

⁵³⁵ The execution of the intaglios on this piece could suggest that the stone is harder than steatite.

⁵³⁶ Compare for example the *Head of a 'ram'* 605 **a** to that on 19 **c** and perhaps 312 **b**; the composition 602 **c** to those on 265 **c** and 534 **a**; the '*Spider' a* 461 **b** to those on 414 **a** and 580 **b**; and the *Dog/lion* A.16 **a** to the same device on CMS II,2 no. 161.

⁵³⁷ E.g. the bad preservation of the image **593 c**. Also the unclear images **439 b**, **A.13 b**, **13 c**, **A.11 a–c**. Before reproving a seal as a forgery one should consider whether the labour for its manufacture would be worth its selling value. A modern three-sided prism would be engraved on all seal faces with devices of at least relatively good workmanship if it were to reach a price which would be worth the expense of its manufacture.

130 a (II,2 245 a) 130 b (II,2 245 b) 130 c (II,2 245 c) 564 a (IX 25 a) a. b. C. d. 564 b (IX 25 b) 564 c (IX 25 c) 535 a (VI 81 a) 535 c (VI 81 c) f. e. h g.

Fig. 46 Malia/Eastern Crete Steatite Prisms with similar iconography on two or three sides.



Fig. 47 Two stylistically different Malia/Eastern Crete Steatite Prisms with similar iconography on two sides.

ICONOGRAPHIC CONSIDERATIONS

Some pieces have similar iconography without being stylistically related. **91**, **130**, **535**, and **564**, for example, show on one seal face a *Cross of Amphorae* or a *Cross of Spiders (fig. 46)*. One of the other sides of each piece bears a procession of *Men in profile* or a regardant crouching *Dog/lion*. Two of these pieces are engraved with these three images on their three sides (*fig. 46 a–f*).

Particularly striking is the similarity of the images of **87** and **90** which show on one side two fish/dolphins arranged in 180° rotational symmetry and on the other a *Ship* with a branch in front of it (*fig. 47*).

550 and **551** have a very similar form, are made of similar material, and display similar iconography (*fig. 48*). Their material is light olive green steatite, their seal faces are round or almost round and they are not surrounded by grooves. Two of their seal faces show







Fig. 49 Examples of stylistically different Malia/Eastern Crete Steatite Prisms which show an obliquely placed *Agrimi* on one seal face.

similar but not identical compositions. A *Whirl* enclosed in a *Border* with teeth on the outer side and a *Coil spiral* on **550 a** and **550 b** are comparable to a *Whirl* enclosed in a ladder band *Border* and a *Paisley* on **551 b** and **551 c**. The execution of the devices is different in that the intaglios of **551** are created by clear decisive cuts and show flat floors while with those of **550** multiple cuts and a considerable amount of correction are evident.

A larger cluster consists of pieces which show on one side an *Agrimi* placed obliquely on the seal face such that the underside of its chest and belly are placed opposite one of the 'corners' of the seal face (*fig. 49*).⁵³⁸ The animal is not always the only motif in the image as is shown by **347 a** where the *Agrimi* is combined with a seated *Man in profile*. Often two 'cup sinkings' flank the neck of the *Agrimi* or the *Back part of an arrow* penetrates its backside.⁵³⁹ In two cases, none of these motifs appears; instead, the animal stands alone or is surrounded by a *Border*.⁵⁴⁰ On the other seal faces, various devices are met but perhaps a preference for the depiction of a *Whirl*, two crouching *Dogs/lions* arranged in 180° rotational symmetry, and regardant *Bovines* with suckling kids can be noted.⁵⁴¹ The

⁵³⁸ **63**, **110**, **301**, **347**, **396**, **423**, **425**, **454**, **486**, **527**.

^{539 &#}x27;Cup sinkings': e.g. 63 c, 301 a, 396 a, 527 a. Back part of an arrow: e.g. 110 a, 347 a.

⁵⁴⁰ Standing alone: **486 c**. Surrounded by a *Border*: **425 c**.

⁵⁴¹ Whirl: e.g. 110 c, 486 b. Crouching Dogs/lions: e.g. 301 c, 347 b. Regardant Bovines with suckling kids: e.g. 347



Fig. 50 Prisms combining on two or three sides the hieroglyphic inscription CHIC signs 044 – 049, a *Pig/boar*, and/or a *Swastika* flanked by *Hatched Ds*.



Fig. 51 Prisms with images composed of many devices.

iconography on the other sides of many of these pieces is comparable to that of prisms

which come from the Malia Workshop.⁵⁴² Noteworthy is the combination of the hieroglyphic inscription CHIC signs 044 – 049⁵⁴³ on one side of some pieces with a *Pig/boar* and/or a *Swastika* flanked by two *Hatched Ds* on one or two of the remaining seal faces (*fig. 50*).⁵⁴⁴

c, 425 b.

⁵⁴² Compare for example 110 c to 169 c; 301 b to 186 c, 191 c; 347 a to 190 b; 396 b to 203 a; 423 b to 190 c; 454 b to 146 a, 147 c; 486 a to 144 b.

⁵⁴³ "Trowel" and 'Arrow'b.

⁵⁴⁴ E.g. **99**, **108**, **158**, **561**. These pieces are not stylistically dissimilar.

On some prisms, a preference is shown for images composed of many figures such that as much as possible of the available space is covered (*fig. 51*).⁵⁴⁵ Whereas the iconography of these pieces is not homogeneous, a preference for the depiction of vessels and '*Poles'* slung with 'String vessels', both devices very often combined with human figures, is immediately discernible. On many of these pieces, the use of drilled 'cup sinkings' is particularly favoured.

The use of templates, the copying of a device from one seal to another, the existence of 'pattern books', chance, or some symbolic significance in the combination of certain devices or images could perhaps explain some of the iconographic similarities discussed above.⁵⁴⁶

SEALS OF OTHER FORMS THAT BELONG TO THE SAME GROUP

A variety of seals of other forms show similar iconographic and stylistic traits as the Malia/ Eastern Crete Steatite Prisms and build with them the Malia/Eastern Crete Steatite Group (*fig. 52*). Within this group, prisms represent 82 % and seals of other forms 18 % of the examples. Like the prisms, most of the other seals are cut in steatite, individual examples manufactured from other soft materials, such as other soft stones, bone, hippo ivory, and white paste, or from medium-hard stones constituting exceptions. All the pieces have flat seal faces and are cut in the same ways as the prisms of the group.

Among the other forms, most commonly met is the conoid, truncated or not, with Δ -, T-, or II- perforation (*fig. 52 a–c*).⁵⁴⁷ The majority of conoids have decorated backs, mostly torsionally fluted but sometimes also ladder-incised, whereas examples with plain backsides are also met.⁵⁴⁸ Four-sided prisms, rectangular plates, and signets are also popular (*fig. 52 d–i*).⁵⁴⁹ Amongst the latter, Petschafte, i.e. signets with 'distinctly articulated

⁵⁴⁵ **66**, **166**, **187**, **227**, **261**, **273**, **355**, **366**, **490**, **502**, **579**, **581**.

⁵⁴⁶ Since the subject of the combinations of the devices on the seal faces of a prism is not part of this study only a small number of pieces which show similar iconography on two or three sides have been presented. An exhaustive discussion of this subject would require systematic organisation and analysis of the iconographic data which appear on the three seal faces of a prism, a task which falls beyond the scope of this study. For the objectives of the present study, see pp. 1–2.

⁵⁴⁷ Unless otherwise stated the designation of the seal shapes follows Yule 1980 a, 24–117.

⁵⁴⁸ Torsionally fluted: CMS II,1 nos. 414 (Malia, Quartier E), 417 ('Malia'), 418 (Malia, Chrysolakkos), 489; CMS II,2 nos. 96 (Malia, Workshop), 97 (Malia, Workshop), 142 (Malia, Workshop), 166 (Malia, Workshop), 173 (Malia, Workshop); CMS III nos. 40, 44 ('Malia'); CMS IV no. 9 ('Malia'); CMS VI no. 21; CMS VIII nos. 9, 10, 11, 12, 17; Bonner 1954, 142 no. 17; Poursat 1996, 104 no. HM 2524 (Malia, Workshop); Max Bernheimer 2007, 16 no. B-7 (?). Ladder-incised: CMS II,1 no. 409 ('Malia'); CMS XII nos. 56, 57; Chapouthier 1946, 80 fig. 2 a ('Malia'). Plain backside: CMS I no. 424; CMS II,1 nos. 410 ('Malia'), 483 ('Pseira'), 500; CMS II,2 no. 127 (Malia, Workshop); CMS III nos. 41 ('Knossos'), 42 ('Lasithi'), 45; CMS VI nos. 18, 20; CMS IX no. 6; CMS XII no. 21.

 ⁵⁴⁹ Four-sided prisms: CMS II,2 nos. 108 (Malia, Workshop), 153 (Malia, Workshop), 157 (Malia, Workshop), 185 (Malia, Workshop), 229 ('Malia, Kefala'), 313; CMS III nos. 235 ('Malia'), 239, 240 ('Malia'); CMS IV no. 128 ('Malia'); CMS IX no. 17; CMS X no. 52; CMS XII nos. 67, 70, 87; CMS XIII no. 46; Pelon 1965, 2 fig. 1 (Malia, Quartier E); Chapouthier 1946, 81 fig. 3 no. 7 ('Malia'); CHIC no. 279; Poursat 1996, 104 nos. HM 2520 (Malia,



a.

d.

g.

j.

m.







II,2 108

e.

b.



III 235



c.

f.

i.



II,2 76

h.





III 103



II,2 80

I 420









Fig. 52 Other Malia/Eastern Crete Steatite Seals.

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midsection',⁵⁵⁰ are markedly fewer.⁵⁵¹ Hemicylinders, half-conoids, hemispheroids, all with plain or decorated backs, as well as discs are found more sporadically (*fig. 52 j–m*).⁵⁵²

⁵⁵⁰ Yule 1980 a, 85 no. 31 i–l Petschafte.

⁵⁵² Hemicylinders, plain back: CMS II,2 nos. 80 (Malia, Quartier Δ, House β), 141 (Malia, Workshop). Hemicylinders, decorated back: CMS II,2 nos. 135 (Malia, Workshop), 161 (Malia, Workshop), 239 ('Malia'); CMS IV nos. 129 ('Malia'); Detournay – Poursat – Vandenabeele 1980, 166–167 no. 236 (Malia, Quartier M). Hemicylinders, configuration of the back unknown: CMS II,2 no. 112 (Malia, Workshop). The broad torsion flutes which decorate the back of the steatite CMS V Suppl. 3 no. 24 and its device which is composed of circles distance the piece from the group. Devices composed of circles are not represented on soft stone prisms but are characteristic of MM hard stone seals (for this subject and for some examples of such devices on hard stone seals, see p. 109; the only prism which shows a device composed of circles is **440** [**440** a] which is cut in breccia). The device CMS V Suppl. 3 no. 24 differs from those cut in medium-hard and hard stone seals in that it is engraved freehand. It seems possible that

Workshop), HM 2521 (Malia, Workshop); Wiencke 1969, 34 no. 2; Yule 1980 b, 101 no. 17; CHIC no. 282 (Myrtos Pyrgos). Rectangular plates: CMS II,2 no. 240 (?) ('Malia'); CMS III nos. 63 ('Malia'), 64, 243 ('Malia'); CMS V Suppl. 1B nos. 333 (Mochlos, Square to the east of House C. 1), 337 (Palaikastro, Building 4); CMS VI no. 25 ('Malia'); CMS XI no. 231 (?) (with one convex face). Also the rectangular plates with stepped sides CMS II,2 nos. 217 (pseudo-jasper [Walter Müller, pers. comm.], 'Gouves Pediados, Asprougas'), 315. The convex seal face of CMS XI no. 231 could speak against its classification with the group. On the other hand, the motif CMS XI no. 231 b is easily comparable to the motif on the seal face CMS XII no. 3D c which belongs to a steatite gable of the group. Two observations problematise the inclusion of CMS II,2 no. 240 within the group, namely the linear rendering of the scorpion CMS II,2 no. 240 b and the fact that the motif CMS II,2 no. 240 a finds no good stylistic parallels among the prisms.

⁵⁵¹ Signets: CMS II,2 nos. 76 (Malia, Palace), 77 (Malia, Quartier Γ); CMS III no. 37; CMS IV no. 61 ('Malia'); CMS V Suppl. 3 no. 20 (Malia, Quartier N); CMS X no. 211 (in CMS X described as a button; for a photograph of the body of the seal, see the CMS Database); CMS XII nos. 80, 90; CMS XIII no. 2; Detournay - Poursat - Vandenabeele 1980, 171-174 nos. 240-243, 176 no. 245 (all from Malia, Quartier M). Petschafte: CMS II.2 no. 333; CMS III nos. 59, 103, 112; CMS VI no. 136; CMS V Suppl. 3 no. 23 (Malia, Quartier N). The signets CMS II,2 no. 77 and Detournay - Poursat - Vandenabeele 1980, 171 no. 240 stand out because of their large size as well as the ample and more plastically rendered bodies of the engraved figures. The size does not distance the two seals from the group since the similarly-shaped signet CMS II,2 no. 76, which clearly belongs to it, has similar dimensions. The technical execution of the intaglios of the two pieces finds some comparanda among the prisms. The plastic rendering of the body of the animal CMS II,2 no. 77 is comparable to that of the Bull 269 c. Whereas the intaglio of the former device is flatter, the bodies of both quadrupeds are created in a way which goes beyond the common practice of simply smoothing out the 'blanks'. The musculature of the animals is moulded within the intaglio such that more naturalistic motifs are created. The rendering of the animal on CMS II,2 no. 77 becomes even more expressive through the addition of slightly curving lines which represent the folds in the animal's skin. The body of the human figure Detournay - Poursat - Vandenabeele 1980, 171 no. 240 is configured as a flat 'blank', but the curves of the outline as well as the rounder intaglio of the head create a more naturalistic impression than usual. The intaglio of the head in particular, is comparable to the deep rounded intaglio of the Profile head of a 'bull' 115 a. More to the point, the way in which the eye is rendered on the motifs of CMS II,2 no. 77 and Detournay - Poursat - Vandenabeele 1980, 171 no. 240 finds a parallel in the eye of the Profile head of a 'bull' 115 a. Both CMS II,2 no. 77 and 115 come from Quartier Γ in Malia and could well be contemporaneous. The relationship of the signet CMS XII no. 73 to the group is uncertain. The Pig/boar CMS XII no. 73 finds good iconographic parallels among the same animals on the prisms, but the placement of a *Line comb* above it does not. The rounder intaglio is very probably connected with the greater hardness of the stone (serpentine [?]) which would require more chafing than steatite. The piece is not included in the group on account of its large dimensions (seal face diam. 2,8 cm) and its unusual material. However, a relationship with it cannot be ruled out.

Planoconvex seals, gables with three engraved sides, and foliate backs are rarer (*fig.* 52 n, o).⁵⁵³ Individual examples of a scarab, a scaraboid, a seal in the shape of a frog (?), a seal in the shape of intertwined animal foreparts, a cube, a pyramidoid, a wedge, a triangular plate, and an ellipsoidal plate are also represented.⁵⁵⁴ Finally, two reels seem somewhat close to the prisms of the group, but also show elements which do not allow them to be definitively classified with the former.⁵⁵⁵

the piece was initially covered by gold sheet, as is the case with the similar-shaped CMS III no. 100. Half-conoids, plain back: CMS III no. 54 ('Mirampelo'). Half-conoids, decorated back: CMS II,2 no. 318; CMS VIII no. 8. Half-conoids, configuration of the back unknown: Christie's 1989, 26 no. 31. Hemispheroids, plain back: CMS II,1 no. 415 (Malia, Quartier E). Hemispheroids, decorated back: CMS III no. 79 (whitish paste, 'Malia'); CMS VII no. 210; CMS XII no. 85. Despite the unusual material of CMS III no. 79, iconography, cutting technique, and provenance support its classification with the group. Its motif, a *Star pommée*, finds good parallels with the devices **271 c** and CMS II,1 no. 415. Worth noting is that CMS II,1 no. 271, a chlorite signet which shows a similar motif, albeit one with no central cup sinking, is not associated with the group. In this case, material and provenance of the seal (Mesara) place it in the glyptic tradition of south-central Crete. Discs: CMS I no. 420; CMS III no. 114 ('Knossos'), 115 (?) ('Malia'); CMS V nos. 27 (?) (Vasiliki), 28; CMS VI no. 158 (?). The devices of CMS III no. 115, CMS V no. 27, and CMS VI no. 158 find only some iconographic parallels among the prisms (the device on CMS III no. 115 a is a *Centipede*, that on CMS V no. 27 is a *Crab* [?], that on CMS VI no. 158 a is a '*Frog*' [?]).

⁵⁵³ Planoconvex seals: CMS II,1 no. 487 (with stringhole channel vertical to the back of the seal, 'Elounta'); CMS II,2 no. 32 (without stringhole channel, Knossos, Palace [?]); Poursat 1996, 104 HM 2653 (Malia, Workshop); HMS 2405 with three engraved sides (Malia, Zouria [unpublished, courtesy of the Heraklion Museum. I wish to thank Nota Dimopoulou Rethemiotaki and Athanasia Kanta for the permission to include the piece in my study]). Perhaps also CMS I no. 28? The term *planoconvex seal* is borrowed from the designation of the seal forms in the CMS Database. Gables with three engraved sides: CMS II,2 no. 312; CMS XII no. 3D; Demargne 1939, 122 fig. 1 ('Malia'). Foliate backs: CMS III no. 96; CMS VI no. 150; Detournay - Poursat - Vandenabeele 1980, 180 no. 251 (?) (Malia, Quartier M). Detournay - Poursat - Vandenabeele 1980, 180 no. 251 is not made of steatite but of a whitish soft stone (according to its publication, limestone [Detournay - Poursat - Vandenabeele 1980, 180]). The intaglio is shallower, rounder, and softer than the typical intaglios of the Malia/Eastern Crete Steatite Prisms, a difference which could be attributed to the different texture of the stone. The animal finds a distant parallel among the prisms on the Octopus 422 c. However, this motif is engraved on a prism whose originality can be disputed (for this subject, see p. 100). The rendering of the eyes of the creature can be compared to that of the eyes of the masks 420 b and 584 b. The small *Saltire* under the animal, connected by Poursat to the CHIC sign X, could be taken as a further indication of the proximity of the piece to the group. A similar association of a small Saltire with a representational device is found on 461 a. The curved line to the right of the animal functions as a filler, a feature which is typical of the compositions on the prisms. These iconographic observations in combination with the fact that the piece comes from Quartier Mu suggest some proximity to the group.

⁵⁵⁴ CMS III no. 26; CMS VI no. 151 (?); CMS V Suppl. 1A no. 40 (Agios Charalampos, Ossuary Cave); CMS IV no. 26D ('Siteia'); CMS III no. 62 ('Malia'); CMS VII no. 32; CMS II,2 no. 152 (Malia, Workshop); Chapouthier 1946, 80 fig. 2 b ('Malia'); CMS II,2 no. 99 (Malia, Workshop).

⁵⁵⁵ CMS III no. 119; CMS VI no. 122 (?) ('Siteia' [town], not steatite). CMS III no. 119 combines a device which is often seen on prisms with an iconographic element not met there. The quatrefoil CMS III no. 119 a is created by the juxtaposition of two twayblades arranged with regard to reflection symmetry. Twayblades are not met on prisms but are frequent on EM III/MM I seals (e.g. CMS II,1 nos. 379, 385 a, 387; CMS IV nos. 27 a, 103 b, 107, 112; Chatzi Vallianou 1987, pl. 192 b). On the other hand, the image of a *Whirl* surrounded by a ladder band *Border* on CMS III no. 119 b is common on prisms (compare for example **169 c**, **551 b**; for a similar executed *Whirl*, see **550 a**). This, as well as the fact that ladder band *Borders* are typical of the Malia Eastern/Crete Steatite Group could suggest a relation of the piece to the latter. CMS VI no. 122 is engraved freehand on a soft stone which could, according to

Seals Close to the Malia/Eastern Crete Steatite Group but Engraved with Tools Mounted on the Horizontal Spindle

Of particular interest is the fact that some of the devices and images met on seals of this group are very rare or not encountered at all on hard stone MM seals.⁵⁵⁶ This is the case for example with the '*Poles'slung with 'String vessels'*, the '*Man with semicircular body'*, and the 'pictographic' images. However, some MM medium-hard or hard stone seals with flat seal faces cut with tools operated on the spindle show very similar iconography to the seals of the Malia/Eastern Crete Steatite Group (*fig. 53*). These probably constitute attempts of the engravers of the group to carve harder materials employing the horizontal spindle.

Breccia, pseudo-jasper, rock crystal, agate, banded cornelian, and fluorite are employed for the manufacture of these seals. Three-sided prisms and truncated conoids with torsionally fluted back and Δ -perforation are most frequently represented.⁵⁵⁷ A planoconvex seal, a seal in the shape of intertwined animal foreparts, and a duck-shaped seal also show similar iconography.⁵⁵⁸

CMS VI, be of Cycladic origin. Its iconography is, to a certain extent, reminiscent of that of the Malia/Eastern Crete Steatite Prisms (compare the device on side b to the type Head of a 'ram'). Its intaglios are very deep and rounded such that no outline walls are discerned. Peculiar is the adjustment of the head of the animal on CMS VI no. 122 b to the round seal face in such a way that the horns and the upper part of the head form a tight curve. Boardman refers to a small group of Bronze Age seals cut on a Cycladic soft stone which was very popular in archaic times for the manufacture of seals (Boardman 1970, 60). He mentions two LBA examples of what he believes to be such seals. Their intaglios are described as showing 'rounded lumpy cutting', a characterisation which would also fit the engraving of the piece in question. On these grounds, the piece could perhaps be seen as a MBA seal made on the islands (shape and iconography of the seal are better placed in the MBA). Turning to other seals, the steatite stamp cylinder CMS VII no. 20 shows on side a a badly executed scorpion and on side b an inadequately preserved motif which does not provide any clue towards the better understanding of the piece. For that reason, the seal is not included in the group. Characteristic of a group of seals are devices or compositions created by 'cup sinkings' and lines. Represented among them are small stamp cylinders (CMS III nos. 33, 46; Detournay - Poursat - Vandenabeele 1980, 167 no. 237), truncated pyramids (CMS V Suppl. 1A no. 238; CMS XI no. 67), truncated conoids (CMS III no. 47), and elongated conoids (CMS V Suppl. 1A no. 237), the last three with diametric perforations. The compositions of these pieces do not show any characteristic features which can connect them to or distance them from the Malia/Eastern Crete Steatite Group. While truncated pyramids are a mainly Prepalatial shape (Yule 1980, 69), the other shapes are also met in later periods (Yule 1980, 43, 91). In any case, the small size of the stamp cylinders distances them from the larger early hippo ivory stamp cylinders. Detournay - Poursat - Vandenabeele 1980, 167 no. 237 was found in Quartier Mu in Malia but Poursat regards it on account of its form to be earlier than its MM IIB context (Poursat in Detournay - Poursat - Vandenabeele 1980, 189).

⁵⁵⁶ For more on this subject, see the section 'Images exclusive to soft stone glyptic', pp. 356–358.

⁵⁵⁷ Three-sided prisms, breccia: CMS II,2 nos. 150, 168; CMS XII no. 94. Three-sided prisms, pseudo-jasper: CMS II,2 no. 79; Chapouthier 1932, 185 no. 3 (?) (the stone is described by Chapouthier as hard steatite, but both the fact that steatite is always soft and the wide use of 'cup sinkings' and lines with tapering edges would suggest a medium-hard or hard stone engraved with fast motion tools). Three-sided prisms, rock crystal: CMS III no. 181. Three-sided prisms, cornelian: CMS XII no. 93. Truncated conoids, pseudo-jasper (?): CMS II,1 no. 412. Truncated conoids, rock crystal: CMS II,1 no. 468; CMS III no. 43; van Effenterre 1980, 568 fig. 839.

⁵⁵⁸ Planoconvex seal: Poursat 1996, 105 no. 2655 bis (fluorite). Seal in the shape of intertwined animal foreparts: CMS IX no. 32 (agate). Duck-shaped seal: CMS VI no. 139 (agate).



Fig. 53 Seals engraved in the horizontal spindle with iconography reminiscent of the Malia/Eastern Crete Steatite Seals.

On such seals, 'cup sinkings' and crescents are very commonly used as elements of the motifs. Vessels with spherical bodies and crescent-shaped handles for example are created by the combination of these elements.⁵⁵⁹ Such vessels on CMS XII no. 93 c and a synthesis reminiscent of images met on the prisms on CMS XII no. 93 a are combined with a device composed of interlacing circles and crescents on CMS XII no. 93 b. Ornamental devices put together from perfect circles are characteristic of the first hard stone seals.⁵⁶⁰ The combination on CMS XII no. 93 of such a device with compositions characteristic of the Malia/Eastern Crete Steatite Group attests to the mutual influence exerted by the MM soft stone and hard stone glyptic on each other. The appearance of this device on CMS XII no. 93 links it to a small group of hard stone seals which show either representational devices, somewhat reminiscent of the ones encountered on the prisms, combined with circles in one image; or devices composed of interlacing circles.⁵⁶¹

SEALINGS OF THE MALIA/EASTERN CRETE STEATITE GROUP

Only seven seal impressions on clay objects can be attributed with certainty to seals of the group (*fig. 54*).⁵⁶² Of the six sealings from Quartier Mu in Malia which can be associated

⁵⁵⁹ E.g. CMS IX no. 32.

⁵⁶⁰ Such a device is only met once on a prism, on **444 a**. **444** is made of breccia, a stone which is placed halfway between soft material and hard stone engraving (for the use of medium-hard stones for the manufacture of prisms, see pp. 36-37).

⁵⁶¹ Representational devices combined with circles in one image: e.g. CMS III nos. 20, 22, 27, 102; CMS VI no. 144. Devices composed of interlacing circles: e.g. CMS III no. 21; CMS IV no. 133.

⁵⁶² The attribution of a sealing to a Malia/Eastern Crete Steatite Seal is done on the basis of iconography, cutting technique, and configuration of the seal face (curvature, size). However, very often style cannot be readily assessed from clay impressions. Clay does not always penetrate so deep in the intaglios that the exact technical execution of the original intaglio can be made out. This is made obvious by a comparison of the two impressions of CMS II,5 no. 287 (CMS, lower photograph). While in the lower impression the body of the animal shows a flat relief, a feature which would suggest that it was created by a board-like 'blank', in the higher impression it is rounder and more plastically rendered. This proves that the original intaglio was actually softer. Because of this difficulty, the



Fig. 54 Sealings impressed by Malia/Eastern Crete Steatite Seals.

with the group, four can be connected to it with confidence.⁵⁶³ Definitely impressed by a Malia/Eastern Crete Steatite Seal is also a sealing which comes from the north eastern border area of the Malia Palace.⁵⁶⁴

Out of three sealings which seem close to the group from Kato Zakros, one can be associated with it with certainty.⁵⁶⁵ Three further possible cases come from Knossos, one from Petras, and another from Palaikastro.⁵⁶⁶ Turning to southern Crete, two sealings

attribution of many impressions to the group is undertaken mainly on account of iconographic criteria. However, the fact that similar compositions are often met on early bone/hippo ivory seals, on seals of the Malia/Eastern Crete Steatite Group, and on some MM hard stone seals, all of which show flat seal faces, makes the inclusion of impressions to the group on the basis of iconography alone possible only with a certain degree of reservation.

⁵⁶³ CMS II,6 nos. 192, 183 (?), 189 (?), 193, 194, 196. The CMS considers that CMS II,6 no. 183 was impressed by a hard stone intaglio. While it is true that the impressed intaglio was precisely worked, its considerable depth could suggest that it belonged to a steatite four-sided seal of high quality similar to CMS II,2 no. 315, CMS III no. 235, CMS X no. 52, Pelon 1965, 2 fig. 1 or to a medium-hard stone seal which was cut freehand such as CMS II,2 no. 217 (for a discussion of such seals, see pp. 68–70; for prisms with similar compositions and intaglios, see **353** and **457**). Also the facts that the inscription of CMS II,6 no. 183 is met more than once on prisms (**3 b**, **89 b**, **434 c**, **457 c**), that the position of the two triangular fillers finds parallels in the images **3 b** and **525 b**, and that the '*Fir branch*' encountered on this seal face is a common motif on seals of the Malia/Eastern Crete Steatite Group could support the hypothesis that the original intaglio belonged to a seal of this group. The somewhat rounded intaglio of CMS II,6 no. 189 could have belonged to both a soft stone as well as a hard stone seal. The CMS sees a soft stone intaglio also on CMS II,6 no. 187. However, a comparison of the *Head of an agrimi* with the same motif on the hard stone instances CMS VI no. 124 and CMS IV no. 141 would suggest a hard stone intaglio for CMS II,6 no. 187. Noteworthy is the iconographic and stylistic similarity of **353 a** and CMS II,6 no. 168. Despite this, the rounded relief of the latter would rather suggest that it was impressed by a hard stone intaglio.

564 CMS II,6 no. 214.

⁵⁶⁵ CMS II,6 no. 166 (?); CMS II,7 nos. 56, 214 (?). While technical execution and iconography of CMS II,6 no. 166 could point to a seal of the group, the large dimensions of the vessel with regard to the seal face are unusual. The state of preservation of CMS II,7 no. 214 does not allow ruling out the possibility that the intaglio belonged to a hard stone seal.

⁵⁶⁶ Knossos: CMS II,8 nos. 36 (?), 39 (?), 81 (?). Despite the fact that the CMS attributes CMS II,8 nos. 36 and 39 to hard stone seals, their relatively high relief could be taken as an indication of the use of the blade. Also the relatively

from Phaistos and two from Monastiraki show iconographic elements characteristic of the Malia/Eastern Crete Steatite Seals.⁵⁶⁷ Finally, the iconography and technical execution of a rectangular impression with unknown provenance kept at the Heraklion Museum allow it to be securely associated with these seals.⁵⁶⁸

high relief of CMS II,8 no. 81 and the fact that one device is an outline motif could be taken as indicative of a soft stone intaglio. The composition of CMS II,8 no. 8 is easily comparable to that on **226 a** and that of the steatite foursided prism Pelon 1965, 2 fig. 1 b although none of these latter examples shows a ladder band *Border*. Despite the fact that the shape and size of the seal face would match a prism, the great sharpness of the engraving has lead the authors of CMS II,8 to the conclusion that the seal was made rather of bone/hippo ivory (Ingo Pini, pers. comm.). The fine execution of the ladder border, its narrowness, and the slanting inner hatching are indeed reminiscent of the borders which are encountered on EM III/MM I hippo ivory seals (compare for example CMS II,1 nos. 64 b, 64 e; CMS V Suppl. 1A no. 34 a; but also the stone seal CMS II,1 no. 303). The slanting lines on either side of the shaft of the double axe on CMS II,8 no. 55 suggest that it was impressed by a hard stone intaglio (for this subject, see footnote 191). Petras: CMS V Suppl. 1B no. 329 (?). The intaglio is likely to have belonged to a soft stone seal because outline motifs are more common to soft than hard stone seals (e.g. the *Double axe* **184 c**). Palaikastro: CMS II,6 no. 244 (?). While the engraved image is comparable to that on **361 b**, the large dimensions of the intaglio also invite comparison with CMS II,8 no. 32 which is set apart from the group on account of its composition and the fact that it was impressed by a large circular seal face.

⁵⁶⁷ Phaistos: CMS II,5 nos. 248 (?), 326 (?). The body of the vessel CMS II,5 no. 248 seems to have a flat surface, a feature which could suggest a 'blank' with flat floor. While the iconography of CMS II,5 no. 326 connects it to the group, its state of preservation does not allow any assessment of the exact technical execution of the intaglios. Despite the fact that the iconography of CMS II,5 nos. 232, 238-240, 241, 247 does not find exact parallels among seals of the group, it would also not be incongruent with the iconography represented on its seals (regarding CMS II,5 no. 238, compare 362 b and 510 a). However, the rounded reliefs of the devices could be taken as indicative of hard stone intaglios. The execution of the double axe on CMS II,5 no. 231 and its curving outlines are similar to the same motif on 353 a, a device which could be copied from or imitate a hard stone intaglio. Like CMS II,8 no. 55, also CMS II,5 no. 231 would probably have belonged to a hard stone intaglio (for CMS II,8 no. 55, see footnote 566; for **353**, see pp. 37, 68–70). The quadruped CMS II,5 no. 287 is iconographically similar to the *Pigs/boars* of the Malia/Eastern Crete Steatite Prisms but the pose of the animal is only met once in connection with them (see the Bovines 22 b). On the other hand, this pose is characteristic of devices carved on the Mesara seals (for walking animals with one front leg stretched and raised at right or 45° angles, see especially CMS II,1 no. 64 d; also CMS II,1 nos. 64 c, 253, 295 b and the Agrimi on the chlorite prism 101 c). This observation, as well as the row of the chevrons above the quadruped distance the piece from the Malia/Eastern Crete Steatite Group. Monastiraki: Kanta 1999, pl. LXXXIV Mo 499 left (?), Mo 579 right (?). The two sealings are included in the group only on the basis of their iconography. The image on Kanta 1999, pl. LXXXIV Mo 579 right is comparable to those on 549 b and CMS X no. 211. CMS V no. 290 shows a Cross pommée with 'Lily flowers' as angle supplements, a device which is very often met on prisms. However, in the Monastiraki sealing the design is executed with great accuracy and the relief is softer than the intaglios of the Malia/Eastern Crete Steatite Seals. These elements in combination with the round seal face distance the piece from the Malia/Eastern Crete Steatite Group and bring it close to another group of seals in which belong also the Petschafte Detournay - Poursat - Vandenabeele 1980, 174 no. 244 and 176 no. 247 from Quartier Mu (compare the shapes and round seal faces of these seals to Detournay - Poursat - Vandenabeele 1980, 176 no. 246, 178 no. 248).

⁵⁶⁸ CMS II,6 no. 281. Despite the high relief of CMS II,6 no. 230 from Myrtos Pyrgos, its iconography would suggest a hard stone intaglio (compare for example CMS VI no. 141). Sakellarakis – Sapouna Sakellaraki suggest that CMS II,6 no. 151 from Archanes could have been impressed by a Malia/Eastern Crete Steatite Prism (Sakellarakis – Sapouna Sakellaraki 1997, 690). However, the voluminous body of the animal, the plastic rendering of its buttocks,

DISTRIBUTION

The majority of the find places of the Malia/Eastern Crete Steatite Prisms with secure provenance are located in east-central and eastern Crete (*fig. 55 a*). Only two find spots are situated outside this area, both in the eastern Mesara. Having produced 87 % of the examples, Malia stands out as a major production centre of these prisms. The remaining 12 % come from other places in east-central and eastern Crete whereas 1 % come from the Mesara.

The image does not change significantly when the pieces with uncertain provenance are also considered (*fig. 55 b*). A thick clustering of find places is observed in the neighbourhood of Malia and on the Lasithi Plateau whereas many new find spots are added to the eastern part of the island. New find places are also seen in the Mesara, whereas some recovery spots appear in the Heraklion – Knossos area and in the west-central part of the island. Two pieces are said to have come from Egypt. The distribution ratios remain similar: 70 % of the prisms with provenance from Crete⁵⁶⁹ have been recovered in Malia, 24 % in other places in east-central and eastern Crete, 4 % in the Mesara, and 2 % in central and west-central Crete.

Pieces of other shapes with secure provenance have come to light in Knossos, Malia, Agios Charalampos, Myrtos Pyrgos, Mochlos, Palaikastro, and perhaps Vasiliki. Also in this case, 86.5 % of the examples come from Malia, 11.5 % from other places in east-central and eastern Crete, and 2 % from Knossos. When pieces with uncertain provenance are also considered, Pseira, Gouves,⁵⁷⁰ Elounta, and the town of Siteia are the find spots

its loop-forming tail, and its pose are not paralleled on Dogs/lions of this group. On the other hand, such tails are met on lions of hippo ivory seals (e.g. the lions CMS II,1 nos. 225 a, 249). As already noted by Vlazaki - Hallager, the engraved image on CMS V Suppl. 3 no. 323 from Chamaleuri finds good parallels among some images on bone/hippo ivory Prepalatial seals (e.g. CMS II,1 nos. 127, 272) (Vlazaki - Hallager 1995, 260). Myrtos Pyrgos, Gournia, and Malia have yielded some round impressions with diameters larger than 1.40 cm which show very similar iconography with the Malia/Eastern Crete Steatite Seals but whose dimensions and shape suggest that they were impressed by bone/hippo ivory seals (CMS II,6 nos. 155, 219, 220, 226). The seals that impressed these pieces are envisaged as belonging to the same group as CMS V Suppl. 1A no. 304 whose engraved image could, were it not for the shape and material of the seal, easily be mistaken as belonging to the Malia/Eastern Crete Steatite Group. The slightly slanting hatching of the ladder band border of the Gournia impression (CMS II,6 no. 155) would also suggest a bone/hippo ivory intaglio (for this subject, see footnote 596). More to the point, the round faces of the two impressions from Malia (CMS II,6 nos. 219, 220) and the fact that one is only 1 mm smaller than the other would support the idea that they constitute the two faces of a stamp cylinder. The combination of representational motifs on one seal face with ornamental devices composed of parallel strands to the other is often encountered on hippo ivory seals, such as the CMS II,1 nos. 64, 138, 442 (for a combination of such ornamental devices with representational motifs in one image, see CMS V Suppl. 1A no. 263 a). Furthermore, the combination of numerous blobs with a border and a predator animal on CMS II,6 no. 220 could be compared to the, admittedly different, image on CMS V Suppl. 1A no. 34 a which belongs to a hippo ivory stamp cylinder.

⁵⁶⁹ The information regarding the provenance of 54 % of the prisms is either unknown or very general, such as 'Crete' or 'Egypt'.

⁵⁷⁰ Pediados.



Fig. 55 Distribution of the Malia/Eastern Crete Steatite Prisms: a. find places of prisms with secure provenance:
1. Palaikastro; 2. Kato Zakros; 3. Pseira; 4. Mochlos; 5. Kavousi; 6. Trapeza; 7. Agios Charalampos; 8. Malia; 9. Smari; 10. Koumasa; 11. Platanos. b. find places of prisms with secure and uncertain provenance:
1. Palaikastro; 2. Epano Zakros; 3. Kato Zakros; 4. Lamnoni; 5. Sitanos; 6. Nea Praisos; 7. Lithines; 8. Adromyloi; 9. Sykia; 10. Siteia; 11. Pseira; 12. Mochlos; 13. Tourloti; 14. Lastros; 15. Kavousi; 16. Pacheia Ammos; 17. Gournia; 18. Koprana; 19. Lato i Etera; 20. Kritsa; 21. Elounta; 22. Kasteli; 23. Neapoli; 24. Anaulochos; 25. Milatos; 26. Vrachasi; 27. Malia; 28. Krasi; 29. Trapeza; 30. Psychro; 31. Agios Charalampos; 32. Kato Metochi; 33. Pinakiano; 34. Gonies; 35. Mochos; 36. Avdou; 37. Askoi; 38. Kasteli; 39. Potamies; 40. Smari; 41. Choumeri; 42. Artsa; 43. Knossos; 44. Heraklion; 45. Gonies; 46. Axos; 47. Choumeri; 48. Kamilari; 49. Moni Odigitria; 50. Koumasa; 51. Apesokari; 52. Platanos; 53. Gortys.

added. Again, 80 % of the pieces with a provenance⁵⁷¹ were recovered in Malia, 15 % in other places in east-central and eastern Crete, and 4 % in Knossos. Particularly noteworthy is the fact that among those forms most abundantly represented, truncated conoids with decorated back, signets, hemicylinders, and with one exception four-sided prisms,⁵⁷² come exclusively from Malia.

A similar situation is encountered on considering the distribution of the clay impressions which can be attributed to seals of the group. 83 % of the sealings associated with it with certainty have been recovered at Malia, the rest coming from eastern Crete.⁵⁷³ When sealings which cannot be connected to the group with certainty are also considered, 37 % of the pieces come from Malia, 26 % from other places in east-central and eastern Crete, 21 % from south-central Crete, and 16 % from north-central Crete.⁵⁷⁴

The disproportionally large amount of Malia/Eastern Crete Steatite Seals recovered in Malia points to this town as one of the most important, if not the most important centre of production of these seals.⁵⁷⁵ The distribution of the remaining seals suggests that the remaining centres of production for these seals were also located in east-central and eastern Crete. Most probably, pieces found outside these regions constitute imports from the eastern part of the island.

DATING

One prism is reported to have been found in a tomb used from EM III–MM I.⁵⁷⁶ Nine pieces have been recovered in contexts in which either predominantly MM I but also later MM or mainly MM II pottery has come to light.⁵⁷⁷ The majority of prisms come from the MM IIB destruction layer of Quartier Mu.⁵⁷⁸ Finally, one piece comes from a possible LM I, another from a LM I, a third from a LM IB, and a forth from a LM IIIA2/B context.⁵⁷⁹

No seal of any other form comes from a context earlier than MM II. Also in this case, the majority of pieces come from the MM IIB destruction layer of Quartier Mu.⁵⁸⁰ A four-sided

⁵⁷¹ The provenance of 42 % of the seals of other forms is unknown.

⁵⁷² CHIC no. 282 (Myrtos Pyrgos).

⁵⁷³ The rest is represented by one piece which comes from Kato Zakros.

⁵⁷⁴ East-central and eastern Crete: Kato Zakros, Petras, Palaikastro. South-central Crete: Phaistos, Monastiraki. North-central Crete: Knossos.

⁵⁷⁵ Of the seals with provenance, 73 % come from Malia, 22 % from eastern Crete, 3 % from the Mesara, and 2 % from central and west-central Crete. The provenance of 51 % of the seals of the group is unknown.

⁵⁷⁶ **86**.

⁵⁷⁷ **8**, **9**, **78**, **89**, **129**, **218**, **219**, **259**, **260**.

⁵⁷⁸ 7, 138–209, 220, 222–224, 226, 228–235, 238, 247, 248, 251, 253, 256.

⁵⁷⁹ Possible LM I context: 1. LM I context: A.21. LM IB context: 577. LM IIIA2/B context: 2.

⁵⁸⁰ CMS II,2 nos. 96, 97, 108, 127, 142, 153, 157, 166, 173, 185; Detournay – Poursat – Vandenabeele 1980, 166–167 no. 236, 171 no. 240, 172–174 no. 243, 176 no. 245, 180 no. 251.

prism was recovered in a late MM III context and two rectangular plates were found in LM I contexts.⁵⁸¹ A Petschaft comes from a LM IIIB context.⁵⁸²

The large number of examples recovered in Quartier Mu suggest that these seals reached their floruit in MM II. The fact that most pieces were found in the MM IIB destruction layer would presuppose the use of such seals for some time before the disaster. Given the fact that **86** is the only piece reported to come from a pottery context no later than MM I and the large number of seals of the group which come from MM II contexts, it would seem reasonable to suppose that the tomb where the piece was found was used also in the MM II period. This would also be supported by the recovery in it of the cushion CMS II,1 no. 146. The shape and cutting technique of this piece would speak against a dating earlier than MM II.⁵⁸³

The prospect that most pieces found in contexts later than MM IIB were heirlooms or chance LM finds is very likely. On the other hand, considering the fact that artefacts do not cease to be manufactured instantly after the time of their acme, it is possible that individual pieces from later contexts could be of a somewhat later manufacture than MM IIB. Due to the lack of any Malia/Eastern Crete Steatite Seals from contexts later than LM I, this possibility can be ruled out for **2** and V Suppl. 3 no. 23 which come from LM III contexts. These pieces would have certainly been either heirlooms or chance Postpalatial finds.⁵⁸⁴

PRISMS WITH EM III/MM I INFLUENCES

The material, iconography, and cutting technique of **7**, **23**, **98**, **160**, and **399** are to a great extent similar to those of the Malia/Eastern Crete Steatite Prisms (*fig. 56*).⁵⁸⁵ In a broader sense, these pieces are actually a cluster of this group. However, they are handled separately because they show some iconographic influences from EM III/MM I glyptic which allow for the possibility of a somewhat earlier dating than MM II.

A preference for internally hatched motifs is seen on **98** from 'Gouves' and **160** from the Malia Workshop (*fig. 56 a, b*).⁵⁸⁶ **160**, whose iconography connects it to the Malia/Eastern Crete Steatite Prisms but perhaps also to the hippo ivory seals of Sbonias's Lions/Spiral Group and Leaves/Ivory Group, has already been discussed.⁵⁸⁷

Turning to 98, its gable-shaped form could suggest earlier influences.⁵⁸⁸ More to the point, the composition on 98 c brings to mind the parading lions often encountered on

⁵⁸¹ MM III context: Pelon 1965, 2 fig. 1. LM I contexts: CMS V Suppl. 1B nos. 333, 337.

⁵⁸² CMS V Suppl. 3 no. 23 from Malia, Quartier N.

⁵⁸³ For examples of other such cushions, see CMS II,1 no. 5; CMS II,2 no. 200; CMS III no. 147.

⁵⁸⁴ A MM construction was discovered under the LM IIIA2/B building (V Suppl. 3, 96).

⁵⁸⁵ For the Malia/Eastern Crete Steatite Prisms, see pp. 63–115.

⁵⁸⁶ For the fishbone pattern in the chest of the figure **160 a**, see footnote 396.

⁵⁸⁷ Pp. 71-72.

⁵⁸⁸ While a few Malia/Eastern Crete Steatite Gables with three engraved sides are also met, the shape is more often encountered in connection with EM III/MM I seals (e.g. the MM I seals CMS II,1 no. 389; CMS II,2 nos. 207, 215, 310; CMS VI no. 14).



Fig. 56 Prisms with EM III/MM I Influences.

seals of Sbonias's Lions/Spiral Group (*fig. 56 b*).⁵⁸⁹ While similar compositions of animals are not unknown from Malia/Eastern Crete Steatite Prisms,⁵⁹⁰ the fact that the quadrupeds can be identified as lions brings the image close to the EM III/MM I representations. On the other hand, the technical execution of the manes of the animals is typical of *Dogs/lions* of the Malia/Eastern Crete Steatite Prisms. Most often, the necks of the lions on the hippo ivory stamp cylinders show horizontal, diagonal, cross, or fishbone hatching created by fine strokes engraved in the 'blanks'.⁵⁹¹ In contrast to that, the manes of the animals **98 c** are created by deep thick vertical cuts as is common on MM II steatite seals. The devices **98 a** and **98 b** do not find particularly good parallels among any of the two above discussed groups of seals. However, the paratactic composition on **98 a** and the reflection symmetrical image on **98 b** bring the piece close to the Malia/Eastern Crete Steatite Prisms.

Regarding 7, iconographically, the pose of the *Dog/lion* 7 **c** is typical of the Malia/ Eastern Crete Steatite Prisms.⁵⁹² However, the direction of the tail upwards with regard to its hindquarters only finds parallels with depictions of lions on hippo ivory seals from the Mesara, such as CMS II,2 nos. 249 and 295 b. The tail of the remaining *Dogs/lions* encountered on steatite prisms and showing this pose is directed downwards with regard to their hindquarters.⁵⁹³ On the other hand, the animals on the Mesara seals are not shown in pose I 1 but in I 3, which speaks in favour of the proximity of 7 to the Malia/Eastern Crete Steatite Prisms. Stylistically, the piece is also closer to the Malia/Eastern Crete Steatite Prisms than to any other seals. Interestingly, the execution of the *Dog/lion* 7 **b** could be compared to that of the animals on **98 c**.

Turning to 23, the execution and iconographical features of the *Dog/lion* 23 b place it close to the Malia/Eastern Crete Steatite Prisms. On the other hand, the *Rosette* 23 c, which

⁵⁸⁹ E.g. CMS II,1 nos. 3 a, 224 a. For Sbonias's Lions/Spiral Group, see Sbonias 1995, 89–99, for its dating 98–99. The term *parading lions* is adapted from Yule (Yule 1989 a, 208–209 The Parading Lions/Spiral Complex).

⁵⁹⁰ E.g. **227 b**, **462 b**.

⁵⁹¹ E.g. CMS II,1 nos. 224 a, 248 a, 300 a, 321 a, 336 a.

⁵⁹² See quadruped pose I 1, pl. 127.

⁵⁹³ E.g. **326 a**, **435 a**, **548 c**, **584 c** (*pl. 23*).

is only met once in connection with seals of the Malia/Eastern Crete Steatite Group⁵⁹⁴ is very often met on MM I seals from the Mesara (*fig. 56 c*).⁵⁹⁵ Reminiscent of EM III/MM IA glyptic is the enclosure of the motifs on **23 a** and **23 c** in a *Border with Hatched triangles as border supplements. Hatched triangles* are mainly connected with Yule's Border/Leaf Complex which is dated by Sbonias in EM III/MM IA–MM IB⁵⁹⁶ and only rarely appear in the iconography of the Malia/Eastern Crete Steatite Group.⁵⁹⁷ The combination of the animal **23 a** and the *Rosette* **23 c** with such a border in particular brings to mind compositions of the Border/Leaf Complex.⁵⁹⁸ Also, the fact that the prism is gable-shaped and its two smaller sides are slightly plastically set off from its body bring it close to certain gables of the Border/Leaf Complex.⁵⁹⁹

399 is made of a whitish soft material which could be either some kind of paste or bone. The composition of the quadrupeds on **399 a** is typical for the Malia/Eastern Crete Steatite Group (*fig. 56 d*). However, the elongated foreparts of the animals with the curving chests as well as the somewhat slanting vertical hatching which covers the bodies are easily comparable to the quadrupeds of EM III/MM I bone/hippo ivory seals.⁶⁰⁰ The human figure **399 b** does not find good parallels on EM and MM iconography,⁶⁰¹ although the fine hatching of the torso does bring to mind internal elements of motifs as they are rendered on EM III/MM I bone/hippo ivory seals.⁶⁰² The *Saltire of Ellipses* **399 c** is easily comparable to the devices of CMS II,1 no. 233 from Marathokefalo, which is dated to EM III.⁶⁰³ Also the fact that the devices of **399 b** and **399 c** are enclosed in *Borders with Hatched triangles as border supplements* suggest influences from the EM III/MM I bone/hippo ivory glyptic.⁶⁰⁴

SEALS OF OTHER FORMS WHICH SHOW SIMILAR STYLISTIC TENDENCIES AS THE PRISMS WITH EM III/MM I INFLUENCES

The five prisms can be compared to many Malia/Eastern Crete Steatite Seals and also to certain Prepalatial seals. However, a few pieces come closer to them in that they seem to

⁵⁹⁴ CMS VIII no. 10.

⁵⁹⁵ E.g. CMS II,1 nos. 153, 302 b, 368 a, 373, 374 b.

⁵⁹⁶ Yule 1980, 151–152, 209–210; Sbonias 1995, 100.

⁵⁹⁷ 72 c.

⁵⁹⁸ Compare for example the images CMS II,1 nos. 126 a, 382 b; CMS II,2 no. 204 a; CMS III no. 66; Sakellarakis – Sapouna Sakellaraki 1997, 681 fig. 767. Also CMS II,8 no. 30.

⁵⁹⁹ E.g. CMS VI no. 14. Compare also the shape of the 'base' of the two pieces whose one end is rectilinear (**23 c** and CMS VI no. 14 b).

⁶⁰⁰ E.g. CMS II,1 nos. 268 a, 295 a, 300 a, 382 a.

⁶⁰¹ A distant parallel to the pose of the figure is found on CMS II,2 no. 127 of the Malia/Eastern Crete Steatite Group. ⁶⁰² E.g. CMS II,1 nos. 41, 22 a, 300 a, 321 a.

⁶⁰³ For the dating of the seal, see Sbonias 1995, 82. Compare also the device CMS II,6 no. 153 from Chamaizi (engraved on a markedly larger seal face) and that on CMS II,8 no. 24 from Knossos. *Ellipses* composed in similar devices on the Malia/Eastern Crete Steatite Prisms are internally hatched (see **30 b** and **523 c**).

⁶⁰⁴ For this subject, see p. 267. **549** also shows stylistic elements which connect it to Sbonias's Lions/Spiral Group (for this piece, see pp. 96–97).



Fig. 57 Other seals stylistically close to the Prisms with EM III/MM I Influences.

combine iconographic and stylistic elements of EM III/MM I bone/hippo ivory glyptic with those of MM II soft stone glyptic and/or the use of soft stones.

The S-spiral on the steatite half-ovoid CMS III no. 66 is surrounded by a Border with Hatched triangles as border supplements as is the case with the devices 23 a, 23 c, 399 b, and 399 c (fig. 57 a). The bone/hippo ivory signet/Petschaft (?) Sakellarakis – Sapouna Sakellaraki 1997, 681 fig. 767 could be compared to 23 a and 399 b on account of the fact that it is engraved with a figural motif surrounded by a Border with Hatched triangles as border supplements.

The execution of the human figures on the elongated steatite conoid CMS VI no. 23 is reminiscent of that of the human figure **160 a** (*fig. 57 b*). The two figures display 'blanks' which are not outlined by deeper walls as well as plastically rendered buttocks and legs which are reminiscent of devices carved on hippo ivory seals, such as the one on CMS II,1 no. 222 a. The curves of figures on the Malia/Eastern Crete Steatite Prisms differ in their gross execution which results in markedly bulkier legs.

The composition on CMS V no. 301 a, which belongs to a serpentine (?) or chlorite (?) reel, is similar to that on **98 c** and reminiscent of the EM III/MM I compositions of parading lions (*fig.* 57 c).⁶⁰⁵ Stylistically, the lions differ from those on **98 c** in that they show rounded intaglios and markedly more voluminous bodies. Their execution brings to mind that of the

⁶⁰⁵ A similar composition is seen on the hippo ivory zoomorphic seal CMS V Suppl. 1A no. 304.
animal on the steatite conoid with Δ - or T-perforation CMS II.1 no. 408 (fig. 57 d). The shape, material, and iconography of this seal are close to that of the Malia/Eastern Crete Steatite Prisms.⁶⁰⁶ However, the intaglio is rounder and the animal has an expressly more voluminous body than most of the motifs on these prisms.⁶⁰⁷ Panagiotopoulos adjuncts the piece to a group of hippo ivory stamp cylinders which show lions with rounded intaglios and characteristically voluminous bodies.⁶⁰⁸ It is true that the body of the quadruped CMS II,1 no. 408 is stylistically closer to that of the lions CMS II,1 no. 442 b and CMS V no. 301 a than to the body of any similar motifs on seals of the Malia/Eastern Crete Steatite Group. However, the pose of the animal is well represented among the Malia/Eastern Crete Steatite Prisms whereas the open mouth which is very common there⁶⁰⁹ is not attested on the animals of Panagiotopoulos's group. Panagiotopoulos places his stamp cylinder group in the period after MM IA and points out that some stamp cylinder impressions have been found in contexts as late as MM IIB.⁶¹⁰ This would justify close iconographic and stylistic similarities of the motifs found on hippo ivory stamp cylinders and seals of the Malia/ Eastern Crete Steatite Group and could explain the existence of a class of seals which combine iconographic and stylistic traits from both groups.⁶¹¹

DISTRIBUTION AND DATING

7 and **160** come from Malia, **98** from 'Gouves', CMS II,1 no. 408 from Krasi, and Sakellarakis – Sapouna Sakellaraki 1997, 681 fig. 767 from Archanes. We have seen that the first four seals as well as CMS VI no. 23 show close connections with the Malia/Eastern Crete Steatite Group. Therefore, a provenance for these pieces of east-central Crete would also be supported by stylistic and iconographic considerations. On the other hand, the shape, material, and iconography of CMS V no. 301 would suggest a provenance from the Mesara.⁶¹² The material, iconography, and style of **399** would point to either Mesara or Archanes as its place of origin.⁶¹³ The fact that Sakellarakis – Sapouna Sakellaraki 1997,

⁶⁰⁶ Compare for example the devices **130** c, **387** b, **564** b, CMS III no. 42.

⁶⁰⁷ For examples of rounder intaglios on these prisms, see **269 a**, **269 b**, **394 a**.

⁶⁰⁸ CMS II,1 nos. 396, 442, 481; CMS V no. 301; also the impressions CMS II,6 nos. 190, 191 (Panagiotopoulos 2002, 89). Compare these also to the bodies of the lions on the above discussed CMS V no. 301.

⁶⁰⁹ E.g. 1 c, 127 c, 411 a, 564 b, 331 a.

⁶¹⁰ Panagiotopoulos 2002, 89.

⁶¹¹ The combination on the two sides of the hippo ivory stamp cylinder from Archanes Sakellarakis – Sapouna Sakellaraki 1997, 678 fig. 760–762 of a device which is very similar to **470 c** and of a composition of parading lions also supports the idea that hippo ivory stamp cylinders and seals of the Malia/Eastern Crete Steatite Group coincided for some time.

⁶¹² Material: Chlorite is very common for the manufacture of seals in the Mesara (for this subject, see the section 'Mesara Chlorite Prisms', pp. 120–134). Serpentine is never met in connection with the Mesara/Eastern Crete Steatite Group. Shape: Most soft stone reels come from the Mesara, e.g. CMS II,1 nos. 83, 116, 452; CMS V Suppl. 1A no. 278. Iconography: The device on CMS V no. 301 b is only encountered on seals which come from the Mesara, e.g. CMS II,1 nos. 23, 24, 34, 56, 350; CMS II,5 no. 116; V Suppl. 3 no. 126.

⁶¹³ All the parallels for the piece come from these two areas, see p. 117, also footnotes 600, 602.

681 fig. 767, also not cut in stone, comes from Archanes could suggest that the prism in question comes from there. Iconographic and stylistic considerations alone cannot clarify the production place of **23** and CMS III no. 166. However, in these cases a place of manufacture in the Mesara or in Archanes would also seem possible.

Turning to dating, according to the excavator, 7 could come from a MM IB layer.⁶¹⁴ **160** comes from Dessenne's Workshop α , a large area situated to the west of the Malia Workshop from which often surface finds were recovered partly accumulated during a longer period of time.⁶¹⁵ This, the above discussed stylistic considerations, and the fact that the piece is not workshop fresh could be taken as indications that it does not constitute part of the production of the Workshop. The context of Sakellarakis – Sapouna Sakellaraki 1997, 681 fig. 767 from Archanes is EM III–MM IIA.⁶¹⁶ Of the above discussed seals, no further examples come from a dated context. On iconographic and stylistic grounds,⁶¹⁷ the pieces can be dated to MM IB/MM II.⁶¹⁸

MESARA CHLORITE PRISMS

2.7 % of the existing prisms belong to this group (*fig. 58*).⁶¹⁹ All but one piece, which is made of steatite,⁶²⁰ are cut in chlorite. The seals faces are either round or ellipsoidal but never elongated. The devices are cut freehand, the use of vertical pressure drills for the creation of 'cup sinkings' being limited. Deep intaglios with V-profiles or configured as 'blanks' with flat floors and, occasionally, deeper outline walls are common (*fig. 58 a, c, d, f, h, j, l*). Apart from that, also shallower, rounder, and softer intaglios are met (*fig. 58 b, e, g, i, k*).

The ornamental element prevails. Floral devices, such as bilateral branches, rosettes, and leaves, as well as repetition compounds put together from foliage or other floral devices are particularly favoured (*fig.* 58 *a*–*c*). Spirals and ornamental devices built of two or more strands are the most popular purely ornamental motifs (*fig.* 58 *d*, *f*–*h*). Figural motifs are only represented by human figures, ruminants, scorpions, and squids whereas hieroglyphs are not met (*fig.* 58 *i*–*l*). Among the repetition compounds are represented mostly radial and rotational devices composed of floral⁶²¹ or ornamental motifs (*fig.* 58 *b*). Supplementation and border compounds are not met whereas C-spiral roof compounds are very popular (*fig.* 58 *h*).⁶²²

⁶¹⁴ Poursat believes that the piece could have belonged to a MM IB fill he excavated in 1984 in a sounding in the room XI 3 (Jean-Claude Poursat, pers. comm.; for a mention of this layer, see Poursat 1985, 892).

⁶¹⁵ Poursat 1981, 160; Poursat – Papatsarouha 2000, 264.

⁶¹⁶ Sakellarakis – Sapouna Sakellaraki 1997, 674, 680–681.

⁶¹⁷ Similarities to EM III/MM I but also MM II seals.

⁶¹⁸ As regards the prisms, the author would tend to date **399** to MM IB/MM II and the rest to MM II.

 $^{^{619}}$ 31, 45, 57, 60, 101–105, 112, 216, 217, 336, 337, 341, 357, 503.

⁶²⁰ **102**.

 $^{^{621}}$ E.g. 101 b, 103 c, 341 a.

⁶²² E.g. **102 b**, **357 c**.



Fig. 58 Mesara Chlorite Prisms.

The occupation of the seal face by a single device or an ornamental image is preferred.⁶²³ In the few cases that more than one equally sized motif is combined in an image, they are arranged along the lines of parataxis, reflection symmetry or 180° rotational symmetry (*fig. 58 c*).⁶²⁴ Combinations of devices along the lines of 90°, 45°, and 135° rotational symmetries are not met.

Among the images whose nature can be identified, 68 % are ornamental and 29.8 % are descriptive.⁶²⁵ 'Pictographic' images are only represented by one example⁶²⁶ whereas hieroglyphic inscriptions are not met. Two descriptive images have a narrative character (*fig. 58 k*).⁶²⁷

⁶²³ Single device: e.g. 57 a, 60 a, 103 c, 104 b, 337 a. Ornamental image: e.g. 60 b, 503 b.

⁶²⁴ Parataxis: e.g. **336 b**. Reflection symmetry: e.g. **503 c**. 180° rotational symmetry: e.g. **60 c**.

⁶²⁵ The nature of 2.1 % of the images met in this group cannot be identified.

⁶²⁶ **336 b**. For this image, see p. 125. This example constitutes 2.2 % of the images of the group whose nature can be identified.

⁶²⁷ **337 a**, **503 a**.



103 a (11,1 276 a a.



b.





337 a (III 214 a) d.

Fig. 59 Foliage/Multiple Strand Motif Cluster.

STYLISTIC CONSIDERATIONS

Iconography and technical execution point to the existence of different stylistic tendencies among the Mesara Chlorite Prisms. **57**, **103**, **337**, and **341** constitute the Foliage/Multiple Strand Motif Cluster (*fig. 59*). Repetition compounds composed of floral or ornamental devices, rosettes, as well as motifs created by the combination of more than one strands are characteristic of the iconography of these pieces. Representational motifs are scarce.⁶²⁸ The technical execution of the intaglios is easily comparable to engraving on seals made of bone/hippo ivory.⁶²⁹ Fine cuts create rather shallow intaglios with rounded U-profiles whereas 'cup sinkings' are rarely met. Foliage in particular, is formed by the creation of a shallow matrix in which is carved deeper but fine fishbone venation (*fig. 59 b*). Multiple strand motifs are created by the combination of parallel strands which penetrate deeper and more decisively into the stone. As a whole, the shallow carving creates loose, rather ill-defined motifs. The cluster constitutes part of the stone subgroup of Sbonias's Foliage/ Bone Group.⁶³⁰

101, designated as the Prism with the Walking Agrimi, is iconographically very close to the aforementioned cluster because it shows a preference for the depiction of rosettes and repetition compounds composed of floral devices (*fig. 60*). However, the technical execution of its motifs differs in that the cuts are deep and decisive. Petals or foliage are created by the combination of two deep cuts combined in such a way that a ridge rendering

^{628 57} c, 337 a.

⁶²⁹ Compare for example **57 a** to Sakellarakis – Sapouna Sakellaraki 1997, 678 fig. 755 (bone/hippo ivory seal [?]); **103 b**, **103 c**, **341 a** to CMS II,1 nos. 44, 281, 293, 353.

⁶³⁰ Sbonias 1995, 103–107, for the stone subgroup 104–105. The subgroup consists of soft stone seals which show a preference for the depiction of foliage and rosettes. Sbonias also includes in it pieces engraved with S-spirals which are combined with leaves (Sbonias 1995, 105 fig. 3.16, also footnote 164). Such pieces are excluded from the Foliage/Multiple Strand Motif Cluster by the present author because they are seen as indicative of a different development (for this subject, see pp. 126–127). For the difference of the iconography of Sbonias's Foliage/Bone Group and Foliage/Ivory Group, see Sbonias 1995, 100.



Fig. 60 a.-c. Prism with the Walking Agrimi; d.-h. Seals with similar iconography.

the interior of the depicted elements is left between them. Altogether, the engraving is sharp and well-defined.

101 comes very close to certain seals of Sbonias's 'Archanes Script' Group.⁶³¹ To a large extent, the iconography and style of this group are similar to those of the Foliage/ Bone Group⁶³² but, as Sbonias notes, the 'Archanes Script' Group is characterised by more extensive preference for the depiction of quadrupeds as well as the appearance of hieroglyphic signs.⁶³³ The configuration and the pose of the *Agrimi* **101 c** but also the rosette **101 a** find good parallels among similar devices of that group.⁶³⁴ More to the point, the whole image **101 c** is iconographically but also stylistically similar to CMS V Suppl. 1A no. 269 a which belongs to an 'Archanes Script' seal.

Of the 'Archanes Script' Group seals which are comparable to **101**, CMS II,1 no. 374, CMS IV no. 24D, and CMS V Suppl. 1A no. 269 do not show the horror vacui or hieroglyphs on their other sides typical for the group (*fig. 60 d–h*). As is the case with **101**, the first two of these seals combine a ruminant on one seal face with a rosette on another (*fig. 60 e–h*).⁶³⁵

⁶³¹ For the group, see Sbonias 1995, 107–113.

⁶³² Especially as regards the wide use of foliage.

⁶³³ Sbonias 1995, 105.

⁶³⁴ Compare the animal **101 c** to CMS II,1 nos. 64 b, 374 a; CMS IV no. 24D a; CMS V Suppl. 1A no. 269 a. Also compare the pose of the animal to CMS II,1 nos. 64 c, 64 d; CMS XII no. 74 a. Sbonias includes CMS II,1 no. 374 both to the Foliage/Bone Group as well as to the 'Archanes Script' Group (Sbonias 1995, 105, 107). Compare the rosette **101 a** to CMS II,1 nos. 374 b, 391 m; CMS IV no. 24D b.

⁶³⁵ CMS II,1 nos. 374 a, 374 b; CMS IV nos. 24D a, 24D b.



105 c (11,1 307 c) a.



105 b (II,1 307 b) b.



c.



d

These three pieces are iconographically so close to **101** that they cannot be seen as part of a different group. However, according to Sbonias, the seals of the 'Archanes Script' Group were produced in Archanes.⁶³⁶ The prevalence of the floral element on **101** as well as its manufacture in chlorite, a stone which in MM was widely used in the south but not in the north of the island, would suggest a manufacture in the Mesara.⁶³⁷ For that reason, the piece is seen as closer to the Foliage/Multiple Strand Motif Cluster and thus to the stone subgroup of the Foliage/Bone Group. This could suggest that the three aforementioned pieces, and especially CMS II,1 no. 374⁶³⁸ which is also made of chlorite, would fit better with the latter group. In any case, the iconographic elements that bring these four pieces close to the 'Archanes Script' Group⁶³⁹ underline once more the fact that the boundaries between this and the Foliage/Bone Group are by no means clear cut.⁶⁴⁰

Fig. 61 Agrimi/Scorpion Cluster.

104, **105**, **112**, **217**, and **336** are gathered in the Agrimi/Scorpion Cluster (*fig. 61*). Exceptionally, the representational element prevails on these seals. The most often recurring motifs are a plainly rendered *Agrimi*, *Scorpion*, *'Fern branch'*, and *Coil spiral*. The clear cuts are deep and decisive creating intaglios with broad V-profiles. The regular flat walls of the intaglios suggest a paring out of the stone with a single move. 'Cup sinkings' are only met as independent motifs and not as elements of other devices.⁶⁴¹ The seal faces of these pieces are outlined by very deep grooves which clearly differentiate them from the seal body and break the unity of the seal.⁶⁴² The cluster constitutes part of Yule's Platanos Goat Complex.⁶⁴³

⁶³⁶ Sbonias 1995, 112-113.

⁶³⁷ Compare also the pose of the quadruped **101 c** to that of the animal CMS II,5 no. 287 from Phaistos.

 ⁶³⁸ Included by Sbonias in both the Foliage/Bone Group and the 'Archanes Script' Group (Sbonias 1995, 105, 107).
⁶³⁹ Compare especially **101 a** and CMS IV no. 24D b to CMS II,1 no. 391 m. Compare also the pose of the *Agrimi* **101 c** to that of the quadrupeds CMS II,1 nos. 64 c, 64 d.

⁶⁴⁰ The Foliage/Ivory Group (Sbonias 1995, 99–102), the Foliage/Bone Group (Sbonias 1995, 103–107), the 'Archanes Script' Group (Sbonias 1995, 107–113), and the Group of White Pieces (Sbonias 1995, 113–118) are handled by Yule together in the Border/Leaf Complex (Yule 1980 a, 209–210).

⁶⁴¹ E.g. **104 c**, **112 c**.

⁶⁴² See especially **104**, **217**.

⁶⁴³ For the complex, see Yule 1980 a, 211.



Fig. 62 Two Prisms with Ornamental Devices A.

Usually, the representational motifs appear alone on the seal face. However, **336 b** stands out on account of the apparently 'pictographic' image which combines two representational motifs, a *Leg* and a *Fish*. The lack of similar images on any seals of the Mesara Chlorite Group⁶⁴⁴ could suggest that this image either copies or imitates compositions from seals of another tradition. Its prototypes could be searched for among seals of the 'Archanes Script' Group⁶⁴⁵ in which the CHIC signs 010 and 019, which resemble a leg and a fish respectively, are often met.⁶⁴⁶ The fact that the combination CHIC signs 010 – 019 is not met among the existing hieroglyphic inscriptions⁶⁴⁷ could be taken as an indication that the engraver of **336 b**⁶⁴⁸ was using script signs whose significance he/she did not know. This would suggest that the image is an attempt to imitate a hieroglyphic inscription.

31 and **216** are conventionally designated as the Two Prisms with Ornamental Devices A (*fig. 62*). The iconography of **216** is unparalleled among chlorite prisms. However, **216** a and **216** b show soft U-profiled intaglios which bring to mind the intaglios of **57** c of the Foliage/Multiple Strand Motif Cluster. The repetition compound **216** c is reminiscent of repetition compounds composed of floral motifs on pieces of the same cluster⁶⁴⁹ and on the Prism with the Walking Agrimi. On the other hand, the execution of the trifurcated blossoms of the flowers is comparable to the edges of the branch **104** a and especially **217** b of the

 ⁶⁴⁴ Part of which are the Mesara Chlorite Prisms. For seals of other forms which belong to the group, see pp. 128–132.
⁶⁴⁵ For the group, see Sbonias 1995, 107–113.

⁶⁴⁶ For the CHIC sign 010, see for example CMS II,1 no. 391 l. For the CHIC sign 019, see especially CMS VI nos. 14 b, 14 c; also CMS II,1 nos. 391 h, 391 i, 393 a, 393 c, 394 a, 394 b (this sign is often described as a cuttlefish [see Evans 1909, 205; Jasink 2009, 69]).

⁶⁴⁷ See CHIC, 324-325 no. 010; 330-332 no. 019.

⁶⁴⁸ Or the client that ordered the seal. It is uknown whether it was the engravers who chose the depictions on each seal, whether the seals were manufactured according to each client's wishes, or whether both these situations could have been the case. In the case of the hard stone hieroglyphic seals with complex inscriptions in particular, such as CMS VI no. 102 and CHIC no. 294, it would seem more probable that the seal engravers were executing images ordered by their clients. In favour of this would speak two considerations. On the one hand there is the fact that the inscriptions would have a certain meaning pertaining to the owner and their needs while on the other, it would seem rather improbable that the engraver had such a good command of the script that they could use it to create complex inscriptions.

⁶⁴⁹ Compare for example **103 b**, **341 a**.



Fig. 64 Two Prisms with Ornamental Devices B.

Agrimi/Scorpion Cluster. The round seal faces of **31** and the deep grooves surrounding them bring it close to **105** and **112** of the same cluster. However, the engraving is much less decisive than that of the pieces of this cluster whereas no iconographic parallels between these and **31** exist. Perhaps, and with a considerable degree of reservation, the images **31 a** and **31 c** could be compared to those on **112 c** and **336 a** respectively.

60 and **357** are brought together in the Squid/Paisley Cluster (*fig. 63*). The pieces are characterised by a preference for the depiction of centrally orientated compositions of ornamental nature and of a 'Squid' b. C-spiral roof compounds, Paisleys, Triangles, and *Star rosettes* are the most characteristic ornamental devices of the cluster. Regular intaglios, deep decisive cuts, board-like 'blanks' which bring to mind the intaglios of the Malia/Eastern Crete Steatite Seals, and well-defined motifs are typical of the cluster. The occasional 'cup sinkings' are pared out with the blade and not drilled. The two prisms constitute part of Yule's Petaloid/Star Group.⁶⁵⁰

45 and **102**, the latter made of steatite, are the Two Prisms with Ornamental Devices B (*fig. 64*). All the seal faces of these pieces are engraved with ornamental images. Their intaglios range from rather shallow to relatively deep and show U-profiles whereas most of the devices are created by thin lines. The placement of the two pieces with regard to the aforementioned clusters is problematic because they combine iconographic features

⁶⁵⁰ Yule 1980 a, 214-215.



Fig. 65 Prism of the Man with the "Loop".

of the Foliage/Multiple Strand Motif Cluster and the Squid/Paisley Cluster. The multiple strand device 45 a is reminiscent of similar ornamental devices of the Foliage/Multiple Strand Motif Cluster. Sbonias classifies 102 with the stone subgroup of his Foliage/Bone Group,⁶⁵¹ presumably mainly on account of the *S-spiral* with leaves **102** c which is a composition common on this group⁶⁵² but also because of the *Quatrefoil* **102** a, a device also met on seals of the group.⁶⁵³ However, the *C*-spiral roof compounds 45 c and 102 b are characteristic of the Squid/Paisley Cluster. Moreover, the S-spiral with leaves 102 c finds good parallels on compositions met on chlorite buttons and bottles which also belong to the Squid/Paisley Cluster.⁶⁵⁴ These seal forms are not met in connection with seals of the Foliage/Bone Group.⁶⁵⁵ Furthermore, the compositions on three sealings from Phaistos which show similar use of Triangles as those met on seals of the Squid/Paisley Cluster are comparable to **102 c**.⁶⁵⁶ Also the configuration of the 'V-flowers' **45 b** is reminiscent of the similar devices on one sealing from Phaistos which shows similar use of Triangles.⁶⁵⁷ The fact that most of the images of the two pieces in question find good parallels among images which are closer or belong to the Squid/Paisley Cluster would suggest a greater proximity of these seals to that cluster than to the Foliage/Multiple Strand Motif Cluster.

503 is designated as the Prism of the Man with the "Loop" (*fig.* 65). The intaglios of the piece are deep and often rounded. The composition of the *C-spirals* on **503** c can perhaps be compared to a certain extent to that of an EM III/MM IA early hippo ivory seal.⁶⁵⁸ On

⁶⁵¹ Sbonias 1995, 105 footnote 164 fig. 3.16.

⁶⁵² Sbonias 1995, 105. For an example of such a composition on a seal of this group, see CMS II,1 no. 293 b.

⁶⁵³ E.g. CMS II,1 nos. 135, 324. However, *Quatrefoils* are also encountered on seals of the Malia/Eastern Crete Steatite Group (e.g. **410 a** and **517 a**).

⁶⁵⁴ Buttons: e.g. CMS II,1 no. 349. Bottles: e.g. CMS V Suppl. 1B no. 191. For seals other than prisms which belong to this cluster, see pp. 131–132.

⁶⁵⁵ For the shapes of the seals of Yule's Border/Leaf Complex, which encompasses, among others, also Sbonias's Foliate/Bone Group, see Yule 1980, 210. For seals other than prisms which belong to the Foliage/Multiple Strand Motif Cluster, see p. 128.

⁶⁵⁶ CMS II,5 nos. 187, 188, 189.

⁶⁵⁷ CMS II,5 no. 190.

⁶⁵⁸ Unpublished seal at the Heraklion Museum which belongs to Sbonias's Foliage/Ivory Group (for the group, see

the other hand, the *Quatrefoil* with *Chevrons* as angle-filling **503 b** finds good parallels on numerous compositions from Phaistos and can also be compared with the compositions on some Malia/Eastern Crete Steatite Prisms.⁶⁵⁹

Seals of Other Shapes that Belong to the Same Group as or Are Related to the Mesara Chlorite Prisms

Various seals of other shapes, most of which show flat seal faces, can be compared to the Mesara Chlorite Prisms on iconographic and stylistic grounds. Some of them are so closely connected to these prisms that they can be seen as building with them the Mesara Chlorite Group. Within this group, prisms constitute ca. 21 % of the material and seals of other shapes ca. 79 %.⁶⁶⁰

Only a very restricted number of pieces of Sbonias's Foliage/Bone Group⁶⁶¹ are relatively good comparable to the prisms of the Foliage/Multiple Strand Motif Cluster (*fig. 66*). These are made of bone and more rarely, of chlorite. Some parallels are met among the devices of the prisms in question and those on two conoids, a pyramidoid, both shapes with Δ -perforation, a disc, and perhaps a seal in the shape of a mollusc shell and a button.⁶⁶² Of these seals, only a chlorite conoid can be seen as actually belonging to the Foliage/Multiple Strand Motif Cluster.⁶⁶³ A few steatite and bone seals can be compared to the Prism with the Walking Agrimi (*fig. 60 d–h; fig. 66 a*). These are two conoids with Δ -perforation, two low stamp cylinders, a rectangular plate, and a disc.⁶⁶⁴

The majority of other seals related to the prisms of the remaining clusters are made of chlorite. The images of the prisms of the Agrimi/Scorpion Cluster find iconographic parallels to those of a stamp cylinder, a gable, a seal in the shape of a female figure, a disc,

Sbonias 1995, 99-102).

⁶⁵⁹ Phaistos: e.g. CMS II,5 nos. 213–220 (although some of these seal types were impressed by convex seal faces). Malia/Eastern Crete Steatite Prisms: e.g. **410 a**, **487 c**.

⁶⁶⁰ Seals like CMS II,1 no. 44 which are related to the group but do not belong to it stricto sensu have not been taken into consideration when compiling these numbers. If such pieces are included in the group, the ratio prisms/seals of other forms changes to ca. 19 % prisms and 81 % seals of other forms.

⁶⁶¹ For the group, see Sbonias 1995, 103–107.

⁶⁶² Conoids: CMS II,1 no. 44 (bone, Agia Triada, Tholos A), 348 (chlorite [?], 'Platanos'). CMS II,1 no. 44 is related also to the Prism with the Walking Agrimi (see footnote 664). Pyramidoid: CMS X no. 23 (bone). Disc: CMS II,1 no. 293 (bone, Platanos, Tholos B). Seal in the shape of a mollusc shell: CMS II,1 no. 353 (?) (bone/hippo ivory, Porti, Tholos II). Button: CMS II,1 no. 72 (bone, Agia Triada, Tholos A).

⁶⁶³ CMS II,1 no. 348.

⁶⁶⁴ Conoids with Δ-perforation: CMS II,1 nos. 44 (bone, Agia Triada, Tholos A), 88 (steatite, Agia Triada, Tholos A). CMS II,1 no. 44 is related also to the Foliage/Multiple Strand Motif Cluster (see footnote 662). Low stamp cylinders: CMS V Suppl. 1A nos. 269 (bone, 'Moni Odigitria'), 367 (steatite, Epidauros, Sanctuary of Apollo Maleatas, Altar). Rectangular plate: CMS II,1 no. 374 (chlorite, Siva). To this can also be connected the cube CMS II,1 no. 368 (steatite, 'Porti'). Disc: CMS IV no. 24D (steatite [?], 'Kaloi Limenes'); perhaps also CMS III no. 113 (steatite) and CMS XII no. 74 (bone [?])?



Fig. 66 Seals which show iconographic and/or stylistic similarities to prisms of the Foliage/Multiple Strand Motif Cluster and to the Prism with the Walking Agrimi.



Fig. 67 Seals which show iconographic and/or stylistic similarities to prisms of the Agrimi/Scorpion Cluster and to the Two Prisms with Ornamental Devices A.



Fig. 68 Seals which show iconographic and stylistic similarities to the Squid/Paisley Cluster and to the Two Prisms with Ornamental Devices B.

a reel, and perhaps a hemispheroid and three buttons (*fig.* 67).⁶⁶⁵ The looser execution of the devices on the same disc and reel make them comparable also to the devices of **31** of the Two Prisms with Ornamental Devices A (*fig.* 67 b, c). The image on a conoid may also be

⁶⁶⁵ Stamp cylinder: CMS V Suppl. 3 no. 134 (chlorite [?], 'Moni Odigitria?'); perhaps also CMS II,1 no. 326 (bone, Platanos, Tholos B)? Gable: CMS II,1 no. 346 (chlorite, 'Platanos, Tholos B'). Seal in the shape of a female figure: CMS II,1 no. 277 (chlorite, Platanos, Tholos B). Disc: CMS V Suppl. 1A no. 276 (chlorite, 'Moni Odigitria?'). Reel: CMS V Suppl. 1A no. 278 (chlorite [?], 'Moni Odigitria?'). Hemispheroid: CMS III no. 78 (chlorite). Buttons: CMS II,2 no. 21 (chlorite or schist, Phaistos); CMS V no. 487 (chlorite or schist, Agia Eirini, Kea, Area C, Room XVI); CMS VI no. 120 (chlorite). Even if not related to the cluster, the first of these buttons is certainly and the remaining two are very probably related to the Mesara Chlorite Group.

comparable to the same piece.⁶⁶⁶ Comparable to a certain extent to **216** of the same cluster, mainly on iconographic grounds, are the compositions on two stamp cylinders.⁶⁶⁷

The prisms of the Squid/Paisley Cluster as well as the Two Prisms with Ornamental Devices B constitute part of a broader assemblage of seals which are mainly cut in chlorite and more rarely in steatite (*fig. 68*). Buttons and bottles with horizontal perforation on the handle, both shapes cut in chlorite, are most commonly associated with the prisms of the two clusters.⁶⁶⁸ Apart from these, chlorite or steatite Petschafte are also closely connected to these prisms.⁶⁶⁹ Furthermore, a pseudo-jasper disc and button belong to the same assemblage.⁶⁷⁰

Apart from these seals, numerous other chlorite pieces whose iconography and style does not find parallels among the prisms of the two clusters constitute part of the same development. Among these are some buttons and a disc which bear compositions with integrated centred-circles.⁶⁷¹ Some bottles with horizontal perforation on the handle and some seals in the shape of a hoof are also seen as part of the same development.⁶⁷²

⁶⁶⁹ Squid/Paisley Cluster: CMS II,1 no. 301 (steatite, Platanos, Tholos B); CMS V Suppl. 1A no. 320 (chlorite, 'Moni Odigitria?'); CMS VI no. 135 (chlorite [?]); CMS X no. 44 (steatite, convex seal face); CMS XIII no. 95 (chlorite). ⁶⁷⁰ Disc, Squid/Paisley Cluster: CMS VIII no. 22 (steatite [?]). Button: CMS II,2 no. 6 (Kamilari, Tholos). The chlorite/schist discoids CMS II,2 nos. 37, 41 from Mauro Spilio at Knossos are engraved with ornamental images which are very similar to those encountered on the two clusters in question. However, the soft execution of the motif on the second side of CMS II,2 no. 37 b, which does not find parallels on any prisms, buttons, or bottles, brings the piece close to a group of MM II discoids which display shallow and soft intaglios and seem to be related with Knossos (CMS II,2 nos. 36, 48, 57; CMS II,3 no. 13 [this latter a lentoid], all from Knossos). The similarities of the ornamental images on these seals to those of chlorite seals of the Squid/Paisley Cluster suggest certain overlapping between the two developments (note the similarity of the C-spiral roof compound on the button CMS II,2 no. 6 from Kamilari to that on the discoid CMS II,2 no. 41).

⁶⁶⁶ CMS II,1 no. 288 (chlorite/schist, Platanos, Tholos B). Perhaps also the hemispheroid CMS IV no. 56 (schist [?], 'Malia')?

⁶⁶⁷ CMS II,1 no. 272 a (bone/hippo ivory, Platanos, Tholos B); CMS V Suppl. 1A no. 396 b (hippo ivory [?] Palaikastro, Block X, Room 1).

⁶⁶⁸ Buttons, Squid/Paisley Cluster: CMS II,1 nos. 90 (Agia Triada, Tholos A), 110 ('Agios Onoufrios, Tholos'), 247 (Platanos, Tholos A); CMS III nos. 86 ('Malia'), 90; CMS IV no. 75 ('Vorizia'); CMS VI nos. 110 (?), 111 ('Mesara'), 112 ('Mesara'), 113; CMS VII no. 24 (chlorite [?]). Buttons, Two Prisms with Ornamental Devices B: CMS II,1 no. 349 ('Platanos'). Bottles with horizontal perforation on the handle, Squid/Paisley Cluster: CMS II,1 nos. 86 (Agia Triada, Tholos A), 275 (Platanos, Tholos B); CMS IV nos. 50 ('Mesara'), 53 ('Kaloi Limenes'). Bottles with horizontal perforation on the handle, Two Prisms with Ornamental Devices B: CMS VI no. 52 ('Vorizia'); CMS V Suppl. 1B no. 191; CMS VI no. 123 ('Central Crete'); CMS X no. 43. Bottles with horizontal perforation on the handle are distinctive of the glyptic of southern Crete and are very rarely found outside this area (for some examples which come from places outside this area, see CMS II,1 nos. 432, 473, and 474). In contrast to that, bottles with Δ-perforation are often made of steatite and come from the northern part of the island (e.g. CMS II,1 nos. 406, 428, 429).

⁶⁷¹ Buttons: CMS IV no. 78 (chlorite or schist, 'Malia'); CMS VI nos. 108, 109, 114; CMS VII no. 23 (chlorite [?]). Disc: CMS III no. 120. The fact that the Petschaft CMS X no. 44 and the disc CMS VIII no. 22, which on account of their compositions cannot be distanced from the Squid/Paisley Cluster, also show motifs with integrated centredcircles (the disc CMS VIII no. 22 on side a) suggests that such devices constitute part of the repertoire of the same development (compare CMS VIII no. 22 b to **102 b** and CMS II,1 no. 110. Also CMS X no. 44 to CMS II,1 no. 301). ⁶⁷² Bottles with horizontal perforation on the handle: CMS II,1 no. 156 (Koumasa, Tholos E); CMS II,2 no. 10

In the same grouping belong also four chlorite bottles with horizontal perforation on the handle whose iconography is reminiscent of the iconography of the seals of the Malia/Eastern Crete Steatite Group.⁶⁷³ The *Scorpion* combined with a *'Fir branch'* on CMS VI no. 121 and the *Whirls* on CMS IV no. 51 and CMS V Suppl. 1A no. 321 are typical motifs of that group. The *Framed Saltire* on CMS II,1 no. 337 is a device shared between seals of the two traditions. In these cases, the material and shape of the seal define the affiliation to the one or the other group.⁶⁷⁴ More enigmatic is the nature of V Suppl. 1A nos. 51 and 52 from Gournia which are engraved in chlorite but show iconography characteristic of the Malia/Eastern Crete Steatite Group.⁶⁷⁵ The use of chlorite and the shape of the seals would suggest an affiliation with the Mesara Chlorite Group. However, the execution of the devices could suggest that the pieces were engraved by a hand which was familiar with cutting seals of the Malia/Eastern Crete Steatite Group.

Sealings Impressed by Seals which Belong or Are Related to the Mesara Chlorite Group

Sealings which can be attributed to seals which belong or are close to the Mesara Chlorite Group have come to light in Phaistos,⁶⁷⁶ Monastiraki, and perhaps Knossos (*fig. 69*). The great majority of these sealings are related to the Squid/Paisley Cluster and the Two Prisms with Ornamental Devices B.

One sealing from Phaistos could be seen as iconographically related to the Foliage/ Multiple Strand Motif Cluster and the Prism with the Walking Agrimi (*fig. 69 a*). The *Coil spiral* on another sealing from the same place can be connected with the Agrimi/ Scorpion Cluster on mainly iconographic grounds (*fig. 69 b*).⁶⁷⁷ However, the fine strokes engraved on its surface do not find parallels among any of the devices of that cluster. Also the composition on **503 b** on the Prism of the Man with the "Loop" is comparable to a certain extent to three compositions from Phaistos.⁶⁷⁸

The prisms of the Squid/Paisley Cluster, the Two Prisms with Ornamental Devices B, and their related seals find numerous iconographic and stylistic parallels on sealings from

⁽Kamilari, Tholos); CMS III nos. 98 ('Phaistos'), 99 ('Lasithi'); CMS X no. 42; Militello 2000, 231 fig. 12 (Phaistos, Room 85). Seals in the shape of a hoof: CMS I Suppl. no. 104; CMS II,1 no. 296 (Platanos, Tholos B); CMS III no. 24; CMS IV nos. 91 ('Kamilari'), 15D ('Phaistos'); CMS V Suppl. 3 nos. 320 (Apodoulou, MM II building).

⁶⁷³ CMS II,1 no. 337 (Platanos, Tholos B); CMS IV no. 51 ('Apesokari'); CMS V Suppl. 1A no. 321 ('Moni Odigitria [?]'); CMS VI no. 121.

⁶⁷⁴ Other chlorite seals considered close to the Mesara Chlorite Group mainly because of their material are the button CMS XI no. 87, the signet CMS II,1 no. 337 (Platanos, Tholos B), and the seal of indefinable shape CMS III no. 57. ⁶⁷⁵ The pottery from the grave where the pieces where found dates to MM IA (Davaras in CMS V Suppl. 1A, 30; Soles 1979, 160–161).

⁶⁷⁶ Room XXV.

⁶⁷⁷ Compare to **105 a**, **336 c**. The similar devices on CMS II,5 nos. 184, 185 would perhaps fit better with the Squid/ Paisley Cluster on account of the strokes and the *Triangles* that surround the *Coil spirals* respectively. For this subject, see also footnote 681.

⁶⁷⁸ CMS II,5 nos. 217, 218, 220.



Fig. 69 Sealings impressed by Mesara Chlorite Seals or by seals which show similarities to them.

Phaistos (*fig. 69 c–f, h*). *C-spiral roof compounds*, combinations of *S-spirals* or *Paisleys* with leaves⁶⁷⁹ and *Triangles*, *Star rosettes* with central 'cup sinking', '*Squids' b*, and a large number of compositions of ornamental nature which can be attributed to seals of the two clusters on stylistic grounds are represented there.⁶⁸⁰ The series of *Chevrons* above the walking *Pig/boar* CMS II,5 no. 287 from the same place could also suggest its affiliation with the two clusters as it is reminiscent of similar series of strokes as encountered on seals associated with them.⁶⁸¹

Also, some compositions of an ornamental nature encountered among the few published sealings from Monastiraki are stylistically related to the Squid/Paisley Cluster and the Two Prisms with Ornamental Devices B (*fig. 69 g*).⁶⁸² Finally, two seal types from Knossos show

⁶⁷⁹ Many of these, e.g. CMS II,5 nos. 187–189, would be termed in the present study *Grain ellipses*. Others, e.g. CMS II,5 nos. 210, 211, would be named *Stemless paisleys*.

⁶⁸⁰ *C-spiral roof compounds*: CMS II,5 no. 176; CMS II,6 no. 250. Compositions of *S-spirals* with leaves and *Triangles*: CMS II,5 nos. 187–189 (the latter impressed by a convex seal face). Compositions of *Paisleys* with leaves and *Triangles*: CMS II,5 nos. 209–212. *Star rosettes* with central 'cup sinkings': CMS II,5 nos. 125, 158. '*Squids*' b: CMS II,5 no. 312; also no. 302; less nos. 301, 303. Other compositions of ornamental nature: CMS II,5 nos. 169–173, 179–181, 190.

⁶⁸¹ E.g. Militello 2000, 231 fig. 12. However, note the iconographic similarity of the beast CMS II,5 no. 287 with the same animal CMS II,1 no. 64 d of the 'Archanes Script' Group. For this group, see Sbonias 1995, 107–113. Perhaps also CMS II,2 nos. 184 and 185 could be affiliated with the two clusters on account of similar elements surrounding the *Coil spirals*. These compositions find a parallel on the steatite Petschaft CMS III no. 111 from 'Malia'. However, compare them also to the EM III/MM IA CMS II,1 no. 377.

⁶⁸² CMS V nos. 288, 289; Kanta 1999, pl. 84 Mo 45 (?), Mo 318 left.

C-spiral roof compounds which can perhaps be associated with the two clusters on account of the fact that they were impressed by flat soft stone intaglios.⁶⁸³

DISTRIBUTION

All the prisms of the group with secure provenance come from tholoi in the Mesara (*fig.* 70 *a*).⁶⁸⁴ Out of the three examples with uncertain provenance, two come from areas in the Mesara where tholoi have come to light and one from Ligortynos to the east of the plain (*fig.* 70 *b*).⁶⁸⁵

The distribution of the seals of other forms which belong or can be related to the group is similar to that of the prisms. The large majority of examples have been recovered or are reported to have been found in areas within or more rarely, around the Mesara. Apart from these, an example comes from the Argolis in the Peloponnese, one from Agia Eirini in Kea, and three are reported to have been found in places in eastern Crete.⁶⁸⁶ Turning to the sealings which can be related to the group, it has been noted above that the great majority of them have been found in Phaistos, only a few examples coming from Monastiraki and possibly from Knossos.

The distribution of these seals suggests that their centres of production were located in south-central Crete, and most probably in the Mesara. The very small number of pieces recovered outside this area suggests that they constitute imports from the southern part of Crete.

DATING

The tholoi, from which the bulk of the material comes, were used throughout a long period of time. This fact together with the lack of clear stratigraphy does not allow the exact dating of the group on the basis of context evidence. However, both the fact that a large number of seals come from Tholos B of Platanos, which was in use predominantly in MM IA–MM II and that no seal comes from an exclusively EM context suggest that the pieces are not earlier than MM.⁶⁸⁷ Considering that the large majority of tholoi fell out of use after MM

⁶⁸³ CMS II,8 nos. 48, 49.

⁶⁸⁴ Agia Triada (Tholos A [101, 102]), Platanos (Tholos B [103–105]), Apesokari (Tholos B [216, 217]).

^{685 &#}x27;Tholos at Agios Onoufrios' (60), 'Kamilari' (357), Ligortynos (341).

⁶⁸⁶ Argolis: CMS V Suppl. 1A no. 367 (steatite, Epidauros). Agia Eirini: CMS V no. 487. Eastern Crete: CMS III nos. 78 ('Malia'), 86 ('Malia'), 99 ('Lasithi'). The affiliation with the group of **396** from Palaikastro, V Suppl. 1A nos. 51 and 52 from Gournia, and CMS IV no. 56 from 'Malia' is debatable.

⁶⁸⁷ Also in favour of dating the group later than EM III are the compositional principles encountered on the images of these seals. The occupation of the seal face by one motif contrasts with the EM glyptic in which rapport patterns and complicated images composed of various groups of smaller motifs are characteristic (for an overview of the EM II–MM IA early glyptic, see Sbonias 1995, 74–102).



Fig. 70 Distribution of the Mesara Chlorite Prisms: a. find places of prisms with secure provenance: 1. Platanos; 2.
Apesokari; 3. Agia Triada. b. find places of prisms with secure and uncertain provenance: 1. Ligortynos; 2.
Platanos; 3. Apesokari; 4. Kamilari; 5. Agia Triada; 6. Agios Onoufrios.

II⁶⁸⁸ and that none of the four pieces which come from other sites⁶⁸⁹ has been recovered in a later context, MM II must be seen as the terminus post quem non for the production of the seals of the group.

Stylistic considerations could suggest a dating to MM IA late/MM IB for the Foliage/ Multiple Strand Motif Cluster, the Prism with the Walking Agrimi, the Agrimi/Scorpion Cluster, and the Two Prisms with Ornamental Devices A. We have seen that the seals of the Foliage/Multiple Strand Motif Cluster and the Prism with the Walking Agrimi find some parallels on seals of Sbonias's Foliage/Bone Group and 'Archanes Script' Group

⁶⁸⁸ Only the Kamilari tholos was used down to the end of MM III or early LM. No information is available for the context of the Tholos B of Apesokari.

⁶⁸⁹ CMS V Suppl. 1A nos. 367, 396; CMS V Suppl. 3 no. 320; Militello 2000, 231 fig. 12.

which are dated by Sbonias to MM IA late/MM IB.690 The configuration of the intensely set off disc-shaped seal faces of the Agrimi/Scorpion Cluster prisms brings to mind the discshaped seal faces of the cube CMS II,1 no. 64 which belongs to the MM I 'Archanes Script' Group.⁶⁹¹ More to the point, most of the shapes of the seals which come close to the prisms of that cluster, i.e. gables, reels, stamp cylinders, and seals in the shape of female figures are, when cut in stone, characteristic of EM III/MM I and MM I. Yule dates the prisms of the cluster to MM IA/B on account of stylistic comparisons of the branch 104 a with devices which he names 'bilateral branches' and which are common in his EM III/MM IA Parading Lions/Spiral Complex.⁶⁹² The clear V-profiled intaglios of such devices are indeed similar to those of the prisms of the cluster.⁶⁹³ In addition, the fact that the composition on **336 b** seems to imitate motifs of the 'Archanes Script' Group⁶⁹⁴ could suggest the temporal coexistence of the Agrimi/Scorpion Cluster and this group. The stylistic similarities of the Two Prisms with Ornamental Devices A with prisms of the above clusters would suggest a similar dating for the two pieces. The similarity between the device 216 c and that on CMS V Suppl. 1A no. 396 b, which comes from a MM I context, could also suggest a MM I dating for **216**.

Yule dates the seals of the Squid/Paisley Cluster to MM IB/MM II on account of mainly context evidence and the fact that buttons and bottles which are characteristic of the cluster are mainly dated to MM IB/MM II.⁶⁹⁵ The remarkable similarities of the seals which belong to the Squid/Paisley Cluster as well as of the Two Prisms with Ornamental Devices B with the seal types of Phaistos leave no doubt that the pieces reached their floruit in MM II. The existence of a *C-spiral roof compound* and the composition of an *S-spiral* with leaves and *Triangles* on two MM II discoids from Knossos⁶⁹⁶ verify the idea that such compositions date mainly, if not exclusively, to MM II. The fact that the seal face of CMS X no. 44 which bears a composition characteristic of the Squid/Paisley Cluster is convex also suggests a MM II dating for these seals.⁶⁹⁷ Moreover, the deep cut intaglios, the broad use of board-like 'blanks', and, in some instances, the iconography of the prisms of the Squid/Paisley Cluster⁶⁹⁸ are reminiscent of the engraving on the Malia/Eastern Crete Steatite Group and

⁶⁹⁰ For this subject, see pp. 122–124, 128.

⁶⁹¹ Compare the seal faces of this piece for example to the seal faces of **104**.

⁶⁹² E.g. CMS II,1 nos. 254 a, 254 b; CMS IV no. 34 b (Yule 1980 a, 211). The Parading Lions/Spiral Complex corresponds grossly to Sbonias's EM III–MM IA early Lions/Spiral Group (for the Parading Lions/Spiral Complex, see Yule 1980 a, 208–209; for the Lions/Spiral Group, see Sbonias 1995, 89–99).

⁶⁹³ Compare especially the trifurcated upper part of the branch **104 a** to the similar elements of the devices CMS II,1 nos. 254 a, 254 b.

⁶⁹⁴ For this subject, see pp. 125

⁶⁹⁵ Yule 1980 a, 214–215; for the dating of buttons and bottles, see Yule 1980 a, 34–37.

⁶⁹⁶ CMS II,2 nos. 37 a, 41. For these discoids, see footnote 670.

⁶⁹⁷ Convex seal faces start coming into vogue during MM II. Earlier than this period, they appear mainly on soft stone discoids (for the time span of the use of discoids, see Yule 1980 a, 50–51).

⁶⁹⁸ Compare for example the composition on **60 c** to that on **235 a** (and less to those on **143 b**, **325 c**, **521 c**) of the Malia/Eastern Crete Steatite Group. Also the configuration of the *'V-flowers'* **45 b** to that of the similar devices **353**

could suggest interaction between the two traditions. The existence of a multiple strand motif on **45 a** which is iconographically and stylistically reminiscent of MM I motifs could suggest that the production of the two clusters had already started by MM I. For that reason, Yule's dating of the pieces to MM IB/MM II period is accepted.

The only hint towards dating the Prism of the Man with the "Loop" would be the composition on **503 b** which finds some parallels on prisms of the Malia/Eastern Crete Steatite Group and on numerous sealings from Phaistos.⁶⁹⁹ Because of this consideration, a tentative dating of the piece to MM IB/MM II is proposed.

Summarizing the above discussed evidence, the Mesara Chlorite Group is dated to MM IA late/MM IB-MM II.

DAWKINS PRISM

604 which was part of the Dawkins collection is known to the author by negatives kept at the archive of the CMS in Marburg (*fig.* 71).⁷⁰⁰ Its material is shiny but the rough texture of the intaglio could be indicative of a stone coarser than steatite. It is possible that the piece is cut in chlorite which, when abraded, also has a soapy texture.⁷⁰¹ The seal faces are elongated ellipsoidal. The intaglios have been created mainly by chafing, are rather shallow, and have U-profiles. Many of the elements of the motifs are linearly rendered. On it are met descriptive and ornamental images.

The prism was excluded from CMS VIII, possibly on account of doubts regarding its authenticity.⁷⁰² However, its iconography finds good parallels among some chlorite seals which are, in turn, comparable to other chlorite pieces. The configuration of the *Man in profile* as well as the Π -shaped *Stool* **604 a** are easily comparable to the same motifs on the chlorite reel Chatzi Vallianou 1987, pl. 192 e from the Sopata Kouse Tholos (*fig. 72 a, left*). The *Tridents* **604 b** find a very good parallel with the similar motifs on seal face CMS II,1 no. 452 a, which belongs to another chlorite (?) reel from 'Kamilari' (*fig. 72 b*). The central circle of the *Star rosette* CMS II,1 no. 452 b is easily comparable to the central circle of the whirl on Chatzi Vallianou 1987, pl. 192 e (*fig. 72 a, centre*).⁷⁰³ Similar iconography to these reels is shown on the bone reel CMS II,1 no. 189 from Tholos I of Lentas, two conoids with Δ -perforation, i.e. the chlorite/schist CMS IV no. 55 from 'Kaloi Limenes' and the chlorite

a, **469 a** of the Malia/Eastern Crete Steatite Group. Compare the same devices on **45 b** to the MM II hard stone seals CMS VIII no. 102 and CMS IX no. 31 and to the sealing CMS II,5 no. 190 from Phaistos.

