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. 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. 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'. 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. 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. 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. 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 $\rm I.^{10}$

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'. 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.

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. 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. 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 of humans, hieroglyphs, and products manufactured by humans could have similar connotations. 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. 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 widely-represented 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.