ICONAEGEAN AND ICONOSTASIS
AN ICONOGRAPHIC CLASSIFICATION AND A COMPREHENSIVE DATABASE FOR AEGEAN GLYPTIK

JANICE CROWLEY — ANTHONY ADAMS

The creation of the Iconaegean classification and the Iconostasis database is the result of collaborative research undertaken within the Department of Computer Science at the University of Tasmania, Hobart, Australia and in consultation with the Corpus der minoischen und mykenischen Siegel, Marburg, Germany. The authors are most indebted to Professor Arthur Sale of Hobart and to Professor Ingo Pini of Marburg for all their support. [1] In particular the authors wish to thank Professor Pini for his kind permission to digitise the drawings of the seal designs in CMS as the images in the database.

Over the years, there have been many scholars who have helped with discussion on Aegean archaeology and art and it is hard to know where to begin with thanks. Since the inception of this project, Professor Henri van Effenterre and Mme Micheline van Effenterre, remembering the difficulties of proceeding with a database some twenty years ago, have taken a great interest and we thank them for their pertinent observations and exhortations to continue. Professor Sir John Boardman has given us much helpful advice from his experience with the Oxford database on Greek vases. Professors Robert Laffineur, Wolf-Dietrich Niemeier and Jean-Claude Poursat have been positive in criticism and generous in offering their time to trial the classification and database. Dr Agnes Sakellariou and Professor Gisela Walberg have guided with wise counsel and Professors Klaus Kilian, Christos Doumas, Paul Astrom and George Bass have reminded us that a database of the glyptic will need to serve the wider needs of Aegean scholars. [2]

The first full exposition of Iconostasis and Iconaegean at the IVe Symposium international sur les Sceaux minoens et myceniens at Clermont-Ferrand allowed discussion and comment

---

[1] Arthur Sale has opened the facilities of the Department to the project and provided a most pleasant 'home base' for a number of years now. Ingo Pini has shown continuing interest in the project and we are most appreciative of the time he has freely given us both in Marburg and in Hobart. Special thanks are also due to Walter Müller and Stefan Wildt for the many spirited and fruitful conferences at CMS in Marburg.

[2] We would like also to thank for their comments in enjoyable and stimulating discussions in various cities of Europe and/or Australia Edmund Bloedow, Christos Boulotis, Jan Bouzek, Anna-Lucia D'Agata, Katie Demakopoulou, Marie-Henriette Gates, Erik Hallager, Stefan Hiller, Sarah Immerwahr, Nanno Marinatos, Lyvia Morgan, Sarah Morris, Artemis Onassoglou, Tom Palaima, Paul Rehak, Wolfgang Schiering, Maria Shaw, Christina Televantou, Jennifer Webb, Michael Wedde, Judith Weingarten and John Younger.

which has been most helpful. We would like to thank all those participants who debated with us at the Symposium and particularly those who replied to the follow-up questionnaire with criticisms and suggestions, with warnings and supportive sentiments. [3]

To all these scholars who have given of their time to discuss Iconaegean and Iconostasis with us we are greatly indebted though we must take the responsibility for whatever imperfections remain.

The following pages outline the development of the classification and database achieved to date, giving insight into their design in Part I, presentation of the format of their publication in Part II and explanation of their usage in Part III. Finally, some Concluding Comments assess the usefulness of Iconaegean and Iconostasis to Aegean researchers.

PART I: THE DESIGN OF THE ICONAEGEAN CLASSIFICATION AND THE ICONOSTASIS DATABASE

The Iconaegean classification is a new iconographic classification of Aegean glyptic art. It is shaped by the dictates of Aegean artistic design so that an apposite schema uses a carefully defined vocabulary of terms.

The Iconostasis database is a custom-made comprehensive database for encoding information on Aegean glyptic including iconographic data classified by Iconaegean. It is specially designed to meet the needs of researchers who are working on material with a high visual content in that it provides an image of the material along with descriptive text. It also provides the facility for individual scholars to program the database by adding their own research notes.