⁶⁹⁹ Malia/Eastern Crete Steatite Group: e.g. **410 a**. Phaistos e.g. CMS II,5 nos. 213–220 (although some of these sealings were impressed by convex seal faces).

⁷⁰⁰ Found among negatives of seals which have been published at CMS VIII. The negatives of the prism are labelled DA 100 D1 (this inscription could be read as Dawkins no. 100 Dubitandum 1). The author has had the photographs published here developed from these negatives.

⁷⁰¹ For the qualities of chlorite, see pp. 32–33.

⁷⁰² See footnote 700.

⁷⁰³ For the association of the trident with the star in Minoan iconography (CMS II,1 no. 452 a, b), see Soles 2007, 254–255.



Fig. 71 The Dawkins Prism.

CMS V Suppl. 3 no. 326 from the 'Tzambakas House' in Chamaleuri, and the chlorite gable CMS X no. 41 (*fig. 72*). These seals, which unlike **604** have deep intaglios with V-profiles or, more rarely, flat board-like 'blanks', constitute the Dawkins Prism Group along with **604**.⁷⁰⁴

The fact that all but one piece of the group with a provenance come from the Mesara⁷⁰⁵ suggests that the centres of production of these seals were located in south-central Crete. Since none of the pieces has been found in a clear EM context and one piece comes from a MM I context,⁷⁰⁶ it would seem more reasonable to suggest MM I as the period of production of these seals. However, whereas most of the shapes of the seals that belong to the group fit well in the MM I period,⁷⁰⁷ the elongated seal faces of the Dawkins prism itself are strongly reminiscent of the faces of many MM II Malia/Eastern Crete Steatite Prisms. For this reason, and because the context of the chlorite reel Chatzi Vallianou 1987, pl. 192 e does not exclude a MM II dating, the Dawkings Prism Group is better dated to MM I/MM II.

PHAISTOS AGRIMI PRISM

388 is made of steatite which is engraved freehand (*fig. 73*). It has ellipsoidal seal faces and soft medium deep intaglios with U- and V-profiles. The images on all its three sides are descriptive, each showing a figural motif flanked by floral fillers.

⁷⁰⁴ No examples of sealings exist which can be attributed to seals of the Dawkins Prism Group with certainty. It would seem possible that sealings such as CMS II,5 no. 324 from Phaistos, which is, however, impressed by a convex seal face, are connected to the group in some way.

⁷⁰⁵ The exception is V Suppl. 3 no. 326 which comes from Chamaleuri in the north coast of west-central Crete.

⁷⁰⁶ CMS V Suppl. 3 no. 326. The context of CMS II,1 no. 189 is EM II–MM IA. The piece Chatzi Vallianou 1987, pl. 192 e is reported to have been found in the earth excavated by the tomb looters which is dated to EM III–MM IA/IIA. ⁷⁰⁷ Stone reels and gables are characteristic of MM I.



Fig. 72 Seals of the Dawkins Prism Group.

The closest iconographic parallels for the compositions on this piece are encountered on seals and sealings from central Crete. The *Agrimi* **388 c** is easily comparable to those on the chlorite discoids CMS VI no. 152 from 'Knossos' and CMS VI no. 154⁷⁰⁸ whereas the animal **388 b** finds an iconographic parallel on the serpentine lentoid CMS II,4 no. 145 from 'Knossos' (*fig. 74*).

Not only iconographic but often also stylistic considerations bring **388** close to the glyptic tradition represented on the Phaistos sealings. The composition on **388 a** is easily comparable to that on CMS II,5 no. 297 from Phaistos (*fig. 73 a; fig. 75 a*).⁷⁰⁹ On the two examples, man and ape have the same pose and are flanked by slightly curving "*Saw branches*". Similar "*Saw branches*" also frame the *Agrimi* of CMS II,5 no. 255 (*fig. 75 c*). While the configuration of the legs and the beak of the *Waterfowl* **388 b** brings to mind the lowest *Waterfowl* on **3 c** of the Malia/Eastern Crete Steatite Group, the rendering of the animals' body differs considerably. The intaglios of **388 b** are much softer whereas the body and tail of the bird are differentiated by vertical and horizontal hatching respectively. The hatched tail of the animal could be compared to the tail of the bird CMS II,5 no. 308. Composition, iconography, and technical execution of the *Agrimi* on **388 c** are easily comparable to CMS II,5 nos. 254, 255 (*fig. 73 c; fig. 75 b, c*). The pose of the *Agrimia* as well as the configuration of the long horns which are only distinguished from each other by a thin ridge and curve to the back ending under the root of a long ear are very similar. Also the V-shaped intaglios of CMS II,2 no. 254 and **388 c** are easily comparable. More

⁷⁰⁸ CMS VI no. 153 b which belongs to a rock crystal discoid from 'Sfaka' is also engraved with a similar *Agrimi*. ⁷⁰⁹ This latter impressed by a planoconvex seal face.



Fig. 74 Seals with iconography reminiscent of the Phaistos Agrimi Prism: a., b. discoids; c. lentoid .

VI 154

b.

II,4 145

c.

VI 152

a.



Fig. 75 Sealings with similar iconography to the Phaistos Agrimi Prism.

to the point, the overall composition of **388 c**, displaying short fine lines in front of the quadruped and a curving "*Saw branch*" diagonally above its back, is almost identical to that of CMS II,5 no. 255. Apart from these sealings, the composition and technical execution of the intaglio on **388 c** are comparable also to CMS II,5 nos. 256 and 262.⁷¹⁰ Finally, the composition on CMS II,6 no. 175 from Malia also finds a parallel to **388 c** although in this case stylistic considerations set the two pieces apart (*fig. 75 d*).⁷¹¹

 $^{^{710}}$ Compare the execution of the head of the animals on these three examples; also the V-profiled intaglio of CMS II,5 no. 262 to the intaglio of **388 c**.

 $^{^{711}}$ The animal CMS II,6 no. 175, engraved on a convex seal face, has a more robust body than that on **388 c**. The seal type can be connected to the Petschaft CMS VIII no. 33 which also has convex seal faces (compare the execution of the ear and horn of the two quadrupeds). The composition on this latter seal shows similarities to those of numerous

The fact that the best parallels for **388** are encountered on seals from 'Knossos' and sealings from Phaistos suggest a connection of the piece with central Crete. The similarities of the prism compositions with compositions from Phaistos and with those of two MM II discoids suggest a dating to MM II.

BRITISH MUSEUM PRISMS

364 and **368** are cut in steatite and are engraved freehand (*fig. 76*). Their seal faces are ellipsoidal and very slightly convex, such that the seals appear somewhat swollen. Faint traces of fine grooves can be discerned on their interfacial edges but not on their profiles, which seem to have been plain from the outset. The intaglios are deep and have either flat floors or, V- or U-profiles. **364** is engraved with representational and **368** with mainly ornamental images. It is unknown whether the '*Egyptian arrow*'**368 b** was meant to have a certain symbolism or whether it was used as a simple ornament. A preference for the depiction of vegetal motifs as well as care in rendering details in the interior of the motifs characterise the two prisms.

The compositions are not very different from those of the Malia/Eastern Crete Steatite Prisms.⁷¹² However, some of the devices do not find iconographic parallels with other Minoan seals whereas the configuration of those which do is idiosyncratic. The *Branch with leaves* **364 a**, the *Shrimp/prawn* **364 c**, and the '*Egyptian arrow*' **368 b** are foreign to the Minoan repertoire. The eight legs of the *Crab* **364 b** bring it closer to depictions of the animal on hard stone seals and distance it from its MM depictions on soft stone seals.⁷¹³ The deep outlines of the petals of the *Quatrefoil* **368 c** and the hollow central circle create an idiosyncratic device. Unique is the use of *Circles* and *Grain ellipses* as main devices and/or fillers on **368 a** and **368 b**. Also the very ornate character of the images on the two latter seal faces is unusual.

The shape and iconography of the two pieces could be taken as indications that the two seals are not Minoan. While the use of the '*Egyptian arrow*' **368 b**, which finds a parallel on the Egyptian hieroglyph T 11,⁷¹⁴ could suggest a connection of the pieces with Egypt, it would seem more probable that the pieces are modern. The closest stylistic parallels to the two prisms are encountered on the soft stone disc CMS II,1 no. 341 from Tholos B of Platanos and the chlorite bottle with horizontal perforation on the handle (?) CMS III no. 52 (*fig.* 77).⁷¹⁵

sealings from Phaistos (CMS II,5 nos. 261, 265, 266, 288, 308) but also to that of the bone (?) cushion Detournay – Poursat – Vandenabeele 1980, 181 no. 252 from Malia.

⁷¹² Compare for example the composition on **364 b** to that on **206 c**; that on **364 c** to that on **270 c**; that on **368 c** to that on **410 a**.

⁷¹³ Hard stone seals: e.g. CMS II,8 nos. 154–156; CMS XIII no. 62. Soft stone seals: e.g. 119 b, 206 c, 297 a.

⁷¹⁴ For this sign, see Gardiner 1957, 512. For another encounter of this device on a seal, see the Egyptian (?) scarab CMS VIII no. 151.

⁷¹⁵ CMS II,1 no. 34: Not steatite; compare the execution of the *Rosette* on this seal to that of the *Quatrefoil* **368** c. CMS III no. 52: Compare the configuration of the petals/leaves of the device on this seal to the configuration of the



Fig. 77 Seals with stylistically similar engraving to the British Museum Prisms: a. disc; b. bottle.

None of the two prisms has a provenance. The fact that CMS II,1 no. 341 comes from Platanos as well as the shape and material of CMS III no. 52 would suggest a provenance from the Mesara.⁷¹⁶ The Tholos B of Platanos wherefrom CMS II,1 no. 341 comes was in use from EM III–MM II. This, the material of the two prisms, their iconography which is not that dissimilar from the Malia/Eastern Crete Steatite Prisms, as well as the shape and material of CMS III no. 52⁷¹⁷ would suggest a MM IB/MM II dating for the two pieces, if they are indeed Minoan.

Grain ellipses 368 b; also the use of the J-spirals on the two compositions.

⁷¹⁶ For the connection of chlorite bottles with horizontal perforation on the handle with the Mesara, see footnote 668. ⁷¹⁷ For this subject, see the section 'Mesara Chlorite Prisms', pp. 120–134, especially pp. 131–132, 134, also footnote 668.

PLATANOS PRISM WITH THE CABLE DEVICES

106 is made of steatite and has compressed ellipsoidal seal faces (*fig. 78*). It is engraved freehand, the motifs being created by U-profiled lines that resemble cables. The engraving is regular and the intaglios smooth. The distinction of separate devices in the images is difficult or impossible because the lines from which the devices are created are continuous. Descriptive images and images of unidentifiable nature are encountered.

A small number of seals of other forms, mostly made of steatite and always having flat seal faces, can be connected to this prism (*fig.* 79). These are two four-sided prisms and a conoid.⁷¹⁸ Perhaps comparable to the prism in question but of poorer workmanship are also the devices on some rectangular plates, a gable-shaped conoid, a truncated conoid, and a stamp cylinder.⁷¹⁹

106 comes from Platanos and CMS II,2 no. 201 from Agia Triada. Two more pieces come from the 'Ierapetra town', one from 'central Crete', one from 'Sampa', and another from Gournia. Since the *Agrimi* **106 b** fits well with the iconography of the Mesara glyptic and its finding place is Platanos there is no reason to suppose that it was manufactured outside the Mesara. The same is the case for CMS II,2 no. 201, whose quadruped on side b is iconographically and stylistically similar to that of **106 b**, and perhaps also for CMS VII no. 1.

Tholos B of Platanos where **106** comes from was in use from EM III–MM II and House D II in Gournia where CMS II,1 no. 466 has come to light is dated to MM late (?)/LM early. The use of steatite and the fact that among the seals which are comparable to the prism there are also four-sided prisms, a shape common in MM II,⁷²⁰ would suggest a MM II dating for the piece.

KALO CHORIO AND PSYCHRO PRISMS WITH THE CABLE DEVICES

62 and **276** are manufactured in steatite (*fig.* 80). Their seal faces are trapezoidal, rectangular, or irregular whereas **62** is markedly larger than **276**. Like the Platanos Prism with the Cable Devices, both pieces are engraved freehand by motifs created by U-profiled lines that resemble cables. However, in these prisms the engraving is less regular and considerable correction can be seen at the walls of the intaglios. As opposed to the Platanos Prism with

⁷¹⁸ Four-sided prisms: CMS II,2 no. 201 (steatite [?], Agia Triada, Tholos A); CMS III no. 242 (?). Conoid: CMS VII no. 1 (soft stone [?]).

⁷¹⁹ Rectangular plates: CMS II,2 nos. 270 (?) ('Ierapetra town'), 271 (?) ('Ierapetra town'); CMS VI no. 24? (?) ('Central Crete'). Gable-shaped conoid: CMS II,1 no. 461 ('Sampa'); the term *gable-shaped conoid* has been adapted from the CMS Database. Truncated conoid: CMS XII no. 23. Stamp cylinder: CMS II,1 no. 466 (clay, Gournia, House D II). Perhaps also comparable to these pieces is the reel CMS V Suppl. 1B no. 89?

⁷²⁰ The majority of Minoan four-sided soft stone prisms are cut in steatite and belong to the Malia/Eastern Crete Steatite Group (see p. 104). An exception constitutes CMS II,1 no. 388 from Platanos which is cut in another soft stone and is engraved with the same device on all seal faces.



Image: Will 1
Image: Will 2

VII 1
Image: Will 2

Image: Will 2
Image: Wi

Fig. 79 Seals related to the Platanos Prism with the Cable Devices.

the Cable Devices, the devices do not touch each other and units can be clearly distinguished. The nature of the images as well as that of most of the devices is, however, unidentifiable.

Some seals of other forms also belong to the same group as the two prisms (*fig. 81*). These, a conoid, a stamp cylinder, two signets, and perhaps a horn are mostly cut in steatite, have flat seal faces, and show incomprehensible images composed of lines, circles, and blobs.⁷²¹ To the broader stylistic environment of these pieces can be added three further conoids, two discs, two stamp cylinders, and a pyramidoid.⁷²²

Worth noting is the stylistic and iconographic similarities of these pieces to a steatite seal published as archaic and whose motifs are also created by lines which resemble cables (*fig.* 82).⁷²³ In its publication, the piece is described as an amulet seal comparable to seals

a.

⁷²¹ Conoid: CMS II,1 no. 490; perhaps also CMS V Suppl. 3 no. 427 (Rafina, road between the buildings Γ and E)? Stamp cylinder: CMS III no. 35. Signets: CMS II,1 no. 109 ('Agios Onoufrios, Tholos'); CMS III no. 36 (chlorite [?]). Horn: CMS VI no. 16 ('Kalamauka, Acropolis').

⁷²² Conoids: CMS III no. 49 (?) ('Siteia'); CMS VI no. 17 (?); CMS V no. 204 ('Knossos'). Discs: CMS II,1 nos. 214 (?) (Lentas, Tholos IIa); 426 (Phaistos, Old Palace). Stamp cylinders: CMS II,1 no. 105 (clay, 'Agios Onoufrios, Tholos'). Pyramidoid: CMS II,1 no. 113 ('Agios Onoufrios, Tholos').

⁷²³ Max Bernheimer 2007, 33 no. EG-1.



Fig. 80 The Kalo Chorio and the Psychro Prisms with the Cable Devices.



Fig. 81 Seals which are related or belong to the same group as the Kalo Chorio and the Psychro Prisms with the Cable Devices.



Fig. 82 An Archaic (?) steatite seal which shows stylistic and iconographic similarities to the Kalo Chorio and the Psychro Prisms with the Cable Devices (adapted from Max Bernheimer 2007, 33 no. EG-1).



Fig. 83 Four-sided prism from a Sixth Dynasty grave in Mahâsna, Egypt (adapted from Evans 1909, 129 fig. 66).

which come from the Greek islands and especially Rhodes during the first half of the 7th century.⁷²⁴ While the nature of the depicted motifs does not rule out the possibility that such similarities could be accidental,⁷²⁵ the partly shared compositions between the Minoan seals and the seal in question would suggest that the latter, if indeed archaic,⁷²⁶ copies Minoan prototypes.⁷²⁷ Certain similarities can also be seen between the seals of the group and a Sixth Dynasty or somewhat later Egyptian four-sided prism (*fig. 83*).⁷²⁸ Since devices

⁷²⁴ Max Bernheimer 2007, 33. For the amulet seals, see Boardman 1963, 136–144.

⁷²⁵ Linear devices and circles are simple motifs which can be easily devised independently and need not always suggest contact between two traditions.

⁷²⁶ On iconographic criteria, the possibility that the piece is Minoan cannot be ruled out. However, its shape, a pyramidoidal rectangular plate with loop, is unprecedented among Minoan seals.

⁷²⁷ Compare the composition on Max Bernheimer 2007, 33 no. EG-1f (*fig.* 82 b) to those on CMS II,1 nos. 109 (*fig.* 81 d), 214 b; CMS V no. 204.

⁷²⁸ Garstang 1989, 33-34; Evans 1909, 129 fig. 66. Compare especially the Unidentifiable motif LIII 62 c with the

created by cable-like lines and circles are common in Egyptian seals,⁷²⁹ it is possible that the Minoan pieces show some Egyptian influences.

Evans saw on the crude form and linear devices of the Kalo Chorio piece a prototype for the prisms of the Malia/Eastern Crete Steatite Group and suggested a relationship of its devices with the hieroglyphic script.⁷³⁰. He saw the motifs of this piece as 'primitive designs' partly showing 'an anticipation of alphabetic forms' and spoke of 'primitive signs of alphabetic aspect which stand in a near relation to the more advanced linear scripts of Minoan Crete' with regard to the devices of the seals of the group.⁷³¹ It is true that the linear character of the motifs of these seals in combination with the fact that, in most cases, more than one incomprehensible device are combined on one seal face creates the impression of writing. However, the fact that the motifs can hardly be connected to any of the Cretan hieroglyphs⁷³² as well as the fact that many of them come from southern Crete where the hieroglyphic script is not common, underline the tentative character of such a connection.

The provenance of these seals does not provide hints regarding their production centres because they come from areas in the northern, southern, and eastern part of the island.⁷³³ According to its excavator, the context of CMS II,1 no. 214 is EM II. However, two blocks of the Knossos Palace with incised motifs which are stylistically similar to the devices of the Kalo Chorio prism are dated by Evans to early MM I.⁷³⁴ Moreover, the forms of the seals which belong or come close to the group and among them especially horns and steatite stamp cylinders are common in EM III/MM I.⁷³⁵ These considerations would suggest a dating of the group to early (?) MM I if not to EM III/MM I.

PLATANOS ORNAMENTAL PRISM

Although the exact identification of the material of **107** is not possible, the seemingly rough texture of its surface could be taken as an indication for the use of chlorite instead of steatite (*fig. 84*). The piece has round seal faces surrounded by deep grooves and only one

 $[\]Pi$ -shaped device on Evans 1909, 129 fig. 66 b; also the two *Parallels* **276 c** with those on Evans 1909, 129 fig. 66 d. ⁷²⁹ E.g. also Flinders Petrie 1925, pl. V no. 344.

⁷³⁰ Evans 1909, 115–116.

⁷³¹ Evans 1909, 116, 118. The group is handled in Evans 1909, 115–118.

 ⁷³² CMS V no. 204 is an exception because the *Saltire* is reminiscent of the CHIC sign X and the device on the other edge of the composition brings to mind the CHIC sign 034. Jasink sees on CMS VI no. 16 a possible hieroglyphic inscription (Jasink 2009, 192 tbl. 3 SM P. 14). For a table of the signs of the Cretan hieroglyphic script, see CHIC, 17.
⁷³³ From north-central Crete: CMS V no. 204 ('Knossos'). From the Mesara: CMS II,1 nos. 105 ('Agios Onoufrios'), 109 ('Agios Onoufrios'), 113 ('Agios Onoufrios'), 214 (Lentas), 426 (Phaistos). From east-central or eastern Crete: 62 ('Kalo Chorio Pediados'); 276 ('Psychro'); CMS III no. 49 ('Siteia'); CMS VI no. 16 ('Kalamauka').

⁷³⁴ Evans 1921, 131 fig. 97, 132 fig. 98. Compare the former to **62 a** and the latter to **62 b**. The stylistic similarity of the Kalo Chorio prism to these blocks is also noted by Yule (Yule 1980 a, 68). For the dating of the blocks, see Evans 1921, 127–133.

⁷³⁵ For examples of bone/boar's tusk/hippo ivory horns, see CMS II,1 nos. 79, 231; CMS IV no. 49; CMS X no. 7. For a soft stone example, see CMS IV no. 68 (chlorite or schist). For examples of steatite stamp cylinders, see CMS II,1 nos. 169, 305, 411, 477; CMS III nos. 33, 34.

engraved face. The fact that the prism was deposited in a tholos suggests that the remaining faces were deliberately left unengraved. The devices, all of purely ornamental nature, are created by the combination of lines and 'cup sinkings' cut with vertical pressure files and drills.

Because of the simplicity of the composition on **107 a**, possible parallels do not need to always belong the same development. Most easily comparable to the compositions of this prism are the compositions on a bone animal head finial and a chlorite reel (*fig. 85 a*, *b*).⁷³⁶ Less easily compared to it are the compositions of a chlorite bottle with horizontal perforation on the handle, two buttons, a chlorite reel, and a steatite stamp cylinder (*fig. 85 c*).⁷³⁷ The composition of **107** and those of the above mentioned seals find some parallels among the Phaistos sealings (*fig. 86*).⁷³⁸

107 as well as the seals with similar iconography come from the Mesara. This, as well as the fact that the sealings with comparable compositions come from Phaistos, suggest that the production places of these pieces were located in the Mesara. The few existing contexts speak in favour of MM II as terminus post quem non for the production of these pieces.⁷³⁹

On account of shape and material, CMS II,1 no. 21 can be dated to the EM period. On the other hand, the use of soft stone, the representation of buttons and bottles with horizontal perforation on the handle, as well as the convex seal faces of CMS II,1 no. 152, would suggest a MM IB/MM II dating for the remaining seals.⁷⁴⁰

CENTRAL CRETE ORNAMENTAL PRISMS

2.9 % of the existing prisms belong to this group (*fig.* 87).⁷⁴¹ The majority of pieces are cut in steatite but a variety of whitish materials, i.e. some kind of paste, faience or another related substance, perhaps soft stone, and pebble stone are also used. It is possible that, initially, the pieces made of whitish materials were glazed.⁷⁴²

The seal faces of these prisms are always ellipsoidal. Often, one is markedly narrower than the other two whereas at times, the length of the seal faces is somewhat smaller than

⁷³⁶ Bone animal head finial: CMS II,1 no. 21 (Agia Triada, Tholos A). Chlorite reel: CMS II,1 no. 152 (Koumasa, Tholos A, convex seal faces).

⁷³⁷ Chlorite bottle with horizontal perforation on the handle: CMS III no. 97 ('Apesokari'). Buttons: CMS II,1 no. 100 (soft stone, Agia Triada, Tholos A). Chlorite reel: CMS II,1 no. 116 ('Agios Onoufrios, Tholos'). Steatite stamp cylinder: CMS V Suppl. 1A no. 270 ('Moni Odigitria'). Compare CMS V Suppl. 1A no. 270 b to the compositions on CMS II,1 nos. 274 (bone, Platanos, Tholos B), 289 (bone, Platanos, Tholos B).

⁷³⁸ CMS II,5 nos. 70, 100 (?), 115, 120.

⁷³⁹ **107** comes from Tholos B or Tholos Γ of Platanos. The first was used in EM III–MM II and the second in EM III–MM I. CMS II,1 nos. 21 and 100 come from Tholos A of Agia Triada which was in use from EM II–MM II. CMS II,1 no. 152 comes from Tholos A of Koumasa which was used in EM II–MM II (?).

⁷⁴⁰ For this subject, see pp. 136–137.

⁷⁴¹ 21, 56, 83, 121, 133, 252, 258, 259, 290, 320, 328, 359, 395, 409, 442, A.2, A.5, A.10.

⁷⁴² For this subject, see p. 35.



107 a (II,1 344)

Fig. 84 The Platanos Ornamental Prism.







Fig. 86 Sealings with similar compositions as the Platanos Ornamental Prism.

that of the seal body.⁷⁴³ In all but one case, deep grooves surround the seal faces. **409**, which does not show such grooves, shows signs of considerable use. Such wear allows for the possibility that the initially existing grooves have been obliterated by abrasion.⁷⁴⁴

⁷⁴³ One seal face narrower than the other two: e.g. **21 a**, **121 a**. The length of the seal faces smaller than the seal body: e.g. **21**, **121**.

⁷⁴⁴ As is the case with **56**, **290**, **359**. On these pieces, faint short strokes on the interfacial edges and/or on the profiles are the only witnesses of the initial existence of grooves.

As a rule, these seals are engraved with vertical pressure files and drills. The only exception to that is **121 a** whose irregular intaglios suggest that the motif was carved freehand instead (*fig. 87 d*). For individual pieces, the possibility that they were cut with tools operated on the spindle cannot be ruled out.⁷⁴⁵ The intaglios are regular, smooth, and have U- or, in the case of some 'cup sinkings', V-profiles. The iconographic repertoire consists of compositions of ornamental nature created by lines, centred-circles, and 'cup sinkings'.

STYLISTIC CONSIDERATIONS

Material, iconography, and technical execution allow the division of the Central Crete Ornamental Prisms into two clusters. The first consists of pieces cut in steatite and can be named the Steatite Cluster (*fig. 87 a–h*).⁷⁴⁶ Single, double, and triple *Centred-circles* and, more rarely, *Blobs* are combined in various repetition compounds, such as *Pairs/Rows*, *Rosette patterns*, and *Cross patterns*, or function as main devices (*fig. 87 a–c, f–h*). Lines are combined in such ways that they form *Parallels*, *Grids*, or more rarely *Line combs* and *Radial hatching* (*fig. 87 d, e, g, h*). Occasionally, *Lines* stand individually and function as main devices.⁷⁴⁷

The various devices can both stand alone on the seal face or be combined with other patterns (*fig.* 87, alone: a-e; with other devices: f-h). The elements of the devices but also those of the compositions as a whole are loosely bonded such that the images have an animated and rather playful character. This is also underlined by the fact that, often, the circles of the *Centred-circles* are only partly executed such that they are actually crescents (*fig.* 87 *a*).⁷⁴⁸

The second cluster consists of the prisms made of whitish materials and is referred to as the White Prisms Cluster (*fig.* 87 i-p).⁷⁴⁹ Double and triple *Centred-circles*, *Parallels*, *Grids*, and *Radial hatching* are not met. *Blobs* are particularly favoured and are met either as main devices or as part of repetition compounds such as *Pairs/Rows* and *Cross patterns* (*fig.* 87 j, *l*, *m*–*p*). *Centred-circles* function as main devices or as basic elements of *Pairs/Rows* (*fig.* 87 i-l). *Line combs* are very common, whereas *Line Ks*, and *Simple grids* are also met (*fig.* 87 k-o).

Whereas compositions put together of only *Centred-circles* and/or *Blobs* are met,⁷⁵⁰ repetition compounds composed of *Centred-circles* or *Blobs* never stand alone on the seal face. More to the point, no images put together exclusively of devices composed of lines

⁷⁴⁵ For this subject, see pp. 45–46.

⁷⁴⁶ 21, 56, 83, 121, 133, 259, 290, 320, 359, 409, 442, A.2, A.10.

⁷⁴⁷ E.g. **21 a**.

⁷⁴⁸ For this subject, see pp. 46–47, 273.

⁷⁴⁹ 252, 258, 328, 395, A.5.

⁷⁵⁰ E.g. **328 c**, **395 b**.

c.

g.

k.



21 c (I Suppl. 108 c) a.



133 c (II,2 55 c) e.



328 c (III 220 c)

i.

m.



359 c (V 483 c) b.



133 a (II,2 55 a)

f.

j.

n.



409 c (XII 78 c)

259 a

A.5 a



121 a (II,2 294 a)



A.2 b



1.

d.



258 c





328 b (III 220 b)

A.5 b



395 c (V Suppl. 3 222 c) 0.



395 b (V Suppl. 3 222 b) p.

Fig. 87 Central Crete Ornamental Prisms: a.-h. the Steatite Cluster; i.-p. the White Prisms Cluster.

are met. *Line combs*, *Line Ks*, and *Simple grids* are always combined with *Centred-circles* and/or *Blobs* on the seal face (*fig.* 87 k–o).

The devices are executed with more care that those of the previous cluster. Semi-finished circles are absent, whereas more often than in the Steatite Cluster, the *Blobs* have a conical profile. The characteristically broad and particularly regular intaglios create the impression of the employment of tools operated on the spindle.⁷⁵¹

395 from Midea stands out on account of both iconography and technical execution (*fig.* 87 *o*–*p*). As opposed to the rest of the prisms of the group, the compositions are static. The *Centred-circles* and the *Blobs* of **395 a** and **395 c** are distributed on two sides of a *Simple grid* (*fig.* 87 *o*). In contrast to all other White Prisms, the intaglios are medium deep, the lines are thin, and the *Blobs* have U- instead of V-profiles.

These differences in combination with the fact that the piece has been found outside Crete could be seen as indicative of a non-Minoan origin. In the case that this were true, the piece could be a MH seal which copies a Minoan White Prism. The glossiness which faience would have in its original state could suggest an attempt to create a similarly looking piece to the, possibly originally glazed, White Prisms.

However, iconographic and stylistic considerations would speak in favour of the Minoan origin of the piece. The composition on **395 b** is easily comparable to the composition on the soft stone Petschaft CMS II,1 no. 335 (*fig. 88 i*).⁷⁵² The static compositions of **395 a** and **395 c** find parallels to those on an unpublished steatite signet at the Heraklion Museum, on CMS V Suppl. 1A no. 270 b which belongs to a steatite stamp cylinder, on the conoid CMS II,2 no. 61, and on an unpublished chlorite button at the Heraklion Museum (*fig. 85 c*).⁷⁵³ Moreover, the composition on CMS V Suppl. 1A no. 270 a is not very different from that on **395 b**. The fact that the patterns on CMS V Suppl. 1A no. 270 b and the aforementioned chlorite button are also comparable to a certain extent to the composition of the Platanos Ornamental Prism could suggest that the latter and the White Prisms belong to the same glyptic tradition.

SEALS OF OTHER SHAPES RELATED TO THE CENTRAL CRETE ORNAMENTAL PRISMS

A large number of seals of other shapes are related to the Central Crete Ornamental Prisms and form with them the Central Crete Ornamental Group (*fig. 88*).⁷⁵⁴ Numerous steatite pieces come close to the first cluster whereas only a handful of examples, also partly made of steatite, are rather closer to the second. The boundaries between the two are not always clear and often, pieces attached to one are also related to the other. The seal faces of these

⁷⁵¹ For this subject, see pp. 45–47.

⁷⁵² From Platanos, Tholos B.

⁷⁵³ CMS II,2 no. 61: Knossos, Profitis Ilias Cemetery, Grave VII; CMS V Suppl. 1A no. 270: 'Moni Odigitria'. The two unpublished seals also come from locations in southern Crete.

⁷⁵⁴ For this group, see also Thomas 2000, 306–307.

seals are either flat or, more rarely, convex. The group consists of 24 % prisms and 76 % seals of other shapes.

The majority of the seals which come close to the steatite prisms are Petschafte and discoids.⁷⁵⁵ Pyramidal signets, buttons, discs, scaraboids, cushions, rectangular plates, and crosses follow.⁷⁵⁶ Finally, to the same cluster belong also a foot, a conoid, a half-conoid, a foliate back, a planoconvex seal, and a lentoid.⁷⁵⁷ Close to the second cluster are a gable with three engraved sides and a cushion as well as a signet and a Petschaft which, as has been noted above, can be connected with **395**.⁷⁵⁸

⁷⁵⁵ Petschafte: CMS II,2 nos. 27 (Tylisos, Houses), 44 (slightly convex seal face [?], Knossos, Profitis Ilias Cemetery, Grave V), 64 (convex seal face, Knossos, Profitis Ilias Cemetery, Grave VIII); CMS X no. 273 (slightly convex seal face, 'Crete'); CMS XI no. 289 (slightly convex seal face, Agia Triada, Tholos A); CMS XII no. 53. Also CMS II,1 no. 334 (Platanos, Tholos Γ); CMS II,2 no. 202 ('Phaistos'); CMS III no. 108 ('Malia'); CMS V no. 285 (Apodoulou, Mansion, Room near H); CMS V Suppl. 1A no. 323 ('Moni Odigitria'). Perhaps also CMS XII no. 52? Discoids: CMS II,2 no. 51 (Knossos, Profitis Ilias Cemetery, Grave VI); CMS IV no. 81 ('Phaistos'); CMS VII nos. 25, 27; Dimopoulou 2000, 32 no. 7 (Poros Katsampas, Psychogioudakis plot, filling deposit of a well). Also CMS II,2 no. 5 (Kamilari, Tholos); CMS III no. 116; CMS V Suppl. 1B no. 363 (Akrotiri Thiras, 'West house, ground levelled Room 5'); CMS V Suppl. 3 no. 146 ('Moni Odigitria'). CMS VI no. 160 is close to the cluster but its composition is different from the ones met on the existing prisms.

⁷⁵⁶ Pyramidal signets: CMS II,2 nos. 49 (Knossos, Profitis Ilias Cemetery, Grave V), 330; CMS VIII no. 26; CMS XII no. 54. CMS III nos. 69, 70 ('Tylisos'), 71 ('Knossos') are close to the cluster but their compositions are different from the ones encountered on the existing prisms. Buttons: CMS II,2 no. 74 (Episkopi, Kefala, Grave B); CMS IV nos. 77 ('Kamilari'), 80 ('Miamou'); CMS V Suppl. 1A no. 322 ('Moni Odigitria'); CMS XII no. 36 (steatite [?], elongated handle); Sakellarakis – Sakellaraki 1980, pl. 222 up left (slightly convex seal face, Archanes, burial building 16); Lempesi 1987, 287 fig. 10 (schist [?], Symi Viannou, Sanctuary of Hermes and Afrodite). CMS XII no. 69 is close to the cluster but its composition is different than the ones met on the existing prisms. Discs: CMS II,2 no. 253 (Mochlos, Grave XVI); CMS III no. 117; CMS XII no. 76; Popham et al. 1984, pl. 186 (d) H 259 (Knossos, Unexplored Mansion); also CMS III no. 118. Scaraboids: CMS II,1 no. 154 (?) (Koumasa, Tholos A); CMS II,2 no. 84 (Malia, Quartier Θ); CMS XII no. 75; Dimopoulou 2000, 32 no. 6 (Poros Katsampas, Psychogioudakis plot, pit), 34 no. 19 (Poros Katsampas, 'Building with Frescoes'); perhaps also CMS VIII no. 27. Cushions: CMS III no. 148 (?) ('Lasithi'); CMS IV no. 84? ('Mesara'); CMS X no. 60; CMS XI no. 145 ('Knossos'). Rectangular plates: CMS I no. 427; CMS XII no. 81. Crosses: CMS III nos. 29, 30.

⁷⁵⁷ Foot: CMS X no. 55. Conoid: CMS IV no. 76 ('Malia'). Half-conoid: CMS II,1 no. 164 (Koumasa, Tholos B). Foliate back: CMS IX no. 27. Planoconvex seal: CMS II,1 no. 501. The term *planoconvex seal* is borrowed from the designation of the seal shapes in the CMS Database. Lentoid: CMS X no. 57.

⁷⁵⁸ Gable with three engraved sides: CMS II,2 no. 53 (Knossos, Profitis Ilias Cemetery, Grave VI). Cushion: Dimopoulou 2000, 36 no. 28 (white paste, Poros Katsampas, Seal and Jewellery Workshop in a late LM IA building). Signet: unpublished (kept at the Heraklion Museum). Petschaft: CMS II,1 no. 335 (soft stone, Platanos). Perhaps also CMS II,2 no. 39 (soft stone, Knossos, Mauro Spilaio Cemetery, Grave XVII, Chamber B)? A group of buttons and discoids which are made of chlorite or, more rarely, schist also belongs to the same tradition as the Central Crete Ornamental Prisms (Buttons: CMS II,2 nos. 38 [slightly convex seal face, chlorite, Knossos, Mauro Spilaio Cemetery, Grave XVII, Chamber B], 66 [chlorite, Knossos, Profitis Ilias Cemetery, Grave IX], 278 [slightly convex seal face, chlorite [?], 'Lithines']; CMS III nos. 84 [chlorite], 85 [schist [?]]. Discoids: CMS I no. 431 [serpentine or schist]; CMS III no. 138 [chlorite, 'Knossos']; CMS XI no. 216 [chlorite 'Agios Giannis']). These pieces constitute part of a somewhat different development in which chlorite/schist and compositions composed of groups of fanshaped *Radial hatching* combined with *Centred-circles* are favoured (for further examples of seals of this group, see the buttons CMS II,2 no. 149; CMS VI no. 115. Also the gable-shaped button CMS II,1 no. 486 [the term *gable-*



Fig. 88 Other seals of the Central Crete Ornamental Group: a.-f. the Steatite Cluster; g.-i. the White Prisms Cluster.

The compositions of the seals of the Central Crete Ornamental Group can be divided into three rough groups. The first group consists of those compositions whose devices are composed of only 'cup sinkings', centred-circles, or lines (*figs. 87 a–e; 88 a, f, i*). The second kind of compositions combine in segmented images devices built of 'cup sinkings', centred-circles, or lines. Because each of the devices occupies one part and edge of the seal face and does not intermingle with the rest, each can be observed as a separate unit (*fig. 87 h; 88 b*).⁷⁵⁹ In the third kind of compositions, devices composed of 'cup sinkings', centred-circles, or lines are intermingled with each other such that coherent inseparable compositions result (*fig. 87 k, m–o*).⁷⁶⁰

shaped button is borrowed from the nomenclature of the seal shapes in the CMS Database]. And especially the discoids CMS III nos. 136, 137; CMS VI no. 161; CMS IX no. 28; CMS XIII no. 93).

⁷⁵⁹ E.g. 56 b, 290 b, 320 b, 442 c.

⁷⁶⁰ E.g. 21 a, 259 a, 320 a, 290 a.


Fig. 89 A hard stone three-sided prism related to the Central Crete Ornamental Group.

A HARD STONE THREE-SIDED PRISM RELATED TO THE CENTRAL CRETE ORNAMENTAL PRISMS

CMS VI no. 99, cut in 'unnaturally white' agate⁷⁶¹ with tools operated on the spindle, comes close to the White Prisms Cluster (*fig. 89*). The seal faces of the piece are surrounded by deep grooves. The compositions of CMS VI no. 99 a and CMS VI no. 99 c are easily comparable to similar compositions on the White Prisms.⁷⁶² On the other hand, CMS VI no. 99 c does not fit comfortably within the cluster or the Central Crete Ornamental Group. This is because *Circles* created by the tubular drill and *'Lily flowers'* are foreign to this group. It has been mentioned that drilled *Circles* are met only in connection with medium-hard and hard stone seals.⁷⁶³ The combination on this piece of devices typical of soft stone seals with those characteristic of hard stone seals attests to the overlapping of the two traditions.⁷⁶⁴

SEALINGS IMPRESSED BY CENTRAL CRETE ORNAMENTAL SEALS

Most impressions which can be attributed to seals of the group come from Phaistos (*fig. 90 a–f*). The majority of those were impressed from seals of the Steatite Cluster which had rectangular and round seal faces, although other shapes are also represented (*fig. 90 a–c*).⁷⁶⁵ The White Prisms Cluster is represented by fewer sealings impressed by ellipsoidal, round, and rectangular seal faces (*fig. 90 d–f*).⁷⁶⁶

⁷⁶¹ CMS VI. The piece comes from 'Papoura'.

⁷⁶² Compare for example CMS VI no. 99 a to **395 c**; CMS VI no. 99 c to **258 c**, **A.5 a**.

⁷⁶³ For this subject, see pp. 37, 42–43, 109, also footnote 552.

⁷⁶⁴ Typical of soft stone seals: CMS VI nos. 99 a, 99 c. Characteristic of hard stone seals: CMS VI no. 99 b.

⁷⁶⁵ Rectangular: CMS II,5 nos. 4, 31, 32 (?), 34, 47, 48 (?), 50 (?). Round: CMS II,5 nos. 12 (?), 14, 56, 58, 111, 129, 130. Also CMS II,5 nos. 128 and 131? Or are these impressed by chlorite/schist seals of the group discussed on footnote 758? Rosette-shaped: CMS II,5 nos. 62, 127. Ellipsoidal: CMS II,5 no. 30. Quadrangular: CMS II,5 no. 61 (?). In cases such as CMS II,5 no. 1 (somewhat convex seal face), 3 (somewhat convex seal face), 6, 9, 11 it is not possible to define whether the intaglios belonged to seals which were connected to the group.

⁷⁶⁶ Round: CMS II,5 nos. 23 (somewhat convex seal face), 28, 112. Perhaps also CMS II,5 nos. 22, 24 (somewhat convex seal face), 36, 101, 121? Rectangular: CMS II,5 nos. 26, 27. Ellipsoidal: CMS II,5 no. 16. CMS II,5 nos. 97–99 from Phaistos and Kanta 1999, pl. LXXXIV Mo 441 left from Monastiraki are close to the seals of the group



Fig. 90 Sealings of the Central Crete Ornamental Group.

Apart from those, two ellipsoidal sealings from Knossos, one from Gournia, and perhaps one from Malia also show compositions more or less comparable to the compositions of seals of the group (*fig. 90 g, h*).⁷⁶⁷

DISTRIBUTION

The find spots of prisms with secure provenance are situated in central Crete (*fig. 91 a*). 50 % of these pieces come from the Knossos – Heraklion area, 17 % were recovered in the Mesara, and 33 % were found in places outside Crete. When the pieces with insecure provenance are also considered, 46 % of the prisms come from the Knossos – Heraklion district, 18 % from the Mesara, 18 % from locations in east-central and eastern Crete, and 18 % from places outside Crete (*fig. 91 b*).

The distribution of the seals of other shapes paints a similar picture. Further find places are now Mochlos, Symi Viannou, Lasithi, Archanes, Tylisos, Episkopi, Apodoulou, Phaistos,

but their compositions differ from those met there. Compare these sealings for example to CMS VI no. 160. ⁷⁶⁷ Knossos: CMS II,8 nos. 59 (?), 108. The loose combination of the *Centred-circles* on CMS II,8 no. 108 is somewhat foreign to the group. However, the flat ellipsoidal seal face is indicative of a prism whereas the fact that the *Centred-circles* are put together in an irregular, non-static composition brings the latter close to the playful and motioned compositions of the group (on the other hand, the static composition on CMS II,8 no. 107 fits better with the compositions of some LM rectangular plates, such as CMS II,4 no. 68 a and CMS V Suppl. 1B no. 218 a). CMS II,8 no. 59 finds a distant parallel to **395 b** and CMS II,1 no. 335. Gournia: CMS II,6 no. 156. Malia: CMS II,6 no. 207 (?).

and Akrotiti Thiras. 48 % of the pieces with secure provenance come from north-central Crete, 32 % from south-central Crete, 12 % from east-central and eastern Crete, 4 % from north-western Crete and 4 % from outside Crete. When seals with insecure provenance are also considered, the seals which come from south-central Crete are represented by 45 %, from north-central Crete by 34 %, from east-central and eastern Crete by 15 %, from outside Crete by 3 %, and from north-western Crete by 3 %.

It has been noted above that the majority of sealings which can be attributed to seals of the group have been recovered in Phaistos. Two possible examples have also come to light in Knossos whereas individual pieces have been found in Gournia and perhaps Malia.

The evidence suggests that the production centres of these seals were located in central Crete. Pieces recovered outside this area were probably imports from there.⁷⁶⁸ The distribution of steatite seals with segmented compositions composed of *Grids* and *Centred-circles*⁷⁶⁹ suggests that these were produced in the Knossos – Heraklion area. Their workshop as well as that of some other steatite seals with similar iconography⁷⁷⁰ could perhaps be localised at Poros Katsampas. In this area two workshop fresh steatite seals of the group have come to light⁷⁷¹ as well as a seal and jewellery workshop of a later period.⁷⁷² Two seals of the White Prisms Cluster which have been recovered in Poros Katsampas must also have been produced there.⁷⁷³ The large amount of seals that come from the Knossos – Heraklion area makes the scarcity of corresponding sealings from Knossos stand out.

Perhaps connected with south-central Crete are steatite seals whose compositions are somewhat more elaborate than those of the above mentioned pieces and which show greater care for precision.⁷⁷⁴ The fact that some of these pieces come from the south-central part of the island and that their compositions find parallels with numerous sealings from Phaistos⁷⁷⁵ could suggest that elaboration and greater care for precision on steatite seals is connected with the south part of central Crete.

⁷⁶⁸ However, the possibility cannot be ruled out that CMS II,2 no. 84, which was found in Malia constitutes a local product (an imitation of a Central Crete Ornamental Seal?). For seals of the Malia/Eastern Crete Steatite Group with similar compositions, see pp. 98–99).

⁷⁶⁹ E.g. A.2 ('Knossos'); CMS II,2 nos. 51 (Knossos), 64 (Knossos); CMS XI no. 145 ('Knossos'); Popham et al. 1984, pl. 186 (d) H 259 (Knossos); Dimopoulou 2000, 32 no. 7 (Poros Katsampas); 34 no. 19 (Poros Katsampas). CMS II,2 no. 27 comes from Tylisos which is not far from the district in question. CMS II,2 no. 253 from Mochlos and CMS XI no. 289 from Agia Triada could be seen as imports from the north-central part of the island. For the compositions met on the Central Crete Ornamental Seals, see p. 154.

⁷⁷⁰ Compare for example **133** from Knossos to **259** from Poros Katsampas.

⁷⁷¹ **259**; Dimopoulou 2000, 32 no. 7. Also from the same area is Dimopoulou 2000, 34 no. 19 which is only somewhat abraded, as well as Dimopoulou 2000, 32 no. 6.

⁷⁷² Late LM I (Dimopoulou 2000, 35–36). For the dating of the seals of the group, see pp. 158–159.

⁷⁷³ **258** and Dimopoulou 2000, 36 no. 28.

⁷⁷⁴ E.g. CMS II,2 nos. 5 (Kamilari), 202 ('Phaistos'); CMS III nos. 116, 118.

⁷⁷⁵ Compare the compositions of the above mentioned pieces for example to those on CMS II,5 nos. 11, 12, 14, 58, 111, 130.



b.

Fig. 91 Distribution of the Central Crete Ornamental Prisms: a. find places of prisms with secure provenance:
1. Knossos; 2. Heraklion; 3. Moni Odigitria; (4. Agia Eirini, Kea; 5. Midea, Argolida). b. find places of prisms with secure and uncertain provenance:
1. Mirampelo; 2. Malia; 3. Knossos; 4. Heraklion; 5. Moni Odigitria; 6. Mesara; (7. Agia Eirini, Kea; 8. Midea, Argolida).

DATING

According to the excavator, one prism comes from the upper layers of an EM III/MM IA pottery context.⁷⁷⁶ The contexts of the remaining prisms are dated to MM II, MM III, middle to late MBA which possibly corresponds to MM IIB/MM IIIA, and MM IIIB/LM IA.⁷⁷⁷

Among the seals of other forms, one piece came to light in a grave used from EM I/EM II–MM I.⁷⁷⁸ According to its respective excavators, another seal comes from an EM II–MM

^{776 252.}

⁷⁷⁷ MM II: **259**. MM III: **133**. Middle to late MBA possibly corresponding to MM IIB/MM IIIA: **359**. MM IIIB/LM IA: **258**.

⁷⁷⁸ CMS II,1 no. 164.

I context and a third from a building used in MM IA.⁷⁷⁹ Five pieces have come to light in constructions which were in use during EM–MM II, MM IA/MM II, and MM IB–MM IIIB.⁷⁸⁰ The contexts of five pieces are dated to MM II/MM III, those of three to MM III and those of further individual seals to MM IIIB/LM IA, late LM IA, LM, and LM III.⁷⁸¹

This evidence points to MM II/MM III, and perhaps more MM III, as the period of floruit of the seals of the group. The recovery of a White Prism which is workshop fresh from a MM IIIB/LM IA context and of a cushion of the same cluster from a late LM IA context could suggest that some pieces were still being produced at the end of MM III/early LM IA.⁷⁸² In favour of this could also speak the fact that two steatite pieces of the group have come to light in contexts of this period. The fact that the aforementioned cushion is the only seal from a late LM IA context as well as the lack of other such seals from further LM contexts suggests that the group ceased to be produced after the early LM I. One piece recovered in a LM III context should be seen as an heirloom or chance Postpalatial find.

The stylistic similarities of the four pieces reported to have been recovered in contexts used no later than MM I with a large number of seals which come from MM II/MM III contexts could be taken as an indication that the contexts of the four pieces were used later in the MM period. This would seem very possible especially for **252** whose affiliation with the White Prisms Cluster would not justify such an early date.⁷⁸³ Moreover, the use of steatite as well as the shapes of the seals affiliated to the group would suggest that the production of these pieces became popular after MM I. While no seals typical of MM I are met, Petschafte are characteristic MM II shapes whereas discoids, pyramidal signets, and cushions with thick rims are typical of the MM II/MM III glyptic.

To summarise then, the group can be dated to MM II–MM III/early LM IA. The few seals whose contexts are dated no later than MM I either represent the first representatives of a development which became popular in later times; or, more probably, are indications that their contexts were used later in the MM period.⁷⁸⁴

⁷⁷⁹ EM II–MM I context: CMS II,2 no. 253. Building used in MM IA: Sakellarakis – Sakellaraki 1980, pl. 222 up left. ⁷⁸⁰ EM–MM II: CMS II,1 no. 154; CMS XI no. 289. MM IA/MM II: CMS II,1 nos. 335, 344. MM IB–MM IIIB: CMS II,2 no. 5. For the dating of Koumasa Tholos A, where CMS II,1 no. 154 comes from, later in MM than MM I, see p. 381.

 ⁷⁸¹ MM II/MM III: CMS II,2 nos. 44, 49, 51, 53; Dimopoulou 2000, 32 no. 7. MM III: CMS II,2 nos. 61, 64, 66. MM
 IIIB/LM IA: Dimopoulou 2000, 34 no. 19. Late LM IA: Dimopoulou 2000, 36 no. 28. LM: Popham et al. 1984, pl.
 186 (d) H 259. LM III: CMS II,2 no. 74.

⁷⁸² However, the fact that the agate three-sided prism CMS VI no. 99 which is affiliated to the cluster is dated to MM II could suggest that the pieces of the cluster were manufactured in MM II/MM III. The use of hard stone, the flat seal faces, and the combination of soft stone and hard stone iconography place CMS VI no. 99 in MM II.

⁷⁸³ This is because **258** and Dimopoulou 2000, 36 no. 28 of this cluster cannot be dated earlier than MM II. For this subject, see also pp. 45–46.

⁷⁸⁴ For the impact of these seal groupings on the understanding of MM Crete, see the section 'Conclusions', pp. 371–375.

The iconography of the prisms is discussed in five sections. The first is devoted to the devices which are seen and treated as individual units. The second section discusses the composition, i.e. the ways in which the various devices are combined with each other in an image as well as the overall effects of the created images. In a third part, the nature of the images and also their relationship to the images encountered on contemporaneous hard stone seals are discussed. Subsequent to that, the process in which new devices are created as this can be followed in specific examples of various kinds of devices and compositions is examined. To conclude, a fifth section discusses the iconography of the prisms which came to light at the Malia Workshop; as the products of one workshop, these pieces constitute an interesting lot for the appreciation of various aspects of iconography and their significance.

DEVICES

After a short discussion of the nature and function of the devices, this section is subdivided into four parts. The first handles the motifs, which are devices which cannot be broken down to their constituent elements in a meaningful way (*fig. 92 a*).⁷⁸⁵ The second is devoted to the representational composites, i.e. to representational devices composed of more than one representational motif (*fig. 92 b*).⁷⁸⁶ The motifs which are combined in representational composites are always met in the same combinations and are scarcely or never met independently. These two features suggest that these combinations are meant to be seen as one unit. The following part discusses the compounds, which are composite devices of ornamental nature (*fig. 92 c*).⁷⁸⁷ Compounds result either from the combination and as a rule, subsequent fusion of two or more other devices or from the transformation of some parts of ornamental motifs into other devices. Finally, composite devices are discussed which can be seen neither as representational composites nor as compounds.⁷⁸⁸

As regards motifs and representational composites, devices of similar nature and morphological characteristics are grouped together and have been used as a basis for defining the general features of the so called type represented by them. A type is understood as the collection of the features which are indicative of a certain representation and thus also differentiate it from other depictions. On the other hand, compounds have been classified

⁷⁸⁵ Pp. 164–302.

⁷⁸⁶ Pp. 302–304.

⁷⁸⁷ Pp. 304–325.

⁷⁸⁸ Pp. 325.



Fig. 92 a. Motifs: *Pig/boar, Headless waterfowl, Bow*; b. Representational composite: *Bow with Linear arrow*; c. Compound: *Two-armed whirl of Headless waterfowls*.

according to the ornamental scheme created by the combination of their constituent elements.

All three parts of the section take the form of a catalogue, in which each type or scheme is presented and discussed separately. The last paragraph in the discussion of each type or scheme refers to its various functions in the compositions as well as the nature of the images in which it is met. The discussion is accompanied by plates depicting all the iconographic examples, the analysis of which has provided the definition of the relevant type or scheme.⁷⁸⁹

THE NATURE OF THE DEVICES

The nature of the motifs is defined by the nature of the depicted quantity. Representational are those motifs which represent actual physical formations, i.e. human, animal, and vegetal figures, objects, and various constructions, such as ships (*fig. 93 a*). On the other hand, abstract patterns which do not find immediate correlates in the physical and artificial world and which have a plainly decorative purpose are ornamental in nature (*fig. 93 b*).⁷⁹⁰

Apart from the motifs with clearly defined nature, there are also those which combine a representational with an ornamental nature (*fig. 93 c*). While depictions of plants for example represent physical formations, some of them, such as flowers⁷⁹¹ and especially their blossoms,⁷⁹² are often perceived and consequently used as decorative rather than representational devices.⁷⁹³ This double character is described by the term *floral*. Furthermore, some depictions of animals are configured in ornamental ways. The bodies of

⁷⁸⁹ For the plates, see Part 2.

⁷⁹⁰ E.g. the various kind of spirals, such as *J-spiral*, *S-spiral*, *C-spiral*.

⁷⁹¹ E.g. 'Papyrus flower', 'Star flower', 'V-flower'.

⁷⁹² E.g. 'Lily blossom', Quatrefoil, Rosette.

⁷⁹³ The facts that the stems of the flowers for example often roll in spirals, e.g. **539** b, that the blossoms often float on the field around larger devices without being organically connected to the compositions, e.g. **219** b, and that the angles of the *Quatrefoils* are often filled with ornamental motifs, e.g. **410** a, suggest that the intention of the engraver was not the description of a natural image but the adornment of the seal face with a decorative device.



Fig. 93 a. Representational motifs; b. Ornamental motifs; c. Motifs with both a representational and an ornamental character.

the dogs/lions 52 **a** and 532 **b** for instance are substituted by spirals, that of the *Dog/lion* (?) 73 **b** is created by the combination of two disc S-spirals,⁷⁹⁴ and those of the same animal on 412 **b**, of the *Agrimi* 517 **b**, and of the *'Spider 'b* 316 **c** take an S form. Finally, the legs of the *'Spider 'b* A.19 **b** are shaped like a Z whereas the tentacles of the *'Squids' a* 14 **c** and 488 **b** rotate in one direction.

Similarly possessed of a dual character but in a different way is the nature of motifs which function as script signs. These are defined both by the nature of the depicted quantity, which can be any of the ones discussed above, and by their quality as script signs.⁷⁹⁵

⁷⁹⁴ For this type, see *Disc S-spiral*.

⁷⁹⁵ The *Crossed arms* which always function as the CHIC sign 006 for example, are both a representational motif and a script sign.

The identification of the nature of the motifs is often made difficult or indeed impossible by the inability to recognise the depicted quantity. This is to a great extent the result of the lack of knowledge of the cultural and the intellectual context which created these devices. It is impossible to define the nature of motifs whose configuration is not recognisable as the depiction of a physical device known from the modern or ancient world. Motifs like "*Ladder band*", "*Grater*", "*Sieve*", and "*Ship's wheel*" for example could represent physical quantities, symbols of abstract concepts, or be purely ornamental in nature. More to the point, like the modern motif *heart*, which depending on the context can represent in the western world the actual human heart, a symbol of love, or can be a pure ornament, some of the MM devices perceived by the modern observer as ornamental, such as *Whirls* or *Swastikas*, could also have had a different character depending on the context.⁷⁹⁶

As is obvious by their name, representational composites have a representational character. On the other hand, compounds are ornamental in nature even in cases in which they consist of representational devices. This is due to the fact that the combinations of the integrated devices form ornamental schemes.

The Function of the Devices

The role of the various devices in the composition varies. The devices can be divided into those meant to be seen as independent units and those which are the building blocks of larger iconographic entities, i.e. of representational composites or compounds. The first category of devices is discussed in the section devoted to the composition⁷⁹⁷ while the second is dealt with below.

Most of the devices which function as elements of larger iconographic units do not stand free in the field but grow together with other devices.⁷⁹⁸ Depending on their function for the formation of the composite device, these are described as basic elements, supplements, and supplemented devices. Basic elements are those devices which constitute the components of representational composites, repetition compounds, border compounds, C-spiral roof compounds, and miscellaneous compounds (*fig. 94*).⁷⁹⁹ They can be either motifs or compounds and within the composite device they are all equally important for the formation of the resulting type or ornamental scheme.

Supplements and supplemented devices are the devices from which supplementation compounds are built.⁸⁰⁰ Supplements are motifs which adhere to, mostly larger,⁸⁰¹

⁷⁹⁶ The possibility cannot be ruled out that the whirls **5 b** for example represented some kind of symbol and not pure ornaments (for these whirls, see *One-armed whirl*, *Two-armed whirl*).

⁷⁹⁷ Pp. 327–330.

⁷⁹⁸ But not the elements of the C-spiral roof compounds which are free-standing.

⁷⁹⁹ For the representational composites, see pp. 302–304; repetition compounds, pp. 304–317; border compounds, pp. 323–324; C-spiral roof compounds, pp. 324–325; miscellaneous compounds, p. 325.

⁸⁰⁰ For the supplementation compounds, see pp. 317–323.

⁸⁰¹ But not always. The '*Ivy leaves*' with stalk **226 c** and the '*Ivy leaves*' **516 b** for example have the same size as the *S-spiral* which they supplement.



Fig. 94 a.-d. To the left are the basic elements and to the right is the resulting composite device.

ornamental or floral devices and have a decorative function while supplemented devices are the devices on which supplements adhere (*fig. 95*). Mostly floral and less often ornamental motifs function as supplements. The commonest of these are 'Lily flowers' and 'Papyrus flowers', but also 'Wheat stalks', Stemless paisleys, and Js are frequently used. Rarer are 'Papyrus blossoms', 'Lily blossoms', 'Papyrus flowers' with spray, 'Fern branches', "Saw branches", Trefoils, Shamrocks b, Leaves with stalk, 'Ivy leaves' with stalk, Paisleys, 'Ivy leaves', Lines/Bars, Triangles, Stalk triangles, Hatched triangles, Chevrons, Centredcircles, Hook spirals, J-spirals, Spikes/Spike rows, Parallels, and One-armed whirls. Two Legs with claws and four Heads of an animal are the only representational motifs which have a supplementary function. Functioning as supplemented devices can be motifs and compounds. These two kinds of elements are differentiated from basic elements in that they are not equally important within the compound. The supplemented device is the nucleus, and thus the part of the compound with the larger significance. This becomes ornamented by the addition of other motifs which have a secondary significance.

Motifs

Denominations placed within inverted commas are conventional. Single inverted commas indicate that while it is not certain to which extent the chosen designation matches the depicted in an exact way, it does however correspond to its general nature. A 'Deer' for



Fig. 95 a.-d. In the upper left is the supplemented device, under it are the supplements, and to the right is the resulting composite device.

example resembles the denoted creature, but the possibility that the type represents another horned ruminant, e.g. an agrimi, cannot be ruled out. On the other hand, denominations placed in double inverted commas are absolutely conventional. The only criterion for choosing the names in question is the superficial resemblance of the depicted device to a recognisable device. This is the case with the motif *"Ship's wheel"* for example. The type has been named on the basis of its obvious resemblance to the steering wheels of modern era wooden ships but the nature of the depicted is unknown. The discussion of the types is followed by a section where general observations are made.

Motif 1: Frontal man

(Malia/Eastern Crete Steatite Prisms, Prisms with EM III/MM I Influences, Kalo Chorio and Psychro Prisms with the Cable Devices)

The type is represented by twelve examples (*pl. 1*). The figures have frontally rendered torso and legs. Both feet point either inwards or outwards, an iconographic convention for denoting frontality.⁸⁰² In two examples, the legs continue straight and terminate in a bi- or trifurcation which could represent frontally seen toes.⁸⁰³ The head can be rendered frontally or be directed to the side.⁸⁰⁴ In this latter case it displays one or two spikes issuing from the face.⁸⁰⁵ One spike is understood as rendering the nose or a closed mouth and two an open mouth.⁸⁰⁶ The arms can be linear or terminate in open palms which show three fingers.⁸⁰⁷ One figure has bulging legs and hips and V-shaped hatching, which probably represents some kind of garment, extending from the waist to the shoulders.⁸⁰⁸ Unknown is whether the ingot-shaped body of another two figures renders a garment or whether it is a stylistic feature which suggests that the pieces were made by the same hand.⁸⁰⁹

Standing, seated, and kneeling figures as well as one figure in an unidentifiable pose are met.⁸¹⁰ The arms can hang, be outstretched on either side of the body or be bent upwards flanking the upper body.⁸¹¹ Alternatively, one arm can hang while the other is stretched above or to the side, often touching another object.⁸¹²

The type functions as a main device. *Frontal men* may stand alone in an image or be combined with other devices.⁸¹³ They are met in descriptive and 'pictographic' images as well as in images of an unidentifiable nature.⁸¹⁴

⁸⁰² Inwards: e.g. **120 a**, **399 b**, **593 b**. For further *Frontal men* with inwards pointing feet, see CMS VI no. 25 d, CMS XII no. 67 a. Outwards: e.g. **2 a**, **490 c**, **540 a**, **592 a**.

⁸⁰³ 62 a, 265 b.

⁸⁰⁴ Frontally e.g. **62** a, **120** a, **593** b. For the iconographic conventions used in the representation of human figures, see pp. 297–298.

⁸⁰⁵ One spike: e.g. **540 a**. Two spikes: e.g. **2 a**.

⁸⁰⁶ The fact that occasionally, two spikes issue from the faces of *Women*, e.g. the *Women* **498 a** and **A.3 a**, speaks against the hypothesis that these represent nose and beard respectively. On the other hand, the possibility that these spikes stand for nose and chin instead cannot be ruled out. However, the fact that the open mouth of *Dogs/lions* is often rendered in a similar way, e.g. the *Dogs/lions* **135 a** and **175 a**, would support the idea that a mouth is represented.

⁸⁰⁷ Linear: e.g. **120 a**. Open palms: e.g. **2 a**, **62 a**.

⁸⁰⁸ **399 b**.

 $^{^{809}}$ 2 a and 265 b. Also the *Man* 125 b shows an ingot-shaped body. 125 and at least 2 seem to have been made by the same hand/'workshop' since they show a very similar image on one of their other two sides (compare 2 b to 125 b) and, more importantly, they are part of the same stylistic cluster (for this cluster, see pp. 82–84).

⁸¹⁰ Human/ape pose A 1, A 2, A 3; E 1, E 4; Δ ; H. For the human/ape poses, see *pl. 126*.

⁸¹¹ Outstreched: e.g. 2 a, 62 a, 120 a, 540 a. Bent upwards: e.g. 399 b, 593 b.

⁸¹² Above: e.g. **490 c**, **592 a**. To the side: e.g. **265 b**.

⁸¹³ Alone: e.g. 2 a, 592 a, 593 b. With other devices: e.g. 62 a, 265 b, 399 b.

⁸¹⁴ Descriptive: e.g. **120 a**. 'Pictographic': e.g. **265 b**. Unidentifiable nature: e.g. **62 a**.

Motif 2: Man in profile

(Malia/Eastern Crete Steatite Prisms, Prisms with EM III/MM I Influences, Mesara Chlorite Prisms, Dawkins Prism, Phaistos Agrimi Prism)

The type is represented by two hundred seventy three examples (*pls. 1–10*). The feet, when rendered,⁸¹⁵ point to one direction and define the profile in which the figure is depicted. The upper torso can be rendered in profile but most often it is represented in frontal view.⁸¹⁶ The head may be plain or show closed or more often, open mouth which allows the identification of its direction.⁸¹⁷ On a few examples, the two spikes which issue from the head are directed downwards creating the impression that they represent nose and chin or beard instead of lips.⁸¹⁸ Other occasionally rendered physiological features are hair, hands, muscles, and in one case perhaps an eye.⁸¹⁹ Dentation on the upper part of the head represents short hair whereas a downwards directed hook or J-form hanging from the back of the head stands for a pony tail.⁸²⁰ Hands can be bi-, tri-, quadrifurcated or show all five fingers.⁸²¹ Occasionally, the arms end in borings such that the impression is created that the hands are closed in fists.⁸²² The calves, knees, thighs and hips of some figures are bulged.⁸²³

Clothing or other attributes attached to the body of the figure are rare.⁸²⁴ In two cases, some kind of garment is rendered by hatching of the upper body.⁸²⁵ The armless figure on **125 b** has an ingot-shaped body which could be perhaps perceived as a garment or an ingot-shaped shield.⁸²⁶ The figure on **560 a** has a *Dagger* fastened to its belt.

⁸¹⁹ **581 b**. The lozenge-shaped cavity on the head is more probably intentionally left unengraved and not due to carelessness in the engraving.

⁸²⁰ Hair: e.g. **428 b**, **581 b**. Ponytail: e.g. **330 a**, **358 a**, **428 b**, **429 a**, **499 a**, **500 a**.

⁸²¹ E.g. 16 b, 123 b, 293 a, 358 a, 472 a, 510 c, 548 a, 559 a.

⁸²⁵ **498 b**, **A.3 b**.

⁸¹⁵ Figures whose feet are not depicted are classified as profile figures when this is suggested by the iconographical context of the image. The figure **118 c** which has no feet for example, is probably depicted in the same profile as its twin on the same seal face whose feet point to the right. The figure **479 b** could be seen as frontal instead. However, it is classified as a *Man in profile* on account of its similarity to the figure **118 c** which has no feet. The profile in which the figure is depicted is in this case defined by the outstretched arm.

⁸¹⁶ In side view: e.g. 330 a, the upper figure 495 c, 500 a, 510 c, 594 c. In frontal view: e.g. 17 c, 72 a, 198 a, 363 a, the lower figure 495 c.

⁸¹⁷ Plain: e.g. **63 a**, **198 a**, **579 c**. Mouth: e.g. **81 a**, **363 a**, **452 c**, **496 a**. For the identification of the two spikes issuing from the face as a mouth, see footnote 806.

⁸¹⁸ E.g. **295 a**, **358 a**.

⁸²² E.g. **428 b**, **560 a**, **604 a**.

⁸²³ E.g. 48 a, 72 a, 86 a, 130 b, 513 b, 389 b, 416 c, 560 a, 564 a.

⁸²⁴ It could perhaps be argued that the figure **472 a** wears a kilt. However, the fact that the depression in the area of the pelvis is caused by a drilling similar to the one of the head would speak against such a suggestion.

⁸²⁶ In the case that a shield is actually depicted, the arms of the figure could be perceived as hidden behind it. For later depictions of humans with bodies in the shape of figure-of-eight shields, see CMS II,8 no. 278 (shield); CMS XIII nos. 136 (garments; here it is not clear whether the arms of the figures are depicted), 137 (shield? The arms of the figure are depicted). On the other hand, the possibility exists that the ingot-shaped body is connected with an idiosyncratic hand and does not render but the body of the figure. For this subject, see footnote 809.

The figures may be standing/walking, running, bent at the waist forward, seated/squatting, lying or performing the crab.⁸²⁷ The head can be directed straight forward, down, or to the back.⁸²⁸ When the figure is not directly associated with another motif the arms can hang, be outstretched on either side of the body or be bent upwards flanking the head.⁸²⁹ At times, one arm hangs while the other is raised in front.⁸³⁰ In cases where the figure is directly associated with another device,⁸³¹ one arm mostly hangs while the other is stretched in front, at times also directed upwards.⁸³² In some cases both arms are extended in front and touch one or more devices or they hang on either side of the body.⁸³³ Figures with just one arm, no arms at all, or very short arms are also common.⁸³⁴ In one case, a seated figure has the arms around the legs.⁸³⁵ A subtype of a standing/walking figure shows long chevron-shaped upper limbs⁸³⁶ which create the impression of outstretched arms holding downwards directed elongated objects.⁸³⁷

The type always functions as a main device. *Men in profile* may stand alone or be combined with other devices in an image.⁸³⁸ They are met in descriptive, 'pictographic', and ornamental images.⁸³⁹ In one case, it is possible that the type constitutes the CHIC sign 001.⁸⁴⁰ However, the image in which it takes part is not included in the CHIC. Some other examples which are not combined with script signs on the seal face are seen by Jasink as possible examples of the same script sign.⁸⁴¹

⁸²⁷ Human/ape pose A 1, A 4; B; Γ ; E 5, E 6, E 7; Σ T; Z. For the human/ape poses, see *pl. 126*. For a figure performing the crab on a four-sided prism, see CMS XII no. 113 d.

⁸²⁸ Straight forward: e.g. 452 c, 581 b. Down: e.g. 203 a, 222 b. To the back: 250 a, 538 c.

⁸²⁹ Hanging: e.g. 51 a, 452 c, 559 a. Outstretched: e.g. 16 b. Bent upwards: e.g. 67 a, 72 a, 428 b, 495 b.

⁸³⁰ E.g. **351 a, 604 a**.

⁸³¹ I.e. when it is depicted touching another motif.

⁸³² E.g. the figures 1 b, 191 c, 298 a, 501 b.

⁸³³ Extended in front: e.g. 48 a, 227 a, 498 c, 594 c. Hanging on either side of the body: e.g. 496 a, 513 b.

⁸³⁴ One arm: e.g. the last and first figure 91 a, the figures 467 a, 510 c, 548 a. No arms: e.g. 344 a, 413 c. Very short arms: e.g. the front figure 187 a, the figures 235 b.

⁸³⁵ 295 a.

⁸³⁶ E.g. the figures **14 b**, **46 b**, **432 c**, **471 c**.

⁸³⁷ E.g. daggers.

⁸³⁸ Alone: e.g. 149 c, 272 c, 349 a, 351 a, 358 a, 593 b. With other devices: e.g. 1 b, 13 a, 14 c, 48 a, 72 a, 187 a, 198 a, 227 a, 396 b, 510 c.

⁸³⁹ Descriptive: e.g. 227 a, 502 c. 'Pictographic': e.g. 261 b. Ornamental: e.g. 510 c.

⁸⁴⁰ **538** c. The *Cross pommée* could constitute the CHIC sign 070 and the *Cross/Saltire* the CHIC sign X.

⁸⁴¹ E.g. **48** a, **187** a (according to Jasink, combined with hieroglyphs), **187** b (Jasink 2009, 121, 194). For the possible use of human figures as syllabograms, ideograms, and pictograms, see Jasink 2009, 115–117.

Motif 3: Woman in profile

(Malia/Eastern Crete Steatite Prisms)

The type is represented by six examples (*pl. 10*).⁸⁴² The direction of the feet reveals the profile in which the figures are depicted. The torso is rendered in frontal view, the pelvis, the legs, and the head in profile. The arms can terminate in bi- or trifurcation whereas the mouth is in all but one case open.⁸⁴³ The hair is often put up in a bun at the back of the head.⁸⁴⁴ All figures wear flared skirts which most often show folds rendered by vertical hatching.

Represented are figures which are standing or are bent at the waist forward.⁸⁴⁵ The heads are directed in front, up, or down. Characteristic of standing *Women in profile* is the projection of the pelvis to the back, such that an obtuse angle is created between upper and lower body.⁸⁴⁶ This could suggest an attempt to represent motion. All standing figures have one upwards bent arm extended in front whereas two of them also have the second arm raised on the other side of the head.⁸⁴⁷ The forward leaning figure has one arm extended towards a vessel situated in front of it.⁸⁴⁸

Women in profile function as main devices. They are combined with each other or with other devices in images of a descriptive nature.⁸⁴⁹

Motif 4: 'Man with semicircular body'

(Malia/Eastern Crete Steatite Prisms)

The type, always rendered in profile, is represented by seventeen examples (*pls.* 10-11). It is a figure which looks like a man but has a semicircular body. All but one representation have an open mouth which is often rendered by characteristically long and thick spikes or bars.⁸⁵⁰ The arms, when represented, can terminate in a bi- or trifurcation.⁸⁵¹ The body

⁸⁴² The type *Frontal woman* is not represented on prisms. It is, however, seen on CMS II,2 no. 127, a steatite conoid of the Malia/Eastern Crete Steatite Group.

⁸⁴³ The exception is the figure **463 a** which has closed pointed mouth. For the identification of the two spikes issuing from the face as a mouth, as opposed to a nose and chin respectively, see footnote 806.

⁸⁴⁴ E.g. the figures **463 a**, **A.3 a**.

⁸⁴⁵ Human/ape pose A 4; Γ. For the human/ape poses, see *pl. 126*.

 $^{^{\}rm 846}$ E.g. the configuration of the body on the figures **498** a.

⁸⁴⁷ The figure **453 b** and the right figure **498 a**.

⁸⁴⁸ 463 a.

⁸⁴⁹ With each other: e.g. **498 a**, **A.3 a**. With other devices: e.g. **453 b**, **463 a**.

⁸⁵⁰ The exception is the figure **400 a** which has a closed mouth. For some examples of figures with mouths rendered by long thick spikes/bars, see **2 b**, **61 a**, **412 a**.

⁸⁵¹ E.g. 5 c, 497 a.

can be horizontally hatched, a feature which, like the semicircular body, could perhaps represent some kind of clothing.⁸⁵²

The figures are represented either standing/walking or seated/squatting, the heads being directed in front.⁸⁵³ Most examples are armless, but those which show arms have one or both of them (?) extended in front towards another device.⁸⁵⁴ The majority of standing/ walking figures seem to represent the products of one hand.⁸⁵⁵ All examples are depicted in right profile.

Examples without arms have occasionally been seen as depictions of regardant birds in profile.⁸⁵⁶ However, the existence of figures with arms and feet which point to the same direction as the head would speak against such an interpretation. Another possibility would be to read in the type a Minoan representation of the Egyptian Taweret. The typological similarities among some depictions of this goddess and the type in question are indeed striking. Many of the figure's features, i.e. the semicircular body, the long, on some occasions rectangular jaws, the way the head issues from one edge of the semicircle, the way the legs issue from the lower curve of the body, and the interior hatching of the latter find very good parallels among some depictions of the Egyptian goddess.⁸⁵⁷ However, the MM representation lacks the most characteristic feature of Taweret, i.e. the dorsal appendage.

The fact that artefacts with representations of the Egyptian goddess have been found in Protopalatial Crete allows for the hypothesis to be made that the MM engravers adopted characteristics of the Egyptian figure in a new device.⁸⁵⁸ This latter could, but need not always, represent a human figure. It is possible that the type could have represented different creatures when used by different engravers. It would, for example, seem probable that the figures **497 a** and CMS II,2 no. 76 represent humans on account of the fact that they take part in compositions in which the presence of a human figure would be fitting. On the other hand, in favour of the representation of another creature would speak the long thick bars or spikes representing the mouth on depictions such as the one on **2 b**. Similar rendering of the mouth is found among *Dogs/lions*⁸⁵⁹ but not among the customary human figures. Moreover, the fact that on the prisms **2** and **125** the *'Man with semicircular body'* on one seal face⁸⁶⁰ is combined with a *Frontal man/Man in profile* on another⁸⁶¹ could suggest that

⁸⁵² E.g. 5 b, 61 a, 125 c, 547 a.

⁸⁵³ Human/ape pose A 1, A 4; E 5. For the human/ape poses, see *pl. 126*.

⁸⁵⁴ Arms extended in front: e.g. 5 c, 497 a. It is not certain that the elements interpreted as arms on the figure 547 a do actually belong to it.

⁸⁵⁵ With the exception of the figure **400 a** and the rather doubtful depiction **173 a**. For the stylistic cluster to which the seals which show such figures belong, see pp. 82–84.

⁸⁵⁶ E.g. the figure **505 a** on CMS VI (CMS VI no. 62 a).

⁸⁵⁷ Compare for example the figures **2 b** and **125 c** to the Egyptian goddess on CMS II,1 no. 283 and Weingarten 1991, pl. 13.

⁸⁵⁸ E.g. the Egyptian scarab CMS II,1 no. 283.

⁸⁵⁹ E.g. the *Dogs/lions* 1 c, 129 c, 134 b, 564 b.

⁸⁶⁰ 2 b, 125 c.

⁸⁶¹ 2 a, 125 b.

the two types had a different significance. It is possible that the first seeds for the creation of the Minoan Genius can be found in such *'Men with semicircular body'*.⁸⁶² However, the fact that the figures lack both the distinctive dorsal appendage and the typical attributes of the Genius⁸⁶³ do not allow their identification as the Minoan daemon itself.

The type functions as a main device. '*Men with semicircular body*' are combined with other devices in descriptive, 'pictographic' (?), and ornamental images.⁸⁶⁴

Motif 5: Frontal 'Gorgo woman'

(Malia/Eastern Crete Steatite Prisms)

The type is represented by one example (*pl. 11*). It is the depiction of a woman or fictional female (?) creature which has a frontally rendered body and head.

The head is configured in the same way as the face of the 'Gorgo masks'. In the existing example, it has a narrow chin which develops into a full cheek on one side, short hair rendered by dentation on the upper side of the scalp, an open mouth, large protruding ears which issue from the root of the cheek bones and end below the hair, and large eyes. The figure has breasts and its hands show three fingers each.

The existing representation is depicted seated/squatting with bent arms raised upwards either side of the head and feet directed inwards. The type functions as a main device and stands alone in a descriptive image.

Motif 6: Frontal 'ape'

(Malia/Eastern Crete Steatite Prisms)

The type is represented by two examples (*pl. 11*). It resembles a *Frontal man* but is differentiated from it in that an elongated element which is understood as a tail issues from its bottom. The feet are directed inwards or outwards, the head is depicted in side view, and the mouth is open.⁸⁶⁵ In one case, hair is rendered in the form of dentation on the back

⁸⁶² Compare the figure **2 b** for example, to the Minoan Genius on CMS II,8 no. 195 (I wish to thank Janice Crowley for drawing my attention to this representation).

⁸⁶³ According to Gill, a libation jug, animal offering, und vegetation are the most important subjects associated with the Minoan Genius (Gill 1964, 6). Of these, only vegetation can be seen in connection with some examples of the type in question, e.g. **2** b, **85** a, and **125** c. However, the presence of branches alone is not enough for the interpretation of the type as a Minoan Genius because such vegetal motifs are used and associated with a large number of motif types on prisms, e.g. the images on **6** a, **90** b, **504** b, **556** b.

⁸⁶⁴ Descriptive: e.g. 497 a. 'Pictographic' (?): e.g. 173 a, 505 a. Ornamental: e.g. 61 a.

⁸⁶⁵ Inwards directed feet: e.g. 603 a (?). Outwards directed feet: e.g. 373 b.

of the head.⁸⁶⁶ On the other example the lower legs show angular protrusions at about half their length.⁸⁶⁷

The two extant representations of the type are depicted seated/squatting and with bent arms raised upwards either side of the head.⁸⁶⁸ *Frontal 'apes'* function as main devices and stand alone in the image.

Motif 7: 'Ape' a in profile

(Malia/Eastern Crete Steatite Prisms)

The type is represented by one example (*pl. 11*). It resembles a *Man in profile* but is differentiated from it in that an elongated element understood as a tail issues from its bottom. The torso is depicted in frontal view, the head, the legs, and the feet in side view. The feet point in the same direction and define the profile on which the figure is depicted. The mouth is open and the palms broaden to form fingers.

The extant representation is running with arms extended either side of the body.⁸⁶⁹ It functions as a main device and stands alone on the seal face.

Motif 8: 'Ape' b in profile

(Platanos Prism with the Cable Devices)

The type is represented by two examples which constitute part of the same image (*pl.* 11).⁸⁷⁰ It is a creature which stands on two legs and has arms, a long ear, an elongated face which brings to mind a muzzle, and perhaps a short tail.

The uniformity of the engraving on the seal face which results from the fact that all representations are created by a single stroke makes it impossible to clearly define the limits of the lower part of the animal's body. It is thus not certain whether the short element which appears to be issuing from its bottom represents a tail or constitutes part of the *Unidentifiable device LVII* depicted between the two animals. Similarly, it is uncertain whether the legs terminate above the lower horizontal line, which would then also belong to the intermediary device, or whether this line is meant to be understood as the forward

⁸⁶⁶ 373 b.

⁸⁶⁷ **603 a**.

⁸⁶⁸ Human/ape pose E 2, E 3. For the human/ape poses, see *pl. 126*. Compare the pose of the figures on Petrie 1925, pl. I nos. 35, 36.

⁸⁶⁹ Human/ape pose B. For the human/ape poses, see *pl. 126*. Compare the pose of the figures on Petrie 1925, pl. I no. 28, II no. 64.

⁸⁷⁰ In *pl. 11, Motif 8: 'Ape' b in profile*, the whole image engraved on **106 a** is depicted because it is not possible to define the exact outline of each motif.

directed feet of the creature. The same is the case with the vertical elements which project under this line.

The animal is standing with the head directed upwards and both arms extended in front, one upwards and the other somewhat downwards.⁸⁷¹ The extant examples function as main devices and are combined with each other and an unidentifiable motif in an ornamental (?) image.

Motif 9: 'Deer'

(Prisms with EM III/MM I Influences)

The type, rendered in profile, is represented by two examples which are carved on the same seal face (*pl. 11*). Defining for the differentiation of the type from other horned quadrupeds are the long horns which are toothed on both sides as well as the hatched body. The two examples have closed mouth while one of them has a beard. This latter feature could suggest that the type constitutes a variation on an $Agrimi^{872}$ and does not actually represent a different animal.

The extant examples are standing and look straight ahead.⁸⁷³ They function as main devices and are combined with each other and two floral motifs in an ornamental image.

Motif 10: Agrimi

(Malia/Eastern Crete Steatite Prisms, Mesara Chlorite Prisms, Phaistos Agrimi Prism, Platanos Prism with the Cable Devices)

The type, always rendered in profile or three quarters view (?), is represented by seventy nine examples (*pls.* 11-14). Its distinguishing feature is two or, more rarely, one backwards directed long horn.⁸⁷⁴ All but one example have closed muzzle. The exception is **292 a** which is depicted with a long beak-shaped open mouth.⁸⁷⁵ The short tail is in most cases directed upwards but occasionally, it can also hang.⁸⁷⁶ The legs can be linear or else terminate in triangular elements or borings which render the cloven hooves.⁸⁷⁷ Small teeth above the

⁸⁷¹ Human/ape pose A 4. For the human/ape poses, see *pl. 126*.

⁸⁷² While *Agrimia* with toothed horns are not represented, the *Head of an agrimi* **281 c** has horns dentated in the front side.

⁸⁷³ Quadruped pose A 1. For the quadruped poses, see *pls. 126–127*.

⁸⁷⁴ One horn: e.g. **33 b**.

⁸⁷⁵ Another reading of the two spikes would be that they represent closed mouth and beard respectively. However, their similar length speaks against this suggestion (for examples of bearded *Agrimia*, see footnote 879).

⁸⁷⁶ Directed upwards: e.g. 88 a, 104 b, 347 a. Hanging: e.g. 63 c, 513 c.

⁸⁷⁷ Triangular: e.g. **386 b**, **573 a**. Borings: e.g. **217 c**.

backside of triangular hooves represent the dew claws.⁸⁷⁸ Occasionally, the beard and the male sex are represented.⁸⁷⁹

Met are standing, walking, cross-legged, crouching, standing on the back legs, seated, and seated/lying animals.⁸⁸⁰ Apart from the animals which look in front and constitute the majority, also others with the head directed up, down, or back are met.⁸⁸¹ The muzzle of regardant animals can be directed straight forward, upwards, or downwards.⁸⁸² One example has sunken head with the muzzle reaching the height of the feet, such that the impression of grazing is created.⁸⁸³

The type functions as a main device and in one case, as basic element of a composite device.⁸⁸⁴ As main devices, *Agrimia* can stand alone on the seal face or else be combined with each other or with other devices.⁸⁸⁵ They take part in descriptive, 'pictographic', and ornamental images.⁸⁸⁶

Motif 11: 'Goat'

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in three quarters view (?), is represented by one example (*pl. 15*). Its distinguishing feature is two horizontal J-shaped horns which issue antithetically from the head. The figure has closed mouth, triangular hooves which on the front legs are equipped with dew claws, and a short pointed tail.

The animal is depicted crouching with the head sunk in front.⁸⁸⁷ While its horns could also be seen as indicative of a bull,⁸⁸⁸ the slim body and the short tail speak against the identification of the figure as a bovine.

The existing example functions as a main device and is combined with a filler in the image.

⁸⁷⁸ E.g. **425 c**, **454 c**. The configuration of the *Agrimi's* back leg on **129 b** is reminiscent of that of *Dogs'/lions'* legs (compare for example the paws of the *Dogs/lions* **20 c**, **134 b**, **219 b**). The fact that the leg of the *Agrimi* in question is almost identical to the back leg of the *Dog/lion* **129 c** suggests that the engraver rendered the back legs of the two animals in the same way without thinking further about their partial characteristics.

⁸⁷⁹ Beard: e.g. **279 a**, **452 a**, **553 a**. Male sex: e.g. **1 a**, **517 b**.

⁸⁸⁰ Quadruped pose A 1, A 2, A 3, A 5; B 1, B 3; Δ ; E 1, E 2, E 3, E 4, E 5, E 7, E 8, E 9; Z 1, Z 2; Θ 1; I 3, I 4. For the quadruped poses, see *pls.* 126–127.

⁸⁸¹ In front: e.g. 81 c, 453 c. Up: e.g. 602 b. Down: e.g. 286 a, 517 b. Back: e.g. 193 a, 279 a.

⁸⁸² Forwards: e.g. 452 a. Upwards: e.g. 129 b. Downwards: e.g. 279 a.

⁸⁸³ 286 a.

⁸⁸⁴ **502 b**. See miscellaneous composite devices, p. 325.

⁸⁸⁵ Alone: e.g. 84 a, 573 a. With other Agrimia: e.g. 538 a. With other devices: e.g. 54 b, 374 a.

⁸⁸⁶ Descriptive: **113 a**. 'Pictographic': e.g. **1 a**. Ornamental: e.g. **394 a**. On the appearance of *Agrimia* on hieroglyphic prisms, see Jasink 2009, 143–144.

⁸⁸⁷ Quadruped pose E 7. For the quadruped poses, see *pls. 126–127*.

⁸⁸⁸ E.g. the bulls CMS I nos. 61, 76; CMS VIII no. 107.

Motif 12: 'Sheep'

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in three quarters view (?), is encountered seven times (*pl. 15*).⁸⁸⁹ Its distinguishing feature are two horns which hang either side of the head.⁸⁹⁰ The animal has a closed mouth and on all but one case, a long hanging tail. The exception is the animal **219 c** which has a short upwards directed tail. Hooves are either represented by small triangles⁸⁹¹ or not rendered at all.

Represented are standing and crouching animals with the head directed in front.⁸⁹² The type functions as a main device and can stand alone or else be combined with similar or dissimilar devices.⁸⁹³ '*Sheep*' take part in descriptive, 'pictographic', and ornamental images.⁸⁹⁴

Motif 13: Bull

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in profile, is represented by one example (*pl. 15*). The overall shape of the body and the plastically rendered musculature serve to definitely identify the creature. An elongation on the head above the forehead in front of the ear could either represent a short horn or more probably, the upper part of the head.⁸⁹⁵ The animal has closed mouth and long hanging tail. Triangular hooves with dew claws as well as the male sex are rendered.

The figure is standing and has forward directed head.⁸⁹⁶ It functions as a main device and constitutes the foreground quadruped in an animal echelon.⁸⁹⁷

⁸⁸⁹ For a 'Sheep' rendered in side view, see CMS II,2 no. 77.

⁸⁹⁰ It is not certain that the quadrupeds **294 a** belong to the type. The element read as the right horn is small and straight. This could speak in favour of its identification as the ear of an *Agrimi* instead. If this were the case, unique would be the depiction of the ear above the horn.

⁸⁹¹ E.g. **219 c**.

⁸⁹² Quadruped pose A 1; E 1, E 4. For the quadruped poses, see *pls. 126–127*.

⁸⁹³ Alone: e.g. **372** a. With other 'Sheep': e.g. **294** a. With other devices: e.g. **219** c, **427** c.

⁸⁹⁴ Descriptive: e.g. **372 a**. 'Pictographic': e.g. **219 c**. Ornamental: e.g. **294 a**.

⁸⁹⁵ Compare the similar horns on CMS II,8 no. 489; CMS VI no. 414; CMS VII no. 103; CMS X no. 249. However, the fact that the elongation is amorphous and thick would speak against its identification as a horn. For an example of a bovine's head with a similar configuration of the upper part, see the CHIC sign 013 on CMS IV no. 29D c.

⁸⁹⁶ Quadruped pose A 1. For the quadruped poses, see *pls. 126–127*.

⁸⁹⁷ For animal echelon images, see pp. 351.

Motif 14: Bovine

(Malia/Eastern Crete Steatite Prisms, Mesara Chlorite Prisms)

The type, rendered in profile, is represented by sixty seven examples (*pls.* 15-17). It is a hoofed quadruped without horns. The mouth is closed and the tail, short or long, is either hanging or more rarely, directed upwards.⁸⁹⁸ When upwards directed, the tail is always rather short. The legs can be linear or terminate in triangles which at times show dew claws.⁸⁹⁹ The backside of the neck of one animal is dentated.⁹⁰⁰

Standing, walking, running, cross-legged, crouching, seated, and seated/lying animals are met.⁹⁰¹ The head can look forward, be directed down, up, or back. The muzzle of regardant animals can be directed straight ahead or upwards.⁹⁰² Among the eighteen examples of the quadrupeds in the pose Θ 2 only two are rendered in right profile,⁹⁰³ the remaining sixteen being shown in left side view.

Some examples of the type could be read as calves with a considerable degree of certainty.⁹⁰⁴ However, the fact that others constitute the mothers in suckling scenes does not allow seeing calves in all depictions.⁹⁰⁵

Bovines function as main devices and either stand alone or are combined with other similar or dissimilar devices.⁹⁰⁶ They take part in descriptive, 'pictographic', and ornamental images.⁹⁰⁷

⁸⁹⁸ Hanging: e.g. 155 b, 190 b. Upwards: e.g. 22 b, 224 a.

⁸⁹⁹ Linear: e.g. 198 c, 531 a. Triangles: e.g. 117 a, 224 a. Dew claws: e.g. 143 c, 268 c.

⁹⁰⁰ **441 b**. The dentation could be taken as an indication that a *Pig/boar* is depicted instead. However the slim body, the lack of regardant *Pigs/boars*, and the overall similarities of the figure with the *Bovines* **358 c** and **433 b** support its classification as a *Bovine*.

⁹⁰¹ Quadruped pose A 1; B 1, B 2; Γ ; Δ ; E 4, E 7; Θ 2, Θ 3; I 3. For the quadruped poses, see *pls. 126–127*. While the animals **347 c** are running, a number of factors suggest that they were probably meant to be depicted standing. Slanting front and back limbs are often seen on standing figures, e.g. the *Agrimia* **58 a**, **490 b**, **425 c**, and the *Bovines* **224 a**, **361 b**. More to the point, in **347 c** the restricted space between the two animals would not allow the engraving of legs issuing vertically from the body. Finally, numerous comparable compositions of standing ruminants are encountered on other prisms, e.g. **33 b**, **294 a**, **479 a**, **538 a**, **169 b**.

⁹⁰² Straight: e.g. 531 a. Upwards: 169 b, 425 b.

⁹⁰³ 74 b, 222 c.

⁹⁰⁴ E.g. the animals **155 b**, **164 a**, **198 c**, **318 a**.

⁹⁰⁵ E.g. **425 b**.

⁹⁰⁶ Alone: e.g. **528 b**, **570 c**. With other *Bovines*: e.g. **347 c**. With other devices: e.g. **278 c**.

⁹⁰⁷ Descriptive: e.g. **528 b**. 'Pictographic': e.g. **198 c**. Ornamental: e.g. **169 b**.

Motif 15: Pig/boar

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in profile, is met thirty four times (*pls. 17–18*).⁹⁰⁸ For the identification of the animal numerous features are of assistance, not all of which need to appear in one figure, as well as the overall body posture. Characteristic of *Pigs/boars* are tub-shaped muzzles, hanging tails, dentated backs/vertical body hatching, four legs, and one-piece bodies.⁹⁰⁹ Some examples show bipartite bodies but here, as opposed to other quadrupeds, the waist is situated more to the back and the hindquarters at a markedly lower level than the significantly upwards bulging back.⁹¹⁰ One figure has open mouth,⁹¹¹ the remaining examples showing a closed muzzle. The hooves, when rendered, can be triangular, sometimes showing dew claws; trifurcated, resembling the claws of birds; or be represented by spikes projecting from the underside of the foot in the same way in which the claws of *Dogs/lions* do.⁹¹² The trifurcated hooves are only met on a subtype which has semicircular body.⁹¹³ In one case,⁹¹⁴ a boar's tusk is rendered whereas on two examples⁹¹⁵ a protruding belly is distinguished. This latter could represent either an attempt to underline the voluminosity of the quadruped or an expectant animal.

Most examples are standing but also walking, cross-legged, and seated animals are met.⁹¹⁶ The most typical element of the pose is the sunken head with a more or less downwards directed muzzle. The latter occasionally reaches the height of the hooves and thus that of the imaginary ground.⁹¹⁷

Figures with bulged upper back, those with dentated back/vertically hatched body, the ones with open mouth, as well as the example which shows a tusk can be identified with certainty as boars. The fact that the bulged upper back of the boars is always plain as well as that several animals with dentated back are identical to others with plain back⁹¹⁸ could suggest that most, if not all quadrupeds of the category are actually boars. However, the

⁹⁰⁸ The animal **108 b** shows two typical characteristics of *Pigs/boars*, i.e. the sunken head and the dentated back. For that reason it is categorised with this type and not as a *Bull* like in Yule 1980 a, 124, pl. 4 Motif 3 B. 9. The two parallel elongated elements which issue from the head are seen by the present author as ears and not horns (for another case of markedly long ears, see the *Dog/lion* **36 b**).

⁹⁰⁹ Tub-shaped muzzle: e.g. **338 c**, **534 b**. Hanging tail: e.g. **453 a**. Dentated back/vertical body hatching: e.g. **99 b** and **314 b**. Four legs: e.g. **136 a**, **361 c**, **478 b**, **534 b**. One-piece body: e.g. **314 b**, **408 c**, **417 c**, **501 c**, **511 b**.

⁹¹⁰ E.g. **517 c**. Further examples with hindquarters at a lower level than the bulging back can be seen on CMS III no. 54 a and CMS VIII no. 8 b.

⁹¹¹ 568 b.

⁹¹² Triangular: e.g. 561 b. Trifurcated: e.g. 408 c. Spikes: e.g. 517 c.

⁹¹³ I.e. **338 c**, **408 c**, and **568 a**.

⁹¹⁴ **99 b**.

⁹¹⁵ **501 c** and **561 b**.

⁹¹⁶ Quadruped pose A 1, A 2, A 3, A 4; B 1; Δ ; Θ 1, Θ 2. For the quadruped poses, see *pls. 126–127*.

⁹¹⁷ E.g. the figures **412 c**, **534 b**.

⁹¹⁸ Compare for example the figures 408 c and 249 a to the figures 338 c and 501 c respectively.

possibility that pigs are represented by a few depictions which do not find exact parallels among animals identified as boars⁹¹⁹ cannot be ruled out.

The type functions as a main device. Most animals stand alone on the seal face or are combined with fillers.⁹²⁰ Only occasionally are *Pigs/boars* combined with each other in ornamental images or with other representational motifs in 'pictographic' images.⁹²¹

Motif 16: Dog/lion

(Malia/Eastern Crete Steatite Prisms, Prisms with EM III/MM I Influences)

The type, rendered in profile, is met one hundred and fifty nine times (*pls.* 18-24). Distinguishing characteristics of the animal are an open mouth, claws rendered by dentation on the underside of the foot, and a long often upwards directed and inwards curving tail.⁹²² Not all of these features are always present but most often the occurrence of one or the combination of two of them betrays the identity of the quadruped. While an open mouth is an important indication for the depiction of a *Dog/lion*⁹²³ also numerous examples of the type occur which have closed mouth.⁹²⁴ The legs can also be plain⁹²⁵ whereas the long tail can sometimes show an outwards turning edge, sometimes rolling in a spiral, and apart from being directed upwards, can also hang.⁹²⁶ Occasionally, short or no tail at all is also met.⁹²⁷ In a few cases, the front legs are omitted or are rendered by two spikes.⁹²⁸ On one figure, two further spikes of unknown character are shown above those which represent the legs.⁹²⁹ Some animals have vertically or, more rarely, partly horizontally hatched necks, a feature which represents either a mane or the thick long coat of dogs.⁹³⁰ On one example, this hatching extends from the upper part of the head to the neck and the back of the animal and on another over the whole body.931 The hairy neck of one figure and the bushy tail of another are rendered by spikes which issue from the backside of the neck and tail respectively.⁹³² Occasionally, the tongue hangs or projects extended out of the mouth whereas also the lips,

⁹¹⁹ E.g. the animals **417** c.

⁹²⁰ Alone: e.g. 249 a, 453 a. With fillers: e.g. 408 c, 517 c.

⁹²¹ Ornamental: **462 a**. 'Pictographic': e.g. **511 b**. On the appearance of *Pigs/boars* on hieroglyphic prisms, see Jasink 2009, 145.

⁹²² Open mouth: e.g. 1 c, 450 c. Claws: e.g. 129 c, 137 a. Long tail: e.g. 5 a, 269 b.

⁹²³ All but one ruminant (the *Agrimi* **292 a**) have closed mouths.

⁹²⁴ E.g. **269 b**, **393 b**.

⁹²⁵ E.g. **480 a**, **491 b**.

⁹²⁶ Outwards turning edge: e.g. 36 b, 393 b. Rolling in a spiral: e.g. 5 a, 333 a. Hanging: e.g. 147 b, 446 a.

⁹²⁷ Short tail: e.g. **127 c**. No tail: e.g. **34 b**.

⁹²⁸ Omitted: e.g. 497 c. Two spikes: e.g. 271 a, A.9 b.

⁹²⁹ 351 b.

⁹³⁰ Vertically hatched: e.g. 293 b, 389 c, 507 a, 564 b. Horizontally hatched: A.21 b.

⁹³¹ **5 a** (whole body), **333 a** (head and back).

⁹³² **129 c** (tail), **A.18 b** (neck).

the teeth, and very seldom the male sex are represented.⁹³³ Finally, a spike which issues from the neck of one animal could represent a collar.⁹³⁴

Standing, walking, running, crouching, jumping, seated on their back legs, seated, and seated/lying animals are met.⁹³⁵ Among the several poses, the crouching one is by far the most popular. The heads can be directed forward, up, back, and only very rarely down.⁹³⁶ The muzzle of regardant animals can point straight ahead or more often upwards.⁹³⁷

Hatched neck, long tails with outwards turning or rolling edges, and in general heavier proportions can be seen as indicative of lions. Helpful for the distinction between dogs and lions is the observation of the dogs/lions which come from the Malia Workshop.⁹³⁸ The iconography of the Workshop pieces suggests that most often, robust figures with broad one-piece front part are lions, even in cases where no neck hatching is present.⁹³⁹ On the other hand, slimmer figures with a dent between heads and necks often represent dogs.⁹⁴⁰ However, the strict differentiation between the two animals having as main criterion the configuration and the proportions of the body is not always possible. Thick neck hatching and a tail with outwards turning edge on figures which have both a distinct head and finer proportions suggest that lions can also show lighter proportions.⁹⁴¹ This makes the identification as dogs of many figures which do not have neck hatching or a tail with outwards turning edge precarious.⁹⁴² Moreover, the possibility cannot be ruled out that some animals with neck hatching could represent dogs.⁹⁴³

The type functions as a main device and on two occasions as element of a repetition compound.⁹⁴⁴ As main devices, *Dogs/lions* can stand alone on the seal face or be combined with other similar or dissimilar devices.⁹⁴⁵ They are met in descriptive or more rarely in 'pictographic' and ornamental images.⁹⁴⁶

⁹³³ Hanging tongue: e.g. **389 c**. Extended tongue: e.g. **20 c**. Lips: e.g. **1 c**, **406 b**. Teeth: **A.21 b**. Male sex: e.g. **304 a**. ⁹³⁴ **20 c**.

⁹³⁵ Quadruped pose A 1, A 2; B 1, B 2; Γ ; E 2, E 3, E 4, E 5, E 6, E 7, E 8; Σ T; H; Θ 1, Θ 2; I 1, I 2. For the quadruped poses, see *pls. 126–127*. The only jumping animal is **502 c**, whose identification as a dog is based on the supposition that the lunette above its waist represents the remains of an upwards raised tail. The quadruped is seen as jumping instead of standing and rotated 90° anticlockwise with regard to the *Man in profile* on account of the fact that the overall character of the composition seems descriptive rather than 'pictographic'.

⁹³⁶ E.g. 537 a.

⁹³⁷ Straight ahead: e.g. **321 a**. Upwards: e.g. **8 b**, **134 b**, **323 b**, **446 a**, **535 a**. The fact that on examples like **8 b** and **323 b** the ear issues from the outer curve of the neck to the right suggests that the head is turned back and up and not simply up.

⁹³⁸ For a detailed discussion on this subject, see p. 367.

⁹³⁹ E.g. 147 b, 155 c.

⁹⁴⁰ E.g. 135 a, 137 a.

⁹⁴¹ E.g. 23 b, 333 a, 435 a.

⁹⁴² E.g. **321 a, 584 c**.

⁹⁴³ E.g. **389c**.

⁹⁴⁴ Repetition compound: **497 c**.

⁹⁴⁵ Alone: e.g. 8 b, 481 b, 401 a. With other Dogs/lions: e.g. 347 b, 480 a. With other devices: e.g. 219 b, 283 a.

⁹⁴⁶ Descriptive: e.g. 283 a, 502 c. 'Pictographic': e.g. 219 b. Ornamental: e.g. 347 b. On the appearance of Dogs/

Motif 17: 'Minoan dragon'

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in profile, is represented by one example (pl. 24).947 It shows all the characteristics of a *Dog/lion* but is differentiated from it in that no dents are shown between neck and head, tail and hindquarters, and at the waist. This feature combined with the curved upwards directed tail and the fact that the head is directed to the back results in a crescent-shaped animal. Characteristic for the type is the representation of the eye, a feature which is met on most of the LM examples of the motif.948 Apart from that, the figure has open mouth, large round lips, bifurcated paws, bushy tail,⁹⁴⁹ and is depicted in a crouching pose.950

The extant example is the earliest representation of the type in Minoan glyptic. The fact that it shows the basic features of *Dogs/lions*, i.e. open mouth, clawed paws and long upwards directed bushy tail, and that some *Dogs/lions* with one-piece elongated body are also met⁹⁵¹ could suggest that the motif first appears as a variation of a *Dog/lion* and that it then becomes fossilised as a type by itself and overtaken as such in LM times.

The extant example functions as a main device and is combined with a filler on the seal face

Motif 18: Unidentifiable quadruped

(Malia/Eastern Crete Steatite Prisms)

This is not a type but a collection of twenty four profile quadrupeds whose closer identification is not possible (pl. 24). This is due to the fact that either their partial characteristics do not allow it or the animals are unfinished or only preserved in fragments.⁹⁵² All examples have closed mouth whereas some of them can be identified as hoofed animals.⁹⁵³

Lions on hieroglyphic prisms, see Jasink 2009, 144.

⁹⁴⁷ The possibility exists that also the creature **50** a, classified as a *Dog/lion*, is a *'Minoan dragon'*. In most cases the distinction between the two types is not straightforward because Dogs/lions can also have a one-piece body, e.g. 369 a, 467 c, 491 b. For that reason, the 'Minoan dragon' classification is given to the only motif which shows all the characteristics of the LM dragon and can thus be seen as a representative of the type with certainty.

⁹⁴⁸ Compare for example the Minoan dragons on CMS IV nos. 32D, 33D. The configuration of the body, the pose, the open mouth, the representation of eye and lips, and the bushy tail of the figure 55 a are well paralleled on these LM depictions. For further depictions of Minoan dragons, see CMS V no. 581; CMS V Suppl. 1B no. 76; CMS VI no. 362; CMS XI no. 291 a; CMS XII no. 290.

⁹⁴⁹ Compare to the tail of the *Dog/lion* **129 c**.

⁹⁵⁰ Quadruped pose E 8. For the quadruped poses, see *pls. 126–127*.

⁹⁵¹ E.g. **50 a** (if not already a '*Minoan dragon*'; for this subject, see footnote 947) and **369 a**.

⁹⁵² The partial characteristics of the animals do not allow their closer identification: e.g. 18 c, 64 c, 177 b, 363 b, 541 b. Unfinished animals: e.g. 194 a. Fragmentary preserved animals: e.g. 41 a, 325 a.

⁹⁵³ The animal **161 c** would probably have been a *Bovine* or an *Agrimi*. The one-piece body of the animals **363 b** could be taken as an indication that *Pigs/boars* are depicted.

Standing, cross-legged, and crouching animals are represented.⁹⁵⁴ The heads are directed in front, down, or to the back. The muzzles of regardant animals are directed straight forward or down.⁹⁵⁵

The herein classified examples function as main devices.

Motif 19: 'Snake' a

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in profile, is represented by one example (pl. 24). It is the depiction of a creature (?) with elongated wavy body and open mouth.

The extant example functions as a main device and is combined with other devices in a 'pictographic' (?) image.

Motif 20: 'Snake' b

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in profile, is represented by two examples (*pl. 24*). It is a linear wavy device with a blob at one end.

It is uncertain whether the device represents some kind of creature, e.g. a snake, or whether it is of a purely ornamental nature. However, the best parallels for this motif suggest that the former interpretation is the most likely. On CMS VI no. 93 a, a hard-stone three-sided prism, a '*Snake' b* is combined with, among other elements, a seated cat.⁹⁵⁶ Furthermore, the two snakes held by the Snake Goddess figurine with outstretched arms, on whose head, interestingly, a feline sits in the same pose as that of CMS VI no. 93 a, also display precisely the same form as '*Snakes' b*.⁹⁵⁷ This would suggest that '*Snakes' b* had a special significance possibly connected with religion and that their appearance on seals was not simply decorative.

The extant examples function either as main devices or, less likely, as fillers. In the case that they function as main devices, the image in which they take part could be 'pictographic' or 'descriptive with symbol'.

⁹⁵⁴ Quadruped pose A 1; Δ ; E 1, E 2, E 3, E 4. For the quadruped poses, see *pls. 126–127*.

⁹⁵⁵ Straight forward: e.g. 18 c. Down: e.g. 64 c.

⁹⁵⁶ For a similar device on another hard stone seal, see CMS VI no. 93 a, where, however, both ends of the device terminate in a blob.

⁹⁵⁷ For this figurine, see Dimopoulou Rethemiotaki 2005, 109.

Motif 21: Lizard

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in top dorsal view,⁹⁵⁸ is represented by three examples (*pls. 24–25*). It is the depiction of an animal with two pairs of legs issuing from the body, one forwards and the other backwards, an elongated head, and a long tail. The body of two examples is $slim^{959}$ whereas that of the third is rounder.⁹⁶⁰

The type functions as a main device. The extant examples either stand alone on the seal face or are combined with fillers.⁹⁶¹

Motif 22: Tortoise

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in top dorsal view,⁹⁶² is represented by one example (*pl. 25*). It is the depiction of an animal with an oval-shaped body, two pairs of legs issuing from the body, one forwards and the other backwards, and a short tail.

The extant example functions as a main device and stands alone on the seal face.

Motif 23: Frontal 'bird'963

(Malia/Eastern Crete Steatite Prisms)

The type is represented by ten examples (pl. 25).⁹⁶⁴ The body is rendered en face and the head in profile. The beak, sometimes long and curved,⁹⁶⁵ is always closed. The waist is most often pinched but when it is not, the body is plump and pinched lower at the root of the tail.⁹⁶⁶ Feathers are rendered by dentation or rows of long spikes which issue from the

⁹⁵⁸ Because this is the most frequent view that a human has of the animal, it is considered more possible that the creature is meant to be seen from the back and not from the underside.

⁹⁵⁹ **46 a**, **432 b**.

⁹⁶⁰ 551 a.

⁹⁶¹ Alone: **46 a**. With fillers: **551 a**.

⁹⁶² See footnote 958.

⁹⁶³ There is no way to define with certainty whether the animal is depicted in frontal or dorsal view. However, later depictions of similar birds rendered en face could suggest that the MM type was also meant to be seen frontally, e.g. CMS I Suppl. no. 84; CMS II,3 no. 53; CMS V Suppl. 1A no. 366; CMS XI no. 345.

⁹⁶⁴ It is not certain whether the figure **572 c** had a head because its upper part is lost due to a fracture. The distance between its neck and the edge of the seal face is very small for a head to have been depicted. If the head was actually omitted the device would constitute the only example of another type which could be named *Headless frontal bird*. ⁹⁶⁵ E.g. **77 a**, **314 c**.

⁹⁶⁶ Pinched waist: e.g. 68 a, 77 a. Plump body: 469 b, 572 c.

underside of the wings and/or the tail.⁹⁶⁷ In one example, they are represented by vertical hatching which covers the upper part of the body.⁹⁶⁸ The tail of one animal is trifurcated whereas the upper side of the wing of another is dentated.⁹⁶⁹

The wings usually hang either side of the body or are extended to the sides.⁹⁷⁰ In one case,⁹⁷¹ one wing shows dentation on the upper side and is hanging whereas the other on the underside and is raised.⁹⁷² Two figures whose identification as examples of the type is not certain have each only one wing.⁹⁷³ The heads are directed straight ahead or more rarely upwards.⁹⁷⁴

It is possible that some of the devices do not represent an animal but a fictional creature which can be named bird-woman.⁹⁷⁵ The type functions as a main device. It either stands alone on the seal face or more rarely, it is combined with fillers. Two doubtful representatives of the type are combined with each other in a rather ornamental image.⁹⁷⁶

Motif 24: Bird in profile

(Malia/Eastern Crete Steatite Prisms, Prisms with EM III/MM I Influences [?])

The type is represented by three examples (*pl. 25*). Its distinguishing features are a short neck and a paisley-shaped or semicircular body with the curved side representing the back. The beak of one example is quite long and the claws are represented by trifurcation.⁹⁷⁷ The remaining two examples, whose identification as *Birds in profile* is dubious, have hatched bodies, large eyes, open mouths and, in one case, a hanging tongue.⁹⁷⁸

The animals are standing and have their heads turned back.⁹⁷⁹ They function as main devices and while one is combined with another device in a descriptive or 'pictographic' image,⁹⁸⁰ the other two are combined with each other in a descriptive (?) image.

⁹⁶⁷ E.g. 68 a, 469 b.

⁹⁶⁸ E.g. 387 a.

⁹⁶⁹ Trifurcated tail: **469 b**. Dentated upper side of one wing: **68 a**.

⁹⁷⁰ Hanging: e.g. **77 a**, **387 a**. Extended to the sides: e.g. **314 c**, **370 a**.

⁹⁷¹ **68 a**.

⁹⁷² For this subject, see p. 299.

⁹⁷³ **33 a**.

⁹⁷⁴ Straight ahead: e.g. 314 c, 387 a. Upwards 33 a, 469 b.

⁹⁷⁵ For later depictions of bird-women, see for example CMS II,3 no. 4; CMS III no. 367; CMS VI no. 294; CMS XIII no. 3. Compare these to **68 a**, **314 c**, **370 a**.

⁹⁷⁶ The figures **33 a**.

⁹⁷⁷ 6 a.

⁹⁷⁸ 98 b.

⁹⁷⁹ Bird pose A 1. For the bird poses, see *pl. 127*.

⁹⁸⁰ **6 a**. For the difficulty of differentiating between descriptive and 'pictographic' images, see pp. 345, 348–349.

Motif 25: 'Peafowl'

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in profile, is represented by five examples (*pl. 25*). It is differentiated from *Bird in profile* in that the curving part of its semicircular body constitutes its underside as opposed to its backside.⁹⁸¹ The beaks of the represented examples are closed whereas the neck can be short or long.⁹⁸² Often encountered is the representation of a crest and a feathered tail, the latter either showing a series of long spikes or taking a trifurcated form.⁹⁸³ In one case, the underside of the open wings is combed.⁹⁸⁴ The claws can be represented by trifurcation or else spikes issuing from the underside of the legs.⁹⁸⁵

Standing and seated animals are met.⁹⁸⁶ The wings of one figure are outstretched either side of the body.⁹⁸⁷ The heads can be directed forwards, upwards or backwards. The neck of two figures with upwards directed head is stretched to the back and runs parallel to the backside of the animals.⁹⁸⁸ The beaks of regardant figures can point straight forward or upwards.⁹⁸⁹

It is possible that the examples with the short necks represent different kind of birds than those with the long necks. '*Peafowls*' function as main devices. They either stand alone on the seal face or, more rarely, they are combined with each other in ornamental images.⁹⁹⁰

Motif 26: Waterfowl

(Malia/Eastern Crete Steatite Prisms, Phaistos Agrimi Prism)

The type, rendered in profile, is represented by one hundred examples (*pls.* 25–28). Its distinguishing features are a long neck and a semicircular, crescent-, or paisley-shaped body with the curved side representing the back.⁹⁹¹ Often the beak, in the majority of examples closed, is quite long and occasionally curved downwards.⁹⁹² A short spike issuing from the upper side of the root of the beak on two examples could represent the upper

⁹⁸¹ The two animals **516** c also have a more or less bulging back (created by a boring at the back side of the body).
⁹⁸² Short: e.g. **117** b, **369** b. Long: **20** a, **516** c.

⁹⁸³ Crest: e.g. 369 b, 516 c. Tail with spikes: e.g. 20 a. Trifurcated tail: e.g. 516 c.

⁹⁸⁴ 117 b.

⁹⁸⁵ Trifurcation: e.g. **20 a**. Bifurcation: e.g. **516 c**. Spikes: e.g. **117 b**.

⁹⁸⁶ Bird pose A 1, A 3; Γ. For the bird poses, see *pl. 127*.

⁹⁸⁷ **117 b**. The representation finds a good parallel to that on CMS V Suppl.1B no. 138 a (hard stone three-sided prism from the mainland).

⁹⁸⁸ 516 c.

⁹⁸⁹ Straight forward: e.g. **369 b**. Upwards: **20 a**.

⁹⁹⁰ Alone: e.g. **369 b**. With other '*Peafowls*': e.g. **516 c**.

⁹⁹¹ Semicircular body: e.g. **335 a**. Crescent-shaped body: e.g. **322 b**. Paisley-shaped body: **338 b**.

⁹⁹² Long beak: e.g. **520 a**. Curved beak: e.g. **568 c**.

part of an open mouth or the protrusion above the beak.⁹⁹³ Feathers can be rendered by dentation on the back and/or vertical or slightly diagonal hatching along the length of the body.⁹⁹⁴ Dentation or horizontal hatching restricted at the rear part of the body probably represents an attempt to render a feathered tail.⁹⁹⁵ The backside of the neck of one figure is toothed.⁹⁹⁶ Claws, when rendered, can be represented by trifurcation or, more rarely, bifurcation.⁹⁹⁷ Alternatively, they can take the form of triangles or be rendered by two or three spikes which issue from the underside of the feet, thus resembling paws of *Dogs/lions*.⁹⁹⁸ On two examples, the claws of front and back leg are fused to form a crescent and a line respectively.⁹⁹⁹ Occasionally, a crest is represented.¹⁰⁰⁰

Standing, walking, and seated animals are met.¹⁰⁰¹ The heads can be directed in front, up, or to the back. The neck of a figure with an upwards directed head is stretched backwards and runs parallel to the back of the animal.¹⁰⁰² The beak of regardant animals can point straight forward or upwards.¹⁰⁰³

Waterfowls function as main devices. They can stand alone on the seal face or be combined with similar or dissimilar devices.¹⁰⁰⁴ They take part in descriptive, 'pictographic', and ornamental images.¹⁰⁰⁵ Jasink suggests that some examples of the type could function as script signs.¹⁰⁰⁶

Motif 27: 'Frog'

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in top dorsal view, is represented by two examples (pl. 28).¹⁰⁰⁷ It is the representation of a creature with one-piece body, two pairs of legs issuing from the waist, one forwards and the other backwards, and bi- or trifurcated edges of the rear (?)

¹⁰⁰⁵ 'Pictographic': e.g. **146 a**. Ornamental: e.g. **188 a**.

⁹⁹³ 3 c, 388 b.

⁹⁹⁴ Dentation: e.g. **332** b, **365** c, **424** c, **441** c. Hatching: e.g. **198** c, **319** b, **388** b, **441** c, **A.14** b.

⁹⁹⁵ Dentation: e.g. **520 a**. Hatching: e.g. **388 b**. Compare the rendering of the feathers of the figure **388 b** to that of the figure on CMS II,3 no. 96 b.

⁹⁹⁶ 127 b.

⁹⁹⁷ Linear legs: e.g. **526 c**, **550 c**, **A.1 a**. Trifurcated claws: e.g. **73 a**, **338 b**. Bifurcated claws: e.g. **198 c**, **322 b**.

⁹⁹⁸ Triangles: e.g. **397 b**. Spikes: e.g. **207 a**, **139 a**.

⁹⁹⁹ **3 c, 388 b**.

¹⁰⁰⁰ E.g. **207** a.

¹⁰⁰¹ Bird pose A 1, A 2, A 3; B; Γ. For the bird poses, see *pl. 127*.

¹⁰⁰² **595 c**.

¹⁰⁰³ Straight forward: e.g. **3 c**, **506 b**. Upwards: e.g. **51 b**, **322 b**.

¹⁰⁰⁴ Alone: e.g. **18 a**. With other *Waterfowls*: e.g. **227 b**. With other devices: e.g. **198 c**.

¹⁰⁰⁶ Jasink 2009, 140–141.

¹⁰⁰⁷ For the subject of the view in which the animal is depicted, see footnote 958.

legs.¹⁰⁰⁸ The rear legs of one example are markedly longer than the front ones.¹⁰⁰⁹ The body of the remaining example is diagonally hatched.¹⁰¹⁰

It is possible that the same animal is depicted here as the one classified as '*Beetle*'. The two examples of the type function as main devices and stand alone on the seal face.

Motif 28: 'Turtle'

(Prisms with EM III/MM I Influences)

The type, rendered in top dorsal view, is represented by one example (pl. 28).¹⁰¹¹ It is an animal with an oval-shaped body, a pair of backwards directed flippers (?), and a forwards curving tail.

The extant example functions as a main device and is combined with an ornamental device in a descriptive image.

Motif 29: Fish

(Malia/Eastern Crete Steatite Prisms, Mesara Chlorite Prisms)

The type, rendered in profile, is represented by fifty four examples (*pls. 28–30*). It has a straight body, closed rounded or pointed mouth, and bifurcated or triangular tail.¹⁰¹² Both the upper side and the underside of the animal can be curved, in which case it is often not possible to distinguish between the two, or the upper side can be curved and the underside straight.¹⁰¹³ Most, but not all examples, show fins placed in pairs on their backs and undersides.¹⁰¹⁴ Two, three or, more rarely, more than three such pairs are seen in each animal.¹⁰¹⁵ The body of one figure is diagonally hatched.¹⁰¹⁶

Fish function mostly as main devices; it is unknown whether some examples could have had a filling function.¹⁰¹⁷ The figures are combined with similar or dissimilar devices in descriptive, 'pictographic', and ornamental images.¹⁰¹⁸ On one occasion, it is unknown

¹⁰¹⁵ Two pairs: e.g. **414 b**. Three pairs: e.g. **90 a**. More than three pairs: e.g. **164 b**.

¹⁰⁰⁸ As opposed to this, the fact that the edges of some legs of the animals **183 c**, **185 c**, and **208 c** are bifurcated does not seem to be intentional.

¹⁰⁰⁹ **600 a**.

¹⁰¹⁰ **40 b**.

¹⁰¹¹ For the subject of the view in which the animal is depicted, see footnote 958.

¹⁰¹² Rounded mouth: e.g. **135 b**, **324 b**. Pointed mouth: e.g. **164 b**, **536 b**. Bifurcated tail: e.g. **36 a**, **513 a**. Triangular tail: e.g. **197 c**, **414 b**.

¹⁰¹³ Curving upper side and underside: e.g. **68 b**, **513 a**. Curved upper side and straight underside: e.g. **164 b**, **312 a**. ¹⁰¹⁴ For two examples without fins, see the animals **417 c**, **439 c**.

¹⁰¹⁶ **68 b**.

¹⁰¹⁷ E.g. **227 c**, **417 c**. For the use of representational motifs as fillers, see pp. 328–330.

¹⁰¹⁸ Descriptive: e.g. **198 a**. 'Pictographic': e.g. **312 a**, **450 b**. Ornamental: e.g. **324 b**.

whether the *Fish* constitutes the CHIC sign 019,¹⁰¹⁹ whether it simply imitates it, or whether it functions as a 'pictograph'.¹⁰²⁰

Motif 30: Fish/dolphin with dentated back

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in profile, is represented by six examples (*pl. 30*). It is differentiated from *Fish* in that while it also has a straight body, closed rounded or pointed mouth, and bifurcated or triangular tail, its back is dentated and its underside is always straight.¹⁰²¹ This latter can be left plain, or else bear one or more fins.¹⁰²² Two examples display a protuberance just above the forehead and another two a slanting line behind the head, this latter feature probably representing gills.¹⁰²³

The protuberance above the forehead, the pointed mouth, and the existence of only one fin on the underside of some examples bring to mind dolphins. Moreover, the dentated back finds good parallels with dolphins engraved on hard stone seals.¹⁰²⁴ However, the fact that two examples show possible gills and also more than one fin issuing from their undersides does not allow the certain identification of the type as a dolphin.¹⁰²⁵

Fish/dolphins with dentated back function as main devices. The extant examples are always combined with each other in ornamental images.

Motif 31: Dolphin

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in profile, is represented by twelve examples (*pl. 30*). It has curved body which shows the animal in its most characteristic pose of coming to the surface to breathe, closed rounded or more often pointed mouth, and bifurcated or trifurcated tail.¹⁰²⁶ A spike which renders the animal's dorsal fin issues from the back of most examples;¹⁰²⁷ only occasionally does more than one spike issue from the back.¹⁰²⁸ The underside of the

¹⁰¹⁹ Described by Evans and Jasink as cuttlefish (Evans 1909, 205; Jasink 2009, 69).

¹⁰²⁰ **336 b**. On the nature of the image **336 b**, see p. 125.

¹⁰²¹ Rounded mouth: e.g. 87 a. Pointed mouth: e.g. 65 a. Bifurcated tail: e.g. 87 a. Triangular tail: e.g. 65 a.

¹⁰²² Plain: e.g. **87 a**. One fin: e.g. **65 a**. More than one fin: e.g. **441 a**.

¹⁰²³ Protuberance above the forehead: **87 a**. Slanting line behind the head: **441 a**.

¹⁰²⁴ For dolphins with pointed mouth and toothed back, see CMS XI no. 16 and CMS XII no. 201 a.

¹⁰²⁵ **441 a**.

¹⁰²⁶ Rounded mouth: e.g. one of the animals **297 c** (?). Pointed mouth: e.g. **40 c**, **344 c**. Bifurcated tail: e.g. **297 c**. Trifurcated tail: e.g. **40 c**, **360 b**.

¹⁰²⁷ E.g. **297 c**, **360 b**.

¹⁰²⁸ E.g. **344 c**, **459 c**.

figure is either plain or shows one spike representing one of the side fins.¹⁰²⁹ The body of one figure is vertically hatched.¹⁰³⁰

Most *Dolphins* function as main devices and one example functions as an element of a composite device.¹⁰³¹ It is unknown whether some examples could have had a filling function.¹⁰³² As main devices, *Dolphins* are combined with similar or dissimilar devices in 'pictographic' and ornamental images as well as in images of an unknown nature.¹⁰³³

Motif 32: Octopus

(Malia/Eastern Crete Steatite Prisms)

The type, rendered en face (?), is represented by one example (pl. 30).¹⁰³⁴ It has a round head from one side of which issue numerous tentacles which spread out in groups under it to either side. The extant example has four tentacles whose edges turn inwards to form spirals. It is unknown whether the long spikes which issue from the two lower tentacles represent attempts to render two more tentacles.

The existing example functions as a main device and stands alone on the seal face.

Motif 33: 'Squid' a

(Malia/Eastern Crete Steatite Prisms)

The type, rendered en face (?), is represented by two examples (pl. 30).¹⁰³⁵ It is the depiction of a creature with a round head from one side of which issue numerous tentacles in the same direction. The extant examples have four and six tentacles respectively which are curved such that a rotating effect is created.¹⁰³⁶ One of the tentacles of **488 b** is distanced from the others and curves above the animal's head reaching the opposite shoulder thus enclosing the head to a certain extent.

¹⁰²⁹ Plain: e.g. 40 c, 297 c, 360 b. Spike: e.g. 344 c, 381 c.

¹⁰³⁰ **360 b**.

¹⁰³¹ Fillers (?): e.g. **417 c**. For the use of representational motifs as fillers, see pp. 328–330. Element of a composite device: **502 b**. For this last, see miscellaneous composite devices, p. 325.

¹⁰³² The small size of **124 c** could be taken as an indication that it functions as a filler. On the other hand, its representational nature and the fact that most *Dolphins* function as main devices could suggest that it constitutes a main device. In the case that it functions as a main device, the image would be one of a 'pictographic' nature. For the motifs which function as fillers, see pp. 327–330.

¹⁰³³ 'Pictographic': e.g. 40 c, 344 c, 416 a. Ornamental: e.g. 297 c. Images of an unknown nature: e.g. 459 c.

¹⁰³⁴ Since no facial characteristics are rendered, it is only supposed that the animal faces the viewer.

¹⁰³⁵ For the subject of the view in which the animal is depicted, see footnote 1034.

¹⁰³⁶ Four tentacles: **488 b**. Six tentacles: **14 c**.

It is not certain whether a squid or an octopus is represented by the type. Both existing *'Squids' a* function as main devices. One stands alone on the seal face and the other is combined with other representational motifs in a descriptive image.¹⁰³⁷

Motif 34: 'Squid' b

(Malia/Eastern Crete Steatite Prisms, Mesara Chlorite Prisms)

The type, rendered in frontal view (?), is represented by three examples (pl. 30).¹⁰³⁸ It is the depiction of a creature with trifurcated head, the spikes representing the arms, and oval-shaped body. A pinched 'waist' is created between head and body, from either side of which issue one or more often two tentacles in a backwards direction.¹⁰³⁹ The side arms of some examples are long and extend to the back flanking the head.¹⁰⁴⁰

The type functions as a main device. The existing examples stand alone on the seal face.

Motif 35: Shrimp/prawn

(British Museum Prisms)

The type, rendered in top dorsal view, is represented by one example (pl. 30). It is the representation of a creature which has an oblong body tapering towards the back, four pairs of backwards directed legs, and large grain-shaped eyes. The segmented shell is represented by dense and broad horizontal hatching which covers the body. Further vertical hatching runs along the length of the centre of the shell.

The extant example functions as a main device and is flanked by two fillers.

Motif 36: Crab

(Malia/Eastern Crete Steatite Prisms, British Museum Prisms)

The type, rendered in top dorsal view, is represented by five examples (*pls.* 30-31). It has a rounded triangular, round, or ellipsoidal body, bifurcated mouth, and a pair of bent, forward directed bifurcated claws.¹⁰⁴¹ The contour of the body is either dentated or on

¹⁰³⁷ Alone: **488 b**. With other devices: **14 c**.

¹⁰³⁸ For the subject of the view in which the animal is depicted, see footnote 1034.

¹⁰³⁹ One: e.g. **291 c**. Two: e.g. **60 a**, **357 a**.

¹⁰⁴⁰ **60 a**, **291 c**.

¹⁰⁴¹ Triangular body: e.g. **206 c**. Round body: e.g. **364 b**. Ellipsoidal body: e.g. **119 b**, **297 a**.

one occasion, equipped with four pairs of backwards directed legs.¹⁰⁴² Horizontal hatching within the body can occasionally render the shell.¹⁰⁴³

The type functions as a main device. All examples stand alone on the seal face.

Motif 37: 'Murex shell'

(Malia/Eastern Crete Steatite Prisms)

The type is represented by one example (pl. 31).¹⁰⁴⁴ It is a shell (?) with spikes issuing from its outline.

The motif functions as a main device and is combined with another device in a 'pictographic' image.

Motif 38: Scorpion

(Malia/Eastern Crete Steatite Prisms, Mesara Chlorite Prisms)

The type, rendered in top dorsal view, is represented by nineteen examples (*pl. 31*). It has an ellipsoidal or triangular body, a pair of bent, forwards directed bifurcated claws, and curved or, more rarely, straight tail.¹⁰⁴⁵ A bi- or, more rarely, trifurcation at the top of the occasionally projecting head represents the mouth.¹⁰⁴⁶ The body can be plain, dentated, or else show upwards or downwards directed legs.¹⁰⁴⁷ Occasionally, the shell is rendered by horizontal hatching and in one case, by cross hatching.¹⁰⁴⁸ The tail can be linear, terminate in an arrowhead shape, a hook, or dentation on one side.¹⁰⁴⁹ Unknown is the significance, if any, of a linear element which can issue from the backside of the body next to the tail and terminate in a vertical line or an arrowhead.¹⁰⁵⁰

The type functions as a main device. The extant examples stand alone or are more rarely combined with other devices on the seal face.¹⁰⁵¹ The type takes part in descriptive, 'pictographic', and ornamental (?) images.¹⁰⁵²

¹⁰⁴² Dentated: e.g. **119 b**, **206 c**. Legs: **364 b**.

¹⁰⁴³ E.g. **297 a**, **364 b**.

¹⁰⁴⁴ For another possible representative of the type, see Unidentifiable motif I.

¹⁰⁴⁵ Ellipsoidal body: e.g. **461 a**. Triangular body: e.g. **549 a**. Curved tail: e.g. **493 a**. Straight tail: e.g. **300 c**.

¹⁰⁴⁶ Bifurcated head: e.g. 461 a. Trifurcated head: e.g. 344 b. Projecting head: e.g. 217 b, 493 a, 549 a.

¹⁰⁴⁷ Plain body: e.g. **217 b**. Dentated body: e.g. **344 b**. Upwards directed legs: e.g. **428 c**. Downwards directed legs: e.g. **549 a**. Plain bodies are only encountered on the Mesara Chlorite Prisms.

¹⁰⁴⁸ Horizontal hatching: e.g. **226 a**. Cross hatching: **549 a**.

¹⁰⁴⁹ Linear: e.g. 465 b. Arrowhead shape: e.g. 262 a. Hook: e.g. 428 c. Dentation on one side: e.g. 461 a.

¹⁰⁵⁰ E.g. **493 a**, **548 b**.

¹⁰⁵¹ Alone: e.g. **262 a**.

¹⁰⁵² 'Pictographic': e.g. **297 a**. Ornamental (?): **300 c**. It is unknown whether the image **300 c** was purely ornamental or whether the motifs functioned as 'pictographs'.
Motif 39: Spider

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in top dorsal view, is represented by sixty six examples (*pls. 31–33*).¹⁰⁵³ The figure consists of two similar-shaped body segments linked through a pinched waist from which issue in pairs eight or, more often, four legs both forwards and backwards.¹⁰⁵⁴ The front part of the body is fused with the head. The body segments are either round or pear-shaped and in the majority of examples have the same size.¹⁰⁵⁵ Occasionally, the front segment is smaller than the back one.¹⁰⁵⁶ The body parts of one example are not linked¹⁰⁵⁷ whereas on some occasions lack of space or hastiness in the execution has led to the representation of three or two legs only.¹⁰⁵⁸ Bifurcation at the edge of a body segment renders the mouth whereas a single spike can represent the spinneret.¹⁰⁵⁹ The rear segment of four examples which are part of the same compound is diagonally hatched.¹⁰⁶⁰

Spiders function as main devices and in one case, as basic elements of a repetition compound.¹⁰⁶¹ As main devices, they either stand alone or are combined with other similar or dissimilar motifs in descriptive and 'pictographic' images.¹⁰⁶² Jasink suggests that *Spiders* met on the faces of seals which show hieroglyphic inscriptions on the other face(s), but also some examples met on non-hieroglyphic seals, could have an ideographic value.¹⁰⁶³

Motif 40: 'Spider' a

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in top dorsal view, is represented by seven examples (pl. 33).¹⁰⁶⁴ The figure consists of two differently shaped segments, i.e. a large somewhat triangular body and a markedly smaller fan-shaped trifurcated or quadrifurcated head.¹⁰⁶⁵ Eight or, more frequently, four legs issue in pairs from the joint of the two segments or from the upper part of the body and are directed both forwards and backwards.¹⁰⁶⁶ The body of two

¹⁰⁵³ For the subject of the view in which the animal is depicted, see footnote 958.

¹⁰⁵⁴ The waste of the figure **32** c is thicker than usual.

¹⁰⁵⁵ Round: e.g. **285 c**. Pear-shaped: e.g. **599 a**. Similar size: e.g. **235 a**, **339 a**, **499 c**.

¹⁰⁵⁶ E.g. **410 b**.

¹⁰⁵⁷ 543 b.

¹⁰⁵⁸ Three legs: e.g. **374 b**. Two legs: e.g. **26 c**.

¹⁰⁵⁹ Mouth: e.g. **306 b**, **456 b**. Spinneret: **219 b**, **365 b**.

¹⁰⁶⁰ 564 c.

¹⁰⁶¹ **564 c**.

¹⁰⁶² Alone: e.g. **116 a**. 'Pictographic' image: e.g. **79 a**, **128 a**, **146 a**.

¹⁰⁶³ E.g. **32 c**, **580 b** (Jasink 2009, 32, 139).

¹⁰⁶⁴ For the subject of the view in which the animal is depicted, see footnote 958.

¹⁰⁶⁵ Trifurcated: e.g. 47 a. Quadrifurcated: e.g. 580 b.

¹⁰⁶⁶ From the joint: e.g. **461 b**. From the upper part of the body: e.g. **47 a**.

examples which are met on one seal face is round and terminates in a spike which renders the spinneret.¹⁰⁶⁷

The type functions as a main device. Whereas most examples stand alone on the seal face, two examples are combined with each other and with other devices in an ornamental (?) or 'pictographic' (?) image.¹⁰⁶⁸

Motif 41: 'Spider' b

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in top dorsal view, is represented by twenty one examples (*pls. 33–34*).¹⁰⁶⁹ The figure consists of two body segments linked by a pinched waist from the two sides of which issue four or two legs forwards and backwards such that an open S-shape which cuts through the figure diagonally is created. The front part of the body is fused with the head. The two body segments are round or ellipsoidal and either have the same size or the front segment is smaller than the back one.¹⁰⁷⁰ The figure can show a bifurcated mouth and a pointed spinneret.¹⁰⁷¹ The backwards directed leg of some examples is either rendered by a short spike or is totally omitted.¹⁰⁷² The legs of one figure are bent to an angle halfway up their length such that a Z-shape is created through their combination.¹⁰⁷³ The outer edges of the legs of the same example show two spikes and resemble the clawed legs of *Dog/lions* and some *Waterfowls*. The body of one figure is S-shaped itself such that the whole device takes on a partially ornamental character.¹⁰⁷⁴

The type functions as a main device. 'Spiders' b can stand alone on the seal face¹⁰⁷⁵ or be combined with similar or dissimilar devices. They are met as part of descriptive, 'pictographic', and ornamental images.¹⁰⁷⁶

¹⁰⁶⁷ **300 c**.

¹⁰⁶⁸ Alone: e.g. 47 a. With each other: 300 c. It is unknown whether the image 300 c was purely ornamental or whether the motifs functioned as 'pictographs'.

¹⁰⁶⁹ For the subject of the view in which the animal is depicted, see footnote 958.

¹⁰⁷⁰ Round e.g. **473 b**. Ellipsoidal e.g. **A.19 b**. Same size: e.g. **12 b**. Smaller front segment: e.g. **504 c**.

¹⁰⁷¹ Bifurcated mouth: e.g. 504 c. Pointed spinneret: e.g. 350 b.

¹⁰⁷² Short spike: e.g. **504 c**. Omitted: e.g. **554 c**.

¹⁰⁷³ A.19 b.

¹⁰⁷⁴ **316 c**.

 $^{^{1075}}$ E.g. **429** c.

¹⁰⁷⁶ 'Pictographic': e.g. **473 b**. Ornamental: e.g. **504 c**.

Motif 42: 'Beetle'

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in top dorsal view, is represented by three examples (*pl. 34*).¹⁰⁷⁷ It is a creature with one-piece body and two pairs of legs issuing from the waist both forwards and backwards. The head is fused with the body, the front edge of the latter being trifurcated and the rear edge showing a spike or bifurcation.

It is possible that '*Beetles*' and '*Frogs*' actually depict the same animal. Of particular interest is the fact that all devices classified as '*Beetles*' come from the Malia Workshop and are engraved in the Hasty Cut Style.¹⁰⁷⁸ This combined with the fact that all *Spiders* from the Workshop belong to the Deep Cut Style allows for the possibility that the '*Beetles*' from there depict spiders executed by a different hand than those which show a two-part body.

The type functions as a main device. The existing examples of '*Beetles*' stand alone on the seal face.

Motif 43: Centipede¹⁰⁷⁹

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in top dorsal view, is represented by one example (pl. 34).¹⁰⁸⁰ It has an elongated ellipsoidal body from the two sides of which issue numerous legs which are directed on one side upwards and on the other downwards such that a rotating effect is created. The head terminates in bifurcation whereas the body is covered by diagonal hatching which probably renders the shell.

The type functions as a main device. The extant example stands alone on the seal face.

Motif 44: 'Centipede'

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in top dorsal view, is represented by eight examples (pl. 34).¹⁰⁸¹ It has an elongated linear body from the two sides of which issue numerous legs which are directed on one side upwards and on the other downwards such that a rotating effect is

¹⁰⁷⁷ For the subject of the view in which the animal is depicted, see footnote 958.

¹⁰⁷⁸ For the Hasty Cut Style, see p. 77.

¹⁰⁷⁹ For a similar device which could, however, represent a creature in profile or a lizard seen from above (?), see CMS II,2 no. 315 a. For the possible interpretation of the device as a ship, see Wedde 2000, 333 no. 712.

¹⁰⁸⁰ For the subject of the view in which the animal is depicted, see footnote 958.

¹⁰⁸¹ For the subject of the view in which the 'animal' is depicted, see footnote 958.

created. The number of legs on each side varies from seven to two whereas in some cases, it is smaller on one side than on the other.¹⁰⁸²

The legs of the existing examples, as also those of the extant *Centipede*, 'move' in an anticlockwise direction. The type is probably a schematic representation of a centipede but is separated from it because it is unknown whether it continued to be perceived as such or whether it had an ornamental character.

The type functions as a main device. The extant examples stand alone on the seal face.

Motif 45: 'Unidentifiable insect'

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in top dorsal view, is represented by one example (pl. 34).¹⁰⁸³ It is an animal consisting of two rounded segments and three pairs of legs directed in front. The front part of the body, which also represents the head, is smaller than the back and shows two antennae or a mouth.

The fact that the device is combined with a *Spider* on the seal face could suggest that a spider is represented here as well. The motif functions as a main device and takes part in a 'pictographic' image.

Motif 46: Crawling animal

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in top dorsal view, is represented by one example (pl. 34).¹⁰⁸⁴ It is an animal consisting of two segments and having two pairs of legs which issue forwards from the front and back part of the body respectively. The front part of the animal, which represents the head, is fan-shaped and smaller than the back part which is linear. The two legs on one side of the extant example are markedly longer than the corresponding limbs on the other side.

The configuration of the legs finds a parallel on the creatures CMS XII no. 3D c and CMS XI no. 231 b. However, these latter also show three 'antennae', each terminating in a blob, and long curved tail.

The extant example functions as a main device and stands alone on the seal face.

¹⁰⁸² E.g. **576 a, 601 b**.

¹⁰⁸³ For the subject of the view in which the animal is depicted, see footnote 958.

¹⁰⁸⁴ For the subject of the view in which the animal is depicted, see footnote 958.

Motif 47: Bee

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in profile, is represented by three examples (*pl. 34*). It has a bipartite body, distinct head, two legs issuing vertically from the underside of the front part of the body, two antennae issuing from the back of the head, and, when depicted flying, two more or less curving wings which issue from the backside. The rear part of the body is semicircular or paisley-shaped and the front part small and circular or linear.¹⁰⁸⁵ Bifurcation at the front part of the head renders the mouth. The device on **287 c** is problematic as it shows long curving antennae which resemble the horns of an *Agrimi*. Flying and seated *Bees* are represented.¹⁰⁸⁶

The image on **287 c** is read by the present author as a *Bee* sitting on an *Open lily blossom*. On the other hand, the CMS sees in it a long-tailed 'goat' seated on its haunches.¹⁰⁸⁷ The viewing of the device as a peculiar depiction of a *Bee* is preferred by the present author for three reasons. Firstly, the overall configuration of the animal's body, i.e. the paisley-shaped rear body, the small round front body, and the bifurcated mouth are characteristic of *Bees*. Secondly, MM representations of *Agrimia* seated on their haunches are very rare.¹⁰⁸⁸ And thirdly, a long upwards directed tail would be exceptional for the depiction of a ruminant.¹⁰⁸⁹ However, it must be said that no satisfactory explanation can be provided for the peculiar configuration of the antennae to support the idea that a *Bee* is represented.

The type functions as a main device. The extant examples are combined with other devices in descriptive (?), 'pictographic' (?), and ornamental images.¹⁰⁹⁰

Motif 48: Legless frontal woman

(Malia/Eastern Crete Steatite Prisms)

The type is represented by one example (pl. 34). The figure is depicted from the pelvis up. Pelvis, torso, and arms, these latter hanging either side of the body, are rendered frontally whereas the head is rendered in profile. The mouth is closed and each of the arms shows four fingers. The breast is rendered by a boring such that it is clearly differentiated from the thin waist. The figure seems to be wearing a skirt but has no hair.

The extant example functions as a main device and stands alone on the seal face.

¹⁰⁸⁵ Semicircular rear part: e.g. **118 b**. Paisley-shaped rear part: e.g. **287 c**. Circular front part: e.g. **287 c**. Linear front part: e.g. **118 b**.

¹⁰⁸⁶ Bee pose A; B. For the bee poses, see *pl. 127*.

¹⁰⁸⁷ I.e. the type named in this study *Agrimi*.

¹⁰⁸⁸ The only such examples known to the author are those on Demargne 1939, 122 fig. 1 c.

¹⁰⁸⁹ The two latter remarks also noted in the CMS.

¹⁰⁹⁰ Descriptive (?): e.g. **287 c** (if the device is actually a *Bee*). 'Pictographic' (?): e.g. **118 b**. Ornamental: e.g. **50 b**. It is unknown whether the "*Saw branch*" **118 b** functions as a filler or main device. In the case that it functions as a main device, the nature of the composition could be either descriptive or 'pictographic'. For the subject of the difficulty in identifying the function of the motifs in various images, see pp. 327–330.

Motif 49: Legless human figure in profile

(Malia/Eastern Crete Steatite Prisms)

The type is represented by one example (*pl. 35*). The figure is depicted from the pelvis up and both pelvis and torso are depicted in side view. The figure could be read as wearing a skirt but neither breasts nor hair are represented.

The extant example functions as a main device. It is combined with other devices in an image of 'pictographic' character.

Motif 50: 'Legless boar'

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in profile, is represented by four examples (*pl. 35*). It is the depiction of an animal with semicircular, vertically or diagonally hatched body, sunken head, pointed ear, tail, but no legs.¹⁰⁹¹ The muzzle is long and the mouth can be closed or open. The tail is short or long and is either directed upwards or hangs.¹⁰⁹²

The type looks like a mixture of a legless boar and a dog. The hatched semicircular bodies and the sunken heads are characteristic of the former quadruped but the long upwards directed tails are reminiscent of *Dogs/lions*.¹⁰⁹³

The type functions as a main device. Each two of the represented examples are combined with each other in ornamental images.

Motif 51: Legless dog/lion

(Prisms with EM III/MM I Influences)

The type, rendered in profile, is represented by one example (pl. 35). It is a dog/lion without legs. The extant example has closed mouth, short tail, and is looking in front.

The type functions as a main device. The existing *Legless dog/lion* is combined with a *Dog/lion* in a descriptive (?) or ornamental (?) image.

¹⁰⁹¹ Vertically hatched body: e.g. 534 a. Diagonally hatched body: e.g. 265 c.

¹⁰⁹² Short tail: e.g. **265 c**. Long tail: e.g. **534 a**.

¹⁰⁹³ The absence of legs and the hatched semicircular body bring to mind MM and LM figurines of beetles (e.g. Detournay – Poursat – Vandenabeele 1980, 112–113 no. 163; Dimopoulou Rethemiotaki 2005, 92 down, 99 down). However, the ear and the tail of the examples on the prisms as well as the open mouth of the creatures **534 a** speak against the identification of this type as a beetle.

Motif 52: Legless waterfowl

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in profile or in three quarters view (?), is represented by eight examples (*pl. 35*). It is a waterfowl with no legs. Like *Waterfowl*, it has a long neck, a semicircular, crescent-, or paisley-shaped body with the curved side representing the back, and a closed, often long beak which can occasionally curve downwards. In one case, feathers are rendered by dentation on the backside of the animal whereas on two examples a crest is represented.¹⁰⁹⁴

The head can be directed in front or to the back. The beak of regardant animals can point straight forward, upwards, or downwards. The wings of all but one example are closed. The exception is 431 c whose identification as the type is not certain and which seems to have outstretched wings.

Legless waterfowls function as main devices. They can be combined with other similar or dissimilar devices in 'pictographic' and ornamental images.¹⁰⁹⁵

Motif 53: Headless ruminant¹⁰⁹⁶

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in profile, is represented by five examples (*pl. 35*). It is the depiction of a ruminant whose head is omitted. All examples have a neck whereas two also have a long hanging tail, a feature which could suggest that bovines are represented.¹⁰⁹⁷ All animals are standing.¹⁰⁹⁸

Two examples function as main devices whereas the remaining three, whose identification as representatives of the type is uncertain, are combined with each other in a repetition compound.¹⁰⁹⁹ Whether the lack of head on the examples which function as main devices is due to deficiency in space or whether it has some other significance remains elusive. In any case, the two appear on stylistically very close pieces and possibly both constitute the foreground animals in animal echelons.¹¹⁰⁰

¹⁰⁹⁴ Dentation on the back: **67 b**. Crest: **67 b**, **431 c**.

¹⁰⁹⁵ 'Pictographic': e.g. 67 b. Ornamental: e.g. 296 c.

¹⁰⁹⁶ Where used, the term *ruminant* is preferred to the term *hoofed animal* because the former excludes pigs, donkeys, and horses.

¹⁰⁹⁷ 286 b, 560 c. It seems that in these cases the same animal is depicted as that on 560 b.

¹⁰⁹⁸ Quadruped pose A 1. For the quadruped poses, see *pls. 126–127*.

¹⁰⁹⁹ Repetition compound: **73 c**. The possibility cannot be ruled out that the devices **73 c** represent '*Figure-of-eight*' shields' with a spike on the 'waist'.

¹¹⁰⁰ It is not certain that the *Head of an agrimi* above the *Headless ruminant* **560 c** is meant to be seen as the head of a background animal. For animal echelons, see p. 351. For the cluster in which **286** and **560** belong, see pp. 97–98.

Motif 54: Headless kid¹¹⁰¹

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in profile, is represented by two examples (*pl. 35*). It is the depiction of a kid whose head is omitted. The extant depictions have neck but no tail. The type is distinguished from other headless quadrupeds by its place in the composition. It is a small animal placed in between the fore and back limbs of a larger ruminant with the upper part of its neck attached to the latter's underside. The extant examples are shown in a different profile than the larger animal and are standing.¹¹⁰²

The omission of the head is probably an attempt to save space, time, and unnecessary labour since the meaning of the scene is easily understood by the composition. The type functions as a main device and is met as part of descriptive and ornamental images.¹¹⁰³

Motif 55: Headless dog/lion

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in profile, is represented by five examples (*pl. 35*). It is a dog/lion without head. Two variations of the type are met. The first resembles a *Headless kid* in that it has neck but no tail and is combined on the seal face with a larger ruminant on whose body it is attached by the upper side of its neck.¹¹⁰⁴ The only way of distinguishing between this and the previous type is the composition. On the animal attack scene, the neck of the three small headless animals is attached on the prey's nape, muzzle, and underside of the chest respectively.¹¹⁰⁵ This excludes the possibility that the animals are suckling kids and suggests that they are predators which bite into the body of an *Agrimi*.¹¹⁰⁶ The second variation includes animals with neck, dentated claws, and short upwards directed tail.¹¹⁰⁷ Standing and crouching figures are represented.¹¹⁰⁸

The type functions as a main device and as an element of repetition compounds.¹¹⁰⁹ The omission of the head of the examples which are elements of compounds can be explained with reference to the habit of creating ornamental patterns by the combination of figural parts.¹¹¹⁰ On the examples which function as main devices, it is most likely an attempt to

¹¹⁰¹ For further representations of kids, see also *Torso of a kid*.

¹¹⁰² Quadruped pose A 1. For the quadruped poses, see *pls. 126–127*.

¹¹⁰³ Descriptive: e.g. 425 b. Ornamental: e.g. 294 a.

¹¹⁰⁴ **113 b**.

¹¹⁰⁵ **113 b**.

¹¹⁰⁶ Compare to a certain extent the animal attack scene **113 b** to the much later animal attack scenes on the Episkopi sarcophagus of the Ierapetra Museum in Kanta 1980, fig. 63 nos.1, 5 and Marinatos 1993, 236–238 figs. 242–244. ¹¹⁰⁷ E.g. **182 c**. Another example of this variation, but without front leg is met on CMS III no. 45.

¹¹⁰⁸ Ouadruped pose A 1; E 3. For the guadruped poses, see *pls. 126–127*.

¹¹⁰⁹ Repetition compound: **182 c**.

¹¹¹⁰ For this subject, see repetition compounds, pp. 304–317.

save space, time, and labour since the theme of the scene is explicit from the composition. The latter examples take part in a descriptive image.

Motif 56: Headless waterfowl

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in profile, is represented by eleven examples (*pls. 35–36*). It is a waterfowl with no head and neck. As a rule, the body is semicircular or paisley-shaped such that the curved part constitutes the back of the animal. Two animals constitute the exception in that they have triangular bodies.¹¹¹¹ Dentation along the back and on the rear part of the body as well as vertical hatching within the body can render feathers.¹¹¹² The claws may be trifurcated, triangular, or represented by spikes which issue from the underside of the foot.¹¹¹³ Standing and seated animals are represented.¹¹¹⁴

The type functions as a main device and as a basic element of repetition compounds.¹¹¹⁵ The omission of the head of animals which are elements of compounds is obviously connected with the common practice of combining figural parts in ornamental patterns.¹¹¹⁶ In the remaining cases, it is uncertain whether this was simply a way of abbreviating the depiction of an animal or whether it had another significance.¹¹¹⁷ As main devices, *Headless waterfowls* are combined with similar or dissimilar devices in descriptive, 'pictographic', and ornamental images.¹¹¹⁸

Motif 57: Torso of a kid

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in profile, is represented by two examples (*pl. 36*). The two figures have a neck, a figure-of-eight-shaped body, and no tail. Like *Headless kid*, they are distinguished as kids by their small size and their placement between the fore and back limbs of a larger ruminant on whose underside they are attached by their neck. Whereas

¹¹¹¹ 6 c.

¹¹¹² Dentation along the back: e.g. **312 c**. Dentation on the rear part of the body: e.g. **289 a**, **504 b**. Vertical hatching: e.g. **312 c**.

¹¹¹³ Trifurcated: e.g. **504 b**. Triangular: e.g. **565 c**. Spikes: e.g. **149 a**.

¹¹¹⁴ Bird pose A 1, A 3; Γ. For the bird poses, see *pl. 127*.

¹¹¹⁵ Repetition compound: e.g. **149 a**, **319 c**.

¹¹¹⁶ For this subject, see repetition compounds, pp. 304–317.

¹¹¹⁷ Compare the type to the CHIC sign 095 on CMS II,1 no. 394 b; and CMS VII no. 35 a.

¹¹¹⁸ Descriptive: e.g. **312 c**. 'Pictographic': e.g. **504 b** (?), **565 c**. Ornamental: e.g. **289 a**. It is not certain whether the '*Centipede branch*' **504 b** functioned as a filler or main device. In the case that it functioned as a main device, the composition would more probably have been 'pictographic' rather than descriptive.

one of the figures is, as is common, shown in a different profile than the larger animal,¹¹¹⁹ the other is shown in the same profile.¹¹²⁰ In this latter case, the identification of the small animal as ruminant and not as an attacking predator is tentative and is based on the stylistic and iconographic similarities of the composition to others which show certain suckling scenes.¹¹²¹

The head and legs were probably omitted because they were not necessary for understanding the theme of the image. This would have been easily understood from the composition.

Torsos of a kid function as main devices and are always combined with a larger quadruped. The existing examples constitute parts of images of ornamental nature.

Motif 58: Torso of a dog/lion

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in profile, is represented by one example (*pl. 36*). The animal has neck, one-piece body, and no tail. Like *Headless dog/lion*, it is combined on the seal face with a larger ruminant on whose body it is attached by the upper side of its neck. The only way of distinguishing between this and the previous type is the composition. The neck of the small animal is attached to the underside of the chest of the larger animal, a feature which excludes the possibility that it is a suckling young.

The head and legs of the figure were probably omitted because they were not necessary for understanding the topic of the image. The motif functions as a main device and is combined with a larger quadruped in a descriptive image.

Motif 59: Torso of a waterfowl

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in profile, is represented by one example (pl. 36). The figure has a paisley-shaped body with the curved part constituting the back, but no neck or feathers.

The example functions as a main device. It is combined with a *Legless waterfowl* (?) in an ornamental image. This would suggest that the omission of the head is due to negligence.

¹¹¹⁹ 294 a.

¹¹²⁰ **347 c**.

¹¹²¹ For a similar depiction and composition where the small animal is identified as a *Dog/lion*, see **415 c**. Here however, the small animal is attached on the larger quadruped's chest and not waist. An attacking *Headless dog/lion* shown in the same profile as the larger prey can be seen on **111 b**. However, the fact that the animal pair **347 c** is very easily comparable to those on **425 b** and **294 a** as well as the iconographic similarity of the small animal **347 c** to one of the suckling youngs **294 a** speak in favour of its identification as a kid as opposed to an attacking *Dog/lion*.

Motif 60: Protome of a man

(Malia/Eastern Crete Steatite Prisms)

The type is represented by four (?) examples (pl. 36).¹¹²² It is the depiction of a man shown from the waist up. Two examples are rendered in frontal view whereas the view in which the other two are represented is unknown.¹¹²³ The figures show either an outstretched arm or two arms raised either side of the head.¹¹²⁴

Each two similar examples are combined in a repetition compound.

Motif 61: Protome of a horned ruminant

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in profile, is represented by three examples (*pl. 36*). It is the depiction of the forepart of a ruminant which has a long forwards curving horn. Two of the animals have closed mouths, triangular hooves, and dentation on the front part of a markedly long neck.¹¹²⁵ The third figure does not have muzzle, has one bifurcated hoof, and dentation on the backside of the horn.¹¹²⁶

All figures show one somewhat and one vertically bent backwards directed leg. The neck of two of them is directed straight upwards, its edge curving backwards such that the muzzle looks up.¹¹²⁷ The head of the remaining example is directed in front.¹¹²⁸

All examples function as basic elements of repetition compounds.

Motif 62: Protome of a bovine

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in profile, is represented by six examples (*pl. 36*). It is the depiction of the forepart of a bovine.¹¹²⁹ All animals have closed mouth and those who have a front leg also have triangular hooves.¹¹³⁰ The dew claws of two figures are rendered.¹¹³¹

¹¹²² It is not certain that the motifs **10 c** are representatives of the type. For this subject, see footnote 1945. ¹¹²³ Frontal view: **88 c**. Unknown view: **10 c**.

¹¹²⁴ Outstretched arm: **10 c**. Arms raised either side of the head: **88 c**.

¹¹²⁵ **394 c**.

¹¹²⁶ **338 a**.

¹¹²⁷ **394 c**. Compare somewhat the configuration of neck and head of the waterfowls **516 c** and **595 c**.

¹¹²⁸ **338 a**.

¹¹²⁹ See *Bovine*.

¹¹³⁰ The animals **571 c** do not have front legs.

¹¹³¹ **393 c**.

The front leg of all figures is bent backwards.¹¹³² The heads of two examples are directed upwards¹¹³³ and those of the remaining figures backwards. The muzzle of the regardant animals points straight ahead.

All examples function as basic elements of repetition compounds.

Motif 63: Protome of a dog/lion

(Malia/Eastern Crete Steatite Prisms, Prisms with EM III/MM I Influences)

The type, rendered in profile, is represented by forty one examples (*pls. 36–37*). It is the depiction of the forepart of a dog/lion.¹¹³⁴ The figures can have closed or open mouth. Occasionally, the legs show claws rendered by spikes issuing from the underside of the foot.¹¹³⁵ On regardant animals, such spikes issue from the 'front' side of the leg, a feature which indicates that the legs are meant to be directed to the back.¹¹³⁶ The neck of some figures is horizontally or vertically hatched or else its backside is equipped with a series of long spikes.¹¹³⁷ Similarly to some *Dogs/lions*, the legs of some examples take the form of short spikes.¹¹³⁸

Some figures have one upwards and one backwards directed leg.¹¹³⁹ The legs of others are directed straight down, forwards, upwards, or backwards whereas one figure does not have legs.¹¹⁴⁰ The head can be directed forwards, upwards or, most often, to the back.¹¹⁴¹ The muzzle of regardant examples can point straight ahead or more frequently, upwards.¹¹⁴²

One example functions as a main device¹¹⁴³ whereas the rest constitute basic elements of repetition compounds. The figure which functions as a main device is the background animal in an animal echelon.¹¹⁴⁴

¹¹³² Compare the quadruped pose Θ 2. For the quadruped poses, see *pls. 126–127*.

¹¹³³ **218 c**.

¹¹³⁴ See Dog/lion.

¹¹³⁵ E.g. **115 c**.

¹¹³⁶ E.g. **338 a**, **387 c**, **410 c**. Compare the quadruped pose A 5. For the quadruped poses, see *pls. 126–127*.

¹¹³⁷ Horizontally hatched: e.g. **591 b**. Vertically hatched: e.g. **387 c**. Spikes: e.g. **288 a**.

¹¹³⁸ E.g. 80 a, 391 a. For *Dog/lions* with similar legs e.g. A.9 b.

¹¹³⁹ E.g. **39 b**. Compare the quadruped pose E 7. For the quadruped poses, see *pls. 126–127*.

¹¹⁴⁰ Straight down: e.g. **391 a** (compare the quadruped pose E 5). Forwards: e.g. one of the figures **115 c**, **289 c**, the figures **352 a** (compare the quadruped poses E 2, E 5, E 8; I 1). Upwards: e.g. **265 b**, **481 c**, **583 a** (compare the quadruped poses E 3, E 4). Backwards: e.g. **288 a**, **387 c**, **410 c** (to the first and the latter compare the quadruped pose Θ 2). No legs: **304 a**. For the quadruped poses, see *pls.* 126–127.

¹¹⁴¹ Forwards: e.g. **115 c**, **583 a**. Upwards: e.g. **265 b**. To the back: e.g. **352 a**, **410 c**.

¹¹⁴² Straight ahead: e.g. **288 a**. Upwards: e.g. **391 a**.

¹¹⁴³ **304 a**.

¹¹⁴⁴ For animal echelons, see p. 351. For the appearance of *Protomes of a dog/lion* on hieroglyphic prisms, see Jasink 2009, 144.

Motif 64: Protome of a quadruped

(Malia/Eastern Crete Steatite Prisms)

This is not a type but a section devoted to the presentation of the foreparts of quadrupeds whose closer identification is not possible either because their partial characteristics do not allow it or because the figures are unfinished or preserved in fragments (*pl. 37*). The two examples classified here are rendered in profile. The figures have long, tub-shaped muzzles, closed mouths, and legs which terminate in bifurcation. Their front legs are straight and somewhat directed backwards, the heads are sunk, and the muzzles point to the back. The tub-shaped muzzles and the sunken head could suggest that the foreparts belong to pigs/ boars.¹¹⁴⁵

The two examples are basic elements of the same repetition compound.

Motif 65: Protome of an 'ellipse scorpion'

(Malia/Eastern Crete Steatite Prisms)

The type, rendered from above, is represented by two examples (*pl.* 37). It is the depiction of the forepart of a scorpion (?) with backwards directed J-shaped claws (?) and two or three legs (?) issuing from either side of the body.

The type does not find iconographic parallels among the foreparts of the scorpions represented on the prisms.¹¹⁴⁶ It does, however, find a parallel on the forepart of the creature depicted on CMS IV no. 61, a steatite signet of the Malia/Eastern Crete Steatite Group which could be identified as a scorpion or alternatively a squid.¹¹⁴⁷ Moreover, it is easily comparable to the front parts of scorpions which are met on ivory seals from Archanes and the Mesara.¹¹⁴⁸

The two examples of the type are combined in a repetition compound.

¹¹⁴⁵ See *Pig/boar*.

¹¹⁴⁶ See Scorpion.

¹¹⁴⁷ The motif finds relatively good parallels with talismanic squids, although as a rule these latter show arms on the head and do not have strokes around the body (see, however, CMS IX no. 77). For the talismanic squids, see Onassoglou 1980, 57–68 with plates. In the case that the motif is actually a squid, it would constitute the first representative of the type met on the talismanic seals. It would also follow that the animals fused on **470 c** might also better be interpreted as squids as opposed to scorpions.

¹¹⁴⁸ Compare for example Sakellarakis – Sapouna Sakellaraki 1997, 678 fig. 762; 679 fig. 763; CMS II,1 no. 248 b.

Motif 66: Protome of a bee

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in profile, is represented by one example (*pl. 38*). It is the depiction of the forepart of a bee.¹¹⁴⁹ From the antennae of the extant example, only the roots are discernible. The legs issue straight downwards whereas wings and mouth are not represented.

The existing figure functions as a main device and is combined with a *Bee* in an ornamental image. This combined with the lack of wings, mouth, and practically no antennae could suggest that the motif is unfinished. If that is the case, miscalculation of the available space would be the reason for the depiction of only half the animal.

Motif 67: 'Beaked' bust

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in profile, is represented by ninety examples (pl. 38).¹¹⁵⁰ It is a round head with neck and pointed mouth resembling a beak. The mouth can be closed or, more rarely, open. Four examples which belong to the same compound also have a pointed ear.¹¹⁵¹

It is possible that 'Beaked' busts were used to represent heads of two different creatures. Their attachment on **458 c** on the upper side of a 'Pole' slung with 'String vessels' could suggest that in this case, the type is an abbreviation for human figures carrying a 'Pole' slung with 'String vessels'.¹¹⁵² In favour of the representation of human heads by some examples would also speak the fact that CMS I no. 420 b shows a representative of the type which very much resembles a human head. On the other hand, the ears which issue from the backside of other examples would suggest that some of the figures depict animal heads.

Only the heads combined with the '*Pole' slung with 'String vessels'* function as main devices. The remaining examples represent basic elements of repetition compounds. It is unknown whether the image in which the two heads function as main devices has a descriptive or 'pictographic' character.

Motif 68: 'Beaked bust with ponytail'

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in profile, is met six times (pl. 38). It is a round head with pointed mouth which resembles a beak and an elongated element which is toothed on the outer side and which issues from the backside of the scalp. While two examples do not have a neck,

¹¹⁴⁹ See *Bee*.

¹¹⁵⁰ The *plates* only contain selected examples of the type.

¹¹⁵¹ **39 c**.

¹¹⁵² Compare for example the compositions on **389 b** and **502 c**.

the remaining examples could be seen as having one.¹¹⁵³ The mouths of all figures are open whereas the ponytail of two curves around one half of the head to reach the height of the mouth.1154

The similarity of the heads 307 b and 436 c with that of the seated Man in profile 500 a could suggest that in these cases, the type represents human heads. On the other hand, the curved 'ponytail' of the devices 508 c leaves the possibility open that the head of a horned animal is represented by the two figures, the curving element representing the horn.¹¹⁵⁵ Against this latter reading would speak the open mouth of the two motifs, which is met in connection with ruminants only in one exceptional case.¹¹⁵⁶

The figures with the curved 'ponytail' function as main devices; the remaining, as basic elements of repetition compounds. The examples which function as main devices are combined with each other in an ornamental image.

Motif 69: Bust of a bovine

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in profile, is represented by two examples (pl. 38). It is the depiction of the head and neck of a bovine.¹¹⁵⁷ The two figures have a closed mouth and a small ear.

The existing examples function as main devices and represent the background quadrupeds in animal echelons.1158

Motif 70: Bust of a dog/lion

(Malia/Eastern Crete Steatite Prisms, Prisms with EM III/MM I Influences)

The type, rendered in profile, is represented by twenty examples (*pls.* 38-39). It is the depiction of the head and neck of a dog/lion.¹¹⁵⁹ Examples with closed and open mouth are represented whereas the neck of some figures is vertically or diagonally hatched.¹¹⁶⁰ Unknown is whether a short bar issuing from the lower front part of one figure is intentional

¹¹⁵³ The bar which connects the heads **307 b** and **436 c** is seen as resulting from the fusion of their necks. ¹¹⁵⁴ **508 b**.

¹¹⁵⁵ In that case, the device would have to be turned upside down such that the horn curves above the head. For a similar horn, see Protome of a horned ruminant.

¹¹⁵⁶ The Agrimi **292 a**. A totally different reading would see in the curved element the body of a snake-like creature. ¹¹⁵⁷ See Bovine.

¹¹⁵⁸ For animal echelons, see p. 351. For a later depiction of the bust of a bull in an animal echelon, see CMS III no. 409.

¹¹⁵⁹ See Dog/lion.

¹¹⁶⁰ E.g. 160 b, 602 c.

or due to accidental engraving or scratching.¹¹⁶¹ All but three examples are depicted with heads turned back.¹¹⁶²

The type functions as a main device¹¹⁶³ and, most often, as a basic element of repetition compounds. Among the examples which function as main devices, one represents the background quadruped in an animal echelon¹¹⁶⁴ whereas the remaining three are combined with other devices in ornamental images.¹¹⁶⁵ The fact that the bust (?) **98 c** is combined with *Dogs/lions* in an ornamental image suggests that miscalculation of the available space lead to the representation of the bust only as opposed to the whole quadruped.¹¹⁶⁶

Motif 71: Bust of a quadruped

(Malia/Eastern Crete Steatite Prisms)

This is not a type but a section devoted to the presentation of the busts of quadrupeds whose closer identification is not possible either because their partial characteristics do not allow it or because the figures are unfinished or preserved in fragments (*pl. 39*). The two examples classified here are rendered in profile. The figures have toothed napes and closed (?) mouths. The heads are directed to the back. The muzzle of one example is not rendered whereas that of the other is directed upwards.

The two figures are basic elements of the same repetition compound.

Motif 72: Bust of a 'snake'

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in profile, is represented by two examples (pl. 39). It is the depiction of the head and the neck of a creature which does not have an ear and resembles a snake. The extant examples have open mouth.

The two figures are basic elements of the same repetition compound.

¹¹⁶¹ One of the two figures **602 c**.

¹¹⁶² Exceptions: **98 c**, **602 c**. The bust **271 b** is understood as belonging to a regardant animal whose body is hidden behind that of the *Dog/lion* under it.

¹¹⁶³ **98 c, 271 b, 602 c**.

¹¹⁶⁴ **271 b**.

¹¹⁶⁵ Compare the composition and to a certain extent the configuration of the motifs on 602 c with those on 265 c and 534 a.

¹¹⁶⁶ However, the possibility cannot be ruled out that a *Dog/lion* was initially depicted whose body is no longer preserved. For another case of miscalculation of the available case, see **50** b.

Motif 73: Hindquarters of a hoofed animal¹¹⁶⁷

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in profile, is represented by one example (*pl. 39*). The hindquarters consist of the rump, two back legs with hooves, and a short upwards directed tail.¹¹⁶⁸

While part of the front side of the motif is missing, the fact that only a small part of the seal face is lost rules out the possibility that a whole animal was initially depicted. Uncertain is whether the front part of the device ended before the edge of the seal face, such as *Legs* do, or whether it terminated on the seal face edge as is the case with the lower part of the protome of a deer on CMS VI no. 97 a. If this latter was the case, the device would be a suggestive motif, i.e. a motif whose continuation further than the seal face is suggested by its termination on the seal face edge.¹¹⁶⁹ Given the rarity of suggestive motifs on prisms and the fact that depictions of figural parts which are contained within the seal face are common,¹¹⁷⁰ it would seem more probable that the motif did not expand to the edge of the seal face.

The existing *Hindquarters of a hoofed animal* function as a main device and are combined with another device in a 'pictographic' image.

Motif 74: 'Gorgo mask'

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in frontal view, is represented by three examples (*pl. 39*). It is a face which is either round or has, most often, heart-shaped lower half and a narrower semi-ellipsoidal upper half. The lower half consists of a narrow chin which develops into characteristically full cheeks. The device often has short hair rendered by dentation on the upper side of the scalp, an open mouth, and characteristically large protruding ears which issue from the root of the cheek bones and end below the hair. One of the examples has large semi-ellipsoidal eyes and another large rectangular nose with long frontally rendered

¹¹⁶⁷ The type *Hindquarters of a dog/lion* seen on V Suppl. 3 no. 20 is not included in this study because it is not met on prisms.

¹¹⁶⁸ The CMS sees in the device a creature in right side view seating on a stool. This interpretation is not accepted by the present author for three reasons. First, the figure of the creature is difficult to comprehend. Secondly, it does not find any parallels in MM iconography. And thirdly, it would seem improbable that the leg of a stool would terminate in the same way as that of the creature.

¹¹⁶⁹ For suggestive motifs, see pp. 298–299. Characteristic examples of suggestive motifs on the prisms are the background animals on animal echelons, of which only the head and the neck are rendered, e.g. the *Busts of a bovine* **269 c** and **286 b** (for animal echelons, see p. 351).

¹¹⁷⁰ E.g. Headless waterfowl, Leg, Crossed arms.

nostrils.¹¹⁷¹ The third example is an outline device with round face and two J-spirals issuing from the head and framing the face.¹¹⁷²

It is uncertain whether 'Gorgo masks' represent human or hybrid faces. While **584 b** resembles a human face, the nose of **494 b** looks more like that of a pig than that of a human. In any case, the apparently human body of the figure **A.21 a** and the animal body of the hybrid creature CMS III no. 230 b both of whose heads share features with the 'Gorgo masks'¹¹⁷³ would suggest that 'Gorgo masks' could variously be attached to human and animal bodies.

Along with the devices on the hard stone CMS III nos. 237 b, 238 a, and CMS VI no. 101 a,¹¹⁷⁴ the '*Gorgo masks*' of the prisms constitute the first examples of the type in Minoan glyptic. The devices on the hard stone seals show the same or very similar characteristics, i.e. large eyes and ears, a narrow chin which develops into a full face, and with two of them, also an open mouth and teeth.¹¹⁷⁵ All are equipped with two J-spirals which issue from the two sides of the head outwards resembling hair or wings. The J-spirals, the open mouth, the teeth, the shape of the face, the large eyes, and the broad ears are very much reminiscent of some Gorgo depictions.¹¹⁷⁶ This would suggest that the type of the head of the Greek Gorgo had Minoan prototypes.¹¹⁷⁷

The existing '*Gorgo masks*' function as main devices. One stands alone on the seal face and two are flanked by fillers.¹¹⁷⁸

Motif 75: 'Mask'

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in frontal view, is represented by two examples (pl. 39). It is a face with eyes, nose, and open or closed mouth. **420 b** has what seem to be short hanging ears or horns. However, the representation of an oblong nose which issues between the eyes and

¹¹⁷² **281 b**.

¹¹⁷⁴ All four-sided prisms.

¹¹⁷⁸ Alone: **281 b**. With fillers: **494 b**, **584 b**.

¹¹⁷¹ Large semi-ellipsoidal eyes: **584 b**. Rectangular nose with frontally rendered nostrils: **494 b**.

¹¹⁷³ J-elements issuing from the head, large eyes, open mouth, human-looking face. A similar plastically-rendered creature forms the back of CMS III no. 1.

¹¹⁷⁵ CMS III no. 238 a, CMS VI no. 101 a.

¹¹⁷⁶ See for example LIMC IV-1, 292 no. 51; Hampe 1939, 28 fig. 10, 29 fig. 11; LIMC IV-2, 169 Gorgo, Gorgones 67 b; LIMC IV-2, 170 Gorgo, Gorgones 77, 79. For other scholars who have commented on this resemblance, see for example Chapouthier 1932, 199–201; Xenaki 1949, 83; Xenaki Sakellariou 1958 a, 80–81; Alexiou 1958, 226 footnote 157. For a 'Hathor mask' with J-shapes issuing from the two sides of the face, see the MB scarab from Tell Nagila in Amiran – Eitan, 1965, 120 fig. 15 no 1. For similar J-shapes framing the face, see the head of the figural seal CMS III no. 1. For the connection of Gorgo-like figures with Bes, see Anastasiadou – Pomadère, in press.

¹¹⁷⁷ The fact that the J-shapes frame the head of the creature on CMS III no. 1 suggests that they represented the hair of the Minoan hybrid and not wings as they often did in Greek Gorgos. This could suggest that the type was overtaken by the Greeks as such and that its features were interpreted in a different way.

stretches vertically downwards does not allow the identification of the motif as the head of a ram.¹¹⁷⁹ **586 a** is composed of two centred-circles which represent the eyes, a line with a blob at the top which stands for the nose, and an upwards bending linear element with toothed underside which represents the mouth. The spikes at the underside of the mouth could represent teeth.

It is unknown whether the two 'Masks' represent human or hybrid heads. The second possibility seems more likely as they both seem to combine human features with features of other creatures. The teeth on **586 a** for example are reminiscent of the teeth of the 'Gorgo masks' CMS III no. 238 a and CMS VI no. 101 a. **420 b** looks like a fusion of a human face and the head of a ram.

The two examples function as main devices. One stands alone on the seal face whereas the other is flanked by fillers.¹¹⁸⁰ One example is seen by Jasink as a possible representative of the CHIC sign 011.¹¹⁸¹

Motif 76: Head of a 'ram'

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in frontal view, is represented by fifty seven examples (*pls. 39–41*). It is the representation of the frontal head of an animal which has long downwards bending horns which extend either side of the face. The horns issue either from the temples or from a thick element which is attached vertically at the top of the head.¹¹⁸² While straight horns are occasionally met, the horns of most examples are curved inwards.¹¹⁸³ At times, the edges of inwards curving horns can turn outwards and occasionally they can form spirals.¹¹⁸⁴ The horns of one example form inwards rolling spirals whereas those of another figure take the form of broad crescents.¹¹⁸⁵ A few examples show horizontal slightly downwards curving horns.¹¹⁸⁶ Ears, when represented, are either short spikes which extend outwards or downwards or else longer elements which hang either side of the face, at times reaching the length of the horns or surpassing it.¹¹⁸⁷ Dentation at the top of the head or the horns is toothed.¹¹⁸⁹

¹¹⁷⁹ See Head of a 'ram'.

¹¹⁸⁰ Alone: **586 a**. With fillers: **420 b**.

¹¹⁸¹ **420 b** (Jasink 2009, 82, 121).

¹¹⁸² Temples: e.g. **393 a**, **433 a**. Element attached to the top of the head: e.g. **218 b**, **402 a**.

¹¹⁸³ Straight: e.g. **156 a**, **528 a**. Curved inwards: e.g. **218 b**, **223 b**.

¹¹⁸⁴ E.g. 9 b, 55 b, 483 c.

¹¹⁸⁵ Inwards rolling spirals: **314 a**. Crescents: **525 c**.

¹¹⁸⁶ E.g. 281 a, 455 b.

¹¹⁸⁷ No ears: e.g. **9 b**, **313 b**. Short spikes: e.g. **260 a**, **433 a**, **582 a**. Longer elements: e.g. **49 b**, **162 b**, **525 c**. Reaching the length of the horns: e.g. **218 b**. Longer than the horns: e.g. **156 a**, **354 c**.

¹¹⁸⁸ Top of the head: e.g. **433 a**. Horns: e.g. **354 c**.

¹¹⁸⁹ E.g. 260 a, 525 c.

One figure has large round eyes and nostrils.¹¹⁹⁰ A *Hatched triangle* and a round element issue from the top of the head of two figures respectively.¹¹⁹¹

The type functions as a main device. *Heads of a 'ram'* stand alone on the seal face or, more rarely, are combined with each other or with other devices. They consist part of descriptive, 'pictographic', and ornamental images.¹¹⁹²

Motif 77: Head of a 'goat'

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in frontal view, is represented by twelve examples (*pl. 41*). It is the representation of the frontal head of an animal which has long horizontal horns which bend slightly downwards and turn upwards at the edges. The horns issue either from the temples or from the top of the head.¹¹⁹³ The ears, when represented, take the form of short outwards extending or downwards hanging spikes.¹¹⁹⁴ Occasionally, dentation at the top of the head renders hair or notches in the horns.¹¹⁹⁵

The reading of the type as the head of a goat is based on the similarity of the horns of the animal to those of '*Goats*' and is thus conventional. The fact that the horns of the *Head of a 'bull' in profile* are similarly configured to those of this type as well as the fact that bulls with similar horns are met in LM glyptic¹¹⁹⁶ could be taken as an indication that the head of a bull is represented instead.

All examples of the type function as main devices. Most of them are simply flanked by fillers on the seal face but two are combined with each other in an ornamental image.¹¹⁹⁷

Motif 78: Head of an 'ox'

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in frontal view, is represented by forty seven examples (*pls.* 42-43). It is the representation of the frontal head of an animal which has straight horizontal horns. The horns issue either from the temples or from a broad bar which extends upwards from the top of the head.¹¹⁹⁸ Ears, when represented, take the form of short or longer outwards

¹¹⁹⁰ **55 b**. For the nostrils, compare the head of a bull CMS II,3 no. 96 c.

¹¹⁹¹ **312 b, 605 a**.

¹¹⁹² Descriptive: e.g. 402 a. 'Pictographic': e.g. 366 b. Ornamental: e.g. 390 c.

¹¹⁹³ Temples: e.g. **532 a**. Top of the head: e.g. **86 b**.

¹¹⁹⁴ No ears: **93 c**. Spikes: e.g. **86 b**, **444 a**.

¹¹⁹⁵ E.g. **266 b**, **532 a**.

¹¹⁹⁶ E.g. CMS VII no. 45 b.

¹¹⁹⁷ With fillers: e.g. **93 c**, **373 c**, **438 b**, **444 a**. With each other: **86 b**.

¹¹⁹⁸ Temples: e.g. **518 a**. Bar issuing from the top of the head: e.g. **285 b**, **460 a**.

extending or slightly downwards curving spikes.¹¹⁹⁹ The ears of one example hang down to the height of the muzzle and then turn back upwards to reach the horns.¹²⁰⁰ Dentation at the top of the head or the horns represents hair or notches respectively.¹²⁰¹ One example has large grain-shaped eyes whereas the face of another is formed by fan-shaped hatching.¹²⁰²

Most examples of the type function as main devices. In a few cases, it is possible that the motifs functioned as fillers.¹²⁰³ As main devices, *Heads of an 'ox'* can stand alone or be combined with other similar or dissimilar devices. Most of them take part in descriptive, 'pictographic', and ornamental images.¹²⁰⁴ One example constitutes the CHIC sign 011 and is combined with other script signs in an inscription.¹²⁰⁵ Another device which is not combined with script signs on the seal face is seen by Jasink as a possible example of the same script sign.¹²⁰⁶

Motif 79: Head of a 'bull'

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in frontal view, is represented by one example (pl. 43). It is the representation of the frontal head of a bull (?) with upwards raised horns. The horns of the existing example issue from the temples and the ears are represented by spikes.

The motif functions as a main device. It is combined with other devices in a descriptive or 'pictographic' image.¹²⁰⁷

Motif 80: Frontal head of a ruminant

(Malia/Eastern Crete Steatite Prisms)

This is not a type but a section devoted to the presentation of unfinished or only fragmentary preserved frontal heads of a ruminant whose closer identification is not

¹¹⁹⁹ No ears: e.g. **475 a**, **482 a**, **562 b**. Outwards extending spikes: e.g. **285 b**, **446 c**. Downwards curving spikes: e.g. **376 c**, **460 a**, **492 c**.

¹²⁰⁰ 88 b, if the backwards directed element attached to the right horn is not actually a Wedge.

¹²⁰¹ Top of the head: e.g. **518 a**. Top of the horns: e.g. **460 a**.

¹²⁰² Grain-shaped eyes: **331 b**. Fan-shaped hatching: **275 a**.

 $^{^{1203}}$ E.g. the small size of the devices **265 a** and **500 c** whose identification as the type is not certain and the fact that they are placed in voids created between the members of larger devices could suggest a filling function.

¹²⁰⁴ Descriptive: e.g. **48 c**, **88 b**, **154 a**. 'Pictographic': e.g. **439 c**. Ornamental: e.g. **446 c**.

¹²⁰⁵ **69** c.

¹²⁰⁶ 48 c (Jasink 2009, 121).

¹²⁰⁷ If the *Head of an 'ox'* (?) with which the *Head of a 'bull'* **500 c** is combined functions as a main device, the nature of the composition would be 'pictographic'. But if it functions as a filler, the composition would be a descriptive one. For the function of the *Head of an 'ox'* (?) in question, see footnote 1203.

possible (*pl. 43*). The represented example functions as a main device and is combined with fillers on the seal face.

Motif 81: Profile head of a 'bull'

(Malia/Eastern Crete Steatite Prisms)

The type is represented by three examples (*pl. 43*). It is the representation of the profile head of a bull (?). Its distinguishing characteristic is a long forwards directed horizontal horn with upwards turning edge. The horn issues from the upper edge of the forehead in front of a shorter ear. The animal has closed mouth. Two of the examples have an eye with iris and one of them also has a neck.¹²⁰⁸

The motif functions as a main device. Two examples constitute the CHIC sign 012 and are combined with other script signs in an inscription.¹²⁰⁹ The combination of the remaining example with a *Whirl*, which finds an equivalent on the CHIC sign 033, could suggest that this device also constitutes part of an inscription.¹²¹⁰ However, the CHIC does not see a script sign in this example. If the interpretation of the image as an inscription is not accepted, its character must be seen as 'pictographic'.

Motif 82: Head of an agrimi

(Malia/Eastern Crete Steatite Prisms)

The type is represented by eighty eight examples (*pls.* 43–45). It is the depiction of the head of an agrimi shown in profile or, more rarely, in three quarters view (?).¹²¹¹ Its distinguishing features are two or more rarely one long backwards curving horn.¹²¹² The mouth is always closed. Often an ear is represented just under the horns whereas a spike which issues from either side of the head under the horns on some examples which are probably the work of the same hand could represent the ear.¹²¹³ Occasionally, the front part of the horns is toothed.¹²¹⁴ Approximately half of the heads have a beard whereas in one case, the eye with the iris is rendered.¹²¹⁵

¹²⁰⁸ Eye with iris: 69 a, 115 a. Neck: 115 a.

¹²⁰⁹ **69 a**, **115 a**.

 $^{^{1210}}$ **424 a**. Against the interpretation of the two devices **424 a** as script signs would speak the fact that the combination CHIC signs 012 - 033 is not otherwise represented on any of the existing documents which bear hieroglyphic script (see CHIC, 326 no. 12; 339 no. 033).

¹²¹¹ Three quarters view (?): e.g. 167 c, 184 b.

¹²¹² Exceptional are the short horns of **398 a**.

¹²¹³ One ear: e.g. **116 b**, **358 b**, **557 a**. Two ears: e.g. **167 c**, **184 b**. All the examples which have two ears belong to the Hasty Cut Style. For the Hasty Cut Style, see p. 77.

¹²¹⁴ E.g. **281 c**.

¹²¹⁵ Beard: e.g. **450 a**, **536 a**. Eye with iris: **533 b**.

The type functions as a main device and as filler.¹²¹⁶ *Heads of an agrimi* which function as main devices are combined with other similar or dissimilar devices in descriptive, 'pictographic', and ornamental images.¹²¹⁷ One example constitutes the CHIC sign 016 and is combined with other script signs in an inscription.¹²¹⁸ Another example is seen by Jasink as a possible representative of the CHIC sign 016.¹²¹⁹

Motif 83: 'Profile head of a horned ruminant'

(Malia/Eastern Crete Steatite Prisms)

The type is represented by two examples (*pl. 45*). It is the depiction of the head of a ruminant (?) with one long forwards bent horn. The mouth is closed.

The representatives of the type function as fillers.

Motif 84: Profile head of a ruminant

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in profile, is represented by fourteen examples (*pl. 45*). It is similar to the *Head of an agrimi* but instead of horns it has two short upwards or slightly backwards directed ears and does not have a beard. The mouth is always closed. In one case whose identification as the type is not certain only one ear is represented.¹²²⁰ The rear ear of some examples is curved to the back and the front one is straight.¹²²¹

For some of the devices classified with the type, it is possible that both or only one of the elements read as ears actually represent horns.¹²²² The type functions as a filler and possibly as a main device.¹²²³ The examples which can be seen as main devices are combined with other motifs in images of a rather 'pictographic' character.

¹²¹⁶ E.g. **93 c**, **326 b**.

¹²¹⁷ Descriptive: e.g. **295 b**, **450 a**. 'Pictographic': e.g. **398 a**, **569 b**. Ornamental: e.g. **77 b**, **443 c**.

¹²¹⁸ **69 a**.

¹²¹⁹ **346 a** (Jasink 2009, 82, 121). For **184 b**, see Jasink 2009, 133.

¹²²⁰ **39 a**.

¹²²¹ E.g. **352 b**.

¹²²² The front straight element which issues from the heads **59 a** and **352 b** for example could represent a horn and the back one an ear. Moreover, the fact that the horns of the *Head of an agrimi* **398 a** are short allows for the possibility that short elements like those issuing from the head **584 a** also represent horns.

¹²²³ Filler: e.g. **326 b**. It is not certain whether on compositions such as those on **39 a**, **59 a**, and **72 a** the motif had a filling function or whether it constituted a main device.

Motif 85: Head of an unidentifiable ruminant

(Malia/Eastern Crete Steatite Prisms)

This is not a type but a section devoted to the presentation of four ruminant heads whose closer identification is not possible (*pl. 45*). The first two examples are either depicted en face or more probably in profile and show ears or horns splayed either side of the head.¹²²⁴ From the remaining two examples, which are depicted in profile, only the heads are preserved.¹²²⁵

All the representations function as fillers.

Motif 86: Head of a dog/lion

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in profile, is represented by three examples (*pl.* 45). While its distinguishing characteristic is an open mouth, also represented is one example with a closed mouth.¹²²⁶ In one case, two ears are rendered.¹²²⁷

The existing examples function as main devices. One is combined with two different heads in a 'pictographic' (?) image and the remaining two are combined with each other in a descriptive image.¹²²⁸

Motif 87: Head of a dog/lion with hanging tongue

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in profile, is represented by two examples (*pl.* 45). It is the head of a dog/lion with open mouth and long hanging tongue. The existing examples have a long ear and one of them also has an eye with iris.¹²²⁹

The type functions as a main device. Both its representatives constitute the CHIC sign 018 and are combined with other script signs in inscriptions.

¹²²⁴ **266 b**.

¹²²⁵ **126 a**.

 $^{^{1226}}$ One of the heads A.11 c. The possibility exists that the motif is actually unfinished. This would also explain the lack of ears on both heads A.11 c.

¹²²⁷ The heads **A.11 c** show central openings which correspond to parts of the unengraved surface. These do not constitute part of the motif but result from the technique used to drill the 'cup sinkings' of the head. For this technique and other examples of similar drillings, see pp. 41-42.

¹²²⁸ With different heads: **524 b**. With each other: **A.11 c**.

¹²²⁹ **69 a**.

Motif 88: Head of an animal

(Malia/Eastern Crete Steatite Prisms, Mesara Chlorite Prisms)

The type, rendered in profile, is represented by four examples (*pl.* 45). It is the depiction of the head of an animal. One example has an open mouth.¹²³⁰

The representatives of the type function as supplements.

Motif 89: Head

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in profile, is represented by one example (pl. 45). It is a head with projecting closed mouth and hair in the form of long spikes issuing from the scalp. The head of the existing example takes the form of a double centred-circle whose central boring could represent the eye.

It is unknown whether a human or animal head is represented. The example functions as a main device and stands alone on the seal face.

Motif 90: Eye

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in frontal view, is represented by six examples (*pl. 46*). It can be grain-, oval- or lozenge-shaped.¹²³¹ The eye lids are represented by dentation or, in one case, take the form of long thin spikes.¹²³² The iris, shown on all but one example, can occasionally float in the centre of the eye without touching the inner side of its contour.¹²³³ In two cases, the pupil is shown as well.¹²³⁴

The type functions as a main device. It always constitutes the CHIC sign 005 and is combined with other script signs in an inscription.¹²³⁵

¹²³⁰ One of the heads **337 c**. It seems probable that also the mouth of the other head on this seal face was initially open. ¹²³¹ Grain-shaped: e.g. **477 a**. Oval-shaped: e.g. **519 b**. Lozenge-shaped: e.g. **35 a**.

¹²³² Dentation: e.g. 477 a, 519 b. Long spikes: 422 b.

¹²³³ No iris: **525 b**. Floating iris: e.g. **35 a**, **519 b**.

¹²³⁴ **353 c, 477 a**.

¹²³⁵ **519 b** stands in the centre of the field and is flanked by two '*Ivy leaves*' which function as fillers. The CHIC and Jasink (Jasink 2009, 114, 117, 128, 156) see the *Eye* as part of an inscription whose other half is represented by the device **519 c** (the inscription is seen as the CHIC signs 005 - 044).

Motif 91: Crossed arms

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in frontal or dorsal view, is represented by two examples (pl. 46). The arms issue from a horizontal bar in a chiastic manner and cross each other at the wrist. The fingers, in one case four and in the other five on each hand, are outstretched.

The type functions as a main device. It always constitutes the CHIC sign 006 and is combined with other script signs in an inscription.

Motif 92: Leg

(Malia/Eastern Crete Steatite Prisms, Mesara Chlorite Prisms)

The type, rendered in profile, is represented by ten examples (*pl.* 46). It is the depiction of a human leg. This, stretched or bent, appears in more and less schematic variations, the latter showing rounded calves and thighs.¹²³⁶

The type functions as a main device.¹²³⁷ Most examples constitute the CHIC sign 010 and are combined with other script signs in an inscription. **598 a** stands alone on the seal face but is seen by Jasink as a script sign.¹²³⁸ **128 b** takes part in an image which resembles an inscription, but is omitted from the CHIC. This is probably due to the fact that the *Unidentifiable motif XXVIII* with which it is combined does not find any parallel among the hieroglyphic signs of the CHIC list.¹²³⁹ Jasink sees in the unidentifiable motif a vessel and suggests that the motif combination **128 b** could constitute the hieroglyphic inscription CHIC signs 010 - 053.¹²⁴⁰ For **336 b**, it is possible that the *Leg* and the *Fish* imitate script signs.¹²⁴¹

Motif 93: Leg with claws

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in profile, is represented by ten examples (pl. 46). It is a bent animal leg with dentation on the underside of the foot.

The majority of examples function as basic elements of repetition compounds, but two constitute supplements.¹²⁴²

 ¹²³⁶ Streched: e.g. 35 c, 457 b. Bent: e.g. 552 b, 580 a. Schematic: e.g. 128 b, 598 a. Calves and thighs: e.g. 35 c, 89 a.
 ¹²³⁷ For three *Legs* combined in a compound, see CMS III no. 62.

¹²³⁸ Jasink 2009, 191.

¹²³⁹ CHIC, 17.

¹²⁴⁰ Jasink 2009, 81.

¹²⁴¹ For this image, see p. 125.

¹²⁴² 567 a.

Motif 94: 'П-legs'

(Malia/Eastern Crete Steatite Prisms)

The type is represented by six examples (*pl. 46*). It is a device which consists of a thick horizontal bar from whose underside issue antithetically two outwards bent legs such that a shape similar to the small Greek π is created. The legs can occasionally show dentation on the underside of the feet, a feature which allows their identification as animal legs. The whole underside of one example's legs is toothed whereas with another figure a conical element issues from the centre of the bar's upper side.¹²⁴³

The configuration of the legs resembles that of the front legs of crouching *Dogs/lions* in the quadruped pose E 7.¹²⁴⁴ This could suggest a connection between this pose and the type. The extant representations function as main devices and one example as a basic element of a representational composite.¹²⁴⁵ As main devices, ' Π -legs' are combined with similar or dissimilar motifs in images of 'pictographic' and ornamental (?) nature.¹²⁴⁶

Motif 95: 'Dog/lion with spiral body'

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in profile, is represented by three examples (*pl. 47*). It is the depiction of a creature resembling a dog/lion whose hindquarters are substituted by an upwards rolling spiral which could be seen as a stylised representation of the tail. The animal can have open or closed mouth. The eye of two figures and also the iris of one is represented.¹²⁴⁷ These two examples do not have legs whereas the remaining figure has two upwards directed front legs with claws.¹²⁴⁸ The heads can be directed in front or to the back whereas the muzzle of the regardant figure is directed slightly upwards.

The legless examples are described by Evans and Jasink as hippocamps.¹²⁴⁹ All the representations function as main devices. One stands alone on the seal face and the remaining two are combined with each other in an ornamental image.¹²⁵⁰ Jasink sees these latter two as possible signs of the hieroglyphic script.¹²⁵¹

¹²⁴³ Toothed underside: **50 c**. Conical element: **458 a**.

¹²⁴⁴ Compare for example the legs of **285 a** and **458 a** to the front legs of the *Dogs/lions* **33 c** and **535 a**; also the legs of **285 a** to those of the *Dog/lion* **564 b**. For the quadruped poses, see *pls. 126–127*.

¹²⁴⁵ **50 c**.

¹²⁴⁶ 'Pictographic': e.g. **558 b**. It is not certain that the composition on **285 a** had an ornamental character. ¹²⁴⁷ **52 a**.

¹²⁴⁸ **532 b**. Compare the front legs on the quadruped pose E 3. For the quadruped poses, see *pls. 126–127*.

¹²⁴⁹ Evans 1909, 149; Jasink 2009, 128.

¹²⁵⁰ Alone: **532 b**. With each other: **52 a**.

¹²⁵¹ Jasink 2009, 191.

Motif 96: Head of a 'dog/lion with hook'

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in profile, is represented by twenty examples (*pl. 47*). It is the head of a dog/lion (?) with a hook issuing from the neck upwards or upwards and in front, sometimes almost reaching the height of the muzzle.¹²⁵² The hook of one example is directed downwards.¹²⁵³ The animal has a thick elongated muzzle which is in most cases open. Only three examples, whose identification as the type is not certain, have closed mouth.¹²⁵⁴ Some figures have two short, often forward curving ears which issue from the top of the head above the hook.¹²⁵⁵ All but one figure are depicted in left profile.¹²⁵⁶

The motif could be read as the profile head of a horned ram instead. In that case, it would have to be inverted 180° such that the hook, which would represent a long backwards and downwards curving horn, issues from its upper side. Some MM and LB heads of a ram in particular provide very good iconographical parallels with the type.¹²⁵⁷ The reason that the reading as the head of a dog/lion is preferred in this study is 'internal', related to arguments derived from comparisons with the remaining prism iconography. Firstly, as regards the prisms, the open mouth is characteristic of *Dogs/lions* and is only found once in connection with a ruminant.¹²⁵⁸ Secondly, the heads of some of the examples are very similar to some Heads of a dog/lion with leg, a type which can be associated with dogs/lions with certainty on account of the fact that the leg which issues from the head has claws.¹²⁵⁹ Furthermore, the two spikes which are seen as ears would remain unidentifiable if the motif were inverted 180° . When the motif is inverted, these spikes stand too low down on the head to represent ears. Moreover, the fact that some *Heads of a dog/lion with leg* also have ears which curve forwards suggests that the right way of viewing the motif is that in which the ears curve in front and not to the back.¹²⁶⁰ Finally and most importantly, a comparison of the heads 213 **b** with the head of the 'Crawling boar' **213 a** would suggest that the most appropriate way of seeing the former heads is that in which the 'ears' curve forwards and the longer part of the mouth is above the lower part.

Despite these points, the argument is as yet inconclusive. On the one hand the open mouth is characteristic of LB depictions of rams while on the other, the reading of the

¹²⁵² Upwards: e.g. 547 c. Upwards and in front: e.g. 84 b, 559 c.

¹²⁵³ One of the heads **402** c.

¹²⁵⁴ **460 c**, **524 b**.

¹²⁵⁵ E.g. **213 b**, **505 c**.

¹²⁵⁶ **473 c**.

¹²⁵⁷ E.g. the heads of the animals on CMS I nos. 66, 166, 221, 257; CMS II,2 no. 77 (Malia/Eastern Crete Steatite Group); CMS II,7 no. 144; CMS II,8 no. 35; CMS IV no. 136 a; CMS V Suppl. 1A no. 158; CMS V Suppl. 3 no. 65; CMS VI no. 177.

¹²⁵⁸ The Agrimi **292 a**.

¹²⁵⁹ Compare for example the heads and the curved ears of the *Heads of a 'dog/lion with hook'* **213 b** and **505 c** to those of the *Heads of a dog/lion with leg* **213 b** and **460 b** respectively.

¹²⁶⁰ E.g. **213 b, 460 b**.

type as the head of a dog/lion leaves the question of the significance of the hook open. One proposition would be that the type is an abbreviation of a dog/lion and that the hook represents the characteristic for the animal long, upwards directed curving tail.

Turning to the examples with closed mouth, the possibility cannot be ruled out that they represent *Heads of an agrimi* instead.¹²⁶¹ In the case that this is true, the heads would stand almost vertically with the muzzles pointing down.¹²⁶² The reason that the examples **460 c** are not seen as *Heads of an agrimi* is that they are encountered on a seal which belongs to a stylistic and iconographic cluster on which the *Heads of a 'dog/lion with hook'* are widely used.¹²⁶³ As regards the head **524 b**, the motif is combined with the *Head of an agrimi* and the *Head of a dog/lion*. It would seem more probable that the heads of three and not two different animals are depicted on the seal face.¹²⁶⁴

The existing representations function as main devices and, two of them, as basic elements of a repetition compound.¹²⁶⁵ As main devices, *Heads of a 'dog/lion with hook'* are combined with similar or dissimilar motifs in descriptive, 'pictographic', and ornamental images.¹²⁶⁶

Motif 97: Head of a dog/lion with leg

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in profile, is represented by six examples (*pl. 47*). It is the head of a dog/lion from whose underside or backside issues a leg with claws. The open muzzle is thick and elongated. Some examples have two forwards curving ears whereas in one case hair is rendered by a series of spikes which issue from the scalp.¹²⁶⁷

The leg of the figure is always bent. Depending on the part of the head from which it issues, it can be directed in front such that the paws face down or else downwards or to the back and upwards such that the paws face to the back.¹²⁶⁸

It is possible that the animal is an abbreviation of a dog/lion. All the extant representations function as main devices. Some stand alone on the seal face while others are combined with other devices. *Heads of a dog/lion with leg* take part in descriptive, 'pictographic', and ornamental (?) images.¹²⁶⁹

¹²⁶⁵ **402** c.

¹²⁶¹ Compare for example the *Heads of an agrimi* **373 c**.

¹²⁶² As do the *Heads of an agrimi* **373 c**.

¹²⁶³ For this cluster, see pp. 82–84.

¹²⁶⁴ As is also the case with the three heads on CMS I no. 420 b. However, worth noting is that on **524 c** two *Heads* of a 'dog/lion with hook' are depicted, this time each with an open mouth.

¹²⁶⁶ Descriptive: e.g. 289 b. 'Pictographic': e.g. 494 c, 505 c. Ornamental: e.g. 524 c.

¹²⁶⁷ Forwards curving ears: e.g. **213 b**, **460 b**. Hair: **377 a**.

¹²⁶⁸ In front: e.g. **377 a**, **460 b**. Downwards: e.g. **213 b**. To the back and upwards: e.g. **97 a**.

¹²⁶⁹ Descriptive: e.g. **377 a**. 'Pictographic': e.g. **511 b**. It is not certain whether the composition on **213 b** has an ornamental or a 'pictographic' character.

Motif 98: 'Boar with π -legs'

(Malia/Eastern Crete Steatite Prisms)

The type is represented by one example (*pl.* 47). It is a creature which consists of the profile head and semicircular torso of a boar which issues at approximately 60° angles from one edge of the bar of a set of π -legs.¹²⁷⁰ The muzzle is long, tub-shaped, and closed, the torso has parallel hatching and a toothed backside, and the underside of the feet is toothed. The head is sunk and the muzzle is directed backwards.

The device, whose significance is unknown, constitutes part of a group of motifs which are with great probability the work of one hand.¹²⁷¹ Most of these motifs can be seen as fictional animals,¹²⁷² as they are created by the combination of parts of various animals represented in frontal or dorsal bird's eye view with the profile heads and torsos/foreparts of boars or the profile heads of quadrupeds.

The type functions as a main device and stands alone on the seal face.

Motif 99: 'Boar with centipede legs'

(Malia/Eastern Crete Steatite Prisms)

The type is represented by three examples (*pl. 47*). It is the depiction of a creature which consists of the profile forepart of a boar which issues at approximately right angles from one edge of what seems to be the body of a centipede.¹²⁷³ The neck/upper body of the 'boar' is curved and on one occasion the backside of the neck is toothed.¹²⁷⁴ All examples have two pairs of legs which 'move' in an anticlockwise direction.¹²⁷⁵ The muzzles are long, the mouths open, and the heads sunk.

The significance of the device is unknown.¹²⁷⁶ One of the representations functions as a main device, the remaining two as basic elements of a repetition compound.¹²⁷⁷ The example which functions as a main device stands alone on the seal face.

¹²⁷⁰ See '*П-legs*'.

¹²⁷¹ These motifs are the 'Boar with π -legs' **260** c, the 'Boars with centipede legs' **492** a and **492** b, the 'Crawling boars' **97** b and **213** a, the 'Centipede with muzzle' **68** c, the 'Bird spider' **296** b, and the Boar **568** b. For the stylistic cluster in which these seals belong, see pp. 82–84.

¹²⁷² But not the *Boar* **568 b**.

¹²⁷³ See Centipede and 'Centipede'.

¹²⁷⁴ Semicircular torso: e.g. **492 b**. Linear torso: e.g. **492 a**. Toothed backside of the neck: **492 b**.

¹²⁷⁵ As do the legs of Centipedes, 'Centipedes', and 'Centipedes with muzzle'.

¹²⁷⁶ For this subject, see 'Boar with π -legs'.

¹²⁷⁷ Main device: **492 b**. Repetition compound: **492 a**.

Motif 100: 'Crawling boar'

(Malia/Eastern Crete Steatite Prisms)

The type is represented by two examples (*pl. 48*). It is a creature which consists of a boar's head and almost semicircular torso in profile whose rear part develops to a broad tail seen from above. One or more legs, also seen from above, issue from one or either side of the root of the tail respectively. The legs of one example, three on the outer and one on the inner side, are directed outwards and slightly forwards¹²⁷⁸ whereas the sole leg on the remaining figure is directed backwards.¹²⁷⁹ One figure has two forward curving ears.¹²⁸⁰ The torsos show parallel hatching, the muzzles are long and open, and the heads are sunk.

The significance of the device is unknown.¹²⁸¹ The combination of the hatched torso with the tail and the legs seen from above creates the impression of a crawling creature seen from above, such as a centipede or a lizard. The hatched body, the profile head with the open mouth, and the thick jaws bring the motif close to the type *'Centipede with muzzle'*.