In creating the Iconaegean classification, the most important premise is that the classification should evolve out of the material being classified. The repetition of favourite themes and compositional details is a feature of Aegean art and, most especially, of Aegean glyptic. This repetition has long been recognised and is reflected in the existing classifications of designs in various artistic media, many of which have helped with the creation of Iconaegean. [4] However there is need for a more comprehensive schema and for a tighter vocabulary. Respecting the material, we have made the concept of the icon the core classifying principle, the best example of the icon the defining prototypical and the *Icon* level the core division of the classification. This theoretical basis for the classification has already

---

3 Joan Aruz, Marijke Ballintijn, Helen Huges-Brock, Jean-Pierre Olivier, Wolfgang Schiering, Judith Weingarten, Michael Wedde, John Younger. We look forward to continuing the correspondence.

4 We are mindful of the insights gained and the terms taken from Matz, FKS; A. Furumark, The Mycenaean Pottery (1941); E. Vermeule, Greece in the Bronze Age (1964); Walberg, Kamares; J.-Cl. Poursat, Les ivoires mycéniens (1977); Younger, Iconography; Morgan, MWPT. Special mention should be made of Onassoglou, DtS, whose classification of this material has been accepted and used unchanged in Iconaegean.

been expounded in a trilogy of papers [5] presented at successive International Aegean Conferences but a short explanatory quotation from the third paper is in order here. "The icon is the memorable image... It is compounded of content and shape. For each favourite and recurring theme in Aegean art there are several icons which can be used to portray it. The skilled artist chooses the icon whose own intrinsic shape is most compatible with the shape of the containing field of the design. Is it a circle, a rectangle, a triangle, an oval? For each shape the artist can draw from the repertoire an icon to render the theme appropriately... This impulse to compose with icons... [is]... termed the icon imperative."

With the Iconostasis database, the first design decision taken when this work began in 1986 was that the database had to be a *graphical* one, *i.e.* it was essential that images were stored in the database as well as the more usual textual information. At that time there was little choice of either computer or commercial database that could meet this requirement. Only the Macintosh-computer and peripherals were capable of easily digitising and storing the images and Odesta's Double Helix-database of handling them. Until late 1992 we continued to use the system that we used from the beginning, merely upgrading computers and software over the years and the demonstration at the Clermont-Ferrand Symposium relied on this Helix system. However, many new commercial database packages operating on all the common computer styles are now on the market and several could handle our seal and classification information. Following the Clermont-Ferrand Symposium, with the database now at an advanced stage in the design, we considered the options for changing the software. Though the new software packages readily available include those with colour reproduction and photographic input as well as optical discs, we have decided to keep to the simplest software readily available which will still do justice to the material. Accordingly, we have not moved into colour or photographic quality input since the storage requirements for these make the database very large and expensive. We have not moved into mainframe computers as we have always deemed it necessary to provide a database which would be readily available within the normal resources of the scholarly community. Taking these constraints into account, we have decided to change the software system to Microsoft's FileMaker Pro. This will make the database available on a variety of personal computers, Macintosh- and PC compatible types, at a reasonable cost but will still allow the creation of a full and flexible database. At the time of writing this paper the change to the new system has been effected and all references to the database in Part II and Part III are to the FileMaker Pro software on a Macintosh computer. Participants at the Clermont-Ferrand Symposium will not, however, see any difference in the presentation because, although the underlying computer system is different, the format that the user experiences is the same.