The two examples function as main devices and stand alone on the seal face.

Motif 101: 'Centipede with muzzle'

(Malia/Eastern Crete Steatite Prisms)

The type is represented by one example (*pl.* 48). It is the depiction of a creature which consists of a quadruped's head in profile and a centipede's body.¹²⁸² The muzzle is long, the mouth is open, the body is horizontally hatched, and the legs 'move' in an anticlockwise direction.¹²⁸³

The significance of the device is unknown.¹²⁸⁴ The hatched body, the profile head with the open mouth, and the thick jaws bring the motif close to the type *'Crawling boar'*.

The type functions as a main device and stands alone on the seal face.

¹²⁷⁸ 213 a.

¹²⁷⁹ **97 b**.

¹²⁸⁰ **213 a**. Compare the ears of the *Heads of a 'dog/lion with hook'* **213 b**, **547 c** and those of the *Heads of a dog/lion with leg* **213 b**, **460 b**.

¹²⁸¹ For this subject, see 'Boar with π -legs'.

¹²⁸² See Centipede and 'Centipede'.

¹²⁸³ As do the legs of *Centipedes*, 'Centipedes', and 'Boars with centipede legs'.

¹²⁸⁴ For this subject, see 'Boar with π -legs'.

Motif 102: 'Spider with muzzle'

(Malia/Eastern Crete Steatite Prisms)

The type is represented by one example (*pl. 48*). It is the depiction of a figure-of-eightshaped creature whose upper part is understood as the profile head of a quadruped because it is equipped with long open jaws and a handle-shaped 'ear'. From either side of the thin waist issue downwards two angular legs or a wing.¹²⁸⁵ The depiction of the legs/wings on the two sides of the body suggests that the back part of the device is depicted in frontal or overhead dorsal view.

The significance of the motif is unknown.¹²⁸⁶ The type functions as a main device and stands alone on the seal face.

Motif 103: Vessel without handles

(Malia/Eastern Crete Steatite Prisms, Prisms with EM III/MM I Influences)

The type is represented by fourteen examples (*pl. 48*). It is a vessel with a symmetrical horizontal lip and a tapering body towards the base. Two variations can be distinguished: one without neck and the other with pinched neck.¹²⁸⁷ The edges of the lip of two examples are directed upwards.¹²⁸⁸ The base is differentiated from the body either by taking a conical form or simply by its smaller diameter.¹²⁸⁹ The body of three examples is diagonally hatched.¹²⁹⁰

The existing representations function as main devices. They are combined with other similar or dissimilar devices and are met in descriptive and, more rarely, 'pictographic' images.¹²⁹¹

Motif 104: Jug

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in profile, is represented by a hundred and thirteen examples (*pls.* 48-50). It is a vessel with a handle on one side and a tapering body towards the base. Two variations of the type can be discerned. The first has an elongated, upwards directed, pointed

¹²⁸⁵ For examples of wings configured in a similar way, see the birds on CMS I no. 106; CMS II,3 no. 194; CMS III 488; CMS VIII no. 57.

¹²⁸⁶ For this subject, see 'Boar with π -legs'.

¹²⁸⁷ A and B respectively.

¹²⁸⁸ **310 a, 538 b**.

¹²⁸⁹ Conical base: e.g. **98 a**, **538 b**. Base differentiated by its smaller diameter: e.g. **270 c**, **594 c**.

¹²⁹⁰ **98 a**.

¹²⁹¹ Descriptive: e.g. **558 a**, **594 c**, **A.17 a**. 'Pictographic': e.g. **A.13 b**.

spout which issues directly from the body.¹²⁹² The second has a horizontal or occasionally upwards directed spout which issues from a pinched neck.¹²⁹³ The base is differentiated from the body either by taking a conical or, more rarely, a spherical form, or only by its smaller diameter.¹²⁹⁴ The handle can issue from the belly or shoulder and terminate on the lip, i.e. be a mouth handle, or issue from the belly and terminate on the shoulder, i.e. be a belly handle.¹²⁹⁵ In a few cases, it is unknown whether it is omitted or obliterated by abrasion.¹²⁹⁶ The handle of an example whose identification as the type is not certain seems to be represented by a short spike.¹²⁹⁷

All the existing *Jugs* function as main devices. They are combined with similar or dissimilar devices and take part in descriptive, 'pictographic', and ornamental images.¹²⁹⁸ Some *Jugs* are seen by Karnava and Jasink as possible examples of the CHIC sign 053 and others as possible ideograms.¹²⁹⁹

Motif 105: Amphora

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in frontal view, is represented by sixty eight examples (*pls.* 50-52). It is a vessel with two handles on two antithetical sides and a tapering body towards the base. Two variations can be discerned: one without neck and the other with pinched neck.¹³⁰⁰ The base is differentiated from the body either by taking a conical or, more rarely, a spherical form, or only by its smaller diameter.¹³⁰¹ The body of one example is diagonally hatched.¹³⁰² The handles can be mouth handles or belly handles.¹³⁰³ The belly handles of one example are represented by spikes.¹³⁰⁴

¹²⁹² A.

¹²⁹³ B.

¹²⁹⁴ Conical base: e.g. **186 a**, **546 b**, **583 b**. Spherical base: e.g. **66 c**. Base differentiated by its smaller diameter: e.g. **47 c**.

¹²⁹⁵ Mouth handle: e.g. **473** c, **531** c, **546** c. Belly handle: e.g. **474** c, **490** c, **545** c.

¹²⁹⁶ E.g. **293 c**, **411 c**, **497 b**. In these cases, the identification of the vessels as *Jugs* and not as *Vessels without handles* is based on the existence of the long, upwards directed spouts.

¹²⁹⁷ **273 a**. A break at the point of the handle does not allow the verification of the hypothesis that it is represented by a spike.

¹²⁹⁸ Descriptive: e.g. **355 a**, **396 b**, **583 b**. 'Pictographic': e.g. **398 a**, **473 c**. Ornamental: e.g. **474 c**, **545 c**.

¹²⁹⁹ CHIC sign 053: e.g. **5 b**, **64 a**, **134 c**, **187 b**, **360 a** (Karnava 2000, 25; Jasink 2009, 82). Ideograms: e.g. **518 b** (Jasink 2009, 131).

¹³⁰⁰ A and B respectively.

¹³⁰¹ Conical base: e.g. **134 c**, **386 c**. Spherical base: e.g. **535 c**. Base differentiated by its smaller diameter: e.g. **420 a**, **520 b**.

¹³⁰² **386 c**.

¹³⁰³ For these two kinds of handles, see *Jug*.

¹³⁰⁴ **538 b**.

The type functions as a main device, as basic element of repetition compounds, and as supplemented device.¹³⁰⁵ As main devices, *Amphorae* can stand alone on the seal face¹³⁰⁶ or be combined with similar or dissimilar devices. They are encountered in descriptive, 'pictographic', and ornamental images.¹³⁰⁷ Some examples of the device are seen by Karnava and Jasink as possible representatives of the CHIC sign 054.¹³⁰⁸

Motif 106: Pithos/jar

(Malia/Eastern Crete Steatite Prisms)

The type is represented by eleven examples (*pl. 52*). It is a vessel with four or more handles which issue in pairs from the two sides of the body, which itself tapers towards the base. All the representations have pinched neck and belly handles.¹³⁰⁹ The base is differentiated from the body either by taking a conical form or only by its smaller diameter.¹³¹⁰

The existing examples of the type function as main devices. They either stand alone or are combined with other devices on the seal face.¹³¹¹ Most *Pithoi/jars* take part in descriptive images.¹³¹² It is unkown whether in one case, the image could be read as 'pictographic'.¹³¹³

Motif 107: Unidentifiable vessel

(Malia/Eastern Crete Steatite Prisms)

This is not a type but a collection of nineteen vessels with towards the base tapering body, mostly *Amphorae* or *Jugs*, whose closer identification is not possible because of their fragmentary preservation (*pls.* 52–53). The base of the vessels is differentiated from the body either by taking a conical form or only by its smaller diameter.¹³¹⁴

The examples classified herein function as main devices.

¹³⁰⁵ Basic element of repetition compounds: 91 c, 130 a, 535 c. Supplemented device: 206 b.
¹³⁰⁶ E.g. 386 c.

¹³⁰⁷ Descriptive: e.g. **203 a**, **486 a**. 'Pictographic': e.g. **1 a**, **355 c**. Ornamental: e.g. **91 b**, **206 b**.

¹³⁰⁸ E.g. 5 b, 64 a, 134 c, 187 b, 360 a, 420 a (Karnava 2000, 25; Jasink 2009, 82, 121).

¹³⁰⁹ For these handles, see Jug.

¹³¹⁰ Conical base: e.g. **300 a**. Base differentiated by its smaller diameter: e.g. **332 c**, **389 a**.

¹³¹¹ Alone: e.g. 61 b, 478 c. With other devices: e.g. 300 a, 389 a, A.21 c.

¹³¹² It is not certain whether compositions such as those on **172 b** and **497 b** had a descriptive or a 'pictographic' character.

¹³¹³ A.21 c. If the 'Snakes' b functioned as main devices as opposed to fillers, the image could be 'pictographic'.

¹³¹⁴ Conical base: e.g. **142 b**. Base differentiated by its smaller diameter: e.g. **293 c**.

Motif 108: 'Ball jug'

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in profile, is represented by one example (pl. 53). It is a spherical vessel with a side handle, but without neck and separate base.

The existing example functions as a main device. It is combined with other representational motifs in a descriptive image.

Motif 109: 'Loop vessel'

(Malia/Eastern Crete Steatite Prisms)

The type is represented by one example (*pl. 53*). It is a spherical vessel (?) with a loopshaped handle issuing upwards from the top and no neck or separate base. The shape of the device is reminiscent of the shape of the CHIC sign 047.¹³¹⁵

The existing representation functions as a main device and is combined with other devices in a descriptive image.

Motif 110: 'Ball amphora'

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in frontal view, is represented by thirty two examples (*pl. 53*). It is a spherical vessel with two handles on two opposite sides and no separate base. Two possible variations can be distinguished, one without neck and another with pinched neck.¹³¹⁶

Uncertain is whether the device depicts a vessel similar to that depicted by the type *Amphora* or another kind of container, e.g. a basket. It is possible that the type stands for different kinds of vessels in the various compositions. When it is combined with humans for example it could simply represent a summarily executed amphora.¹³¹⁷ On the other hand, images in which it is combined with *Amphorae* which are much larger than it is are an indication that in such cases, a different kind of container is depicted.¹³¹⁸

The existing '*Ball amphorae*' function as main devices. They are combined with similar or dissimilar devices and are encountered in descriptive, 'pictographic', and ornamental images.¹³¹⁹

¹³¹⁵ Compare for example this hieroglyph on CMS II,8 no. 66.

¹³¹⁶ A and B respectively. It is not certain whether the second variation does actually exist. Its only possible representatives are the vessels **227 a**, for which it is not certain whether they have pinched neck or whether the elements which appear to be necks are actually accidental engraving.

¹³¹⁷ E.g. 66 a, 227 a, 581 b.

¹³¹⁸ E.g. **261 a, 273 b**.

¹³¹⁹ Descriptive: e.g. **66 a**, **227 a**. 'Pictographic': e.g. **355 c**. Ornamental: e.g. **425 a**.

Motif 111: 'String vessel'

(Malia/Eastern Crete Steatite Prisms)

The type is represented by three hundred and one examples (*pls.* 53–55).¹³²⁰ It is an object which as a rule is associated with a bar or another elongated motif to which it is very often attached.¹³²¹ It can be spherical, roughly ellipsoidal, triangular, or in one case, roughly rectangular.¹³²² Often, but not always, one to four short bars issue from its upper side.¹³²³ The lower part of some spherical examples is equipped with two spikes which issue in antithetical directions.¹³²⁴

Only one doubtful example which is combined with a *Man in profile* in a descriptive image functions as a main device.¹³²⁵ The remaining representations function as elements of the representational composite *Elongated motif slung with 'String vessels'*. Some examples are seen by Jasink as possible representatives of a script sign described as 'globular vessel'.¹³²⁶

Following Evans's reading, the type is most often described as a vessel in the literature.¹³²⁷ This interpretation is mostly based on the fact that in some images the '*Pole' slung with* '*String vessels'* is carried on the shoulders of a man.¹³²⁸ A similar image is that of the figure carrying a pole slung with two vessels on the LM sarcophagus from Agia Triada.¹³²⁹ In this depiction, the almost conical shape of the vessels brings to mind the triangular examples of '*String vessels'*, the handles of the front vessel which project above the pole are reminiscent of **398 b**, and the fact that the rear vessel is directly attached to the pole without the mediation of handles brings to mind the roughly rectangular '*String vessel'* **416 a**. Basch sees the devices on the prisms as vessels but suggests that most '*Poles' slung with 'String vessels'* are rafts supported by rows of empty vessels.¹³³⁰ On the other hand, Burke sees in the type loom weights.¹³²¹

The term *string* refers to the impression that the objects are attached to the long side of the adjacent elongated device by strings. However, it is also possible that the 'strings' actually stand for handles or, with some of them, the neck and mouth of a vessel. On objects hanging from two 'strings' for example, each of these could be seen as a handle,

¹³²⁰ The plates only contain selected examples of the type.

¹³²¹ The only example not associated with a bar is the dubious **473** \mathbf{a} .

¹³²² Spherical: e.g. 8 a, 64 b. Ellipsoidal: e.g. 113 c, 495 c. Triangular: e.g. 398 b, 458 c. Rectangular: 416 a.

¹³²³ For some examples which do not hang from 'strings', see **329 c** and **485 c**.

¹³²⁴ E.g. **46 c**, **421 a**.

¹³²⁵ **473 a**.

¹³²⁶ Her quotation marks; **346 c** (Jasink 2009, 82, 121, 142).

¹³²⁷ Evans 1909, 131.

¹³²⁸ **389 b**, **502 c**; CMS II,1 no. 300 b.

¹³²⁹ Dimopoulou Rethemiotaki 2005, 176–177.

¹³³⁰ Basch 1976, 91-95.

¹³³¹ Burke 1997, 418–419.
as is the case with the depiction on the Agia Triada sarcophagus whereas each two of the four 'strings' on other objects could represent the two sides of a handle of an amphora.¹³³² The central 'string' of examples which hang from three 'strings' could represent the neck and mouth of a vessel.¹³³³ Finally, the two antithetical spikes on the underside of some examples which hang from one 'string' could render the base of the vessel.¹³³⁴

Motif 112: 'Ring vessel'

(Malia/Eastern Crete Steatite Prisms)

The type is represented by one example (*pl.* 55). It is a ring-shaped motif identified as a schematic depiction of a container on tentative terms. The device, which is held by a *Man in profile* and encloses a 'Squid' a, is understood as a net or some kind of vessel, possibly viewed from above (?). However, it is also possible that 'Squid' a and ring constitute one entity. If this were the case, the device could perhaps represent a shield (?) which bears an emblem.

The type functions as a main device and constitutes part of a descriptive image.

Motif 113: 'Pole'

(Malia/Eastern Crete Steatite Prisms)

The type is represented by sixty nine examples (pl. 55).¹³³⁵ It is an oblong linear bar which is always combined with *'String vessels'* which appear to hang from it. Burke sees in the type a bar at the bottom of a warp-weighted loom whereas Basch sees in many of its representations the upper part of a raft.¹³³⁶

All examples function as elements of the representational composite '*Pole' slung with* '*String vessels*'.

¹³³² Two 'strings': e.g. **490 a**. Four 'strings': e.g. one of the objects **464 c**. To '*String vessels*' with four 'strings' compare '*Ball amphora*'.

¹³³³ E.g. **511 c**.

¹³³⁴ See footnote 1324.

¹³³⁵ The plates only contain selected examples of the type.

¹³³⁶ But not on those carried on the shoulders of a *Man in profile*, e.g. **502 c** (Basch 1976, 91). For Burke's and Basch's opinion and the reading of the device as a pole, see p. 226.

Motif 114: 'Stone'

(Malia/Eastern Crete Steatite Prisms)

The type is represented by one example (pl. 55). It is a roughly circular motif which constitutes the seat of a human figure.

The existing example functions as a main device and constitutes part of a descriptive image.

Motif 115: Stool

(Malia/Eastern Crete Steatite Prisms, Dawkins Prism)

The type, rendered in profile, is represented by seven examples (*pl.* 55). It is a seat with two to four legs but without back. Most *Stools* are Π - or fork-shaped.¹³³⁷ One example is composed of two thick outwards curving legs which meet at their top.¹³³⁸

The type functions as a main device and is always combined with a man who sits on it. Men seated on *Stools* may stand alone or be combined with other representational motifs in descriptive images. In one case, it is possible that the combination *Man in profile* and *Stool* constitutes part of an inscription.¹³³⁹ However, neither of these two motifs is seen as a script sign in the CHIC.

Motif 116: 'Chair'

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in profile, is represented by two examples (*pl.* 55). It is a seat with back. The two existing representations take the form of a curved line and have no legs. Two parallel spikes issue from the front side of one example.¹³⁴⁰

The two examples function as main devices and are combined with other devices in descriptive images.

¹³³⁷ П-shaped: 293 a, 502 a, 538 c, 604 a. Fork-shaped: 497 a, A.9 a.

¹³³⁸ 261 c.

¹³³⁹ **538 c**. The *Cross pommée* could constitute the CHIC sign 070, the *Saltire* the CHIC sign X, and the *Man in profile* the CHIC sign 001.

¹³⁴⁰ **48 a**.

Motif 117: Unidentifiable seat

(Malia/Eastern Crete Steatite Prisms)

This is not a type but a section devoted to the presentation of three fragmentary preserved seats whose closer identification is not possible (*pl. 55*).

The represented examples function as main devices.

Motif 118: 'Kiln'

(Malia/Eastern Crete Steatite Prisms)

The type is represented by one example (*pl. 56*). It is a motif in the form of an archshaped ladder band. The depiction has been seen by Evans as a kiln and by Yule as a potter's wheel.¹³⁴¹

The type functions as a main device and is combined with other motifs in a descriptive image.

Motif 119: 'Gaming table'

(Malia/Eastern Crete Steatite Prisms)

The type is represented by one example (*pl. 56*). It is a motif composed of a chequered rectangle which stands horizontally on two legs. A triangular element issues from the centre of one of the narrow sides of the rectangle. The shape of the motif excluding the legs is reminiscent of a "*Bottle*".

The existing example functions as a main device and is combined with other motifs in a descriptive image.

Motif 120: Harp

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in frontal view, is represented by one example (*pl.* 56). According to Younger, it represents a double harp.¹³⁴² The instrument has a heart-shaped frame with a straight base. On the base sits the soundbox from whose upper side issue ten bars which connect it with the lobes of the frame. According to Younger, the two middle bars represent a support post and the remaining eight the strings. The same author identifies the thick spike which issues from the right lobe just above its joint with the left lobe as a duckbill.

¹³⁴¹ Evans 1921, 124. Yule 1980 a, 120.

¹³⁴² Younger 1998, 76 no. 56. The description of the motif follows Younger 1998.

The motif functions as a main device and stands alone on the seal face. It is seen by Jasink as the CHIC sign 058.¹³⁴³

Motif 121: 'Key sistrum'/'plough'

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in frontal view, is represented by five examples (*pl.* 56).¹³⁴⁴ It is the depiction of a device which consists of a V-shaped frame from one side of which issues roughly horizontally a T-shaped element. In one case, this element crosses the frame and extends horizontally from both its sides.¹³⁴⁵ On another example, a horizontal bar links the two legs of the frame.¹³⁴⁶ Most, but not all examples have a handle, the handle of one figure terminating in a blob.¹³⁴⁷

Younger suggests that the horizontal bar which links the two legs of the frame could represent a rung and the T-shaped element, the bent end of a rung or an appliqué.¹³⁴⁸ The CHIC classifies the devices categorised here as representatives of the CHIC sign 057. Jasink is of the opinion that the devices categorised in the CHIC as the CHIC sign 057 represent two different script signs, namely Evans's plough and sistrum.¹³⁴⁹ In the devices classified under '*Key sistrum'/'plough'* Jasink sees a 'plough'.

All examples of the motif function as main devices. They constitute the CHIC sign 057 and are combined with other script signs in an inscription.

Motif 122: 'Figure-of-eight shield'

(Malia/Eastern Crete Steatite Prisms)

The type is represented by eight examples, six of which are encountered on the same seal face (*pl.* 56).¹³⁵⁰ It is a motif which consists of two blobs linked by a short bar. A variation on the type is equipped with a spike which issues outwards from one side of the bar.¹³⁵¹

¹³⁴³ Jasink 2009, 132, 194.

¹³⁴⁴ For the identification of the device as a possible sistrum, see Younger 1998, 79–80. For Aegean sistra in general, see Younger 1998, 38–40.

¹³⁴⁵ **434 c**.

¹³⁴⁶ **89 b**.

¹³⁴⁷ No handle: e.g. **3 b**. Handle terminating in a blob: **434 c**.

¹³⁴⁸ Younger 1998, 39–40.

¹³⁴⁹ Jasink 2009, 98-99.

¹³⁵⁰ For the depiction of an actual figure-of-eight shield, see CMS II,2 no. 32. The type, which is not represented on prisms, can be named *Figure-of-eight-shield*. The seal on which it is engraved belongs to the Malia/Eastern Crete Steatite Group.

¹³⁵¹ E.g. two of the motifs **13 a**. For some more examples of this variation, see CMS III no. 54 b.

The existing representations function mainly as main devices. Six of the examples are combined with each other in a circle which encloses a *Man in profile*.¹³⁵² The remaining two are placed in the field near descriptive images.¹³⁵³ It is unknown whether the combination of a descriptive image with a *'Figure-of-eight shield'* creates 'pictographic' representations, ones which are 'descriptive with symbol', or descriptive images in which the type functions as a filler.¹³⁵⁴

Motif 123: Double axe

(Malia/Eastern Crete Steatite Prisms)

The motif, rendered in frontal view, is represented by four examples (*pl. 56*). It is a tool or weapon with vertical shaft from either side of which issues a triangular blade. Occasionally, the outer sides of the blades are convex and the remaining four concave.¹³⁵⁵

The existing examples function as main devices. They either stand alone on the seal face or constitute parts of inscriptions in which they represent the CHIC sign 042.¹³⁵⁶

Motif 124: Trident

(Dawkins Prism)

The type, rendered in frontal view, is represented by two examples which are met on the same seal face (*pl.* 56).¹³⁵⁷ It is a tool or weapon which consists of a vertical shaft with a round pommel on one end, three long teeth on the other, and a short horizontal line crossing the shaft above the trifurcated end.

The two existing examples function as main devices and are combined with each other in an ornamental image.

¹³⁵² **13 a**.

¹³⁵³ **113 a, 490 c**.

¹³⁵⁴ E.g. **113 a**.

¹³⁵⁵ E.g. **353 a**.

¹³⁵⁶ Alone: e.g. **184 c**, **515 a**. Part of inscriptions: e.g. **353 a**, **445 a**. For **184 c**, see Jasink 2009, 133.

¹³⁵⁷ For further examples of the type, see CMS II,1 no. 452 a. For a LM IB example of a trident recovered in Mochlos, see Soles 2007, 253 figs. 29.3, 29.4.

Motif 125: Dagger

(Malia/Eastern Crete Steatite Prisms)

The type is represented by six examples, one of which is fixed on the waist of a *Man in profile* (*pl.* 56).¹³⁵⁸ It is a tool or weapon which has a short shaft with a pommel on the upper end and an elongated triangular blade.

The representations function as main devices. *Daggers* are encountered in combination with other motifs and take part in descriptive and ornamental images.¹³⁵⁹ Three devices are seen by Jasink as possible examples of the CHIC sign 051.¹³⁶⁰

Motif 126: Spear

(Malia/Eastern Crete Steatite Prisms)

The type is represented by eight examples (*pls.* 56–57). It is a tool or weapon which has a long shaft and a small triangular blade. The shaft of some examples is slightly bent.¹³⁶¹

The existing representations function as main devices. All but one example are combined with human figures in descriptive (?) images. The exception is **340** a which constitutes a separator between two *Heads of an agrimi*.

Motif 127: 'Spear with double blade' (?)

(Malia/Eastern Crete Steatite Prisms)

The type is represented by two examples (*pl.* 57). It is a device with a long 'shaft' and two triangular 'blades' issuing from the lower part of one of the latter's long sides. One of the two representations is bent.¹³⁶²

It is not certain that the type does actually exist. The device **113 c** could be broken down into two distinct motifs, the upper part representing a spear¹³⁶³ with the blade placed to the side and the roughly triangular element under it a separate unidentifiable motif. The fact that the blade issues from the side of the shaft could be due to the restricted space on the seal face. It is possible that the device **313 b** is an ornamental instead of a representational motif.

The two examples function as main devices and are combined with other motifs in images of unknown nature.

¹³⁵⁸ 560 a.

¹³⁵⁹ Descriptive: e.g. **48 b**. Ornamental: e.g. **308 c**.

¹³⁶⁰ **48 b**, **346 b** (Jasink 2009, 121).

¹³⁶¹ E.g. 71 a, 451 c.

¹³⁶² **313 b**.

¹³⁶³ See Spear.

Motif 128: Linear arrow

(Malia/Eastern Crete Steatite Prisms)

The type is represented by five examples (*pl. 57*). It is a linear device identified as an arrow on account of the fact that it is depicted within a *Bow*. Most examples have two blunt ends which, in light of the fact that they do not project outside the *Bow*, are an indication that only the middle part of the arrow is depicted. Only in one case do the ends of the arrow extend beyond the front and back side of the *Bow*.¹³⁶⁴ The rear part of this device is bifurcated, a feature which probably denotes fletching, and the front part is broad and blunt.¹³⁶⁵

All examples function as elements of the representational composite *Bow with Linear arrow*.

Motif 129: 'Arrow' a

(Malia/Eastern Crete Steatite Prisms)

The type is represented by ten examples (*pl.* 57). It is an arrow-shaped device with 'fletching' on the back part of the 'shaft'. The 'fletching' is rendered either by trifurcation or, more rarely, by a broadening edge.¹³⁶⁶

The denomination of the type is placed in quotation marks for two reasons. Firstly, the motif always takes part in ornamental images, a feature which suggests that it was conceived as an ornamental as opposed to a representational motif. Secondly, a viewing of the motif as a floral device is also possible. Yule sees in similar motifs which appear on stamp cylinders 'bilateral branches' which should be standing with the 'fletching' up.¹³⁶⁷

All 'Arrows' a function as main devices and are combined with each other in pairs. Jasink sees possible ideograms in the examples of the type.¹³⁶⁸

Motif 130: 'Arrow' b

(Malia/Eastern Crete Steatite Prisms)

The type is represented by thirty one examples (*pls.* 57-58). It is an arrow-shaped device with long arms which can terminate in blobs, be thicker than the shaft, or in one case,

¹³⁶⁴ 115 a.

¹³⁶⁵ For another example of a blunt *Linear arrow* whose front part projects beyond the *Bow*, see CMS VIII no. 12. ¹³⁶⁶ Bifurcation: e.g. **163 a**, **367 a**. Broadening edge: e.g. **596 a**.

¹³⁶⁷ E.g. CMS IV no. 34 b. Yule 1980 a, 172 no. 37, 1. For the subject of the derivation of the device, see Jasink 2009, 131.

¹³⁶⁸ Jasink 2009, 130–131, 135.

turn outwards to form hooks.¹³⁶⁹ The linear nature of some examples¹³⁷⁰ seems to have been caused by abrasion or the fact that the motif is unfinished.¹³⁷¹ Only in one case, does it seem to represent the original state of the device.¹³⁷² The arms are often slightly bent inwards¹³⁷³ and the shaft is plain in the majority of the examples. Occasionally, thickening edge, trifurcation, or dentation on the two lower sides of the shaft represent fletching.¹³⁷⁴ The left arm and the fletching on the right side of the shaft on one example are omitted, a feature which is probably due to lack of space.¹³⁷⁵ In another case, a line issues from the top of the head, curves above the right arm and ends at the height of the fletching.¹³⁷⁶

All examples of the type function as main devices. Most of them constitute the CHIC sign 049 and are combined with other script signs in inscriptions. In all but two of these inscriptions, the type is combined with the CHIC sign 044.¹³⁷⁷ **519 c** is combined with a *"Textile"* and **598 b** with the *Unidentifiable motif XXIX* which is seen by Jasink as a script sign.¹³⁷⁸ Some examples are combined with representational motifs in 'pictographic' images or with unidentifiable motifs in images which resemble inscriptions.¹³⁷⁹

Motif 131: 'Egyptian arrow'

(British Museum Prisms)

The type is represented by one example (pl. 58).¹³⁸⁰ It is an arrow which takes the form of the Egyptian hieroglyph T 11.¹³⁸¹ The device has a long shaft whose lower part thickens such that a grain-shaped opening is created which is divided longitudinally by a spike. The shaft terminates in bifurcation which represents fletching.

The representation functions as a main device. It is combined with fillers in an ornamental (?) image.

¹³⁷⁸ Jasink 2009, 191. For the inscription of **519**, see footnotes 368, 1667.

¹³⁶⁹ Blobs: e.g. 27 c, 279 c. Thicker than the shaft: e.g. 518 c, 561 c. Forming hooks: 434 a.

 $^{^{1370}}$ E.g. **69 b**, **132 c**, **148 a**, **598 b**. The motif **69 b** is seen by the CHIC as the CHIC sign 060 instead. Its reading as an '*Arrow'b* and consequently the CHIC sign 049 is preferred because a short line to the left of the motif is seen as the left arm of the arrowhead. This element is not considered part of the motif by the authors of the CHIC. ¹³⁷¹ Abrasion: **132 c**. Unfinished: **148 a**.

¹³⁷² **598 b**. Also the device on CMS XII no. 70 a is linear although in this case a slight thickening of the arm edges is detectable. Linear arrows are identified as representatives of the type only when they constitute part of hieroglyphic inscriptions.

¹³⁷³ E.g. **108 c**, **397 c**.

¹³⁷⁴ Thickening edge: e.g. **327 a**, **598 b**, **A.13 b**. Trifurcation: e.g. **27 c**, **224 c**. Dentation: e.g. **353 c**.

¹³⁷⁵ **75 a**.

¹³⁷⁶ **27** c.

¹³⁷⁷ 'Torso'. 53 b and 148 a are the only devices surviving on the seal face. For 148 a, see also Jasink 2009, 129.

¹³⁷⁹ 'Pictographic': e.g. **75 a**. Resembling inscriptions: e.g. **27 c**, **224 c**.

¹³⁸⁰ Compare to the almost identical motif on the Egyptian scarab CMS VIII no. 151 which functions as a script sign. ¹³⁸¹ For this sign, see Gardiner 1957, 512.

Motif 132: Back part of an arrow

(Malia/Eastern Crete Steatite Prisms)

The type is represented by nine examples (*pl. 58*). It is the depiction of the rear part of an arrow, i.e. its shaft and fletching. On all but one example, the fletching is rendered by dentation at the two sides of the shaft's lower part. The shaft of **566 b** which constitutes the exception terminates in bifurcation.

All examples of the type function as main devices. They are placed above or on the back of a ruminant¹³⁸² and in combination with it, are met in descriptive, 'pictographic' (?), and ornamental images.¹³⁸³

Motif 133: Bow

(Malia/Eastern Crete Steatite Prisms)

The type is represented by seven examples (*pl.* 58). A D-shaped and a B-shaped variation of the weapon are met, the latter showing limbs which deepen at the handle.¹³⁸⁴

All examples of the type function as basic elements of the representational composite *Bow with Linear arrow.*

Motif 134: Ship

(Malia/Eastern Crete Steatite Prisms)

The motif, rendered in profile, is represented by thirty one examples (*pls. 58–60*).¹³⁸⁵ *Ships* have a more or less curved hull and a mast. Most of them have the same number of fore- and backstays, ranging from one to four but two examples have an open sail in place of the stays.¹³⁸⁶ The first shows a vertically hatched wing-shaped sail which extends either side of the mast.¹³⁸⁷ The sail of the second is cross-hatched and extends on one side of the mast as if it were a flag.¹³⁸⁸ The fore- and backstay which issue from the hull of one example do not touch the mast whereas in one case, the mast terminates in an arrowhead.¹³⁸⁹ Very frequently encountered is the representation of oars which take the form of slightly

¹³⁸² On all but one case (**566 b**) an *Agrimi*.

¹³⁸³ Descriptive: e.g. **10 b**. 'Pictographic' (?): e.g. **554 b**, if the *Fish* functions as a main device. Ornamental: e.g. **394 a**.

¹³⁸⁴ D-shaped: e.g. **323 a, 597 b**. B-shaped: e.g. **115 a**. For a B-shaped bow on a hard stone example, see CMS VIII no. 110 b.

¹³⁸⁵ The type *Boat* is represented on Demargne 1939, 122 fig. 1 a (gable with three engraved sides).

¹³⁸⁶ **190 c**, **405 b**.

¹³⁸⁷ **190 c**.

¹³⁸⁸ **405 b**. This feature raises questions regarding the authenticity of **405**. For this subject, see footnote 481.

¹³⁸⁹ Stays not touching the mast: **510 b**. Mast terminating in an arrowhead: **432 a**.

slanting spikes which issue from the underside of the hull.¹³⁹⁰ In a few cases, a long spike which issues from the underside of one extremity represents a steering oar whereas the steering oar of one example is rendered by three spikes.¹³⁹¹ Occasionally, the hull can be vertically hatched.¹³⁹²

Depending on the way the two extremities of the hull terminate, the representatives of the type are subdivided into five categories. The first includes ships with one bifurcated and one pointed extremity.¹³⁹³ The ships of the second category have one raised extremity which terminates in an arrowhead and a bifurcated extremity which is usually lower.¹³⁹⁴ In the third category are included two ships which show similar characteristics to the ones on the previous category but differ in two aspects.¹³⁹⁵ The first is that the arrowhead does not sit on the top of the ship's extremity but crosses it whereas the second is that the lower barb of the arrowhead is longer than the upper barb. The fourth category includes ships with a lower bifurcated and a higher bi- or trifurcated extremity.¹³⁹⁶ Finally, ships of a last variant have two pointed extremities.¹³⁹⁷

According to the present author, the ships of the first two categories belong to Wedde's Kolonna Cluster.¹³⁹⁸ The bifurcated extremity is identified as the stern and the remaining one as the bow of the vessel. The right extremity of the ships belonging to the third category is seen by Wedde as the stern. On **232 c**, he views in this extremity a pointed sternpost "crowned by a device which resembles the fish ensign found on the craft from the Syran 'frying pans'".¹³⁹⁹ In the bifurcated spike which issues under the post he sees two banners. This leads him to classify this vessel and **423 b** with the Platanos Cluster.¹⁴⁰⁰ This view is not absolutely convincing as it would also seem probable that both the greater length of the lower barb on the two vessels and the bifurcation on **232 c** could be accidental. A look at the arrowhead on the bow of the ship **239 a** reveals that this can also cross the extremity which represents the bow on representatives of the Kolonna type. Moreover, the similarity of the hull of the Kolonna vessel **423 b** to that of the vessel **190 c** could suggest that the same variation is represented by the two. The higher bi- or trifurcated extremity of the

¹³⁹⁵ C. ¹³⁹⁶ D.

- ¹³⁹⁷ E.
- 1200 -

¹³⁹⁰ E.g. **90 b**, **392 a**.

¹³⁹¹ One spike: e.g. **266 a**. Three spikes: **59 a**.

¹³⁹² E.g. **190 c**, **423 b**.

¹³⁹³ A.

¹³⁹⁴ B.

¹³⁹⁸ For the cluster, see Wedde 2000, 41-45. The *Ship* **22 a** is not classified by Wedde with the cluster. The identification of the bifurcated extremity as stern and the pointed one as bow is tentative. The ships **32 a** and **392 a** are seen by Wedde as belonging to the Platanos Cluster instead (Wedde 2000, 46, 49). However, the present author sees no reason to differentiate them from the Kolonna ships due to the fact that on these examples an arrowhead also sits on top of one extremity. A short spike which issues from the inner side of the upper barb of the arrowhead in the case of **392 a** is seen as an accidental engraving and not as an indication that the ship belongs to another variation.

¹³⁹⁹ Wedde 2000, 47. For the ships of the Syran 'frying pans', see Wedde 2000, 312–315 nos. 401–412, 417, 421. ¹⁴⁰⁰ For the cluster, see Wedde 2000, 45–50.

Ships of the fourth category which belong to Wedde's Platanos Cluster represents the stern. The *Ships* of the last category do not belong to any of the aforementioned clusters. Wedde sees in the, in his opinion steeper, left extremity of the ship **480 b** the stern.¹⁴⁰¹

The type functions as a main device. *Ships* can stand alone on the seal face or be combined with other similar or dissimilar motifs.¹⁴⁰² They are encountered in descriptive and 'pictographic' (?) images.¹⁴⁰³

Motif 135: "Bell"

(Malia/Eastern Crete Steatite Prisms)

The type is represented by one example (pl. 60). It is a device which has a conical body and a round loop on one end. Two adjacent rectangular openings are placed within the body just above the short side and a spike issues outwards from each long side.

While the type cannot be identified, it seems probable that it depicts some kind of object. The representation functions as a main device and is combined with fillers on the seal face.

Motif 136: "Brush"

(Malia/Eastern Crete Steatite Prisms)

The type is represented by one example (pl. 60). It is a device which consists of an ellipsoidal blob which shows dentation along its periphery and has a bar issuing from one narrow side. All spikes issue in a clockwise direction such that the toothed blob resembles a *Whirl*.

While the type cannot be identified, it seems probable that some kind of object is depicted. The existing representation functions as a main device and is combined with a *Man in profile* in a descriptive image.

Motif 137: "Balloon"

(Malia/Eastern Crete Steatite Prisms)

The type is represented by one example (pl. 60). It is a motif consisting of a curved bar which terminates in a blob.

¹⁴⁰¹ Wedde 2000, 49.

¹⁴⁰² With similar motifs: e.g. **509 b**.

¹⁴⁰³ Descriptive: e.g. **570 a**. It is not certain whether the *Head of a ruminant* **59 a** and the '*Fern branch*' **90 b** function as main devices or as fillers. For the difficulty in identifying the function of small representational motifs, see pp. 328–330. For *Ships* as possible script signs, see Jasink 2009, 125–126.

Unknown is whether the type represents a certain device or whether it has a purely ornamental character. The existing representation is combined with a *Dog/lion* and functions either as a main device or as a filler.

Motif 138: "Loop"

(Malia/Eastern Crete Steatite Prisms, Mesara Chlorite Prisms, Kalo Chorio and Psychro Prisms with the Cable Devices)

The type is represented by three examples (*pl.* 60). It is a motif which consists of a roughly triangular or ellipsoidal 'frame' and a straight 'handle'. The arms of the 'frame' of one example whose identification as the type is not certain do not meet.¹⁴⁰⁴

One representation is held by a *Man in profile*, a feature which could suggest a representational nature for the type.¹⁴⁰⁵ The existing examples function as main devices and are combined with other devices in images of descriptive, 'pictographic' (?), and unknown character.¹⁴⁰⁶

Motif 139: "Ladder band"

(Malia/Eastern Crete Steatite Prisms)

The type is represented by eight examples (*pl.* 60). It is a narrow elongated 'band' which consists of two almost parallel bars positioned close to each other and connected by horizontal parallels.¹⁴⁰⁷ Straight as well as somewhat bent examples are represented.¹⁴⁰⁸

It is unknown whether the device depicts some kind of object. The fact that the two *"Ladder bands"* **91 b** frame two vessels would in this case suggest an ornamental character.

The bent examples function as main devices and the straight ones as basic elements of representational composites and repetition compounds.¹⁴⁰⁹ As main devices, "*Ladder bands*" are combined with each other or with other motifs in descriptive (?) or 'pictographic' (?) as well as in ornamental images.¹⁴¹⁰

¹⁴⁰⁴ **62 a**.

 $^{^{1405}}$ **503 a**. The fact that the *Man in profile* holds it from the edge of the 'handle', as well as its combination with an *Agrimi* on **491 c**, could be taken as indications as to the representation of a rope loop. Alternatively, the device **491 c** could also be read as a spear of some kind (compare the spear on the LB CMS VII no. 105).

¹⁴⁰⁶ Descriptive: e.g. 503 a. Unknown: e.g. 62 a. It is unclear whether the nature of the composition 491 c is descriptive or 'pictographic'.

¹⁴⁰⁷ The bars of **467 a** are not exactly parallel. They meet on the one end and move away from each other on the other. ¹⁴⁰⁸ Straight: e.g. **46 c**, **541 c** (for a further example, see CMS II,2 no. 229 d). Bent: e.g. **91 b**, **467 a**.

¹⁴⁰⁹ See "Ladder band" slung with 'String vessels' and Meander Z of 'Poles' slung with 'String vessels'.

¹⁴¹⁰ Descriptive or 'pictographic'?: 467 a. Ornamental: e.g. 91 b.

Motif 140: "Ladder"

(Malia/Eastern Crete Steatite Prisms)

The type is represented by ten examples (*pl. 60*). It is an outline rectangle with one or more parallel bars connecting two opposite sides in the interior and one long side extending beyond the edge of the rectangle. Two variants are met, one where the inner bar(s) run in line with the short sides, and a second where they run in line with the long sides.¹⁴¹¹

All the existing representations function as main devices. With one possible exception, they all constitute the CHIC sign 038 and are combined with other script signs in an inscription. The exception is 75 c whose identification as the type is not certain because it is met on a fairly abraded seal face. While this example is not included in the CHIC, it is possible that it constitutes the same script sign and thus part of an inscription.¹⁴¹²

Motif 141: "Grater"

(Malia/Eastern Crete Steatite Prisms)

The type is represented by one example (*pl. 61*). It is a device which consists of two parallels connected by a row of parallel chevrons, such that a herringbone pattern is created. It is unknown whether the type is representational or purely ornamental in nature.

The existing representation functions as a main device and stands alone on the seal face.

Motif 142: "Sieve"

(Malia/Eastern Crete Steatite Prisms)

The type is represented by one example (*pl. 61*). It is an ellipsoidal outline device divided by four horizontal and one vertical bar in eight compartments. Six of these display fine vertical hatching.

While the device cannot be identified, it seems more probable that it has a representational rather than an ornamental character. The bars which divide the motif into the various compartments are as thick and deep as the ellipsoidal frame, a feature which suggests that they do actually constitute part of it. On the other hand, the vertical parallels are thinner and shallower, such that they resemble strings.

The existing example functions as a main device and stands alone on the seal face.

¹⁴¹¹ A and B respectively.

¹⁴¹² In the case that this were true, the inscription on **75 c** would be CHIC signs 038 - 065 (the combination of these two signs is not otherwise met among the extant hieroglyphic inscriptions, see CHIC, 368 no. 065). Jasink sees the device as the CHIC sign 038 but reads it as part of an inscription continued on **75 b**, in whose *Unidentifiable motif XXX* she reads the CHIC sign 077 (Jasink 2009, 124–125, 194).

Motif 143: Hatched D

(Malia/Eastern Crete Steatite Prisms)

The type is represented by seventeen examples (pl. 61). It is a D-shaped outline device with horizontal parallels in the interior.

Unknown is whether the type has a representational or ornamental character. Often, *Hatched Ds* are met in pairs which flank an ornamental device.¹⁴¹³ This could suggest that the device has developed from the combed lines which are often met on seals of Yule's Border/Leaf Complex.¹⁴¹⁴ On these seals, such motifs are placed on the periphery of the compositions and are attached to borders with the combed side. Their combination with borders creates hatched D-shapes which are very similar to the type in question. It would thus seem probable that, at least in cases where two *Hatched Ds* flank another motif, the nature of the type is ornamental.¹⁴¹⁵

The existing representations function as main devices and perhaps as fillers.¹⁴¹⁶ As main devices, *Hatched Ds* are combined with other motifs in ornamental and perhaps 'pictographic' images.¹⁴¹⁷

Motif 144: "Toothed sickle"

(Malia/Eastern Crete Steatite Prisms)

The type is represented by six examples (pl. 61). It is a device which consists of a horizontal bar from one edge of which issues an inwards bent element which runs in line with the bar and terminates near its other end. The outer side of the bent element is toothed.

Unknown is whether the type depicts a representational device or whether it has a purely ornamental nature. *"Toothed sickles"* function as main devices and as basic elements of repetition compounds. The two examples which function as main devices are combined with each other in an ornamental image.¹⁴¹⁸

¹⁴¹³ E.g. **89 c**, **278 b**.

¹⁴¹⁴ E.g. CMS II,2 no. 310 a. For the Border/Leaf Complex, see Yule 1980 a, 209–210.

¹⁴¹⁵ In favour of an ornamental character of the device, see also **510 a** where the interiors of the *C-spirals* are configured as *Hatched Ds*.

¹⁴¹⁶ It is unknown whether single *Hatched Ds* combined with representational motifs, e.g. **189 a** and **251 b**, function as fillers or as main devices.

¹⁴¹⁷ Ornamental: e.g. **108 a**, **278 b**. If the nature of the representation on images such as that on **189 a** is ornamental, its function would be a filling one and the image a descriptive one. If, on the other hand, it is representational, the motif probably functions as a main device and the image is 'pictographic'. ¹⁴¹⁸ **504 a**.

Motif 145: "Column"

(Malia/Eastern Crete Steatite Prisms, Mesara Chlorite Prisms)

The type is represented by ten examples (*pl.* 61). It is a device which consists of a vertical bar whose ends develop in triangles or horizontal lines such that it resembles a schematic column with base and capital of similar shape. The bar of one example is composed of two parallels whereas its central part on another two examples thickens to a lozenge shape.¹⁴¹⁹ Occasionally, dentation can issue from the two ends of the device or from the two sides of the bar.¹⁴²⁰ In this latter case, the ends are only slightly differentiated from the bar.

It is unknown whether the device has a representational or ornamental nature. It always functions as a main device, its role in the composition being that of a separator between two other similar motifs. This feature could suggest an ornamental nature. "*Columns*" take part in descriptive and ornamental images.¹⁴²¹

Motif 146: "Dumbbell"

(Malia/Eastern Crete Steatite Prisms)

The type is represented by five examples (*pl.* 62). It is a device which takes the form of a long bar whose ends terminate in blobs. It differs from the '*Figure-of-eight shield*' in that its central bar is longer and the blobs are less well-defined and often oval-shaped. Three examples are somewhat bent.¹⁴²²

The type functions as a main device. All examples are combined with other motifs on the seal face. Those with the straight stem are placed between other similar devices in ornamental images.¹⁴²³ Those with the bent stem are encountered in 'pictographic' images and perhaps in hieroglyphic inscriptions in which they constitute the CHIC sign 065.¹⁴²⁴ However, none of the existing *"Dumbbells"* is seen by the CHIC as a script sign.¹⁴²⁵

¹⁴¹⁹ Two parallels: **72 c**. Lozenge shape: **60 c**, **235 a**. For a similar thickening compare the *Mirror pattern of Lilies* with 'base' a **368 a**; also the "Column" on CMS X no. 42.

¹⁴²⁰ Ends: **537c**. Sides: **166 a**, **A.9 c**.

¹⁴²¹ Descriptive: e.g. **166 a**, **235 a**. Ornamental: e.g. **22 c**, **60 c**.

¹⁴²² **75 c** (?), **429 b**, **543 c**. Compare these to the bent representatives of the type on the hard stone Petschaft CMS II,1 no. 122.

¹⁴²³ **94 c**, **534 c**.

 $^{^{1424}}$ E.g. **75 c**, **543 c**. The inscription on **75 c** would be CHIC signs 038 – 065 (the combination of these two signs is not met among the extant hieroglyphic inscriptions, see CHIC, 368 no. 065). That on **543 c** would be CHIC signs 065 – 032 (the combination is not met among the extant hieroglyphic inscriptions, see CHIC, 368 no. 065).

¹⁴²⁵ Compare the device **543** c to the similar one on CMS II,1 no. 410 which constitutes part of a hieroglyphic inscription which is also not included in the CHIC.

Motif 147: "Ship's wheel"

(Malia/Eastern Crete Steatite Prisms)

The type is represented by two examples (pl. 62).¹⁴²⁶ It is a device which takes the form of the wheel of a modern era wooden ship.

The existing examples function as main devices and stand alone on the seal face.

Motif 148: "Ram's head"

(Malia/Eastern Crete Steatite Prisms, Kalo Chorio and Psychro Prisms with the Cable Devices)

The type is represented by four examples (*pl.* 62).¹⁴²⁷ It resembles the schematic head of a ram but differs from it in that it has a pouch-shaped, triangular, or oblong ellipsoidal 'face'.¹⁴²⁸ Two examples are asymmetrical, having one shorter and one longer 'horn' and a slanting upper side.¹⁴²⁹ In one case, a handle-shaped element issues from the top of the 'head'.¹⁴³⁰ A long spike issues horizontally and slightly upwards from one side of another example which is an outline motif.¹⁴³¹ The edges of the 'horns' of two examples turn slightly outwards.¹⁴³²

The type functions as a main device. *"Ram's heads"* can stand alone on the seal face or they can be combined with each other or other devices.¹⁴³³ They are encountered in images of an unknown nature.

Motif 149: M-motif

(Malia/Eastern Crete Steatite Prisms)

The type is represented by one example (*pl.* 62). It is an M-shaped device. The existing example has a somewhat shorter and a longer leg and, possibly, a distinct part at the joint of the two legs.¹⁴³⁴

¹⁴²⁶ The type finds a parallel in the motif met on CMS V Suppl. 1A no. 309 and the 'sun' symbol on the signet ring CMS I no. 179. However, it differs from them in that none of these devices shows a central blob.

¹⁴²⁷ Compare **276 c** to the same motif on CMS III no. 35 a (steatite stamp cylinder).

 ¹⁴²⁸ Pouch-shaped: e.g. one of the devices A.8 c. Triangular: e.g. one of the devices A.8 c. Ellipsoidal: e.g. 276 c.
 ¹⁴²⁹ E.g. 276 c, 542 c.

¹⁴³⁰ **A.8 c**. For similar elements issuing from the heads of representational motifs, see the *Frontal man* **65 b** and the *Spider with muzzle* ' **296 b**.

¹⁴³¹ 542 c.

¹⁴³² **A.8 c**.

¹⁴³³ Alone: e.g. 542 c. With each other: e.g. A.8 c. With other devices: e.g. 276 c, A.8 c.

¹⁴³⁴ The lack of good impressions in the CMS Archive does not allow the determination of this with certainty.

It is possible that the type is a variation on a *"Ram's head"*. The representation functions as a main device and is combined with another motif in a 'pictographic' image.

Motif 150: "Horns of consecration"

(Malia/Eastern Crete Steatite Prisms)

The type is represented by three examples (*pl. 62*). It is a device which takes the form of an inverted Π . The edges of one example terminate in blobs whereas two of the three outer sides on another figure are dentated.¹⁴³⁵

The existing representations function as main devices. Two are combined with other devices in 'pictographic' images. Of these, **585 c** shows similarities to some examples of the CHIC signs 034 and 036.¹⁴³⁶ The third, **468 c**, is a script sign combined with other signs in a hieroglyphic inscription. The CHIC sees in **468 c** the CHIC sign 034, i.e. the type classified in this study as *"Breasts"*. The present author sees the morphological characteristics of the device as closer to the *"Horns of consecration"*. Jasink sees **468 c** as a separate script sign not listed in the CHIC but recognised by Evans, i.e. the sign 'horns of consecration'.¹⁴³⁷

Motif 151: "Horn bar"

(Malia/Eastern Crete Steatite Prisms)

The type is represented by three examples (pl. 62).¹⁴³⁸ It is a device which consists of a horizontal bar and two inwards curving linear elements issuing from its short sides. The upper side of the bar of two examples is bulged towards the centre whereas the outer upper side of the 'horns' of the third example shows dentation.¹⁴³⁹

The device shows a certain iconographical similarity to the LB 'snakeframes'.¹⁴⁴⁰ All existing representations function as basic elements of the representational composite *"Horn bar" slung with 'String vessels'*.

¹⁴³⁵ Edges terminating in blobs: **541 a**. Toothed outer sides: **585 c**.

 $^{^{1436}}$ E.g. CHIC, 398 sign 034 nos. 289 $\gamma,$ 289 $\delta;$ 399 sign 036 nos. 282 a, {282 a}.

¹⁴³⁷ Her quotation marks; see Jasink 2009, 99–100; also Evans 1909, 196, no. 37.

¹⁴³⁸ Compare the similar motif on the Geometric/Archaic (?) stone reel Boardman 1970, pl. 279 b.

¹⁴³⁹ Bulged upper side: **118 a**, **562 c**. Dentation on the 'horns': **122 b**.

¹⁴⁴⁰ Compare for example the 'snakeframes' on CMS I nos. 144, 189; CMS II,7 nos. 186, 199.

Motif 152: "Γ-bar"

(Malia/Eastern Crete Steatite Prisms)

The type is represented by three examples (*pl.* 62). It is a linear device with a vertical line issuing upwards or downwards from one of its ends. The vertical line and/or parts of the upper side of the bar might show dentation.¹⁴⁴¹

Not all examples classified as the type are its certain representatives. The vertical line of the device **261 c** stretches under the legs of the human figure situated to the left of the bar. This could be taken as an indication that it constitutes a ground line instead.¹⁴⁴² On **554 a**, the possibility cannot be ruled out that the vertical line is actually a *Wedge* which abuts part of the bar because of the restricted space.

All examples function as elements of the representational composite " Γ -bar" slung with 'String vessels'.

Motif 153: "T-bar"

(Malia/Eastern Crete Steatite Prisms)

The type is represented by one example (pl. 62). It is a roughly T-shaped device identified as representational on account of the fact that it is combined with '*String vessels*' which appear to hang from it.

The type functions as basic element of the representational composite "*T-bar*" slung with 'String vessels'.

Motif 154: "Breasts"

(Malia/Eastern Crete Steatite Prisms)

The type is represented by eight examples (*pls.* 62-63). It is a device which consists of two adjacent triangles linked at one corner. The 'peaks' of the triangles on one example terminate in blobs.¹⁴⁴³

The representatives of the type function as main devices. They all constitute the CHIC sign 034 and are combined with other script signs in inscriptions.

¹⁴⁴¹ E.g. **261 c**.

¹⁴⁴² Compare for example the composition on **374 b**.

¹⁴⁴³ 353 h

Motif 155: "Textile"

(Malia/Eastern Crete Steatite Prisms)

The type is represented by three examples (*pl.* 63). It is a device which consists of an outline rectangle with dentation on one short side and a segmented interior. Two variants of the type are met, the first showing an inscribed saltire in the interior and the second a diagonal line.¹⁴⁴⁴ Exceptional is the configuration of **519 c** in that it is a triangle instead of a rectangle. The triangle is segmented by a line which issues from the centre of one side and reaches the opposite corner.

All representatives of the type function as main devices. The two rectangular examples constitute the CHIC sign 041 and are combined with other script signs in inscriptions. The triangular example is combined with a *"Trowel"* but is not seen by the CHIC as a script sign.¹⁴⁴⁵

Motif 156: "Trowel"

(Malia/Eastern Crete Steatite Prisms)

The type is represented by twenty nine examples (*pls. 63–64*). It consists of an ingotshaped 'body' with narrower upper side and round or tear-shaped 'head'. The 'head' of one device whose identification as the type is not certain is triangular and takes the form of a loop whereas the upper and lower part of the 'body' are equally broad.¹⁴⁴⁶ The sides of the 'body' of another example are only somewhat concave, such that it takes a rather triangular shape.¹⁴⁴⁷ One figure which is engraved on a seal whose authenticity can be disputed, has tube-shaped upper 'body'.¹⁴⁴⁸ It is not clear whether the missing 'head' of one example is lost by abrasion or whether it was not engraved from the start.¹⁴⁴⁹

The designation of the type as a trowel is preferred only because the term is conventionally used in research.¹⁴⁵⁰ However, objectively the device does not resemble a modern trowel. One could perhaps see in it a tool composed of a handle with a pommel and a blade similar to that of an axe. On the other hand, the 'body' of the device is also comparable to a certain extent to the torso of the *Man in profile* **538 c**.¹⁴⁵¹

¹⁴⁴⁴ A and B respectively.

¹⁴⁴⁵ Also Jasink does not see the device as a script sign. She sees in it a probable ornamental (?) 'triangle frangé' (Jasink 2007, 117).

¹⁴⁴⁶ **5 c**. The figure is also comparable to a *"Bottle"*. Davaras sees in it a possible hieroglyph resembling a cycladic figurine (Davaras in CMS V Suppl. 1A, 47).

¹⁴⁴⁷ **484 c**.

¹⁴⁴⁸ **422 a**.

¹⁴⁴⁹ **69 b**.

¹⁴⁵⁰ Evans was the first to name this device trowel (Evans 1909, 187).

¹⁴⁵¹ However, the upper part of the torso of the *Man in profile* **538 c** is broader than the lower part.

All its representations function as main devices. Most constitute the CHIC sign 044 and are combined with other script signs, mostly the CHIC sign 049, in inscriptions.¹⁴⁵² Among the three examples which are not combined with other clearly defined script signs, the one is flanked by two vegetal motifs in an image of unknown nature, the second is combined with three *Men in profile* in a descriptive image, and the third is seen by the CHIC as part of an inscription which also extends onto another face of the same seal.¹⁴⁵³

Motif 157: "Bottle"

(Malia/Eastern Crete Steatite Prisms)

The type is represented by six examples (pl. 64). It is a device with rectangular body and a small conical element issuing from the centre of one short side. The shape of the device resembles that of the 'board' of a 'Gaming table'.

All representations function as main devices and constitute the CHIC sign 056 in hieroglyphic inscriptions.

Motif 158: "Pin" (?)

(Malia/Eastern Crete Steatite Prisms)

The type is represented by one example (pl. 64). It is an elongated wedge-shaped device with a short protrusion issuing from the centre of the blunt edge.

It is not certain that the type is actually represented among prisms. While the CHIC sees in the existing device the CHIC sign 062, Jasink prefers to read in it a vertical bar which divides the seal face into two parts. In this case, the device would be a *Wedge* constituting the CHIC sign 1.¹⁴⁵⁴

The existing example functions as a main device and consists part of a hieroglyphic inscription.

Motif 159: Ground-line

(Malia/Eastern Crete Steatite Prisms)

The type is represented by seven examples (*pl. 64*). It is a linear motif placed horizontally under representational motifs such that the impression is created that it renders the ground.

¹⁴⁵² For the function of this device within the hieroglyphic script, see Jasink 2009, 127–128, 155–157.

¹⁴⁵³ Unknown nature: **52 b**. Descriptive: **5 c**. Part of an inscription which also extends onto another seal face: **519 c**. For the nature of the image **52 b**, see Jasink 2009, 20, 127–128. For **5 c**, see Jasink 2009, 128. For **519 c**, see apart from the CHIC also Jasink 2009, 114, 117, 128, 130, 156.

¹⁴⁵⁴ Jasink 2009, 157-158.

Not all examples classified with the type are certain depictions of the ground. For some it is possible that they were purely ornamental motifs which functioned as fillers.¹⁴⁵⁵

Ground-lines function as main devices. They are always combined with other motifs and take part in descriptive, 'pictographic', and ornamental images.¹⁴⁵⁶

Motif 160: Parallel ground-lines (?)

(Malia/Eastern Crete Steatite Prisms)

The type is represented by one example (pl. 64). It is a motif put together of parallel lines placed horizontally under representational motifs such that the impression is created that they render the ground.

The existence of the type is not assured because the identification as a quadruped of the device above the only representative of the type is not certain. The existing example functions as a main device and is combined with another motif in a descriptive (?) image.

Motif 161: Branch with leaves

(British Museum Prisms)

The type is represented by one example (pl. 64). It is a plant which consists of a central branch and two elongated grain-shaped leaves which issue from its lower part. Branch and leaves have a short stalk whereas the leaves have fishbone venation.

The existing representation functions as a main device and stands alone on the seal face. $^{\rm 1457}$

Motif 162: 'Papyrus flower' with spray

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in profile, is represented by five examples (*pl.* 64). It is the depiction of a trumpet-shaped flower¹⁴⁵⁸ from whose stem issues a spray. The flower has variably long stem and plain or dentated top.¹⁴⁵⁹ The stem can be bent upwards, rolled into a spiral, or extended straight downwards.¹⁴⁶⁰ The spray issues either from the upper side of the stem

¹⁴⁵⁵ E.g. **374 b**. The use of linear motifs which are placed under representational motifs as fillers is attested on **449 a**.

¹⁴⁵⁶ Descriptive: e.g. 361 c. 'Pictographic': e.g. 455 a. Ornamental: e.g. 541 b.

¹⁴⁵⁷ For this device, see also Jasink 2009, 124.

¹⁴⁵⁸ See 'Papyrus flower'.

¹⁴⁵⁹ Plain top: e.g. **477 a**. Dentated top: e.g. **223 c**.

¹⁴⁶⁰ Upwards: e.g. **223 c**. Spiral: e.g. **477 a**. Downwards: e.g. **468 a**.

or midway up the latter.¹⁴⁶¹ It can reach the top of the flower and show a central spike, be small and trumpet-shaped, or take the form of a short spike.¹⁴⁶²

The type functions as a main device, filler, and supplement.¹⁴⁶³ Jasink suggests that one example combined with a hieroglyphic inscription and seen by the CHIC as a filler functions as a main device and constitutes a script sign in the inscription.¹⁴⁶⁴ The example which functions with certainty as a main device stands alone on the seal face.

Motif 163: Lily with 'base' a

(Malia/Eastern Crete Steatite Prisms, British Museum Prisms)

The type, rendered in profile, is represented by fourteen examples (*pl.* 64). It is the depiction of the blossom of a lily which issues from a conical or linear base.¹⁴⁶⁵ Two variations of the type can be distinguished. The first includes depictions with two volutes opening antithetically outwards and one, three, or more short stamens.¹⁴⁶⁶ Occasionally, the volutes of these motifs develop into spiral coils.¹⁴⁶⁷ The second variation consists of devices which have conical trifurcated blossoms.¹⁴⁶⁸ The underside of the base of an example of the first variation is dentated.¹⁴⁶⁹ In one case, only one volute opens outwards.¹⁴⁷⁰

Lilies with 'base' a function as main devices¹⁴⁷¹ and basic elements of repetition compounds. The examples which function as main devices belong to the first variation and stand alone on the seal face.

Motif 164: Lily with 'base' b

(Malia/Eastern Crete Steatite Prisms)

The type is represented by four examples (pl. 65). It is the depiction of the blossom of a lily which issues from a C-spiral base. Two variations of the type can be distinguished. The first is composed of motifs which have two long volutes hanging over the coils and one

¹⁴⁶⁴ **477 a**. For the possible use of the device as a script sign, see Jasink 2009, 13–21, especially 20.

¹⁴⁶¹ Upper side of the stem: e.g. **223 c**. Midway up the stem: e.g. **477 a**.

¹⁴⁶² Reaching the top of the flower and showing a central spike: e.g. **223** c (in this case, it seems possible that the curving linear element that issues from the root of the spike is the result of accidental engraving). Small and trumpet-shaped: e.g. **379** c. Short spike: e.g. **477** a.

¹⁴⁶³ Main device: e.g. **223 c**. Filler: e.g. **379 c**. Supplement: **468 a**. On **379 c**, see also Jasink 2009, 84.

 $^{^{1465}}$ Compare **280 a** to the similar motif on the Kamares bridge-spouted jar Evans 1921, pl. III (left photograph). 1466 A.

¹⁴⁶⁷ E.g. **262 b**, **280 a**.

¹⁴⁶⁸ B.

¹⁴⁶⁹ 262 b.

¹⁴⁷⁰ **345 c**.

¹⁴⁷¹ 262 b, 280 a.

short stamen.¹⁴⁷² The stem of the C-spiral base of these examples is straight. The second variation consists of motifs which have conical trifurcated blossoms composed of three straight bars.¹⁴⁷³ In these cases, the stem of the C-spiral base is curved. The inner side of the coils of one example is toothed whereas the coils of another motif are substituted by centred-circles.¹⁴⁷⁴ The central part of the base of one example is vertically hatched, its upper side bulging upwards to form a conical base for the blossom.¹⁴⁷⁵

All extant examples of the type function as main devices and stand alone on the seal face.

Motif 165: 'Wheat stalk'

(Malia/Eastern Crete Steatite Prisms)

The type is represented by forty two examples (*pl.* 65). It is a vegetal motif which consists of a variably long stalk¹⁴⁷⁶ from each upper side of which issue upwards at least two spikes. On all but two examples, whose identification as the type is uncertain, the top of the stem projects above the spikes.¹⁴⁷⁷

The existing representations function as main devices, fillers (?), basic elements of repetition compounds, supplements, and basic elements of miscellaneous compounds.¹⁴⁷⁸ The certain main devices are encountered in images of 'pictographic' character.¹⁴⁷⁹

Motif 166: 'Fan branch'

(Malia/Eastern Crete Steatite Prisms)

The type is represented by two examples (*pl. 66*). It is a vegetal motif which has a short stem from whose top issue long spikes.

The two examples function as main devices and are combined with each other in an ornamental image.

 $^{^{1472}}$ A. Possibly, **74 a** would initially have had a stamen which has been eradicated by abrasion. 1473 B.

¹⁴⁷⁴ Toothed: **573 c**. Centred-circles: **569 c**.

¹⁴⁷⁵ **470 a**. Initially, also the stem of the C-spiral base of **74 a** could have been vertically hatched.

¹⁴⁷⁶ Compare for example the long stem of the devices **470 b** to the short stem of those on **391 b**.

¹⁴⁷⁷ Exceptions are the devices **94 a**.

¹⁴⁷⁸ Main device: e.g. **67 b**. Filler: e.g. **207 a** (?) (in such compositions it is uncertain whether the vegetal motif functions as a main device or as a filler. For this subject, see pp. 328–330). Basic element of repetition compounds: e.g. **391 b**. Supplement: e.g. **379 a**. Basic element of miscellaneous compounds: **30 c**, **362 b**. ¹⁴⁷⁹ E.g. **67 b**.

Motif 167: 'Saw branch' with stalk

(Malia/Eastern Crete Steatite Prisms)

The type is represented by four examples (*pl. 66*). It is a vegetal motif with saw-shaped upper part and a long, on some examples bent, stem.

The existing representations function as fillers and basic elements of repetition compounds.¹⁴⁸⁰

Motif 168: "T-branch"

(Malia/Eastern Crete Steatite Prisms)

The type is represented by eight examples (*pl.* 66). It is a roughly Γ -shaped device whose vertical and/or, more rarely, horizontal part is toothed on the outer side. Occasionally, both sides of the vertical bar are toothed whereas at times the joint between the two bars is curved.¹⁴⁸¹

The nature of the device is unknown. While the placement of some examples in the image could suggest that they represent trees, for others this interpretation would seem improbable.¹⁴⁸²

All existing examples function as main devices. " Γ -branches" are combined with other devices and take part in descriptive, 'pictographic', and ornamental (?) images.¹⁴⁸³

Motif 169: "Bulb branch"

(Malia/Eastern Crete Steatite Prisms)

The type is represented by eight examples (*pl.* 66). It is a bar with one or two toothed sides and a blob at one end. One example is curved.¹⁴⁸⁴

The type functions as a main device. *"Bulb branches"* are combined with other similar or dissimilar motifs and take part in descriptive and ornamental images.¹⁴⁸⁵

¹⁴⁸⁰ Fillers: e.g. **437 c**. Basic elements of repetition compounds: **76 b**.

¹⁴⁸¹ Both sides of the vertical bar toothed: e.g. **505 a**. Joint between the bars curved: e.g. **495 b**.

¹⁴⁸² Examples which could represent trees: e.g. **495 b**, **497 a**. Examples whose reading as trees seems rather inappropriate: e.g. **349 c**, **569 b**.

¹⁴⁸³ Descriptive: e.g. **497 a**. 'Pictographic': e.g. **349 c**, **569 b**. It is not certain that the composition **158 b** is purely ornamental.

¹⁴⁸⁴ One of the motifs **343** \mathbf{a} .

¹⁴⁸⁵ Descriptive: e.g. 48 c. Ornamental: e.g. 343 a.

Motif 170: Leaf with stalk

(Malia/Eastern Crete Steatite Prisms, Mesara Chlorite Prisms)

The type is represented by eighteen examples (*pl.* 66). The leaf can be semi-ellipsoidal, fan-shaped, roughly heart-shaped, or triangular.¹⁴⁸⁶ The stalk is variably long and is either straight or curves upwards.¹⁴⁸⁷ Often, the interior of the leaf shows fishbone venation.¹⁴⁸⁸ The venation of two examples is rendered by horizontal hatching.¹⁴⁸⁹

Only one example functions as a main device.¹⁴⁹⁰ All other representations constitute basic elements of repetition compounds or supplements.¹⁴⁹¹ The example which functions as a main device is combined with another motif in a descriptive or 'pictographic' image.¹⁴⁹²

Motif 171: 'Ivy leaf' with stalk

(Malia/Eastern Crete Steatite Prisms)

The type is represented by seven examples (*pl.* 67).¹⁴⁹³ It is a vegetal motif which takes the form of an arrow. Often, one 'barb' of the 'arrowhead' is shorter than the other whereas occasionally, both 'barbs' are bent towards the same direction.¹⁴⁹⁴ The stem is straight and issues either from the joint formed between the two 'barbs' or from the inner side of one 'barb'.¹⁴⁹⁵ The stem of two examples terminates in a boring which could represent a bulb.¹⁴⁹⁶

The extant representations function as main devices, fillers (?), basic elements of repetition compounds, and supplements.¹⁴⁹⁷ Jasink sees one example combined with a hieroglyphic inscription and considered by the CHIC to be a filler as a main device constituting a script symbol which is, however, not meant to be read.¹⁴⁹⁸ The two *'Ivy leaves' with stalk* which function as main devices are combined with each other in an ornamental image.

¹⁴⁸⁶ Semi-ellipsoidal: e.g. 519 a. Fan-shaped: e.g. 341 a. Heart-shaped: e.g. 348 b. Triangular: e.g. 44 a.

¹⁴⁸⁷ Straight: e.g. **519 a**. Curving upwards: e.g. **226 c**.

¹⁴⁸⁸ E.g. **341 a**.

¹⁴⁸⁹ **44 a**.

¹⁴⁹⁰ **519 a**.

¹⁴⁹¹ Basic elements of repetition compounds: e.g. **341 a**. Supplements: e.g. **226 c**.

¹⁴⁹² It is unknown whether on **519 a** the U is meant to be seen as a base for the *Leaf with stalk* or whether it represents a device which is not in any way connected with the leaf (compare the compositions on **541 a** and **585 c**).

¹⁴⁹³ Compare the motifs Furumark 1972 a, 270–271 fig. 35–36 no. 12. "Sacral Ivy" and 275 fig. 37 no. 13. Ogival Canopy.

¹⁴⁹⁴ One 'barb' shorter: e.g. 281 a. Bent 'barbs': e.g. 108 c and one of the motifs 348 c.

¹⁴⁹⁵ From the joint: e.g. 569 a. From one 'barb': e.g. 281 a and one of the motifs 348 c.

¹⁴⁹⁶ **348 c**. For a similar boring, see the 'Star flowers' **438 a**.

¹⁴⁹⁷ Main device: **348 c**. Filler (?): **108 c**. Basic element of repetition compound: **569 a**. Supplement: **281 a**.

¹⁴⁹⁸ 108 c (Jasink 2009, 29).

Motif 172: Paisley

(Malia/Eastern Crete Steatite Prisms, Mesara Chlorite Prisms)

The type is represented by thirty six examples (*pls.* 67–68). It is a vegetal tear-shaped device with variably long stem. Very often, the motif curves to one side.¹⁴⁹⁹ The stem can be straight, curved upwards or else form a spiral or a disc spiral.¹⁵⁰⁰ Frequently met is horizontal hatching in the interior of the body.¹⁵⁰¹ The body of one example is cross-hatched and that of another shows fishbone venation.¹⁵⁰² The outer side of two examples is toothed.¹⁵⁰³

The fishbone venation on **357 b** suggests that the device is a stylised version of a leaf.¹⁵⁰⁴ However, there are three points which suggest that the depiction has taken on a purely ornamental character, namely that the shape of the motif is hardly reminiscent of a leaf, that most often the venation is rendered by parallel hatching, and that the stem of most examples forms a spiral.

The existing representations function as main devices, basic elements of repetition compounds, supplemented devices, and supplements.¹⁵⁰⁵ As main devices, *Paisleys* can stand alone on the seal face or be combined with other motifs. They mainly take part in ornamental images but in one case, it is possible that the image is 'pictographic' (?).¹⁵⁰⁶

Motif 173: "Nose paisley"

(Malia/Eastern Crete Steatite Prisms)

The type is represented by two examples (*pl.* 68). It is a paisley¹⁵⁰⁷ with a long linear element issuing from the upper part of its inner side. The existing representations are curved, have a spiral stem, and dense horizontal hatching in the interior of the body.

The two examples function as basic elements of the same repetition compound.

¹⁵⁰⁷ See Paisley.

¹⁴⁹⁹ E.g. **435 c**, **446 b**, **551 c**.

 ¹⁵⁰⁰ Straight: e.g. 541 a. Curving upwards: e.g. 506 c. Forming a spiral: e.g. 435 c. Forming a disc-spiral: e.g. 35 b.
 ¹⁵⁰¹ E.g. 115 b, 435 c.

¹⁵⁰² Cross-hatched: **549 c**. Fishbone venation: **357 b**.

¹⁵⁰³ 435 c, 551 c.

¹⁵⁰⁴ Also the venation of the *Stemless paisley* **57 a**.

¹⁵⁰⁵ Main devices: e.g. **551 c**. Basic elements of repetition compounds: e.g. **115 b**. Supplemented devices: e.g. **435 c**. Supplements: e.g. **591 c**.

¹⁵⁰⁶ 541 a. Compare this composition to those on 519 a and 585 c.

Motif 174: Shamrock a

(Malia/Eastern Crete Steatite Prisms, Mesara Chlorite Prisms)

The type is represented by five examples (*pl.* 68). It is a vegetal motif which has a stalk and three tear- or grain-shaped leaves. The stalk of the represented examples is short and straight. Lobed leaves can be rendered by a tear-shaped differentiation on the engraving of their interior.¹⁵⁰⁸

All the existing examples of the type function as basic elements of repetition compounds.

Motif 175: Shamrock b

(Malia/Eastern Crete Steatite Prisms)

The type is represented by eight examples (*pl. 68*). It is a vegetal motif which has a stalk and three linear leaves.¹⁵⁰⁹ Each of the leaves terminates in a boring or at least thickens towards the end.¹⁵¹⁰ One example is totally linear whereas the stem of another terminates in a blob which could represent a bulb.¹⁵¹¹ In one case, a pair of upwards directed lines which could render further leaves, issues from either side of the stem.¹⁵¹²

The existing representations function as main devices and as supplements.¹⁵¹³ As main devices, *Shamrocks b* constitute the CHIC sign 031 and are combined with other script signs in inscriptions.

Motif 176: Shamrock c

(Malia/Eastern Crete Steatite Prisms)

The type is represented by one example (pl. 68). It is a vegetal motif consisting of three linear leaves, each terminating in a boring, which issue from one side of a blob. This latter could represent a bulb.

The existing example functions as a main device. It seems very probable that it constitutes the CHIC sign 032 and thus part of an inscription.¹⁵¹⁴ However, the motif is not included in the CHIC.

¹⁵⁰⁸ E.g. **101 b**.

¹⁵⁰⁹ One of the examples **287 b** does not have a clearly differentiated stalk. However, it is certain that it belongs to the type because it has the same function as the other example which has a stem. Also the motif **525 b** is classified with the type because it is very similar to the one on **287 b**.

¹⁵¹⁰ Boring: e.g. **353 b**. Thickening towards the ends: e.g. **552 b**.

¹⁵¹¹ Linear: **69 c**. Stem terminating in blob: **35 c**.

¹⁵¹² **353 b**.

¹⁵¹³ **287 b**.

¹⁵¹⁴ The inscription would be CHIC signs 065 - 032 (the combination is not met among the existing hieroglyphic inscriptions, see CHIC, 339 no. 032).

Motif 177: 'Star flower'

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in frontal view, is represented by six examples (*pl. 68*). It is a flower with variably long stalk and star-shaped blossom. The stalks of the extant examples are curved upwards whereas the blossom can show a central disc.¹⁵¹⁵ The stem of two examples terminates in a boring which could represent a bulb.¹⁵¹⁶ The lower edge of the stalk of another two examples whose identification as the type is uncertain broadens to form a triangle.¹⁵¹⁷

The existing representations function as main devices and as basic elements of repetition compounds.¹⁵¹⁸ As main devices, *'Star flowers'* are combined with each other in ornamental images.

Motif 178: 'Papyrus flower'

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in profile, is represented by a hundred thirty one examples (*pls. 68–71*). It a trumpet-shaped flower. Two variations can be distinguished: one with plain and the other with dentated top.¹⁵¹⁹ The stalk can be straight, bent to the side, bent upwards, or else rolled inwards to form a spiral or a disc spiral.¹⁵²⁰ The stalk of two motifs which are encountered on the same seal face is toothed on the outer side.¹⁵²¹ The conical shape of the blossom of some examples which function as supplements is not recognisable because hasty or stylised execution has resulted in linear or somewhat tear-shaped flowers.¹⁵²² The blossom of three examples is horizontally hatched.¹⁵²³

'*Papyrus flowers*' function as main devices, fillers, basic elements of repetition compounds, and supplements.¹⁵²⁴ Jasink suggests that some examples constitute script signs in hieroglyphic inscriptions.¹⁵²⁵ As main devices, they can stand alone on the seal

¹⁵¹⁵ E.g. **438 a**.

¹⁵¹⁶ **438 a**.

 ¹⁵¹⁷ 544 c. The possibility exists that these examples are not flowers but schematically rendered regardant *Waterfowls*.
 ¹⁵¹⁸ Main devices: 438 a, 544 c. Basic elements of repetition compounds: 87 c.

¹⁵¹⁹ A and B respectively.

¹⁵²⁰ Straight: e.g. **A.15 b**. Bent to the side: e.g. **311 b**. Bent upwards: e.g. **94 a**. Rolled into a spiral: e.g. **52 b**. Rolled into a disc-spiral: e.g. **135 c**.

¹⁵²¹ 94 a.

¹⁵²² Linear: e.g. **379** c. Tear-shaped: e.g. **87** c.

¹⁵²³ **3 a**, **95 a**. To the '*Papyrus flowers*' **3 a** compare those on V Suppl. 1B no. 324.

¹⁵²⁴ Main devices: e.g. **539 b**. Fillers: e.g. **510 b**. Basic elements of repetition compounds: e.g. **3 a**. Supplements: e.g. **115 c**.

 $^{^{1525}}$ e.g. **546 c**. For the possible use of the device as a script sign, see Jasink 2009, 13–21, especially 16–17; also 20, 127–128, 138.

face or be combined with other similar or dissimilar motifs. They are met in descriptive (?), 'pictographic' (?), and ornamental images.¹⁵²⁶

Motif 179: 'Lily flower'

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in profile, is represented by a hundred and eighteen examples (*pls*. 71-73). It is a trumpet-shaped flower with trifurcated top. The two sides of the blossom extend straight up or open outwards in different directions, in some examples also curving downwards.¹⁵²⁷ The stem can be bent to the side, upwards, form a spiral or a disc spiral, or else extend straight downwards.¹⁵²⁸ Two examples whose identification as the type is not certain have bifurcated blossoms.¹⁵²⁹

The existing representations function as main devices, fillers (?), basic elements of repetition compounds, and supplements.¹⁵³⁰ As main devices, '*Lily flowers*' stand alone on the seal face.

Motif 180: 'V-flower'

(Malia/Eastern Crete Steatite Prisms, Mesara Chlorite Prisms)

The type, rendered in profile, is represented by sixteen examples (*pl.* 73). It is a flower with V-shaped blossom and variably long stem. The stem is either directed to the side, in which case it can be straight, bent upwards, or rolled inwards to form a spiral;¹⁵³¹ or extends straight downwards.¹⁵³² One inner side of the blossom on two examples and the outer side of one's stem is dentated.¹⁵³³ Two motifs are bent in such a way that a notional circle is created by their outer contour.¹⁵³⁴

¹⁵²⁶ Ornamental: e.g. **555 c**. It is unknown whether on images such as **539 b** the device had a representational or a purely ornamental nature. If the branches on compositions such as **555 c** functioned as main devices and not as fillers the image would be 'pictographic'.

¹⁵²⁷ Straight up: e.g. **445 c**. Outwards in different directions: e.g. **427 a**. Curving downwards: e.g. **345 a**, **539 c**.

¹⁵²⁸ Bent to the side: e.g. 539 c. Bent upwards: e.g. 404 c. Forming a spiral: e.g. 345 a. Forming a disc spiral: e.g. 445 c. Extended straight downwards: e.g. 575 b.

¹⁵²⁹ Two of the motifs 431 a.

¹⁵³⁰ Main devices: e.g. **345 a**. Basic elements of repetition compounds: e.g. **445 c**. Supplements: e.g. **51 c**. The only example which could function as a filler is the motif **361 b** whose identification as the type is not certain.
¹⁵³¹ Straight: e.g. **78 a**. Bent upwards: e.g. **45 b**. Rolled into a spiral: e.g. **469 a**.

¹⁵³² E.g. **24 a**.

¹⁵³³ **78 a**.

¹⁵³⁴ **45 b**.

'V-flowers' can function as main devices, fillers (?), and supplements.¹⁵³⁵ Jasink suggests that some examples combined with hieroglyphic inscriptions and seen as fillers by the CHIC function as main devices and constitute script signs.¹⁵³⁶ As main devices, *'V-flowers'* are combined with each other in ornamental images.

Motif 181: Unidentifiable flower

(Malia/Eastern Crete Steatite Prisms)

This is not a type but a section for the presentation of six fragmentary preserved flowers whose closer identification is not possible (pl. 73).

All the examples classified here function as supplements.

Motif 182: 'Fir branch'

(Malia/Eastern Crete Steatite Prisms, Prisms with EM III/MM I Influences, Dawkins Prism)

The type is represented by twenty eight examples (*pls.* 73-74). It is a vegetal device which consists of a stem from whose long sides issue horizontal or slightly upwards directed teeth or longer linear elements. The length of all teeth/linear elements is the same. Five examples which constitute part of the same repetition compound are curved.¹⁵³⁷

'Fir branches' function as main devices, fillers, and basic elements of repetition compounds.¹⁵³⁸ The certain main devices can stand alone on the seal face or be combined with each other in descriptive images.¹⁵³⁹

Motif 183: 'Centipede branch'

(Malia/Eastern Crete Steatite Prisms, Mesara Chlorite Prisms)

The type is represented by ten examples (*pl.* 74). It is a vegetal (?) device consisting of a stem from whose long sides issue teeth or spikes. It is differentiated from '*Fir branch*' in that the teeth/spikes on the two sides point in different directions such that they resemble the legs of a centipede.¹⁵⁴⁰

¹⁵³⁵ Main devices: e.g. **469 a**. Fillers (?): e.g. **353 a**. Supplements: e.g. **24 a**.

¹⁵³⁶ E.g. **353 a**. On the possible use of the device as a script sign, see Jasink 2009, 13–21.

¹⁵³⁷ **225 a**.

¹⁵³⁸ Main devices: e.g. 604 c. Fillers: e.g. 420 b. Basic elements of repetition compounds: e.g. 225 a.

¹⁵³⁹ Descriptive: e.g. **604 c**. It is uncertain whether *'Fir branches'* placed in front of representational motifs such as **589 b**, function as fillers or main devices. For this subject, see pp. 328–330. For the significance of **379 b**, see Jasink 2009, 123.

¹⁵⁴⁰ See Centipede and 'Centipede'.

The differentiation between '*Centipede branches*' and '*Centipedes*' is not clear cut and the possibility that the two types overlap to a certain extent is considered. The difference between the two is that the teeth/spikes of '*Centipede branches*' are shorter than those of the '*Centipedes*' and that '*Centipede branches*' can occupy places in the images which are often occupied by branches.¹⁵⁴¹

Centipede branches ' function as main devices and possibly also as fillers.¹⁵⁴² As main devices, they are combined with other motifs and are met in 'pictographic' images as well as in images of an unknown nature.¹⁵⁴³

Motif 184: 'Fern branch'

(Malia/Eastern Crete Steatite Prisms, Mesara Chlorite Prisms)

The type is represented by nine examples (*pl.* 74). It is the representation of a vegetal device which consists of a stem from whose long sides issue upwards directed teeth or long spikes. The teeth/spikes shorten progressively towards the top such that an upwards tapering motif is created.¹⁵⁴⁴

'Fern branches' function as main devices, fillers (?), basic elements of repetition compounds, and supplements.¹⁵⁴⁵ Jasink suggests that some examples constitute script signs in hieroglyphic inscriptions.¹⁵⁴⁶ As main devices, they can stand alone or are combined with other motifs and are encountered in descriptive and 'pictographic' (?) images.¹⁵⁴⁷

Motif 185: "Saw branch"

(Malia/Eastern Crete Steatite Prisms, Phaistos Goat Prism)

The type is represented by a hundred and forty eight examples (*pls.* 75-78). It is a variably long saw-shaped device.¹⁵⁴⁸ Straight and more rarely somewhat bent examples are

¹⁵⁴¹ Compare for example the composition on **125 c** to that on **147 a**.

¹⁵⁴² Main devices: e.g. **125 c**. Fillers (?): e.g. **61 a**.

¹⁵⁴³ Pictographic: **504 b**. Unknown nature: e.g. **6 a**, **125 c** (the nature of the relationship between '*Centipede branches*' and the creatures next to them cannot be determined; for this subject, see pp. 348–349); also e.g. **78 c** and **336 a** (the nature of the depicted is unknown).

¹⁵⁴⁴ E.g. **217 a, 546 c**.

¹⁵⁴⁵ Main devices: e.g. **217 a**. Fillers (?): e.g. **90 b** (in such compositions it is uncertain whether the branch functions as a filler or as a main device. For a discussion on the subject of the difficulty in distinguishing fillers from main devices, see pp. 328–330). Basic elements of repetition compounds: e.g. **557 c**. Supplements: e.g. **326 c**.

¹⁵⁴⁶ E.g. **546 c**. For the possible use of the device as a script sign, see Jasink 2009, 72–74, especially 74; also 16–17. ¹⁵⁴⁷ Descriptive: e.g. **217 a**. The image on **546 c** is 'pictographic' if the '*Fern branch*' functions as a main device.

¹⁵⁴⁸ Exceptionally, one of the "Saw branches" **17 a** shows three spikes also on the back side. This represents an attempt for the two "Saw branches" to be connected in such a way that a unit is formed.

met.¹⁵⁴⁹ Most times, the dentation of bent examples issues from the outer side.¹⁵⁵⁰ The teeth/ spikes can issue horizontally or slant towards one direction.¹⁵⁵¹ Occasionally, long lower spikes give way to progressively shorter ones towards the top.¹⁵⁵² In one case, the spikes are arranged in two groups leaving a small gap in the centre of the toothed side.¹⁵⁵³

The nature of the depicted cannot be defined with certainty. While upward tapering motifs and those with long slanting spikes create a vegetal impression, for others with short dentation it is possible that another device, perhaps an object of some kind, is depicted.¹⁵⁵⁴

The existing representations function as main devices, fillers, basic elements of representational composites, basic elements of repetition compounds, and supplements.¹⁵⁵⁵ As main devices, "*Saw branches*" rarely stand alone on the seal face;¹⁵⁵⁶ more often, they are combined with other similar or dissimilar devices. They are encountered in descriptive and 'pictographic' images.¹⁵⁵⁷ The combination of the examples **468 b** in a mirror image brings to mind the CHIC sign 068. Jasink sees this combination as a possible ideogram.¹⁵⁵⁸

Motif 186: Leaf

(Malia/Eastern Crete Steatite Prisms, Mesara Chlorite Prisms)

The type is represented by fifteen examples (*pl.* 78). Triangular, fan-shaped, and elongated ellipsoidal devices are met.¹⁵⁵⁹ The interior of all representations shows fishbone venation.

The existing examples function as main devices, fillers, and basic elements of repetition compounds.¹⁵⁶⁰ The two examples which function as main devices are combined with each other and a *Wedge* in an ornamental image.

¹⁵⁴⁹ Straight: e.g. **346 c**. Bent: e.g. **365 a**.

¹⁵⁵⁰ But not in the case of **388 a**, **388 c**, and **428 b**.

¹⁵⁵¹ Horizontally: e.g. **346 c**. Slanting: e.g. **15 a**, **496 c**.

¹⁵⁵² E.g. **323 c**, **448 c**.

¹⁵⁵³ **167 b**.

¹⁵⁵⁴ Vegetal: e.g. **17 a**, **323 c**, **448 c**. Non-vegetal (?): e.g. **147 a**, **365 a**.

¹⁵⁵⁵ Main devices: e.g. **48 a**, **147 a**. Fillers (?): e.g. **145 c**, **358 b**. Basic elements of representational composites: e.g.

 $^{25\} a,\,346\ c.$ Basic elements of repetition compounds: e.g. $280\ c.$ Supplements: e.g. $234\ b.$

¹⁵⁵⁶ E.g. **601 c**.

¹⁵⁵⁷ Descriptive: e.g. **48 a**. 'Pictographic': e.g. **323 c**.

¹⁵⁵⁸ Jasink 2009, 101, 133.

¹⁵⁵⁹ Triangular: e.g. **493 c**. Fan-shaped: e.g. **103 b**. Ellipsoidal: e.g. **103 c**.

¹⁵⁶⁰ Main devices: 493 c. Fillers (?): 42 c. Basic elements of repetition compounds: 103 b, 103 c.

Motif 187: 'Ivy leaf'

(Malia/Eastern Crete Steatite Prisms)

The type is represented by five examples (pl. 78). It is a vegetal device which takes the form of an arrowhead. The existing examples have a shorter and a longer 'barb', both of which are bent in the same direction.

The device functions as a filler (?) in hieroglyphic inscriptions and as a supplement.¹⁵⁶¹ Jasink sees one example combined with a hieroglyphic inscription and considered by the CHIC to be a filler as a main device constituting a script symbol which is, however, not meant to be read.¹⁵⁶²

Motif 188: Stemless paisley

(Malia/Eastern Crete Steatite Prisms, Mesara Chlorite Prisms)

The type is represented by twenty three examples (*pl.* 78). It is a vegetal tear-shaped device. Some examples curve to one side whereas occasionally, the interior of the motif is horizontally hatched.¹⁵⁶³ One example shows fishbone venation.¹⁵⁶⁴

The fishbone venation of the aforementioned example suggests that the motif is a stylised version of a leaf.¹⁵⁶⁵ However, the shape of the motif which is hardly reminiscent of a leaf and the fact that in the rest of the examples, the venation is rendered by parallel hatching suggest that the depiction has taken on a purely ornamental character.

The existing examples function as main devices, fillers, basic elements of repetition compounds, and supplements.¹⁵⁶⁶ The device that functions as a main device stands alone on the seal face.

Motif 189: Trefoil

(Malia/Eastern Crete Steatite Prisms)

The type, rendered in frontal view, is represented by two examples (pl. 79). It is the representation of a vegetal device consisting of three petals which issue from a common centre. The two petals issue from the centre antithetically and the third upwards.

The existing examples function as supplements.

¹⁵⁶¹ Filler (?): **519 b**. Supplement: **516 b**. For the function of the devices **519 b**, see Jasink 2009, 29 footnote 149. ¹⁵⁶² **35 a** (Jasink 2009, 29).

¹⁵⁶³ Curving examples: e.g. 57 a, 93 a. Hatched interior: e.g. 109 b, 575 b.

¹⁵⁶⁴ **57 a**.

¹⁵⁶⁵ The same is also suggested by the venation of the *Paisley* **357** b.

¹⁵⁶⁶ Main devices: **57 a**. Fillers (?): e.g. **517 c**. Basic elements of repetition compounds: e.g. **109 b**, **575 b**. Supplements: e.g. **18 b**.

Motif 190: Quatrefoil

(Malia/Eastern Crete Steatite Prisms, Mesara Chlorite Prisms, British Museum Prisms)

The type, rendered in frontal view, is represented by eight examples (*pl.* 79). It is a crossor saltire-shaped vegetal device which consists of four petals. Occasionally, the centre is covered by a disc in the form of a blob.¹⁵⁶⁷ At times, lobed petals are rendered by a tearshaped or linear differentiation in the engraving of their inner part.¹⁵⁶⁸

The representations function as main devices and supplemented devices.¹⁵⁶⁹ As main devices, *Quatrefoils* can stand alone or be combined with other motifs and take part in ornamental images.¹⁵⁷⁰

Motif 191: Rosette

(Prisms with EM III/MM I Influences, Mesara Chlorite Prisms)

The type, rendered in frontal view, is represented by three examples (*pl.* 79). It is a vegetal device which consists of five or more petals which issue radially from a common centre. Occasionally, the centre is covered by a disc which takes the form of a blob.¹⁵⁷¹ Lobed petals can be represented by a tear-shaped differentiation in the engraving of their inner part.¹⁵⁷²

All examples function as main devices, either standing alone or being combined with other motifs.¹⁵⁷³ They take part in ornamental images.

Motif 192: Star blossom

(Malia/Eastern Crete Steatite Prisms, Mesara Chlorite Prisms)

The type, rendered in frontal view, is represented by eight examples (*pl.* 79). It is a starshaped vegetal device. Often, the centre of the blossom is differentiated by the addition of a markedly large blob.¹⁵⁷⁴ The central part of one motif is left unengraved whereas a boring sits on the otherwise unengraved centre of another example.¹⁵⁷⁵ The petals of one blossom

¹⁵⁶⁷ E.g. **368 c**.

¹⁵⁶⁸ E.g. **102 a, 368 c, 461 c**.

¹⁵⁶⁹ Main devices: e.g. **102 a**. Supplemented devices: e.g. **487 c**.

¹⁵⁷⁰ Alone: e.g. **102 a**. With other motifs: e.g. **410 a**.

¹⁵⁷¹ E.g. **103 a**.

¹⁵⁷² E.g. 23 c, 101 a.

¹⁵⁷³ Alone: e.g. **101 a**. With other motifs: e.g. **23 c**.

¹⁵⁷⁴ E.g. **94 b**, **237 a**.

¹⁵⁷⁵ Unengraved central part: **112 a**. Boring in the unengraved central part: **60 b**.

are arranged in groups of three in a cross configuration around the central blob. One motif and its centre are lozenge-shaped.¹⁵⁷⁶

The existing examples function as main devices and as fillers.¹⁵⁷⁷ As main devices, *Star blossoms* can stand alone or be combined with other motifs in ornamental images.¹⁵⁷⁸

Motif 193: 'Papyrus blossom'

(Malia/Eastern Crete Steatite Prisms)

The type, seen in profile, is represented by three examples (pl. 79). It is a vegetal semiellipsoidal device with dentated top.

One of the existing examples functions as a filler and two as supplements.¹⁵⁷⁹

Motif 194: 'Lily blossom'

(Malia/Eastern Crete Steatite Prisms, British Museum Prisms)

The type, rendered in profile, is represented by nineteen examples (*pls.* 79-80). It is a triangular blossom with trifurcated top. The two sides of the blossom open outwards in antithetical directions and hang downwards.

The existing representations function as fillers and more rarely as supplements.¹⁵⁸⁰

Motif 195: Open lily blossom (?)

(Malia/Eastern Crete Steatite Prisms)

The type is represented by one example (pl. 80). It is the open blossom of a lily. The motif consists of three bars and stands on the outer side of one of them.¹⁵⁸¹ Directly above it is placed the central bar whereas the third bar extends vertically upwards such that a large gap is created within the blossom.

The viewing of the device as a blossom is tentative. The CMS sees in it the back legs and the long tail of an *Agrimi*.¹⁵⁸²

The motif functions as a main device and takes part in a descriptive image.

¹⁵⁷⁶ **112 a**.

¹⁵⁷⁷ E.g. **475 a**.

¹⁵⁷⁸ Alone: e.g. **376 a**. With other motifs: e.g. **60 b**, **94 b**.

¹⁵⁷⁹ Filler: **593 c**. Supplements: **47 b**.

¹⁵⁸⁰ Fillers: e.g. **388 b** (the function of **159 a** is unknown). Supplements: e.g. **533 a**.

¹⁵⁸¹ For other vegetal devices consisting of bars, see the '*Ivy leaves*' **516 b** and the '*Lily flowers*' **445 c**.

¹⁵⁸² For an argumentation against this reading, see p. 195.

Motif 196: 'V-blossom'

(Malia/Eastern Crete Steatite Prisms, Mesara Chlorite Prisms)

The type, rendered in profile, is represented by five examples (pl. 80). It is a vegetal V-shaped device with outwards hanging arms.

The type functions as a main device and filler.¹⁵⁸³ As main devices, '*V*-blossoms' are combined with other motifs in ornamental images.

Motif 197: Candy motif

(Malia/Eastern Crete Steatite Prisms)

The type is represented by one example (*pl.* 80). It is an outline device consisting of a central lozenge from two antithetical corners of which issue smaller triangles. A blob sits on each of the free corners of the lozenge.¹⁵⁸⁴

While the nature of the depicted is unknown, it would seem possible that the device is purely ornamental. The example functions as a main device and stands alone on the seal face.

Motif 198: Segmented rectangle (?)

(Malia/Eastern Crete Steatite Prisms)

The type is represented by two examples (pl. 80). It is an outline rectangle divided into two similar-sized triangles by an inner diagonal.

It is not certain that the type exists. Its only representatives are fused with each other in a device seen by the present author as a repetition compound.¹⁵⁸⁵ However, it is also possible that the latter is actually a motif which cannot be broken down into its elements. Each of the *Segmented rectangles* is reminiscent of the body of the second variant of the *"Textile"*, but it is unknown whether the two motifs are related in any way.

Motif 199: Segmented circle (?)

(Malia/Eastern Crete Steatite Prisms)

The type is represented by one example (pl. 80). It is a circle divided by a bar into two similar-sized semicircles. The outer side of the extant example and both sides of the bar are

¹⁵⁸³ Main device: e.g. **45 c**. Filler: e.g. **249 b**.

¹⁵⁸⁴ For a further example of blobs sitting on two antithetical sides of an outline motif, see the Circles 440 a.

¹⁵⁸⁵ See *Running* ornament.
toothed. The teeth of the outer side are directed anticlockwise, a feature which gives the motif a somewhat rotating character.

In the publication of the seal, Yule describes the device as an 'abstract animal whirl' and compares it to compound *Z*-whirls with curved arms such as **492 a**.¹⁵⁸⁶ If this were true, the type Segmented circle would not exist and the example would be a *Z*-whirl of "Toothed sickles" instead. However, the device is classified as a Segmented circle on account of the fact that on the impressions kept in the CMS Archive, a complete circle with no openings in its perimeter can be distinguished.¹⁵⁸⁷

The motif functions as a main device and stands alone on the seal face.

Motif 200: Abstract Z-whirl pattern

(Malia/Eastern Crete Steatite Prisms)

The type is represented by one example (*pl.* 80). It is an abstract pattern which has evolved from a *Z*-whirl with curved arms composed of 'Boars with centipede legs' such as **492 a**. Necks, heads, and legs of the animals have transformed into curving lines which issue from the central bar and look in opposite directions.

The motif functions as a main device and stands alone on the seal face.

Motif 201: Border

(Malia/Eastern Crete Steatite Prisms, Prisms with EM III/MM I Influences, Mesara Chlorite Prisms)

The type is represented by sixty seven examples (*pls. 80–83*). It is an ornamental circle which surrounds a device or an image. Represented are round, ellipsoidal, square, and rectangular *Borders* as well as one which takes the form of a figure-of-eight shield.¹⁵⁸⁸ Depending on the configuration of the circle, four variations of the type can be distinguished. The ring can be linear, take the form of a ladder band,¹⁵⁸⁹ or be toothed on the outer or inner side.¹⁵⁹⁰ Often, the teeth of the examples of the third variation issue in a clockwise or anticlockwise direction, such that the motif has a rotating character.¹⁵⁹¹

¹⁵⁹⁰ A, B, C, and D respectively.

¹⁵⁸⁶ Yule 1980 b, 99 no. 2 c.

¹⁵⁸⁷ The CMS impressions are not of very good quality. If the motif is actually a circle, one could perhaps still trace its origins to a *Z-whirl of "Toothed sickles"*. However, even in this case it would not be meaningful to break it down into its constituent elements. Its character has totally altered and it has become an abstract ornamental motif bearing no resemblance whatsoever to the motifs from which it initially evolved.

¹⁵⁸⁸ Round: e.g. **23 a–23 c**. Ellipsoidal: e.g. **78 c**, **555 a**. Square: e.g. **13 b**. Rectangular: e.g. **602 a**. In the form of a figure-of-eight shield: **64 b**.

¹⁵⁸⁹ See "Ladder band".

¹⁵⁹¹ E.g. **44 b**, **339 c**.

Borders function as main devices, basic elements of border compounds, and supplemented devices.¹⁵⁹² As main devices, *Borders* are combined with other motifs and are mainly encountered in descriptive and ornamental images.¹⁵⁹³ Apart from that, one example surrounds a possible 'pictographic' image and another a hieroglyphic inscription.¹⁵⁹⁴

Motif 202: Border band

(Malia/Eastern Crete Steatite Prisms)

The type is represented by two examples (*pl.* 83). It is an ornamental band which surrounds a device or a composition but whose ends do not meet. One of the existing representations is partly linear and partly shaped as a ladder band.¹⁵⁹⁵

The motif functions as a main device. Border bands are always combined with other motifs. One of the existing examples takes part in a descriptive and the other in a 'pictographic' (?) image.¹⁵⁹⁶

Motif 203: Spiked blob

(Malia/Eastern Crete Steatite Prisms)

The type is represented by nine examples (*pl. 83*). It is a blob with a spike issuing from two antithetical sides.

Very often, *Spiked blobs* are used as fillers on hieroglyphic inscriptions cut on hard stone seals.¹⁵⁹⁷ Of the examples classified with the type, five are cut on soft stone prisms whereas four of these constitute part of the same image.¹⁵⁹⁸ The remaining four examples are engraved on breccia prisms, which are placed halfway between soft material and hard stone engraving.¹⁵⁹⁹

The examples of the type function as main devices and fillers.¹⁶⁰⁰ Those which function as main devices are combined with each other and another motif in an ornamental image.

¹⁵⁹² Main devices: e.g. **13 c**, **113 a**. Basic elements of border compounds: e.g. **44 b**, **64 b**. Supplemented devices: e.g. **23 a**.

¹⁵⁹³ Descriptive: e.g. **113 a**, **113 b**. Ornamental: e.g. **13 c**.

¹⁵⁹⁴ 'Pictographic' image: **227 c**. The composition would be pictographic if the *Fish* functions as a main device and not as filler (for the subject of the difficulty in identifying the function of small representational motifs, see pp. 328-330). Hieroglyphic inscription: **69 a**.

¹⁵⁹⁵ **261 a**. See "Ladder band".

¹⁵⁹⁶ Descriptive: A.12 b. 'Pictographic': 261 a.

¹⁵⁹⁷ E.g. CMS III no. 228 c; CMS VI no. 103 d; CMS XII nos. 109 a, 112 a.

¹⁵⁹⁸ **215** c, **A.13** c. The identification of the latter as representative of the type is not certain.

¹⁵⁹⁹ **440 b**, **457 a**, **457 c**. For the breccia prisms, see pp. 36–37.

¹⁶⁰⁰ Main devices: **215 c**. For the function of the devices **457 a** and **457 c** as fillers, see also Jasink 2009, 28.

Motif 204: Tooth motif

(Malia/Eastern Crete Steatite Prisms)

The type is represented by five examples (pl. 83). It is a tooth-shaped ornamental device. All the representatives of the type function as fillers.

Motif 205: Spike/Spike row

(Malia/Eastern Crete Steatite Prisms)

The type is represented by twenty one examples (pl. 83). It is a spike or a set of spikes which issue rhythmically in pairs from the body of other motifs.

Only those devices which function as supplements as opposed to spikes constituting an integral part of other motifs are seen as representatives of the type.¹⁶⁰¹

Motif 206: Line/Bar

(Malia/Eastern Crete Steatite Prisms, Mesara Chlorite Prisms, Kalo Chorio and Psychro Prisms with the Cable Devices, Central Crete Ornamental Prisms)

The type is represented by a hundred and forty nine examples (*pls.* 83-84).¹⁶⁰² It is an ornamental, variably long, straight or somewhat bent linear element. *Lines* have pointed ends whereas *Bars* have blunt ones.¹⁶⁰³

Lines/Bars function as main devices, fillers, basic elements of repetition compounds, and supplements.¹⁶⁰⁴As main devices, they are combined with other motifs and are met in descriptive, 'pictographic', and ornamental images.¹⁶⁰⁵

¹⁶⁰¹ The spikes which issue from the outer side of the *Paisley* **435 c** and the *Border* **307 a** for example, constitute part of these motifs and not supplements.

¹⁶⁰² The plates only contain selected examples of the type.

¹⁶⁰³ A and B respectively.

¹⁶⁰⁴ Main devices: e.g. **31 c**, **273 b**, **478 a**, **484 b**. Fillers: e.g. **8 a**, **64 a**, **222 a**, **518 b**. Basic elements of repetition compounds: e.g. **567 a**, **575 b**. Supplements: e.g. **9 c**, **237 b**.

¹⁶⁰⁵ Descriptive: e.g. 263 c. 'Pictographic': e.g. 79 a. Ornamental: e.g. 484 b.

Motif 207: Wedge

(Malia/Eastern Crete Steatite Prisms)

The type is represented by a hundred and sixty four examples (pl. 85-86).¹⁶⁰⁶ It is an ornamental, variably long linear element which resembles an elongated triangle because it has one blunt and one pointed edge. Straight and bent examples of the type are met.

Wedges function as main devices and, most often, as fillers.¹⁶⁰⁷ As main devices, they are combined with other motifs in ornamental images.¹⁶⁰⁸

Motif 208: Ripple

(Malia/Eastern Crete Steatite Prisms)

The type is represented by eight examples (pl. 86). It is an ornamental linear element which takes the form of an open S.

The identification of the six motifs on 213 c as representatives of the type is not certain. It is also possible that these are parts of one representational motif which represents water.

The existing *Ripples* function as main devices and are combined with other motifs in ornamental images.

Motif 209: Triangle

(Malia/Eastern Crete Steatite Prisms, Prisms with EM III/MM I Influences (?), Mesara Chlorite Prisms)

The type is represented by ninety five examples (*pls.* 86-87). It is a triangle which has a purely ornamental nature. The centre of one example shows parallel hatching.¹⁶⁰⁹

The existing *Triangles* function as main devices, fillers, basic elements of repetition compounds, basic elements of *C-spiral roof compounds*, and supplements.¹⁶¹⁰ As main devices, *Triangles* are combined with other motifs in ornamental images.

¹⁶⁰⁶ The plates only contain selected examples of the type.

¹⁶⁰⁷ Main devices: e.g. **482** c. Fillers: e.g. **32** a, **48** b, **183** a, **198** b, **324** c, **546** b.

¹⁶⁰⁸ E.g. **210 a**, **482 c**, **493 c**. On compositions such as that on **37 b**, it is unknown whether the *Wedge* functions as a main device or as a filler.

¹⁶⁰⁹ One of the motifs **357 b**.

¹⁶¹⁰ Main devices: e.g. 60 b, 102 c, 357 b, 410 a. Fillers: e.g. 9 b, 15 c, 54 b, 145 a, 525 b. Basic elements of repetition compounds: e.g. 411 b. Basic elements of *C-spiral roof compounds*: e.g. 357 c. Supplements: e.g. 286 a.

Motif 210: Stalk triangle

(Malia/Eastern Crete Steatite Prisms)

The type is represented by six examples (*pl.* 87). It is an ornamental triangle from one side of which issues vertically a straight bar. The interior of four examples which constitute part of the same compound is hatched.¹⁶¹¹

The existing *Stalk triangles* function as basic elements of repetition compounds and as supplements.¹⁶¹²

Motif 211: Papyrus triangle

(Malia/Eastern Crete Steatite Prisms, Prisms with EM III/MM I Influences)

The type, seen in profile, is represented by twenty nine examples (*pl. 88*). It is a triangular device with dentated top. The dentation can be straight or slanting in one direction.¹⁶¹³ Rarely, it is represented by slanting parallel hatching which stretches outwards from the interior such that the device is comb-shaped and not solid.¹⁶¹⁴

The comb-shaped examples are reminiscent of *Hatched triangles*. They are differentiated from the latter only by their placement in the composition. *Hatched triangles* are attached with their top or base to other motifs¹⁶¹⁵ whereas *Papyrus triangles* always stand free. The existence of some comb-shaped examples and the fact that all existing representations are placed with the toothed side towards the edge of the composition could suggest that *Papyrus triangles* have developed from the *Hatched triangles* which are popular on seals of Yule's Border/Leaf Complex.¹⁶¹⁶ However, the placement of some of them in compositions in which '*Papyrus flowers*' are common also allows for the supposition that some of them are abbreviated versions of '*Papyrus flowers*'.¹⁶¹⁷

The existing *Papyrus triangles* function as main devices and fillers.¹⁶¹⁸ The examples which function as main devices are combined with other devices in ornamental images.

¹⁶¹¹ **6 b**.

¹⁶¹² Basic elements of repetition compounds: 6 b. Supplements: 377 c.

¹⁶¹³ Straight: e.g. 219 b. Slanting: e.g. 154 b.

¹⁶¹⁴ E.g. **588 a**.

¹⁶¹⁵ E.g. **23 a**, **23 c**, **399 b**. See also Yule 1980 a, pl. 21 Motif 30: Hatched Triangles.

¹⁶¹⁶ For the Border/Leaf Complex, see Yule 1980 a, 209–210.

¹⁶¹⁷ Compare for example the Papyrus triangles 575 a and 280 c to the 'Papyrus flowers' 44 c and 115 c respectively.

¹⁶¹⁸ Main devices: e.g. **280 c**. Fillers: e.g. **219 b**.

Motif 212: Lily triangle

(Malia/Eastern Crete Steatite Prisms, Mesara Chlorite Prisms)

The type, rendered in profile, is represented by thirty two examples (*pls. 88–89*). It is a triangular device with trifurcated top. The two sides of the motif open in different directions. Many representatives of the type are differentiated from *Hatched triangles* only by their placement in the composition.¹⁶¹⁹ Like *Papyrus triangles, Lily triangles* stand free as opposed to *Hatched triangles* which are attached with their top or base to other motifs. *Lily triangles* are always placed with the toothed side towards the edge of the composition, a feature which could suggest that they developed from *Hatched triangles*.

The existing representations function as fillers.

Motif 213: Hatched triangle

(Malia/Eastern Crete Steatite Prisms, Prisms with EM III/MM I Influences)

The type, seen in profile, is represented by fifteen examples (*pl.* 89). It is a triangular device with dentated top. The dentation takes the form of parallel hatching which stretches outwards from the interior such that most times the device is comb-shaped and not solid. One example has no dentation, is solid, has diagonal hatching, and displays a linear element projecting from one side.¹⁶²⁰

Hatched triangles are differentiated from other types of triangles in that they are attached with their top or base to other motifs.¹⁶²¹ The existing examples function as main devices, fillers and supplements.¹⁶²² The two examples which function as main devices are combined with each other and another ornamental motif in an ornamental image.

Motif 214: Lozenge

(Malia/Eastern Crete Steatite Prisms, Mesara Chlorite Prisms)

The type is represented by three examples (*pl.* 89). Two antithetical corners of one example develop into straight lines.¹⁶²³ The remaining two examples are outline devices composed of two linear concentric lozenges.¹⁶²⁴

¹⁶¹⁹ Compare for example the trifurcated *Hatched triangle* **23 a** to the *Lily triangles* **352 a** and **532 a**.

¹⁶²⁰ **312 b**.

¹⁶²¹ See Yule 1980 a, pl. 21 Motif 30: Hatched Triangles.

¹⁶²² Main device: **72 c**. Filler: **312 b**. Supplements: **23a**, **23 c**, **399 b**.

¹⁶²³ **317 c**.

¹⁶²⁴ **341 c**.

The outline motifs are combined with each other in a repetition compound whereas the solid example functions as a basic element of another compound.¹⁶²⁵

Motif 215: Trapezium

(Malia/Eastern Crete Steatite Prisms)

The type is represented by two examples, a compact and an elongated one (pl. 89).¹⁶²⁶ Two antithetical sides of both motifs are concave.

The existing representations function as fillers.

Motif 216: Fan motif

(Mesara Chlorite Prisms)

The type is represented by one example (*pl.* 89). It is a fan-shaped device. The motif constitutes part of a *C*-spiral roof compound.

Motif 217: Inverted T

(Mesara Chlorite Prisms)

The type is represented by one example (*pl. 89*). It is a device in the form of an inverted T. The existing example constitutes part of a *C-spiral roof compound*.

Motif 218: Blob

(Malia/Eastern Crete Steatite Prisms, Mesara Chlorite Prisms, Kalo Chorio and Psychro Prisms with the Cable Devices, Platanos Ornamental Prism, Central Crete Ornamental Prisms)

The type is represented by a hundred and fifty seven examples (pl. 89).¹⁶²⁷ It is an ornamental dot of small enough circumference to be created by drilling. Both drilled and pared out devices are represented.

The existing *Blobs* function as main devices, fillers, and basic elements of repetition compounds.¹⁶²⁸ As main devices, *Blobs* are combined with each other and other motifs in ornamental images.

¹⁶²⁵ See miscellaneous compounds, p. 325.

¹⁶²⁶ For a further example of a *Trapezium*, see CMS VIII no. 11.

¹⁶²⁷ The plates only contain selected examples of the type.

¹⁶²⁸ Main devices: e.g. 104 c, 125 a, 159 a, 413 b. Fillers: e.g. 33 b, 63 c, 145 b. Basic elements of repetition

Motif 219: Disc

(Malia/Eastern Crete Steatite Prisms)

The type is represented by three examples (*pl.* 89). It is a round ornamental motif differentiated from a *Blob* in that it has a much larger diameter. *Discs* are so broad that they cannot be drilled but need to be pared out.

Only one of the motifs which are classified with the type can be seen as its certain representative.¹⁶²⁹ The possibility that the remaining two devices depict representational units cannot be ruled out.¹⁶³⁰

Two motifs function as main devices and one as a filler (?). As main devices, *Discs* can stand alone (?) or be combined with other motifs in ornamental images.¹⁶³¹ **457 b** which is combined with script signs is the possible filler. While the CHIC sees it as the CHIC sign 073, it does not read in it a script value. On the other hand, Jasink suggests that the motif is rather non-ornamental and that it functions as a main device which plays a 'specific role' in the composition.¹⁶³²

Motif 220: Circle

(Malia/Eastern Crete Steatite Prisms, British Museum Prisms)

The type is represented by eight examples (*pl.* 89). It is a circle of ornamental character. On two antithetical sides of two examples which take part in the same compound sit an ellipsoidal blob and a *Two-armed whirl* respectively.¹⁶³³ Another example is put together from two concentric circles.¹⁶³⁴

Perfect *Circles* are never found on soft stone prisms but are characteristic of hard stone glyptic.¹⁶³⁵ The only two examples of the type which are created by a tool employed with fast rotary motion are engraved on a breccia prism which, like other medium-hard stone prisms, combines soft material and hard stone iconography.¹⁶³⁶

compounds: e.g. 282 c.

¹⁶²⁹ **507** c.

¹⁶³⁰ 457 b, 530 c.

¹⁶³¹ With other devices: e.g. **507 c**. The only case in which the motif appears by itself is **530 c**. However, the seal face is very abraded and the possibility cannot be ruled out that the image was initially built of more than one device. ¹⁶³² Jasink 2009, 92.

¹⁶³³ **440 a**.

¹⁶³⁴ **3 a**.

¹⁶³⁵ E.g. the *Circles* on CMS II,1 nos. 118, 366 a, 366 b; CMS II,2 nos. 19, 284 b; CMS IV 133; CMS XII nos. 93 b, 115 c.

¹⁶³⁶ **440 a**. For medium-hard stone prisms, see pp. 36–37.

Circles function as main devices and as basic elements of repetition compounds.¹⁶³⁷ The four examples which function as main devices are combined with another device in an ornamental image.

Motif 221: Ellipse

(Malia/Eastern Crete Steatite Prisms, Prisms with EM III/MM I Influences)

The type is represented by eight examples (*pl. 90*).¹⁶³⁸ It is an ornamental ellipsoidal motif.¹⁶³⁹ All represented examples are outline devices whereas often, the interior of the motif is vertically hatched.¹⁶⁴⁰ One example is composed of two concentric linear ellipses while the examples which constitute basic elements of compounds are elongated.

The existing motifs function as main devices and basic elements of repetition compounds.¹⁶⁴¹ The two examples which function as main devices stand alone on the seal face.

Motif 222: Grain ellipse

(Malia/Eastern Crete Steatite Prisms)

The type is represented by nine examples (*pl. 90*). It is an ornamental ellipsoidal motif which has two pointed edges. Many examples are outline motifs whereas one is composed of three parallel strands.¹⁶⁴² The interior of some examples is vertically hatched.¹⁶⁴³ The body of one device takes the form of a ripple.¹⁶⁴⁴

Grain ellipses function as main devices (?), fillers, and basic elements of repetition compounds.¹⁶⁴⁵

¹⁶³⁷ Main devices: **368 a**. Basic elements of repetition compounds: **3 a**, **93 a**, **440 a**.

¹⁶³⁸ See also the probably representational motif "Sieve".

¹⁶³⁹ The possibility cannot be ruled out that **275** c is representational instead. If this were the case, it would not constitute a representative of the type.

¹⁶⁴⁰ E.g. **30 b**, **275 c**.

¹⁶⁴¹ Main devices: 76 a, 275 c. Basic elements of repetition compounds: 30 b, 399 c, 523 c.

¹⁶⁴² Outline motifs: **18 b**, **115 b**, **226 b**, **368 b**, **444 a**. Composed of three parallel strands: 77 c.

¹⁶⁴³ E.g. **115 b**, **444 a**.

¹⁶⁴⁴ **226 b**.

¹⁶⁴⁵ Fillers: e.g. **444 a**. Basic elements of repetition compounds: e.g. **77 c**, **115 b**, **536 c**. The two examples **368 b** function as main devices only if the '*Egyptian arrow*' with which they are combined is purely ornamental.

Motif 223: Lunette

(Malia/Eastern Crete Steatite Prisms)

The type is represented by twelve examples (*pl. 90*). It is an ornamental C-shaped device. The inner sides of the arms of two examples are equipped with rows of long spikes.¹⁶⁴⁶ The outer side of another three examples is toothed whereas the inner and outer side of one motif are equipped with spikes which resemble foliage.¹⁶⁴⁷

Lunettes function as main devices, fillers, basic elements of miscellaneous compounds, supplements, and supplemented devices.¹⁶⁴⁸

Motif 224: C-spiral

(Malia/Eastern Crete Steatite Prisms, Mesara Chlorite Prisms)

The type is represented by twelve examples (*pls.* 90-91). It is an ornamental C-shaped device whose arms roll inwards to form scrolls. Two variations can be distinguished, a simple one and one with a D-shaped compartment in the interior.¹⁶⁴⁹ One example of the first variation shows dentation on the inner side of the stem.¹⁶⁵⁰ The D-shaped compartment of the motifs of the second variation is either filled with parallel hatching or remains plain.¹⁶⁵¹

The existing examples of the type function as main devices, basic elements of *C-spiral roof compounds*, and basic elements of miscellaneous compounds.¹⁶⁵² As main devices, *C-spirals* are combined with each other and/or other ornamental devices in ornamental images.¹⁶⁵³

Motif 225: Coil spiral

(Malia/Eastern Crete Steatite Prisms, Mesara Chlorite Prisms)

The type is represented by three examples (*pl. 91*). It is an ornamental (?) line which rolls into a spiral.

Coil spirals function as main devices, all existing examples standing alone on the seal face.

¹⁶⁴⁶ **317 c**.

¹⁶⁴⁷ Toothed outer side: 544 a, 536 c. Spikes which resemble foliage: 337 c (compare for example the configuration of the *Leaves* 103 c).

¹⁶⁴⁸ Main devices: e.g. **307 a**. Fillers: e.g. **55 a**, **314 c**. Basic elements of miscellaneous compounds: **317c**. Supplements: e.g. **536 c**. Supplemented devices: e.g. **337 c**, **544 a**.

¹⁶⁴⁹ A and B respectively.

¹⁶⁵⁰ **357 c**.

¹⁶⁵¹ Filled: e.g. **510 a**. Plain: e.g. **30 c**, **362 b**.

¹⁶⁵² Main devices: e.g. **503 c**, **510 a**. Basic elements of *C-spiral roof compounds*: e.g. **102 b**, **357 c**. Basic elements of miscellaneous compounds: **30 c**, **362 b**.

¹⁶⁵³ The image **163 b** where the motif stands alone is unfinished.

Motif 226: Centred-circle

(Malia/Eastern Crete Steatite Prisms, Central Crete Ornamental Prisms)

The type is represented by hundred three examples (pl. 91).¹⁶⁵⁴ It is an ornamental device which consists of one circle and a blob as its centre or else two or more concentric circles and a blob as their centre.¹⁶⁵⁵ *Centred-circles* with more than three rings are not met. Abrasion or lack of space can often lead to the substitution of the circles by crescents.¹⁶⁵⁶ Such motifs are seen as representatives of the type as opposed to *Centred-lunettes* when the composition suggests that the intention of the engraver was the creation of circles.¹⁶⁵⁷

All examples of the type are executed with tools manipulated with fast rotary motion. *Centred-circles* function as main devices, basic elements of repetition compounds, supplements, and supplemented devices.¹⁶⁵⁸ As main devices, *Centred-circles* are combined with each other and/or other devices in ornamental images.

Motif 227: Centred-lunette

(Malia/Eastern Crete Steatite Prisms, Mesara Chlorite Prisms)

The type is represented by ten examples (*pl. 91*). It is an ornamental C-shaped motif with a blob in the space created between the arms. The crescent of three examples is angular.¹⁶⁵⁹

Centred-lunettes function as main devices and as basic elements of repetition compounds.¹⁶⁶⁰ As main devices, they are combined with each other and/or other motifs in ornamental images.

¹⁶⁵⁴ The plates only contain selected examples of the type.

¹⁶⁵⁵ One circle: e.g. **409 b**. Two circles: e.g. **A.2 a**. Three circles: e.g. **359 c**. For the viewing of some devices as possible symbols, see Jasink 2009, 43.

¹⁶⁵⁶ E.g. **21 c**, **333 b**, **380 a**.

¹⁶⁵⁷ For example, two of the circles of the motifs **21 c** are complete whereas the remaining six take the form of crescents. The small *Centred-circles* **333 b** and **359 c** are partial, whereas **359 b** are whole. Finally, while the outer ring of the concentric *Centred-circles* **333 b** and **359 b** is incomplete, in the similar compound **409 a** it is complete. ¹⁶⁵⁸ Main devices: e.g. **56 b**, **290 a**, **395 a**, **442 c**. Basic elements of repetition compounds¹ e.g. **21 c**, **259 c**, **359 b**. Supplements: e.g. **328 a**. Supplemented devices: e.g. **92 a**.

¹⁶⁵⁹ **85 c**.

¹⁶⁶⁰ Main devices: e.g. 22 c, 216 c, 325 c. Basic elements of repetition compounds e.g. 85 c.

Motif 228: Chevron

(Malia/Eastern Crete Steatite Prisms, Mesara Chlorite Prisms)

The type is represented by thirty nine examples (*pls.* 91-92). It is an ornamental V-shaped motif. Four examples have dentated contour whereas one shows dentation only on the upper side.¹⁶⁶¹

The existing representations function as main devices, fillers, and supplements.¹⁶⁶² As main devices, *Chevrons* are combined with other motifs in ornamental images.

Motif 229: 'Lame' chevron (?)

(Malia/Eastern Crete Steatite Prisms, Kalo Chorio and Psychro Prisms with the Cable Devices)

The type is represented by five examples (*pl. 92*). It is a V-shaped device with one shorter and one longer arm. The longer arm of one example is curved outwards.¹⁶⁶³

The nature of the motif is unknown. It is possible that it is representational in nature. On the other hand, it could be possible that some of the motifs classified with the type are actually *Chevrons*. In this case, the fact that one arm is shorter than the other would be accidental.¹⁶⁶⁴ Due to the difficulty in identifying the nature of the motif, the classification under the same type does not necessarily presuppose that all examples are depictions of the same device.

The existing examples function as main devices and as fillers (?).¹⁶⁶⁵ The three examples which function as main devices are combined with other motifs and are encountered in 'pictographic' (?) images and in an image of an unidentifiable nature which resembles script.¹⁶⁶⁶

Motif 230: U (?)

(Malia/Eastern Crete Steatite Prisms)

The type is represented by one example (*pl. 92*). It is a U-shaped device. It is unknown whether the nature of the motif is representational or ornamental. It is possible that the type does not actually exist but that the U-shaped element **519 a** constitutes part of the *Leaf with stalk* with which it is combined on the seal face. The CHIC sees in this element the head

¹⁶⁶¹ Dentated contour: **143 b**, **154 b**. Dentation on the upper side: **165 a**.

¹⁶⁶² Main devices: e.g. **503 b**. Fillers: e.g. **68 b**, **73 b**. Supplements: e.g. **475 b**.

¹⁶⁶³ 558 c.

¹⁶⁶⁴ For examples of *Chevrons* with a shorter and a longer arm, see **239 a**.

¹⁶⁶⁵ Main device: 62 b, 585 b. Filler (?): 236 c, 389 b.

¹⁶⁶⁶ 'Pictographic' (?): 558 c, 585 b. Image of unidentifiable nature: 62 b.

of an 'Arrow' b whose shaft is represented by the stalk of the leaf.¹⁶⁶⁷ Another possibility would be that the element depicts further leaves issuing on either side of the leaf's stalk or a 'base' of purely ornamental nature.

If the device is meant to be seen as independent from the leaf above it, it would probably function as a main device. The image would then be either 'pictographic', in the case that the device is representational, or ornamental, if its nature is ornamental.

Motif 231: Y

(Malia/Eastern Crete Steatite Prisms)

The type is represented by three (?) examples (pl. 92).¹⁶⁶⁸ It is a Y-shaped device. The nature of the motif cannot be defined and its positioning such that it stands on the long bar is conventional. The categorisation of the three examples together is done on the basis of shape alone and it is not certain that they all represent the same device.

The existing motifs function as main devices (?) and as fillers (?).¹⁶⁶⁹ The two examples which function as main devices are placed between other similar motifs and are encountered in images of ornamental (?) nature.¹⁶⁷⁰

Motif 232: J

(Malia/Eastern Crete Steatite Prisms)

The type is represented by twenty five examples (*pl.* 92). It is an ornamental J-shaped device. The lower part of the concave side of two examples is toothed.¹⁶⁷¹

The type functions as supplement and in one case as a filler (?).¹⁶⁷²

¹⁶⁶⁷ See CHIC no. 259 a and CHIC, 407 no. 259 a; also Jasink 2009, 114, 117, 128, 130, 156. For a defence of the position taken by the CHIC, see Olivier 1990, 17 footnote 27 and this current work, p. 356. This interpretation is according to the author problematic because the device on **519 a** is very different from the typical '*Arrow*'b, i.e. the CHIC sign 049. The representation on **519 a** is seen by the present author as a combination of a *Leaf with stalk* and a *U*. A similar composition is met on **541 a**.

¹⁶⁶⁸ If the small device under the neck of the Waterfowl **322 b** represents intentional engraving.

¹⁶⁶⁹ Main devices (?): 16 c, 71 c. Fillers (?): 322 b (?).

¹⁶⁷⁰ The nature of the compositions would be ornamental if the nature of the Ys is ornamental.

¹⁶⁷¹ 557 c.

¹⁶⁷² **A.6 a**. Or main device? In the case that this motif functioned as main device its nature would not be ornamental and the example would consequently not be a representative of the type.

Motif 233: J-spiral

(Malia/Eastern Crete Steatite Prisms)

The type is represented by fifteen examples (*pl. 92*). It is an ornamental J-shaped device whose curved end rolls inwards to form a scroll. The upper part of the concave side of two examples is equipped with long parallel spikes.¹⁶⁷³

The type overlaps to a certain extent with '*Papyrus flowers*' with a spiral stem. As a rule, those devices which broaden towards the top are seen as '*Papyrus flowers*' whereas linear motifs with similar breadth of the two ends are seen as *J-spirals*. However, the boundaries between the two types are not always clear cut and the classification of some examples with one type or the other is only conventional and based mainly on their place in the composition.¹⁶⁷⁴

J-spirals function as fillers and as supplements.¹⁶⁷⁵

Motif 234: S

(Malia/Eastern Crete Steatite Prisms, Mesara Chlorite Prisms)

The type is represented by eight examples (*pl. 93*). It is an ornamental S-shaped device. The edges of the arms of one example turn outwards whereas one edge of another example whose identification as the type is not certain turns outwards and subsequently takes a J-form.¹⁶⁷⁶ One motif is composed of three parallel strands and shows angles instead of curves.¹⁶⁷⁷

Ss function as main devices, fillers, and supplemented devices.¹⁶⁷⁸ As main devices, *Ss* stand alone or are combined with each other and other motifs in ornamental images.

¹⁶⁷³ **438 b**.

¹⁶⁷⁴ The two ends of **379 c** for example have similar breadth. However, the fact that the device plays the same role in the image as the *'Papyrus flower' with spray* suggests a floral character.

¹⁶⁷⁵ Fillers: e.g. **29 b**, **518 c**. Supplements: e.g. **171 b**, **362 c**. The motifs **368 b** would function as main devices if the nature of the '*Egyptian arrow*' with which they are combined is ornamental and as fillers if this motif was some kind of symbol. For the devices **518 c**, see also Jasink 2009, 84.

¹⁶⁷⁶ Edges of the arms turning outwards: **205 c**. J-shaped edge: **213 c**. The possibility exists that **213 c** is a representational depiction of some kind of animal instead of an ornamental *S*. If this were the case, the J shapes which issue from its sides would represent its legs (compare *Centipede* and *'Centipede'*; for the depiction of the whole device, see *Devices with body supplements*). The devices on the same seal face which are classified as *Ripples* could then be seen as part of one motif which could perhaps represent a water landscape.

¹⁶⁷⁸ Main devices: e.g. 149 b, 337 b. Fillers: e.g. 30 a. Supplemented devices: e.g. 205 c.

Motif 235: Hook spiral

(Malia/Eastern Crete Steatite Prisms)

The type is represented by three examples (*pl. 93*). It is an ornamental S-shaped device whose one arm rolls inwards to form a scroll.

One of the existing examples functions as a main device and the remaining two as supplements.¹⁶⁷⁹ The example which functions as a main device is combined with another motif in an ornamental image.

Motif 236: S-spiral

(Malia/Eastern Crete Steatite Prisms)

The type is represented by thirty nine examples (*pls. 93–94*). It is an ornamental S-shaped device whose arms roll inwards to form scrolls. The stems of two examples show parallel hatching while that of another broadens towards the centre and is dentated on both sides.¹⁶⁸⁰

The vertical positioning of the motif is conventional. While it seems that most examples were meant to be seen horizontally, some are placed on the seal face diagonally and others vertically.¹⁶⁸¹

S-spirals function as main devices, fillers, basic elements of repetition compounds, and supplemented devices.¹⁶⁸² Jasink suggests that some *S-spirals* combined with hieroglyphic inscriptions and seen as fillers by the CHIC function as main devices and constitute script signs.¹⁶⁸³ As main devices, they stand alone or are combined with other motifs in ornamental images.¹⁶⁸⁴

¹⁶⁷⁹ Main device: **295 c**. Supplements: **555 b**.

¹⁶⁸⁰ Parallel hatching: 287 b, 475 c. Broadening centre and toothed sides: 207 c.

¹⁶⁸¹ Horizontally: e.g. 177 c, 208 b. Diagonally: e.g. 226 c, 277 b, A.1 c. Vertically: e.g. 599 c.

¹⁶⁸² Main devices: e.g. **163 a**, **207 c**. Fillers: e.g. **518 a**. Basic elements of repetition compounds: e.g. **599 c**. Supplemented devices: e.g. **171 b**, **177 c**, **226 c**, **287 b**, **516 b**.

¹⁶⁸³ E.g. **279 c** (Jasink sees the *Lunette* (?) as the remains of an *S-spiral*), **561 c** (Jasink 2009, 5). On the possible use of the *S-spiral* as a script sign, see Jasink 2009, 4–12, 134–137.

¹⁶⁸⁴ Alone: e.g. **207 c**, **537 b**. With other devices: e.g. **163 a**, **575 a**.

Motif 237: Disc S-spiral

(Malia/Eastern Crete Steatite Prisms)

The type is represented by sixteen examples (*pls. 94–95*). It is an S-spiral¹⁶⁸⁵ with discs in place of the scrolls. Apart from motifs with curved stems some straight-stemmed examples are also represented.¹⁶⁸⁶ The discs of one example take the form of centred-circles.¹⁶⁸⁷

Disc S-spirals function as main devices, elements of repetition compounds, and supplemented devices.¹⁶⁸⁸ As main devices, they are often combined with each other or, more rarely, with other motifs and take part in ornamental images.¹⁶⁸⁹

Motif 238: Part of a disc S-spiral

(Malia/Eastern Crete Steatite Prisms)

The type is represented by two examples (*pl. 95*). One of them consists of a blob and another of a blob and a small spike issuing from one side. The motifs are understood as the scrolls and in the second case also part of the stem of disc S-spirals¹⁶⁹⁰ because they are depicted on the two edges of a composition of adjacent *Disc S-spirals* and slant in the same direction as these.

The placement of the two motifs at the edges of the composition creates the effect that the image is continued further than the seal face edge. The two examples are two of the few suggestive motifs met on the prisms.¹⁶⁹¹

The motifs function as main devices and take part in an ornamental image.

Motif 239: Z

(Malia/Eastern Crete Steatite Prisms)

The type is represented by twelve examples (*pl.* 95). It is an ornamental Z-shaped device which stands vertically on the seal face. While most often, the angles between the arms and the central bar are 60°, those of two examples are 90°.¹⁶⁹² The inner side of the arms of some motifs is dentated.¹⁶⁹³

¹⁶⁸⁵ See *S-spiral*.

¹⁶⁸⁶ E.g. **288 b**, **430 a**.

¹⁶⁸⁷ **288 b**.

¹⁶⁸⁸ Main devices: e.g. **100 c**, **342 b**, **430 a**. Elements of repetition compounds: e.g. **29 a**, **86 c**. Supplemented devices: e.g. **288 b**.

¹⁶⁸⁹ With each other: e.g. 100 c, 342 b. With other motifs: e.g. 430 a.

¹⁶⁹⁰ See Disc S-spiral.

¹⁶⁹¹ For suggestive motifs, see pp. 298–299.

¹⁶⁹² **326 c, 544 c**.

¹⁶⁹³ E.g. **149 b**, **199 b**.

Zs function as main devices and supplemented devices.¹⁶⁹⁴ As main devices, they are combined with other motifs in ornamental images.

Motif 240: Z-whirl

(Malia/Eastern Crete Steatite Prisms, Mesara Chlorite Prisms)

The type is represented by seven examples (*pl. 95*). It is an ornamental Z-shaped device which stands horizontally or diagonally on the seal face. The angle between the arms and the central bar is usually smaller or larger than 60° .¹⁶⁹⁵ The inner side of the arms of two examples is toothed whereas one motif is composed of three parallel strands framed by two Z-shaped lines.¹⁶⁹⁶

Z-whirls and *Zs* are very similar and their differentiation is not always straightforward. Defining is the way in which the motif is meant to be seen. The *Z* stands vertically whereas the *Z-whirl* stands horizontally or diagonally on the seal face. The arms of the *Z* run parallel to two opposite sides of the seal face whereas those of the *Z-whirl* run oblique to two opposite sides of the seal face. As a result of this, when the seal face is held either vertically or horizontally the *Z-whirl* cannot stand on one arm. A further help towards the differentiation between the two devices can be provided by the size of the angles. The majority of *Zs* have 60° angles as opposed to the majority of *Z-whirls* which have angles larger or smaller than 60°. Turning to the concept behind the two shapes, the *Z* is seen as a rather static device whereas the *Z-whirl* as a rotating motif similar to the *Two-armed whirl*.

Z-whirls function as main devices and supplemented devices.¹⁶⁹⁷ The examples which function as main devices stand alone on the seal face or are combined with other motifs and are encountered in ornamental images.

Motif 241: Z-whirl spiral

(Malia/Eastern Crete Steatite Prisms)

The type is represented by six examples (*pls.* 95-96). It is a Z-whirl¹⁶⁹⁸ whose arms roll outwards to form scrolls.

The existing examples function as supplemented devices.

¹⁶⁹⁴ Main devices: e.g. **149 b**. Supplemented devices: e.g. **199 b**, **264 c**, **326 c**.

¹⁶⁹⁵ But not always; **377 c** has 60° angles.

¹⁶⁹⁶ Toothed inner side of the arms: **512 c**, **591 c**. Motif composed of three parallel strands: **45 a**.

¹⁶⁹⁷ Main devices: e.g. 22 b, 45 a, 256 b. Supplemented devices: e.g. 377 c, 512 c, 591 c.

¹⁶⁹⁸ See Z-whirl.

Motif 242: Meander Z

(Malia/Eastern Crete Steatite Prisms)

The type is represented by three examples (pl. 96). It is an ornamental Z-shaped motif with a vertical bar issuing from the edge of each arm towards the opposite shoulder such that the device has inner and outer arms. The inner side of the inner and outer arms on the existing examples is toothed.

All motifs function as main devices and stand alone on the seal face.

Motif 243: Triskeles pommée

(Malia/Eastern Crete Steatite Prisms)

The type is represented by three examples (*pl. 96*). It is an ornamental motif consisting of three linear arms which issue radially from a common centre and terminate in blobs. Also the centre of the motif can at times be covered by a boring.¹⁶⁹⁹ In one case, the arms are omitted, the device being represented only by the three blobs.¹⁷⁰⁰

The existing representatives of the type function as supplemented devices.

Motif 244: Cross/Saltire

(Malia/Eastern Crete Steatite Prisms, Central Crete Ornamental Prisms)

The type is represented by twenty six examples (*pls. 96–97*). It is an ornamental crossor X-shaped motif. *Crosses* always have four right angles and stand on one arm.¹⁷⁰¹ Saltires have four right angles or two acute and two obtuse angles and always stand on two arms.¹⁷⁰² The centre of five Saltires is covered by a blob.¹⁷⁰³ The blob of three of them is so large that the impression is created that the motifs are actually blobs from whose sides issue four spikes.¹⁷⁰⁴

Crosses/Saltires function as main devices, fillers (?), basic elements of repetition compounds, basic elements of border compounds, and supplemented devices.¹⁷⁰⁵ As main devices, they are most often combined with each other or with other motifs in ornamental

¹⁶⁹⁹ E.g. **82 a**.

¹⁷⁰⁰ **603 c**.

¹⁷⁰¹ A.

¹⁷⁰² B.

¹⁷⁰³ **127 a, 440 c**.

¹⁷⁰⁴ **440 c**.

¹⁷⁰⁵ Main devices: e.g. **115 a**, **127 a**, **215 c**. Fillers (?): e.g. **461 a**. Basic elements of repetition compounds: e.g. **316 b**. Basic elements of border compounds: e.g. **44 b**, **95 c**. Supplemented devices: e.g. **205 a**, **370 c**, **316 b**.

images.¹⁷⁰⁶ Apart from that, small *Saltires* without a central disc can constitute the CHIC sign X and be combined with other script signs in an inscription.¹⁷⁰⁷

Motif 245: Cross/Saltire pommée

(Malia/Eastern Crete Steatite Prisms, Mesara Chlorite Prisms)

The type is represented by twenty six examples (*pl. 97*). It is a cross/saltire¹⁷⁰⁸ whose arms terminate in blobs. The centre of many motifs is covered by a blob.¹⁷⁰⁹ A long spike which issues from a blob on one motif makes the relevant arm resemble a '*Beaked' bust*.¹⁷¹⁰

Cross/Saltire pommée function as main devices¹⁷¹¹ and, most often, as supplemented devices. Two of the examples which function as main devices are combined with other motifs in ornamental images whereas one constitutes the CHIC sign 070 and is combined with other script signs in an inscription.¹⁷¹² The remaining example is seen by the present author as the possible CHIC sign 070.¹⁷¹³ However, the image in which it takes part is not included in the CHIC. Jasink sees one supplemented example as a possible ideogram.¹⁷¹⁴

Motif 246: Star

(Malia/Eastern Crete Steatite Prisms, Platanos Ornamental Prism)

The type is represented by five examples (*pl.* 98). It is an ornamental motif which consists of five or more linear arms which issue radially from a common centre. The centre of the motif can be covered by a blob.¹⁷¹⁵

The type is differentiated from *Star blossom* in that its arms are not triangular but linear. However, the boundaries between the two types are not always clear and the two overlap to a certain extent.

All but one *Star* function as basic elements of border compounds. The exception is **107 a** which functions as a main device. This is combined with other motifs and takes part in an ornamental image.

¹⁷⁰⁶ E.g. 13 c, 127 a, 215 c, 594 b, 596 a.

¹⁷⁰⁷ E.g. **115 a**, **327 a**, **251 a**. Also the small *Saltire* **538 c** could represent the CHIC sign X, although it is not seen as such by the CHIC.

¹⁷⁰⁸ See Cross/Saltire.

¹⁷⁰⁹ E.g. **350 c**, **379 a**.

¹⁷¹⁰ **321 c**.

¹⁷¹¹ **31 a**, **115 a**, **428 a**, **538 c**.

¹⁷¹² Ornamental image: **31 a**, **428 a**. Hieroglyphic inscription: **115 a**.

¹⁷¹³ **538 c**. For this image, see also footnote 2088.

¹⁷¹⁴ **379 a** (Jasink 2009, 123). For **184 a**, see Jasink 2009, 133.

¹⁷¹⁵ E.g. **448 b**.

Motif 247: Star pommée

(Malia/Eastern Crete Steatite Prisms)

The type is represented by five examples (pl. 98).¹⁷¹⁶ It is a star¹⁷¹⁷ whose arms terminate in blobs. The centre of the existing examples takes the form of a disc which is variously represented by a blob, a double centred-circle, or a circular unengraved surface.¹⁷¹⁸

All examples function as main devices. They either stand alone or are combined with other motifs and are encountered in ornamental images.¹⁷¹⁹

Motif 248: One-armed whirl

(Malia/Eastern Crete Steatite Prisms)

The type is represented by fourteen examples (*pl. 98*). It is an ornamental $(?)^{1720}$ motif which consists of a blob from one side of which issues a curved spike or line.

Most of the existing examples function as main devices whereas two devices function as supplements.¹⁷²¹ As main devices, *One-armed whirls* are combined with each other and/ or other motifs and take part in ornamental images.¹⁷²² It is uncertain whether the motifs **5 b** functioned as main devices or as fillers. While in the first case they would probably have a representational nature, in the second their nature would be purely ornamental.

Motif 249: Two-armed whirl

(Malia/Eastern Crete Steatite Prisms, Mesara Chlorite Prisms)

The type is represented by sixteen examples (*pl. 98*). It is an ornamental $(?)^{1723}$ motif which consists of two spikes or lines bent towards the same direction which issue from two, as a rule antithetical, sides of a common centre. Exceptions to the rule constitute two motifs whose arms issue from adjacent parts of the centre.¹⁷²⁴ The centre of most examples

¹⁷¹⁶ For some further examples of the type, see CMS II,1 no. 415 and CMS III no. 79.

¹⁷¹⁷ See Star.

¹⁷¹⁸ Blob: 271 c, 593 a. Double centred-circle: 363 c. Circular unengraved surface: 439 a.

¹⁷¹⁹ Alone: e.g. **271 c**, **439 a**. With other motifs: e.g. **363 c**, **593 a**, **A.16 b**.

¹⁷²⁰ The possibility exists that some examples such as the motifs **5 b** were symbols of some kind. For the subject of the difficulty in identifying the nature of some motifs, see pp. 162-163.

¹⁷²¹ **100 a**.

¹⁷²² With each other: e.g. **85 b**. With other motifs: e.g. **428 a**.

¹⁷²³ The possibility exists that some examples such as the motif **5 b** were symbols of some kind. For the subject of the difficulty in identifying the nature of some motifs, see pp. 162-163.

¹⁷²⁴ **5 b**, **55 c**.

is covered by a disc which is represented by a blob.¹⁷²⁵ In one case, the disc takes the form of a centred-circle.¹⁷²⁶

Two-armed whirls function as main devices, fillers, and basic elements of repetition compounds.¹⁷²⁷ As main devices, they can stand alone on the seal face or else be combined with each other and similar whirls with more arms in ornamental images.¹⁷²⁸ Two examples of the device are seen by Jasink as possible representatives of the CHIC sign 033.¹⁷²⁹

Motif 250: Three-armed whirl

(Malia/Eastern Crete Steatite Prisms)

The type is represented by two examples (*pl. 99*). It is an ornamental (?) motif which consists of three spikes or lines bent towards the same direction and issuing from a common centre. The centre can be covered by a disc in the form of a blob.¹⁷³⁰

One of the motifs functions as a main device and the other as a filler.¹⁷³¹ The example which functions as a main device is combined with whirls which have a different number of arms in an ornamental image. One example of the device is seen by Jasink as a possible representative of the CHIC sign 033.¹⁷³²

Motif 251: Four-armed whirl

(Malia/Eastern Crete Steatite Prisms)

The type is represented by sixteen examples (*pl. 99*). It is a motif which consists of four spikes or lines bent towards the same direction and issuing from a common centre. The centre of the whirl can be covered by a blob.¹⁷³³ Two variations of the type are distinguished, the canonical one and an X-shaped one.¹⁷³⁴ All the arms of three examples which belong to the first variation issue from one half of the central blob, a feature probably connected with

¹⁷²⁵ But not that of **317 b** and **A.8 b**.

¹⁷²⁶ **31 b**.

¹⁷²⁷ Main devices: e.g. **55 c**. Fillers: e.g. **275 a**, **434 a**. Basic elements of repetition compounds: e.g. **440 a**. It is unknown whether **5 b** and the *One-armed whirls* with which it is combined functioned as fillers or as main devices. For this subject, see also *One-armed whirl*.

¹⁷²⁸ Alone: e.g. 55 c. With other motifs: e.g. 420 c.

¹⁷²⁹ **420 c** (Jasink 2009, 82, 121).

¹⁷³⁰ E.g. **420** c.

¹⁷³¹ Main device: **420 c**. Filler: **492 c**.

¹⁷³² **420 c** (Jasink 2009, 82, 121).

¹⁷³³ E.g. **537 c**, **547 b**.

¹⁷³⁴ A and B respectively.

the lack of space on the seal face.¹⁷³⁵ The upper part of one arm on one example is toothed such that the arm resembles a *'Wheat stalk'*.¹⁷³⁶

The nature of the motif is uncertain. While at first glance it appears ornamental, some examples, such as **402 c** and **460 c** create the impression that they could have functioned as symbols of some kind.¹⁷³⁷

The majority of *Four-armed whirls* function as main devices; only one example functions as a filler.¹⁷³⁸ As main devices, *Four-armed whirls* stand alone on the seal face or else are combined with each other or other motifs.¹⁷³⁹ They take part in 'pictographic' (?) and ornamental images.¹⁷⁴⁰

Motif 252: Four-armed whirl disc spiral

(Malia/Eastern Crete Steatite Prisms)

The type is represented by one example (pl. 99). It is an ornamental motif which consists of four arms bent towards the same direction and issuing from a common centre. Their ends subsequently roll to form scrolls which are then substituted by blobs. Also the centre of the existing example is covered by a blob.

The motif functions as a main device and stands alone on the seal face.

Motif 253: Swastika

(Malia/Eastern Crete Steatite Prisms, Mesara Chlorite Prisms)

The type is represented by eighteen examples (*pls. 99–100*). It is an ornamental (?)¹⁷⁴¹ motif which consists of four arms which issue at equal distances from a common centre, are bent to create angles at about half their length, and look towards the same direction. The inner side of the outer arms of many examples is toothed.¹⁷⁴² The angles of one example are rounded and the ends of its outer arms turn slightly outwards.¹⁷⁴³ One motif is composed of three parallel strands.¹⁷⁴⁴

¹⁷³⁸ **492 c**.

¹⁷³⁵ **402 c**, **460 c**.

¹⁷³⁶ A.15 c.

¹⁷³⁷ For the subject of the difficulty in identifying the nature of some motifs, see pp. 162–163.

¹⁷³⁹ Alone: e.g. 565 a. With each other: e.g. 547 b. With other motifs: e.g. 537 c.

¹⁷⁴⁰ 'Pictographic' (?): e.g. **402 c**, **460 c**. Ornamental: e.g. **537 c**.

 $^{^{1741}}$ For some examples, such as the motif **158 b**, the possibility exists that they were symbols of some kind. For the subject of the difficulty in identifying the nature of some motifs, see pp. 162–163.

¹⁷⁴² E.g. 89 c, 249 c.

¹⁷⁴³ **205 b**.

¹⁷⁴⁴ **341 b**.

Swastikas function as main devices. They can stand alone on the seal face or be combined with other motifs.¹⁷⁴⁵ Most of them take part in images of ornamental (?) nature whereas one example is encountered in an image of an unknown nature.¹⁷⁴⁶

Motif 254: Comb swastika

(Mesara Chlorite Prisms)

The type is represented by one example (pl. 100). It is an ornamental motif which takes the form of a cross from each arm of which issue vertically long parallels such that a rotating impression is created. Two antithetical arms of the existing example are somewhat off set from the centre.

The type is a special kind of Yule's 'Cross with Zwickelfüllung'.¹⁷⁴⁷ The existing motif functions as a basic element of a border compound.

Motif 255: Whirl

(Malia/Eastern Crete Steatite Prisms)

The type is represented by forty two examples (*pls. 100–101*). It is a motif which consists of five or more spikes or lines bent towards the same direction and issuing from a common centre. The centre of the motif can be covered by a disc.¹⁷⁴⁸ The number of the arms on the represented examples ranges from five to seventeen. All but one of the existing motifs 'rotate' in an anticlockwise direction.¹⁷⁴⁹

The question of the nature of the motif remains open. While at first sight it appears ornamental, the combination of some *Whirls* with representational motifs leaves the possibility open that in certain contexts they could have functioned as symbols.¹⁷⁵⁰

Most *Whirls* function as main devices. One example functions as a basic element of a border compound and another perhaps as a filler.¹⁷⁵¹ As main devices, *Whirls* can stand alone on the seal face or else be combined with each other or other motifs.¹⁷⁵² They are encountered in 'pictographic' and ornamental images.¹⁷⁵³ The combination of the *Whirl* **424 a** with the *Profile head of a 'bull'* could be interpreted as an inscription composed of the

¹⁷⁴⁵ Alone: e.g. **11 c**, **249 c**. With other motifs: e.g. **158 b**, **205 b**.

¹⁷⁴⁶ The nature of images such as **11 c** and **89 c** would be ornamental if the nature of the *Swastika* is ornamental. Images of an unknown nature: **158 b**.

¹⁷⁴⁷ Yule 1980 a, pl. 20 Motif 29 nos. 2, 3, 12.

¹⁷⁴⁸ E.g. **191 b, 487 b**.

¹⁷⁴⁹ The exception is **514 b**.

¹⁷⁵⁰ E.g. **128 a**, **498 a**. For the subject of the difficulty in identifying the nature of some motifs, see pp. 162–163.

¹⁷⁵¹ Basic element of a border compound: **185 a**. Filler (?) (or main device and thus a symbol of some kind?): **498 a**.

¹⁷⁵² Alone: e.g. **95 c**, **138 a**. With each other: e.g. **129 a**. With other motifs: e.g. **110 c**, **128 a**, **521 c**.

¹⁷⁵³ 'Pictographic': e.g. **128 a**, **424 a**. Ornamental: e.g. **43 a**, **129 a**.

CHIC signs 033–012. However, the CHIC does not see this combination as an inscription.¹⁷⁵⁴ Another example of the device is seen by Jasink as a possible representative of the CHIC sign 033.¹⁷⁵⁵

Motif 256: Whirl spiral

(Malia/Eastern Crete Steatite Prisms)

The type is represented by one example (pl. 101). It is an ornamental motif which consists of five or more arms bent towards the same direction and issuing from a common centre. Their ends subsequently roll to form scrolls. The centre of the existing motif is covered by a large disc.

The motif functions as a main device and stands alone on the seal face.

Motif 257: Whirl pommée

(Malia/Eastern Crete Steatite Prisms)

The type is represented by one example (*pl. 101*). It is an ornamental (?) motif which consists of five or more arms bent towards the same direction and issuing from a common centre. Their ends subsequently terminate in blobs. The centre of the existing motif is covered by a large blob. Its arms issue in a clockwise direction.

The example functions as a main device and stands alone on the seal face.

Motif 258: Swastika cross (?)

(Malia/Eastern Crete Steatite Prisms)

The type is represented by one example whose identification as this type is not certain (pl. 101).¹⁷⁵⁶ It is a cross with a spike issuing vertically from the same side of each arm such that a swastika becomes inscribed in it. The spikes of the existing motif are short and issue from the very top of the arms of the cross.

The motif functions as a main device. It is combined with other devices in an ornamental image.

 $^{^{1754}}$ Against the interpretation of the two motifs as script signs would speak the fact that the combination CHIC signs 012–033 is not otherwise represented on the extant hieroglyphic documents (see CHIC, 326 no. 12; 339 no. 033). 1755 **420 c** (Jasink 2009, 82, 121).

 $^{^{1756}}$ The author cannot reach a definitive conclusion about whether a *Swastika* with long inner and short outer arms or a *Swastika cross* is represented on **413 b** on the basis solely of examining the photographs and the impressions of the seal. It is therefore possible that the arms of the device do not 'split' to continue further than the point where they curve. In this case, the type *Swastika cross* would not be represented on the prisms.

Motif 259: Half swastika

(Mesara Chlorite Prisms)

The type is represented by one example (*pl. 101*).¹⁷⁵⁷ It is a cross whose two antithetical arms bend at about half their length towards the same rotary direction. The centre of the existing motif is broad and lozenge-shaped.

The motif functions as a main device. It is combined with other motifs in an ornamental image.

Motif 260: Line K

(Malia/Eastern Crete Steatite Prisms, Central Crete Ornamental Prisms)

The type is represented by four examples (*pl. 101*). It is an ornamental motif which consists of three bars organised in a K shape.

The existing *Line Ks* function as main devices. They are combined in pairs and are encountered in ornamental images.

Motif 261: Line comb

(Malia/Eastern Crete Steatite Prisms, Central Crete Ornamental Prisms)

The type is represented by fourteen examples (*pls.* 101-102). It is an ornamental motif which consists of a bar from one side of which issue slanting parallels. The latter can run all along the length of the horizontal bar or start at about two thirds of it.¹⁷⁵⁸

Line combs function as main devices and as basic elements of repetition compounds.¹⁷⁵⁹ As main devices, they are combined with each other and/or other devices in ornamental images.

Motif 262: Radial hatching

(Central Crete Ornamental Prisms)

The type is represented by one example (pl. 102). It is an ornamental motif which consists of variably long, adjacent bars which issue radially from the edges of another device or composition.

¹⁷⁵⁷ For another example of the type, see V Suppl. 1A no. 211.

¹⁷⁵⁸ Running all along the length of the horizontal bar: e.g. **258 c**. Starting at about two thirds of the horizontal bar: e.g. **252 b**.

¹⁷⁵⁹ Main devices: e.g. **252 b**, **258 c**. Basic elements of repetition compounds: e.g. **252 a**.

The existing motif functions as a main device. It is combined with other motifs in an ornamental image.

Motif 263: Parallels

(Malia/Eastern Crete Steatite Prisms, Kalo Chorio and Psychro Prisms with the Cable Devices, Central Crete Ornamental Prisms)

The type is represented by nineteen examples (*pl. 102*). It is an ornamental motif which consists of two or more parallel lines or bars.

Parallels function as main devices, fillers, basic elements of repetition compounds, basic elements of border compounds, and supplements.¹⁷⁶⁰ As main devices, they are combined with other devices and are encountered in ornamental images.

Motif 264: Grid

(Prisms with EM III/MM I Influences, Central Crete Ornamental Prisms)

The type is represented by nine examples (*pl. 102*). It is an ornamental motif which consists of lines or bars combined in cross hatching. The lines/bars of all existing motifs slant such that an oblique lattice is created.

The majority of *Grids* function as main devices; one example functions as a basic element of a border compound.¹⁷⁶¹ As main devices, *Grids* can stand alone or be combined with other devices in ornamental images.¹⁷⁶²

Motif 265: Disc grid

(Malia/Eastern Crete Steatite Prisms)

The type is represented by one example (*pl. 102*). It is a grid¹⁷⁶³ whose joints are covered by blobs. The lines/bars of the existing motif slant such that an oblique lattice is created.

The motif functions as a main device and stands alone on the seal face.

¹⁷⁶⁰ Main devices: e.g. **121 a**, **290 b**. Fillers: **388 c**. Basic elements of repetition compounds: e.g. **599 c**. Border compounds: e.g. **64 b**. Supplements: e.g. **226 c**.

¹⁷⁶¹ **160 c**.

¹⁷⁶² Alone: e.g. **259 b**. With other devices: e.g. **A.2 b**.

¹⁷⁶³ See Grid.

Motif 266: Simple grid

(Central Crete Ornamental Prisms)

The type is represented by three examples (pl. 102). It is an ornamental motif which consists of a bar crossed at almost equal distances by two or more other bars. The bars of the existing examples meet each other at right angles such that a vertical lattice is created.

The motifs function as main devices and are combined with other motifs in ornamental images.

Motif 267: Random hatching

(Malia/Eastern Crete Steatite Prisms)

This is not a type but a section for the presentation of six patterns which consist of randomly engraved lines (*pl. 103*). It is possible that on **181 a** two units arranged in 180° rotational symmetry are depicted. However, the engraving is too messy for the pattern to be broken down. Even if the existence of these hypothetical devices were accepted, they would remain unidentifiable.

All examples of *Random hatching* function as main devices and stand alone on the seal face.

Motif 268: Miscellaneous unidentifiable devices/images

This is not a type but a section devoted to the presentation of unidentifiable devices for which no appropriate designation could be found (*pls.* 103-105). For some depictions it has not been possible to define whether they constitute one entity or the combination of more than one.

I. Awkward figural motif. The element which issues from the backside of the pelvis, if intentional engraving, would suggest a quadruped. In the case that this is true, a *Bull* pawing the earth could be depicted. However, the lack of ears as well as the fact that the motif differs markedly from all the existing depictions of quadrupeds do not allow a definitive reading of the creature as a quadruped. Against the reading of the motif as a seated *Man in profile* would speak the representation of the male organ.¹⁷⁶⁴ (Malia/Eastern Crete Steatite Prisms)

II. Wedde depicts the device rotated 180° with regard to the way it is depicted here and sees in it a ship with curved hull, two pointed extremities, a possible steering oar, high stern to

¹⁷⁶⁴ Yule depicts the figure vertically and suggests 'Mensch?' (Yule 1980 b, 100). The male organ is not represented on any of the existing depictions of human figures.

the left, and three unidentified lines which issue upwards from the hull.¹⁷⁶⁵ However, the device does not find any parallel among the existing representations of ships on prisms or any other stylistically related seals. Another suggestion would be that it represents a *Pig/boar* in right profile with the *Back part of an arrow* issuing from its rump under the tail. The 'stern' of Wedde's ship would represent the sunken head of the animal, the 'steering oar' the ear, the two unidentified vertical lines the legs, the 'bow' the tail, and the oblique bar the *Back part of an arrow*. However, the unusual shape of the motif as well as the fact that the 'arrow' would issue from the rump of the animal and not as is usual from its backside, make this reading as dubious as that which sees a ship.¹⁷⁶⁶ (Malia/Eastern Crete Steatite Prisms)

III. Quadruped with crossed legs? The lack of a head as well as the vertical line between the two crossed elements make this reading problematic. (Malia/Eastern Crete Steatite Prisms)

IV. Regardant quadruped with one backwards bent front leg in right side view? (Malia/ Eastern Crete Steatite Prisms)

V. Two motifs. Unfinished crouching *Dogs/lions* in left side view? (Malia/Eastern Crete Steatite Prisms)

VI. Crouching *Dog/lion* in right side view? (Malia/Eastern Crete Steatite Prisms)

VII. Unidentifiable. It is not certain whether this is the original motif or the remains of an abraded device. (Malia/Eastern Crete Steatite Prisms)

VIII. Three motifs, each of which consists of a blob from one side of which issues a large spike. *Heads of an 'ox'*? (Malia/Eastern Crete Steatite Prisms)

IX. The device is placed behind the head of a *Bovine* and is linked with the latter's ear such that at first glance the impression is created that the quadruped has horns of exceptional shape. The CMS sees in it a 'Bucranion' rotated 90° clockwise with regard to the quadruped and linked to it by its muzzle. Another possibility would be to see a small head of a ram in right profile with horns splayed either side of the head.¹⁷⁶⁷ In the case that this is true, the head is rotated 180° with regard to the quadruped and linked to it by its horns, one abutting the ear and the other, the back of the animal. (Malia/Eastern Crete Steatite Prisms)

X. '*Murex shell*'? Or the same device as that depicted to the left of the *Man in profile* with whom it is combined, i.e. a *Fish*? The shape of the motif alone does not justify any of these readings. The identification of the second motif in the image as a *Fish* is not certain. (Malia/ Eastern Crete Steatite Prisms)

XI. Profile head of a ruminant? (Malia/Eastern Crete Steatite Prisms)

XII. Head of a 'dog/lion with hook' in right side view? In the case that this motif is depicted,

¹⁷⁶⁵ Wedde 2000, 332 no. 707.

¹⁷⁶⁶ For depictions of animals hit by arrows, see 10 b, 495 a, 554 b, 566 b.

¹⁷⁶⁷ This would represent the only example of a type which could be designated *Profile head of a 'ram'*.

the mouth is open. However, the fact that the hook bends downwards instead of upwards would be exceptional.¹⁷⁶⁸ (Malia/Eastern Crete Steatite Prisms)

XIII. *Head of a 'dog/lion with hook'* in left side view? Or *Legless waterfowl* in right side view? In the case that the *Head of a 'dog/lion with hook'* is depicted, the mouth is closed. (Malia/Eastern Crete Steatite Prisms)

XIV. V-shaped device with a longer thicker and a shorter thinner arm, the latter terminating in a small blob. Unfinished *Waterfowl*?¹⁷⁶⁹ Or 'Lame' *chevron*? (Malia/Eastern Crete Steatite Prisms)

XV. Device composed of two curved lines arranged the one above the other. This configuration is reminiscent of some *Waterfowls*' bodies.¹⁷⁷⁰ However, the abstract character of the motif does not allow its reading as a *Headless waterfowl*. (Mesara Chlorite Prisms)

XVI. J-shaped motif with one trifurcated end and a J-shaped element issuing from its convex side. The trifurcated end and curved body could be read as the tail and curved torso of a *Dolphin*.¹⁷⁷¹ However, in the case that a *Dolphin* were depicted, the significance of the J-shaped element would be unclear. (Malia/Eastern Crete Steatite Prisms)

XVII. Two unidentifiable motifs, each with one toothed side. *Fish*? (Malia/Eastern Crete Steatite Prisms)

XVIII. Spiders? (Malia/Eastern Crete Steatite Prisms)

XIX. Unidentifiable. (Malia/Eastern Crete Steatite Prisms)

XX. Some kind of load? The motif is placed on the back of an *Agrimi* (Platanos Prism with the Cable Devices)

XXI, XXII. Unidentifiable motifs held by a *Man in profile*. (Mesara Chlorite Prisms)

XXIII, XXIV. Unidentifiable motif held by a *Man in profile*. (Malia/Eastern Crete Steatite Prisms)

XXV. Arrow? Back part of an arrow? Or 'Lily blossom'? In the case that a 'Lily blossom' is depicted, the motif must be inverted 180°. (Malia/Eastern Crete Steatite Prisms)

XXVI. The motif resembles somewhat the *Stool* **538 c**. It is seen by Jasink as the possible hieroglyphic sign 'horns of consecration'/CHIC sign 034.¹⁷⁷² (Malia/Eastern Crete Steatite Prisms)

XXVII. Unidentifiable. The place of the motif in the image could suggest that it depicts a

¹⁷⁶⁸ For the only example of a head with downwards bending hook, see one of the *Heads of a 'dog/lion with hook'* **402 c**.

¹⁷⁶⁹ Compare the composition **360 b** to **40 c**.

¹⁷⁷⁰ **526 c**, **550 c**.

¹⁷⁷¹ For these characteristics, see the *Dolphins* **40 c** and **360 b**.

¹⁷⁷² Her quotation marks; Jasink 2009, 82, 132.

table. (Malia/Eastern Crete Steatite Prisms)

XXVIII. Unidentifiable. The combination of the motif with a *Leg* could suggest that it functions as a hieroglyph. However, the depiction finds no parallels among the sign list of the CHIC. Jasink sees in the device a vessel which could perhaps be seen as a *Jug*. She suggests that the motif combination **128 b** could constitute the hieroglyphic inscription CHIC signs 010 - 053.¹⁷⁷³ (Malia/Eastern Crete Steatite Prisms)

XXIX. Unidentifiable. Its combination with an *'Arrow'b* could suggest that it functions as a hieroglyph. However, the motif finds no good parallels among the sign list of the CHIC. Jasink suggests that it could constitute the script sign gate.¹⁷⁷⁴ (Malia/Eastern Crete Steatite Prisms)

XXX. Tapering ladder-shaped device. The adjacent ends of the vertical bars terminate in blobs. Jasink sees the device as the CHIC sign 077 and reads it as part of an inscription continued on **75** c.¹⁷⁷⁵ (Malia/Eastern Crete Steatite Prisms)

XXXI. Sword-shaped motif. Its combination with an '*Arrow' b* could suggest that it functions as a hieroglyph. However, the motif finds no parallels among the sign list of the CHIC. (Malia/Eastern Crete Steatite Prisms)

XXXII. Thick curved line. It is unknown whether the motif is representational or purely ornamental. (Malia/Eastern Crete Steatite Prisms)

XXXIII. *Ship* with thick mast and numerous oars? Or, rotated 180°, the *Head of a 'ram'* with horns toothed on the upper side? (Malia/Eastern Crete Steatite Prisms)

XXXIV. According to Wedde, possible ship with mast, backstay, forestay, and short curving hull.¹⁷⁷⁶ Wedde does not identify the elements which issue from the lower ends of the stays. Both the facts that the device finds no parallels among the rest of the *Ships* on prisms and that the elements which issue from the 'stays' cannot be identified as parts of the ship do not allow its definitive reading as such. (Malia/Eastern Crete Steatite Prisms)

XXXV. Motif with triangular body and internal fishbone hatching which makes it resemble a leaf. Compare somewhat the device CMS X no. 211. (Malia/Eastern Crete Steatite Prisms)

XXXVI. Disc on which steps a *Dog/lion*. Rendering of the ground or purely ornamental? (Malia/Eastern Crete Steatite Prisms)

XXXVII. Peculiarly rendered 'Papyrus flower'? (Malia/Eastern Crete Steatite Prisms)

XXXVIII. '*Lily flower*'? The fact that the two side spikes are asymmetrically placed on either side of the central bar and differ in size would speak against this reading. (Malia/ Eastern Crete Steatite Prisms)

¹⁷⁷³ Jasink 2009, 81.

¹⁷⁷⁴ Jasink 2009, 191.

¹⁷⁷⁵ Jasink 2009, 124–125, 194.

¹⁷⁷⁶ 'Interpretation as ship insecure', Wedde 2000, 338 no. 840.

XXXIX. Unidentifiable. (Malia/Eastern Crete Steatite Prisms)

XL. Half a *Lily with 'base' a*? Or a purely ornamental motif? The device occupies the whole seal face such that no space is left for the other half of a *Lily with 'base' a*. Moreover, it stands obliquely in the field and not straight as do the existing examples of *Lilies with 'base' a*. (Malia/Eastern Crete Steatite Prisms)

XLI. Z-whirl with Bars as body supplements? The facts that the shoulders are broader than the rest of the device and that straight Bars are otherwise never used as supplements do not allow the assertive reading of this device as such. (Malia/Eastern Crete Steatite Prisms)

XLII. *Saltire* or *Swastika*? (Malia/Eastern Crete Steatite Prisms)

XLIII. Blob issuing from a line. The device is attached to the waist of a 'Spider'b. (Malia/ Eastern Crete Steatite Prisms)

XLIV, XLV. Unidentifiable ornamental (?) motif. (Malia/Eastern Crete Steatite Prisms)

XLVI. Small, not necessarily intentional engraving. (Malia/Eastern Crete Steatite Prisms)

XLVII. Two Parallels? (Malia/Eastern Crete Steatite Prisms)

XLVIII. Wedge-shaped representational (?) motif. The device hangs from the arm of a *Man in profile*. (Malia/Eastern Crete Steatite Prisms)

XLIX, L. Linear motif. (Kalo Chorio and Psychro Prisms with the Cable Devices)

LI. Linear motif with bifurcation on one end.¹⁷⁷⁷ An incipient *"Loop"*? (Kalo Chorio and Psychro Prisms with the Cable Devices)

LII-LIV. Linear motif. (Kalo Chorio and Psychro Prisms with the Cable Devices)

LV. Linear motif, somewhat reminiscent of a helmet. (Kalo Chorio and Psychro Prisms with the Cable Devices)

LVI. Linear motif. (Kalo Chorio and Psychro Prisms with the Cable Devices)

LVII. Unidentifiable device which intermingles with the legs of two standing 'Apes' b in profile. It is unclear which parts of the image belong to the animals and which to the motif in question.¹⁷⁷⁸ The existence in the image of a third motif is indicated by the vertical bar between the two animals which cannot be explained as part of them. (Platanos Prism with the Cable Devices)

LVIII. The CMS sees here the schematic depiction of two pairs of antithetical acrobats, the upper pair consisting of two figures with abutting breasts and the lower of two figures with abutting feet. While this reading could be right, the image is classified as unidentifiable on account of its schematic nature and the difficulty in breaking it down. Because all depicted motifs are created by one stroke which has no beginning or end it is impossible to clearly

¹⁷⁷⁷ Compare the similar motif CMS III no. 35 a.

¹⁷⁷⁸ For a detailed discussion of this subject, see p. 172.

define the limits of the depicted quantities. (Platanos Prism with the Cable Devices)

LIX. The CMS sees 'six birds with long necks' placed the one above the other. While this interpretation is considered possible, the abstract character of the six elements does not allow their conclusive reading as *Waterfowls*.¹⁷⁷⁹ (Malia/Eastern Crete Steatite Prisms)

LX. H-shaped device with dentation on the outer side of each arm and slanting horizontal bar. It is not clear whether one motif is depicted or two *"Saw branches"* arranged in 180° rotational symmetry and connected by a slanting *Bar*. (Malia/Eastern Crete Steatite Prisms)

LXI. *Row of* three Hs?¹⁷⁸⁰ Or four *Bars* in a row connected by three shorter *Bars*? (Malia/ Eastern Crete Steatite Prisms)

LXII. Unidentifiable. Compare to the device 10 c. (Malia/Eastern Crete Steatite Prisms)

LXIII. A bar from either side of which issues a curved element which is toothed on the outer side. The two elements issue towards the same rotary direction whereas their roots are somewhat offset from the centre of the bar. (Malia/Eastern Crete Steatite Prisms)

LXIV. *S-whirl of Protomes of a quadruped*? Or *S-whirl of "Bulb branches"*? The arms of the whirl resemble *"Bulb branches"*. On the other hand, the small spike which issues from one shoulder of the device is better read as an upwards directed leg of a regardant *Protome of a quadruped* rather than a *Line* which functions as a supplement. Compare to a certain extent the device CMS III no. 112 which seems to be an abstract version of the *Z-whirl of Protomes of a dog/lion* **288 a**.¹⁷⁸¹ (Malia/Eastern Crete Steatite Prisms)

Motif 269: Fragmentary unidentifiable devices/images

This is not a type but a section devoted to the presentation of devices which cannot be identified because of their fragmentary preservation (*pls.* 105-106). In some cases it has not been possible to define whether the remains belong to one entity or a combination of more than one entities.

I. Approximately the half of a motif. (Malia/Eastern Crete Steatite Prisms).

II. Approximately the half of a motif which consists of a hatched ellipsoidal ring with a funshaped element issuing from its preserved end. Two J-shaped elements issue from the same end on either side of the fun-shaped element. Younger sees in the motif an 'arch sistrum' with flared handle and six rungs.¹⁷⁸² (Malia/Eastern Crete Steatite Prisms)

III. Approximately the half of a motif which consists of a hatched ellipsoidal ring and a

¹⁷⁷⁹ Compare to the somewhat similar CMS II,2 no. 215 b.

¹⁷⁸⁰ The type H is not included in this study. If the device does actually consist of three Hs, each of the two side Hs shares its inner arm with the central H, this latter sharing both its arms with the outer Hs.

¹⁷⁸¹ The muzzle of the animals CMS III no. 112 has been omitted.

¹⁷⁸² Younger 1998, 76 no. 57.

'handle' issuing from one end. (Malia/Eastern Crete Steatite Prisms)

IV. The largest part of a device which consists of a hatched grain-shaped ellipse. From the preserved end of the device issue towards the same direction three linear elements with triangular ends. (Malia/Eastern Crete Steatite Prisms)

V. Two linear elements, each of which terminates in a 'cup sinking'. The outer side of one element is toothed. (Malia/Eastern Crete Steatite Prisms)

VI. Linear element which is toothed on one side (partially preserved *Hatched D* [?]) and two lines. (Malia/Eastern Crete Steatite Prisms)

VII. Leg with claws (?) and linear element which terminates in a 'cup sinking'. (Malia/ Eastern Crete Steatite Prisms)

VIII. Blob and unidentifiable element. (Malia/Eastern Crete Steatite Prisms)

IX. Jug in left side view? (Malia/Eastern Crete Steatite Prisms)

X. Remains of a motif. (Malia/Eastern Crete Steatite Prisms)

XI. Pear-shaped remains of a motif. (Malia/Eastern Crete Steatite Prisms)

XII. Remains of a motif. (Malia/Eastern Crete Steatite Prisms)

XIII. Remains of a motif seen by Jasink as a possible hieroglyphic sign.¹⁷⁸³ (Malia/Eastern Crete Steatite Prisms)

XIV, XV. Remains of a motif. (Malia/Eastern Crete Steatite Prisms)

XVI. Remains of a motif which ends in a spiral. (Malia/Eastern Crete Steatite Prisms)

XVII-XIX. Remains of a motif. (Malia/Eastern Crete Steatite Prisms)

XX. A larger and a smaller blob. A line and two spikes issue from two sides of the larger blob respectively. (Malia/Eastern Crete Steatite Prisms)

XXI. A larger and a smaller blob connected by two parallels. (Malia/Eastern Crete Steatite Prisms)

XXII. If intentional engraving, remains of a motif. (Malia/Eastern Crete Steatite Prisms)

XXIII. Rectangular remains of a motif. (Malia/Eastern Crete Steatite Prisms)

XXIV-XXVI. Remains of a motif. (Malia/Eastern Crete Steatite Prisms)

XXVII. 'Beetle'? (Prisms with EM III/MM I Influences)

XXVIII. The largest part of a motif. (Malia/Eastern Crete Steatite Prisms)

XXIX. Remains of a motif. (Malia/Eastern Crete Steatite Prisms)

XXX. Quadruped and above it a Blob? (Malia/Eastern Crete Steatite Prisms)

¹⁷⁸³ Jasink 2009, 30.

XXXI. The largest part of a motif. (Malia/Eastern Crete Steatite Prisms)

XXXII. Linear remains of a motif. (Malia/Eastern Crete Steatite Prisms)

XXXIII, XXXIV. V-shaped remains of a motif. (Malia/Eastern Crete Steatite Prisms)

XXXV–XXXVII. Remains of a motif. (Malia/Eastern Crete Steatite Prisms, Prisms with EM III/MM I Influences)

XVIII–XLI. Remains of a device or group of devices. (Malia/Eastern Crete Steatite Prisms)

XLII-XLVII. *Line/Bar*, *Wedge*, "Saw branch" or 'Fir branch'. (Malia/Eastern Crete Steatite Prisms)

For the very small remains of unidentifiable devices see also 41 c, 32 c, 38 b, 38 c, 75 a, 114 c, 138 b, 146 c, 159 c, 164 c, 175 c, 220 c, 235 c, 246 b, 266 c, 294 c, 334 c, 380 a, 404 c, 473 a, 476 b, 552 c, 533 b, 574 b.

General observations1784

269 motif types have been distinguished. Among these 51 % are mainly representational, 13.1 % vegetal/floral, 26.6 % ornamental, and 9.3 % of unidentifiable nature. To the extent that it has been possible, the motifs are listed according to their nature and kind.¹⁷⁸⁵ Thus, human and animal figures come first, then follow figural parts.¹⁷⁸⁶ After that are classified those motifs which appear as abbreviations of various animals or as depictions of fictional creatures.¹⁷⁸⁷ Next, follow types which are believed to depict objects and subsequently motifs whose nature is unknown.¹⁷⁸⁸ These are followed by the depictions of landscape elements and plants, these latter also including floral motifs.¹⁷⁸⁹ Regarding plants, these are subdivided into those with stems and those without respectively.¹⁷⁹⁰ After that, come motifs of seemingly purely ornamental nature.¹⁷⁹¹ Finally, those devices or combinations of devices follow which could neither be identified nor be given a conventional name.¹⁷⁹²

¹⁷⁸⁴ For the subject of devices which are encountered on both hard and soft stone seals, see the section 'Images exclusive to soft stone glyptic', pp. 356–358.

¹⁷⁸⁵ It has not always been easy or possible to identify the nature of a motif. For the subject of the difficulty in identifying the nature of the depicted, see pp. 162–163.

¹⁷⁸⁶ Human figures: Motifs 1–5, *pls. 1–11*. Animal figures: Motifs 6–47, *pls. 11–34*. Figural parts: Motifs 48–94, *pls. 34–46*.

¹⁷⁸⁷ Motifs 95–102, pls. 47–48.

¹⁷⁸⁸ Objects: Motifs 103–134, pls. 48–60. Motifs of unknown nature: Motifs 135–158, pls. 60–64.

¹⁷⁸⁹ Landscape elements: Motifs 159–160, *pl. 64*. Plants: Motifs 161–196, *pls. 64–80*. For the definition of the term *floral*, see p. 161.

¹⁷⁹⁰ With stem: Motifs 161–181, pls. 64–73. Without stem: Motifs 182–196, pls. 73–80.

¹⁷⁹¹ Motifs 197–267, pls. 80–103.

¹⁷⁹² Motifs 268–269, pls. 103–106.

The majority of motifs are summarily rendered. The intaglios take the form of the depicted unit, the interior either remaining plain or bearing schematically rendered details. Hair, mane, coat, feathers, bristles, shell, scales, venation, clothing, oars, colour (?), and details of ornamental motifs can be rendered.¹⁷⁹³ Most often, such elements are represented by either dentation on the outline of the motif or hatching which extends within its interior. The reproduction of the internal characteristics of a face, i.e. the eyes, the nose, the nostrils, and the mouth is relatively rare.¹⁷⁹⁴

A large number of motifs are depictions of creature or plant parts.¹⁷⁹⁵ In the cases that such motifs constitute parts of compounds, their partial character can be explained as part of the tendency to create ornamental patterns by the fusion of various motifs.¹⁷⁹⁶ Plant parts such as blossoms seem to have had a mostly ornamental function. On the other hand, the significance of creature parts which function as main devices is unknown. In the cases where headless animals are attached to the body of larger quadrupeds, the omission of the head is probably an abbreviation connected with the fact that the topic of the images is easily understood from the overall composition.¹⁷⁹⁷ However, the significance of such depictions in cases where the creature parts stand free on the seal face is unknown.¹⁷⁹⁸

Some observations on human and animal figures and on the iconographic conventions used

Most human and animal figures are schematic and static depictions. Occasionally, plastic rendering of the body as well as rounded and detailed contours can create more naturalistic representations of quadrupeds.¹⁷⁹⁹ The rendering of individual muscle groups on some men represents an attempt to break the tradition of strictly schematically rendered forms. Rare are depictions of somewhat more animated figures achieved by the creation of sleeker bodies and the opposing direction of the animals' front legs.¹⁸⁰⁰

¹⁷⁹³ Hair: e.g. the *Men in profile* 330 a, 358 a, 428 b, 429 a, 499 a, 500 a; the *Women in profile* 463 a, 498 a, A.3 a. Mane: e.g. the *Dogs/lions* 42 a, 435 a. Coat: e.g. the *Dogs/lions* 5 a, 129 c. Feathers: e.g. the *Waterfowls* 227 b, 388 b; the '*Peafowl'* 20 a. Bristles: e.g. the *Pigs/boars* 249 a, 511 b. Shell: e.g. the *Scorpion* 226 a; the *Shrimp/prawn* 364 c. Scales: e.g. the *Fish* 68 b, 164 b. Venation: e.g. the *Leaves with stalk* 226 b; the *Leaves* 493 c; see also the lobes on the *Rosette* 101 a. Clothing: e.g. the *Frontal man* 399 b; the *Men in profile* 125 b, 498 b, A.3 b; the *Women in profile* 463 a, 498 a, A.3 a; the '*Men with semicircular body'* 5 b, 125 c; see also the collar (?) around the neck of the *Dog/lion* 20 c. Oars: e.g. the *Ships* 90 b, 423 b. Colour (?): e.g. the *Amphora* 386 c. Details of ornamental motifs: e.g. the *Stalk triangles* 6 b; the *C-spirals* 510 a; the *S-spirals* 475 c, 207 c; and the *Z* 149 b.

¹⁷⁹⁴ E.g. the *Man in profile* **581 b**, the *Shrimp/prawn* **364 c**, the 'Gorgo mask' **584 b**, the *Mask* **420 b**, the *Head of a* 'ram' **55 b**.

¹⁷⁹⁵ Figural parts: Motifs 48–94, *pls. 34–46*. Plants without stem: Motifs 182–196, *pls. 73–80*.

¹⁷⁹⁶ See repetition compounds, pp. 304–317.

¹⁷⁹⁷ E.g. **113 b**.

¹⁷⁹⁸ E.g. **504 b**.

¹⁷⁹⁹ E.g. the animals **269 a–269 c**.

¹⁸⁰⁰ E.g. the 'Goat' **190 a** and the Dog/lion **389 c**.

The motifs are rendered in frontal or side view. The depiction of two horns either side of the head in certain profile animals, of two wings either side of the body in one peafowl, and of two front legs looking in opposite directions in some quadrupeds could suggest an attempt to represent the creatures in three quarters view.¹⁸⁰¹ Human and animal figures are most often shown in side view, a feature which is probably related to the difficulty of rendering frontal figures in two dimensions. Frontal figures are only represented among humans and apes. It has been mentioned that the heads of such figures can often be represented in profile and that on the other hand, the torso of most of the standing profile figures is shown en face.¹⁸⁰² Quadrupeds and waterfowls/peafowls are shown in side view or, more rarely, in possible three quarters view.

Three quarters view would correspond to an attempt to represent depth of field. Further such attempts are encountered with regard to individual cases, such as the figure **497 a** whose left arm is rendered on its body; the shorter left leg of the *Man in profile* **123 b** which could be understood as bent with the knee parallel to the ground; the turned front part of the *Agrimi* **129 b**; the upwards 'pulled' hindquarters of the same animal **527 c**; the *Dogs/lions* which are depicted seated/lying on the ground;¹⁸⁰³ and the combination of two quadrupeds in animal echelons.¹⁸⁰⁴ Unknown is whether the front legs of the 'Goat' **190 a** are intentionally depicted much longer that the rear ones. In the case that they are, this would represent an attempt to render the animal in perspective, i.e. with its front part depicted closer to the viewer than its hindquarters.

The splayed front legs of the *Agrimi* **269 a** are unique and could represent the effort to render an animal lying on the ground and seen from above. Worth noting is the similar contorted posture of the captive bull on one of the Vapheio Cups.¹⁸⁰⁵ If the front part of the torso of this bull was seen from above, its front legs which are now bent under its body would be splayed on either side of the torso like those of the *Agrimi* in question.

Rare is the depiction of suggestive motifs, i.e. of side parts of motifs which terminate on the seal face edge or on another motif suggesting the notional continuation of the depicted further than the point where it ends.¹⁸⁰⁶ The only certain such motifs are the two *Parts of a disc S-spiral* which are met on the edges of the composition **342 b** as well as the busts or protomes of a quadruped which are meant to depict the background animals in animal echelons.¹⁸⁰⁷ Moreover, suggestive motif is also the bust of an agrimi on CMS V Suppl. 1B no. 337 a which belongs to a four-sided prism of the Malia/Eastern Crete Steatite Group. Three more possible candidates for suggestive motifs would be the *Protome of a bee* **50 b**, the *Bust of a dog/lion* (?) **98 c**, and the *Hindquarters of a hoofed animal* **312 a**. However, it

¹⁸⁰¹ E.g. 'Sheep', the 'Goat' **190 a**, the 'Peafowl' **117 b**, the Dogs/lions **39 a**, **535 a**, **564 b**.

¹⁸⁰² See Frontal man, Frontal 'ape', Man in profile, Woman in profile, 'Ape'a in profile.

¹⁸⁰³ Quadruped pose I 1.

¹⁸⁰⁴ E.g. **269 c**, **286 b** (?), **271 b** (?).

¹⁸⁰⁵ Evans 1930, 179 fig. 123 A.

¹⁸⁰⁶ E.g. the protome of a deer CMS VI no. 97 a.

¹⁸⁰⁷ For animal echelons, see p. 351.
has been mentioned that in the first two cases, the omission of the back part of the animals was probably not intentional but due to a miscalculation of the available space; and that it would seem more likely for the front part of the motif **312 a** to have ended before the edge of the seal face.¹⁸⁰⁸

On rare occasions, inconsistencies occur in the rendering of the motifs. The soles and dew claws of the front foot of the *Agrimia* **453 c** and **388 c** as well as the soles of the *Dogs/lions* **23 b** and **387 b** for example, are rendered on the front and not back side of the foot as would be natural. The feathers on the left wing of the *Frontal 'bird'* **68 a** issue from the upper side and not from the underside of the wing. Such inconsistencies may either represent mistakes in the engraving or, in the case of **388 c** and **68 a**, intentional disregard of the natural image in the attempt to create symmetrical motifs.¹⁸⁰⁹

Some observations can help towards distinguishing ruminants from predators. Characteristics of the former animals are hooves, closed mouth,¹⁸¹⁰ and short or long tail. When long, the tail is never directed upwards. On the other hand, typical features of *Dogs/ lions* are open or closed mouth, broad chest and neck, claws rendered by dentation on the underside of the feet, and a long tail which can hang or be directed upwards.

Human and animal poses

The poses are presented in four parts, one devoted to the poses of humans and apes, the second to those of the quadrupeds, the third to the poses of the birds, and the fourth to those of the bees.¹⁸¹¹ Each pose has been defined by a Greek numeral and potential variations within it have been further marked by an Arabic number. For the sake of convenience, a term defining each pose is also provided, such as standing, walking, seated etc.¹⁸¹² Many of these descriptions are only conventional. They do not always aspire to recognise the exact pose of the depicted creature but are thought of mainly as a tool for a quick and uniform description of similar poses. It is possible for example, that most *Dogs/lions* described as crouching in the variation E 4¹⁸¹³ are actually depicted in that pose since these animals are often seen crouching in nature. On the other hand, it is possible that similar configuration of legs and body on certain ruminants could actually suggest a running pose.¹⁸¹⁴

¹⁸¹¹ Pls. 126–127.

¹⁸⁰⁸ See Protome of a bee, Bust of a dog/lion, and Hindquarters of a hoofed animal.

¹⁸⁰⁹ The dentation on the upper side of the left wing of the *Frontal 'bird'* **68 a** corresponds to that on the underside of the right wing which is raised upwards. The dentation on the front side of the front leg of the *Agrimi* **388 c** is a continuation of the dentation on its back leg.

¹⁸¹⁰ The only exception to the rule constitutes the Agrimi **292** a which has an open mouth.

¹⁸¹² Terms are easier to remember and use than letters and numbers.

¹⁸¹³ Quadruped pose.

¹⁸¹⁴ E.g. the *Agrimia* **84 a**, **349 b**, **386 b**. The fact that these animals do not have a sunken head, which is a common feature of crouching ruminants which are being attacked (e.g. **10 b**, **495 a**), combined with the fact that crouching *Agrimia* are not seen in nature, could suggest that they are meant to be running.



Fig. 96 a. Dog in the quadruped pose I 1; b. dog in the quadruped pose I 2 (author's data).

Defining for the distinction of the poses is the configuration of the legs and to a certain extent that of the torso.¹⁸¹⁵ The direction of the head, which can look in front, to the back, up, or down, and the configuration of the arms are of secondary significance and are therefore presented in a standardised way on the relevant plates. However, it is obvious that sometimes the configuration of the arms or the head is closely connected to a pose. A *Man in profile* for example cannot perform the crab unless he has his arms raised either side of the head. Moreover, a sunken head on ruminants which are being attacked helps identify them as crouching.¹⁸¹⁶

Certain examples of *Agrimia* which stand on four legs are placed obliquely on the seal face.¹⁸¹⁷ In such cases it is difficult to distinguish between standing animals and animals which stand on the back legs.¹⁸¹⁸ The only criterion for the differentiation is the more upright posture of the animals which stand on the back legs, which is the result of the fact that an obtuse angle is formed between nape and back of the quadruped. On the other hand, on most of the standing *Agrimia* this angle is acute or at the most a right angle such that vertical viewing of the animal seems unnatural.

Some quadrupeds whose rear leg is almost vertically bent are also categorised as standing, such that the impression is created that the animal could be sitting in its haunches.¹⁸¹⁹ The pose is seen as standing because the horizontal body of such animals contrasts to the slanting body of the quadrupeds which sit on their back legs.¹⁸²⁰ Furthermore, bent back legs alone are not enough to suggest that an animal sits on its haunches since they are common on quadrupeds of many poses.¹⁸²¹

¹⁸¹⁸ E.g. **54 b**, **496 b**, **596 b**.

¹⁸¹⁵ In cases where only one front and one back leg are depicted, the other two legs are understood as being in the same position.

¹⁸¹⁶ E.g. the Agrimi **300 b** and the Bovine **299 a**.

¹⁸¹⁷ E.g. **110 a**, **347 a**, **423 c**.

¹⁸¹⁹ See quadruped pose A 3–A 5. For actual examples, see the *Agrimi* **129** b, the *Pigs/boars* **327** c and **568** b, and the *Dog/lion* **A.9** b.

¹⁸²⁰ See quadruped pose H. For an actual example, see the *Dog/lion* **333** a and the *Agrimia* Demargne 1939, 122 fig. 1 c.

¹⁸²¹ E.g. the standing Agrimi 513 c, the seated/lying Agrimi 517 b, the walking Dog/lion 389 c, the crouching Dog/

A preference for the depiction of some kind of animals in certain poses can be seen. The crouching pose for example is very common among *Dogs/lions* but not that popular among the rest of the quadrupeds. Ruminants and *Pigs/boars* are often depicted standing whereas *Bovines* are represented seated more often than the other quadrupeds.

While cross-legged ruminants and *Pigs/boars* are common, the pose is not represented among *Dogs/lions*. This as well as the fact that the *Agrimia* which are tied from a pole on CMS VI no. 25 a have crossed legs, supports the suggestion that depicted are sacrificial animals with tied legs.¹⁸²² Among ruminants, cross-legged *Agrimia* are scarce. On the other hand, common are standing or crouching *Agrimia* hit by an arrow, a feature which creates the image of a wild animal which was being hunted.¹⁸²³ On the other hand, while *Bovines*, which represent domesticated quadrupeds, often have crossed legs they are only rarely depicted being hit by an arrow.¹⁸²⁴

Among seated/lying animals, only *Dogs/lions* are met in the quadruped pose I 1 which seems to represent, as Chapouthier and Boardman suggest, a seated animal as it is seen from a top three quarters view (*fig. 96 a*).¹⁸²⁵ The quadruped pose I 2, which is encountered only once, is met in connection with a *Dog/lion* and is read by the present author as a possible attempt to represent a curled up animal (*fig. 96 b*). However, the possibility cannot be ruled out that a standing animal scratching its hindquarters is depicted. In the case that this were true, the animal would have to be inverted 180° with regard to the way it is depicted on the plates. On the other hand, only ruminants are met in the poses I 3 and I 4.¹⁸²⁶ The possible association of the quadruped pose I 4 with the pose of the captive bull on one of the Vapheio Cups¹⁸²⁷ as well as the fact that the *Agrimi* **113 b** and the *Bovine* **415 c** are being attacked by *Dogs/lions* could suggest that an animal which is violently falling on the ground, perhaps while or after being attacked, is depicted by the poses I 3 and I 4.¹⁸²⁸

Finally, common in human figures which do not interact with another device is the placement of a raised arm in front of the head, or that of two raised arms on either side of the head.¹⁸²⁹ This gesture, which could perhaps be seen as a gesture of adoration, seems to

- ¹⁸²² Xenaki 1949, 79; CMS III nos. 169 c, 208 c (commentary).
- ¹⁸²³ E.g. **110 a**, **347 a**, **495 a**, **554 b**.

¹⁸²⁴ The only example of a *Bovine* shown while being struck by an arrow is **566 b**.

¹⁸²⁵ Chapouthier 1932, 186–189, especially 189. Boardman 1970, 24–26.

lions 1 c, 14 a, 20 c, 266 c. Moreover, the fact that the rear part of the standing *Agrimi* 129 b is almost identical (only the tail differs) to that of the crouching *Dog/lion* 129 c could indicate that the former was copied from the latter without much thought on the pose. It is more possible that the *Agrimi* was copied by the *Dog/lion* and not vice versa because of the configuration of the rear foot of the two animals. The two thick spikes which issue from the underside of the foot resemble more claws than hooves.

¹⁸²⁶ However, some lions encountered on bone/hippo ivory seals are shown in the quadruped pose I 3 (e.g. the lions CMS II,1 nos. 249, 252 a).

¹⁸²⁷ For a somewhat similar pose to the quadruped pose I 4 compare the pose of the bull CMS VII no. 157. For the association of the pose of the Vapheio Cup bull to the quadruped pose I 4, see p. 298.

¹⁸²⁸ When these are met in connection with ruminants. For a similarly contorted attacked ruminant, see CMS VII no. 116. For lions shown in the quadruped pose I 3, see footnote 1826.

¹⁸²⁹ E.g. the figures **388 a**, **399 b**, **453 b**, **498 a**, **548 a**, **593 b**, **604 a**, **A.3 a**.

have had a special significance as it is often found on LM depictions of humans in various art forms.¹⁸³⁰

Representational Composites

Certain representational motifs are not met independently but only occur as part of larger units composed of two or more motifs and are representational in character. Some of these motif combinations occur repeatedly and seem to have been perceived as one entity. Such devices are named representational composites.

Defining the motif combinations which were perceived as one unit is a difficult task which cannot be undertaken with objective precision. The meaning and symbolism of the existing representational images is totally unknown, such that the modern observer has to rely on external evidence in order to assess the way the images were perceived. Three criteria have been set for the definition of a motif combination as a representational composite as opposed to its viewing as a composition of abutting units. Firstly, at least one of the components of the components must be a motif which does not occur independently. Secondly, the same components must always be combined in similar schemata which occur frequently and, for that reason, cannot be perceived in any way other than as units. And thirdly, the resulting unit must represent an entity which has no narrative character whatsoever. Such an entity would be for example a set of objects of some kind as opposed to a human interacting with another motif, an animal hit by an arrow, or a suckling scene.¹⁸³¹ Such motif combinations have a narrative character and, even if they were meant to function as units, they are still compositions of different entities rather than one device.

Representational composite 1: Bow with Linear arrow

(Malia/Eastern Crete Steatite Prisms)

The device is represented by seven examples (*pl. 107*). The arrow of six examples is slanting slightly downwards and extends from the string to the limbs without projecting further than the edges of a D-shaped *Bow*.¹⁸³² On the seventh example, it extends beyond the edges of a B-shaped *Bow* and takes the form of a bar with a slightly broadening blunt head and bifurcated back.¹⁸³³

¹⁸³⁰ Compare for example the arms of the women CMS II,3 no. 51 to those of the Snake Goddess in Maaß 2000, 18 fig. 3 and of the goddess with raised arms in Marinatos 2000, 160 fig. 139.

¹⁸³¹ Human interacting with another motif: e.g. the *Man in profile* carrying a '*Pole' slung with 'String vessels'* **389** b and **502** c or holding a *Bow with Linear arrow* **191** c and **597** b. Animal hit by an arrow: e.g. **10** b, **110** a, **347** a, **394** a, **405** a, **495** a, **554** b. Suckling scene: e.g. **294** a, **425** b, **347** c (?).

¹⁸³² The arrow of **144 a** and **186 c** is missing. However, it is considered almost certain that it was configured in the same way as the arrows combined with the rest D-shaped *Bows* because all these *Bows* take part in very similar compositions.

¹⁸³³ 115 a. For a Bow with Linear arrow put together of a D-shaped Bow and a Linear arrow with broadening blunt

Bows with Linear arrow function as main devices. D-shaped *Bows with Linear arrow* are always held by *Men in profile* and are met in descriptive images. The B-shaped example constitutes the CHIC sign 048 and is combined with other script signs in an inscription.

Representational composite 2: Elongated motif slung with 'String vessels'

(Malia/Eastern Crete Steatite Prisms)

The device is represented by eighty eight examples (*pls. 107–109*). It consists of an elongated motif from whose underside issue '*String vessels*'. In seventy one examples the '*String vessels*' issue from a '*Pole*'.¹⁸³⁴ In the remaining cases, they are slung from "*Γ-bars*", "*Horn bars*", '*Π-legs*', "*T-bars*", "*Saw branches*", and "*Ladder bands*".¹⁸³⁵

The number of 'vessels' which hangs from each motif ranges from one to five. Most 'vessels' hang by two 'strings' but more rarely also free-standing examples as well as others hanging from one, three, or four 'strings' are met.¹⁸³⁶ Some 'vessels' are directly attached to the '*Pole*' without mediating 'strings' whereas occasionally, the 'vessels' which hang from one '*Pole*' show a different number of 'strings'.¹⁸³⁷

It has been noted above that depictions in which the device is carried on the shoulder of a *Man* seem to verify the opinion first expressed by Evans that at least in these cases a pole with hanging vessels is depicted.¹⁸³⁸ And that various authors have seen in free-standing representatives of the type totally different objects, i.e. in one case a raft supported by rows of empty vessels and in another a bar with hanging loom weights. Weingarten sees in the '*Poles' slung with 'String vessels'* 'a glyptic theme which illustrates the possible ritual handling of liquids'.¹⁸³⁹ All these suggestions refer to the meaning of the variation '*Pole' slung with 'String vessels'*. On the other hand, no interpretation can be proposed for the remaining variations, i.e. those on which the 'vessels' hang from other motifs. It is unknown whether these had the same or a different significance than the '*Poles' slung with 'String vessels'*.

The device functions as a main device and basic element of repetition compounds.¹⁸⁴⁰ As main devices, *Elongated motifs slung with 'String vessels'* may stand alone in an image or

head which projects beyond the limbs of the Bow, see CMS VIII no. 12.

¹⁸³⁴ A.

¹⁸³⁵ B, C, D, E, F, G respectively.

¹⁸³⁶ Free-standing: e.g. 78 b, 485 c. One 'string': e.g. 46 c, 472 c. Two 'strings': e.g. 25 a, 50 c, 71 b, 118 a, 367 b, 398 b, 495 c, 541 c. Three 'strings': e.g. 42 b, 389 b. Four 'strings': e.g. one of the 'vessels' 1 b, 464 c.

¹⁸³⁷ Directly attached to the pole: e.g. the rectangular 'vessel' **416 a** and the 'vessels' **455 c**. More than one 'vessel' hanging from the pole with a different number of 'strings': e.g. **1 b**, **464 c**, **472 c**.

¹⁸³⁸ See 'String vessels'. Device carried on the shoulders of a man: e.g. **389 b**, **502 c**; CMS II,1 no. 300 b. To these compare the depiction on CMS VI no. 25 a in which a *Man in profile* carries a '*Pole'slung with cross-legged Agrimia*.
¹⁸³⁹ Weingarten 1991, 12, also 13–14.

¹⁸⁴⁰ E.g. 64 b, 66 b, 464 c, one of the devices 490 a, 511 c.

be combined with other similar or dissimilar devices. They are encountered in descriptive, 'pictographic' and in rare cases ornamental images.¹⁸⁴¹

Compounds

Compounds are ornamental devices created either by the fusion or very close fitting of two or more devices – which can be motifs, representational composites or even other compounds – in ornamental schemata;¹⁸⁴² or by the substitution of the various parts of ornamental motifs by other devices.¹⁸⁴³ Depending on the way in which the devices which function as elements are composed as well as the size and function of each of them in the resulting compound, the latter can be subdivided into repetition compounds, supplementation compounds, border compounds, and C-spiral roof compounds. Motif combinations which do not fall to any of these categories are classified under miscellaneous compounds.

Regardless of the nature of their comprising elements, which can be representational, floral or ornamental, compounds always have an ornamental character defined by the shape they take. For that reason, within each kind they are catalogued according to their shape¹⁸⁴⁴ into classes defined by schemes and not types.

Repetition compounds

Repetition compounds are either composed of two or more fused, as a rule, similar devices or are ornamental motifs whose arms are substituted by other devices.

Compounds of the first category can consist of directly fused devices which may touch, interlock, share one of their parts, or cross each other¹⁸⁴⁵ or they can be indirectly fused by the use of intermediary ornamental motifs, such as *Lines/Bars*, *Circles*, *Triangles*, and *Parallels*.¹⁸⁴⁶ Round or ellipsoidal intermediary motifs are often partly built by elements of the combined motifs, such as for example from the united scrolls of *Paisleys*.¹⁸⁴⁷ In these cases, they can be seen as 'sealing' the joint between the similar devices. The intermediary

¹⁸⁴⁴ As opposed to the elements they consist of.

¹⁸⁴¹ Descriptive: e.g. 1 b (?), 25 a, 118 a, 261 c (?), 489 b, 502 c, 541 c. 'Pictographic': e.g. 166 b, 355 c, 416 a, 450 b, 558 b. Ornamental: e.g. 579 a.

¹⁸⁴² Motifs: e.g. the *Mirror pattern of Protomes of 'ellipse scorpions'* **470 c**; the *Mirror pattern of Lilies with 'base' a* **510 a**; the *Z-whirl of Protomes of a bovine* **571 c**; the *Two-armed whirl of Leaves with stalk* **226 c**; the *Framed Saltire* **95 c**; the *C-spiral roof compound* **357 c**. Representational composites: e.g. the *Mirror pattern of 'Poles' slung with 'String vessels'* **64 b**, **464 c**. Other compounds: e.g. the *Running Mirror pattern of Lilies with 'base' a* **475 b**.
¹⁸⁴³ E.g. the *Swastika of ''Saw branches''* **278 b**.

¹⁸⁴⁵ Touch: e.g. the *Protomes of a dog/lion* **413 a**. Interlock: e.g. the double *Centred-circles* **359 a**. Share one part: e.g. the *'Poles' slung with 'String vessels'* **464 c**. Cross each other: e.g. the *Dogs/lions* **497 c**.

¹⁸⁴⁶ Lines/Bars: e.g. 567 a, 583 a. Circles: e.g. 3 a, 93 a. Triangles: e.g. 411 b. Parallels: e.g. 599 c.

¹⁸⁴⁷ E.g. the *Circles* built at the centre of the compounds **3** a and **93** a and the *Grain ellipse* built at the centre of the device **115** b.

devices are either smaller than or as large as the repeated devices.¹⁸⁴⁸ Repetition compounds which show intermediary devices are differentiated from supplementation compounds with edge supplements in that the central devices owe their existence to the combination of the repeated devices.¹⁸⁴⁹ These latter are understood as coming first, the intermediary devices being used either as linking tools or as ornaments which create more elaborate motifs.¹⁸⁵⁰ On the other hand, the central motifs of supplementation compounds are understood as the devices which came first and were further ornamented by other motifs.¹⁸⁵¹

Not all ornamental combinations of similar motifs which abut each other are seen as compounds. It is mostly these combinations in which each of the combined elements alone cannot be seen as a main device in a meaningful way that are seen as composite ornamental units. Most often, these are combinations of devices which share one element or devices which result from the fusion of parts of representational devices.¹⁸⁵²

Only a restricted number of devices are seen as resulting from the substitution of parts of ornamental motifs from other motifs. A good example of such a device is *Swastikas* of "Saw branches" whose inner arms remain plain, probably representing the unchanged centre of the initial motif.¹⁸⁵³

It is not always possible to detect the first or second process in the creation of repetition compounds. In cases such as the compound **103 b** for example, one can either see four radially composed *Leaves* which become fused into one entity or a cross whose arms have been substituted by *Leaves*. Moreover, in some cases, devices seen as repetition compounds can be broken down also in a different way which would make them supplementation compounds. Very often, it seems that no correct answer regarding the formation of such devices actually exists. Within this framework, and in the attempt to be as objective as possible,¹⁸⁵⁴ the parsing of each device has taken into consideration also the broader iconographic context. S-shaped devices which terminate in floral forms for example have been seen as repetition compounds composed of floral motifs with stalks, the latter being conjoined at the base,¹⁸⁵⁵ and not as supplementation compounds which consist of *Ss* which

¹⁸⁴⁸ Smaller than the repeated devices: e.g. **3** a, **93** a. As large as the repeated devices: e.g. **311** c, **567** a, **536** c.