Both Iconaegean and Iconostasis are provisional in the sense that both will undergo modification in the course of working further with the material. A decision to change one or

---

[5] J.L. Crowley in: Transition 203ff. Pls. XLVII. XLVIII; J.L. Crowley in: R. Laffineur – L. Basch (eds), Thalassa: L'égée prehistorique et la mer, Actes de la troisième rencontre égéenne internationale de l'université de Liège, Calvi Corse, 23–25 avril 1990, Aegaeum 7, 1991, 219ff. Pls. LIX. LX; J.L. Crowley in: Eikon 23ff. Pls. V–VII.

more of the terms because a more suitable term has been coined can easily be accommodated. In the event of a single seal or even a new seal group with unique characteristics appearing, the Iconaegean classification can be extended. Similarly, the Iconostasis database has been designed to meet the requirements of this particularly visual body of Aegean material and it is expected to accommodate all new finds. In the event of some quite unforseen development, the database has built-in flexibility which should be sufficient to meet these demands, including any new avenues of enquiry they may open. With wider trialing of the classification and database due by the end of 1993, we estimate that it will take at least a further three years to classify all the designs and enter the information required from the CMS volumes. Thus we envisage that the earliest Iconaegean and Iconostasis could become widely available would be the end of 1996.

PART II: PUBLICATION OF THE ICONAEGEAN CLASSIFICATION AND THE ICONOSTASIS DATABASE

Final publication of Iconaegean and Iconostasis will take the form of the database on disk and an accompanying book.

The database will be available in two forms, one suitable for scholars using Macintosh computers and the other for those using IBM style personal computers. It is also likely that X-window terminals to mainframe computers will be common enough by then to make these a desirable combination as well. It is estimated that the storage required to hold the information on some 10,000 seal faces will probably be a hard disk of 100 megabytes.

The book will explain both the design and usage of the Iconostasis database and the Iconaegean classification and will include the following chapters:

1 *Parameters for Creating Iconaegean and Iconostasis*

2 *Iconaegean Classification*

3 *Iconaegean Dictionary of Iconographic Terms*

4 *Iconostasis List of Key Words*

5 *SealData for the Prototypical Seals*

6 *Iconostasis Manual*

The content of each of these chapters is outlined below.

1 Parameters for Creating Iconaegean and Iconostasis

These parameters are delineated by ten rules which are self-contained and self-explanatory. APPENDIX 1 lists these rules and a close reading of them will give the best introduction to the design principles underlying this particular database and classification. Important initiatives in iconographic classification are the concept of the icon and the role of the prototypicals. Important features in the design of the database are the provision of an image and the facility to customise the database to include the user's own research notes. The image being available at all times is a pertinent reminder that descriptive text should never replace the original material.

2 Iconaegean Classification

This is a new classification of the iconography of Aegean glyptic, simple in schema and in terminology.

The schema comprises five levels of description; *Category, Theme, Icon, Element, Syntax*. The first three levels are in hierarchical structure while description in the last two levels specifies the detail of the design. Thus designs are classified by their main subject matter into the *Category, Theme* and *Icon* levels and then the detailed descriptions of the *Element* level, for the component parts of the design, and of the *Syntax* level, for the compositional features, are added. The icon is the most important division of the classification from the point of view of artistic creation and APPENDIX 2 gives the example of the icon terms in classification order for the designs involving human figures. However the schema could not start with the icon level or even with the themes that group the icons. Such a schema would be too 'flat' to facilitate sorting designs in a database. Accordingly some overall ordering division is required to provide the first level of the hierarchical structure. Taking the content of the designs as the deciding factor, general terms are chosen to name the nine *Category* sections [6] — humans, human constructs, fantastic creations, fauna, flora, sea life, geometric, script, other. Then the levels of *Theme* and *Icon* organise the content detail down from this first level. Finally the *Element* and *Syntax* levels provide various details of the composition to complete the classification.

The terminology giving the descriptions within this classification schema is simple also. The iconographic terms used are ordinary words (in English) chosen with restraint. There are only three abbreviations and one conflated term. [7] The handful of specially coined terms are

---

6 The usefulness of a nine part system for design content classification has been aptly demonstrated by H. van der Waal in his ICONCLASS classification scheme for western European art. This classification system has been the source of much inspiration in the shaping of Iconaegean.

7 VIP – Very Important Person, tca – tri-curved arch, ueo – unexplained object, trigrosette – triglyph and half rosette.

always normal words or are compounded out of normal words. [8] Many of the terms chosen are already in widespread use following pioneering work in Bronze Age iconographic studies, though some are here more restricted in their usage or have had their name slightly changed to fit a pattern of nomenclature evolved for Iconaegean. [9] Some of the terms take licence with zoology, botany and geology [10] but it is unlikely that the ancients shared our scientific classifications. It may come as a surprise that, except for the special figures of 'Mistress' and 'Master', there are no terms for differentiating the sexes, simply 'human figure' or 'human head'. The truth is that in relatively few instances is the sex absolutely clear from the depiction on the seal and so it is sufficient to access the images through the more general terms. [11] Individual scholars may then make their own assessment. Exercising economy of choice in creating the terminology means that it is possible to limit the vocabulary to a manageable size. [12] This is achieved by careful grouping of details, through thoughtful selection of the best descriptive word in the first place and then by precise definition of the term so that periphrasis can be avoided. Attention should be drawn to the use of the sections 'various' and 'other' in the classification schema. These sections perform the useful duty of providing filing places for iconographic content which does not clearly fit any of the named sections. If the assemblage in any one of these 'various' or 'other' sections comes to show a distinct grouping through heretofore unrecognised common characteristics then a new section can be created and named by an appropriate term. In the meantime these sections allow all designs to be placed in the classification.

3 Iconaegean Dictionary of Iconographic Terms

This dictionary lists in alphabetical order, and defines, all the terms of the Iconaegean classification. APPENDIX 3 gives examples of the entries under A in the dictionary. For each term the definition comprises a note as to the level in the classification it occupies, an explanation of its meaning and a reference to a prototypical where its usage can be seen. In the case of the prototypical itself, the illustration from the database (reduced in size) is also provided.

---

8 Examples: net capture, crunching, grounding, bird in the air, antithetical group, circling twist. As all terms are defined in the Dictionary of Iconographic Terms immediate identification is possible.

9 Where a decorative design is a frieze shape it is termed a band and where it is an all-over design it is termed a pattern. Consistency in terminology is also sought. The petaloid loop when elaborated into a border is not termed a foliate band here but a petaloid band.

10 The dolphin is listed among fishes! Using the term tree to cover all sizes of trees and bushes helps when seal designs give no indication of scale or are too stylised to be sure of content. The terms rocky ground and rocky water seem to describe what is actually shown and do indicate the artistic parallels.

11 It is true that explicit secondary sex characteristics do identify many figures as female but what usually passes for a sex identification is an interpretation from hair styles, clothing or accoutrements.

12 Some further terms are under consideration for inclusion and so is the provision of a sentence description of the design at the *Syntax* level which includes a directional component.

4 Iconostasis List of Key Words

This is a list of all the key words used in entering the seal information and they are the means by which the interrogation of the database is managed. APPENDIX 4 gives examples from the List of Key Words. In full it comprises the iconographic terms (set out in the classification and defined in the dictionary), the standard descriptions for preservation and discussion and the terms needed to express the fact entries from the CMS (seal type, seal size, material, excavated or acquired, date and present location). The List of Key Words is set out under the entry headings for the SealData holdings in the database and then under each heading the words are listed alphabetically.

5 SealData for the Prototypical Seals

Printouts of the SealData entries for the prototypical seals are also included in the book because they are the defining examples for the iconographic classification and because a hard copy of a selection of seal records consolidates understanding of the format of the database. APPENDIX 5 shows the printout of the SealData holding for one particular seal, CMS I No. 11, numbered in the Iconostasis database as IS 11. Note the one-page format. This is what appears on the computer screen and is what comes as the printout of the seal record.

6 Iconostasis Manual

The manual explains how to use the database and contains copious diagrams to facilitate understanding. It provides all the information usually expected in the instruction manual which forms part of the acquisition of a database. Some of the explanations from the manual are used below in Part III.