¹⁸⁴⁹ For supplementation compounds with edge supplements, see *Devices with edge supplements*.

¹⁸⁵⁰ Linking tools: e.g. the *Bars* on repetition *Z-whirls*. Elaboration ornaments: e.g. the round or ellipsoidal motifs which often 'seal' the joints of *Two-armed whirls of Paisleys*.

¹⁸⁵¹ For example, the *Centred-circles* **92 a**, **468 a**, the *Saltire* **316 b**, and the straight-stemmed *Z* **326 c** are seen as central motifs of supplementation compounds. For these compounds, see *Devices with edge supplements*.

¹⁸⁵² Devices which share one element: e.g. the fusions of '*Poles' slung with 'String vessels'* which share the '*Pole'* such as **64 b**, **464 c**. Devices resulting from the fusion of parts of representational devices: e.g. fusions of animal foreparts such as **413 a**, **470 c**. These latter devices are seen as compounds on account of the fact that by the combination of the animal foreparts a new pattern is created which functions as a main device. On the other hand, on images like **98 b** and **106 a**, the animals are seen as main devices, their combination creating a composition and not a new unit.

¹⁸⁵³ E.g. **270 b**, **278 b**.

¹⁸⁵⁴ In the attempt to analyse and understand the process of creation of new devices one works with the caveat that the subjective element is to a certain extent always present.

¹⁸⁵⁵ E.g. **44 a**, **226 b**. See *S*-whirl.

take blossoms as edge supplements.¹⁸⁵⁶ This viewing has been preferred on account of two considerations. First, on some two-armed whirls the stems of the combined vegetal motifs are not yet totally fused into a unit. Consequently, the point of contact between them can still be seen.¹⁸⁵⁷ Such two-armed whirls are considered the predessesors of *S-whirls*. And secondly, the legs which issue from the S-shaped linear band of some similar devices composed of animal protomes¹⁸⁵⁸ suggest that this represents the schematised bodies of the animals which are conjoined at the waist.¹⁸⁵⁹

Given the difficulty in assessing the process according to which each compound has been created, the parsing and description of each of them is to a certain extent conventional, being based on the subjective appreciation of each device by the present author. For that reason, it should always be kept in mind that the classification and parsing of each compound is only a suggestion and that it by no means aspires to describe with conviction the way it was created.

Some of the devices which function as basic elements of repetition compounds are also encountered as main devices but others are not.¹⁸⁶⁰ Repetition compounds can become fossilised and be treated in the same way in which motifs are. They can be used themselves as elements for the creation of other repetition and border compounds as well as supplemented devices.¹⁸⁶¹

Repetition compound 1: Running ornament/Pair – Row

(Malia/Eastern Crete Steatite Prisms, Mesara Chlorite Prisms, Central Crete Ornamental Prisms)

The scheme is represented by thirty devices (*pl. 110*). It is created by two or more adjacent similar devices which abut, share one element, interlock, or are linked by *Bars* or *Parallels*.¹⁸⁶² Compounds which consist of devices which share one element are described as *Running* ornaments and the remaining as *Pairs* or *Rows*.

¹⁸⁵⁶ For supplementation compounds with edge supplements, see *Devices with edge supplements*.

¹⁸⁵⁷ E.g. the *Two-armed whirl of 'Saw branches' with stalk* **76 b**.

¹⁸⁵⁸ E.g. **393 c**, **A.19 c**. See *S*-whirl.

¹⁸⁵⁹ I.e. part of the forms in which the S-band terminates.

¹⁸⁶⁰ Also as main devices: e.g. *Paisleys*, '*Papyrus flowers*', *Headless waterfowls*. Not met as main devices: e.g. the majority of human and animal protomes. The only protomes which function as main devices are the *Protome of a Dog/lion* **304 a** and the *Protome of a bee* **50 b**.

¹⁸⁶¹ Basic elements of repetition compounds: e.g. the *Running Mirror pattern of Lilies with 'base' a* **475 b** is a repetition compound which consists of three repetition compounds named *Mirror patterns of Lilies with 'base' a*. Basic elements of border compounds: e.g. the *Mirror pattern of 'Poles' slung with 'String vessels'* **64 b**. Supplemented devices: e.g. the *Z of Stemless paisleys* **575 b**.

¹⁸⁶² Abutting: e.g. one of the devices **328 b**, **475 b**. Sharing one element: e.g. **29 a**, **571 b**. Interlocking: e.g. **259 c**, **341 c**. Linked by *Bars* or *Parallels*: e.g. **599 c**.

The only example whose primary constituent units are floral devices is a *Running Mirror pattern of Lilies with 'base' a.*¹⁸⁶³ This is a complex device put together from three *Mirror patterns of Lilies with 'base' a* fused at the horizontal bar.

All remaining examples of the scheme consist of purely ornamental devices. Represented are a *Running Segmented rectangle, Running Disc S-spirals, a Pair of Lozenges, two Rows of Blobs, a Pair of Rings, Pairs and Rows of Centred-circles, Rows of Blobs and Centred-circles, and a Pair of S-spirals with 'Papyrus flowers' as shoulder supplements.*¹⁸⁶⁴

The Centred-circles which are combined in a Pair or a Row are either all simple or all double. Most Centred-circles, Blobs, and also the Lozenges interlock. The Segmented rectangles share one long side and the Disc S-spirals one disc. The contact point of the two Rings on the Pair of Rings is sealed by a small Two-armed whirl. The S-spirals with 'Papyrus flowers' as shoulder supplements are connected by a set of three slanting Parallels which issue from their stems.

The represented examples of the scheme function as main devices and as supplemented devices.¹⁸⁶⁵ Those which function as main devices either stand alone on the seal face or are combined with other devices in ornamental images.¹⁸⁶⁶

Repetition compound 2: Ellipse

(Malia/Eastern Crete Steatite Prisms)

The scheme is represented by one example (*pl. 111*). It is an ellipsoidal device formed by the combination of other devices.¹⁸⁶⁷ Represented is an *Ellipse of Stemless paisleys*. The two *Stemless paisleys* are arranged in 180° rotational symmetry and share their inner side.¹⁸⁶⁸

The existing device functions as a main device and stands alone on the seal face.

Repetition compound 3: Lunette

(Malia/Eastern Crete Steatite Prisms)

The scheme is represented by one example (*pl. 111*). It is a device consisting of two motifs which become fused in a way that a crescent is created. Represented is a *Lunette of*

¹⁸⁶³ A.

¹⁸⁶⁴ B, C, D, E, F, G, H, I respectively. As regards *Rows of Blobs and Centred-circles*, despite the fact that the combination consists of different motifs, their similar shape and the fact that they interlock result in the perception of the combination as an entity.

¹⁸⁶⁵ Supplemented devices: Running Disc S-spirals.

¹⁸⁶⁶ Alone: e.g. **341 c**, **475 b**, **571 b**, **599 c**. With other devices: e.g. **21 a**, **259 a**.

¹⁸⁶⁷ Or an *Ellipse* whose interior takes the form of other devices? For a discussion on the subject of the difficulty in identifying the process of creation of the compounds, see pp. 305–306.

¹⁸⁶⁸ For a circle whose interior takes the form of *Stemless paisleys*, see the centre of the *Two-armed whirl of Leaves with stalk* CMS III no. 238 c.

Heads of a 'dog/lion with hook'. The *Heads of a 'dog/lion with hook'* are fused at the base of the necks.

The existing device functions as a main device and is combined with a motif in a 'pictographic' (?) image.

Repetition compound 4: S-whirl

(Malia/Eastern Crete Steatite Prisms, Prisms with EM III/MM I Influences)

The scheme is represented by twenty one examples (*pls. 111–112*). It is a device formed by the combination of two motifs arranged in 180° rotational symmetry and fused in an S-shaped entity. The contact point of the basic elements on *S-whirls* is not visible. The combined motifs on the represented examples are fused at the base.

Composed of representational motifs are S-whirls of Protomes of a bovine, of Protomes of a dog/lion, of Protomes of a quadruped, of Busts of a dog/lion, and of Busts of a quadruped.¹⁸⁶⁹

The devices which consist of floral motifs are *S*-whirls of Leaves with stalk, of Paisleys, and of 'Star flowers'.¹⁸⁷⁰ The S-shaped stem of one example takes the form of a hatched *Grain ellipse*¹⁸⁷¹ and is easily comparable to the stems of some *S*-spirals.¹⁸⁷² Also represented is an *S*-whirl of Unidentifiable motifs LXIV.¹⁸⁷³

S-whirls function as main devices and as supplemented devices.¹⁸⁷⁴ As main devices, they always stand alone on the seal face.

Repetition compound 5: Z

(Malia/Eastern Crete Steatite Prisms)

The scheme is represented by one example (*pl. 112*). It is a device formed by the combination of two similar motifs arranged in 180° rotational symmetry and fused in such a way that a Z-shaped entity which is meant to stand vertically is created.¹⁸⁷⁵ The arms of the existing device are connected by an elongated intermediary motif.

Represented is a *Z* of *Stemless paisleys*, the *Stemless paisleys* being connected by a *Bar*. The device functions as a supplemented device.

¹⁸⁶⁹ A, B, C, D, E respectively.

¹⁸⁷⁰ F, G, H respectively.

¹⁸⁷¹ **226 b**.

¹⁸⁷² E.g. 287 b, 475 c.

¹⁸⁷³ I.

¹⁸⁷⁴ Main devices: e.g. 44 a, 226 b, 393 c, 410 c. Supplemented devices: e.g. 87 c, 287 a.

 $^{^{1875}}$ Or a Z whose arms take the form of other devices? For a discussion on the subject of the difficulty in identifying the process of creation of compounds, see pp. 305–306.

Repetition compound 6: Z-whirl

(Malia/Eastern Crete Steatite Prisms)

The scheme is represented by twenty examples (*pls. 112–113*). It is a device formed by the combination of two similar devices arranged in 180° rotational symmetry and fused in such a way that a Z-shaped entity which is meant to stand horizontally is created.¹⁸⁷⁶ The combined motifs can be directly fused or be connected by an elongated intermediary motif.¹⁸⁷⁷

Composed of representational motifs are *Z*-whirls of 'Beaked busts with ponytail', of *Protomes of a dog/lion,* and of *Headless dogs/lions.*¹⁸⁷⁸ The animal protomes are fused at the waist and the headless animals at the top of the necks. While most of these compounds are directly fused, two examples also exist whose arms are connected by an intermediary *Bar.*¹⁸⁷⁹

The devices which consist of floral motifs are *Z*-whirls of 'Wheat stalks', of 'Ivy leaves' with stalk, of Shamrocks a, of 'Fern branches', of "Saw branches", and of Stemless paisleys.¹⁸⁸⁰ All these compounds are indirectly fused by the mediation of a Bar or an elongated Grain ellipse.¹⁸⁸¹

Repetition *Z*-whirls function as main devices and as supplemented devices.¹⁸⁸² As main devices, they always stand alone on the seal face.

Repetition compound 7: Z-whirl with curved arms

(Malia/Eastern Crete Steatite Prisms)

The scheme is represented by five examples (*pl. 113*). It is a device formed by the combination of two similar devices arranged in 180° rotational symmetry and fused in such a way that a Z-shaped entity with inwards curved arms which is meant to be seen horizontally is created. The combined motifs can be directly fused or be connected by an elongated intermediary motif.¹⁸⁸³

Composed of representational motifs are a Z-whirl with curved arms composed of Protomes of a bovine, a Z-whirl with curved arms composed of Busts of a 'snake', and a

¹⁸⁷⁶ Or in some cases, e.g. **280 c** and **567 a**, a *Z*-*whirl* whose arms take the form of other devices? For a discussion on the subject of the difficulty in identifying the process of creation of compounds, see pp. 305–306.

¹⁸⁷⁷ Directly fused: e.g. **182 c**, **288 a**. Intermediary motif: e.g. **18 b**, **280 c**, **567 a**, **583 a**.

¹⁸⁷⁸ A, B, C respectively. Repetition *Two-armed whirls, Z-whirls*, and *S-whirls* of figural parts cannot always be clearly distinguished from each other. The classification is to a great extent based on the appreciation of the shape of the compound and is consequently not always absolute. As a rule, *Z*- and *S-whirls* show the corresponding shapes whereas in the *Two-armed whirls* the figural parts are combined in less flowing and less easily definable shapes. ¹⁸⁷⁹ B 2.

¹⁸⁸⁰ D, E, F, G, H, I respectively.

¹⁸⁸¹ Grain ellipse: **18 b**, 77 c, **536 c**.

¹⁸⁸² Main devices: e.g. 182 c, 569 a. Supplemented devices: e.g. 115 c, 557 c.

¹⁸⁸³ Directly fused: e.g. **415 b**, **492 a**, **505 b**, **571 c**. Intermediary motif: e.g. **A.8 b**.

Z-whirl with curved arms composed of 'Boars with centipede legs'.¹⁸⁸⁴ All the motifs of these compounds are fused at the waist or neck. The *Protomes of a bovine* and the '*Boars with centipede legs'* are directly fused, the former simply abutting, the latter sharing torso and legs. The *Busts of a 'snake'* are connected by a *Bar*.

Represented are also two examples of *Z*-whirls with curved arms composed of "Toothed sickles".¹⁸⁸⁵ The "Toothed Sickles" are directly fused, sharing their straight part.

Z-whirls with curved arms function as main devices. All but one example, which is combined with fillers,¹⁸⁸⁶ stand alone on the seal face.

Repetition compound 8: Meander Z

(Malia/Eastern Crete Steatite Prisms)

The scheme is represented by two examples (*pl. 113*). It is a device formed by the combination of two similar devices arranged in 180° rotational symmetry and fused in such a way that a meander-shaped entity is created.¹⁸⁸⁷ The combined motifs can be directly fused or be connected by an intermediary motif.¹⁸⁸⁸

Represented are a *Meander Z of Protomes of a horned ruminant* and a *Meander Z of 'Poles' slung with 'String vessels'*.¹⁸⁸⁹ The *Protomes of a horned ruminant* are directly fused at the waist whereas the '*Poles' slung with 'String vessels'* are connected by an intermediary "*Ladder band*".

One of the existing repetition *Meander Zs* functions as a main device and one as a supplemented device.¹⁸⁹⁰ The example which functions as a main device stands alone on the seal face.

Repetition compound 9: Mirror pattern

(Malia/Eastern Crete Steatite Prisms, Mesara Chlorite Prisms, British Museum Prisms)

The scheme is represented by twenty three examples (*pls. 113–114*). It is an entity formed by the fusion of two antithetical devices which abut or share one element.¹⁸⁹¹

Composed of representational motifs are *Mirror patterns of Protomes of a man, of Protomes of a dog/lion, of Protomes of an 'ellipse scorpion', and of 'Poles' slung with*

¹⁸⁹¹ Abutting: e.g. the *Lilies with 'base' a* **368 a**. Sharing one element: e.g. the *'Poles' slung with 'String vessels'* **464 c**.

¹⁸⁸⁴ A, B, C respectively.

¹⁸⁸⁵ D.

¹⁸⁸⁶ **A.8** b.

¹⁸⁸⁷ Or in the case of **511 c** a *Meander Z* whose outer arms and body take the form of other devices? For a discussion on the subject of the difficulty in identifying the process of the creation of compounds, see pp. 305-306.

¹⁸⁸⁸ Directly fused: e.g. **394 c**. Intermediary motif: e.g. **511 c**.

¹⁸⁸⁹ A and B respectively.

¹⁸⁹⁰ Main device: **394 c**. Supplemented device: **511 c**.

'String vessels'.¹⁸⁹² The protomes are fused at the waist whereas the 'Poles' slung with 'String vessels' share the 'Pole'. Two examples of these devices are composed of somewhat different motifs. The first is **387 c**, whose one Protome of a dog/lion looks in front and has an open mouth and the other looks to the back and has a closed mouth. The second is **490 a** which differs from the others in that while from one side of the 'Pole' hang three 'String vessels', from the other only one hangs. This asymmetry can be seen as the result of lack of space on the seal face as next to the almost plain side of the 'Pole' a Man in profile is depicted. The Mirror pattern of Protomes of an 'ellipse scorpion' finds an excellent match on one side of a hippo ivory stamp cylinder from Archanes.¹⁸⁹³ The fact that all legs of the latter device are curved towards one direction suggests that, to a certain extent, it still has a representational character.¹⁸⁹⁴

Put together of floral motifs are *Mirror patterns of 'Wheat stalks'* (?), of Leaves with stalk, of Lilies with 'base' a, of 'Lily flowers', and of Papyrus triangles.¹⁸⁹⁵ The constituent motifs of all these examples are fused at their base. The combination of the conical bases of some Lilies with 'base' a creates a lozenge-shaped thickening at the centre of the compound which is reminiscent of the similar element of some "Columns".¹⁸⁹⁶ In one case, two slightly different Lilies with 'base' a are combined with each other.¹⁸⁹⁷

Mirror patterns function as main devices, basic elements of other repetition compounds, basic elements of border compounds, basic elements of miscellaneous compounds, and perhaps supplemented devices.¹⁸⁹⁸ As main devices they can stand alone on the seal face or be combined with other motifs and are encountered in 'pictographic' and ornamental images.¹⁸⁹⁹

¹⁸⁹² A, B, C, D respectively. In favour of the reading of the device **88** c as a *Mirror pattern of Protomes of a man* and not as a *Spider* is the fact that its centre is marked by a blob. Blobs are often used to render the torso of human figures, e.g. the *Men in profile* **355** a and **579** c, but never mark the waist of *Spiders*.

¹⁸⁹³ Sakellarakis – Sapouna Sakellaraki 1997, 678 fig. 762.

¹⁸⁹⁴ Another abstract pattern of an 'ellipse scorpion' is encountered on the hippo ivory CMS II,1 no. 254 d. This, in combination with the fact that 'ellipse scorpions' are common on hippo ivory seals (e.g. CMS II,1 nos. 225 b, 248 b, 250 b) but are only found once (?) on a steatite seal (CMS IV no. 61), suggests that the process of creating ornamental patterns out of 'ellipse scorpions' took place on the hippo ivory glyptic (for a discussion of the device CMS IV no. 61 and its possible readings, see footnote 1147). It would seem that the *Mirror pattern of Protomes of 'ellipse scorpions'* 470 c was copied from there as such.

¹⁸⁹⁵ E, F, G, H, I respectively.

¹⁸⁹⁶ See the "*Columns*" **60 c** and **235 a**.

¹⁸⁹⁷ **345 c**.

¹⁸⁹⁸ Main devices: e.g. **88 c**, **143 b**, **345 c**, and **413 a**. Basic elements of other repetition compounds: e.g. **475 b**. Basic elements of border compounds: e.g. **64 b**. Basic elements of miscellaneous compounds: **30 c**, **362 b**. Supplemented devices (?): **514 c**.

¹⁸⁹⁹ 'Pictographic': e.g. 88 c. Ornamental: e.g. 143 b.

Repetition compound 10: Triskeles/Triangle pattern

(Malia/Eastern Crete Steatite Prisms, Mesara Chlorite Prisms, Central Crete Ornamental Prisms)

The scheme is represented by five examples (*pl. 114*). As repetition *Triskeles* are described devices which can be seen as created by the fusion of three motifs in a radial shape which has three arms;¹⁹⁰⁰ and as *Triangle patterns* devices formed by the combination of three round abutting or interlocking motifs arranged in a triangular configuration. The arms of the existing examples are directly fused.

Floral motifs are combined in a *Triskeles of Shamrocks a*.¹⁹⁰¹ Consisting of ornamental motifs are a *Triskeles of Centred-lunettes*, a *Triangle pattern of Blobs*, and two *Triangle patterns of Centred-circles*.¹⁹⁰² The represented *Triangle patterns of Centred-circles* are composed of double *Centred-circles* whereas on the surface of one *Centred-circle* on one pattern is drilled a *Blob*.¹⁹⁰³

Most of the existing repetition *Triskeles* and *Triangle patterns* function as main devices. Only one example could perhaps be seen as a filler.¹⁹⁰⁴ As main devices, these patterns stand alone on the seal face or are combined with other motifs and are encountered in ornamental images.¹⁹⁰⁵

Repetition compound 11: Cross/Saltire/Cross pattern

(Malia/Eastern Crete Steatite Prisms, Prisms with EM III/MM I Influences, Mesara Chlorite Prisms, Central Crete Ornamental Prisms)

The scheme is represented by twenty one examples (*pls. 114–115*). Those devices which can be seen as created by the fusion of two or more motifs in a radial shape which has four arms are described as repetition *Crosses/Saltires*.¹⁹⁰⁶ Devices formed by loosely combined round motifs which abut or interlock and are arranged in a cross configuration are described as *Cross patterns*. The repeated motifs of all examples are directly fused. Depending on the way the compound is composed two, four, or five motifs can make up its basic elements.¹⁹⁰⁷

Representational motifs are combined in a *Cross of Spiders* and in *Crosses of Amphorae*.¹⁹⁰⁸ These compounds have a blob as a centre which also comprises a shared element of their constituent motifs, i.e. the head of *Spiders* and the base of *Amphorae*.

¹⁹⁰⁰ Some devices such as **101 b** could also be seen as *Triskeles* whose arms take the form of other devices. For a discussion on the subject of the difficulty in identifying the process of creation of compounds, see pp. 305-306. ¹⁹⁰¹ A

¹⁹⁰² B, C, D respectively.

¹⁹⁰³ 133 a.

¹⁹⁰⁴ **439 b** (?).

¹⁹⁰⁵ Alone: e.g. **83 c**, **85 c**, **101 b**. With other devices: e.g. **133 a**.

¹⁹⁰⁶ Some devices e.g. **341 a** could also be seen as *Crosses* whose arms take the form of other devices. For a discussion on the subject of the difficulty in identifying the process of creation of compounds, see pp. 305–306. ¹⁹⁰⁷ Two: e.g. **523 c**. Four: e.g. **91 c**, **359 a**. Five: e.g. **328 a**, **409 c**.

¹⁹⁰⁸ A and B respectively.

Floral motifs are combined in *Crosses of Leaves with stalk, of 'Lily flowers'*, and *of Leaves*.¹⁹⁰⁹ The compound **431 a** is asymmetrical in that the blossoms of two of the '*Lily flowers'* are bi- instead of trifurcated. This inconsistency could be due to a lack of space in order to render the third spike.

Composed of ornamental motifs are *Saltires of Ellipses*, a *Cross pattern of Blobs*, and *Cross patterns of Centred-circles*.¹⁹¹⁰ The first of these compounds is created by two *Ellipses* which cross each other. The represented *Cross patterns of Centred-circles* are composed of single *Centred-circles*, double *Centred-circles*, or a combination of the two.¹⁹¹¹ Occasionally, some of the *Blobs* or *Centred-circles* on *Cross patterns* are placed at some distance to each other.¹⁹¹²

Repetition *Crosses/Saltires* and *Cross patterns* function as main devices and as supplemented devices.¹⁹¹³ As main devices, they stand alone on the seal face or, more rarely, are combined with other motifs. They are encountered in ornamental images.¹⁹¹⁴

Repetition compound 12: Star/Rosette pattern

(Malia/Eastern Crete Steatite Prisms, Central Crete Ornamental Prisms)

The scheme is represented by four examples (*pl. 115*). Repetition *Stars* correspond to those devices which can be seen as created by the fusion of similar motifs in a radial shape which has five or more arms.¹⁹¹⁵ *Rosette patterns* represent devices formed by loosely combined round motifs which abut or interlock and are arranged in a configuration which resembles a rosette. The repeated motifs of all existing examples are directly fused.

Floral motifs are combined in *Stars of 'Wheat stalks'*.¹⁹¹⁶ Composed of ornamental motifs are a *Rosette pattern of Blobs* and one *of Centred-circles*.¹⁹¹⁷ The surrounding *Blobs* of the *Rosette pattern of Blobs* are placed at some distance from the centre. The *Rosette pattern of Centred-circles* is composed of a double *Centred-circle* surrounded by single *Centred-circles*.

The existing repetition *Stars* and *Rosette patterns* function as main devices and stand alone on the seal face.

¹⁹⁰⁹ C, D, E respectively.

¹⁹¹⁰ F, G, H respectively.

 ¹⁹¹¹ Single *Centred-circles*: e.g. 16 a. Double *Centred-circles*: e.g. 133 b. Single and double *Centred-circles*: e.g. 21 b.
 ¹⁹¹² E.g. 328 a, 572 a.

¹⁹¹³ E.g. the repetition *Saltires* **30 b** and **523 c**.

¹⁹¹⁴ Alone: e.g. **341 a**, **359 a**, **564 c**. With other motifs: e.g. **16 a**, **572 a**.

¹⁹¹⁵ Some devices, e.g. **391 b**, could also be seen as *Stars* whose arms take the form of other devices. For a discussion on the subject of the difficulty in identifying the process of creation of compounds, see pp. 305–306.

¹⁹¹⁶ A.

¹⁹¹⁷ B and C respectively.

Repetition compound 13: Two-armed whirl (Malia/Eastern Crete Steatite Prisms)

The scheme is represented by twenty one examples (*pls. 115–116*). It is a device formed by the combination of two motifs arranged in 180° rotational symmetry and fused in a scheme which resembles a *Two-armed whirl*.¹⁹¹⁸ The repeated motifs can be directly or indirectly fused.

Composed of representational motifs are *Two-armed whirls of Protomes of a dog/lion*, one *of a Protome of a dog/lion and a Protome of a horned ruminant*, and two *of Headless waterfowls*.¹⁹¹⁹ The protomes are fused at the waist and the headless animals at the root of the neck whereas all motifs are directly fused. In one case, the configuration of the legs of the combined protomes is different.¹⁹²⁰

Floral motifs are combined in *Two-armed whirls of 'Saw branches' with stalk, of Paisleys, of 'Nose paisleys', of 'Papyrus flowers'*, and *of 'Lily flowers'*.¹⁹²¹ On all but one example, the motifs are fused at their base. The exception is **317 a** whose '*Papyrus flowers'* are fused at the blossoms. Most of the combined motifs have bent stalks which terminate in scrolls.¹⁹²² The point of contact between the two basic elements either remains plain, sometimes with the two devices barely touching, or is 'sealed' by a blob, a hatched *Grain ellipse*, a single or double *Circle*, or a *Wheel*.¹⁹²³

Repetition *Two-armed whirls* function as main devices and as supplemented devices.¹⁹²⁴As main devices, they stand alone on the seal face or, occasionally, are combined with other motifs in ornamental images.¹⁹²⁵

Repetition compound 14: Three-armed whirl (?)¹⁹²⁶ (Malia/Eastern Crete Steatite Prisms)

The scheme is represented by one example (*pl. 116*). It is either a *Three-armed whirl* whose arms take the form of other motifs or a device formed by the combination of three motifs arranged in 120° rotational symmetry and fused in a configuration which resembles a *Three-armed whirl*.¹⁹²⁷

¹⁹¹⁸ Or in some cases, e.g. **35 b** and **311 c**, a *Two-armed whirl* whose arms take the form of other devices? For a discussion on the subject of the difficulty in identifying the process of creation of compounds, see pp. 305–306. ¹⁹¹⁹ A, B, C respectively.

¹⁹²⁰ **289 c**.

¹⁹²¹ D, E, F, G, H respectively.

¹⁹²² Only the stalks of the basic elements of **76 b** do not terminate in spirals.

¹⁹²³ Plain: e.g. **149 a**. Barely touching: e.g. **446 b**. 'Sealed' by a blob: e.g. **35 b**, **445 c** (in such cases, the possibility exists that, like on *Disc S-spirals*, the blob has substituted the scroll formed by the stalk of the motifs). 'Sealed' by a hatched *Grain ellipse*: e.g. **115 b**. 'Sealed' by a single or double *Circle*: e.g. **3 a**, **93 a**. 'Sealed' by a *Wheel*: e.g. **311 c**. ¹⁹²⁴ E.g. **115 b**, **555 b**.

¹⁹²⁵ Alone: e.g. **3 a**, **559 b**. With other motifs: e.g. **135 c**.

¹⁹²⁶ See footnote 1928.

¹⁹²⁷ For a discussion on the subject of the difficulty in identifying the process of creation of compounds, see pp. 305–306.

Represented is a *Three-armed whirl of "Saw branches"*. The centre of the device takes the form of a large triangle from whose corners issue the arms. One of the branches is S-shaped and lacks dentation.¹⁹²⁸

The existing representation functions as a main device and stands alone on the seal face.

Repetition compound 15: Four-armed whirl (Malia/Eastern Crete Steatite Prisms)

The scheme is represented by nine examples (*pl. 116*). It is a device formed by the combination of four motifs arranged in 90° rotational symmetry and fused in a configuration which resembles a *Four-armed whirl*.¹⁹²⁹

Represented are *Four-armed whirls of 'Beaked' busts, of Busts of a dog/lion,* and one *of three Headless ruminants* (?)¹⁹³⁰ *and a 'Beaked' bust.*¹⁹³¹ The '*Beaked' busts* and the protomes issue from the centre by their base and the headless animals by the top of the neck. The centre of some devices is 'sealed' by a blob.¹⁹³²

Repetition *Four-armed whirls* function as main devices. They can stand alone on the seal face or be combined with each other or other devices.¹⁹³³ They take part in ornamental images.

Repetition compound 16: Swastika

(Malia/Eastern Crete Steatite Prisms)

The scheme is represented by nine examples (*pl. 117*). It is either a *Swastika* whose arms have been substituted by other devices, or a device formed by the combination of two or four motifs fused in a configuration which resembles a *Swastika*.

Consisting of representational motifs are a *Swastika of Dogs/lions* and two *Swastikas of Legs with claws*.¹⁹³⁴ The first device is created by the combination of two *Dogs/lions* which cross each other at the waist. It differs from the rest in that its arms are dissimilar, the two being represented by the foreparts and two by the hindquarters of the animals. The second compound is put together by the direct fusion of four *Legs with claws* at their upper part.

¹⁹²⁸ It is not certain whether the lack of dentation is intentional or whether it is due to abrasion or incompletion. In the case that the arm was intentionally left plain, the possibility exists that a representational device was depicted and not a repetition compound.

¹⁹²⁹ Or in some cases, e.g. **123 a** and **480 c**, a *Four-armed whirl* whose arms take the form of other devices? For the subject of the difficulty in identifying the process of creation of repetition compounds, see pp. 305–306. ¹⁹³⁰ For this subject, see footnote 1099.

¹⁹³¹ A, B, C respectively.

¹⁹³² E.g. the centre of **73 c**, **480 c**.

¹⁹³³ Alone: e.g. **123 a**. With each other: e.g. **480 c**. With other devices: e.g. **84 c**.

¹⁹³⁴ A and B respectively.

Floral devices are combined in a *Swastika of 'Fir branches'* and in four *Swastikas of 'Saw branches"*.¹⁹³⁵ The inner arms of all but one example of these compounds remain plain, perhaps attesting to the transformation of motif *Swastikas* into repetition *Swastikas*.¹⁹³⁶ An exception is the inner arms of **291 a** which show dentation. Finally, a *Swastika of Stalk triangles*, whose basic elements are fused directly at their base, is composed of purely ornamental devices.¹⁹³⁷

The existing repetition *Swastikas* function as main devices. They stand alone on the seal face or are combined with other devices and are encountered in ornamental images.¹⁹³⁸

Repetition compound 17: Whirl

(Malia/Eastern Crete Steatite Prisms)

The scheme is represented by thirteen examples (*pl. 117*). It is a device formed by the combination of five or more motifs arranged in rotational symmetry and fused in a configuration which resembles a *Whirl*.¹⁹³⁹

Comprised of representational devices are *Whirls of 'Beaked' busts* and a *Whirl of three* '*Beaked' busts, a Protome of a dog/lion, and an Unidentifiable motif XXXIX.*¹⁹⁴⁰ The centre of some devices is 'sealed' by a blob.¹⁹⁴¹ A *Whirl of 'Fir branches'* is composed of floral motifs.¹⁹⁴²

Repetition *Whirls* function as main devices. They either stand alone on the seal face or, more rarely, are combined with other devices.¹⁹⁴³ They take part in ornamental images.

Repetition compound 18: Swastika cross

(Mesara Chlorite Prisms)

The scheme is represented by one example (*pl. 118*). It is either a *Swastika cross* whose arms take the form of other devices or a device formed by the combination of similar motifs fused in a configuration which resembles a *Swastika cross*.¹⁹⁴⁴

Represented is a *Swastika cross of Leaves*. This device functions as a main device and stands alone on the seal face.

¹⁹³⁵ C and D respectively.

¹⁹³⁶ For a discussion on the subject of the difficulty in identifying the process of creation of compounds, see pp. 305–306.

¹⁹³⁷ E.

¹⁹³⁸ Alone: e.g. 6 b, 426 a, 497 c. With other devices: e.g. 278 b, 529 a.

¹⁹³⁹ Or in some cases, e.g. **82 b** and **225 a**, a *Whirl* whose arms take the form of other devices? For a discussion on the subject of the difficulty in identifying the process of creation of compounds, see pp. 305–306.

¹⁹⁴⁰ A and B respectively.

¹⁹⁴¹ E.g. 82 b and 408 b.

 $^{^{1942}}$ C.

¹⁹⁴³ Alone: e.g. **82 b**. With other devices: e.g. **39 c**.

¹⁹⁴⁴ For the subject of the difficulty in identifying the process of creation of compounds, see pp. 305–306.

Repetition compound 19: Miscellaneous repetition compounds

This is a section for the presentation of repetition compounds which do not take on any of the above discussed ornamental schemes (*pl. 118*).

I. *Repetition compound of Protomes of a man*?¹⁹⁴⁵ If yes, the protomes are arranged in 180° rotational symmetry and are fused at the waist. Of particular interest is the fact that in the image each protome touches a *"Saw branch"*. This could suggest that the whole combination *Protome of a man* with *"Saw branch"* has been treated as a unit and has been doubled such that it can be used as part of a repetition compound. (Malia/Eastern Crete Steatite Prisms)

II. A repetition compound created by the fusion of two *Line combs* arranged in 180° rotational symmetry and sharing the main bar. It can be named a *Double Line comb*. (Central Crete Ornamental Prisms)

III. Four repetition compounds each of which consists of a large double or triple *Centred-circle* combined with one, two, or three adjacent small single *Centred-circles* which abut or interlock with its outer ring. The device, which is reminiscent of the *Rosette patterns* composed of the same motif, can be named *Gear combination*. (Central Crete Ornamental Prisms)

Supplementation compounds

Ornamental or, more rarely, floral devices are often adorned by the adhesion of small floral or ornamental motifs which function as supplements.¹⁹⁴⁶ Exceptional is the use of representational motifs as supplemented devices in two cases and as supplements in a further three cases.¹⁹⁴⁷ The units built by the adhesion of supplements on other devices are named supplementation compounds and are, with a few exceptions, characteristic of the Malia/Eastern Crete Steatite Prisms.¹⁹⁴⁸

Most often, supplements adhere to symmetrical radial or rotational devices and occur in groups of similar units arranged symmetrically on the surface of the supplemented device.¹⁹⁴⁹ On devices built along the lines of 180° rotational symmetry for example, they

¹⁹⁴⁵ The similarity of the pattern **10 c** with the *Unidentifiable motif LXII* whose linear central element cannot be interpreted as a *Repetition compound of Protomes of a man* does not allow an assertive identification of the middle device **10 c** as a compound. It is not clear whether **10 c** and **526 a** are meant to depict one thing or whether their similarity is accidental. In the case that they do depict the same thing, the whole pattern **10 c** would probably constitute one motif and its parsing in a *Repetition compound of Protomes of a man* and two "*Saw branches*" would be erroneous.

¹⁹⁴⁶ For the motifs which function as supplements, see pp. 163–164.

¹⁹⁴⁷ Supplemented devices: 206 b. Supplements: 337 c, 544 a, 567 a.

¹⁹⁴⁸ The atypical supplementation compound **337 c** is carved on a Mesara Chlorite Prism. The *Cross pattern* **328** a which is, in the broader sense, supplemented by *Centred-circles*, is encountered on a Central Crete Ornamental Prism. *Border supplements* are often encountered on devices carved on the Prisms with EM III/MM I Influences. ¹⁹⁴⁹ E.g. **9 a**, **9 c**, **82 a**, **86 c**, **195 b**, **264 c**, **452 b**, **523 c**, **532 c**, **533 a**, **539 c**.

appear in pairs of similar units, each of which sits on rotationally opposite parts of the supplemented.¹⁹⁵⁰ Exceptions are the *S-spirals* **52 c**, each of which shows two supplements, one sitting on a vortex and the other on its back. This asymmetry in each of the supplemented devices is counteracted by their composition. The two are arranged in 180° rotational symmetry, such that within the composition each two supplements issuing from the same part of the two *S-spirals* function as a pair. Something similar can be said of the single supplements which ornament the scrolls of the *Paisleys* **553 c** and **521 a** and the bases of the *Amphorae* **206 b**. In all these cases, the two supplemented devices are arranged in 180° rotational symmetry such that the two supplements function as a pair which ornaments rotationally opposite parts of the composition. Only in two cases, **435 c** and **586 b** do one or two supplements issue from a device without finding a symmetrically placed counterpart in the overall composition.

Depending on the part of the device to which the supplements adhere, the latter take different names: Angle/curve supplements issue from the interior of an angle or a curve respectively; shoulder supplements sit on the backside of a curve or an angle; body supplements adhere to the body of the supplemented; edge supplements are attached to the edges of a device; and border supplements adhere to the periphery of *Borders*.¹⁹⁵¹

The majority of supplements are smaller than the device to which they adhere such that the fusion of the two results in a pattern whose character is defined by the supplemented device, the supplements being simple ornaments of secondary importance. Thus, the existence of supplements is justified only because of the existence of the supplemented device. The *S-spirals* **210 b** and **557 b** for example can be best described as *S-spirals with 'Papyrus flowers' as curve* and *shoulder supplements* respectively and the *Z-whirl* **470 b** as *Z-whirl with 'Wheat stalks' as angle supplements*.

However, in a few cases this balance is disturbed because the supplements play an active role in the formation of new ornamental schemes. The first such case is when supplements become as large as the supplemented device, such that the resulting compounds take ornamental shapes which are known from motifs and repetition compounds. **226 c** for example is a supplementation compound which consists of an *S-spiral with Leaves with stalk as shoulder supplements*. However, in this case, the leaves have become as large as the *S-spiral* and predominate in the composition such that a two-armed whirl is formed.¹⁹⁵² The role of the leaves in the compilation has become more important since they, and not the *S-spiral*, define the image theme.

A second case in which supplements can play a primary role in the composition is when they sit on the edges of the supplemented devices.¹⁹⁵³ By being placed on the edges of a device, supplements can appear not as its ornaments but as its basic parts, playing in that way

¹⁹⁵⁰ E.g. **470 b**, **452 b**, **539 c**, **591 c**.

¹⁹⁵¹ See Devices with angle/curve supplements; Devices with shoulder supplements; Devices with body supplements; Devices with edge supplements; Devices with border supplements.

¹⁹⁵² For the scheme two-armed whirl, see 'Appendix 5'.

¹⁹⁵³ See *Devices with edge supplements*.

a significant role in the definition of its character.¹⁹⁵⁴ More to the point, equally significant are edge supplements and supplemented devices when through the combination of the two a new ornamental scheme is created which is known from motifs. The combination of the double *Centred-circles* with the *'Papyrus flowers'* on **92 a** and of the *'Wheat stalks'* with the *Saltire* on **316 b** for example, creates a two-armed whirl and a half swastika respectively in which each of the fused elements is of equal significance.¹⁹⁵⁵

Supplementation compounds are classified according to the kind of supplements they take. Like repetition compounds, they can occasionally become fossilised and be treated as motifs. They can be used themselves as basic elements for the creation of repetition or border compounds but also as supplemented devices which become further supplemented.¹⁹⁵⁶

Supplementation compound 1: Devices with angle/curve supplements (Malia/Eastern Crete Steatite Prisms, Central Crete Ornamental Prisms)

Sixty eight devices with angle/curve supplements are represented (*pls. 119–121*).¹⁹⁵⁷ The supplements spring out of the angles/curves and are directed outwards. Occasionally, they sit a little bit further out, on one of the long sides of each arm.¹⁹⁵⁸ In one case, they do not issue from the angles of the supplemented device but sit on them such that the resulting compound takes a roughly rectangular shape.¹⁹⁵⁹ When adorning radial shapes, angle supplements either issue from all angles or only from antithetical ones.¹⁹⁶⁰ Groups of angle/curve supplements ornament *S-spirals*, *Running Disc S-spirals*, repetition *Two-armed whirls*,¹⁹⁶¹ supplementation *Four-armed whirl spirals*, *Zs*, repetition *Zs*, repetition

¹⁹⁵⁴ The *Chevrons* **475 b** and the *Heads of animals* **337 c** appear as basic parts of the compounds such that their viewing as separate units seems unnatural.

¹⁹⁵⁵ For a table of the various ornamental schemes, see 'Appendix 5'.

¹⁹⁵⁶ Basic elements of repetition compounds: e.g. the *S-spirals with 'Papyrus flowers' as shoulder supplements* **599 c**. Basic elements of border compounds: e.g. the *Border with Spike rows as border supplements* **64 b**. Supplemented devices: e.g. the supplementation *Four-armed whirl spiral* **362 c**. This device, which is created by the combination of an *S-spiral* with two *J-spirals* which function as body supplements (*S-spiral with J-spirals as body supplements*), is further supplemented by four *'Papyrus flowers'* which function as curve supplements (*Four-armed whirl spiral with 'Papyrus flowers' as curve supplements*).

¹⁹⁵⁷ In this number are included the devices which only take one pair of supplements. For further examples of devices which take angle/curve supplements, see *Devices with more than one pair of supplements*.

¹⁹⁵⁸ E.g. 281 a, 370 c.

¹⁹⁵⁹ **328 a**.

¹⁹⁶⁰ From all angles: e.g. 51 c, 237 b, 427 a. From antithetical angles: this is often the case with saltires, e.g. 24 a, 523
c. The *Saltire pommée* 321 c is an exception as only three of four angles take supplements.

¹⁹⁶¹ The supplements of repetition *Two-armed whirls* which are composed of floral motifs can also be seen as issuing from the scrolls of each individual motif. Each of the *Paisleys* **115 b** for example is also a motif which takes a curve supplement, like **435 c**; and each of the *'Papyrus flowers'* **555 b** a motif which takes a shoulder supplement, similarly to the *Paisleys* **521 a**. However, the main role of such supplements is understood as that of ornamenting the curves of the broader iconographic unit, in a similar fashion to that of the supplements of repetition *Z-whirls*, and not each element by itself.

Z-whirls, Triskeles pommée, Crosses/Saltires, Quatrefoils, Cross/Saltire pommée, repetition *Crosses/Saltires, and Mirror patterns.*¹⁹⁶² Individual curve supplements are encountered on the scrolls of *Paisleys.*¹⁹⁶³

The most common motifs used as curve supplements are '*Papyrus flowers*'. Occasionally, '*Lily flowers*', '*V-flowers*', *Shamrocks b*, and *Stemless paisleys* are also met. Most often used as angle supplements are '*Wheat stalks*', '*Lily flowers*', and '*Papyrus flowers*'. Occasionally, also '*Ivy leaves*' with stalk, *Js*, *Hook spirals*, *Spike rows*, *Lines*, and *Centred-circles* are used. Depending on the supplemented device, a preference for certain supplements is observed. '*Wheat stalks*' for example, are very popular with *Zs*, '*Papyrus flowers*' with repetition *Z-whirls* and repetition *Two-armed whirls*, and '*Lily flowers*' with *Cross/Saltire pommée*.

In three cases, broader ornamental schemata are created which take precedence in the composition. The '*Ivy leaves*' with stalk **281 a** sit on the inner sides of the arms of the Z and extend outwards considerably such that a supplementation *Two-armed whirl* is created.¹⁹⁶⁴ By the addition of the *Js*, a supplementation *Swastika cross* is formed on **370 c** and a *Whirl Saltire* on **205 a**, this latter being a scheme which is not encountered on motifs and repetition compounds.¹⁹⁶⁵

All the existing examples of *Devices with angle/curve supplements* function as main devices. They either stand alone on the seal face or, more rarely, are combined with each other in ornamental images.¹⁹⁶⁶

Supplementation compound 2: Devices with shoulder supplements (Malia/Eastern Crete Steatite Prisms)

Twenty nine devices with shoulder supplements are represented (*pls. 121–122*).¹⁹⁶⁷ The supplements, mostly met in pairs, issue from the backside of an angle or curve and most often, run in the direction of the stem of the supplemented device.¹⁹⁶⁸ Pairs of shoulder supplements adorn *Ss, S-spirals, Disc S-spirals, S-whirls, Z-whirls, Z-whirl spirals,* repetition *Z-whirls,* and supplementation *Meander Zs*.¹⁹⁶⁹ The backsides of the scrolls of two *Paisleys* are also adorned, each by one supplement.¹⁹⁷⁰

The majority of motifs which function as shoulder supplements are '*Papyrus flowers*'. Occasionally, also '*Lily flowers*', *Leaves with stalk*, *Paisleys*, '*Ivy leaves*', *Stemless paisleys*, *Js*, *Spike rows*, and *Legs with claws* are met. The supplements of **226 c**, **287 a**, and **516 b**

¹⁹⁶² B, C, D, E, F, G, H, I, J, K, L, M, N respectively.

¹⁹⁶³ A.

¹⁹⁶⁴ For a table of the various ornamental schemes, see 'Appendix 5'.

¹⁹⁶⁵ See footnote 1955.

¹⁹⁶⁶ With each other: **553** c.

¹⁹⁶⁷ In this number are included the devices which only take one pair of supplements. For further examples of devices which take shoulder supplements, see *Devices with more than one pair of supplements*.

¹⁹⁶⁸ The shoulder supplements of **234 b** exceptionally look in the opposite direction to the body of the supplemented. ¹⁹⁶⁹ B, C, D, E, F, G, H, I respectively.

¹⁹⁷⁰ A.

become larger and predominate in the composition such that supplementation *Two-armed whirls* are created.¹⁹⁷¹

The existing examples of *Devices with shoulder supplements* function as main devices, basic elements of repetition compounds, and as supplemented devices.¹⁹⁷² As main devices, they either stand alone on the seal face or are combined with each other in ornamental images.¹⁹⁷³

Supplementation compound 3: Devices with body supplements (Malia/Eastern Crete Steatite Prisms)

Ten devices with body supplements are represented (*pls. 122–123*).¹⁹⁷⁴ The supplements, always met in pairs, sit on the body of the devices or occasionally, extend from the body to the arms.¹⁹⁷⁵ Most often, they are placed near the edges of the body creating the impression that they have slid down from the angles/curves of the supplemented device. Body supplements adorn *Ss*, *S-spirals*, *Z-whirls*, repetition *Z-whirls*, and supplementation *Two-armed whirls*.¹⁹⁷⁶

Js, '*Papyrus flowers*', '*Lily blossoms*', *J-spirals*, *Stalk triangles*, *Lunettes*, and *Parallels* function as body supplements. Each of the supplements of the *S-spirals* **171 b** and **362 b** and of the *Z-whirl* **377 c** has the same size and shape as each half of the supplemented device. As a result of this, new ornamental schemes are created by the combination of the motifs, i.e. a *Four-armed whirl spiral* in the first two cases and a supplementation *Swastika* in the second.¹⁹⁷⁷

The existing examples of *Devices with body supplements* function as main devices and as supplemented devices.¹⁹⁷⁸ As main devices, they mostly stand alone on the seal face. Only **213 c**, whose identification as a supplemented *S* is not certain, is combined with other devices in an ornamental (?) image.¹⁹⁷⁹

¹⁹⁷¹ See footnote 1955.

¹⁹⁷² Basic elements of repetition compounds: 277 b. Supplemented devices: 226 c.

¹⁹⁷³ Alone: e.g. **348 b**, **516 b**, **557 b**. With each other: e.g. **277 b**, **521 a**.

¹⁹⁷⁴ In this number are included the devices which only take one pair of supplements. For further examples of devices which take body supplements, see *Devices with more than one pair of supplements*.

¹⁹⁷⁵ E.g. **226 c**.

¹⁹⁷⁶ A, B, C, D, E respectively.

¹⁹⁷⁷ See footnote 1955. For an example of an *S with Js as body supplements*, see CMS X no. 52 a and **205 c**. For an *S-Spiral with 'Papyrus flowers' as body supplements* which has become a supplementation *Two-armed whirl*, see CMS XII no. 90.

¹⁹⁷⁸ 171 b, 362 c.

¹⁹⁷⁹ For an alternative reading of this device and of the image in which it takes part, see *Ripple* and *S*, especially footnote 1676.

Supplementation compound 4: Devices with edge supplements (Malia/Eastern Crete Steatite Prisms, Mesara Chlorite Prisms)

Eleven devices with edge supplements are represented (*pl. 123*).¹⁹⁸⁰ Due to the position of the supplements, which sit on the edges of the devices, the created compounds are more coherent than the rest of the supplementation compounds. This is because the supplements appear as a continuation of the supplemented devices and more flowing schemes are created. In two cases, the supplements are antithetical with regard to each other.¹⁹⁸¹ Edge supplements adorn *Amphorae*, *Centred-circles*, *Lunettes*, *Zs*, and *Saltires*.¹⁹⁸²

Bars, 'Papyrus flowers' with spray, 'Lily flowers', 'Fern branches', 'Wheat stalks', "Saw branches", One-armed whirls, and Heads of an animal function as edge supplements. In five cases, broader ornamental schemata are created which take precedence in the composition. From the combination of the flowers with the Centred-circles on 92 a and 468 a supplementation Two-armed whirls are created.¹⁹⁸³ The fusion of the 'Fern branches' on 326 c and the "Saw branches" on 234 b with a Z creates supplementation Meander Zs.¹⁹⁸⁴ Finally, the combination of the 'Wheat stalks' with the Saltire on 316 b results in a supplementation Half swastika.¹⁹⁸⁵

The existing examples of *Devices with edge supplements* function as main devices and as supplemented devices.¹⁹⁸⁶ The compounds which function as main devices either stand alone on the seal face or are combined with each other in ornamental images.¹⁹⁸⁷

Supplementation compound 5: Devices with border supplements

(Malia/Eastern Crete Steatite Prisms, Prisms with EM III/MM I Influences)

Six devices with border supplements are represented (*pl. 123*). The supplements, always met in groups, sit on the inner or outer periphery of a *Border* and, as a rule, are distributed symmetrically on its surface. The only exception is the compound **286 a** whose two supplementary *Triangles* are placed the one next to the other. However, in this case it is possible that another two *Triangles* were initially placed on the now missing part of the *Border* under the *Agrimi*.

Triangles, Hatched triangles, and *Spike rows* function as border supplements. The first two always fill the gaps created by the devices or images enclosed within the *Border*.

¹⁹⁸⁰ In this number are included the devices which only take one pair of supplements. For further examples of devices which take edge supplements, see *Devices with more than one pair of supplements*.

¹⁹⁸¹ 100 a, 586 b.

¹⁹⁸² A, B, C, D, E respectively. Compare the supplemented *Amphorae* to the combination of the 'Spider' b **554** c with a *Bar*. This combination is not seen as a supplemented device because it is not certain that the *Bar* has an ornamental function. See also the elongated front foot of the *Man in profile* **494** a.

¹⁹⁸³ See footnote 1955.

¹⁹⁸⁴ See footnote 1955.

¹⁹⁸⁵ See footnote 1955.

¹⁹⁸⁶ **234 b**.

¹⁹⁸⁷ With each other: **206 b**.

The existing *Devices with border supplements* function as main devices and as basic elements of border compounds.¹⁹⁸⁸ Those which function as main devices are combined with other devices in descriptive and ornamental images.¹⁹⁸⁹

Supplementation compound 6: Devices with more than one pair of supplements (Malia/Eastern Crete Steatite Prisms)

Eleven devices are supplemented by more than one pair of supplements (*pls.* 123–124). The repetition *Two-armed whirl* **93 c** shows one pair of inner and one pair of outer curve supplements, the latter probably suggesting the origin of the device in *Z-whirls of Protomes of a dog/lion* like those met on **583 a** and **591 b**. The *S-spiral* **A.1 c** takes a pair of *Js* and a pair of *'Lily flowers'* as body supplements, both issuing from the centre of the stem. One scroll of each *S-spiral* on **52 c**¹⁹⁹⁰ and both scrolls of the *Z-whirl spirals* **9 c**, **43 b**, and **449 c** take both curve and shoulder supplements. Moreover, **9 c** and **449 c** also take *Bars* and *Parallels* respectively as body supplements. The *S-spiral* **221 a** takes *Trefoils* as edge supplements and *Unidentifiable flowers* as shoulder supplements, the *Running Mirror pattern of Lilies with 'base' a* **475 b** has *Chevrons* as edge supplements and *Spikes* as body supplements. Finally, the repetition *Meander Z* **511 a** has *Spikes* as body supplements.

All these devices function as main devices and either stand alone on the seal face or are combined with each other in ornamental images.¹⁹⁹¹

Border compounds

Compounds created by the fusion of ornamental devices with their surrounding *Borders* are named border compounds. The fusion can be either direct, the edges of the surrounded devices abutting the inner sides of the *Borders*;¹⁹⁹² or indirect, being achieved by the addition of *Lines/Bars* or *Parallels* which link the surrounded device with the *Border*.¹⁹⁹³

Border compounds are classified according to the shape of the *Border* and the surrounded device. Occasionally, they become fossilised and are used as basic elements of repetition compounds.¹⁹⁹⁴

¹⁹⁸⁸ Basic elements of border compounds: 44 b, 64 b.

¹⁹⁸⁹ Descriptive: e.g. 23 a. Ornamental: e.g. 23 c.

¹⁹⁹⁰ For a discussion on the supplementation of only one scroll on these devices, see p. 318.

¹⁹⁹¹ With each other: the supplementation *S*-spirals **52** c.

¹⁹⁹² E.g. **44 b**, **448 b**.

¹⁹⁹³ E.g. **64 b**. The mediation of *Lines/Bars* for the creation of border compounds is not represented in the existing examples of the scheme.

¹⁹⁹⁴ E.g. **311 c**.

Border compound 1: Wheel

(Malia/Eastern Crete Steatite Prisms)

Four examples of the scheme are represented (*pl. 125*). *Wheels* are put together of linear radial motifs, i.e. triskeles,¹⁹⁹⁵ Crosses/Saltires, or Stars surrounded by round linear *Borders* with which they are directly fused. The surrounded motif is in all represented examples a *Star*.

Three of the existing *Wheels* function as main devices and one as basic element of a repetition compound.¹⁹⁹⁶ Two of the examples which function as main devices are combined with each other in one image.

Border compound 2: Framed devices

(Malia/Eastern Crete Steatite Prisms, Mesara Chlorite Prisms)

This is not a scheme but a category for the classification of border compounds which are not *Wheels* (*pl. 125*). Represented are seven devices: three *Framed Saltires*, each consisting of a *Saltire* inscribed in a rectangular or square *Border*;¹⁹⁹⁷ a *Framed Whirl*, a *Framed Grid*, and a *Framed Comb swastika*, all consisting of devices inscribed in circular *Borders*;¹⁹⁹⁸ and a *Framed Mirror pattern of 'Poles' slung with 'String vessels'*, the surrounded device being linked with a supplementation *Border* by four sets of *Parallels*.¹⁹⁹⁹

All examples function as main devices and are met alone on the seal face.

C-spiral roof compounds

(Mesara Chlorite Prisms)

Exceptionally, the motifs combined in this type of compound are not fused (*pl. 125*). However, they are put together in such a way that the resulting composition can only be seen as one entity. The scheme consists of a *C-spiral* combined with floral or ornamental motifs arranged with reference to it. The spiral constitutes the upper part of the compound, the remaining motifs being placed within it and in front of its mouth.

The device is only encountered on the Mesara Chlorite Prisms. It belongs to a group of compositions which are characteristic of these seals and are carved in round seal faces. The compositions are centre-orientated and combine a large *C-spiral* or *Paisley* with smaller ornamental or floral motifs. While those containing *Paisleys* can easily be broken down to their constituent motifs, those showing *C-spirals* cannot because the various motifs are fitted very close with each other. This point can be demonstrated by a comparison of the

¹⁹⁹⁵ The type *Triskeles* is not represented on the prisms.

¹⁹⁹⁶ **311 c**.

¹⁹⁹⁷ A.

¹⁹⁹⁸ B, C, D respectively. ¹⁹⁹⁹ E

^{..... 1}

image carved on CMS II,1 no. 275 with the images met on CMS II,1 no. 110 and CMS VIII no. 22 b. On the first example, the *J-spiral* and the elongated *Fan motif* can easily be seen independently of the *Paisley*. On the other hand, the *Fan motif* on the latter two examples cannot be separated from the *C-spiral* because it is placed partly within it and is adjusted perfectly in its inner space. The interior of the *C-spiral* as well as its underside function as a matrix for the shaping of the motif which is placed in its interior. This feature suggests that the whole composition is meant to be understood as one entity.

The configuration of some *C-spiral roof compounds* brings to mind a tree, the foliage being represented by the *C-spiral* and the trunk by the remaining motifs.²⁰⁰⁰ However, whether such devices did actually have a floral character is unknown.

All C-spiral roof compounds function as main devices and are met alone on the seal face.

Miscellaneous compounds

Some combinations of ornamental and floral motifs can, in a broader sense, be seen as creating ornamental entities on account of the fact that the combined motifs abut (*pl. 125*). Such are the schemes that are created by the coalescence of the devices **30 c**, **362 b**, and **317 c**.

$M {\scriptstyle \textsc{scellaneous}} Composite D {\scriptstyle \textsc{evices}}$

The combination of an *Agrimi* and a *Dolphin* which cross each other at the waist on **502 b** is not seen as a repetition compound because, apart from the fact that the motifs combined are different, the created entity does not seem to have an ornamental character (*pl. 125*). It is uncertain whether the linear element which connects the hindquarters of the *Agrimi* to the underside of the *Dolphin* represents intentional engraving.²⁰⁰¹

GENERAL OBSERVATIONS ON THE SUBJECT OF THE ASSESSMENT OF THE DEVICES

Creating a typology of all devices which are encountered on the prisms has been a very demanding task. Assessing which devices cannot be broken down into their constituent elements, which can, and which combinations of motifs are so well bonded that they should be seen as an entity and not as a composition proved to be a very difficult undertaking. This is the case because of three considerations. The first is the inability to comprehend the nature of many devices. The second is that very often different devices touch each other, such that it is difficult to define when and in which combinations the blending of devices should be perceived as a unit. And the third is that the whole iconography is the product of

²⁰⁰⁰ E.g. **102 b**; CMS II,1 no. 110; CMS VIII no. 22 b.

²⁰⁰¹ For this subject, see also footnote 2680.

the human mind which allows for a vast amount of variation and creativity which can never absolutely fit in a typology.

Objections will exist on subjects as to why for example some devices are seen as motifs and not as composite devices or why some motif combinations are seen as compositions and not as compounds and vice versa. Below, are presented some of the basic rules according to which the decisions for differentiating between motifs, composite devices, and compositions have been taken. These rules are actually conventions which have seemed to the author more appropriate to make at a time where a choice had to be made concerning a place in the classification for each of the existing iconographic examples.²⁰⁰²

Starting with representational motifs, as an entity are seen those devices which represent one creature, plant, or object. In cases where the depicted could not be recognised, such as is the case with the π -legs,²⁰⁰³ the parsing has followed indications provided by the broader iconographic context. Free-standing examples of this motif for instance,²⁰⁰⁴ have been taken as an indication that its representatives on **50 c** and **458 a** also constitute separate entities. This is supported by the fact that *'String vessels'* such as those which hang from the ' Π -legs' on **50 c** are met hanging from various entities,²⁰⁰⁵ and that the ' Π -legs' on **458 a** are combined with a *''Saw branch''* in a similar way to that in which *Men in profile* often are.²⁰⁰⁶ On the other hand, the π -legs of the *'Boar with* π -legs' **260 c** are not separated from the boar because it cannot be determined whether they simply render the legs of the animal or whether they are an attachment which has a different significance. While the existence of a *'Boar with centipede legs'* could favour this second interpretation, that of a *'Crawling boar'* and of *Heads of a dog/lion with leg/'dog/lion with hook'*, which are devices which cannot be broken down meaningfully into their constituent elements, could suggest that the π -legs could also represent the legs of the animal as rendered by an idiosyncratic hand.

The classification of ornamental devices has been a very demanding task and one for which the most conventions have had to be made. For example, as motifs have been seen line combinations, such as parallel lines or grid,²⁰⁰⁷ but not combinations of *Blobs* or *Centred-circles*. This choice is connected with the fact that lines are a very simple element used to create a variety of basic ornamental motifs, e.g. crosses, stars, and whirls, whose parsing would not be meaningful. For that reason, it is considered logical that ornamental motifs composed of lines are handled as primary entities and not as composite devices.

Turning to radial and rotating motifs, not only those with linear arms but also those with arms toothed on the inner side, terminating in blobs, and terminating in spirals have as a

²⁰⁰² Preparing a typology which presents and discusses the whole corpus of devices encountered on the known material as opposed to one which only presents chosen examples is a very difficult task because *every* device has to be definitely categorised.

²⁰⁰³ See '*П-legs*'.

²⁰⁰⁴ E.g. **285 a**.

²⁰⁰⁵ See Elongated motif slung with 'String vessels'.

²⁰⁰⁶ Compare for example **48 a**, **147 a**, **187 b**.

²⁰⁰⁷ See *Parallels* and *Grid* respectively.

rule been seen as motifs.²⁰⁰⁸ This could initially create some confusion because very similar schemes can be classified as different kind of devices. Devices with arms toothed on the inner side for example are seen as motifs while devices with dentation on the outer side of the arms are seen as compounds.²⁰⁰⁹ The reason for this choice of classification has been that while dentation on the inner side of the arms seems more like part of a motif, on the outer side, it creates the impression that it belongs to "*Saw branches*" or *Legs with claws* which have been used to create or substitute for part of the motif. Among devices whose arms terminate in spirals, only the four-armed whirl spirals **171 b** and **362 c** are seen as compounds.²⁰¹⁰ This choice is dictated by the fact that their creation by the combination of other motifs is not only obvious by their shape but is also well-attested on similar devices met on other seals.²⁰¹¹

COMPOSITION

The term *composition* refers to the way the independent devices are combined with each other, the way they are organised and develop on the seal face, and ultimately to the effects created by this organisation.²⁰¹² Not only motifs and composite devices but also their combinations, i.e. whole images, can occasionally be treated as units and be combined with other devices or images in a broader picture.²⁰¹³

The Function of the Independent Devices

The independent devices are divided into main devices and fillers (*fig. 97*). Main devices are integral components of the image in that they define its subject. Not only free-standing devices, but also non free-standing representational devices coalesced with other representational motifs can function as main devices when each of them is equally important in defining the theme of the image (*fig. 97 a*).²⁰¹⁴ Motifs and composite devices can function as main devices.

Fillers are placed in the field around or between the main devices with the objective of enhancing or ornamenting the image (*fig. 97 b*). For the purposes of this work, in order for a motif to have a filling function, it must be combined either with representational devices

²⁰⁰⁸ Linear arms: e.g. *Cross/Saltire*, *Whirl*. Arms toothed on the inner side: e.g. *Z-whirl*, *Swastika*. Arms terminating in blobs: e.g. *Triskeles pommée*, *Cross/Saltire pommée*, *Whirl pommée*. Arms terminating in spirals: e.g. *S-spiral*, *Z-whirl spiral*, *Whirl spiral*.

²⁰⁰⁹ Arms toothed on the inner side: e.g. 143 a, 591 c. Arms toothed on the outer side: e.g. 77 c, 278 b.

²⁰¹⁰ See Devices with body supplements, supplementation Four-armed whirls.

²⁰¹¹ E.g. CMS II,1 nos. 224 b, 227 b, 254 c.

²⁰¹² For another meaning of the term *composition* as it is used in this study, see p. 13.

²⁰¹³ E.g. the combination *Man in profile* and *'Pole' slung with 'String vessels'* **579 a**. In this case, two similar images are combined in a broader picture.

²⁰¹⁴ E.g. the *Man* and the '*Pole' slung with 'String vessels*' **389** b and **502** c, the kids and their mothers **294** a and **425** b, the *Headless dogs/lions* and the *Agrimi* **113** b.



Fig. 97 a. Images in which all devices function as main devices; b. images in which some devices function as main devices and others as fillers.

or with script signs. On the other hand, fillers are not encountered in images which are put together from exclusively floral or ornamental motifs.²⁰¹⁵ In such cases, all free-standing devices independent of their size are seen as equally significant in defining the subject of the image.²⁰¹⁶ Mainly ornamental or floral motifs have a filling function. Commonly used as fillers are *Lines/Bars*, *Wedges*, *Triangles*, *S-spirals*, *J-spirals*, *'Fir branches'*, *'Fern branches'*, *"Saw branches"*, *'Lily blossoms'*, *'V-blossoms'*, *Papyrus triangles*, *Lily triangles*, *Chevrons*, and *Blobs*. Rarer are *Lunettes*, *Spiked blobs*, *Stemless paisleys*, *'Papyrus flowers'*, *'Lily flowers'*, *'V-flowers'*, *Grain ellipses*, *Heads of an agrimi*, *Profile heads of a ruminant*, *Two-armed whirls*, *Three-armed whirls*, *Trapeziums*, *Leaves*, *'Ivy Leaves'*, and perhaps '*Snakes' b*.

Attempts to differentiate between main devices and fillers are not always easy or indeed possible. The criteria used are mostly connected with the nature, size, and positioning of the individual devices with respect to the overall composition. Fillers are mostly small motifs placed in the space created around larger devices without showing any interaction

²⁰¹⁵ E.g. **215 c**, **410 a**.

²⁰¹⁶ This choice is connected with the attempt to keep the definition of *filler* as clear as possible. In the opinion of the present author, the overall subject of an ornamental image changes even when small ornamental devices are added to it. New devices give the image a new character because its topic would change if they were to be removed. The ornamental image of a cross for example, is turned into a cross with angle-filling when triangles are added in its angles. On the other hand, small ornamental devices encountered in images composed of representational devices or script signs can be removed without having a significant effect on the subject of the image.



Fig. 98 Images in which similar representational devices are combined with vegetal or other representational devices of an uncertain function (compare a.-b., c.-d).



Fig. 99 Images in which the function of the small representational motifs is unknown: a. the *Dolphin*; b. the *Fish* and the *Dolphin*; c. the *Jug*.



Fig. 100 Images in which small motifs function as fillers: a-b. representational motifs; c. floral motifs; d. ornamental motifs.

with them.²⁰¹⁷ However, they can occasionally be of the same size as the main devices, as can be the case, for example, with fillers placed on the edges of hieroglyphic inscriptions.²⁰¹⁸

It is often uncertain whether small vegetal motifs such as 'Fern branches' placed in front or behind other larger representational motifs like birds in profile and Ships function

²⁰¹⁷ For further examples of images enhanced with fillers, see 17 c, 54 b, 71 b, 129 b, 135 a, 155 b, 271 b, 277 a, 314 c, 366 c, 388 b, 396 a, 444 a, 510 b.

²⁰¹⁸ E.g. the *Two-armed whirl* **434 a** and the '*Ivy leaves*' **519 b**.

as fillers (*fig. 98 a, c*).²⁰¹⁹ This is the immediate impression created by both the small size and the vegetal nature of the small devices. However, similar representational motifs, i.e. in the examples in question birds in profile and *Ships*, can on other occasions be combined with larger vegetal or other representational motifs which seem to function as main devices (*fig. 98 b, d*). This leaves the possibility open that small vegetal motifs combined with such devices could also have had a similar function as the larger ones.

Occasionally, small representational devices are placed in the field around larger ones which preponderate in the composition by their size, without the devices showing any interaction (*fig. 99*). Also in such cases, it is unknown whether the small motifs have a filling function or whether they represent main devices.

As regards small representational motifs combined with larger ones in ways which do not denote interaction, it is only in compositions in which two *Heads of an agrimi* or two *Profile heads of a ruminant* flank the larger *Head of an 'ox'* or that *of a 'goat'* that smaller representational devices are regarded as most probably exhibiting a filling function (*fig. 100 a, b*). This is in keeping with compositions in which the same frontal heads are flanked by smaller floral or ornamental devices, in the case of which there is no reason to suppose that they had anything other than an ornamental function (*fig. 100 c, d*).²⁰²⁰

THE COMBINATION OF THE ICONOGRAPHIC UNITS

Six basic strategies are mobilised for the combination of the iconographic units:²⁰²¹ parataxis, rotation, antithesis, flanking, angle/curve-filling, and enclosure (*fig. 101*). The units arranged with regard to parataxis are placed the one next, behind, or above the other.²⁰²² Those organised with reference to rotation are arranged in various rotational angles with regard to each other.²⁰²³ The units arranged with regard to antithesis stand antithetically on two sides of a common axis.²⁰²⁴ The tactic of flanking presupposes the combination of three units: one different which is placed in the centre, and two similar ones which are placed either side of it.²⁰²⁵ Often, the similar units, which are frequently smaller than the central unit, can be arranged with regard to 180° rotational symmetry with reference to each other or, alternatively, antithetically.²⁰²⁶ The angle/curve-filling is a scheme according to which

²⁰¹⁹ For some more combinations of animals with branches, see 74 b, 167 a, 207 a, 262 c; of ships with branches, see 87 b, 266 a.

²⁰²⁰ Further such compositions are **154 a**, **275 a**, **277 a**, **444 a**.

²⁰²¹ I.e. the devices or the device combinations.

²⁰²² E.g. the 'Spiders' b 12 b, the Dogs/lions 480 a, and the Bovine with the Waterfowl 198 c respectively.

²⁰²³ E.g. the *Man in profile* and the *Bovine* **278 c** (the latter is rotated 90° with regard to the former), the *Agrimi* and the *Waterfowl* **374 a** (the latter is rotated 180° with regard to the former), the *'Men with semicircular body'* **5 c** (90° rotational symmetry), and the *Pigs/boars* **462 a** (120° rotational symmetry).

 $^{^{2024}}$ E.g. the *Headless waterfowls* **6 c**, the compositions of *Amphorae* and *Ball amphorae* **273 b**, the '*Arrows*' *a* **367 a**, the *C-spirals* **503 c**.

²⁰²⁵ E.g. **42 b**, **52 b**, **420 a**, **444 a**, **521 c**.

²⁰²⁶ 180° rotation: e.g. the *Profile heads of a ruminant* **584 a**. Antithesis: e.g. the *Heads of an agrimi* **93 c**.



Fig. 101 The main strategies according to which the units are combined: a. parataxis; b. rotation; c. antithesis; d. flanking; e. angle/curve-filling; f. enclosure .

small devices are placed in the angles/curves of a floral or ornamental device.²⁰²⁷ The devices which fill the angles/curves can occasionally be rotated or arranged antithetically with regard to each other.²⁰²⁸ In the tactic of enclosure, one unit is surrounded by another unit.²⁰²⁹ This latter can be one motif or else a combination of three or more motifs which form a ring of any shape around another device.²⁰³⁰

The first three of these strategies are particularly popular for the combination of similar units and particularly for that of representational devices. For example, frequent is the horizontal or vertical parataxis of two or more similar devices whereas very common is the combination of two similar units with regard to 180° rotational symmetry.²⁰³¹ Rarer are arrangements of more than two similar devices with regard to 90° and 120° rotational symmetries.²⁰³² Occasionally, three similar motifs, one of which is rotated 180° with regard to the other two, are arranged in a row.²⁰³³ Finally, two similar units are often arranged with regard to reflection symmetry such that the one appears as the mirror image of the other.²⁰³⁴

45°, 90°, and 135° rotations are most commonly used for the combinations of different units. 90° rotations often result from the attempt to squeeze more than one motif in a restricted space.²⁰³⁵ 45° rotations in particular, are often met with regard to motifs which function as signs of the hieroglyphic script or with fillers combined with hieroglyphic inscriptions whereas in most instances, 135° rotations are encountered in connection with fillers.²⁰³⁶ The three remaining strategies, i.e. flanking, angle/curve-filling, and enclosure, differ from the first three in that they are mobilised only for the combination of different units.

Observations Regarding the Effects Created by the Combination of the Units

The effects created by the mobilisation of similar strategies are not always the same. The outcome is largely depended on the combined units and the way in which these are

²⁰²⁷ E.g. **410 a**, **413 b**, **594 b**.

²⁰²⁸ Rotated: e.g. the Spiked blobs **215 c**. Arranged antithetically: e.g. the One-armed whirls **428 a**.

²⁰²⁹ E.g. 13 a, 125 a, 265 a, 482 c.

 $^{^{2030}}$ E.g. the 'Figure-of-eight shields' **13 a**, the Wedges **482 c**.

²⁰³¹ Parataxis: e.g. the Jugs 54 a, the Fish 61 c, the Men in profile 423 a, the Heads of an agrimi 450 a, the Waterfowls 479 c, the Ship 509 b. 180° rotational symmetry: e.g. the Bovines 33 b, the Heads of an agrimi 77 b, the pairs Head of a 'goat' and Lily triangle 86 b, the pairs 'Sheep' and kid 294 a, the Daggers 308 c, the Paisleys 319 a, the Dogs/ lions 347 b, the 'Ivy leaves' with stalk 348 c, and the 'Papyrus flowers' 555 c.

²⁰³² 90°: e.g. the 'Men with semicircular body' 5 c, the One-armed whirls 85 b, the Waterfowls 227 b. 120°: e.g. the Pigs/boars 462 a, the Four-armed whirls 547 b.

²⁰³³ E.g. the "Saw branches" **448 c**, the Fish **340 b**, and the Jugs **263 a**.

²⁰³⁴ E.g. the *Amphorae* **91 b**, the '*\Pi-legs*' **285 a**, the *Waterfowls* **418 c**, the *Men in profile* **455 b**, and the "*Saw branches*" **468 b**. Antithetical compositions of frontal devices are both mirror images and 180° rotational symmetries. ²⁰³⁵ This seems to be the case with **498 c**.

²⁰³⁶ 45° rotation of signs of the hieroglyphic script: e.g. the "*Bottle*" **3 b**, the *Shamrock b* **89 a**, the *Bow with Linear arrow* **115 a**, the '*Arrow*' *b* **353 c**. 45° rotation of fillers combined with hieroglyphic inscriptions: e.g. the '*Ivy leaf*' *with stalk* **108 c**, the *S-spiral* **561 c**. 135° rotations: e.g. the *Lily triangle* **483 a**, the *Papyrus triangle* **588 a**.



Fig. 102 Two different effects created from the mobilisation of rotation for the formation of a composition: a., c. radiation; b., d. rotation.



Fig. 103 Different effects created from the mobilisation of flanking and antithesis for the formation of a composition: a. centre-highlighting; b. centre-detachment; c. centre-orientation.



Fig. 104 Different effects created from the mobilisation of enclosure for the formation of a composition: a., b. image placed in a border; c. composition developing in two layers.

arranged with regard to the centre of the composition (*fig. 102*). Regarding the first point, the combination of similar frontal devices arranged in 90° rotation for example, will result in a radiating composition (*fig. 102 a*). On the other hand, a similar combination of the same

devices depicted in profile will create a rotational effect (*fig. 102 b*). The importance of the position of the composition's centre with regard to the combined units can be demonstrated by the composition of the *Centred-lunettes* **216 c** (*fig. 102 c*). By being arranged around the central axis with their backs facing inwards, a radiating, outwards opening composition is created; were the axis of rotation situated near one of the edges of the motifs, the resulting composition would have a rotating character (*fig. 102 d*).

In the case of flanking, not only the combined units and the way the framing devices are organised with regard to the central device but also their size plays a significant role in the effect created by the arrangement. The combination of a *Head of an 'ox'* with smaller *Profile heads of a ruminant* on **584 a** for example, focuses the attention on the former (*fig. 103 a*). The V-shaped arrangement of the *Profile heads of a ruminant* creates a frame for the central motif, such that the profile heads are reduced to secondary elements of the composition and the importance of the central head is underlined. On the other hand, on compositions like **22 c** and **510 a**, all devices are of the same importance because of their similar size and the fact that they stand vertically the one next to the other, building an image which develops linearly (*fig. 103 b, c*). In these examples, it also becomes obvious how the effects of antithesis can vary according to the way in which the motifs are combined. Due to the fact that the *Centred-lunettes* **22 c** look away from the centre, their combination creates the effect of movement away from the centre. On the other hand, because the *Lunettes* **510 a** are facing each other, the created effect is that of orientation towards the centre.

Also the effects of enclosure vary depending on the nature and size of the combined motifs. The enclosing unit for example, can often be seen as a border for the central unit, such as is the case with **425 b** and **431 b** (*fig. 104 a, b*). However, when the framing unit is a composition which takes a larger space in the field than the surrounded unit, as is the case with **125 a**,²⁰³⁷ the framing unit constitutes the outer layer of a composition which develops in two levels, an outer and an inner one (*fig. 104 c*).

THE DECORATIVE EFFECTS OF THE COMPOSITION

The combinations of the various motifs may develop in a linear fashion or spread on the surface in a circular, quadrangular, or other manner.²⁰³⁸ The individual devices, their number, the way they are combined with each other, and the way their combination develops on the seal face, define the effects of the final composition. The ways in which the combinations of devices develop on the field and the decorative effects of the compositions are discussed below. The various effects do not exclude each other and often more than one effect can be created by one image.

 $^{^{2037}}$ And **5 c**, despite the fact that the layer formed by the '*Men with semicircular body*' remains open. 2038 The analysis in this section partly follows Yule 1980 a, 186–188.


Fig. 105 Frieze effect.

Frieze: One or more devices arranged uniformly in a linear fashion along the length of a narrow field create friezes (*fig. 105*).²⁰³⁹ The most typical friezes on prisms are created by combinations of similar paratactically arranged motifs.²⁰⁴⁰ Such combinations are seen as friezes also when they are not engraved along the length of elongated seal faces because of their inherent quality of uniform continuation along the same lines.²⁰⁴¹ Apart from these, various combinations of different devices which extend along the length of elongated seal faces are seen as friezes when the effect of linear development prevails over those of rotation, centre-highlighting, centre-orientation, centre-detachment, or segmentation.²⁰⁴²

Rotation: A rotary effect is created either by the use of an individual device which has an inherent rotational character, e.g. a whirl or a swastika, or by the combination of two or more units arranged with regard to each other along the lines of rotation (*fig. 106*).²⁰⁴³ For such combinations to have a rotary effect the combined units must be rendered in side view and in the same profile and, when only two, they must be arranged with reference to 180° rotational symmetry.²⁰⁴⁴ A rotary effect can also be created by compositions composed of two devices arranged in 180° rotational symmetry on the two sides of another device. In these cases, the central device must either have an inherent rotational character and rotate towards the same direction as the combination of the devices which flank it, or must be a symmetrical motif of the same or smaller size than the side devices, such that it does not take over in the composition.²⁰⁴⁵

²⁰³⁹ E.g. 1 a, 3 b, 3 c, 5 a, 26 b, 29 a, 199 a (*fig. 105 c*), 115 a, 117 c, 342 b, 392 b, 434 a, 475 b, 484 c, 525 b.

²⁰⁴⁰ E.g. **342 b** (*fig. 105 d*), **423 a**, **480 a**, **509 c** (*fig. 105 b*).

²⁰⁴¹ E.g. **199 a** (*fig. 105 c*), **315 b**.

²⁰⁴² E.g. **3 b**, **69 a**, **115 a**, **340 a**, **457 c**; but not **22 c**.

²⁰⁴³ Individual device with inherent rotational character: e.g. **3** a, **149** a, **341** b, **403** b (*fig. 106 a*). Combination of two or more units arranged along the lines of rotation: e.g. **5** c, **73** a, **85** c, **227** b (*fig. 106 c*), **504** a (*fig. 106 b*), **516** c, **553** c.

²⁰⁴⁴ Combinations such as **278 c** for example, in which one device is rotated 90° with regard to the other create the effect of segmentation and not of rotation.

²⁰⁴⁵ Central device with inherent rotational character: e.g. 135 c (fig. 106 d), 197 a. Symmetrical motif of the same or



Radiation: Radiating compositions are created either by the use of one device which has an inherent radiating character, e.g. a cross or a rosette, or by the combination of three or more devices which open outwards with reference to a common centre (*fig. 107*).²⁰⁴⁶ The filling of the angles on the cross **594 b** by *Chevrons* which echo its arms underlines the radiating effect of the device (*fig. 107 c*).

smaller size than the side devices: e.g. 478 a, 519 b (fig. 106 e).

²⁰⁴⁶ One device with inherent radiating character: e.g. 91 c, 101 a (*fig. 107 a*), 102 a, 341 a. Combination of three or more devices which open outwards with reference to a common centre: e.g. 216 c (*fig. 107 b*).



Fig. 111 Rapport effect.

Quartering: Compositions seen as quartered are those consisting of four units combined in such a way that each covers one quarter of a notional square of the field (*fig. 108*).²⁰⁴⁷ Crosses or cross-shaped devices also quarter the seal face and when their angles are filled with large devices which dominate in the composition, an intense quartering effect can be created.²⁰⁴⁸ The devices may be combined with each other along the lines of parataxis, rotation, or antithesis.²⁰⁴⁹ When the seal face is quartered by rotational devices the composition has a

²⁰⁴⁷ E.g. **13 c**, **420 c** (*fig. 108 c*), **427 b** (*fig. 108 a*).

²⁰⁴⁸ E.g. **215 c** (*fig. 108 d*).

²⁰⁴⁹ Parataxis: e.g. the horizontal and vertical pairs of the Ball amphorae **427 b** (fig. 108 a). Rotation: e.g. the Spiked

rotational effect as well.²⁰⁵⁰ On the other hand, antithetically arranged devices add the effect of centre-orientation²⁰⁵¹ or centre-detachment.

Circle: Circular compositions are created by the combination of three or more devices arranged in a circular configuration around a common centre, this latter not being marked by a device (*fig. 109*).²⁰⁵² In one case, the motifs are arranged with regard to 120° rotation with reference to each other.²⁰⁵³ However, the composition has only a slight rotary effect for two reasons. Firstly, the motifs are not connected with the centre in any way but only float around it; and secondly, they are arranged 'head to toes' such that a sense of continuity is created and the notional contour of a circle is built.

Outline: Outline compositions develop in two or more zones placed the one around the other (*fig. 110*).²⁰⁵⁴ They differ from compositions with borders composed of more than one motif²⁰⁵⁵ in that the outer layer does not have a framing function but plays an essential role in defining the basic theme of the image.

Rapport: Rapport effect is created by single devices or combinations of similar devices which extend uniformly both horizontally and vertically covering the field like upholstery and extending notionally beyond its edges (*fig. 111*).²⁰⁵⁶

Centre-highlighting: These are compositions in which a central motif shown in frontal or overhead dorsal view is flanked by two smaller motifs arranged in such a way that makes the former stand out (*fig. 112*).²⁰⁵⁷ The flanking devices often frame part of the central device by following the direction of its sides. The most common such compositions are those of a *Head of an 'ox'* or *of a 'goat'* whose face is flanked by smaller motifs.²⁰⁵⁸

Centre-orientation: Centre-orientated compositions are created either by the use of single devices whose centre of gravity is their interior, e.g. *C-spiral roof compounds*, or by the combination of two or more devices directed towards the centre or the central axis of the seal face (*fig. 113*).²⁰⁵⁹ Centre-orientated compositions are often built by mirror images of motifs which are facing each other whereas often, the centre of such compositions is marked by a third similar-sized or smaller device.²⁰⁶⁰

blobs 215 c (fig. 108 d). Antithesis: e.g. the vertical pairs of the Ball amphorae 425 a (fig. 108 b).

²⁰⁵⁰ E.g. **85 b**, **129 a**, **420 c** (*fig. 108 c*).

²⁰⁵¹ E.g. **425 a** (*fig. 108 b*).

²⁰⁵² E.g. **500 b** (*fig. 109 b*), **538 c** (*fig. 109 c*), **547 b** (*fig. 109 a*).

²⁰⁵³ **547 b** (*fig. 109 a*).

 $^{^{2054}}$ Two zones: e.g. **5 c** (*fig. 110 a*), **125 a** (*fig. 110 b*). Outline compositions which develop into more than two zones are not met on prisms.

²⁰⁵⁵ E.g. **13 a**, **482 c**.

²⁰⁵⁶ E.g. **259 b** (*fig. 111 a*), **333 c** (*fig. 111 b*).

²⁰⁵⁷ E.g. **249 b** (*fig. 112 a*), **364 c** (*fig. 112 c*), **420 a** (*fig. 112 d*), **420 b**, **444 a** (*fig. 112 b*), **556 c**.

²⁰⁵⁸ E.g. 48 c, 154 a, 275 a, 352 b, 438 b, 518 a.

²⁰⁵⁹ Single device: e.g. **45 c** (*fig. 113 c*), **357 c**. Two or more devices: e.g. **91 b**, **273 b** (*fig. 113 b*), **357 b**, **390 c**, **498 a** (*fig. 113 a*), **503 c**, **510 a** (*fig. 113 d*).

²⁰⁶⁰ E.g. **362 b**, **484 b**, **498 a** (*fig. 113 a*), **534 c**.



Fig. 114 Centre-detachment effect.

Centre-detachment: The effect of centre-detachment is created mostly by mirror images of devices which look away from the central axis of the seal face such that both appear to be moving away from the centre (*fig. 114*).²⁰⁶¹ Sometimes, a third similar-sized or smaller motif can be placed between the two.²⁰⁶² The two *Hatched triangles* on **72 c** are arranged in 180° rotational symmetry but the fact that the devices are placed either side of a large "*Column*" creates the effect of movement away from the centre rather than that of rotation (*fig. 114 d*).

²⁰⁶¹ E.g. 6 c (*fig. 114 a*), **285 a**, **468 b**, **483 b** (*fig. 114 b*).

²⁰⁶² E.g. **22 c** (*fig. 114 c*) **98 b**.



Fig. 115 Segmental effect.

Segmentation: Segmental compositions are created by the division of the field into two or more sectors (fig. 115). The division can be achieved in various ways. One is the use of devices such as Lines/Bars, "Columns", Zs, Mirror patterns, Crosses/Saltires.²⁰⁶³ In these cases, the dividing motifs are as large as or larger than the remaining devices. Another way of creating segmental compositions is the enclosure of part of the field in a Border or in a circular composition.²⁰⁶⁴ A similar effect is also created by compositions in which two motifs flank a central device in a way that an inner and outer space is created on the seal face.²⁰⁶⁵ Apart from segmentation by the use of delimitating devices, notional partition of the field can also be achieved by 90° or 180° rotations as well as by mirror images of devices which look away from the centre.²⁰⁶⁶ Segmentation is in most cases combined with other effects, such as frieze, centre-orientation, centre-detachment, rotation, radiation, quartering, outline, and rapport. The existence of devices which segment the field can either accentuate or restrain such effects. "Columns" placed between antithetical devices which face away from the centre for example, accentuate the effect of centre-detachment.²⁰⁶⁷ On the other hand, the effect of notional extension beyond the field created by frieze, radiating, and rapport compositions is restrained by the enclosure of such compositions in borders.²⁰⁶⁸

²⁰⁶³ Lines/Bars¹ e.g. **478 a** (fig. 115 a). "Columns": e.g. **235 a**, **521 c** (fig. 115 b). Zs: e.g. **22 b**. Mirror patterns: e.g. **382 a**. Crosses/Saltires: e.g. **215 c**.

²⁰⁶⁴ Border: e.g. **78 c** (*fig. 115 c*). Circular composition: e.g. **13 a**.

²⁰⁶⁵ E.g. **89 c** (*fig. 115 d*).

 $^{^{2066}}$ 90° rotation: e.g. **261 b** (*fig. 115 e*), **278 c**, **518 c**. 180° rotation: e.g. **374 a** (*fig. 115 f*), **490 b**. Mirror image of devices which look away from the centre: see footnote 2061 and *fig. 114 a*, *b*.

²⁰⁶⁷ E.g. **22 c** (*fig. 114 c*).

²⁰⁶⁸ E.g. 78 c, 160 c, 171 a.

THE IMAGES

THE NATURE OF THE IMAGES

The images can have a descriptive, 'pictographic', or ornamental character; or else they can represent script. As descriptive are seen those motif combinations which are understood as rendering a picture of everyday life, one seen in nature, or a static image (*fig. 116*).²⁰⁶⁹ The term does not rule out the possibility that the descriptive image had in Minoan times some symbolic significance but only refers to the way the images appear to the modern observer. 'Pictographic' is a conventional term to refer to images in which representational motifs or motif combinations are combined with each other in ways which so not find correspondence to images seen in the real world, such that the impression is created that the motifs/motif combinations function as kinds of symbols (*fig. 117*).²⁰⁷⁰ Ornamental are those combinations whose main function is adorning the seal face and which neither seem to depict any natural image nor appear to be 'pictographic' (*fig. 118*).²⁰⁷¹ Finally, as script are described motif combinations which have been identified by the CHIC as hieroglyphic inscriptions and some which, while not included in the CHIC, also seem to represent such inscriptions (*fig. 119*).

The nature of the images is defined exclusively by the nature of the depicted device only in two cases. The first is when the seal face bears only one device. An image which consists of a single representational motif for example has a descriptive character.²⁰⁷² The second case is when the main device(s) is/are of an ornamental or floral nature; in such instances, the image has an ornamental character.²⁰⁷³ In the remaining cases, the character of all main devices and the way these are combined with each other define the nature of the images, with possible fillers adding, regardless of their nature, an ornamental note to any kind of image. Descriptive and 'pictographic' images as well as inscriptions also take a more ornamental and playful character when the motifs are arranged with reference to each other along the lines of rotation.²⁰⁷⁴

Descriptive images constitute ca. 53 % of the images whose nature can be identified. They are mainly built of representational main devices (*fig. 116*). They are composed in ways which find correspondence to nature and in which most often, the depicted devices keep their relative proportions.²⁰⁷⁵ Apart from representational motifs which stand alone

²⁰⁶⁹ Picture of everyday life: e.g. **502 c** (*fig. 116 a*). Image seen in nature: e.g. **425 b** (*fig. 116 n*). Static image: e.g. **54 a** (*fig. 116 r*), **167 c**.

²⁰⁷⁰ E.g. 1 a, 219 c (fig. 117 h), 261 b (fig. 117 a), 374 a (fig. 117 k), 490 b (fig. 117 m), 494 c.

 $^{^{2071}}$ E.g. 22 c, 45 b, 47 c, 60 b, 61 a, 259 a, 277 b, 394 a (*fig. 118 a*), 503 b. Those images whose main devices are floral motifs are also seen as ornamental. For the character of floral motifs, see p. 161.

²⁰⁷² E.g. 2 a, 8 b, 37 a.

²⁰⁷³ E.g. 13 c, 23 c, 43 b, 72 c, 215 c, 252 a, 339 c, 368 c, 410 a, 517 a.

 $^{^{2074}}$ E.g. 30 a, 64 a, 374 a.

²⁰⁷⁵ The *Men in profile* **227 a** for example are larger than the *Ball amphora* and the *Pithos/jar* **389 a** is much larger than the *Jug*.



Fig. 116 Descriptive images; on o., an image 'descriptive with symbol'.

on the seal face, also described as descriptive are paratactic combinations of similar representational motifs, and combinations of devices which seem to interact in a way which suggests narration.²⁰⁷⁶ Paratactic combinations of representational motifs between

²⁰⁷⁶ Representational motifs which stand alone on the seal face: see footnote 2072. Paratactic combinations of similar representational motifs: see footnotes 2087, 2107. Combinations of devices which seem to interact in a way which suggests narration: e.g. **113 b**, **227 a**, **389 a**, **389 b**.



Fig. 117 'Pictographic' images, combination of different motifs with: a.-d. various types of spiders; d.-g. profile heads of a ruminant; h.-m. ruminants and especially *Agrimia*; n.-p. various types of waterfowls.

which are placed ornamental devices such as *Lines/Bars* and "*Columns*" are also seen as mainly descriptive in nature, the devices which function as separators seen as adding a more ornamental note to the image.²⁰⁷⁷ A variation on descriptive images are images

²⁰⁷⁷ E.g. 235 a, 263 c, 340 a.



Fig. 118 Ornamental images.

on which a narrative theme is combined with a device whose size and position suggest a function as a symbol of some kind.²⁰⁷⁸ Such compositions are conventionally described as 'descriptive with symbol'.

'Pictographic' images constitute ca. 6.1 % of the existing images of identifiable nature. They are built of two or more representational main devices (*fig. 117*). Characteristic of such images are incomprehensible combinations of devices which cannot be seen as depictions of images seen in everyday life or in nature.²⁰⁷⁹ Only occasionally, is some interaction between the represented entities seen.²⁰⁸⁰ More often, the devices are simply juxtaposed without showing any point of contact. Often, they have similar size which does not correspond to their relative proportions in nature.²⁰⁸¹ Furthermore, they are frequently arranged in 90° or 180° rotation with reference to each other. The fact both that the nature

²⁰⁷⁸ E.g. **113 a** in which the clearly narrative composition of two mating *Agrimia* is combined with a small '*Figure-of-eight shield*' which floats in the field above the animals (*fig. 116 o*).

 $^{^{2079}}$ E.g. the combination of an *Agrimi* with an *Amphora* **1 a**, with the *Head of an agrimi* **88 a**, with a *Waterfowl* **374 a**, and with a *Man in profile* rotated 180° with regard to it **490 b**; and the combination of a *Head of a 'dog/lion with hook'* with a *Jug* **473 c**, with a *Spider* **494 c**, and with the *Head of an agrimi* **505 c**.

²⁰⁸⁰ The *Men in profile* **222 b** and **278 c** for example, have an outstretched arm touching the *Head of an agrimi* and the *Bovine* respectively.

²⁰⁸¹ E.g. the similarly sized *Spider* and *Dog/lion* **219** b; and the *Men in profile* and *Spiders* **26** c and **261** b.

of the relationship between these devices cannot be explained in terms of interaction and that, more often than not, they are combined in ways that totally dismiss natural principles could suggest that in such contexts these devices function as symbols whose combination transmits a certain message.²⁰⁸²

The boundaries between 'pictographic' images and 'descriptive with symbol' are not clear cut and it is by no means certain that the differentiation between the two is actually significant. 'Pictographic' images are understood as being composed of units of equal significance, each of which functions as a symbol, the combination of all units transmitting a message. On the other hand, the narrative theme in pictures described as 'descriptive with symbol' is seen as the main subject, the symbol providing an additional 'declaration'. The main criterion for differentiation between the two is that on the second kind of images, a narrative theme which takes the largest part of the field is combined with a smaller motif which is known to have been an important symbol in Minoan iconography.²⁰⁸³

Ornamental images constitute ca. 37.3 % of the images whose nature can be identified. As ornamental are seen on the one hand those images which consist of floral and/or ornamental main devices;²⁰⁸⁴ and on the other, images built of similar representational devices combined in ornamental schemata when these cannot be read as descriptive (*fig. 118*).²⁰⁸⁵

3.6 % of the images of identifiable nature are hieroglyphic inscriptions.²⁰⁸⁶ For the definition of motif combinations as hieroglyphic inscriptions the CHIC is followed (*fig. 119*).²⁰⁸⁷ Apart from that, as possible inscriptions are also seen some compositions which are not included in the CHIC when the main devices are juxtaposed on the seal face as if they were script signs and find correspondents among the list of signs of the CHIC.²⁰⁸⁸ In most cases of hieroglyphic inscriptions, all main devices function as signs of

²⁰⁸² For a further discussion on this subject, see the section "Pictographic' images", pp. 354–356.

²⁰⁸³ Compare for example the use of the '*Figure-of-eight shield*' **113 a** to that of the same motif on CMS I no. 216; CMS II,3 nos. 107, 111, 344; CMS II,8 no. 419.

²⁰⁸⁴ E.g. 22 c, 60 b, 95 a, 102 a, 103 a, 259 a, 277 b, 410 a.

²⁰⁸⁵ E.g. **45 b**, **60 c**, **61 a**, **65 a**, **91 b**, **116 b**, **118 c**, **214 c**, **469 c**, **555 c**. Whereas the nature of the compositions of similar representational motifs combined along the lines of 180° rotational symmetry is seen as ornamental, mirror images of such motifs are often seen as descriptive. The images of the *Men in profile* **227 a** and the *Women in profile* **498 a** for example, are considered descriptive as opposed to those of the *Amphorae* **91 b** and the *Heads of a 'ram'* **469 c** which by contrast are seen as rather ornamental.

²⁰⁸⁶ And 2.8 % of all the existing images.

²⁰⁸⁷ For some remarks on the CHIC's criteria for the definition of motifs as hieroglyphic signs and the organisation of that work, see Karnava 2000, 15–18. Karnava adds to the hieroglyphic prisms also **134 c**, **187 a**, **5 b**, **360 a** (Karnava 2000, 25). In a recent study, Anna Margherita Jasink taking into consideration suggestions made by other scholars suggests the acceptance of a larger number of motifs and motif combinations than those included in the CHIC as script signs and hieroglyphic inscriptions respectively (Jasink 2009). Thus, she sees as related to the hieroglyphic script also the following images: 5 b, 5 c, 48 b, 48 c, 52 a–c, 64 a, 75 b, 75 c, **128 b**, **134 a**, **134 c**, **187 a**, **187 b**, **346 a**, **346 b**, **360 a**, **392 a**, **392 c**, **420 a**, **420 b**, **512 a**, **512 b**, **522 a–c**, **546 c**, **598 a**, **598 b** (Jasink 2009, 191–195). For this subject, see also footnote 2088.

²⁰⁸⁸ These are **424 a** (CHIC signs 012 - 033 [?]), **543 c** (CHIC signs 032 - 065 [?]), **538 c** (CHIC signs X - 070 [?]). Other combinations which resemble inscriptions are **75 a** (the '*Arrow*' *b* could represent the CHIC sign 049), **128 a**







Fig. 120 Images of an unidentifiable nature.

the hieroglyphic script.²⁰⁸⁹ Worth noting is that among the sign combinations, the CHIC signs 044 - 049 clearly predominates with 24 examples, followed by the CHIC signs 010 - 038 with 7, CHIC signs 057 - 034 - 056 with 5, and CHIC signs 044 - 005 with 4 examples.²⁰⁹⁰ The remaining combinations are not met more than two times each.

⁽the *Whirl* could represent the CHIC sign 033), **128 b** (the *Leg* could represent the CHIC sign 010; for this subject, see p. 216 [Motif 92: Leg]), **598 b** (the '*Arrow*' b could represent the CHIC sign 049). Other motifs whose form coincides with that of devices which function as hieroglyphs but are not seen by the CHIC as parts of inscriptions, e.g. the "*Trowel*" **52 b**, have not been seen as parts of inscriptions.

²⁰⁸⁹ The CHIC does not see the *Disc* **457 b** and the *"Textile"* **519 c** as script signs although they could, according to the present author, constitute the script signs CHIC sign 073 and 041 respectively. For three examples of compositions on which main devices which do not constitute script signs are combined with ones which do see CMS VI no. 95 a–c. ²⁰⁹⁰ These numbers also consider examples of these combinations when they are related with other signs. For example,



Fig. 122 The appearance of a '*Pole' slung with 'String vessels*' in images of a different nature: a. descriptive; b. descriptive or 'pictographic'; c.-f. 'pictographic'.

Despite the fact that the nature of a considerable number of images can be conventionally identified following the above criteria, the nature of others remains elusive (*fig. 120*).²⁰⁹¹ This is often due to the inability to identify the depicted device(s)²⁰⁹² in cases in which

²⁰⁹¹ The nature of ca. 13.3 % of the existing images cannot be defined.

in the image **500 b** the combination CHIC signs 044 - 049 is met in connection with a third sign, i.e. the CHIC sign 018. For the sign combinations CHIC signs 044 - 049 and CHIC signs 044 - 005 and their possible significance, see also Olivier 1990, 16–18, especially 18 where he suggests that the two sign groups could represent two 'entities' active in the same sphere, such as 'palace' and 'temple'; also Karnava 2000, 192–193, 199–201.

²⁰⁹² Either because of fragmentary preservation or because the motifs do not find matches in devices known from the ancient or modern world.

their identification is needed in order to define the nature of the image.²⁰⁹³ In other cases, this inability is further combined with the inability to define the relationships between the depicted devices.²⁰⁹⁴ Finally, it is not always easy or indeed possible to differentiate a descriptive from a 'pictographic' image.

This latter difficulty is well exemplified by a glance at images which contain branches and those with '*Poles' slung with 'String vessels'* (figs. 121, 122 respectively). **6 a** and **125 c** for instance, could be seen as descriptive images displaying a *Bird in profile* and a '*Man with semicircular body*' respectively behind a vegetal motif represented by a '*Centipede branch*' (fig. 121 a, b). However, the way the *Legless waterfowl* and the '*Wheat stalk*' are arranged on **67 b**, in which no association whatsoever can be made between them, as well as the combination of a *Headless waterfowl* with a '*Centipede branch*' on **504 b** could suggest that all these images²⁰⁹⁵ are 'pictographic' instead (fig. 121 c, d).

Examples of images containing 'Poles' slung with 'String vessels' suggest that the same device combinations can, according to the way the units are composed in an image, result in compositions which would seem to be of a different nature (fig. 122). In the case of **389 b** and **502 c** for example, narrative images are created by the fact that the device is carried on the shoulders of a *Man in profile* (fig. 122 a). On the other hand, less clear is the nature of the image **501 a** in which the device is rotated 90° with reference to the *Man in profile* who is touching it (fig. 122 b). Although this rotation could be the result of the restricted space, the stillness of the image combined with the unnatural positioning of the 'Pole' does not allow a conclusive assertion regarding the nature of the representation. On the other hand, 'pictographic' seem to be the images of a 'Pole' slung with 'String vessels' combined with a *Fish* on **450 b**, with *Waterfowls* on **166 b**, with *Ball amphorae* on **355 c**, and with 'II-legs' on **558 b** (fig. 122 c- f). In such cases, the possibility that the images had a descriptive character seems rather faint in light of the fact that no association between the motifs can be made.