PART III: HOW TO USE THE ICONAEGEAN CLASSIFICATION AND THE ICONOSTASIS DATABASE

Understanding the Format

The database consists of two linked files, one containing information about the Iconaegean classification, called *Classification* and the other containing information about each seal, called *SealData*. The terms listed as the Key Words are the terms used for the entries in the *Classification* and *SealData* files and they are also the terms which are used for searching the database.

The *Classification* file in the database can be accessed by a single command and the terms scrolled through and, if desired, printed out.

The *SealData* file in the database can likewise be accessed by one command and the information on each seal can be scrolled through and, if desired, printed out. If you look at APPENDIX 5 you will see the printout of the *SealData* holding for one particular seal, IS 11/CMS I No. 11. The one-page format contains four components of information:

IMAGE
FACTS
ICONOGRAPHY
OWN RESEARCH

The IMAGE component comprises a digitised representation of the actual seal design taken from the CMS drawing. It also lists two identification numbers; one is a unique number for each seal entry in Iconostasis and uses the prefix IS, the other is the identification by CMS volume and number. Where there are multiple seal faces on the one seal a separate IS number is given to each seal face.

The FACTS component comprises the basic descriptive information taken directly, without change, from the CMS volumes and is handled in seven fields; Seal Type, Seal Size, Material, Excavated or Acquired, Date, Location. [13]

The ICONOGRAPHY component deals with the iconographic content in three fields; Preservation, Analysis, Discussion. The Preservation field provides an assessment of the current state of preservation of the design on the seal. The Analysis field sets out the iconographic analysis of the seal design in the terminology of the Iconaegean classification while the Discussion field allows for extra comment beginning with the assignation of prototypical if appropriate.

The final component, OWN RESEARCH, is provided as a blank field for individual scholars to enter their own notes and thus customise the database for their own research. The effect of this customisation is that, along with all the CMS and iconographic information already provided in the database itself, the individual scholar can have to hand for each seal, the aspects of glyptic that are of particular interest to her or him whether it be more detail on the dimensions, comments on inscriptions, observations on seal-cutting techniques, evidence of sealings being attached to various materials, notes on stringholes, attributions, personal

13 Consideration was given to correcting CMS entries where necessary before entering them into the database. However in discussions with Ingo Pini we decided against attempting this. At least, with this decision, there is consistency in that what is in the FACTS section in the database is what is in the CMS. Scholars who have detected problems with CMS entries can enter their own corrections when they program their OWN RESEARCH section.

iconographic summaries, whatever... If the scholar devises a set of standard terms for her or his entries then it will also be possible to search on this OWN RESEARCH field. [14]

Searching the Database

When you wish to look through the entries, you simply give the command 'BROWSE'. This enables you to move through the holdings looking at any details you wish.

When you wish to search the database, you simply give the command 'FIND'. A query form will appear on your screen and you can type the term you want to find in the appropriate box. The query form for the entries in the SealData file is in exactly the same one-page format as the screen format and the printout for each seal, except that the query form has a blank box next to the heading so you can type in the term that you want. When you type the term you want in the appropriate box and give the command 'FIND' again, the database will call up to the screen the seal entry you want.

You may find any particular seal by typing either the IS number or the CMS number in the appropriate IMAGE box and then giving the command 'FIND'.

You may search in any of the *SealData* fields in the FACTS or in the ICONOGRAPHY components or across any combination of these fields that you wish. Some examples of how you can query the database are:

If you wish to make a simple query like:

"Find all the seals made of gold."

then you simply go to the field called Material and type "gold" in the box and give the command "FIND". The database will retrieve all the seals made of gold and you can scroll them through to view them and print out any one of them or all of them.

If you wish to make a query containing two or more specific details like:

"Find all seals made of gold excavated at Mycenae showing shields."

then you go to the field called Material and type in 'gold', then go to the field called Excavated and type in 'Mycenae', then go to the field called Element and type in 'shield' and then give the command to find. The database will retrieve all the seals made of gold which were excavated at Mycenae and which have in their design the illustration of a shield. You can then scroll them through to view them and print out any one of them or all of them.

---

14 The original plan for a programmable section taken to the Clermont-Ferrand Conference was to have two databases, one which was for general use and a second one which was programmable for specialist scholars. However, discussion at the Conference convinced us that the programmable section was seen as a very useful feature and so we now plan on producing only one database which has the programmable OWN RESEARCH section.

When you want an iconographic reference, then querying either the *Category* or *Theme* or *Icon* fields will give a quick sorting. For instance, if you want to look at depictions of humans occupied in the bull sports, then simply type 'bull sports' in the box for the field called *Theme* and then give the command to find. The database will retrieve these depictions and you can view them on the computer or print them out as you wish. Similarly if you want to find depictions of the animal attack scene where a predator crunches through the spine of its prey, then simply type 'crunching' in the box for the field called *Icon* and give the command to find. The database will retrieve for your use the seals where the crunching is the main subject matter.

When you wish to make an exhaustive search of the database then the *Element* and *Syntax* fields are the ones to use. For a particular descriptive detail, say a griffin, then go to the *Element* field, type 'griffin' in the *Element* box and give the command to find. [15] For a particular compositional feature, say an antithetical group, then go to the Syntax field, type 'antithetical group' in the *Syntax* box and give the command to find.

If you are a scholar with a particular interest in iconography and/or artistic composition, it is envisaged that you will regularly use all the fields in the ICONOGRAPHY component to conduct your searches. A little experience using the Iconaegean classification to become familiar with the terminology will bring confidence to exploit the full range of possibilities for searching the material. If you are a scholar whose main interest lies in other areas of Bronze Age Aegean research, then it is envisaged that you will make most use of the fields in the FACTS component and the *Element* field for iconography. All scholars will no doubt take advantage of the possibilities offered by the programmable OWN RESEARCH section.

Concluding Comments: How Useful Will Iconostasis and Iconaegean Be?

In this first full exposition of Iconaegean and Iconostasis the main features have been explained, their strengths argued and the advantages of their use presented. It is also perhaps pertinent to remind users what has not been attempted in their design and to strike a cautionary note.

The Iconaegean classification does not attempt to provide a description of the minutiae of the design details since such a description would be extremely lengthy for almost all seals, even for the floral and geometric designs. Further, Iconaegean does not attempt to answer definitively the questions of identification for the many enigmatic depictions in Aegean glyptic. Both choices have been deliberate and both may be disappointing to some people. However, by making these two choices at the outset, we believe that important gains have been made in the furthering of Aegean iconographic studies. The first is that there is now, in

---

15 While searching the *Element* section will allow you to find most items by name (e.g. bull, sphinx, rosette), combinations of terms across the *Icon, Element and Syntax* levels will allow you to search for much more specific detail.

the Iconaegean classification, a relatively clinical standard vocabulary for Aegean iconography. It is also a flexible vocabulary in the sense that it can be refined and easily changed when there is agreement on a better term or about a particular interpretation. Thus there is no sense of being 'trapped' in terms that were long ago decided but which cannot be modified because of classification constraints.

The cautionary comment we must make at this point is to remind users of the Iconostasis database that time spent at the screen and keyboard cannot replace intimate knowledge of the source material itself. Ultimately, the researcher will always need to return to the primary publication, the CMS, and to the first-hand observation of the actual seals and their impressions.

However, while we do take these two issues into account, we still believe that the creation of the Iconaegean classification and the Iconostasis database will prove a breakthrough for Aegean scholars. In summary:

Iconaegean is a new iconographic classification of Aegean glyptic art.

Its great virtues are its simplicity in schema, its standard terminology and the fact that its form has been shaped by the dictates of Aegean artistic design.

Iconostasis is a custom-made comprehensive database for Aegean glyptic.

It is specially designed to meet the needs of researchers who are working on material with a high visual content in that it provides an image of the material along with descriptive text. It is also specially designed for encoding iconographic data classified by Iconaegean.

Iconostasis and Iconaegean will be widely available to scholars.

They will be marketed within a cost structure that will readily allow their acquisition by universities, libraries and individual scholars.