The discussion of the nature of the images above refers to the images created by the combination of all iconographic units encountered on the seal face. However, occasionally combinations of motifs which constitute independent images themselves are integrated within broader images. In the case of **490 c** for example, the descriptive theme of a *Man in profile* holding a *Jug* above an *Amphora* is combined with another motif, a *'Figure-of-*

²⁰⁹³ In cases for example, where an unidentifiable device which functions as a main device stands alone on the seal face or is combined with fillers. The lack of knowledge for instance of whether the "*Trowel*" always functioned as a script sign or whether it could also have been a representational device or a symbol of some kind, does not allow identification of the nature of the image **52 b** (*fig. 120 a*). The '*Papyrus flowers*' which flank it seem to function as fillers, and thus do not give any hint towards the identification of the nature of the image.

²⁰⁹⁴ This is the case for example with the images **62 b** (*fig. 120 b*), **62 c**, **106 c**, **276 a**–**c** (*fig. 120 c*). Especially **62 b**, **276 a**, and **276 c** create the impression that they could represent some kind of script. In favour of the opinion that in such cases we are not dealing with random engraving are the similarities of the *Unidentifiable motif LI* **62 a** and the *"Ram's head"* **276 c** with the two such devices on the stamp cylinder CMS III no. 35 a, as well as the similarity of the motif **62 a** with the Π -shaped device on CMS II,1 no. 109.

²⁰⁹⁵ 6 a, 67 b, 125 c, 504 b.

eight shield' such that it becomes part of a phenomenally 'pictographic' image or of one which is 'descriptive with symbol' (*fig. 123 b*).²⁰⁹⁶ Similarly, the descriptive images of a '*Sheep*' being suckled by its young and of an *Agrimi* hit by an arrow on **294 a** and **394 a** respectively become integrated in ornamental images (*fig. 118 a*).

Descriptive images

As mentioned above, as descriptive are described motif combinations which seem to depict natural or every-day life images (fig. 116). Several depictions of humans interacting with each other or with other motifs appear like snapshot images of everyday life. Such are for example the images of a man touching a vessel, holding a Bow with Linear arrow, holding a Fish or a 'Ring vessel' with an 'Octopus', carrying a 'Pole' slung with 'String vessels' on his shoulders, pulling up a "Saw branch", extending his arm to a 'Gaming table', or holding a Jug above a large vessel (fig. 116 a, b, d-g, j).²⁰⁹⁷ In such examples, the thought that a person is depicted while making a pot, hunting/fighting, holding the sea-creatures he/she fished, transporting an object, holding an unidentifiable device, playing a game, and taking some liquid out of a large pot respectively is reflexive. To which extent such compositions were actually simply narrative or functioned as symbols of some sort is unknown.²⁰⁹⁸ Evans saw in this kind of image representational declarations of the profession of the seal owner, e.g. a potter and a hunter.²⁰⁹⁹ However, the lack of human depictions on many seals as well as the existence of pieces which are only decorated with ornamental images place such an interpretation in the realm of hypothesis.²¹⁰⁰ Jasink suggests that the depictions of humans on the seal faces of prisms with hieroglyphs on one or two sides are not chosen by chance but have a meaningful value being related to 'a specific use of the seal' on which they were

²⁰⁹⁶ For a discussion of this image, see pp. 353–354. For an example of the combination *Man in profile – Jug – Amphora* standing alone on the seal face, see **355 a**.

²⁰⁹⁷ Touching a vessel: e.g. **203 a**, **300 a**, **396 b**, **498 b**. Holding a *Bow with Linear arrow*: e.g. **191 c**, **301 b**, **323 a**, **597 b**. Holding a *Fish*: e.g. **198 a**. Holding a '*Ring vessel*' with an '*Octopus*': e.g. **14 c**. Carrying a '*Pole' slung with 'String vessels*' on his shoulders: e.g. **389 b**, **502 c**. Pulling up a "*Saw branch*": e.g. **365 a**. Extending his arm to a '*Gaming table'*: e.g. **497 a**. Holding a *Jug* above a large vessel: e.g. **389 a**, **486 a**. The combinations of a *Man in profile* with a *Bovine* **190 b** and **278 c** are read as rather 'pictographic' in character. However, the possibility cannot be ruled out that the images are descriptive instead showing bull-leaping scenes. For further images that could potentially be interpreted in a similar manner see also **347 a** (although this could also be interpreted as a hunting scene) and CMS III no. 239 b. Should these scenes depict bull-leaping, they would represent the first examples of the depiction of animal games in Minoan glyptic.

²⁰⁹⁸ For a further discussion on this subject, see pp. 352–354.

²⁰⁹⁹ Evans 1909, 131–134. The combination of the 'archer' CMS VIII no. 12 with a *Dog/lion* could support the idea that the combination *Man in profile – Bow with Linear arrow* depicts a hunter. However, this does not necessarily mean that hunting was the profession of the owner of the seal.

²¹⁰⁰ Lack of human depictions: e.g. 6, 36, 47, 68, 78, 94, 129, 332, 577. Pieces decorated only with ornamental images: e.g. 44, 76, 100.

carved and being in some cases connected somehow to the 'words' carved on the other faces. 2101

Also paratactic compositions of humans appear narrative in nature.²¹⁰² Images of similar standing *Men in profile* placed the one next to or behind the other could represent some kind of processions (*fig. 116 h*). Often, the arm of each figure is stretched upwards to touch the head of the figure in front of it.²¹⁰³ Three similar seated *Men in profile* in a row have been seen by various scholars as rowers.²¹⁰⁴ Occasionally, each of a pair of standing or seated *Men in profile* has his arms differently positioned than the other. In one case for example, two standing figures are holding hands which are raised as if they are dancing (*fig. 116 i*). In another example, the first figure has the back arm and perhaps the front leg raised as if hopping while the figure behind it has hanging arms.²¹⁰⁵ In an image consisting of two seated figures, the back figure has the front arm raised upwards and the front figure has it extended in front.²¹⁰⁶ While the meaning of such images remains vague, they all have in common a more 'animated' character than the ones combined of identical figures. Unlike humans, paratactic compositions of other representational motifs such as animals, heads of animals, spiders, branches, vessels, and weapons do not have a narrative character because the combined devices do not interact with each other (*fig. 116 r, s*).²¹⁰⁷

Rare are narrative images composed of more than two main devices, such that whole scenes placed in a broader setting are created. In one such example, the image is composed of a *Man in profile* who carries a '*Pole'slung with 'String vessels'*, a *Dog/lion* jumping up to him, and a pot on the other side (*fig. 116 a*). In another case, a '*Man with semicircular body*' is seating on a stool while extending one arm towards a '*Gaming table'*; a "*Γ-branch*", perhaps representing a tree (?), issues behind him and extends above his head (*fig. 116 e*). A feature of the setting is perhaps depicted by a '*Kiln*' combined in an image with a *Man in profile* and an *Amphora* (*fig. 116 b*). In another case, two *Men in profile* arrange pots which are placed between them in a pile (*fig. 116 c*).

Snapshot images of animal life with a narrative character are also met. Often is the occurrence of an *Agrimi* struck on the back by an arrow (*fig. 116 k*).²¹⁰⁸ Animal interactions are represented by animal attack scenes, suckling scenes, and mating scenes. In animal attack scenes, ruminants are attacked by *Dogs/lions* (*fig. 116 l, m*).²¹⁰⁹ Most often, the aggressor, smaller, larger, or having the same size as the victim, attacks from above. In

²¹⁰¹ Jasink 2009, 116, 117.

²¹⁰² E.g. 4 c, 120 a, 130 b, 306 a, 340 c, 509 c, 579 c, A.3 a.

²¹⁰³ See also the raised arm of the *Women in profile* **A.3 a**.

²¹⁰⁴ **509 c**. For the relevant bibliography, see Wedde 2000, 332 no. 710. For a somewhat similar image in which the figures are interpreted as rowers, see Wedde 2000, 345 no. 954.

²¹⁰⁵ **464 a**.

²¹⁰⁶ **363 a**.

²¹⁰⁷ Animals: e.g. **480 a**. Heads of animals: e.g. **117 c**, **167 c**, **450 a**. Spiders: e.g. **12 b**, **306 b**. Branches: e.g. **15 a**, **604 c**. Vessels: e.g. **54 a**, **198 b**, **546 b**. Weapons: e.g. **48 b**.

²¹⁰⁸ E.g. 10 b, 347 a, 405 a, 554 b. Only in 566 b is another ruminant depicted in this state.

²¹⁰⁹ E.g. **34 b**, **113 b**, **283 a**, **299 a**, **300 b**, **415 c**.

one case, three small aggressors assault the prey, one from above, one from the front, and one from under.²¹¹⁰ Suckling scenes are represented only among ruminants (*fig. 116 n*).²¹¹¹ One small headless young, most often shown in different profile than the mother,²¹¹² is attached with the neck to the underside of the mother's hindquarters. Pairs which consist of a larger and a smaller *Dog/lion* could also represent a mother with her young.²¹¹³ However, the small animal is never depicted suckling and no actual interaction is seen between the quadrupeds. Mating scenes are represented by one depiction of mating *Agrimia (fig. 116 o*).²¹¹⁴ Static images of animal life are animal echelons, i.e. images of animals depicted the one beside the other in such a way that the bodies of those meant to be standing further in the background are covered by that of the animal which is depicted in the foreground (*fig. 116 p*).²¹¹⁵ As a result of this, the background animals are only represented by heads or, in one case, by its forepart.²¹¹⁶ The heads are always looking back with regard to the body of the foreground quadruped such that they can be differentiated from the heads of the latter, which are looking in front. Further scenes from animal life are that of a *Bee* which sits on an *Open lily blossom* (?) and that of an *Agrimi* which carries an unidentifiable load.²¹¹⁷

Occasionally, narrative compositions are created by single 'animated' motifs. The outstretched wings of the bird **117 b** for example create a vivid impression of the animal flying or opening its wings while sitting (*fig. 116 q*). The hanging tongue and the walking pose of the *Dog/lion* **389 c** create a vivacious image of a quadruped in motion.

Turning to the size of the motifs, some care is taken for the relative size of each motif to broadly correspond to the relative size of the depicted quantity in nature. Most humans for example are taller than vessels, the young smaller than their mothers, *Amphorae* and *Jugs* smaller than *Pithoi/jars* (*fig. 116 a–d, n*).²¹¹⁸ However, compositions also exist in which the importance of a motif is underlined by its large size. The *Fish* **198 a** for example is almost

²¹¹⁰ **113 b**. For parallels to this scene on a LM sarcophagus, see footnote 1106.

²¹¹¹ E.g. **425 b**; also **294 a** and **347 c** which are integrated in broader ornamental images. The identification of the two animals and consequently the nature of the image **64 c** is uncertain. Both a suckling scene and an animal attack scene could be depicted. In this second case, the small animal would represent an attacking *Dog/lion* and the large one a ruminant.

²¹¹² But not in the case of **347 c** in which it is shown in the same profile as the mother. For a discussion on the identification of the scene as a suckling scene, see *Torso of a kid* and especially footnote 1121.

²¹¹³ E.g. 7 c, 269 b.

²¹¹⁴ **113 a**. The image constitutes part of a broader image whose nature is 'descriptive with symbol'.

²¹¹⁵ E.g. **269 c**, **271 b**, **286 b**, **304 a**, **560 c** (?). In the case of **560 c**, if the *Head of an agrimi* behind the *Headless ruminant* does actually represent the head of a quadruped whose body is meant to be hidden by that of the ruminant. However, because the *Head of an agrimi* does not have a neck to connect it with the body of the animal under it, the possibility that it is not meant to be seen as the head of a background animal also seems probable. For examples of LM animal echelons, see CMS III nos. 406, 408–410.

²¹¹⁶ **304 a**.

²¹¹⁷ Bee sitting on an Open lily blossom (?): 287 c (for a discussion on the identification of this scene as such, see p. 195). Agrimi carrying an unidentifiable load: 106 b.

²¹¹⁸ Humans taller than vessels: e.g. **66 a**, **123 b**, **292 c**, **500 a**, **502 a**. Young smaller than their mothers: e.g. see footnote 2111. *Amphorae* and *Jugs* smaller than *Pithoi/jars*: e.g. **172 b**, **332 c**, **389 a**.

as long as the *Man in profile* who is carrying it and the *Pithos/jar* **497 b** is much larger than the human next to it (*fig. 116 f*).

As regards the conventions used for rendering space, the compositions are rendered in two dimensions. The motifs are almost always depicted in the same distance from the viewer. It is unknown whether parataxis functions in some cases as an iconographic convention for rendering foreground and background motifs.²¹¹⁹ It would for instance seem possible that the '*Kiln*' on **498 b** was meant to be depicted in the backround whereas the *Man in profile* and the *Amphora* in the foreground (*fig. 116 b*). If that were the case, its small size would be due to the restricted space left on the seal face above the *Amphora* rather than to intentional foreshortening. On the other hand, it has been noted above that the front legs of the '*Goat*' **190 a** could be depicted longer than the rear ones in an attempt to render the animal with its front part depicted closer to the viewer than its hindquarters. The device of overlapping bodies in animal echelons is a first clear step towards understanding the techniques by which depth of field can be rendered.

Landscape elements are, to the extent that the function of the vegetal and ornamental motifs in each composition is rightly understood, scarce. Some lines or bars placed under representational images can be seen as rendering of the ground,²¹²⁰ although the possibility cannot be ruled out that at the same time they functioned as fillers (*fig. 116 h*).²¹²¹ Small vegetal and ornamental motifs, e.g. branches and blossoms which are often placed on the field around compositions of representational nature, are better seen as fillers rather than landscape elements for three reasons. First, they appear in the same positions with regard to the main devices as fillers of clearly ornamental nature, e.g. *Lines/Bars, Wedges*, and *Triangles*.²¹²² Secondly, they are often rotated with regard to the main composition such that they cannot be seen as part of a landscape.²¹²³ And thirdly, they can be combined with representational motifs which would not normally be placed among a vegetal landscape, e.g. a *Ship*.²¹²⁴

Turning to the subject of the significance of descriptive images, it is considered very likely that each of the independent devices or more so, the whole images also had a symbolic character which may even have been their primary character. The fact that the size of a motif can in certain cases depend on the level of its importance combined with the lack of

²¹¹⁹ Whether for example motifs placed the one behind the other, e.g. **117 c**, **480 a**, **583 b**, or the one above the other, e.g. **3 c**, **198 c**, **581 c**, are meant to be depicted the one beside the other.

²¹²⁰ E.g. **361 c**, **374 b**, **455 a**, **455 b**, **579 c**. For lines which render the ground, see *Ground-line* and *Parallel ground-lines*.

 $^{^{2121}}$ E.g. the lines **449 a** and **471 a**. In both these cases, the lines under the main devices would not make sense as ground-lines. Moreover, the fact that a second line is depicted above the *'Pole' slung with 'String vessels'* **449 a**, suggests that the two lines function as fillers, similar to the lines **283 c** and **306 c** (for lines which have an ornamental character, see *Line/Bar*).

²¹²² Compare for example the position of the *Triangle* **601 a** to that of the *'Lily blossom'* **580 c**; that of the *Bars* **222 a** to that of the *"Saw branches"* **270 c**; and that of the *Wedge* **322 a** to that of the *'Fern branch'* **167 a**. ²¹²³ E.g. *'V-blossom'* **196 a**.

²¹²⁴ E.g. **266 a**, **583 c**.

landscape elements in the majority of represented images seems to suggest that descriptive images are perceived primarily as a group of symbols rather than as coherent images which should render things as close to nature as possible. In favour of this speaks also the fact that descriptive images can occasionally function as units and be combined with other motifs in broader images of 'pictographic' nature in which they could possibly have had a symbolic meaning. Such examples are the combinations of an *Agrimi* hit by an arrow²¹²⁵ with a *Fish* on **554 b** and with a *Man in profile* on **347 a** (*fig. 117 j*).



Fig. 123 The image 'man taking liquid out of a vessel' in different combinations: a. alone; b. with a '*Figure-of-eight shield*'; c. with the *Unidentifiable motif XXVI*; d. with a "Saw branch".

The possible use of descriptive images as 'pictographs' can be followed in a series of representations which contain the combination of a jug placed above another standing vessel²¹²⁶ and rotated 90° with regard to the latter such that its front side is directed upwards (*fig. 123*).²¹²⁷ The combination is most often encountered in connection with a human figure²¹²⁸ which stands on the side of the standing vessel and holds the handle of the jug (*figs. 116 d, 123 a*). The composition is understood as a snapshot image of a human taking a liquid or another substance out of a storage vessel by submerging a jug in to it.

On **490 c** this combination is combined with a '*Figure-of-eight shield*' which does not seem to be related with it in any obvious way (*fig. 123 b*). This could suggest that either the image is 'descriptive with symbol', the '*Figure-of-eight shield*' functioning as a symbol, as it does on **113 a** (*fig. 116 o*); or that the combination human with vessels and the motif '*Figure-of-eight shield*' have each a 'pictographic' value and that their combination transmits a message. On **134 c** and **323 c** the combination of the vessels is met but the human is omitted (*fig. 123 c, d*). In both images another motif, the Unidentifiable motif

²¹²⁵ For two examples in which the combination stands alone on the seal face, see 10 b and 495 a.

²¹²⁶ An Amphora or, more rarely, a Pithos/jar or a Vessel without handles.

²¹²⁷ E.g. **5 b**, **134 c**, **187 a**, **323 c**, **355 a**, **389 a**, **463 a**, **486 a**, **594 c**. The jug **463 a** stands straight whereas the *Amphora* **64 a** is rotated 180° with regard to the *Man in profile* such that the jug is adjacent to its base. This combination is seen by Karnava and Jasink as the hieroglyphic inscription CHIC signs 053 - 054 (Karnava 2000, 25; Jasink 2009, 82). ²¹²⁸ Mostly a man. On **187 a** two men and on **463 a** a woman is depicted.

XXVI and a "*Saw branch*" respectively, appears to the side of the composition at the place where on **490 c** the '*Figure-of-eight shield*' was depicted. It seems that in these examples an abbreviated version of the combination human and vessels is depicted. If that is indeed the case, one could suggest that the combination of the vessels would have the symbolic meaning it had on **490 c** but its combination with another motif would transmit a different message.²¹²⁹

It is unknown whether the examples on which the combination human with storage vessel and jug appears alone on the seal face could also have had the same symbolic meaning, although this would seem possible.²¹³⁰ In any case, of particular interest is the fact that, if the hypothesis that the devices function as some kind of symbols is right, in these images and in **490 c**, **134 c**, and **323 c** there can be followed the process whereby an image with a descriptive connotation is transformed into a 'pictograph'. The image becomes combined with another motif on **490 c** and functions as a 'pictograph'. Having totally lost any narrative connotation on **134 c** and **323 c**, the 'pictograph' becomes abbreviated.

'Pictographic' images

The question of what kinds of symbol are represented by the devices combined in 'pictographic' images cannot be answered. It would seem possible to see the use of these representational motifs as symbols which transmit a certain message but do not have a phonetic value, something like the modern road and warning signs for example (*fig. 124*). It would seem rather unlikely that signs of a writing system other than the Cretan hieroglyphic script are represented although a considerable number of motifs and motif combinations which could be seen as functioning as a unit are found in 'pictographic' contexts.²¹³¹ Against the classification of the 'pictographs' as a separate script would speak the fact that the number of the combined motifs rarely surpasses two.²¹³²

Another possibility would be that the devices understood as 'pictographs' constitute script signs of the Cretan hieroglyphic script. Partly following other scholars, Jasink proposes that a larger number of motifs and motif combinations than those included in the CHIC are part of the hieroglyphic corpus.²¹³³ In the case that this were true, the question of

²¹²⁹ It is unknown whether combinations of the same vessels in different schemata, e.g. **172 b**, **332 c**, **360 a**, **366 a**, **411 c**, **497 b**, had the same meaning.

²¹³⁰ E.g. **486 a**.

²¹³¹ Syllabaries and logographic scripts in general require a large number of signs in order to cover the need of expressing even the basic terms. Motif combinations which can be seen as functioning as a unit are those of the *Men in profile* **26 c** and **455 a** as well as those of the *Spiders* on the same seal faces. Also that of the *Frontal man* **490 c** holding a *Jug* above an *Amphora* (for this image, see pp. 353–354). For the motifs which function as main devices in 'pictographic' images, see p. 402.

 $^{^{2132}}$ An example of a clearly 'pictographic' image in which more than two main devices are combined is **219** c.

²¹³³ See footnote 2087, also p. 402.



Fig. 124 Warning sign at the Australia Zoo (adapted from Wikipedia 2009).

why many of the devices which are seen as 'pictographs' are not encountered in inscriptions found on other kind of hieroglyphic documents would remain open.²¹³⁴

A further possibility would be that combinations of 'pictographs' represent attempts to imitate the hieroglyphic script. This would mean that the motifs would be intentionally composed in the same ways in which signs in hieroglyphic inscriptions are, but would not have any script value. Pursuing this hypothesis further, the large predominance of the combination CHIC signs 044-049 could be seen as the imitation of a simple inscription from engravers who did not actually understand its significance.²¹³⁵ Following this hypothesis, the combination of motifs which are primarily used as script signs with representational motifs which are not²¹³⁶ could be explained as an attempt to create the impression of writing on seals engraved by people who did not actually know the script value of the used signs.

Against this theory would speak two points. On one hand, there is the fact that some more elaborated hieroglyphic inscriptions are also encountered on $prisms^{2137}$ while on the other, there is the fact that an hieroglyphic inscription other than the one composed of the CHIC signs 044 - 049 is encountered on the medium-hard stone CMS II,2 no. 168 a, which was recovered at the Malia Workshop. If the opinion is accepted that this seal was engraved by one of the hands which cut the steatite seals, the existence on it of a different hieroglyphic inscription could suggest that at least one of the Malia Workshop engravers reponsible for the 'pictographic' images on the prisms was acquainted, at least to a certain extent, with the hieroglyphic script. However, one could also suggest that the depictions on the seals were not a choice of the engravers but one of their clientele. In this latter case, the hypothesis that the 'pictographic' images were imitating hieroglyphic inscriptions could still be pursued. One could then suggest that the poorer illiterate clients or lower officials could have ordered a seal with images resembling hieroglyphs cut in a cheaper soft stone whereas the higher ranked literate clientele would have ordered seals cut in more precious materials bearing one or more inscriptions.²¹³⁸

²¹³⁴ One criterion adopted by the CHIC authors for recognising a script value on devices engraved on seals was their appearance also on other documents (CHIC, 13–14).

²¹³⁵ For the possible significance of this combination, see footnote 2090.

²¹³⁶ E.g. the 'Arrow'b which is combined with a Bovine on **27 c** or with a Scorpion (?) on **224 c**.

²¹³⁷ E.g. **3 b, 69 a, 115 a, 353 b**.

²¹³⁸ For this subject, see also pp. 357–358.

On discussing hieroglyphs, Jasink proposes that devices which resemble well-known script signs and stand alone on the seal face are actually ideograms.²¹³⁹ She suggests that the same script signs can in different cases constitute ideograms, determinatives, and syllables. Furthermore, attention is drawn to the fact that some hieroglyphic three-sided prisms show inscriptions composed of script signs met on different seal faces.²¹⁴⁰ This idea has also been put forward by Olivier who suggests that **519** was actually a 'printing matrix' whose individual hieroglyphic signs on the three sides were combined with each other to create hieroglyphic inscriptions.²¹⁴¹ Following this hypothesis, one could 'read' also 'pictographic' images not only in cases in which the 'pictographs' are combined in one seal face but also in the combination of whole images on different sides of the prisms.

IMAGES EXCLUSIVE TO SOFT STONE GLYPTIC

Of particular interest is the fact that while soft stone and hard stone iconography overlap to a certain extent,²¹⁴² some of the devices and images common on the prisms and the stylistically related seals are scarcely or not at all encountered on the contemporaneous hard stone seals.²¹⁴³ Elongated motifs slung with 'String vessels', 'Men with semicircular body', 'Π-legs', Heads of a 'dog/lion with hook', Heads of a dog/lion with leg, fictional creatures like the 'Boar with centipede legs', 'Squid' b, animal whirls like **218 c** and **373 a**, "Toothed sickles", 'Papyrus flowers', "Saw branches", Wedges, Papyrus triangles, Coil spirals, double and triple Centred-circles and their combinations, Meander Zs, Swastikas, Cross pommée with 'Lily flowers' as angle supplements, whirls of 'Beaked' busts, and Zs with angle supplements are only some examples of such devices.

Moreover, a large number of the descriptive images met on the prisms as well as 'pictographic' images in general are not encountered on the MM II hard stone seals. The previously discussed images of men engaging in various activities such as taking some quantity out of a storage vessel or firing the bow and paratactic images of men or animal heads for example, are very seldom or not at all encountered on hard stone seals.²¹⁴⁴ As

²¹³⁹ Jasink 2009, 113–114.

²¹⁴⁰ E.g. **519**; CMS VI no. 95.

²¹⁴¹ Olivier 1990, 17, footnote 27.

²¹⁴² Compare for example the *Spider* CMS III no. 20 to the one on **456 b**; the man CMS III no. 65 a to the man on **330 a**; the device CMS III no. 110 to that on **226 c**; the devices CMS III no. 237 c to that on **287 a**; the image CMS IV no. 132 b to those on **52 c** and **277 b**; the image CMS V Suppl. 3 no. 41 to those on **469 a** and **555 c**. For this subject, see also the section 'Seals close to the Malia/Eastern Crete Steatite Group but engraved with tools mounted on the horizontal spindle', pp. 108–109. For a comparison of soft stone and hard stone iconography with regard to the appearance and configuration of the hieroglyphs, see the section 'The prisms as carriers of script', pp. 66–70 ²¹⁴³ For some examples of MM II hard stone seals see CMS I no. 425; CMS I Suppl. no. 73; CMS II,2 nos. 249, 282, 296; CMS II,6 nos. 176, 200; CMS III nos. 19, 27, 65, 237, 238; CMS IV nos. 132, 156, 29D; CMS VI nos. 93–95, 97, 98, 100–107, 124, 125, 127–133, 138, 139, 143–149.

²¹⁴⁴ For the descriptive images, see the section 'Descriptive images', pp. 349–354.

regards 'pictographic' images, these are, with a few exceptions, not encountered elsewhere but on steatite seals.²¹⁴⁵

Similarly, some devices such as the cat or the head of a cat, as well as compounds put together from perfect circles are, with a very few exceptions, exclusive to hard stone seals.²¹⁴⁶ Moreover, the hieroglyphic inscriptions on hard stone seals tend to be more complex and certainly more elaborate than those encountered on soft stone seals.²¹⁴⁷

The existence of some devices exclusively on hard stone seals could be connected with the different technique used to engrave these stones.²¹⁴⁸ Cats, heads of a cat, and compounds made of circles are schematic devices containing perfect circles created by the use of the fast rotated tubular drill, a technique not used in connection with soft stones.²¹⁴⁹ It would therefore seem that the hard stone engravers were making use of the possibilities provided to them by the use of new tools and techniques, in this way creating more 'progressive' motifs. The fact that these techniques were not utilised by soft stone engravers would explain why such devices are not encountered on seals cut in the freehand technique.

However, not all differences in MM II soft stone and hard stone iconography can be explained on the strength of the use of different techniques. The question remains open for example why hieroglyphic inscriptions are more common, more complex, and more elaborate on hard stone than on soft stone prisms and why certain devices, certain descriptive images, and the 'pictographic' images as a whole are exclusive to the prisms and the stylistically related soft stone seals. As regards the question of the differential use of hieroglyphs on hard and soft stone three- and four-sided prisms, Poursat uses statistical data to put forward the hypothesis that hard stone hieroglyphic pieces belonged to higher officials who had more than one responsibility at an administrative/palatial level, each of which was expressed by an inscription on their seals.²¹⁵⁰ In contrast, he accounts for the single inscription most often observed in soft stone hieroglyphic prisms with reference to lower officials who only had a restricted number of responsibilities. The scarcity of single-faced hieroglyphic hard-stone seals, the vast majority of which are Petschafte,²¹⁵¹

²¹⁴⁷ See the section 'The prisms as carriers of script', pp. 66–70.

²¹⁴⁵ Exceptions are for example the images on the cornelian CMS II,2 no. 230 a, that on the agate CMS VI no. 139, and that on the breccia CMS XII no. 94 b (cut with tools operated on the spindle) which are 'pictographic' in nature. CMS VI no. 95 a and CMS VI no. 95 b resemble at first glance 'pictographic' images. However, the CHIC reads the "*Ladder*" and the axe on these seal faces as part of one inscription (CHIC no. 256). This would suggest that the *Pig/boar* and the *Bovine* on these seal faces cannot be read as 'pictographs' connected to the "*Ladder*" and the axe respectively. For the 'pictographic' images, see the section "'Pictographic' images", pp. 354–356.

²¹⁴⁶ One such exception is the head of a cat on the steatite signet CMS I no. 423. For examples of cats or the heads of a cat on MM II hard stone seals, see for example CMS II,2 nos. 3, 316 d; CMS II,8 no. 90; CMS IV no. 156 b; CMS VI nos. 93 a, 100 a, 138; CMS XII no. 112 b. For examples of compounds put together from perfect circles on hard stone seals, see for example CMS I no. 425 b; CMS II,1 no. 118; CMS II,2 no. 19; CMS XII no. 93 b.

²¹⁴⁸ For the different techniques and tools used in MM seal engraving, see the section 'Tools and techniques', pp. 37–47.

²¹⁴⁹ For this subject, see also pp. 37, 42–43, 109, 155, 270.

²¹⁵⁰ Poursat 2000, especially 189, 190.

²¹⁵¹ E.g. CMS II,2 no. 249; CMS VI nos. 124, 125; CMS XII nos. 101, 102.

could be used to support this hypothesis. However, Poursat's interpretation is less effective in explaining why lower officials with a single responsibility denoted by one inscription owned multi-facial as opposed to single-faced seals.

Regarding the 'pictographic' images, the opinion has been expressed by the present author that they could represent attempts to imitate hieroglyphic inscriptions.²¹⁵² If this were the case, the relative scarcity of hieroglyphic inscriptions on prisms in combination with the presence there of 'pictographic' images and their absence from hard stone seals could perhaps be indicative of the possession of such seals by individuals of a lower social status and/or, following Poursat's hypothesis, of a lower office. These individuals would perhaps try to imitate the behaviour of an elite or higher officials to which belonged the hard stone hieroglyphic seals. The 'pictographic' images would then be a way to give hieroglyphic prisms with a single inscription the appearance of one with more inscriptions.

ICONOGENESIS

New devices are created in various ways. The most easily identifiable is the process whereby new devices are formed by the combination of other devices (*fig. 125*). Within this framework, the iconographic units can be seen as belonging to three levels. To the first belong motifs which cannot be parsed into smaller units meaningfully.²¹⁵³ To the second level are placed those composite devices which have been formed by the combination of motifs.²¹⁵⁴ To the third level belong composite devices which have been composed by the combination of other composite devices or of composite devices and motifs.²¹⁵⁵

The creation of new units by the combination of other devices is done in two basic ways. The first is the substitution of parts of ornamental motifs by other devices and the second is the fusion or very close fitting of devices into one unit.²¹⁵⁶ The first is relevant only to a restricted number of repetition compounds such as the *Swastikas of "Saw branches"* and *of 'Fir branches'*.²¹⁵⁷ The second is the process whereby all the representational composites,

²¹⁵² See the section 'Pictographic images', pp. 354–356.

²¹⁵³ E.g. the *Lilies with 'base' a*, the *Spikes*, and the *Chevrons* **475 c**; the *Paisleys* and the '*Lily flowers'* **575 b**; the *Paisleys* **287 a**; the *Z* and the '*Wheat stalks'* **264 c**; the *S-spiral*, the *Leaves with stalk*, and the *Parallels* **226 c**; the *S-spiral* and the *J-spirals* **171 b** (fig. 125 a-c, j-l).

²¹⁵⁴ E.g. the Mirror Patterns of Lilies with 'base' a **475** b; the S-whirl of Paisleys **287** a; the Z of Stemless paisleys **575** b; the Z with 'Wheat stalks' as angle supplements **264** c; the supplementation Two-armed whirl **226** c which is built by an S-spiral with Leaves with stalk as shoulder supplements; the supplementation Four-armed whirl spiral **171** b which is built by an S-spiral with J-spirals as body supplements (fig. 125 d-f, m-o).

²¹⁵⁵ E.g. the Running Mirror pattern of Lilies with 'base' a **475 b**; the S-whirl of Paisleys with Paisleys as shoulder supplements **287 a**; the Z of Stemless paisleys with 'Lily flowers' as angle supplements **575 b**; the supplementation Two-armed whirl with Parallels as body supplements **226 c**; the supplementation Four-armed whirl spiral with 'Papyrus flowers' as curve supplements **171 b** (fig. 125 g-i, p, q).

²¹⁵⁶ By very close fitting of the devices the *C-spiral roof compounds* are created.

²¹⁵⁷ E.g. **278 b** and **529 a** respectively. For the subject of the difficulty in identifying the process whereby compounds are created, see pp. 305–306.



Fig. 125 The three levels to which belong the iconographic units.



Fig. 126 The creation of repetition compounds by the fusion of compositions: a.–g. to the left is the composition and to the right the compound.

most of the compounds, and the miscellaneous composite devices are created (*figs. 94*, 95). Many devices formed by this second process result from the fusion of ornamental compositions in a single entity. This latter sub-process is relevant to the formation of repetition compounds (*fig. 126*), supplementation compounds (*fig. 127*), and border



Fig. 127 The creation of supplementation compounds by the fusion of compositions. a.–c. to the left is the composition and to the right the compound.



Fig. 128 The creation of border compounds by the fusion of compositions. a., b. to the left is the composition and to the right the compound.

compounds (*fig. 128*) and can be seen in the comparison of various compositions with composite devices. The two "Toothed sickles" **504 a** which are arranged in 180° rotational symmetry for example,²¹⁵⁸ have been fused in repetition Z-whirls with curved arms on **415 b** and **505 b** (*fig. 126 a*). The two Line combs **A.5 a** have been fused in one device on **252 a** and **258 b**, the Wedge **493 c** has become the shared stalk of the Leaves with stalk on the S-whirl **44 a** and the Star flowers **438 a** with the small Stemless paisleys near their base have been fused in the S-whirl **87 c** (*fig. 126 b*–*d*). Also, the two antithetical 'Poles' slung with 'String vessels' **42 b** have been fused into a repetition Triskeles on **85 c** (*fig. 126 e, f*). A comparison of the compositions **10 c** and **579 a** could suggest that on **10 c** the whole composition Protome of a man holding a "Saw branch" has been treated as a unit and rotated 180° to be fused with its twin image in a new device (*fig. 126 g*).

²¹⁵⁸ A similar composition is created by the 'Beaked busts with ponytail' 508 b.

Free-standing floral motifs, such as those placed on the angles of the *Quatrefoil* **368 c** and **461 c** have become supplements by adhering to the angles of the *Quatrefoil* **487 c** (*fig. 127 a*). Similarly, floral motifs which fill the curves of the *S-spiral* **575 a** and the angles of the *Z-whirl* **280 c** find equivalents on the supplements issuing from the body of similar devices on **318 b**²¹⁵⁹ and **309 a** respectively (*fig. 127 b, c*). Finally, the images of *Whirls* and *Saltires* surrounded by *Borders* on **485 b** and **13 c** respectively find equivalents on the images of similar devices inscribed in *Borders* on **185 a** and **95 c** (*fig. 128*).²¹⁶⁰

These considerations show that the fusion of motifs arranged in 180° rotational symmetry forms composite two-armed whirls whereas the coalescence of those arranged along the lines of 120° and 90° rotational symmetry forms composite whirls with three or four arms respectively. Mirror images of devices become fused into mirror patterns, radiating compositions to triskeles, crosses/saltires, and stars. Small vegetal, ornamental, and occasionally representational motifs become supplements by adhering to other devices, whereas devices which abut the inner sides of their borders are fused with them into border compounds.

The way the motifs are combined plays a decisive role in the likelihood that new devices will be created by fusion. While for example paisleys and flowers arranged in 180° rotational symmetry with the axis of symmetry located between their inner sides often become fused into one device,²¹⁶¹ those combinations in which the axis of symmetry is located between the outer sides of the motifs do not form new entities.²¹⁶²

Transformation and abstraction are further processes by which new ornamental devices are created (*fig. 129*). Occasionally, these processes can result in the creation of motifs, i.e. units which cannot be broken down into smaller entities, from compounds (*fig. 129 a–d*). While the *Triangles* **44 b** for example, can still be seen as separate units, those on **64 b** have become an indispensable part of the *Border* and cannot be detached from it (*fig. 129 a–d*). Each of the devices on **448 b** can be parsed to a *Star* and a *Border* as opposed to the device **67 c** (*fig. 129 b*). In this latter case, the arms of the star project further than the border making the device an entity which cannot be broken down into its constituent elements in a meaningful way. The *Unidentifiable motif LXIII* **430 c** and the *Segmented circle* **398 c** could be seen as abstracted versions of *Z-whirls with curved arms composed of "Toothed sickles"* (*fig. 129 c*). The *Z-whirl with curved arms composed of "Boars with centipede legs*' **492 a** has been transformed into the abstract pattern **260 b** (*fig. 129 d*).²¹⁶³ By the abstraction of necks and face, the two motifs combined on the whirl **492 a** have already lost part of their representational character. This has totally vanished in **260 b** whose connection with **492 a** is no longer detectable.

²¹⁵⁹ And **533 a**.

²¹⁶⁰ Also **171 a** and **44 b**.

 $^{^{\}rm 2161}$ But not always, e.g. 45 b and 214 c.

²¹⁶² The axis of symmetry located between their inner sides: e.g. **3** a, **115** b, **445** c, **555** b. The axis of symmetry located between their outer sides: e.g. **76** c, **319** a, **438** a, **553** c, **555** c.

²¹⁶³ See *Abstract Z-whirl pattern*.



Fig. 129 The process of abstraction and transformation in the creation of new devices. On c., one can follow the fusion of a composition into a compound and the subsequent transformation of the latter into a motif.

Abstraction and transformation can be followed on a larger range of devices. The *Protomes of a dog/lion* of the repetition *Z-whirl* **591 b** for example, have been transformed to *Paisleys* on the repetition *Two-armed whirl* **93 a** (*fig. 129 e*). Only the *Line* which issues from the shoulder of each *Paisley* and which is the remnant of the *Protome's of a dog/lion* front leg betrays the origin of these *Paisleys* on figural motifs. In the process of transformation to ornamental motifs, the *Protomes of a dog/lion* of the repetition *Z-whirl* **288 a** have lost their muzzles in the repetition *Z-whirl* CMS III no. 112. The fused stalks of the *Leaves with stalk* on the *S-whirl* **226 b** have been transformed into an S-shaped entity whose ornamental character is well demonstrated by its similar configuration to the stem of the *S-spiral* **287 b** (*fig. 129 f*).

Further examples of similar transformations are the "Arrows" **484 b** which have been replaced by combinations of *Chevrons* and *Papyrus triangles* on **143 b**, these latter having been further abstracted to simple *Chevrons* in **154 b** (*fig. 129 g*). A similar example is also the inner hatching of the *C-spirals* **510 a** which is possibly an abstraction of the combination of the upper part of the 'Wheat stalks' with the *C-spirals* on **362 b** and **30 c** (*fig. 129 h*).



Fig. 130 Transformation in the creation of new devices.

The process of transformation, but not abstraction, can be followed in more examples (*fig. 130*). The *Hatched triangles* **23 a** for instance, transform into a *Papyrus triangle* on **190 a** which shows signs of its origin in that its form is still that of a scalene triangle and the dentation on its upper part issues from a deeper part within the body (*fig. 130 a*). On **3 b** on the other hand, the *Papyrus triangle* has taken the shape of an isosceles triangle, which is typical of the motif, and shows a massif body and dentation of short spikes issuing from the upper side. Finally, the '*Minoan dragon*'**55 a** can be seen as a *Dog/lion* which has been transformed to another creature by acquiring an oblong one-piece body (*fig. 130 b*).

THE ICONOGRAPHY OF THE PRISMS WHICH COME FROM THE MALIA WORKSHOP

A large variety of devices is represented on the prisms which come from the Malia Workshop. Among the motifs, most popular are *Men in profile*, *Dogs/lions*, *Bovines*, *Heads of an agrimi*, *Waterfowls*, *Spiders*, *Amphorae*, *Jugs*, "Saw branches", S-spirals, Lines/ Bars, Wedges, Whirls, and Blobs.²¹⁶⁴ Apart from these, also Agrimia, Pigs/boars, Heads of an 'ox', Heads of a 'ram', Fish, "Arrows", Ships, Hatched Ds, 'Wheat stalks', Papyrus triangles, Chevrons, "Columns", Cross pommée, Swastikas, Triangles, Zs, "Trowels", and 'Arrows' b are met more than once.²¹⁶⁵ Repetition, supplementation, and border compounds as well as representational composites are also represented.²¹⁶⁶

Descriptive, 'pictographic', and ornamental images as well as inscriptions are met (*fig. 131*). *Men in profile* can stand alone on the seal face, be paratactically combined with other men or touch another motif.²¹⁶⁷ When seated, they are often depicted to the side of a vessel or holding a *Bow with Linear arrow*.²¹⁶⁸ Quadrupeds and *Waterfowls* can stand alone, be accompanied by fillers and occasionally be combined with other main devices.²¹⁶⁹ Frontal heads of animals often stand alone or are flanked by fillers whereas paratactic combinations of *Heads of an agrimi*, *Amphorae*, and *Jugs* are frequently met.²¹⁷⁰ *S-spirals* and *Zs* can function as main devices or be supplemented whereas *Cross pommée* always take '*Lily flowers*' as angle supplements.²¹⁷¹ '*Wheat stalks*', *Wedges*, and occasionally *Blobs* are used as fillers, *Blobs* being also encountered in combinations of more than one

²¹⁶⁸ To the side of a vessel: e.g. **203 a**. Holding a *Bow with Linear arrow*: e.g. **191 c**.

²¹⁶⁴ Men in profile: e.g. 198 a. Dogs/lions: e.g. 134 b, 135 a. Bovines: e.g. 164 a, 198 c. Heads of an agrimi: e.g. 184 b, 195 a. Waterfowls: e.g. 188 a, 207 a. Spiders: e.g. 146 a. Amphorae: e.g. 134 c, 206 b. Jugs: e.g. 186 b, 187 a. "Saw branches": e.g. 147 a. S-spirals: e.g. 177 c. Lines/Bars: e.g. 196 c. Wedges: e.g. 196 b. Whirls: e.g. 191 b. Blobs: e.g. 145 c.

²¹⁶⁵ Agrimia: e.g. 136 a. Pigs/boars: e.g. 159 a. Heads of an 'ox': e.g. 154 a. Heads of a 'ram': e.g. 156 a. Fish: e.g. 135 b. "Arrows": e.g. 163 a. Ships: e.g. 145 a. Hatched Ds: e.g. 189 a. "Wheat stalks': e.g. 207 a, 207 b. Papyrus triangles: e.g. 143 b. Chevrons: e.g. 143 b. "Columns": e.g. 235 a. Cross pommée: e.g. 191 a. Swastikas: e.g. 158 b. Triangles: e.g. 145 a. Zs: e.g. 149 b. "Trowels": e.g. 145 b. 'Arrows'b: e.g. 145 b.

²¹⁶⁶ Compounds: e.g. **44 b**, **160 b**, **168 c**, **170 b**, **171 b**, **177 c**, **182 c**, **206 b**, **208 b**. Representational composites: e.g. the '*Pole' slung with 'String vessels'* **167 b**, the *Bow with Linear arrow* **191 c**.

²¹⁶⁷ Alone: e.g. 149 c. Paratactically combined with other men: e.g. 187 b. Touching another motif: e.g. 147 a.

²¹⁶⁹ Alone: e.g. **150 a**, **155 c**, **164 a**. With fillers: e.g. **147 b**, **155 b**, **208 a**. With other main devices: e.g. **147 c**, **182 a**, **198 c**.

²¹⁷⁰ Frontal heads of animals standing alone: e.g. 156 a, 162 b. Frontal heads of animals flanked by fillers: e.g. 154 a. Paratactic combinations of *Heads of an agrimi*: e.g. 167 c. Paratactic combinations of *Amphorae*: e.g. 198 b. Paratactic combinations of *Jugs*: e.g. 196 b.

²¹⁷¹ S-spirals/Zs functioning as main devices: e.g. **149 b**, **163 a**. S-spirals/Zs functioning as supplemented devices: e.g. **208 b**, **299 b**. Cross pommée functioning as supplemented devices: e.g. **184 a**, **199 c**. However, the Saltire pommée on the hemicylinder CMS II,2 no. 112 which could constitute the CHIC sign 070 (CHIC no. 199) does not take supplements.



Fig. 131 Images on prisms from the Malia Workshop.

in which they function as main devices.²¹⁷² *Swastikas* either stand alone or are placed at the centre of a composition.²¹⁷³ Finally, the "*Trowel*" and the '*Arrow*' *b* are only found combined with each other, making up the inscription CHIC signs 044 - 049.²¹⁷⁴ This is the only hieroglyphic inscription represented on the prisms of the Workshop.²¹⁷⁵

Some iconographic observations on the figural motifs encountered on the steatite seals which come from the Workshop are of particular interest because they provide useful guidelines for the classification of such motifs. The first is that all three devices, *Head of a 'ram'*, *Head of an 'ox'*, and *Head of a 'goat'*, are represented on seals of the Deep Cut Style (*fig. 132*). If the opinion is accepted that seals of this style are the work of one hand,

²¹⁷² 'Wheat stalks', Wedges, Blobs as fillers: e.g. 145 b, 183 a. Blobs as main devices: e.g. 159 a.

²¹⁷³ Alone: e.g. **143** a. Centre of a composition: e.g. **158** b.

²¹⁷⁴ E.g. **158 a**.

²¹⁷⁵ Another hieroglyphic inscription is encountered on side a of the breccia three-sided prism CMS II,2 no. 168 (CHIC no. 234 α); also on the side a of the amygdaloid CMS II,3 no. 151 (CHIC no. 204 α) and perhaps on the hemicylinder CMS II,2 no. 112 (CHIC no. 199).



Fig. 132 Head of a 'ram', Head of an 'ox', and Head of a 'goat' on prisms of the Deep Cut Style.



Fig. 133 Dogs/lions on prisms of the Deep Cut Style: a. robust version; b. slimmer version.

the existence of three kinds of frontal heads of a ruminant in this group would suggest that each of them is a depiction of the head of a different animal.

Among the *Dogs/lions* a more robust and an overall slimmer version are met (*fig. 133*).²¹⁷⁶ The first shows very broad chest, neck and head which are not differentiated from each other, and long thick jaws which terminate in small triangles, perhaps denoting the lips. The second subtype is less robust; the chest is slimmer, the head, represented by a boring, is clearly differentiated from the neck, and the jaws are rendered by short spikes. It is thought possible that the two versions are the depictions of two different animals, i.e. a lion, represented by the robust variation and a dog with an overall thinner body. In the case that this is true, the broad thick neck of the first subtype would represent the mane of the lion, which is not rendered by hatching in the quadrupeds of the Workshop.²¹⁷⁷ In view of the fact that most examples of the two subtypes belong to the Deep Cut Style, the possibility that the two actually render the same animal created by different hands would seem improbable.²¹⁷⁸ A differentiation between the two animals on the prisms of the Workshop can to a certain extent help distinguish dogs and lions among the rest of the material.²¹⁷⁹

The large majority of *Dogs/lions* are crouching and all have open mouths. On the other hand, *Bovines*, some of which have a markedly long tail,²¹⁸⁰ are most often standing or

²¹⁷⁶ More robust: e.g. also 155 c. Slimmer: e.g. also 137 a.

²¹⁷⁷ However, it is rendered by hatching on the Busts of a dog/lion of the S-whirl 160 b.

²¹⁷⁸ For the Deep Cut Style, see pp. 75–77.

²¹⁷⁹ For a discussion on this subject, see *Dog/lion*.

²¹⁸⁰ E.g. 155 b, 164 a.



Fig. 134 a. Standing *Bovines* on prisms of the Deep Cut Style; b. seated *Bovines* on prisms of the Deep Cut Style (left) and the Hasty Cut Style (right).

seated and always have a closed mouth. Among the *Ships*, the Kolonna type predominates with only one example belonging, according to Wedde, to the Platanos type.²¹⁸¹ '*Papyrus flowers*' and '*Lily flowers*' are the most commonly used supplements.

As a rule, motifs in right side view predominate. All the *Heads of an agrimi* for example, are depicted in right profile as are also the majority of *Men in profile*, *Dogs/lions*, *Waterfowls*, *Jugs*, and *Ships*. Among a subtype of *Bovines* which have long legs and necks, the standing animals are depicted in right profile and the seated ones, represented by examples which belong to both the Deep Cut Style and the Hasty Cut Style, are shown in left profile (*fig. 134*).²¹⁸² This suggests that, at least in this case, the pose and not the idiosyncrasy of the particular hand defines the direction of the quadrupeds. In favour of this, would also speak the fact that the standing *Bovines* belong to the Deep Cut Style and were thus probably made by the same hand which created the seated animals of the same style.²¹⁸³

The number of the quadrupeds' legs seems to be connected with the pose of the animal and also the mood of the engraver when creating a certain motif. On the other hand, it does not seem to be denotative of a particular hand. All standing quadrupeds for example, show four legs²¹⁸⁴ whereas the seated ones and most crouching ones have two legs. The only crouching animal with four legs is the '*Goat*' **190 a**, which like many animals depicted in a crouching pose belongs to the Deep Cut Style. This suggests that, in this particular example, the larger number of legs is a testimony to the somewhat more 'adventurous'

²¹⁸¹ The *Ship* **232 c** constitutes the exception. The possibility exists for the present author that this example also belongs to the Kolonna type (for the relevant discussion, see *Ship*). The *Ship* **181 b** cannot be identified as belonging to any of Wedde's clusters. For the two clusters, see Wedde 2000, 41-50.

²¹⁸² Subtype of *Bovines* which have long legs and necks: e.g. **143 c**, **155 b**, **164 a**, **190 b**, **201 c**; but not **169 b**, **177 a**. Standing animals in right profile: e.g. **143 c**, **190 b**, **198 c**. Seated animals in left profile: e.g. **155 b**, **164 a** (Deep Cut Style), **167 a** (Hasty Cut Style); for the two styles, see pp. 75–77.

²¹⁸³ E.g. 155 b, 190 b.

²¹⁸⁴ But not the *Dog/lion* on the conoid CMS II,2 no. 173, which has three legs.

mood of the engraver when working on the specific device as opposed to a witness of the idiosyncrasy of a hand.

Noteworthy is the appearance of almost identical motifs on different pieces.²¹⁸⁵ At times, the size of such motifs is the same, a feature which could suggest that they were traced on stone from templates.²¹⁸⁶ On the other hand, slight size differences among other almost identical devices could speak against such a hypothesis.²¹⁸⁷ The fact that various iconographic versions of one type exist on pieces which belong to the same style could also suggest free creation of each motif.²¹⁸⁸

Some iconographic clusters of pieces belonging to the same style which show the same motifs on two seal faces are encountered.²¹⁸⁹ Most times, such pieces are fragments, a feature that could be taken as an indication that one of the pieces in each cluster represents a further attempt to manufacture again a seal which broke during manufacture. On the other hand, the possibility cannot be excluded that a serial construction of pieces with similar motifs was undertaken. Whether the motifs were randomly chosen from the extant repertoire or whether their combination had any particular meaning is a question which cannot find an answer in this study as this would require extensive research on the subject of the significance of the used motifs.

²¹⁸⁵ Compare for example 167 a/168 a, 135 c/197 a, 201 c/231 a.

²¹⁸⁶ Compare for example 167 c/170 a.

²¹⁸⁷ E.g. 183 b/185 c, 135 c/197 a.

²¹⁸⁸ E.g. **134 b**, **147 b**, **155 c**.

²¹⁸⁹ E.g. 135/197, 183/185, 195/199, 201/231.

CONCLUSIONS

The MM three-sided soft stone prism is an axially symmetrical seal with triangular cross section, three engraved faces, and stringhole channel which runs in line with its axis. Its seal faces, which can often be outlined by grooves, are flat, have the approximately same shape and size, bear different images, and meet each other at about 60°.

The vast majority of prisms are manufactured in soft stones. Among these, steatite is most commonly used whereas chlorite is employed for a much smaller number of examples. Only individual pieces are cut in other soft stones or minerals, e.g. sepiolite. A few examples are manufactured from soft artificial substances such as paste or faience whereas the use of bone, if at all represented, is very scarce. The occasional employment of medium-hard stones, i.e. breccia, pebble stone, and pseudo-jasper, is encountered mostly on pieces which combine elements of soft material and hard stone glyptic and are for that reason placed halfway between soft material and hard stone engraving.

Most of the prisms are cut with hand tools manipulated freehand against the seal such that irregular, deep or more seldom shallower intaglios are created. Occasionally, drills and files are applied to the fixed seal from above and are moved rapidly in a backwards and forwards manner, either in a plain or over a fixed point to create lines or 'cup sinkings' and centredcircles respectively. In these latter cases, the formed intaglios are regular and smooth. The particularly smooth intaglios of individual examples do not rule out the possibility of the use for their manufacture of tools operated on the horizontal spindle. Knives, saws/files, solid and perhaps also tubular drills, wheels (?), abrasives, and polishers are some of the tools which would have been used for the manufacture of the prisms.

The likelihood that the manufacture of Minoan prisms was inspired by foreign influences cannot be ruled out as individual finds of triangular prismatic seals are met in Egypt and the East during the 3rd and 2nd millennium. On the other hand, evidence from Crete itself could suggest that the adoption of the form was an independent Minoan development. This would have come about from the experimentation with the position of the stringhole channel and the engraved faces on triangular prismatic boar's tusk/bone seals, the imitation of axially perforated such seals in stone, and the desire or need to combine more than one seal face in one seal.

Of great importance for the research and understanding of the prisms is the discovery in 1956 of a seal-cutter's workshop, itself part of a larger architectural complex with a probable official function which was situated some meters northwest of the Malia Palace. The great majority of the seals that come from the Workshop are cut in steatite whereas among them prisms cut with hand tools are by far the most commonly represented form. It
is possible that at least some of the prisms which were found in the official buildings of the complex were manufactured at this workshop.

The distribution of the prisms suggests a special connection with east-central and eastern Crete and especially with Malia wherefrom comes a remarkably large number of examples. Fewer pieces come from the Mesara and the Knossos – Heraklion area whereas four examples come from sites outside Crete.

In Malia, all but one example have been recovered in the residential quarters of the town. On the other hand, prisms recovered in the rest of east-central Crete and in eastern Crete are often found in burial contexts. All the pieces that come from the Mesara have been recovered in tholoi, a picture which could be connected to the lack of excavated settlements in the area. In the Heraklion – Knossos area and in find places outside Crete, prisms have been found in both residential and burial contexts.

Context evidence and stylistic considerations suggest that the first prisms were manufactured as early as MM IA and continued to be in use down to MM III/early LM IA. However, the period of the floruit of the form is MM II, to which the vast majority of the extant examples are dated. The existence of sealings which have been impressed by prisms shows that these seals had a sphragistic function.

Iconography and to a certain extent material and technical execution point to the division of the prisms into several groups, part of which are also seals of other forms. The most important of these are the Malia/Eastern Crete Steatite Group, the Mesara Chlorite Group, and the Central Crete Ornamental Group. These groups are of particular significance because on the one hand, they can be localised in particular regions of Crete; and on the other, the different ratio prisms/seals of other shapes in each of them as well as their iconography seem to suggest a different function and significance of the prism in the different parts of Crete. This could perhaps, albeit with caution, be taken as an indication of the fact that these groups belong to different socio-political and/or religious systems. More to the point, the relative dating of each offers hints regarding the place of birth of the three-sided prismatic form. Moreover, it provides fertile ground for raising the question of the reasons of its adoption from the various regions of Crete.

The vast majority of the extant prisms belong to the Malia/Eastern Crete Steatite Group. Apart from a few exceptions, these seals are manufactured from steatite. Within this group, the bulk of the seals are prisms. Apart from these, also conoids, four-sided prisms, and signets are represented relatively often. The tools are mostly manipulated freehand such that deep, irregular intaglios are created. Frequent is the use of fast motion drills which are applied to the fixed stones from above and create regular, smooth 'cup sinkings'. The tools penetrate deep into the stone and often create flat board-like intaglios with deeper outline walls which are seen as characteristic of the group. On these seals, the representational element prevails. Apart from descriptive and ornamental images, also met are hieroglyphic inscriptions as well as 'pictographic' images, i.e. combinations of motifs which show no interconnection with each other and create the impression that they function as pictographs of some kind.

Also belonging to this group, which is dated to MM II, are almost all steatite seals which have come to light at the Malia Workshop. This, as well as the fact that the large majority of the seals come from Malia, point to the said town as one of the most important, if not the most important centre of production of the group. Apart from Malia, such seals are widely distributed in places around it, in the Lasithi Plateau, as well as in various sites of eastern Crete. A few pieces which have been recovered from central Crete and two said to come from Egypt are considered imports from the east-central and eastern part of the island.

A markedly smaller number of prisms constitute part of the Mesara Chlorite Group. The most commonly used material for the manufacture of these seals is chlorite. Within the group, the ratio prisms/seals of other forms differs noticeably from that of the previous group in that prisms are much more scarcely represented. The prisms can be divided into various clusters which also seem to differ chronologically. A restricted number of seals of other shapes, mainly conoids and stamp cylinders, come close to the earlier clusters. On the other hand, numerous buttons, bottles with horizontal perforation on the handle, as well as Petschafte, these latter made of chlorite or steatite, can be attached to the later clusters. As in the previous group, the tools are mostly manipulated freehand. However, in these seals both deep but also shallower intaglios are met whereas the use of fast motion drills for the creation of 'cup sinkings' is rare. Descriptive and ornamental images are encountered whereas hieroglyphic inscriptions and, with one exception, 'pictographic' images are not. With the exception of the seals of one of the earlier clusters, the ornamental element plays the most important role.

The earlier seals of the group are dated to MM IA late/MM IB and the later to MM II. The compositions of the group find good iconographic parallels with various seals types from the Phaistos sealings. This, as well as the fact that the vast majority of seals come from south-central Crete point to this area and particularly to the Mesara as the place of their production. A few seals which are said to have come from areas outside this region are considered imports from south-central Crete.

The last most important group of seals in which prisms are represented is the Central Crete Ornamental Group. Steatite and to a lesser extent various whitish materials are used for the manufacture of these seals. Material and iconography point to the division of these seals into two clusters. Whereas prisms are the most represented shape within the group, the ratio prisms/seals of other forms is comparable to that of the Mesara Chlorite Group and much smaller than that of the Malia/Eastern Crete Steatite Group. The majority of seals of other shapes which belong to the group are Petschafte and discoids. As opposed to the previous groups, the tools are presented to the fixed seal from above and are manipulated with fast motion that achieves cutting through abrasion. As a result of this, the intaglios are very regular and smooth such that their differentiation from intaglios created by tools operated in the horizontal spindle is not always straightforward. These seals are decorated exclusively with ornamental images put together of lines, 'cup sinkings', and centred-circles.

The group is dated to MM II–MM III/early LM IA. The numerous parallels that the images of these seals find among seal types from the Phaistos sealings as well as their distribution in the Knossos – Heraklion area and south-central Crete suggests that their production centres were located in these areas. The few pieces which have come to light in other regions of Crete as well as three pieces which come from the rest of the Aegean were obviously imports from central Crete.

The picture drawn by the distribution of the above groups in MM Crete allows for some further considerations. First, the fact that the earlier prisms of the three groups come from the Mesara could be taken as an indication that this is the place where the triangular prismatic form was created or at least first adopted in Crete. The manufacture of multi-faced seals lies well within the tradition of the Mesara and can be traced back to EM II. Given the rich repertoire of such seals in south Cretan glyptic, the creation of a three-sided triangular shape does not seem out of place. The choice of chlorite for the manufacture of these seals, which is probably connected with the increasing tendency of MM glyptic for the use of stone instead of hippo ivory/bone, is explained by the abundance of chlorite sources in south-central Crete and also agrees with the wide use of the stone for the manufacture of MM stone vessels in the Mesara.

The adoption of the form by east-central and eastern Crete could have taken place sometime within MM IB/MM II under the influence of the Mesara. The eastern engravers would have used a different stone which would possibly have been more readily accessible to them, or less likely, would have had a special significance. The wide use of the form in this area suggests that it corresponded more to the needs of this society.

After the adoption and wide use of the form in eastern Crete, the use of steatite for its manufacture would have become commonplace. The steatite prism would then have been overtaken in MM II from the engravers of central Crete who used steatite also for the manufacture of other seal forms.

The present lack of knowledge regarding the meanings of the devices/motif combinations encountered on the prisms and the related seals places all suggestions regarding the exact function of these seals in the realm of hypothesis. However, two characteristics of the eastern steatite prisms that are absent from the prisms of central Crete deserve further attention. These are the appearance on these seals of 'pictographic' images and of hieroglyphic inscriptions. While the essence of the former totally eludes us, the fact that their devices are combined in ways similar to those in which the hieroglyphs are put together in inscriptions creates the impression that these combinations could transmit some kind of information. On the other hand, the small percentage of 'pictographic' images and hieroglyphic inscriptions encountered on these prisms as well as the fact that only rarely are such images encountered on all three sides of one piece speak against the supposition that the primary function of these seals was connected with the potential to transmit on their three faces a large amount of information by the use of such motif/device combinations. However, the question of whether the combinations of the devices on the three sides of

each seal could actually be 'read' as 'pictographic' images, similar to the ones which can be met on one seal face, remains open.

While some symbolic significance for the devices of the Mesara prisms cannot be ruled out, the transmission of information by the combination of the images of their three sides seems less possible. This is mainly because such a system of device combination, whether this be in the form of the known hieroglyphic script or 'pictographic' images, is not met in connection with the chlorite seals of central Crete.²¹⁹⁰

The question of the possible information transmission by the combination of the depicted devices is not posed with regard to the Central Crete Ornamental Prisms. Their very similar ornamental images on all three sides and their smooth and regular intaglios would suggest that the primary goal of the engraver was the creation of aesthetically pleasant representations.

The lack of hieroglyphs on the prisms of the Mesara Chlorite Group agrees with the general scarcity of the script in south-central Crete.²¹⁹¹ On the other hand, that on the Central Crete Ornamental Group is connected with these specific seals but does not reflect a broader situation. Hieroglyphic inscriptions on sealings and clay documents are common in Knossos, where a large amount of seals belonging to the group has come to light.²¹⁹²

The question is posed whether the distribution of these three seal categories could reflect their belonging to different socio-political and/or religious systems. The appearance on the eastern steatite prisms of hieroglyphic inscriptions and 'pictographic' images, the prevalence of representational devices and images – which as opposed to ornamental devices are more likely to have had symbolic connotations – but most importantly their large numbers clearly suggest an important role of these objects in the society that was producing them. On the other hand, the small number of prisms that were produced in central Crete and the fact that their majority is engraved with ornamental devices suggest a much smaller and perhaps different role of these seals in the central part of the island. This difference suggests that the two societies, on the one hand that of east-central and eastern Crete, and on the other that of central Crete, had different ways in fulfilling one aspect of their needs or, less likely, had different needs (?). The question of whether this difference reflects the existence of different socio-political and/or religious systems in the two regions can only be answered when the nature of the needs which these seals fulfilled, i.e. administrational, religious, or other social, is known. However, worth noting is that the evidence from the study of Protopalatial seals agrees to a great extent with the evidence

²¹⁹⁰ However, such a system is seen in the combination of the devices of the Phaistos disc.

²¹⁹¹ Only one clay inscribed document (CHIC no. 122), three seals (CHIC nos. 190, 196, 313), and one sealing (CHIC no. 151) come from the area. Additionally, the inscriptions on two pot sherds from Phaistos could be interpreted as hieroglyphs (Olivier 1999, 420 nos. 330ter/01, 330ter/02). For these two inscriptions, see also Karnava 2000, 24.

²¹⁹² Sealings: CMS II,8 nos. 56, 57, 62–80, 82–86, 88–90. Clay documents: CHIC nos. 1–069. However, only one seal with hieroglyphs is said to come from Knossos (CMS VI no. 13). On the strength of its iconography and style, this piece can be connected to Archanes (see Sbonias's The 'Archanes Script' Group, Sbonias 1995, 107–113). Worth noting is the lack of hard stone hieroglyphic seals from Knossos like the ones which impressed the clay sealings which have come to light in the palace complex.

discussed by Cadogan in his studies regarding the existence of a Knossian and a Malia-Lasithi state in Protopalatial Crete.²¹⁹³

The wide distribution of the Central Crete Ornamental Group in both north and southcentral Crete suggests a similar significance and function of the prisms in these two areas in MM II/MM III. On the other hand, the Mesara Chlorite Group represents a local development which grew from the earlier glyptic of the Mesara. The function of its prisms in MM I and MM II need not have been different from that of the other multi-faced seals which are encountered in the same area in the EM and MM periods. Also the small numbers of the prisms suggest that they did not have a special significance or function in comparison to seals of other forms.

Noteworthy is the fact that none of the Malia/Eastern Crete Steatite Seals has been recovered in the rest of the Aegean, although two are said to come from Egypt.²¹⁹⁴ On the other hand, the fact that a few pieces of the Mesara Chlorite Group and the Central Crete Ornamental Group have come to light in two islands and the Peloponnese would seem to suggest an opening of central Crete to the rest of the Aegean.²¹⁹⁵

Among the remaining prisms, the Prisms with EM III/MM I influences are close to the Malia/Eastern Crete Steatite Prisms but can perhaps be dated somewhat earlier than these, i.e. to MM IB/MM II. The Dawkins Prism which can tentatively be dated to MM I/MM II, the Platanos Ornamental Prism which is dated to MM IB/MM II, as well as the Phaistos Agrimi Prism and the Platanos Prism with the Cable Devices which are dated to MM II fit well in the glyptic tradition of central Crete. In the same tradition would be placed the British Museum Prisms which can be dated to MM IB/MM II. However, the idiosyncratic style and iconography of these seals poses the question of whether they are actually Minoan. Finally, the places of production of the Kalo Chorio and Psychro Prisms with the Cable Devices which are tentatively dated to MM I cannot be localised.

Turning to the iconography of the prisms, their devices can be divided into those which cannot be broken down to their individual elements in a meaningful way, which are named motifs, and those which are put together of other devices. These latter are further subdivided into representational composites, which have a representational character; compounds, which have an ornamental character; and miscellaneous composite devices.

As representational are seen those patterns which stand for physical formations, such as humans, animals, plants, objects, and various constructions; ornamental are those abstract patterns which do not describe any naturally defined quantities and have a purely decorative

²¹⁹³ Cadogan 1990; 1994; 1995. However, evidence for a Zakros-Palaikastro state is not available on the evidence considered in this study. For a discussion of the possible character of Protopalatial 'states' with a focus on the tentative Malia-Lasithi state, see Knappett 1997; 1999. For the political situation on Crete during the Protopalatial period as outlined by the distribution of seals and other artefacts, see Betancourt 2007. For some further studies dealing with the subject of the 'states'/political situation of Protopalatial Crete, see Poursat 1987; 1988, 79; Nowicki 1996, 34–42, esp. 38–39; Knappett – Schoep 2000.

²¹⁹⁴ However, the hard stone MM three sided prism CMS VI no. 36 is said to come from Kythera.

²¹⁹⁵ For this subject, see also Cadogan 1994 who studies other evidence to come to the conclusion that Knossos had 'a leading, or *the* leading, role in Cretan Middle Bronze Age external relations' (Cadogan, 1994, 67).

function. Some vegetal elements, such as rosettes and flowers, can have a double nature as while they are stricto sensu representational devices, they are often used as purely decorative elements. The nature of these motifs is described as floral. Also exhibiting a dual nature are other representational devices such as animals whose bodies are configured in ornamental ways. Finally, motifs which are used as hieroglyphic signs combine their primary representational or, more rarely, ornamental nature with their quality as characters of a script.

The nature of numerous motifs cannot be identified. This is often because they do not find parallels in any object known to the modern observer from the ancient or modern world. Moreover, it is possible that at various times, some of the patterns which are understood as purely ornamental functioned as symbols of some kind. This is a caveat which each study of a society whose conceptual structure is unknown has to deal with.

In the images, the devices, whether free-standing or coalesced with other devices, constitute either independent units or building blocks of broader entities. In this latter case, they can function as basic elements, supplements, and supplemented devices. Basic elements are devices which are combined in such a way that their significance for the creation of the broader unit is the same. Supplements are devices which are attached to an already existing unit, the supplemented device, with the objective to further ornament it.

A total of 269 different motif types have been distinguished. Almost half of these are mainly representational, the remaining being ornamental, vegetal/floral, and of an unidentifiable nature. The majority of the motifs are schematically and summarily rendered, possible details most often being rendered by dentation on the outline of the devices or hatching in their interior. Attempts at the creation of more plastic, naturalistic motifs are seldom.

The representational composites are devices composed of different motifs but which seem to have been perceived as entities. They are represented by two types. The compounds are ornamental patterns composed of other devices. The constituent members of these patterns are easily recognizable devices by themselves. Depending on the way in which the component devices are brought together into a unit, the compounds are divided into repetition compounds, supplementation compounds, border compounds, C-spiral roof compounds, and miscellaneous compounds. Repetition compounds, which are represented by 19 schemes, are created by the combination of other devices in such a way that a new ornamental pattern, such as a whirl or a cross, is created. Supplementation compounds, divided into 6 schemes, are created by the attachment of small, mainly floral or ornamental devices, to already existing, as a rule, ornamental patterns. The two different schemes of border compounds result from the fusion of ornamental devices with their surrounding borders. C-spiral roof compounds come about from the combination of a C-spiral with other motifs in such a way that a new inseparable pattern is created. Finally, miscellaneous compounds are ornamental composite devices which do not fall into any of the above categories.

Turning to the composition and the images, devices which can be observed as independent units can have two basic functions. They either play a primary role in defining the topic of the image, in which case they are named main devices, or they play a secondary role in it functioning as fillers. The lack of knowledge regarding the significance and possible symbolism of the various devices often hinders the distinction between main devices and fillers.

The compositions can be analysed on the basis of six strategies which are mobilised for the combination of the units, i.e. parataxis, rotation, antithesis, flanking, angle/curvefilling, and enclosure. The effects created by the compositions vary depending on the strategies which are mobilised for the combination of the units, the configuration of the latter, their number, as well as the way in which their combination develops in the seal face. These effects, of which more than one can be created by a composition, are frieze, rotation, radiation, quartering, circle, outline, rapport, centre-highlighting, centre-orientation, centre-detachment, and segmentation.

The images can conventionally be divided into those of descriptive, 'pictographic', and ornamental nature as well as in hieroglyphic inscriptions. In all kinds of images, the devices actually 'float' in the field since landscape elements are, with the exception perhaps of a few examples of ground-lines, totally absent. Most often represented are descriptive images, followed by ornamental ones whereas 'pictographic' images and hieroglyphic inscriptions are encountered only in a small number of examples.

The use of the term *descriptive* is reserved for those static or narrative images which can be seen in nature or everyday life. The term is only conventional as it describes what is perceived by the observer as a natural scene or image but does not rule out the possibility that each of the devices within it or even the whole image had some symbolic significance. Ornamental are those images which are not translated in a quantity, action, or idea but have a purely decorative character. 'Pictographic' are images put together of representational devices combined in ways similar to those in which signs of the hieroglyphic script are.

The significance of 'pictographic' images is totally unknown. It is possible that each of the motifs in them functioned as a pictograph of some kind and that combinations of two or more motifs transmitted some kind of message. On the other hand, the fact that only rarely are more than two devices combined in such an image speaks against the identification of these images as inscriptions of a script system that is different from the Cretan hieroglyphic system. The possibility cannot be ruled out that the devices in 'pictographic' images are actually signs of the Cretan hieroglyphic script. However, if this was the case, the question of why they are not encountered on other hieroglyphic documents must be asked. A further idea could be that 'pictographic' images imitate hieroglyphic inscriptions. If this were so, the combination of the devices in 'pictographic' images would be accidental and the search for a meaning behind them futile. Against this hypothesis could speak both the existence of some quite elaborate hieroglyphic inscriptions on prisms as well as a medium-hard stone hieroglyphic seal found in the Malia Workshop alongside seals which bear 'pictographic' images. The inscription on this hieroglyphic seal could suggest that the engraver of

'pictographic' images had some knowledge of the hieroglyphic script. However, if the depictions on the seals are interpreted as having been chosen by the clientele as opposed to the engravers, this coexistence could be explained as a result of a process whereby the poorer illiterate or lower ranking clientele would order cheaper soft stone seals with images resembling hieroglyphs whereas the literate elite or higher officials would request inscribed seals cut in more precious materials. With regard to the relations of the devices on the three sides of a piece, one possibility is that their combination had a 'pictographic' character, i.e. that the combination of the three images transmitted some kind of message.

While the iconography of the prisms and their contemporaneous hard stone seals coincides to some extent, some of the devices met on the prisms as well as many of the descriptive images and the 'pictographic' images encountered there are almost exclusive to the soft stone seals. Similarly, certain devices met on hard stone seals are only very rarely met on soft stone seals while others are completely absent.

The fact that certain devices which are encountered on hard stone seals are absent from soft stone iconography could be related to the different techniques used for engraving the two kinds of stones. However, not all differences in the iconography of MM II hard stone and soft stone seals can be explained on the strength of the use of different techniques. It is not certain for example why hieroglyphic inscriptions are more common, more complex, and more elaborate on hard stone seals and why many descriptive images of the type met on the prisms and 'pictographic' images as a whole are absent from hard stone seals. One explanation put forward by Poursat would be that hard stone three- and four-sided prisms belonged to higher officials with more than one administrative/palatial function declared by the different inscriptions on their seals whereas soft stone examples belonged to lower officials with fewer responsibilities. On a similar note, if the opinion expressed by the present author that the 'pictographic' images could represent an attempt to imitate hieroglyphic inscriptions is accepted, the relative scarcity of hieroglyphic inscriptions on the prisms combined with the appearance on them of 'pictographic' images could be read as the attempt of individuals with a lower social/administrative status to imitate the habits of more privileged persons.

The process of creating new patterns can be easily followed on the prisms. New devices are created either by the substitution of parts of ornamental motifs by other devices or by the fusion or close fitting of more than one device in an entity. By far the most common is this second process. The fusion of devices which are combined with each other according to parataxis, rotation, antithesis, angle/curve-filling, and enclosure creates the new units which have been named compounds. Apart from that, transformation and abstraction are also attested as processes which result in the creation of ornamental devices from various kinds of motifs.

APPENDIX 1: CONTEXTS

In this section are listed alphabetically the places which have provided datable contexts for the seals on which the results reached in the first and second chapter are based.²¹⁹⁶ Dating the contexts is a demanding task and one better left to the specialist. Provided below are the dates suggested by the excavators or those proposed by pottery specialists in the relevant publications. The seals which have been found in the listed contexts are noted in the footnotes.

Often, summary or incomplete publications constitute a hindrance in dating the various contexts. It is possible that in older publications single finds of sherds belonging to another period than the bulk of the excavated material were not considered. This could be the case with Tholos A in Koumasa for example whose published pottery dates to EM III–MM I.²¹⁹⁷ The presence there of the cushion CMS II,1 no. 146 would suggest that the tomb was also used in the MM II period.²¹⁹⁸

Agia Eirini (Kea), Grave 31: The grave is dated to middle/late MBA, to a phase which possibly corresponds to MM IIB/MM IIIA.²¹⁹⁹

Area C, Room XVI: The piece in question was found with late EB-early MB pottery.²²⁰⁰

Agia Triada, Tholos A: The tholos was in use from EM II-MM IB/MM II.²²⁰¹

Agios Charalampos, Ossuary Cave: The pottery in the cave was FN–MM IIB with a few LN and LM I–LM III sherds.²²⁰²

Apodoulou, MM II building.²²⁰³

Mansion, Room near H: Among the finds was also a MM cup.²²⁰⁴

Archanes: The context of the piece in question was EM III-MM IIA.2205

²¹⁹⁶ The terminology used for dating refers to the chronological periods defined by the Knossian ceramic sequence. ²¹⁹⁷ Walberg 1983, 102, 135. For the pottery context of the Koumasa Tholoi A, E, and Γ, see Xanthoudides 1924, 34–45.

²¹⁹⁸ For examples of other such cushions, see footnote 2222.

²¹⁹⁹ Seal: **359**. Caskey 1972, 385.

²²⁰⁰ Seal: CMS V no. 487. Context: CMS V, 355; in Caskey 1964, 320, the piece is noted to come from a MB stratum.
²²⁰¹ Seals: **101**, **102**. CMS II,1 nos. 21, 44, 72, 86, 88, 90, 100; CMS II,2 no. 201; CMS XI no. 289. Context: Banti 1930–1931, 163–178, 247–248; for the use of the tholos in MM II, see Walberg 1983, 92.

²²⁰² Seals: 4-6, 10; CMS V Suppl. 1A no. 40. Context: Betancourt et al. 2008, 540, 594-595.

 ²²⁰³ Seal: CMS V Suppl. 3 no. 320. Context: CMS V Suppl. 3, 475; for the building, see Tsigounaki 1999, 86–87.
 ²²⁰⁴ Seal: CMS V no. 285. Context: Kirsten 1951, 139.

²²⁰⁵ Seal: Sakellarakis – Sapouna Sakellaraki 1997, 681 fig. 767. Context: Sakellarakis – Sapouna Sakellaraki 1997,

Burial building 16: According to the excavators, the building was used in MM IA.²²⁰⁶

Chamaleuri, 'Tzambakas House', Room B: The house was in use from MM IA-MM IB.2207

Episkopi, Kefala, Grave B: The grave dates to LM III.²²⁰⁸

Gournia, House D II: The house is dated to MM late (?)/LM early.²²⁰⁹

Kamilari, Tholos: The tholos was used from MM IB-MM III or early LM.²²¹⁰

Kato Zakros, Pit I: The pottery from the pit is MM III/LM IA.²²¹¹

Kavousi, Evraiki, Burial Cave: The pottery from the cave was mainly MM I, but shapes with EM III parallels were also found.²²¹² The recovery of two vessels of the 'Chamaizi' type, examples of which have also been found at the MM IIB destruction layer of Quartier Mu, allows for the hypothesis that the cave was used down to the MM II period.²²¹³

Knossos, Mauro Spilaio Cemetery, Grave XVII, Chamber B, Pit: The pottery from the pit was MM IIB.²²¹⁴

Profitis Ilias Cemetery, Grave V: Context MM II/III.²²¹⁵ Grave VI: Context MM II/MM IIIA.²²¹⁶ Grave VII: Context MM III.²²¹⁷ Grave VIII: Context MM III.²²¹⁸ Grave IX: Context MM III.²²¹⁹ Unexplored Mansion: Context mixed LM.²²²⁰

674, 680-681.

²²⁰⁸ Seal: CMS II,2 no. 74. Context: Platon 1952, 621–623.

²²¹² Seals: 8, 9. Context: CMS V Suppl. 3, 94.

²²⁰⁶ Seal: Sakellarakis – Sakellaraki 1980, pl. 222 up left. Context: Sakellarakis – Sakellaraki 1980, 392.

²²⁰⁷ Seal: CMS V Suppl. 3 no. 326. Context: Andreadaki Vlazaki in CMS V Suppl. 3, 476; Andreadaki Vlazaki – Papadopoulou 2000/2001, 290, 294; for the pottery found in the house, see Andreadaki Vlazaki 1997, 39–41.

²²⁰⁹ Seal: CMS II,1 no. 466. Context: Boyd Hawes 1908, 24, 54. Boyd Hawes mentions that the house where the piece was found is dated 'not long after the beginning of the First Late Minoan Period ... when the methods, shapes, and patterns of Middle Minoan pottery were still popular' (Boyd Hawes 1908, 24).

²²¹⁰ Seals: CMS II,2 nos. 5, 6, 10. For the dating of the tholos, see Levi 1963, 23–106, especially 23–24; Walberg 1983, 93–94; Fiandra 1995, 78, 83–84.

²²¹¹ Seal: **76** could come from around the mouth of the pit (?). Context: Hogarth 1900–1901, 123–128; for the dating of the pottery from the pit, see also Furumark 1972 b, 80–81.

²²¹³ For such vessels from Quartier Mu, see Poursat 1992, 9, 29. For the dating of some Chamaizi pots in MM II, see also Walberg 1983, 110–111.

²²¹⁴ Seal: CMS II,2 nos. 38, 39. Context: Forsdyke 1926–1927, 278; for the objects found in the pit, see Forsdyke 1926–1927, 279–282.

²²¹⁵ Seals: CMS II,2 nos. 44, 49. Context: Kenna 1960, 35.

²²¹⁶ Seals: CMS II,2 nos. 51, 53. Context: Platon 1953, 487.

²²¹⁷ Seals: **133**; CMS II,2 no. 61. Context: Cook – Boardman 1954, 166.

²²¹⁸ Seal: CMS II,2 no. 64. Context: Daux 1955, 344.

²²¹⁹ Seal: CMS II,2 no. 66. Context: Platon 1955, 557; Daux 1955, 344.

²²²⁰ Seal: Popham et al. 1984, pl. 186 (d) H 259. Context: Popham et al. 1984, 187.

CONTEXTS

Koumasa, Tholos A: The pottery from the tholos is reported to belong to EM III–MM I.²²²¹ However, the recovery in the tomb of the cushion CMS II,1 no. 146 would suggest that the grave was still used in MM II.²²²² Vases reported to come from the area A B date to EM III–MM I/MM IIA.²²²³

Tholos B: The tholos was in use from EM I/EM II-MM I.²²²⁴

Tholos E: The tholos was in use in EM III–MM I. Some MM I/MM II pottery has been recovered from outside the tholos.²²²⁵

Lentas, Tholos I: The tholos was in use from EM II–MM IA.²²²⁶ Tholos II a: The tholos was in use from EM II–MM IA. The piece in question was found in the EM II layers.²²²⁷

Malia, Palace, Room ε: The pottery in the room was MM II.²²²⁸

Quartier Γ : The houses of the Quartier were in use from the end of EM–MM III.²²²⁹ Quartier Δ , Building Π . The piece in question was found in a LM I context.²²³⁰

House $\Delta\beta$: The house was occupied from MM I–MM III/LM I.²²³¹

Quartier E, House E: The house shows signs of occupation from MM I–LM III.²²³² House E α , Room 11: The piece in question was found in a context relating to the end of MM III.²²³³

House E β : The house is dated to MM II.²²³⁴

²²²¹ Seals: **86**; CMS II,1 nos. 152, 154. Context: Walberg 1983, 102, 135; for the pottery context of the Koumasa Tholoi A, E, and Γ , see Xanthoudides 1924, 34–45.

²²²² For examples of other such cushions, see CMS II,1 no. 5; CMS II,2 no. 200; CMS III no. 147.

²²²³ This is the area between Tholos A and Tholos B (Xanthoudides 1924, 33). For the dating of this pottery, see Walberg 1983, 102, 135.

²²²⁴ Seal: CMS II,1 no. 164. Context: Walberg 1983, 101; for the pottery context of this tomb, see Xanthoudides 1924, 9–15.

²²²⁵ Seal: CMS II,1 no. 156. Context: Walberg 1983, 102; for the pottery context of the Koumasa Tholoi A, E, and Γ , see Xanthoudides 1924, 34–45. Pottery outside the tholos: Walberg 1983, 102.

²²²⁶ Seal: CMS II,1 no. 189. Context: Alexiou in CMS II,1, 193.

²²²⁷ Seal: CMS II,1 no. 214. Context: Alexiou in CMS II,1, 193; Daux 1960, 844–846; for the dating of the tholos, see also Walberg 1983, 101.

²²²⁸ Seal: 219. Context: Daux 1965, 1004; Pelon, 1984, 881, 884.

²²²⁹ Seal: **115**; CMS II,2 no. 77. Context: Demargne – Gallet de Santerre 1953, 23–35; for the dating of the house, see also Walberg 1983, 113 who suggests that the Quartier was in use in MM III and that the earlier material was probably found beneath its floors; also Walberg 1983, 136.

²²³⁰ Seal: A.21. Context: Maia Pomadère, pers.comm.

²²³¹ Seal: CMS II,2 no. 80. Context: Demargne – Gallet de Santerre 1953, 48–52, especially 51–52. For the dating of Quartier Δ , see also Walberg 1983, 114, 136.

²²³² Seals: **126**; CMS II,1 nos. 414, 415. Context: Deshayes – Dessene 1959, 114–125; for a discussion of the pottery which comes from the Quartier, see also Walberg 1983, 114, also 136.

²²³³ Seal: Pelon 1965, 2 fig. 1; Pelon 1970, 156 no. 308. Context: Pelon 1965, 2.

²²³⁴ Seal: **218**: Tony Hackens in Daux 1965, 1000 mentions that the pottery from the house was MM I. For the MM II date of the house, see Poursat 2008, 106, also fig. 143. In 1966 Poursat notes that part of the Maliote pottery that was designated MM I up to then actually corresponds to Evans's MM II period (Poursat 1966, 548–550). Also Walberg notes that some of the Malia pottery which has been dated to MM I is actually MM II/MM IIIA (Walberg

Quartier Mu: The destruction layer is dated to MM IIB.²²³⁵ From Dessenne's Workshop α surface finds were often recovered which were partly accumulated during a longer period of time.²²³⁶

South Workshop: The piece in question could have come from a MM IB fill excavated in a sounding in the room XI 3.²²³⁷

Quartier N: One piece was found in a LM I (?) context, another was recovered from a LM IIIA2/B context, and a third comes from a LM IIIB context.²²³⁸

Midea (Argolis), Acropolis: The piece in question comes from deposits which contained MH–LH IIIB2 pottery.²²³⁹

Mochlos, Square to the east of the House C. 1: Context LM I.²²⁴⁰ Grave XVI: According to the excavator, the grave was in use from EM II–MM I.²²⁴¹ Walberg dates its pottery to EM II–EM III.²²⁴² Grave X: Context MM/LM I.²²⁴³

Moni Odigitria, Tholos B, Rectangular Building, Room c: According to the excavator, the seal in question was found in an EM III/MM IA context.²²⁴⁴

Palaikastro, Block B, Room 37: The room belonged to a LM house (?).²²⁴⁵
Block X, Room 1: The piece in question was found under a 'paved LM floor'; its context was MM I.²²⁴⁶
Building 4: The piece in question comes from a LM I context.²²⁴⁷
Ossuary Ta Ellinika: Context MM I/MM IIA (?).²²⁴⁸

Ossuary Tou Galeti i Kefala: Context MM I/MM II.2249

^{1983, 109-110, 119).}

²²³⁵ Seals: 138–209, 220, 222–224, 226, 228–235, 238, 247, 248, 251, 253, 256; CMS II,2 nos. 96, 97, 108, 127, 142, 153, 157, 166, 173, 185; Detournay – Poursat – Vandenabeele 1980, 166–167 no. 236, 171 no. 240, 172–174 no. 243, 176 no. 245, 180 no. 251. Context: Poursat 1974, 112; Walberg 1983, 120–121, 136.

²²³⁶ Poursat 1981, 160; Poursat – Papatsarouha 2000, 264.

²²³⁷ Seal: 7. Context: Jean-Claude Poursat, pers. comm.; for a mention of this layer, see Poursat 1985, 892.

²²³⁸ Seals: **1**, **2**. CMS V Suppl. 3 no. 23. Contexts: Driessen – Farnoux in CMS V Suppl. 3, 108 (**1**, LM I [?] context); Driessen – Farnoux in CMS V Suppl. 3, 110 (**2**, LM IIIA2/B context). Driessen – Farnoux in CMS V Suppl. 3, 112

⁽CMS V Suppl. 3 no. 23, LM IIIB context).

²²³⁹ Seal: **395**. Context: CMS V Suppl. 3, 363–364; Demakopoulou 1995, 156, pl. 10 b.

²²⁴⁰ Seal: CMS V Suppl. 1B no. 333. Context: Soles – Davaras 1992, 438–439.

²²⁴¹ Seal: CMS II,2 no. 253. Context: Seager 1912, 66–68.

²²⁴² Walberg 1983, 130.

²²⁴³ Seal: **95**. Context: Seager 1912, 57–58.

²²⁴⁴ Seal: 252. Context: Sbonias, 2010, 220.

²²⁴⁵ Seal: **88**. For the chronology of Block B, see Bosanquet 1902–1903, 281–287; also Eccles 1939–1940, 43.

²²⁴⁶ Seal: CMS V Suppl. 1A no. 396. Context: Sackett – Popham 1965, 251; Walberg 1983, 134.

²²⁴⁷ Seal: CMS V Suppl. 1B no. 337. Context: Touchais 1989, 680.

²²⁴⁸ Seal: **89**. Context: Dawkins 1903/04, 202; Walberg 1983, 133.

²²⁴⁹ Seal: 78. Context: Bosanquet 1901/02, 292–297.

CONTEXTS

Phaistos, Old Palace, under the Sottoscala: The piece in question was found among MM I pottery.²²⁵⁰

Room XXV: MM IIB.2251

Room LXXXV: The context of the piece in question was MM IIB.2252

Platanos, Tholos A: The tholos was in use from EM II–MM II.²²⁵³ Tholos B: The tholos was in use from EM III–MM II.²²⁵⁴ Finds from MM IA–MM II predominate.²²⁵⁵

Tholos Γ : Tholos Γ was in use from EM III–MM I.²²⁵⁶

Poros Katsampas, Buildings or filling deposits out of or below the 'Building with Frescoes': The piece in question comes from a MM II pottery context.²²⁵⁷

'Building with Frescoes': The building dates to the early LM IA ("the so-called 'transitional' MM IIIB–LM IA").²²⁵⁸

Psychogioudakis plot, filling deposit of a well: Context mature MM II/early MM III.²²⁵⁹ Pit: The pit contained mixed pottery dating down to the Postpalatial period.²²⁶⁰ Seal and Jewellery Workshop in a late LM IA building: Context late LM IA.²²⁶¹

Porti, Tholos II: The tholos was in use from EM III-MM II.2262

Pseira, Plateia Building: Context LM IB.2263

Rafina (Attica), EH Settement, road between buildings Γ and E: Context early EH III (?).²²⁶⁴

Siva, South Tholos: The tholos was in use from EM I-MM I.²²⁶⁵

²²⁵¹ Walberg 1981, 241–249, especially 244–249; also Walberg 1976, 110, 121.

²²⁵⁰ Seal: CMS II,1 no. 426. Context: Levi 1958, 59.

²²⁵² Seal: Militello 2000, 231 fig. 12. Context: Militello 2000, 229–232.

²²⁵³ Seal: CMS II,1 no. 247. For the pottery context of the Platanos tholoi, see Xanthoudides 1924, 93–98; for the dating of the tholos, see also Walberg 1983, 99, 137.

²²⁵⁴ Seals: **103–106**, **107** (?); CMS II,1 nos. 272, 274, 275, 277, 288, 289, 293, 296, 301, 326, 335, 337, 341. Context: Xanthoudides 1924, 92; Walberg 1983, 99, 137; for the pottery context of the Platanos tholoi, see Xanthoudides 1924, 93–98.

²²⁵⁵ Walberg 1983, 99.

²²⁵⁶ Seal: **107** (?). CMS II,1 no. 334. Context: Walberg 1983, 99, 137; for the pottery context of the Platanos tholoi, see Xanthoudides 1924, 93–98.

²²⁵⁷ Seal: 259. Context: Dimopoulou 2000, 34.

²²⁵⁸ Seals: 258; Dimopoulou 2000, 34 no. 19. Context: Dimopoulou 2000, 34.

²²⁵⁹ Seal: Dimopoulou 2000, 32 no. 7. Context: Dimopoulou 2000, 32.

²²⁶⁰ Seal: Dimopoulou 2000, 32 no. 6. Context: Dimopoulou 2000, 32.

²²⁶¹ Seal: Dimopoulou 2000, 36 no. 28. Context: Dimopoulou 2000, 35.

²²⁶² Seal: CMS II,1 no. 353. Context: Xanthoudides 1924, 57; Walberg 1983, 100–101, 137; for the pottery context of the tholos, see Xanthoudides 1924, 57–64; according to Yule 1980 a, 11, the tholos was in use already from EM II.
²²⁶³ Seal: **577**. Context: Nikolaidou 1998, 111.

²²⁶⁴ Seal: CMS V Suppl. 3 no. 427. Context: Theocharis 1953, 118.

²²⁶⁵ Seal: CMS II,1 no. 374. Context: Paribeni 1913, 31; for the finds of the tomb, see Paribeni 1913, 17–30.

Smari, Trouli, Complex A, Room 2: Context MM II²²⁶⁶

Sopata Kouse, Tholos: The seal is reported to have been found in the earth excavated by the tomb looters for which the date EM III–MM IA/IIA is given.²²⁶⁷

Trapeza, Ossuary (?) Cave: Most pottery is EM II–MM I but some MM II and MM III sherds were also found.²²⁶⁸

²²⁶⁶ Seal: 260. Context: Chatzi Vallianou, pers. comm.

²²⁶⁷ Seal: Chatzi Vallianou 1987, pl. 192 e. Context: Ingo Pini, pers. comm.

²²⁶⁸ Seal: **129**. Context: Pendlebury – Pendlebury – Money Coutts 1935–1936, 18–24; Walberg 1983, 121–122, 137.

APPENDIX 2: FIND PLACES

In this section are listed alphabetically the find places of the seals taken into consideration in the results outlined in the second chapter. The seals found in the listed places are noted in the footnotes.

'Adromyloi'2269

Agia Eirini (Kea), Grave 31²²⁷⁰

Agia Eirini (Kea), Area C, Room XVI²²⁷¹

'Agios Onoufrios, Tholos'2272

Agia Triada, Tholos A²²⁷³

Agios Charalampos, Ossuary Cave²²⁷⁴

'Agios Giannis'2275

Akrotiri (Thira), 'West house, ground leveled Room 5'2276

'Anaulochos'2277

'Apesokari'2278

Apesokari, Tholos B2279

Apodoulou, MM II building²²⁸⁰ Mansion, Room near H²²⁸¹

²²⁶⁹ **90** (?).

²²⁷¹ CMS V no. 487.

²²⁷³ 101, 102; CMS II,1 nos. 21, 44, 72, 86, 88, 90, 100; CMS II,2 no. 201; CMS XI no. 289.

²²⁷⁴ **4–6, 10**; CMS V Suppl. 1A no. 40.

²²⁷⁵ CMS XI no. 216.

²²⁷⁶ CMS V Suppl. 1B no. 363.

²²⁷⁷ **37**, **38**.

²²⁷⁸ 282; CMS III no. 97; CMS IV no. 51.

²²⁷⁰ **359**.

²²⁷² **60**; CMS II,1 nos. 105, 109, 110, 113, 116.

²²⁷⁹ **216**, **217**.

 $^{^{\}rm 2280}$ CMS V Suppl. 3 no. 320.

²²⁸¹ CMS V no. 285.

Archanes²²⁸²

Archanes, Burial building 16²²⁸³

'Artsa'²²⁸⁴

'Askoi'2285

'Avdou'2286

'Avdou, Goulas'2287

'Kefala'²²⁸⁸

'Axos'²²⁸⁹

Chamaleuri, 'Tzambakas House', Room B²²⁹⁰

'Choumeri'2291

'Crete'²²⁹²

'Crete (?)'²²⁹³

'Crete, central'²²⁹⁴

'Crete, eastern' 2295

'Crete, west-central'²²⁹⁶

'Egypt'²²⁹⁷

'Elounta'2298

'Epano Zakros'2299

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<sup>2282</sup> Sakellarakis – Sapouna Sakellaraki 1997, 681 fig. 767.
<sup>2283</sup> Sakellarakis – Sakellaraki 1980, pl. 222 up left.
<sup>2284</sup> 81.
<sup>2285</sup> 348.
<sup>2286</sup> 108.
<sup>2287</sup> 127.
<sup>2288</sup> 128.
<sup>2289</sup> 91.
<sup>2290</sup> CMS V Suppl. 3 no. 326.
<sup>2291</sup> 349.
<sup>229</sup> 14–20, 26, 27, 54, 56, 391–393, 465, 467, 470, 471, 473, 483, 499, 520, 523, 524, 581, 582, 597; CMS X no. 273.
<sup>2293</sup> 476, 479, 495, 500, 501, 503–506, 508–510, 515–517, 519.
<sup>2294</sup> 464, 469, 472; CMS VI no. 24, 123.
<sup>2295</sup> 46, 491.
<sup>2296</sup> 462.
<sup>2297</sup> 29, 30.
<sup>2298</sup> 507, 512; CMS II,1 no. 487.
<sup>2299</sup> 36.
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FIND PLACES

Epidauros, Sanctuary of Apollo Maleatas, Altar²³⁰⁰

Episkopi, Kefala, Grave B²³⁰¹

'Gonies'2302

'Gortys, near'2303

'Goulas (Lato)'2304

Gournia, House D II²³⁰⁵

'Gournia, Vathy Lagkadi'2306

'Gouves'2307

'Gouves, Aprougas'2308

'Heraklion, neighbourhood of'2309

'Ierapetra, town'²³¹⁰

'Kalamauka, Acropolis'2311

'Kalo Chorio Pediados'2312

'Kaloi Limenes'2313

Kamilari, Tholos²³¹⁴

'Kamilari'²³¹⁵

'Kamilari (?)'2316

'Kasteli'2317

²³⁰⁰ CMS V Suppl. 1A no. 367. ²³⁰¹ CMS II,2 no. 74. ²³⁰² **63**. ²³⁰³ **486**. ²³⁰⁴ **482**. ²³⁰⁵ CMS II,1 no. 466. ²³⁰⁶ **110**. ²³⁰⁷ **98**. ²³⁰⁸ CMS II,2 no. 315. ²³⁰⁹ **492**. ²³¹⁰ CMS II,2 nos. 270, 271. ²³¹¹ CMS VI no. 16. ²³¹² **62**. ²³¹³ CMS IV nos. 53, 55, 24D. ²³¹⁴ CMS II,2 nos. 5, 6, 10. ²³¹⁵ CMS II,1 no. 452; CMS IV nos. 77, 91. ²³¹⁶ **113**, **357**. ²³¹⁷ **351**, **497** (?), **498**.

'Kato Metochi, Agkathiades'²³¹⁸ Kato Zakros, around the mouth of Pit I²³¹⁹ House C²³²⁰ 'Kavousi'2321 Kavousi, Evraiki, Burial Cave²³²² 'Knossos'2323 'Knossos, Monastiriako'2324 'Knossos, neighbourhood of'2325 Knossos, Palace (?)²³²⁶ 'Knossos, site of'2327 Knossos, Mauro Spilaio Cemetery, Grave XVII, Chamber B²³²⁸ Profitis Ilias Cemetery, Grave V²³²⁹ Grave VI2330 Grave VII²³³¹ Grave VIII²³³² Grave IX²³³³ Unexplored Mansion²³³⁴ 'Koprana'2335 Koumasa, Tholos A²³³⁶ ²³¹⁸ **130**. ²³¹⁹ **76** (?) (Hogarth 1900–1901, 134). 2320 77 (?). ²³²¹ **96**. ²³²² 8, 9. ²³²³ 264, 284, A.2; CMS II,2 no. 71; CMS II,4 no. 145; CMS III nos. 41, 114, 138; CMS V no. 204; CMS VI no. 152; CMS XI no. 145. ²³²⁴ A.5. ²³²⁵ **463**. ²³²⁶ CMS II,2 no. 32. ²³²⁷ **598**. ²³²⁸ CMS II,2 nos. 38, 39. 2329 CMS II,2 nos. 44, 49. ²³³⁰ CMS II,2 nos. 51, 53. ²³³¹ 133; CMS II,2 no. 61. 2332 CMS II,2 no. 64. 2333 CMS II,2 no. 66. ²³³⁴ Popham et al. 1984, pl. 186 (d) H 259. ²³³⁵ **396**. ²³³⁶ 86. CMS II,1 nos. 152, 154.

FIND PLACES

Tholos B²³³⁷ Tholos E²³³⁸

Krasi²³³⁹

'Krasi'²³⁴⁰

'Kritsa'²³⁴¹

'Lamnon' (Lamnoni [?])²³⁴²

'Lasithi'2343

'Lastros'2344

Lentas, Tholos I²³⁴⁵ Tholos II a²³⁴⁶

'Ligortynos'2347

'Lithines'2348

Malia²³⁴⁹

'Malia'²³⁵⁰

'Malia, Achladias'²³⁵¹

Malia, Agora, Magazine 62352

²³³⁷ CMS II,1 no. 164. ²³³⁸ CMS II,1 no. 156. ²³³⁹ CMS II,1 no. 408. ²³⁴⁰ **118**. ²³⁴¹ **477**. ²³⁴² **590**. ²³⁴³ 261–263, 267, 268, 270, 271, 278, 286, 293, 296–299, 304, 310–312, 314, 323, 326, 329, 484, 485, 494; CMS III nos. 42, 99, 148. ²³⁴⁴ **342**, **A.11**. ²³⁴⁵ CMS II,1 no. 189. ²³⁴⁶ CMS II,1 no. 214. ²³⁴⁷ **341**. ²³⁴⁸ **132**; CMS II,2 no. 278. ²³⁴⁹ 117. ²³⁵⁰ 53, 84, 85, 123, 124, 266, 269, 275, 280, 285, 288–290, 292, 295, 300, 301, 303, 305, 307, 309, 313, 315, 325, 340, 343-346, 350, 352, 354-356, 370, 456, 487, 488, 511, 522, 583-589, A.6-A.8, A.12, A.18, A.20; CMS II,1 nos. 409, 417, 410; CMS II,2 nos. 239, 240; CMS III nos. 44, 62, 63, 79, 86, 108, 115, 235, 240, 243; CMS IV nos. 9, 56, 61, 76, 78, 128, 129; CMS VI no. 25; Chapouthier 1946, 80 fig. 2 a, b; Chapouthier 1946, 81 fig. 3 no. 7; Demargne 1939, 122 fig. 1. ²³⁵¹ **213**. ²³⁵² **221**.

Malia, Chrysolakkos²³⁵³ 'Malia, neighbourhood of'2354 'Malia, Kefala'2355 Malia, Palace²³⁵⁶ Palace, northeast border area of²³⁵⁷ Room ε^{2358} southwest of²³⁵⁹ Pierres Meulières, area of the 'Maison des Morts', near the Cist Grave 12360 Ouartier Γ^{2361} Quartier Δ , Building Π^{2362} House $\Delta\beta^{2363}$ Quartier E, House E²³⁶⁴ House Ea, Room 11²³⁶⁵ House Eß²³⁶⁶ Ouartier Θ^{2367} Quartier Mu, Building A and the immediate neighbouring area ²³⁶⁸ Building B and the immediate neighbouring area ²³⁶⁹ Potter's Workshop and the immediate neighbouring area ²³⁷⁰ Seal Cutter's Workshop and the immediate neighbouring area ²³⁷¹

'Malia, Seal Cutter's Workshop'2372

²³⁵³ CMS II,1 nos. 418, 420. ²³⁵⁴ **64–69**. ²³⁵⁵ 80; CMS II,2 no. 229. 2356 CMS II,2 no. 76. ²³⁵⁷ **385**. ²³⁵⁸ **219**. ²³⁵⁹ A.1 (?). ²³⁶⁰ **116**. ²³⁶¹ **115**; CMS II,2 no. 77. ²³⁶² A.21. ²³⁶³ CMS II,2 no. 80. ²³⁶⁴ **126**; CMS II,1 nos. 414, 415. ²³⁶⁵ Pelon 1965, 2 fig. 1; Pelon 1970, 156 no. 308. ²³⁶⁶ **218**. 2367 CMS II,2 no. 84. ²³⁶⁸ 223–227, 238; Detournay – Poursat – Vandenabeele 1980, 166–167 no. 236, 176 no. 245, 180 no. 251. ²³⁶⁹ **222**, **250**. Detournay – Poursat – Vandenabeele 1980, 171–174 nos. 241–243. 2370 249, 253, 254, 256. ²³⁷¹ 134–212, 220, 228–237, 239–248, 251, 255, 257; CMS II,2 nos. 96, 97, 99, 108, 112, 127, 135, 141, 142, 152, 153, 157, 161, 166, 173, 185; Poursat 1996, 104 nos. HM 2520, HM 2521, HM 2524, HM 2653. ²³⁷² A.4.

FIND PLACES

Malia, Quartier Mu, South Workshop²³⁷³ Ouartier N²³⁷⁴

'Malia, Vrachasi'²³⁷⁵

Malia, Zouria²³⁷⁶

'Mesara'2377

'Miamou'2378

Midea (Argolis), Acropolis²³⁷⁹

'Milatos'²³⁸⁰

'Milatos, grave'2381

'Milatos, Sta Nisa'²³⁸²

'Mirampelo'2383

Mochlos²³⁸⁴

'Mochlos'2385

Mochlos, Square to the east of House C. 1²³⁸⁶ Grave X²³⁸⁷ Grave XVI²³⁸⁸

'Mochos'2389

'Moni Odigitria'2390

²³⁷⁵ A.9, A.13.

²³⁷³ 7; Detournay – Poursat – Vandenabeele 1980, 171 no. 240.

²³⁷⁴ **1**, **2**; CMS V Suppl.3 nos. 20, 23.

²³⁷⁶ HMS 2405 (unpublished, courtesy of the Heraklion Museum). I wish to thank Nota Dimopoulou Rethemiotaki and Athanasia Kanta for the permission to include the piece in my study. ²³⁷⁷ **324**, **A.10**, **A.14**; CMS IV nos. 50, 84; CMS VI no. 111, 112. 2378 CMS IV no. 80. ²³⁷⁹ **395**. ²³⁸⁰ **481**, **489**. ²³⁸¹ **513**. ²³⁸² **214**. ²³⁸³ 83, 99, 480, 490, 591; CMS III no. 54. ²³⁸⁴ **3**. ²³⁸⁵ **94**. ²³⁸⁶ CMS V Suppl. 1B no. 333. ²³⁸⁷ **95**. ²³⁸⁸ CMS II,2 no. 253. ²³⁸⁹ **61**.

'Moni Odigitria (?)'2391 Moni Odigitria, Tholos B, East Room C²³⁹² Myrtos Pyrgos²³⁹³ 'Neapoli, Finokalias'²³⁹⁴ 'Olous'²³⁹⁵ 'Pacheia Ammos, opposite Seager's house'²³⁹⁶ 'Palaikastro'2397 Palaikastro, Block B, Courtyard 112398 Room 37²³⁹⁹ Block X, Room 1²⁴⁰⁰ Building 4²⁴⁰¹ Ossuary Ta Ellinika²⁴⁰² Ossuary Tou Galeti i Kefala²⁴⁰³ Phaistos2404 Phaistos, Old Palace, under the Sottoscala²⁴⁰⁵ Room LXXXV²⁴⁰⁶ 'Phaistos'2407 'Pinakiano'2408

'Platanos'2409

²³⁹¹ **47–50**; CMS V Suppl. 1A nos. 276, 278, 320, 321; CMS V Suppl. 3 no. 134. ²³⁹² **252**. ²³⁹³ CHIC no. 282. ²³⁹⁴ **114**. ²³⁹⁵ **125**. ²³⁹⁶ A.3. ²³⁹⁷ **90** (?). ²³⁹⁸ 87. ²³⁹⁹ 88. ²⁴⁰⁰ CMS V Suppl. 1A no. 396. ²⁴⁰¹ CMS V Suppl. 1B no. 337. ²⁴⁰² **89**. ²⁴⁰³ 78. ²⁴⁰⁴ CMS II,2 no. 21. 2405 CMS II,1 no. 426. ²⁴⁰⁶ Militello 2000, 231 fig. 12. ²⁴⁰⁷ CMS II,2 no. 202; CMS III no. 98; CMS IV nos. 81, 15D. ²⁴⁰⁸ **353**. ²⁴⁰⁹ CMS II,1 nos. 348, 349.

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FIND PLACES

Platanos, Tholos A²⁴¹⁰ Tholos B²⁴¹¹

'Platanos, Tholos B'2412

Platanos, Tholos Γ^{2413}

Poros Katsampas, Buildings or filling deposits out or below the 'Building with Frescoes'²⁴¹⁴ 'Building with Frescoes'²⁴¹⁵

Psychogioudakis plot, filling deposit of a well²⁴¹⁶

Pit 2417

Seal and Jewellery Workshop in a late LM IA building ²⁴¹⁸

Porti, Tholos II²⁴¹⁹

'Porti, Tholos'²⁴²⁰

'Potamies, Vouni'2421

'Praisos'2422

'Praisos, site of'2423

'Pseira'2424

Pseira, Plateia Building²⁴²⁵

'Psychro'2426

'Psychro, cave'2427

Rafina (Attica), EH Settement, road between Buildings Γ and E²⁴²⁸

²⁴¹⁰ CMS II,1 no. 247. ²⁴¹¹ **103–106**, **107** (?). CMS II,1 nos. 272, 274, 275, 277, 296, 288, 289, 293, 301, 326, 335, 337, 341. ²⁴¹² 109; CMS II,1 no. 346. ²⁴¹³ **107** (?). CMS II,1 no. 334. ²⁴¹⁴ **259**. ²⁴¹⁵ 258; Dimopoulou 2000, 34 no. 19. ²⁴¹⁶ Dimopoulou 2000, 32 no. 7. ²⁴¹⁷ Dimopoulou 2000, 32 no. 6. ²⁴¹⁸ Dimopoulou 2000, 36 no. 28. 2419 CMS II,1 no. 353. 2420 CMS II,1 no. 368. ²⁴²¹ **93**. ²⁴²² **468**. ²⁴²³ **502** (?). 2424 CMS II,1 no. 483. ²⁴²⁵ **577**. ²⁴²⁶ **276**. ²⁴²⁷ 514.

2428 CMS V Suppl. 3 no. 427.

'Sampa'2429 'Sfaka'2430 'Sitanos'2431 'Siteia'2432 'Siteia, eparchy (?)'2433 'neighbourhood of'2434 'town'²⁴³⁵ Siva, South Tholos²⁴³⁶ Smari, Trouli, House A, Room 2²⁴³⁷ Sopata Kouse, Tholos²⁴³⁸ 'Sykia'2439 Symi Viannou, Sanctuary of Hermes and Afrodite²⁴⁴⁰ 'Tourloti, Kastri'2441 Trapeza, Ossuary (?) Cave²⁴⁴² 'Trapezi hill'2443 'Tylisos'²⁴⁴⁴ Tylisos, Houses²⁴⁴⁵ ²⁴²⁹ CMS II,1 no. 461. ²⁴³⁰ CMS VI no. 153. ²⁴³¹ **41**, **42**. ²⁴³² 272, 273, 339, 347; CMS III no. 49. ²⁴³³ **518**. ²⁴³⁴ **596**. 2435 CMS IV no. 26D; CMS VI no. 122. 2436 CMS II,1 no. 374. ²⁴³⁷ **260**. 2438 Chatzi Vallianou 1987, pl. 192 e. ²⁴³⁹ 502 (?), A.19. 2440 Lempesi 1987, 287 fig. 10. ²⁴⁴¹ **497** (?). ²⁴⁴² 129. The excavators suggest that from EM II onwards the cave was used for primary burials, and consider the

lack of stratigraphy in the upper layers as suggestive of disturbance by looters (Pendlebury - Pendlebury - Money Coutts 1935–1936, 14–18, 23). Betancourt notes that the finds do not support the hypothesis that the cave was looted, but suggests that the site was used for secondary burial and that this use would also explain the complete lack of stratigraphy in the upper level (Betancourt et al. 2008, 594-595). ²⁴⁴³ 82.

²⁴⁴⁴ CMS III no. 70.

²⁴⁴⁵ CMS II,2 no. 27 (Chatzidakis 1912, 215).

FIND PLACES

Vasiliki²⁴⁴⁶

'Vorizia'2447

'Zakros'²⁴⁴⁸ (see also 'Epano Zakros', Kato Zakros)

²⁴⁴⁶ CMS V no. 27.
²⁴⁴⁷ CMS IV nos. 52, 75.
²⁴⁴⁸ 35.

APPENDIX 3: DISCUSSION OF FOUR PIECES EXCLUDED FROM THIS STUDY

625 prisms and 1786 seal faces have been examined in this study. The reasons for the exclusion of four pieces, which might raise questions, are provided below. **28** was included in the catalogue at an early stage of the research. At a later point, it became clear to the author that the piece is not Minoan but Mycenaean. It is therefore excluded from the discussion which pertains to the MM prisms and from the iconography.

The seal, which is cut in black steatite, has elongated rectangular seal faces which are not surrounded by grooves. The intaglios are medium deep and have V-shaped profiles created by the combination of two slanting cuts. Board-like 'blanks' and 'cup sinkings' are not met. The three faces are adorned with descriptive images whose motifs are schematically and for the most part linearly rendered.

While comparable depictions of human figures, ruminants, and *Heads of a 'ram'* are met on MM prisms, they are stylistically very different from the ones engraved on the prism in question.²⁴⁴⁹ The best Minoan parallel for the images met on this piece is the linearly executed human figure CMS II,2 no. 204 a whose head also takes the shape of an inverted triangle. However, much better stylistic and iconographic parallels find the devices of this seal among seals of the 'Mainland Popular Group'.²⁴⁵⁰

The figure **28 a** is well comparable to those of the lentoid CMS I no. 42 from Mycenae.²⁴⁵¹ The pose of the figure finds a parallel also to the pose of the figures CMS I no. 369. The "*Dumbbells*" either side of these figures bring to mind the similar motifs on **28 a**.²⁴⁵² Turning to the horned quadruped **28 b**, this finds numerous stylistic parallels among the Mycenaean pieces, e.g. CMS V nos. 315, 377; CMS X no. 314; CMS XI no. 212. Animals in such Mycenaean seals often have extended front legs and bent back legs as well as horizontal and slightly downwards curving horns which curve upwards at the ends.²⁴⁵³ More to the point, characteristic of such Mycenaean compositions are the rows of triangles in front of the back and front legs of the animal as well as in front of its face.²⁴⁵⁴ Also, the V-profiled

²⁴⁴⁹ Compare for example the second figure **187 a**, the Agrimi **279 a**, and the Heads of a 'ram' **469 c**.

²⁴⁵⁰ The group is dated to LH IIIA–LH IIIC (Dickers 2001, 6–9). For the characteristics of the group, see Dickers 2001, 6.

²⁴⁵¹ Compare also the figures CMS I no. 195 from Dendra and CMS V no. 11 from Perdika, Aigina.

²⁴⁵² "Dumbbells" placed on either side of the motif are not uncommon on late Mycenaean seals, e.g. CMS V Suppl.1B no. 11.

²⁴⁵³ See Dickers 2001, pls. 3–11.

²⁴⁵⁴ See for example CMS V nos. 3, 339, 402, 512; CMS XI no. 212.

DISCUSSION OF FOUR PIECES EXCLUDED FROM THIS STUDY

intaglios of the *Heads of a 'ram'* **28 c**, as well as their almost triangular shape with the broad foreheads and thin and elongated muzzles, are reminiscent of similar devices encountered on late Mycenaean lentoids such as CMS V Suppl. 1A no. 22; CMS V Suppl. 1B no. 188; and CMS IX no. 199.

Further indications of a Mycenaean origin to the piece are the fact that it is made of black steatite, which is the most commonly used stone for seals of the 'Mainland Popular Group',²⁴⁵⁵ and the information that it comes from 'Attica'. However, its three-sided prismatic shape remains unique among the seals of the 'Mainland Popular Group'.²⁴⁵⁶ While four-sided prisms and rectangular plates of the 'Mainland Popular Group' do exist, each two or all four faces of such seals are engraved with similar images.²⁴⁵⁷ For that reason, the piece is better comparable with a group of mainly steatite lentoids with representational devices.²⁴⁵⁸

CMS VI no. 39 has three acute corners, three flat engraved seal faces, and an axial stringhole channel. Due to the fact that it has two broader and one narrower seal face, it could be described as a wedge-shaped three-sided prism. However, it is seen as a variation on a gable because stylistically it belongs to Yule's Border/Leaf Complex.²⁴⁵⁹ Gables are common in this complex but canonical three-sided prisms are not met.²⁴⁶⁰

The profile of CMS II,3 no. 96 is at first glance similar to that of the MM prisms. However, the material and iconography of the piece speak in favour of an early LM origin. While the material of which the piece is made, serpentine, is never met in connection with MM prisms, it is commonly used in LM glyptic.²⁴⁶¹ More to the point, the configuration of the bird CMS II,3 no. 96 a brings to mind some talismanic birds with outstretched wings.²⁴⁶² In addition, the rendition of the round nostrils on the bull's head CMS II,3 no. 96 c represents a common LM iconographical trend.²⁴⁶³ Moreover, the habit of using centred-circles for the eyes does not appear in connection with prisms but is encountered on the LM CMS II,3 no. 149. The bird CMS II,3 no. 96 b finds both MM and LM parallels.²⁴⁶⁴

²⁴⁵⁵ Dickers 2001, 10; Walter Müller, pers. comm.

²⁴⁵⁶ **395** which has come to light in Midea is possibly MM. For the relevant discussion, see p. 152.

²⁴⁵⁷ See for example CMS I Suppl. no. 60; CMS V nos. 397, 420, 448.

²⁴⁵⁸ For several examples of such pieces, see Dickers 2001, pls. 3–20.

²⁴⁵⁹ See for example the 'cuts shaped like V's' on CMS VI no. 39 b, a device associated with the so called 'Archanes Script' which is encountered on seals of this complex (Yule 1980 a, 170).

²⁴⁶⁰ Yule 1980 a, 170, 210. For other seals of the complex, see the gables CMS II,1 no. 389; CMS II,2 nos. 215, 311 and the conoids CMS II,1 no. 378; CMS III no. 75. For the Border/Leaf Complex, see Yule 1980 a, 209–210. For a further break down of this complex and revised dating, see Sbonias 1995, 102–118.

²⁴⁶¹ See for example CMS II,3 nos. 14, 17, 28, 32, 35, 36, 37.

²⁴⁶² E.g. CMS III nos. 488, 489; CMS XII no. 162 b as well as similar LM birds which are carved on soft stone seals, e.g. CMS II,3 nos. 94, 356; CMS III no. 482; CMS XII no. 254.

²⁴⁶³ Compare CMS II,3 nos. 149, 255, 338; CMS XII no. 62 a. The only animal's head with similar nostrils met on prisms is **55 b**, a piece whose iconography has a progressive character (for this subject, see p. 96).

²⁴⁶⁴ It is for example comparable to a certain extent to the MM birds **388 b**; CMS V Suppl. 1A no. 313; CMS X no. 47; CMS XI no. 12 a; but also to the LM CMS XIII no. 122.

CMS II,2 no. 79 from Malia, possibly made of pseudo-jasper, is connected to hard stone engraving. Despite its poor state of preservation which does not allow a clear estimation of the employed technique, the engraving on CMS II,2 no. 79 b brings it close to the breccia three-sided prisms CMS II,2 nos. 168 and 150 which are cut on the horizontal spindle.²⁴⁶⁵ It is suspected that the same technique, at least partly, has been used for cutting the piece in question. The handles of the vessels and the 'cup sinkings' are created with fast rotating drills, although the walls of the intaglios are not always as smooth as those of the breccia examples. The elements that connect the 'cup sinkings' on sides CMS II,2 no. 79 a and 79 c are probably executed freehand by gouging although the use of fast rotation and subsequent freehand abrasive action cannot be ruled out. On the other hand, the handle of the "*Dumbbell*" CMS II,2 no. 79 b seems too regular to have been engraved freehand.

²⁴⁶⁵ Another breccia seal engraved in the same way is CMS XII no. 94 (material according to Younger 1987, 13).

APPENDIX 4: OVERVIEW OF THE FUNCTION OF THE DEVICES

The devices are listed with regard to their nature as opposed to alphabetically. This will provide the reader with a quick overview of the main function(s) of devices with a different nature.

Main devices: Frontal man; Man in profile; Woman in profile; 'Man with semicircular body'; Frontal 'Gorgo woman'; Frontal 'ape'; 'Ape' a in profile; 'Ape' b in profile; 'Deer'; 'Agrimi'; 'Goat'; 'Sheep'; Bull; Bovine; Pig/boar; Dog/lion; 'Minoan dragon'; Unidentifiable quadruped; 'Snake' a; 'Snake' b (?); Lizard; Tortoise; Frontal 'bird'; Bird in profile; 'Peafowl'; Waterfowl; 'Frog'; 'Turtle'; Fish; Fish/dolphin with dentated back; Dolphin; Octopus; 'Squid' a; 'Squid' b; Shrimp/prawn; Crab; 'Murex shell'; Scorpion; Spider; 'Spider' a; 'Spider' b; 'Beetle'; Centipede; 'Centipede'; Unidentifiable insect; Crawling animal; Bee; Legless frontal woman; Legless human figure in profile; 'Legless boar'; Legless dog/lion; Legless waterfowl; Headless ruminant; Headless kid; Headless dog/lion; Headless waterfowl; Torso of a kid; Torso of a dog/lion; Torso of a waterfowl; Protome of a dog/lion; Protome of a bee; 'Beaked' bust; 'Beaked bust with ponytail'; Bust of a bovine; Bust of a dog/lion; Hindquarters of a hoofed animal; 'Gorgo mask'; 'Mask'; Head of a 'ram'; Head of a 'goat'; Head of an 'ox'; Head of a 'bull'; Frontal head of a ruminant; Profile head of a 'bull'; Head of an agrimi; Profile head of a ruminant (?); Head of a dog/lion; Head of a dog/lion with hanging tongue; Head; Eye; Crossed arms; Leg; 'II-legs'; 'Dog/lion with spiral body'; Head of a 'dog/lion with hook'; Head of a dog/ lion with leg; 'Boar with π -legs'; 'Boar with centipede legs'; 'Crawling boar'; 'Centipede with muzzle'; 'Spider with muzzle'; Vessel without handles; Jug; Amphora; Pithos/jar; Unidentifiable vessel; 'Ball jug'; 'Loop vessel'; 'Ball amphora'; 'String vessel' (?); 'Ring vessel'; 'Stone'; Stool; 'Chair'; Unidentifiable seat; 'Kiln'; 'Gaming table'; Harp; 'Key sistrum'/'plough'; 'Figure-of-eight shield'; Double axe; Trident; Dagger; Spear; 'Spear with double blade'; 'Arrow' a; 'Arrow' b; 'Egyptian arrow'; Back part of an arrow; Ship; "Bell"; "Brush"; "Balloon" (?); "Loop"; "Ladder band"; "Ladder"; "Grater"; "Sieve"; Hatched D; "Toothed sickle"; "Column"; "Dumbbell"; "Ship's wheel"; "Ram's head"; M-motif; "Horns of consecration"; "Breasts"; "Textile"; "Trowel"; "Bottle"; "Pin"; Ground-line; Parallel ground-lines; Branch with leaves; 'Papyrus flower' with spray; Lily with 'base' a; Lily with 'base' b; 'Wheat stalk'; 'Fan branch'; "Γ-branch"; "Bulb branch"; Leaf with stalk; 'Ivy leaf' with stalk; Paisley; Shamrock b; Shamrock c; 'Star flower'; 'Papyrus flower'; 'Lily flower'; 'V-flower'; 'Fir branch'; 'Centipede branch'; 'Fern branch'; "Saw branch"; Leaf; 'Stemless paisley'; Quatrefoil; Rosette; Star blossom; Open lily blossom; 'V-blossom'; Candy motif;

Segmented circle; Abstract Z-whirl pattern; Border; Border band; Spiked blob; Line/Bar; Wedge; Ripple; Triangle; Papyrus triangle; Hatched triangle; Blob; Disc; Circle; Ellipse; Grain ellipse (?); C-spiral; Coil spiral; Centred-circle; Centred-lunette; Chevron; 'Lame' chevron; U (?); Y (?); S; Hook spiral; S-spiral; Disc S-spiral; Part of a disc S-spiral; Z; Z-whirl; Meander Z; Cross/Saltire; Cross/Saltire pommée; Star; Star pommée; One-armed whirl; Two-armed whirl; Three-armed whirl; Four-armed whirl; Four-armed whirl disc spiral; Swastika; Whirl; Whirl spiral; Whirl pommée; Swastika cross (?); Half swastika; Line K; Line comb; Radial hatching; Parallels; Grid; Disc grid; Simple grid; Random hatching; Unidentifiable device I-VIII, IX (?), X-XIII, XIV (?), XV, XVI (?), XVII-XXII, XXIII (?), XXIV (?), XXV (?), XXVI–XXXI, XXXII (?), XXXIII–XXXVI, XL–XLIII, XLVII, XLIX-LX, LXII, LXIII; Fragmentary unidentifiable device I-XII, XIII (?), XIV-XXXIII, XXXIV (?), XXXV, XXXVIII-XLI; Bow with Linear arrow; Elongated motif slung with 'String vessels'; Running ornament/Pair – Row; repetition Ellipse; repetition Lunette; S-whirl; repetition Z-whirl; Z-whirl with curved arms; Meander Z; Mirror pattern; repetition Triskeles/Triangle pattern; repetition Cross/Saltire/Cross pattern; repetition Star/ Rosette pattern; repetition Two-armed whirl; repetition Three-armed whirl; repetition Fourarmed whirl; repetition Swastika; repetition Whirl; repetition Swastika cross; Repetition compound of Protomes of a man; Double line comb; Gear combination; Devices with angle/ curve supplements; Devices with shoulder supplements; Devices with body supplements; Devices with edge supplements; Devices with border supplements; Devices with more than one pair of supplements; Wheel; Framed devices; C-spiral roof compounds; Miscellaneous compounds; Combination of an Agrimi and a Dolphin in a cross.

Fillers: 'Snake' b (?); Fish (?); Dolphin (?); Head of an 'ox' (?); Head of an agrimi; 'Profile head of a horned ruminant'; Profile head of a ruminant; Head of an unidentifiable ruminant; 'Figure-of-eight shield' (?); "Balloon" (?); Hatched D (?); 'Papyrus flower' with spray; 'Wheat stalk' (?); 'Saw branch' with stalk; 'Ivy leaf' with stalk (?); 'Papyrus flower'; 'Lily flower' (?); 'V-flower (?)'; 'Fir branch'; 'Centipede branch' (?); 'Fern branch' (?); "Saw branch"; Leaf; 'Ivy leaf' (?); 'Stemless paisley'; Star blossom; 'Lily blossom'; 'V-blossom'; Spiked blob; Tooth motif; Line/Bar; Wedge; Triangle; Papyrus triangle; Lily triangle; Trapezium; Blob; Disc (?); Grain ellipse; Lunette; Chevron; 'Lame' chevron (?); Y (?); J (?); J-spiral; S; S-spiral; Cross/Saltire (?); One-armed whirl (?); Two-armed whirl; Three-armed whirl; Four-armed whirl; Whirl (?); Parallels; Unidentifiable motif IX (?), XXIII–XXV (?), XXXII (?), XXXVII (?), XXXVII (?), XLII–XLVII; repetition Triskeles/Triangle pattern (?).

Basic elements of representational composites: 'П-legs'; 'String vessel' (?); 'Pole'; Linear arrow; Bow; "Ladder band"; "Horn bar"; "Г-bar"; "T-bar"; "Saw branch".

Basic elements of repetition compounds: Dog/lion; Spider; Headless ruminant; Headless

OVERVIEW OF THE FUNCTION OF THE DEVICES

dog/lion; Headless waterfowl; Protome of a man; Protome of a horned ruminant; Protome of a bovine; Protome of a dog/lion; Protome of a quadruped; Protome of an 'ellipse scorpion'; 'Beaked' bust; 'Beaked bust with ponytail'; Bust of a dog/lion; Bust of a quadruped; Bust of a 'snake'; Leg with claws; Head of a 'dog/lion with hook'; 'Boar with centipede legs'; Amphora; "Ladder band"; "Toothed sickle"; Lily with 'base' a; 'Wheat stalk'; 'Saw branch' with stalk; Leaf with stalk; 'Ivy leaf' with stalk; Paisley; 'Nose paisley'; Shamrock a; 'Star flower'; 'Papyrus flower'; 'Lily flower'; 'Fir branch'; 'Fern branch'; "Saw branch"; Leaf; 'Stemless paisley'; Segmented rectangle; Line/Bar; Triangle; Stalk triangle; Lozenge; Blob; Circle; Ellipse; Grain ellipse; Centred-circle; Centred-lunette; S-spiral; Disc S-spiral; Cross/ Saltire; Two-armed whirl; Line comb; Parallels; Unidentifiable device XXXIX, LXIV, LXI; Elongated motif slung with 'String vessels'; Mirror pattern; Devices with shoulder supplements; Wheel.

Supplements: Head of an animal; Leg with claws; 'Papyrus flower' with spray; 'Wheat stalk'; Leaf with stalk; 'Ivy leaf' with stalk; Paisley; Shamrock b; 'Papyrus flower'; 'Lily flower'; 'V-flower'; Unidentifiable flower; 'Fern branch'; "Saw branch"; 'Ivy leaf'; 'Stemless paisley'; Trefoil; 'Papyrus blossom'; 'Lily blossom'; Spike/Spike row; Line/Bar; Triangle; Stalk triangle; Hatched triangle; Lunette; Centred-circle; Chevron; J; J-spiral; One-armed whirl; Parallels; Unidentifiable device XXXVII.

Supplemented devices: Amphora; Paisley; Quatrefoil; Border; Lunette; Centred-circle; S; S-spiral; Disc S-spiral; Z; Z-whirl; Z-whirl spiral; Triskeles pommée; Cross/Saltire; Cross/Saltire pommée; Running ornament/Pair – Row; S-whirl; repetition Z; repetition Z-whirl; Meander Z; Mirror pattern; repetition Cross/Saltire/Cross pattern; repetition Two-armed whirl; Devices with shoulder supplements; Devices with body supplements; Devices with edge supplements.

Basic elements of border compounds: Border; Cross/Saltire; Star; Comb swastika; Whirl; Parallels; Grid; Mirror pattern; Devices with border supplements.

Basic elements of C-spiral roof compounds: Line/Bar; Triangle; Fan motif; Inverted T; C-spiral.

Basic elements of miscellaneous compounds: 'Wheat stalk'; Lozenge; Lunette; C-spiral; Mirror pattern.

Basic elements of miscellaneous composite devices: 'Agrimi'; Dolphin; Bar.

MOTIFS WHICH CAN CONSTITUTE HIEROGLYPHS ACCORDING TO THE CHIC

Head of an 'ox'; Profile head of a 'bull'; Head of an agrimi; Head of a dog/lion with hanging tongue; Eye; Crossed arms; Leg; 'Key sistrum'/'plough'; Double axe; 'Arrow' b; "Ladder"; "Breasts"; "Textile"; "Trowel"; "Bottle"; "Pin"; Shamrock b; Disc; Cross/Saltire; Cross pommée/Saltire pommée; Bow with Linear arrow.

MOTIFS WHICH CAN CONSTITUTE HIEROGLYPHS ACCORDING TO JASINK

Man in profile; Waterfowl; Spider; 'Beetle'; 'Mask'; 'Dog/lion with spiral body'; Jug; Amphora; 'String vessel' (?); Harp; Dagger; 'Arrow' a; Ship (?); "Horns of consecration"; 'Papyrus flower' with spray; 'Ivy leaf' with stalk; 'Papyrus flower'; 'V-flower'; 'Fern branch'; mirror image of two "Saw branches"; 'Ivy leaf'; S-spiral; Two-armed whirl; Three-armed whirl; Whirl; Unidentifiable device XXVI, XXVIII–XXX; Fragmentary unidentifiable device XIII.

MOTIFS WHICH CAN CONSTITUTE HIEROGLYPHS ACCORDING TO THE PRESENT AUTHOR

Man in profile; Fish (?); Profile head of a 'bull'; "Dumbbell"; "Horns of consecration"; Shamrock c; Whirl; Unidentifiable device XXVI, XXVIII, XXIX, XXXI.

MOTIFS FUNCTIONING AS MAIN DEVICES IN 'PICTOGRAPHIC' IMAGES

Frontal man; Man in profile; 'Man with semicircular body'; 'Agrimi'; 'Sheep'; Bovine; Pig/ boar; Dog/lion; 'Snake' a (?); 'Snake' b (?); Bird in profile (?); Waterfowl; Fish; Dolphin; 'Murex shell'; Scorpion; Spider; 'Spider' a (?); 'Spider' b; Unidentifiable insect; Bee (?); Legless human figure in profile; Legless waterfowl; Headless waterfowl; 'Beaked' bust (?); Hindquarters of a hoofed animal; Head of a 'ram'; Head of an 'ox'; Head of a 'bull' (?); Profile head of a 'bull' (?); Head of an agrimi; Profile head of a ruminant (?); Head of a dog/lion (?); Leg (?); ' Π -legs'; Head of a 'dog/lion with hook'; Head of a dog/lion with leg; Vessel without handles; Jug; Amphora; Pithos/jar (?); 'Ball amphora'; 'Figure-ofeight shield' (?); 'Arrow' b; Back part of an arrow (in combination with a ruminant); Ship; "Loop"; "Ladder band" (?); Hatched D (?); "Dumbbell"; M-motif; "Horns of consecration"; Ground-line; 'Wheat stalk'; "Γ-branch"; Leaf with stalk (?); Paisley (?); 'Papyrus flower' (?); 'Fern branch' (?); "Saw branch"; Border band (?); Line/Bar (?); 'Lame' chevron (?); U (?); Four-armed whirl (?); Whirl; Unidentifiable motif IX (?); Unidentifiable device X (?), Unidentifiable motif XII, XIII, V (?), X (?), XII, XIII, XIV (?), XVI (?), XXVI, XXXII (?), XLIX–LVI; Elongated motif slung with 'String vessels'; repetition Lunette (?); Mirror pattern.

APPENDIX 5: ORNAMENTAL SCHEMES

Below are listed the basic ornamental schemes according to which the ornamental devices have been named. One device can take the form of more than one of these schemes, e.g. *Z-whirls* are Z-shaped two-armed whirls and *S-whirls* are S-shaped two-armed whirls.

lunette	J	S	v V	Y
Z	triskeles		saltire	star
one-armed whirl	two-armed whirl	three-armed whirl	four-armed whirl	whirl
whirl saltire	swastika	swastika cross	half swastika	

Table 1 Ornamental schemes

APPENDIX 6: OVERVIEW OF THE DEVICES

MOTIFS

1 Frontal man	11 'Goat'
* * *	
2 Man in profile	12 'Sheep'
× 5. 3	
3 Woman in profile	13 Bull
S	
4 'Man with semicircular body'	14 Bovine
5 Frontal 'Gorgo woman'	15 Pig/boar
6 Frontal 'ape'	16 Dog/lion
7 'Ape' a in profile	17 'Minoan dragon'
8 'Ape' b in profile	18 Unidentifiable quadruped
オ	2
9 'Deer'	19 'Snake' a
	www
10 Agrimi	20 'Snake' b
	ξ

OVERVIEW OF THE DEVICES

33 'Squid' a
*
34 'Squid' b
Ť
35 Shrimp/prawn
36 Crab
37 'Murex shell'
38 Scorpion
* +
39 Spider
40 'Spider' a
41 'Spider' b
* * *
42 'Beetle'
43 Centipede
44 'Centipede'
N

45 'Unidentifiable insect'	57 Torso of a kid
46 Crawling animal	58 Torso of a dog/lion
47 Bee	59 Torso of a waterfowl
48 Legless frontal woman	60 Protome of a man
49 Legless human figure in profile	61 Protome of a horned ruminant
50 'Legless boar'	62 Protome of a bovine
51 Legless dog/lion	63 Protome of a dog/lion
52 Legless waterfowl	64 Protome of a quadruped
53 Headless ruminant	65 Protome of an 'ellipse scorpion'
54 Headless kid	66 Protome of a bee
55 Headless dog/lion	67 'Beaked' bust
56 Headless waterfowl	68 'Beaked bust with ponytail'
69 Bust of a bovine	81 Profile head of a 'bull'
------------------------------------	---
70 Bust of a dog/lion	82 Head of an agrimi
71 Bust of a quadruped	83 'Profile head of a horned ruminant'
72 Bust of a 'snake'	84 Profile head of a ruminant
73 Hindquarters of a hoofed animal	85 Head of an unidentifiable ruminant
74 'Gorgo mask'	86 Head of a dog/lion
75 'Mask'	87 Head of a dog/lion with hanging tongue
76 Head of a 'ram'	88 Head of an animal
77 Head of a 'goat'	89 Head
78 Head of an 'ox'	90 Eye
79 Head of a 'bull'	91 Crossed arms
80 Frontal head of a ruminant	92 Leg

93 Leg with claws	105 Amphora
94 'П-legs'	106 Pithos/jar
95 'Dog/lion with spiral body'	108 'Ball jug'
96 Head of a 'dog/lion with hook'	109 'Loop vessel'
97 Head of a dog/lion with leg	110 'Ball amphora'
98 'Boar with π -legs'	111 'String vessel'
99 'Boar with centipede legs'	112 'Ring vessel'
100 'Crawling boar'	113 'Pole'
101 'Centipede with muzzle'	114 'Stone'
102 'Spider with muzzle'	115 Stool
103 Vessel without handles	116 'Chair'
104 Jug	117 Unidentifiable seat

118 'Kiln'	130 'Arrow' b
	
119 'Gaming table'	131 'Egyptian arrow'
#	<u>ا</u>
120 Harp	132 Back part of an arrow
	* *
121 'Key sistrum'/'plough'	133 Bow
₩¥	O D
122 'Figure-of-eight shield'	134 Ship
38	
123 Double axe	135 "Bell"
M	
124 Trident	136 "Brush"
Å	*
125 Dagger	137 "Balloon"
V	•
126 Spear	138 "Loop"
ł	y
127 'Spear with double blade'	139 "Ladder band"
¢	
128 Linear arrow	140 "Ladder"
I X	同日
129 'Arrow' a	141 "Grater"

142 "Sieve"	154 "Breasts"
143 Hatched D	155 "Textile"
144 "Toothed sickle"	156 "Trowel"
3	1
145 "Column"	157 "Bottle"
It	
146 "Dumbbell"	158 "Pin"
ΙC	
147 "Ship's wheel"	159 Ground-line
8	-
148 "Ram's head"	160 Parallel ground-lines
M (1)	5
149 M-motif	161 Branch with leaves
M	
150 "Horns of consecration"	162 'Papyrus flower' with spray
	N
151 "Horn bar"	163 Lily with 'base' a
	sto 上
152 "Г-bar"	164 Lily with 'base' b
france and the second sec	E
153 "T-bar"	165 'Wheat stalk'
\mathbf{T}	**

166 'Fan branch'	178 'Papyrus flower'
W	┚┚┚
167 'Saw branch' with stalk	179 'Lily flower'
JE	ð Y
168 "Г-branch"	180 'V-flower'
	SY Y
169 "Bulb branch"	182 'Fir branch'
₹ ★	
170 Leaf with stalk	183 'Centipede branch'
171 'Ivy leaf' with stalk	184 'Fern branch'
Τ	×
172 Paisley	185 "Saw branch"
7 J	
173 "Nose paisley"	186 Leaf
174 Shamrock a	187 'Ivy leaf'
+	v
175 Shamrock b	188 Stemless paisley
176 Shamrock c	189 Trefoil
₩	
177 'Star flower'	190 Quatrefoil
(*	*

191 Rosette	203 Spiked blob
192 Star blossom	204 Tooth motif
193 'Papyrus blossom'	205 Spike/Spike row
194 'Lily blossom'	206 Line/Bar
195 Open lily blossom (?)	207 Wedge
196 'V-blossom'	208 Ripple
197 Candy motif	209 Triangle
198 Segmented rectangle	210 Stalk triangle
199 Segmented circle	211 Papyrus triangle
200 Abstract Z-whirl pattern	212 Lily triangle
201 Border	213 Hatched triangle
202 Border band	214 Lozenge

215 Trapezium	227 Centred-lunette
216 Fan motif	228 Chevron
217 Inverted T	229 'Lame' chevron
218 Blob	230 U V
219 Disc	231 Y
220 Circle	232 J
221 Ellipse	233 J-spiral
222 Grain ellipse	^{234 S}
223 Lunette	235 Hook spiral
224 C-spiral	236 S-spiral
225 Coil spiral	237 Disc S-spiral
226 Centred-circle	238 Part of a disc S-spiral

239 Z	251 Four-armed whirl
	~
240 Z-whirl	252 Four-armed whirl disc spiral
*	Â
241 Z-whirl spiral	253 Swastika
V	
242 Meander Z	254 Comb swastika
243 Triskeles pommée	255 Whirl
244 Cross/Saltire	256 Whirl spiral
$+\times$ ×	
245 Cross/Saltire pommée	257 Whirl pommée
+ X	
246 Star	258 Swastika cross (?)
*	+
247 Star pommée	259 Half swastika
*	*
248 One-armed whirl	260 Line K
	K
249 Two-armed whirl	261 Line comb
	um Un
250 Three-armed whirl	262 Radial hatching

263 Parallels	266 Simple grid
—	+
264 Grid	267 Random hatching
***	\star
265 Disc grid	

REPRESENTATIONAL COMPOSITES

1 Bow with Linear arrow	2 Elongated motif slung with 'String vessels'

COMPOUNDS

$R {\scriptstyle {\sf EPETITION}} \ C {\scriptstyle {\sf OMPOUNDS}}$

1 Running ornament/Pair – Row	5 Z
**** ••• 🚳 ©©© 553	2
2 Ellipse	6 Z-whirl
	1 × × × × × × ×
3 Lunette	7 Z-whirl with curved arms
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4 S-whirl	8 Meander Z

9 Mirror pattern	15 Four-armed whirl
10 Triskeles/Triangle pattern	16 Swastika
11 Cross/Saltire/Cross pattern	17 Whirl
12 Star/Rosette pattern	18 Swastika cross
13 Two-armed whirl	19 Miscellaneous repetition compounds
14 Three-armed whirl	

SUPPLEMENTATION COMPOUNDS



BORDER COMPOUNDS



C-Spiral Roof Compounds



 $M {\rm iscellaneous} \ Compounds$



MISCELLANEOUS COMPOSITE DEVICES



APPENDIX 7: KINDS OF DEVICES

Agrimi	Agrimi; Head of an agrimi
Amphora	Amphora; 'Ball amphora'
Animal	Agrimi; 'Ape' a in profile; 'Ape' b in profile; 'Beaked' bust (?); 'Beaked bust with ponytail' (?); Bee; 'Beetle'; Bird in profile; 'Boar with centipede legs' (?); 'Boar with π -legs' (?); Bovine; Bull; Bust of a bovine; Bust of a dog/lion; Bust of a quadruped; Bust of a 'snake'; Centipede; 'Centipede'; 'Centipede with muzzle' (?); Crab; Crawling animal; 'Crawling boar' (?); 'Deer'; Dog/lion; 'Dog/lion with spiral body'; Dolphin; Fish; Fish/dolphin with dentated back; Fragmentary unidentifiable device VII (?), XXVII (?), XXX (?); 'Frog'; Frontal 'ape'; Frontal 'bird'; Frontal head of a ruminant; 'Goat'; Head (?); Head of a 'bull'; Head of a dog/lion; Head of a dog/lion with hanging tongue; Head of a 'dog/lion with hook' (?); Head of a dog/ lion with leg (?); Head of a 'goat'; Head of a 'cam'; Head of an agrimi; Head of an animal; Head less dog/lion; Headless kid; Headless ruminant; Headless waterfowl; Hindquarters of a hoofed animal; Leg with claws; Legless dog/lion; 'Legless boar'; Legless waterfowl; Hindquarters of a hoofed animal; Leg with claws; Legless dog/lion; 'Profile head of a 'bull'; 'Profile head of a horned ruminant'; Profile head of a ruminant; Protome of a bee; Protome of a bovine; Protome of a dog/lion; Protome of an 'ellipse scorpion'; Protome of a dog/lion; Protome of an 'ellipse scorpion'; Snider' b; 'Spider with muzzle' (?); 'Squid' a; 'Squid' b; "Toothed sickle" (?); Torso of a dog/lion; Torso of a kid; Torso of a waterfowl; Tortoise; 'Turtle'; 'Unidentifiable

KINDS OF DEVICES

	insect'; Unidentifiable motif I–VI (?), VIII–XVIII (?), XXXIII(?), LIX (?), LXIV (?); Unidentifiable quad-ruped; Waterfowl; 'Peafowl'
Arm	Crossed arms
Axe	Double axe
Deer	'Deer'
Ape	'Ape' a in profile; 'Ape' b in profile; Frontal 'ape'
Arrow	'Arrow' a; 'Arrow' b; Back part of an arrow; Bow with Linear arrow; 'Egyptian arrow'; Linear arrow; U (?); Unidentifiable motif II (?), XXV (?)
Balloon	"Balloon"
Band	Border band; "Ladder band"
Bar	"Г-bar"; "Horn bar"; Line/Bar; 'Pole'; "T-bar"
Bee	Bee; Protome of a bee
Beetle	'Beetle'; Fragmentary unidentifiable device XXVII (?)
Bird	Bird in profile; Frontal 'bird'; Headless waterfowl; Legless waterfowl; Torso of a waterfowl; Waterfowl; 'Peafowl'; Unidentifiable motif XIV–XV (?), LIX (?)
Blob	Blob; Disc; Fragmentary unidentifiable device XXX (?); Spiked blob; Unidentifiable motif XXXVI (?)
Blossom	'Lily blossom'; Open lily blossom; 'Papyrus blos- som'; Quatrefoil; Rosette; Star blossom; Trefoil; Unidentifiable motif XXV (?); 'V-blossom'
Bovine	Bovine; Bust of a bovine; Head of a 'bull'; Head of an 'ox'; Headless kid; Headless ruminant; Protome of a bovine; Torso of a dog/lion; Torso of a kid; Unidentifiable motif I (?), VIII–IX (?)

Boar	'Boar with centipede legs'; 'Boar with π -legs'; 'Centipede with muzzle'; 'Crawling boar'; 'Legless boar'; Pig/boar; Protome of a quadruped (?); Unidentifiable motif II (?)
Bow	Bow; Bow with Linear arrow
Border	Border; Border with as border supplements; Border band; Framed
Branch	Branch with leaves; 'Centipede branch'; "Bulb branch"; 'Fan branch'; 'Fern branch'; 'Fir branch'; Fragmentary unidentifiable device XLII–XLIX (?); "Γ-branch"; "Saw branch"; 'Saw branch' with stalk; Unidentifiable motif LX (?), LXIV (?)
Breasts	"Breasts"
Brush	"Brush"
Bucket	'Ring vessel'
Bulb	"Bulb branch"; 'Ivy leaf' with stalk; 'Star flower'; Unidentifiable motif LXIV (?)
Bull	Bull; Head of a 'bull'; Profile head of a 'bull'; Unidentifiable motif I (?), IX (?)
Bust	'Beaked' bust ; 'Beaked bust with ponytail'; Bust of a bovine; Bust of a dog/lion; Bust of a quadruped; Bust of a 'snake'
C-form	C-spiral; C-spiral roof compound; Centred-lunette; Lunette; Lunette of
Candy shape	Candy motif
Circle	Border; Border with as border supplements; Centred-circle; Circle; 'Ring vessel'; Segmented circle
Centred-device	Centred-circle; Centred-lunette

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	KINDS OF DEVICES
Centipede	'Boar with centipede legs'; Centipede; 'Centipede'; 'Centipede branch'; 'Centipede with muzzle'
Chair	'Chair'
Chevron	see V-form
Crab	Crab
Crawling creature	Crawling animal; 'Crawling boar'
Cross	Combination of in a cross; Cross pattern of; Cross; Cross of; Cross pommée; Cross pommée with as angle supplements (?); Saltire; Saltire of; Saltire pommée; Swastika cross (?); Swastika cross of; Whirl Saltire; Unidentifiable motif XLII (?)
Coil	Coil spiral
Column	"Column"
Comb	Comb swastika; Double Line comb; Line comb
Construction	"Column" (?); "Horn bar" (?); "Horn bar" slung with 'String vessels' (?); "Horns of consecration" (?); 'Kiln'; "Ladder"; "Ladder band" (?); "Ladder band" slung with 'String vessels' (?); 'Π-legs' (?); 'Π-legs' slung with 'String vessels' (?); "Saw branch" slung with 'String vessels' (?); Ship; "T-bar" slung with 'String vessels' (?)
D-shape	Hatched D
Dagger	Dagger
Device pommée	Cross pommée; Cross pommée with as angle supplements (?); Saltire pommée; Star pommée; Triskeles pommée; Whirl pommée; <i>see also</i> Disc device
Disc	see Blob

	APPENDIX 7
Disc device	Disc grid; Disc S-spiral; Four-armed whirl disc spiral; Part of a disc S-spiral; <i>see also</i> Device pommée
Dog/lion	Bust of a dog/lion; Dog/lion; 'Dog/lion with spiral body'; Fragmentary unidentifiable device VII (?); Head of a dog/lion; Head of a dog/lion with hanging tongue; Head of a 'dog/lion with hook' (?); Head of a dog/lion with leg (?); Headless dog/lion; Legless dog/lion; 'Minoan' dragon (?); Protome of a dog/lion; Torso of a dog/lion; Unidentifiable motif V–VI (?), XII–XIII (?)
Dolphin	Dolphin; Fish/dolphin with dentated back; Unidenti- fiable motif XVI (?)
Dragon	'Minoan dragon' (?)
Dumbbell	see Figure-of-eight-shaped device
Ellipse	Ellipse; Ellipse of; Grain ellipse
Eye	Eye
Fan	'Fan branch'; Fan motif
Fictional creature	see Hybrid
Figure-of-eight-shaped device	"Dumbbell"; 'Figure-of-eight shield'
Figure-of-eight shield	see Figure-of-eight-shaped device
Fish	Fish; Fish/dolphin with dentated back; Unidentifiable motif XVII (?);
Floral device	'Centipede branch' (?); "Bulb branch" (?); 'Fan branch' (?); 'Fern branch'; 'Fir branch'; 'Ivy leaf'; 'Ivy leaf' with stalk; Leaf; Leaf with stalk; 'Lily blossom'; 'Lily flower'; Lily with 'base' a; Lily with 'base' b; 'Nose paisley' (?); 'Papyrus blossom'; 'Papyrus flower'; 'Papyrus flower' with spray; Paisley; Quatrefoil; Rosette; "Saw branch"; 'Saw branch' with stalk;

	KINDS OF DEVICES
	Shamrock a; Shamrock b; Shamrock c; Star blossom; 'Star flower'; Stemless paisley; Trefoil; Unidentifiable flower; 'V-blossom'; 'V-flower'; 'Wheat stalk'
Flower	'Lily blossom'; 'Lily flower'; Lily with 'base' a; Lily with 'base' b; Open lily blossom; 'Papyrus blossom'; 'Papyrus flower'; 'Papyrus flower' with spray; Quatrefoil (?); Rosette; Star blossom; 'Star flower'; Trefoil (?); Unidentifiable flower; Unidentifiable motif XXV (?); Unidentifiable motif XXXVII–XXXVIII (?); 'V-blossom'; 'V-flower'
Frog	'Frog'
Γ-shape	"Г-bar"; "Г-branch"
Goat	Agrimi; Head of an agrimi; 'Goat'; Head of a 'goat'
'Gorgo'	Frontal 'Gorgo woman'; 'Gorgo mask'
Grater	"Grater"
Grid	Disc grid; Grid; Simple grid
Ground-line	Ground-line; Parallel ground-lines
H-form	Unidentifiable motif LX-LXI (?)
Harp	Harp
Hatching	Radial hatching; Random hatching
Head	'Beaked bust with ponytail'; Frontal head of a ruminant; 'Gorgo mask'; Head; Head of an agrimi; Head of an animal; Head of a 'bull'; Head of a dog/lion; Head of a dog/lion with hanging tongue; Head of a 'dog/lion with hook' (?); Head of a dog/lion with leg (?); Head of a 'goat'; Head of an 'ox'; Head of a 'ram'; Head of an unidentifiable ruminant; 'Mask'; Profile head of a 'bull'; 'Profile head of a horned ruminant'; Profile head of a ruminant; "Ram's head" (?); Unidentifiable motif VIII–IX (?), XI (?), XII–XIII (?), XXXIII (?)

Helmet	Unidentifiable motif LV (?)
Horns of consecration	"Horn bar"; "Horns of consecration"; Unidentifiable motif XXVI (?)
Hieroglyph	Amphora (?); 'Arrow' a (?); 'Arrow' b; 'Beetle' (?); "Bottle"; Bow with Linear arrow; "Breasts"; Cross pommée; Cross pommée with as angle supplements (?); Crossed arms; Dagger (?); Disc (?); 'Dog/lion with spiral body' (?); "Dumbbell" (?); Eye; 'Fern branch'; Fragmentary unidentifiable device XIII (?); Harp; Head of a dog/lion with hanging tongue; Head of an agrimi; Head of an 'ox'; "Horns of consecration" (?); 'Ivy leaf' (?); 'Ivy leaf' with stalk (?); Jug (?); 'Key sistrum'/'plough'; "Ladder"; Leg; Man in profile (?); 'Mask' (?); 'Papyrus flower'; 'Papyrus flower' with spray (?); "Pin" (?); Profile head of a 'bull'; S-spiral (?); Saltire; "Saw branch" (?); Shamrock b; Shamrock c (?); Ship (?); Spider (?); 'Trowel"; Two-armed whirl (?); U (?); Unidentifiable device XXVI, XXVIII–XXXI (?); 'V-flower' (?); Waterfowl (?); Whirl (?)
Hippocampus	see Dog/lion
Hoofed animal	Agrimi; 'Boar with centipede legs' (?); 'Boar with π -legs' (?); Bovine; Bull; Bust of a bovine; Bust of a quadruped (?); 'Deer'; Frontal head of a ruminant; 'Goat'; Head (?); Head of a 'bull'; Head of a 'goat'; Head of an 'ox'; Head of a 'ram'; Head of an agrimi; Head of an animal (?); Head of an unidentifiable ruminant; Headless kid; Headless ruminant; Hind-quarters of a hoofed animal (?); 'Legless boar'; Pig/ boar; Profile head of a 'bull'; 'Profile head of a horned ruminant'; Profile head of a ruminant; Protome of a bovine; Protome of a horned ruminant; Protome of a horned ruminant; Protome of a kid; Unidentifiable motif I (?), II (?), XI (?)

	KINDS OF DEVICES
Human	'Beaked' bust (?); 'Beaked bust with ponytail' (?); "Breasts"; Crossed arms; Eye; Frontal man; Frontal 'Gorgo woman' (?); Head (?); Leg; Legless frontal woman; Legless human figure in profile; Man in profile; 'Man with semicircular body' (?); 'Mask' (?); Protome of a man; "Trowel" (?); Unidentifiable motif I (?), LVIII (?); Woman in profile
Hybrid	'Beaked bust with ponytail' (?); 'Boar with centipede legs' (?); 'Boar with π -legs' (?); 'Centipede with muzzle' (?); 'Crawling boar' (?); Frontal 'bird' (?); Frontal 'Gorgo woman' (?); 'Gorgo mask (?); Head of a 'dog/lion with hook' (?); Head of a dog/lion with leg (?); 'Man with semicircular body' (?); 'Mask' (?); 'Minoan dragon' (?); 'Spider with muzzle' (?); Unidentifiable motif XII–XIII (?)
Insect	Bee; 'Beetle'; Fragmentary unidentifiable device XXVII (?); Protome of a bee; 'Spider' a (?); 'Spider' b (?); 'Unidentifiable insect'
Ivy	'Ivy leaf'; 'Ivy leaf' with stalk
J-form	J; J-spiral
Jar	see Pithos
Jug	Jug; 'Ball jug'; Fragmentary unidentifiable device IX (?); Unidentifiable motif XXVIII (?)
K-form	Line K
Kid	Headless kid; Torso of a kid; Torso of a waterfowl
Kiln	'Kiln'
Ladder	Border; Border band; 'Kiln'; "Ladder"; "Ladder band"; Unidentifiable motif XXX (?)
Landscape element	Ground-line; Parallel ground-lines; Ripple (?); 'Stone' (?); Unidentifiable motif XXXVI (?)

Leaf	Branch with leaves; 'Ivy leaf'; 'Ivy leaf' with stalk; Leaf; Leaf with stalk; 'Nose paisley' (?); Paisley; Stemless paisley; U (?); Unidentifiable motif XXXV (?)
Leg	'Boar with π -legs'; Leg; Leg with claws; ' Π -legs'
Lily	'Lily blossom'; 'Lily flower'; Lily triangle; Lily with 'base' a; Lily with 'base' b; Open lily blossom; Unidentifiable motif XXV (?), XXXVIII (?), XL (?)
Line	Fragmentary unidentifiable device XLII–XLIX (?); Line/Bar; Ripple; Wedge; Unidentifiable motif XXXII (?), LX–LXI (?), LXIV (?)
Line device	Disc grid; Double Line comb; Grid; Line comb; Line K; Parallels; Radial hatching; Random hatching; Simple grid; Unidentifiable motif XLVII (?)
Lion	see Dog/lion
Lizard	Lizard
Loop	"Loop"
Lozenge	Lozenge
Lunette	see C-form
M-form	M-motif
Man	'Beaked' bust (?); 'Beaked bust with ponytail' (?); Frontal man; Legless human figure in profile (?); Man in profile; 'Man with semicircular body' (?); Protome of a man; "Trowel" (?); Unidentifiable motif I (?), LVIII (?)
Mask	'Gorgo mask'; 'Mask' (?)
Meander	Meander Z; Meander Z of
Minoan dragon	see Dragon

	KINDS OF DEVICES
Mirror pattern	Mirror pattern of
Murex shell	see Shell
Musical instrument	Fragmentary unidentifiable device II (?); Harp; 'Key sistrum'/'plough'
Object	 Amphora; 'Arrow' a; 'Arrow' b; Back part of an arrow; 'Ball amphora'; 'Ball jug'; "Bell" (?); "Bottle" (?); Bow; Bow with Linear arrow; "Brush" (?); 'Chair'; Dagger; Double axe; "Dumbbell" (?); 'Egyptian arrow'; Elongated motif slung with 'String vessels'; 'Figure-of-eight shield'; Fragmentary unidentifiable device II (?); Fragmentary unidentifiable device IX (?); "T-bar" (?); "T-bar" slung with 'String vessels'; 'T-branch" (?); 'Gaming table'; "Grater" (?); Harp; Hatched D (?); "Horn bar" (?); "Horn bar" slung with 'String vessels' (?); Jug; 'Key sistrum'/'plough'; ''Ladder" (?); 'Ladder band" (?); 'Ladder band" slung with 'String vessels' (?); 'Lame' chevron (?); Linear arrow; "Loop" (?); 'Loop vessel'; "Murex shell"; ''I-legs' (?); 'I-legs' slung with 'String vessels' (?); ''Pin" (?); Pithos/jar; 'Pole'; 'Pole' slung with 'String vessels'; "Saw branch" (?); 'Saw branch" slung with 'String vessels' (?); 'Stool; 'String vessel' (?); ''T-bar"; "T-bar" slung with 'String vessels' (?); ''T-bar"; "T-bar" slung with 'String vessels' (?); ''Textile" (?); 'Toothed sickle" (?); ''Trowel" (?); U (?); Unidentifiable motif II (?), XX–XXVII (?), XXXIV (?), XXXVI (?), XLVIII (?), LV (?); Unidentifiable seat; Unidentifiable vessel; Vessel without handles; Y (?)
Octopus	Octopus; 'Squid' a
Ornamental device	Abstract Z-whirl pattern; "Balloon" (?); Blob; Border; Border with as border supplements; Border band (?); C-spiral; C-spiral roof compound; Candy motif (?); Centred-circle; Centred-lunette; 'Centipede'; Chevron; Circle; Coil spiral (?); "Column" (?); Comb swastika; Cross pattern of; Cross; Cross of; Cross pommée; Cross pommée with as angle supplements (?);

Devices with angle/curve supplements; Devices with shoulder supplements; Devices with body supplements; Devices with edge supplements; Devices with border supplements; Devices with more than one pair of supplements; Disc; Disc grid; Disc S-spiral; Double Line comb; "Dumbbell" (?); Ellipse; Ellipse of ...; Fan motif; Four-armed whirl disc spiral; Four-armed whirl; Four-armed whirl of ...; Four-armed whirl spiral; Fragmentary unidentifiable device XXX (?), XLII-XLIX (?); Framed ...; Gear combination; Grain ellipse; Grid; Half swastika; Hatched D; Hatched triangle; Hook spiral; Inverted T; J; J-spiral; "Ladder band" (?); 'Lame' chevron (?); Lily triangle; Lily with 'base' b; Line/Bar; Line comb; Line K; Lozenge; Lunette; Lunette of ...; Meander Z; Meander Z of ...; Mirror pattern of ...; One-armed whirl; Papyrus triangle; Parallels; Part of a disc S-spiral; Pair of ...; Radial hatching; Repetition compound of Protomes of a man; Ripple; Rosette pattern of ...; Row of ...; Running ...; S; S-spiral; S-whirl of ...; Saltire; Saltire of ...; Saltire pommée; Segmented rectangle; Segmented circle; "Ship's wheel" (?); Simple grid; Spike; Spike row; Spiked blob; Stalk triangle; Star; Star of ...; Star pommée; Swastika; Swastika of ...; Swastika cross (?); Swastika cross of ...; Three-armed whirl; Threearmed whirl of ...; Tooth motif; Trapezium; Triangle; Triangle pattern; Triskeles of ...; Triskeles pommée; Two-armed whirl; Two-armed whirl of ...; U (?); Unidentifiable motif XV (?), XXXII (?), XXXVI (?), XL (?), XLI-XLII (?), XLIV-XLV (?), XLVII (?), LX-LXI (?), LXIV (?); Wedge; Wheel (?); Whirl; Whirl of ...; Whirl pommée; Whirl Saltire; Whirl spiral; Y (?); Z; Z of ...; Z-whirl; Z-whirl of ...; Z-whirl of ... with ... as angle supplements; Z-whirl spiral; Z-whirl spiral with ... as curve and shoulder supplements; Z-whirl with curved arms composed of ...

Pair

Pair of ...

Paisley

'Nose paisley'; Paisley; Stemless paisley

Papyrus	'Papyrus blossom'; 'Papyrus flower'; 'Papyrus flower' with spray; Papyrus triangle; Unidentifiable motif XXXVII (?)
Parallels	Parallels
Part of a creature	'Beaked' bust; 'Beaked bust with ponytail' (?); "Breasts"; Bust of a bovine; Bust of a dog/lion; Bust of a quadruped; Crossed arms; 'Dog/lion with spiral body'; Eye; Frontal head of a ruminant; 'Gorgo mask'; Head; Head of a 'bull'; Head of a dog/lion; Head of a dog/lion with hanging tongue; Head of a 'dog/lion with hook' (?); Head of a dog/lion with leg (?); Head of a 'goat'; Head of a 'ram'; Head of an agrimi; Head of an animal; Head of an 'ox'; Headless dog/lion; Headless kid; Headless ruminant; Headless waterfowl; Hindquarters of a hoofed animal; "Horn bar" (?); "Horns of consecration" (?); Leg; Leg with claws; Legless dog/lion; 'Legless boar'; Legless waterfowl; Legless frontal woman; Legless human figure in profile; M-motif (?); 'Mask'; 'II-legs' (?); Profile head of a 'bull'; Protome of a bee; Protome of a bovine; Protome of a dog/lion; Protome of an 'ellipse scorpion'; Protome of a horned ruminant; Protome of a man; Protome of a quadruped; "Ram's head" (?); Torso of a dog/lion; Torso of a kid; Torso of a waterfowl; "Trowel" (?); Unidentifiable motif VIII–IX (?), XI–XV (?), XXXIII (?), LXIV (?)
Part of an object	Back part of an arrow; Unidentifiable motif XXV (?)
Part of an ornamental device	Part of a disc S-spiral
Peafowl	'Peafowl'
Pig	see Boar
Pin	"Pin"
Pithos	Pithos/jar

Plant	Branch with leaves; 'Centipede branch'; "Bulb branch" (?); 'Fan branch'; 'Fern branch'; 'Fir branch'; Fragmentary unidentifiable device XLII–XLIX (?); "T-branch" (?); 'Ivy leaf'; 'Ivy leaf' with stalk; Leaf; Leaf with stalk; 'Lily blossom'; 'Lily flower'; Lily with 'base' a; Lily with 'base' b; 'Nose paisley' (?); Open lily blossom; 'Papyrus blossom'; 'Papyrus flower'; 'Papyrus flower' with spray; Paisley; Quatrefoil; Rosette; "Saw branch"; 'Saw branch' with stalk; Shamrock a; Shamrock b; Shamrock c; Star blossom; 'Star flower'; Stemless paisley; Trefoil; U (?); Unidentifiable flower; 'V-blossom'; 'V-flower'; 'Wheat stalk'; Unidentifiable motif XXV (?), XXXV (?), XXXVII–XXXVIII (?), XL (?), LX (?), LXIV (?)
Pole	'Pole'
Prawn	see Shrimp
Protome of	Protome of a bee; Protome of a bovine; Protome of a dog/lion; Protome of an 'ellipse scorpion'; Protome of a horned ruminant; Protome of a man; Protome of a quadruped; Unidentifiable motif LXIV (?)
П-form	'Boar with π -legs'; ' Π -legs'
Quadruped	Agrimi; Bovine; 'Beaked' bust (?); 'Beaked bust with ponytail' (?); 'Boar with centipede legs' (?); 'Boar with π -legs' (?); Bull; Bust of a bovine; Bust of a dog/lion; Bust of a quadruped; 'Deer'; Dog/lion; 'Dog/lion with spiral body'; Fragmentary unidentifiable device VII (?), XXX (?); Frontal head of a ruminant; 'Goat'; Head of a 'bull'; Head of a dog/lion; Head of a dog/lion with hanging tongue; Head of a 'dog/lion with hook' (?); Head of a dog/lion with leg (?); Head of a 'goat'; Head of a 'ram'; Head of an agrimi; Head of an animal (?); Head of an 'ox'; Head of an unidentifiable ruminant; Headless dog/lion; Headless kid; Headless ruminant; Hindquarters of a hoofed animal; Legless dog/lion; 'Legless boar'; 'Minoan dragon'; Pig/boar; Profile head of a 'bull'; 'Profile head of a horned ruminant'; Profile

KINDS OF DEVICES

	head of a ruminant; Protome of a bovine; Protome of a dog/lion; Protome of a horned ruminant; Protome of a quadruped; "Ram's head" (?); 'Sheep'; Torso of a dog/lion; Torso of a kid; Unidentifiable motif I–VI (?), VIII–IX (?), XI–XIII (?), XXXIII (?), LXIV (?); Unidentifiable quadruped
Quatrefoil	Quatrefoil
Ram	see Sheep
Rectangle	Segmented rectangle
Reptile	Bust of a 'snake'; Lizard; 'Snake' a; 'Snake' b (?)
Ripple	Ripple
Rosette	Rosette; Rosette pattern of
Row	Row of; Spike row
Ruminant	Agrimi; Bovine; Bull; Bust of a bovine; Bust of a quadruped (?); 'Deer'; Frontal head of a ruminant; 'Goat'; Head (?); Head of a 'bull'; Head of a 'goat'; Head of a 'ram'; Head of an agrimi; Head of an animal (?); Head of an 'ox'; Head of an unidentifiable
	ruminant; Headless kid; Headless ruminant; Hindquarters of a hoofed animal (?); Profile head of a 'bull'; 'Profile head of a horned ruminant'; Profile head of a ruminant; Protome of a bovine; Protome of a horned ruminant; "Ram's head" (?); 'Sheep'; Torso of a kid; Unidentifiable motif IX (?), XI (?), XXXIII (?)
Running device	ruminant; Headless kid; Headless ruminant; Hindquarters of a hoofed animal (?); Profile head of a 'bull'; 'Profile head of a horned ruminant'; Profile head of a ruminant; Protome of a bovine; Protome of a horned ruminant; "Ram's head" (?); 'Sheep'; Torso of a kid; Unidentifiable motif IX (?), XI (?), XXXIII (?) Running
Running device S-form	 ruminant; Headless kid; Headless ruminant; Hindquarters of a hoofed animal (?); Profile head of a 'bull'; 'Profile head of a horned ruminant'; Profile head of a ruminant; Protome of a bovine; Protome of a horned ruminant; "Ram's head" (?); 'Sheep'; Torso of a kid; Unidentifiable motif IX (?), XI (?), XXXIII (?) Running Disc S-spiral; Hook spiral; Part of a disc S-spiral; S; S-spiral; S-whirl of
Running device S-form Saltire	ruminant; Headless kid; Headless ruminant; Hindquarters of a hoofed animal (?); Profile head of a 'bull'; 'Profile head of a horned ruminant'; Profile head of a ruminant; Protome of a bovine; Protome of a horned ruminant; "Ram's head" (?); 'Sheep'; Torso of a kid; Unidentifiable motif IX (?), XI (?), XXXIII (?) Running Disc S-spiral; Hook spiral; Part of a disc S-spiral; S; S-spiral; S-whirl of <i>see</i> Cross

Scorpion	Protome of an 'ellipse scorpion'; Scorpion
Script sign	'Egyptian arrow'; 'Lame' chevron (?); "Loop" (?); "Ram's head" (?); Unidentifiable motif XLIX–LVI; <i>see also</i> Hieroglyph
Seat	'Chair'; 'Stone'; Stool; Unidentifiable seat
Shamrock a	Shamrock a; Shamrock b; Shamrock c
Sheep	Head of a 'ram'; "Ram's head" (?); 'Sheep'; Unidentifiable motif IX (?), XXXIII (?)
Shell	'Murex shell'; Unidentifiable motif X (?)
Ship	Ship; "Ship's wheel"; Unidentifiable motif II (?), XXXIII-IV (?)
Shrimp	Shrimp/prawn
Sickle	"Toothed sickle"
Sieve	"Sieve"
Sistrum	'Key sistrum'/'plough'
Snake	Bust of a 'snake'; 'Snake' a; 'Snake' b (?)
Spear	Spear; 'Spear with double blade'
Spider	Spider; 'Spider' a; 'Spider' b; 'Spider with muzzle' (?); Unidentifiable motif XVIII (?)
Spike	Spike; Spike row
Spiral	C-spiral; C-spiral roof compound; Coil spiral; Disc S-spiral; 'Dog/lion with spiral body'; Four-armed whirl disc spiral; Four-armed whirl spiral; Hook spiral; J-spiral; S-spiral; Whirl spiral; Z-whirl spiral; Z-whirl spiral with as curve and shoulder supplements

Squid	'Squid' a; 'Squid' b
Star	Star; Star blossom; 'Star flower'; Star of; Star pommée
Stone	'Stone'
Stool	Stool; Unidentifiable motif XXVI (?)
String vessel	'String vessel'
Swastika	Comb swastika; Half swastika; Swastika; Swastika of; Swastika cross (?); Swastika cross of; Unidentifiable motif XLII (?)
T-shape	Inverted T; "T-bar"
Table	'Gaming table'; Unidentifiable motif XXVII (?)
Textile	"Textile"
Tool	see Weapon/tool
Tooth shape	Tooth motif
Torso	Torso of a dog/lion; Torso of a kid; Torso of a waterfowl; "Trowel"
Tortoise	Tortoise
Trapezium	Trapezium
Trefoil	Trefoil
Triangle	Hatched triangle; Lily triangle; Papyrus triangle; Stalk triangle; Triangle; Triangle pattern
Trident	Trident
Triskeles	Triskeles of; Triskeles pommée

KINDS OF DEVICES

Turtle	'Turtle'
Two-armed whirl	Abstract Z-whirl pattern
U-form	U
Unidentifiable device	Fragmentary unidentifiable devices/images; Unidenti- fiable image; Unidentifiable device; Unidentifiable motif
V-form	Chevron; 'Lame' chevron; 'V-blossom'; Unidentifiable motif XV (?)
Vessel	Amphora; 'Ball amphora'; 'Ball jug'; Fragmentary unidentifiable device IX (?); Jug; 'Loop vessel'; Pithos/ jar; 'Ring vessel'; 'String vessel' (?); Unidentifiable vessel; Vessel without handles; Unidentifiable motif XXVII (?)
Waterfowl	Headless waterfowl; Legless waterfowl; Torso of a waterfowl; Waterfowl; Unidentifiable motif XIV–XV (?), LIX (?)
Weapon/tool	'Arrow' a; 'Arrow' b; Back part of an arrow; Bow with Linear arrow; 'Egyptian arrow'; Dagger; Double axe; 'Figure-of-eight shield'; 'Key sistrum'/'plough'; Linear arrow; "Saw branch" (?); "Saw branch" slung with 'String vessels' (?); Spear; 'Spear with double blade' (?); Trident; "Trowel" (?); Unidentifiable motif II (?), XXV (?)
Wedge	Wedge
Wheat	'Wheat stalk'
Wheel	"Ship's wheel"; Wheel
Whirl	Abstract Z-whirl pattern; "Brush"; Four-armed whirl disc spiral; Four-armed whirl; Four-armed whirl of; Four-armed whirl spiral; One-armed whirl; S-whirl of; Three-armed whirl; Three-armed whirl of;

KINDS OF DEVICES

	Two-armed whirl; Two-armed whirl of; Whirl; Whirl of; Whirl pommée; Whirl Saltire; Whirl spiral; Z-whirl; Z-whirl of; Z-whirl of with as angle supplements; Z-whirl spiral; Z-whirl spiral with as curve and shoulder supplements; Z-whirl with curved arms composed of
Woman	Frontal 'Gorgo woman' (?); Legless frontal woman; Legless human figure in profile (?); Woman in profile
Y-form	Υ
Z-form	Abstract Z-whirl pattern; Meander Z; Meander Z of; Z; Z of; Z-whirl; Z-whirl of; Z-whirl of with as angle supplements; Z-whirl spiral; Z-whirl spiral with as curve and shoulder supplements; Z-whirl with curved arms composed of; Unidentifiable motif XLI (?)

ABBREVIATIONS OF LITERATURE

JOURNALS AND SERIES

A. Delt.	Αρχαιολογικόν δελτίον
AeA	Aegean Archaeology
Aegaeum	Annales d'archéologie égéenne de l'Université de Liège
AJA	American Journal of Archaeology
Anschnitt	Der Anschnitt. Mitteilungsblatt der Vereinigung der Freunde von Kunst und Kultur im Bergbau
Antike	Die Antike. Zeitschrift für Kunst und Kultur des klassischen Altertums
AR	Journal of Hellenic Studies, Archaeological Reports
Arch. Eph.	Αρχαιολογική εφημερίς
ASA	Annuario della Scuola archeologica di Atene e delle missioni italiane in Oriente
Ath. Mitt.	Mitteilungen des Deutschen Archäologischen Instituts, Athenische Abteilung
Ausonia	Ausonia. Rivista della società italiana di archeologia e storia dell' arte
ВАН	Bibliothèque archéologique et historique
BAVA	Beiträge zur allgemeinen und vergleichenden Archäologie
BCH	Bulletin de correspondance hellénique
BICS	Bulletin of the Institute of Classical Studies, London
BSA	Annual of the British School at Athens
BSA Suppl.	Annual of the British School at Athens Supplement

Cah. A. Subaqu.	Cahiers d'archéologie subaquatique
Cl. R.	The Classical Review
CMS	Corpus der minoischen und mykenischen Siegel
CMS Beih.	Corpus der minoischen und mykenischen Siegel, Beiheft
CRAI	Académie des inscriptions et belles-lettres. Comptes rendus des séances de l'année
Et. Cret.	Études crétoises
Expedition	Expedition. The Magazine of the University of Pennsylvania Museum of Archaeology and Anthropology
Hesperia	Hesperia. Journal of the American School of Classical Studies at Athens
Hesperia Suppl.	Hesperia Supplement. Journal of the American School of Classical Studies at Athens
JFA	Journal of Field Archaeology
JHS	Journal of Hellenic Studies
Kadmos	Kadmos. Zeitschrift für vor- und frühgriechische Epigraphik
Kentro	Kentro, The Newsletter of the INSTAP Study Center for East Crete
Kr. Chron.	Κρητικά χρονικά
Kr. Est.	Κρητική εστία
LIMC	Lexicon Iconographicum Mythologiae Classicae
ОВО	Orbis biblicus et orientalis
Orientalia	Orientalia. Commentarii periodici de rebus Orientis Antiqui
PAE	Πρακτικά της εν Αθήναις Αρχαιολογικής Εταιρείας
PrM	Prehistory Monographs
RA	Revue Archéologique
SIMA	Studies in Mediterranean Archaeology
SIMA PB	Studies in Mediterranean Archaeology, pocket-book

SHORT TITLES

CHIC	Olivier, JP., and Godart, L., in collaboration with Poursat, JC., 1996. <i>Corpus Hieroglyphicarum Inscriptionum Cretae</i> . Et. Cret. 31. Paris.
CMS I	Sakellariou, A., 1964. Die minoischen und mykenischen Siegel des Nationalmuseums in Athen. CMS I. Berlin.
CMS I Suppl.	Sakellarakis, J., A., 1982. Athen, Nationalmuseum. CMS I Supplementum. Berlin.
CMS II,1	Platon, N., 1969. Iraklion, Archäologisches Museum. Teil 1. Die Siegel der Vorpalastzeit. CMS II,1. Berlin.
CMS II,2	Platon, N., Pini, I., and Salies, G., with a contribution from Dessenne, A., 1977. <i>Iraklion, Archäologisches Museum. Teil 2. Die Siegel der Altpalastzeit.</i> CMS II,2. Berlin.
CMS II,3	Platon, N., and Pini, I., 1984. Iraklion, Archäologisches Museum. Teil 3. Die Siegel der Neupalastzeit. CMS II,3. Berlin.
CMS II,4	Platon, N., and Pini, I., 1985. Iraklion, Archäologisches Museum. Teil 4. A. Die Siegel der Nachpalastzeit, B. Undatierbare spätminoische Siegel. CMS II,4. Berlin.
CMS II,5	Pini, I., 1970. Iraklion, Archäologisches Museum. Teil 5. Die Siegelabdrücke von Phästos. CMS II,5. Berlin.
CMS II,6	Müller, W., Pini, I., Platon, N., et al., 1999. Iraklion, Archäologisches Museum. Teil 6. Die Siegelabdrücke von Aj. Triada und anderen zentral- und ostkretischen Fundorten, unter Einbeziehung von Funden aus anderen Museen. CMS II,6. Berlin.
CMS II,7	Müller, W., Pini, I., and Platon, N., 1998. Iraklion, Archäologisches Museum. Teil 7. Die Siegelabdrücke von Kato Zakros, unter Einbeziehung von Funden aus anderen Museen. CMS II,7. Berlin.
CMS II,8	Gill, M., A., V., Müller, W., Pini, I., and Platon, N., 2002. Iraklion, Archäologisches Museum. Teil 8. Die Siegelabdrücke von Knossos, unter Einbeziehung von Funden aus anderen Museen. CMS II,8. Mainz.
CMS III	Müller, W., Pini, I., and Sakellariou, A., 2007. Iraklion, Archäologisches Museum. Sammlung Giamalakis. CMS III. Mainz.
CMS IV	Sakellarakis, J., A., and Kenna, V., E., G., 1969. <i>Iraklion. Sammlung Metaxas</i> . CMS IV. Berlin.
CMS V	Pini, I., et al., 1975. Kleinere griechische Sammlungen. CMS V. Berlin.

CMS V Suppl. 1A	Pini, I., et al., 1992. <i>Kleinere griechische Sammlungen. Supplementum 1 A.</i> <i>Ägina – Korinth.</i> CMS V Supplementum 1A. Berlin.
CMS V Suppl. 1B	Pini, I., et al., 1993. Kleinere griechische Sammlungen. Supplementum 1 B. Lamia – Zakynthos und weitere Länder des Ostmittelmeerraums. CMS V Supplementum 1B. Berlin.
CMS V Suppl. 3	Pini, I., et al., 2004. <i>Kleinere griechische Sammlungen. Supplementum 3.</i> <i>Neufunde aus Griechenland und der westlichen Türkei.</i> CMS V Supplementum 3. Mainz.
CMS VI	Hughes-Brock, H., and Boardman, J., 2009. Oxford. The Ashmolean Museum. CMS VI. Mainz.
CMS VII	Kenna, V., E., G., 1967. Die englischen Museen II. London, British Museum; Cambridge, Fitzwilliam Museum; Manchester, University Museum; Liverpool, City Museum; Birmingham, City Museum. CMS VII. Berlin.
CMS VIII	Kenna, V., E., G., 1966. Die englischen Privatsammlungen. CMS VIII. Berlin.
CMS IX	van Effenterre, H., and van Effenterre, M., 1972. <i>Cabinet des Médailles de la Bibliothèque Nationale Paris</i> . CMS IX. Berlin.
CMS X	Betts, J., H., 1980. Die Schweizer Sammlungen. CMS X. Berlin.
CMS XI	Pini, I., et al., 1988. Kleinere europäische Sammlungen. CMS XI. Berlin.
CMS XII	Kenna, V., E., G., 1972. Nordamerika I. New York, The Metropolitan Museum of Art. CMS XII. Berlin.
CMS XIII	Kenna, V., E., G., and Thomas, E., 1974. <i>Nordamerika II. Kleinere Sammlungen</i> . CMS XIII. Berlin.

SHORT TITLES IN THE FIGURES AND PLATES

I Suppl. CMS I Suppl. no.

II,1 CMS II,1 no.

II,2 CMS II,2 no.

III CMS III no.

IV	CMS IV no.
V	CMS V no.
V Suppl. 1A	CMS V Suppl. 1A no.
V Suppl. 1B	CMS V Suppl. 1B no.
V Suppl. 3	CMS V Suppl. 3 no.
VI	CMS VI no.
VII	CMS VII no.
VIII	CMS VIII no.
IX	CMS IX no.
Х	CMS X no.
XI	CMS XI no.
XII	CMS XII no.
XIII	CMS XIII no.

OTHER

CHIC sign	number of sign in the CHIC, 17 Tableau des signes standardisés (maigres et gras) de l'hiéroglyphique crétois.
EFA	École française d'Athènes

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Map of Crete: \blacktriangle modern towns; \blacksquare major palaces (for the main archaeological sites mentioned in the text see *fig. 17 b*)/p. XVI.

Fig. 1 The MM three-sided soft stone prism: a. frontal view of a profile; b. oblique view (the latter adapted from Yule 1980 a, 28)/p. 17.

Fig. 2 Prism with slightly convex seal faces/p. 17.

Fig. 3 a. Gable-shaped prism; b. Wedge-shaped prism/p. 18.

Fig. 4 Examples of various configurations of the profiles of prisms: a. with broad, flat interfacial edges; b. with grooves around the seal faces; c. with very deep grooves which set off the seal faces from the body of the seal; d. with grooves only on the profile (adapted from CMS VI); e. with scratch marks on the profile/p. 18.

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Fig. 9 Bronze Age three-sided prisms from areas outside the Aegean: a. bought in Egypt (adapted from Evans 1909, 123 fig. 58); b. from Bahrain (adapted from Weisgerber 1980, 86 fig. 15); c. from Oman (adapted from Weisgerber 1980, 85–86 fig. 15); d. Syrian (?) (adapted from Erlenmeyer – Erlenmeyer 1958, pl. XXIX fig. 1 a–1 c, pl. XXX fig. 9); e. from Turkestan (adapted from Schmidt 1908, 169 no. 400, pl. 45 no. 8)/p. 24.

Fig. 10 Examples of cylinder seals with more than one seal face: a. three panelled cylinder seal, Djemdet Nasr period (adapted from Erlenmeyer – Erlenmeyer 1958, pl. XLIV fig. 76); b. four panelled cylinder seal, Early Dynastic Period (adapted from Flinders Petrie 1917, pl. VII 163); c. four-panelled cylinder seal, Middle Kingdom (adapted from Frankfort 1939, pl. XLVI o, p, q)/p. 26.

Fig. 11 Examples of seals made from boar's tusk: a. stamp cylinder with two seal faces; b. stamp cylinder with one seal face; c. gable-shaped button; d. gable with one seal face (adapted from Panagiotopoulos 2002, pl. 44 no. E10); e. gable with three seal faces/p. 28.

Fig. 12 Soft stone and medium-hard stone sources in Crete (data from Seager 1910; Evans 1935; Warren 1969; Becker 1976; Hughes Brock 2000): \bigcirc/\bigcirc steatite; \square/\square chlorite; \triangle/\triangle breccia; \blacklozenge sepiolite (the outline shapes show possible sources). The most important outcrops are marked with numbers: 1 Fodele;

2 Spili; 3 Vorizia; 4 Kamares – Zaros; 5 Miamou – Krotos; 6 Katharo Plateau; 7 Sarakina Valley/p. 32.

Fig. 13 Intaglios cut in the freehand technique: a., b. steatite; c. chlorite; d. breccia/p. 39.

Fig. 14 'Cup sinkings' opened by the combined use of a tubular and a solid drill: a. the hindquarters and the chest of the *Agrimi*; b. the upper *Head of 'dog/lion with hook'*; c. the upper 'String vessel'; d. the ends of the Cross pommée/p. 42.

Fig. 15 Examples of intaglios cut in fast motion techniques. In a.–d. are shown prisms and a cushion which could have been cut with the mechanical spindle technique (adapted from Dimopoulou 2000, 30 fig. 2 no. 18, 31 fig. 3 no. 28). In the intaglio depicted on h. only the 'cup sinkings' have been executed with the vertical pressure technique/p. 45.

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Fig. 17 Distribution of the prisms: a. find places of prisms with secure provenance: 1. Palaikastro; 2. Kato Zakros; 3. Pseira; 4. Mochlos; 5. Kavousi; 6. Trapeza; 7. Agios Charalampos; 8. Malia; 9. Smari; 10. Knossos; 11. Poros Katsampas; 12. Koumasa; 13. Apesokari; 14. Platanos; 15. Moni Odigitria; 16. Agia Triada (17. Agia Eirini, Kea; 18. Midea, Argolis). b. find places of prisms with secure and uncertain provenance: 1. Palaikastro; 2. Epano Zakros; 3. Kato Zakros; 4. Lamnoni; 5. Nea Praisos; 6. Sitanos; 7. Sykia; 8. Adromyloi; 9. Lithines; 10. Siteia; 11. Pseira; 12. Mochlos; 13. Tourloti; 14. Lastros; 15. Kavousi; 16. Pacheia Ammos; 17. Gournia; 18. Koprana; 19. Lato i Etera; 20. Kritsa; 21. Elounta; 22. Kasteli; 23. Neapoli; 24. Anaulochos; 25. Milatos; 26. Malia; 27. Vrachasi; 28. Krasi; 29. Trapeza; 30. Pinakiano; 31. Psychro; 32. Agios Charalampos; 33. Kato Metochi; 34. Gonies; 35. Askoi; 36. Avdou; 37. Mochos; 38. Potamies; 39. Kalo Chorio Pediados; 40. Gouves; 41. Smari; 42. Kasteli; 43. Choumeri; 44. Ligortynos; 45. Koumasa; 46. Apesokari; 47. Platanos; 48. Gortys; 49. Moni Odigitria; 50. Kamilari; 51. Agia Triada; 52. Agios Onoufrios; 53. Choumeri; 54. Axos; 55. Gonies; 56. Poros Katsampas; 57. Knossos; 58. Artsa; (59. Agia Eirini, Kea; 60. Midea, Argolis; 61. Egypt)/p. 55.

Fig. 18 Malia/Eastern Crete Steatite Prisms/p. 64.

Fig. 19 Hieroglyphic inscriptions met on Malia/Eastern Crete Steatite Prisms/p. 67.

Fig. 20 Hieroglyphic inscriptions on Malia/Eastern Crete Steatite Prisms which show elements which bring them close to hard stone hieroglyphic seals/p. 68.

Fig. 21 Hieroglyphic four-sided prisms of the Malia/Eastern Crete Steatite Group: a. a piece which belongs stylistically well within the group; b. a piece which is reminiscent of hard stone hieroglyphic seals on account of its elaborate hieroglyphic inscriptions on all sides/p. 69.

Fig. 22 Examples of Malia Workshop prisms: a.-d. Deep Cut Style; e.-h. Hasty Cut Style; i.-l. Irregular Cut Style/p. 76.

Fig. 23 Examples of prisms from places in Malia outside the Workshop which could have been produced there/p. 79.

Fig. 24 Prisms from places in Malia outside the Workshop whose relationship with it is not clear/p. 80.

Fig. 25 Prisms from places in Malia outside the Workshop which were probably not manufactured there/p. 82.

- Fig. 26 Cluster of the Full-Figured Bovine/p. 85.
- Fig. 27 Cluster of the Flat 'Blanks'/p. 86.
- Fig. 28 Cluster of the Uncomplicated Images/p. 87.
- Fig. 29 Cluster of the Clear Cut Hieroglyphs/p. 87.
- Fig. 30 Cluster of the Man with the Swollen Knees/p. 88.
- Fig. 31 Cluster of the Motionless Figures (b.-d. adapted from Yule 1980 b, pls. II, III)/p. 89.
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- Fig. 42 Cluster of the Triangular Scorpion/p. 97.
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Fig. 44 Malia/Eastern Crete Steatite Prisms with centred-circles whose compositions show influences from the glyptic of central Crete/p. 99.

Fig. 45 Examples of indiosyncratic engraving on Malia/Eastern Crete Steatite Prisms/p. 100.

Fig. 46 Malia/Eastern Crete Steatite Prisms with similar iconography on two or three sides/p. 101

Fig. 47 Two stylistically different Malia/Eastern Crete Steatite Prisms with similar iconography on two sides/p. 101.

Fig. 48 Two stylistically different Malia/Eastern Crete Steatite Prisms with similar iconography on two sides/p. 102.

Fig. 49 Examples of stylistically different Malia/Eastern Crete Steatite Prisms which show an obliquely placed *Agrimi* on one seal face/p. 102.

Fig. 50 Prisms combining on two or three sides the hieroglyphic inscription CHIC signs 044 - 049, a *Pig/boar*, and/or a *Swastika* flanked by *Hatched Ds/*p. 103.

Fig. 51 Prisms with images composed of many devices/p. 103.

Fig. 52 Other Malia/Eastern Crete Steatite Seals/p. 105.

Fig. 53 Seals engraved in the horizontal spindle with iconography reminiscent of the Malia/Eastern Crete Steatite Seals/p. 109.

Fig. 54 Sealings impressed by Malia/Eastern Crete Steatite Seals/p. 110.

Fig. 55 Distribution of the Malia/Eastern Crete Steatite Prisms: a. find places of prisms with secure provenance: 1. Palaikastro; 2. Kato Zakros; 3. Pseira; 4. Mochlos; 5. Kavousi; 6. Trapeza; 7. Agios Charalampos; 8. Malia; 9. Smari; 10. Koumasa; 11. Platanos. b. find places of prisms with secure and uncertain provenance: 1. Palaikastro; 2. Epano Zakros; 3. Kato Zakros; 4. Lamnoni; 5. Sitanos; 6. Nea Praisos; 7. Lithines; 8. Adromyloi; 9. Sykia; 10. Siteia; 11. Pseira; 12. Mochlos; 13. Tourloti; 14. Lastros; 15. Kavousi; 16. Pacheia Ammos; 17. Gournia; 18. Koprana; 19. Lato i Etera; 20. Kritsa; 21. Elounta; 22. Kasteli; 23. Neapoli; 24. Anaulochos; 25. Milatos; 26. Vrachasi; 27. Malia; 28. Krasi; 29. Trapeza; 30. Psychro; 31. Agios Charalampos; 32. Kato Metochi; 33. Pinakiano; 34. Gonies; 35. Mochos; 36. Avdou; 37. Askoi; 38. Kasteli; 39. Potamies; 40. Smari; 41. Choumeri; 42. Artsa; 43. Knossos; 44. Heraklion; 45. Gonies; 46. Axos; 47. Choumeri; 48. Kamilari; 49. Moni Odigitria; 50. Koumasa; 51. Apesokari; 52. Platanos; 53. Gortys./p. 113.

Fig. 56 Prisms with EM III/MM I Influences/p. 116.

Fig. 57 Other seals stylistically close to the Prisms with EM III/MM I Influences/p. 118.

Fig. 58 Mesara Chlorite Prisms/p. 121.

Fig. 59 Foliage/Multiple Strand Motif Cluster/p. 122.

Fig. 60 a.-c. Prism with the Walking Agrimi; d.-h. Seals with similar iconography/p. 123.

Fig. 61 Agrimi/Scorpion Cluster/p. 124.

Fig. 62 Two Prisms with Ornamental Devices A/p. 125.

- Fig. 63 Squid/Paisley Cluster/p. 126.
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Fig. 65 Prism of the Man with the "Loop" /p. 127.

Fig. 66 Seals which show iconographic and/or stylistic similarities to prisms of the Foliage/Multiple Strand Motif Cluster and to the Prism with the Walking Agrimi/p. 129.

Fig. 67 Seals which show iconographic and/or stylistic similarities to prisms of the Agrimi/Scorpion Cluster and to the Two Prisms with Ornamental Devices A/p. 129.

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- Fig. 118 Ornamental images/p. 344.
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Table 1 Ornamental schemes/p. 403.

NAMES OF THE DEVICES AND DEVICE NUMBERS

Abstract Z-whirl pattern	Motif 200
Agrimi	Motif 10
Amphora	Motif 105
'Ape' a in profile	Motif 7
'Ape' b in profile	Motif 8
'Arrow' a	Motif 129
'Arrow' b	Motif 130
Back part of an arrow	Motif 132
'Ball amphora'	Motif 110
'Ball jug'	Motif 108
"Balloon"	Motif 137
'Beaked' bust	Motif 67
'Beaked bust with ponytail'	Motif 68
Bee	Motif 47
'Beetle'	Motif 42
Bird in profile	Motif 24
Blob	Motif 218
"Bell"	Motif 135
'Boar with centipede legs'	Motif 99
'Boar with π -legs'	Motif 98
Border	Motif 201
Border with as border supplements	Supplementation compound 5
Border band	Motif 202
"Bottle"	Motif 157
Bovine	Motif 14
Bow	Motif 133
Bow with Linear arrow	Representational composite 1
Branch with leaves	Motif 161
"Breasts"	Motif 154
"Brush"	Motif 136
"Bulb branch"	Motif 169
Bull	Motif 13
Bust of a bovine	Motif 69
Bust of a dog/lion	Motif 70
Bust of a quadruped	Motif 71
Bust of a 'snake'	Motif 72
C-spiral	Motif 224
C-spiral roof compound	C-spiral roof compounds
Candy motif	Motif 197

Centred-circle Centred-lunette Centipede 'Centipede' 'Centipede branch' 'Centipede with muzzle' 'Chair' Chevron Circle Coil spiral "Column" Comb swastika Combination of ... in a cross Crab Crawling animal 'Crawling boar' Cross pattern of ... Cross Cross of ... (repetition) Cross pommée Cross pommée with ... as angle supplements Crossed arms Dagger 'Deer' Devices with angle/curve supplements Devices with body supplements Devices with border supplements Devices with edge supplements Devices with more than one pair of supplements Devices with shoulder supplements Disc Disc grid Disc S-spiral Dog/lion 'Dog/lion with spiral body' Dolphin Double axe Double Line comb "Dumbbell" 'Egyptian arrow' Ellipse Ellipse of ... (repetition) Eye Elongated motif slung with 'String vessels' 'Fan branch' Fan motif 'Fern branch' 'Figure-of-eight shield'

Motif 226 Motif 227 Motif 43 Motif 44 Motif 183 Motif 101 Motif 116 Motif 228 Motif 220 Motif 225 Motif 145 Motif 254 Miscellaneous compounds Motif 36 Motif 46 Motif 100 Repetition compound 11 Motif 244 Repetition compound 11 Motif 245 Supplementation compound 1 Motif 91 Motif 125 Motif 9 Supplementation compound 1 Supplementation compound 3 Supplementation compound 5 Supplementation compound 4 Supplementation compound 6 Supplementation compound 2 Motif 219 Motif 265 Motif 237 Motif 16 Motif 95 Motif 32 Motif 123 Repetition compound 21 Motif 146 Motif 131 Motif 221 Repetition compound 2 Motif 90 Representational composite 2 Motif 166 Motif 216 Motif 184 Motif 122

'Fir branch' Fish Fish/dolphin with dentated back Four-armed whirl disc spiral Four-armed whirl Four-armed whirl of ... (repetition) Four-armed whirl spiral Four-armed whirl spiral with ... as curve supplements Fragmentary unidentifiable devices/images Framed ... 'Frog' Frontal 'ape' Frontal 'bird' Frontal 'Gorgo woman' Frontal head of a ruminant Frontal man "Γ-bar" "Γ-bar" slung with 'String vessels' "Γ-branch" 'Gaming table' Gear combination 'Goat' 'Gorgo mask' Grain ellipse "Grater" Grid Ground-line Half swastika Half swastika (supplementation) Harp Hatched D Hatched triangle Head Head of a 'bull' Head of a dog/lion Head of a dog/lion with hanging tongue Head of a 'dog/lion with hook' Head of a dog/lion with leg Head of a 'goat' Head of a 'ram' Head of an agrimi Head of an animal Head of an 'ox' Head of an unidentifiable ruminant Headless dog/lion Headless kid Headless ruminant Headless waterfowl

Motif 182 Motif 29 Motif 30 Motif 252 Motif 251 Repetition compound 15 Supplementation compound 3 Supplementation compound 1, 3 Motif 269 Border compound 2 Motif 27 Motif 6 Motif 23 Motif 5 Motif 80 Motif 1 Motif 152 Representational composite 2 Motif 168 Motif 119 Repetition compound 19 Motif 11 Motif 74 Motif 222 Motif 141 Motif 264 Motif 159 Motif 259 Supplementation compound 4 Motif 120 Motif 143 Motif 213 Motif 89 Motif 79 Motif 86 Motif 87 Motif 96 Motif 97 Motif 77 Motif 76 Motif 82 Motif 88 Motif 78 Motif 85 Motif 55 Motif 54 Motif 53 Motif 56

Hindquarters of a hoofed animal Hook spiral "Horn bar" "Horn bar" slung with 'String vessels' "Horns of consecration" Inverted T 'Ivy leaf' 'Ivy leaf' with stalk J J-spiral Jug 'Key sistrum'/'plough' 'Kiln' "Ladder" "Ladder band" "Ladder band" slung with 'String vessels' 'Lame' chevron Leaf Leaf with stalk Leg Leg with claws Legless dog/lion 'Legless boar' Legless waterfowl Legless frontal woman Legless human figure in profile 'Lily blossom' 'Lily flower' Lily triangle Lily with 'base' a Lily with 'base' b Line/Bar Line comb Line K Linear arrow Lizard Lozenge "Loop" 'Loop vessel' Lunette Lunette of ... (repetition) M-motif Man in profile 'Man with semicircular body' 'Mask' Meander Z Meander Z (supplementation) Meander Z of ... (repetition)

Motif 73 Motif 235 Motif 151 Representational composite 2 Motif 150 Motif 217 Motif 187 Motif 171 Motif 232 Motif 233 Motif 104 Motif 121 Motif 118 Motif 140 Motif 134 Representational composite 2 Motif 229 Motif 186 Motif 170 Motif 92 Motif 93 Motif 51 Motif 50 Motif 52 Motif 48 Motif 49 Motif 194 Motif 179 Motif 212 Motif 163 Motif 164 Motif 206 Motif 261 Motif 260 Motif 128 Motif 21 Motif 214 Motif 138 Motif 109 Motif 223 Repetition compound 3 Motif 149 Motif 2 Motif 4 Motif 75 Motif 242 Supplementation compound 4 Repetition compound 8

'Minoan dragon' Mirror pattern of ... 'Murex shell' 'Nose paisley' Octopus One-armed whirl Open lily blossom 'Π-legs' 'П-legs' slung with 'String vessels' 'Papyrus blossom' 'Papyrus flower' 'Papyrus flower' with spray Papyrus triangle Parallels Parallel ground-lines Part of a disc S-spiral Pair of ... Paisley Pig/boar "Pin" Pithos/jar 'Pole' 'Pole' slung with 'String vessels' Profile head of a 'bull' 'Profile head of a horned ruminant' Profile head of a ruminant Protome of a bee Protome of a bovine Protome of a dog/lion Protome of an 'ellipse scorpion' Protome of a horned ruminant Protome of a man Protome of a quadruped Quatrefoil Radial hatching "Ram's head" Random hatching Repetition compound of protomes of men 'Ring vessel' Ripple Rosette Rosette pattern of ... Row of ... Running ... Running ... with ... as curve supplements S S-spiral S-whirl of ... (repetition)

Motif 20 Repetition compound 9 Motif 37 Motif 173 Motif 32 Motif 248 Motif 195 Motif 94 Representational composite 2 Motif 193 Motif 178 Motif 162 Motif 211 Motif 263 Motif 160 Motif 238 Repetition compound 1 Motif 172 Motif 15 Motif 158 Motif 106 Motif 113 Representational composite 2 Motif 81 Motif 83 Motif 84 Motif 66 Motif 62 Motif 63 Motif 65 Motif 61 Motif 60 Motif 64 Motif 190 Motif 262 Motif 148 Motif 267 Repetition compound 19 Motif 112 Motif 208 Motif 191 Repetition compound 12 Repetition compound 1 Repetition compound 1 Supplementation compound 1 Motif 234 Motif 236 Repetition compound 4

Saltire Saltire of ... (repetition) Saltire pommée "Saw branch" "Saw branch" slung with 'String vessels' 'Saw branch' with stalk Scorpion Segmented rectangle Segmented circle Shamrock a Shamrock b Shamrock c 'Sheep' Ship "Ship's wheel" Shrimp/prawn "Sieve" Simple grid 'Snake' a 'Snake' b Spear 'Spear with double blade' Spider 'Spider' a 'Spider' b 'Spider with muzzle' Spike Spike row Spiked blob 'Squid' a 'Squid' b Stalk triangle Star Star blossom 'Star flower' Star of ... (repetition) Star pommée Stemless paisley 'Stone' Stool 'String vessel' Swastika Swastika (supplementation) Swastika of ... (repetition) Swastika cross (?) Swastika cross (supplementation) Swastika cross of ... (repetition) "T-bar"

Motif 244 Repetition compound 11 Motif 245 Motif 185 Representational composite 2 Motif 167 Motif 38 Motif 198 Motif 199 Motif 174 Motif 175 Motif 176 Motif 12 Motif 134 Motif 147 Motif 35 Motif 142 Motif 266 Motif 19 Motif 20 Motif 126 Motif 127 Motif 39 Motif 40 Motif 41 Motif 102 Motif 205 Motif 205 Motif 203 Motif 33 Motif 35 Motif 210 Motif 246 Motif 192 Motif 177 Repetition compound 12 Motif 247 Motif 188 Motif 114 Motif 115 Motif 111 Motif 253 Supplementation compound 3 Repetition compound 16 Motif 258 Supplementation compound 1 Repetition compound 18 Motif 153

"T-bar" slung with 'String vessels' "Textile" Three-armed whirl Three-armed whirl of ... (repetition) Tooth motif "Toothed sickle" Torso of a dog/lion Torso of a kid Torso of a waterfowl Tortoise Trapezium Trefoil Triangle Triangle pattern Trident Triskeles of ... (repetition) Triskeles pommée "Trowel" 'Turtle' Two-armed whirl Two-armed whirl (supplementation) Two-armed whirl of ... (repetition) U Unidentifiable image Unidentifiable device Unidentifiable flower 'Unidentifiable insect' Unidentifiable quadruped Unidentifiable seat Unidentifiable motif Unidentifiable vessel 'V-blossom' 'V-flower' Vessel without handles Waterfowl 'Peafowl' Wedge 'Wheat stalk' Wheel Whirl Whirl of ... (repetition) Whirl pommée Whirl Saltire (supplementation) Whirl spiral Woman in profile Y Ζ Z of ... (repetition)

Representational composite 2 Motif 155 Motif 250 Repetition compound 14 Motif 204 Motif 144 Motif 58 Motif 57 Motif 59 Motif 22 Motif 215 Motif 189 Motif 209 Repetition compound 10 Motif 124 Repetition compound 10 Motif 243 Motif 156 Motif 28 Motif 249 Supplementation compound 1, 2, 4 Repetition compound 13 Motif 230 Motif 268 Motif 268 Motif 181 Motif 45 Motif 18 Motif 117 Motif 268 Motif 107 Motif 196 Motif 180 Motif 103 Motif 26 Motif 25 Motif 207 Motif 165 Border compound 1 Motif 255 Repetition compound 17 Motif 257 Supplementation compound 1 Motif 256 Motif 3 Motif 231 Motif 239 Repetition compound 5

Z-whirl Z-whirl of ... (repetition) Z-whirl of ... with ... as angle supplements Z-whirl spiral Z-whirl spiral with ... as curve and shoulder supplements Z-whirl with curved arms composed of ... Motif 240 Repetition compound 6 Supplementation compound 1 Motif 241 Supplementation compound 6 Repetition compound 7

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