The database is easy to use.

It has been created to be as user-friendly as possible and it is expected that its use on either Macintosh or IBM PCs will not cause any prolonged difficulties even to scholars who have had no previous experience with computers.

Scholars can readily access and search the CMS volumes for facts.

Details of seal type, seal size, material, excavation or acquisition, date and current location can easily be found. At present this can only be done by a time-consuming search completed by hand, turning the pages of all the CMS books.

Scholars can readily access and search the CMS volumes for iconography.

At present this cannot be done from the CMS descriptions because there is no consistency in terminology from volume to volume either in the individual seal descriptions or in the indices. The new Iconaegean classification provides this standard terminology and the Iconostasis database allows the access, searching, collating and printing out of the required iconographic detail.

The database is programmable by individual scholars.

Researchers can enter their own notes in the section provided, thus customising the database to their own requirements while still enjoying all the benefits of having the factual and iconographic content of the CMS volumes ready to access and query.

Scholars will, of course, make their own assessment of the usefulness or otherwise of Iconostasis and Iconaegean. For our part we are optimistic that their creation will bring a new accessibility to Aegean glyptic and will encourage further detailed study of the whole body of Aegean art.

APPENDIX 1
PARAMETERS FOR CREATING ICONAEGEAN AND ICONOSTASIS

1 The Iconostasis database encodes both image and text and is programmable.

The Iconostasis Database carries a file called *Classification* which sets out the Iconaegean Classification and lists all the iconographic terms. The database also carries a second file called *SealData* which holds information on each seal including an image based on the CMS drawing of the seal design, factual data from the CMS volumes, an iconographic analysis of the seal design and a section in which users may enter their own research notes.

2 In the Iconostasis database, access and retrieval are by key words.

The querying of the database and the retrieval of information from the files are carried out by using the key words which are specified in the Iconostasis List of Key Words. The key words are listed alphabetically under the various entry headings.

3 The Iconaegean classification encompasses all seal, signet and sealing designs.

Insistence that the classification covers all designs ensures that all discussions will be firmly based on the whole of the material available and not, as has often been the case in the past, on a few pieces which may not even show characteristic features.

4 The Iconaegean classification is sourced only in the seal designs.

Working only with the iconography of the seal designs provides an internally consistent classification. This avoids circular arguments where definitions are drawn from other artistic media and used to define the seal iconography, which is itself then used to classify other designs.

5 The Iconaegean classification defines its terminology by reference to prototypicals.

These prototypicals are the particularly detailed and finely worked seals which give classic statements of the icons. The term 'prototypical' conveys the sense of the most characteristic example and it usually represents the fullest development of a type. The term is used in contradistinction to 'prototype' which means the first, and often therefore embryonic, example from which others have developed. The term 'icon' is used for the memorable image. The impulse to compose with icons is the compositional imperative in Aegean art. The icon is compounded out of meaning and shape. It may be a simple bold design or it may be an involved image with many elements and with particular conventions for its portrayal within the seal design shape. One theme may need a series of icons to give the full rendition and it is characteristic of Aegean art that there are a relatively small number of themes and they are repeatedly handled by means of the same icons. Thus the classification evolves out of the material being classified and a set of standard terms which describe the content and composition of the designs is developed. These terms comprise some of the key words mentioned in supra No. 2 and each iconographic term is explained in the Iconaegean Dictionary of Iconographic Terms with reference to, and in the case of the icon, illustrated by, the defining prototypical.

6 Prototypical seals must have archaeologically attested provenance.

If the best example of an icon occurs on a seal which is not archaeologically attested then the next best example which has an archaeological provenance becomes the prototypical for this icon. This procedure provides the means to avoid basing a classification on material that may be forged or where only a stylistic date can be given. It will also ensure that a circular argument is not entertained as is sometimes the case when stylistic dating applies — pieces which have been stylistically dated are used to define the characteristics of a seal design or of an artistic period and then these characteristics are subsequently used to define an artistic type or to date other pieces.

7 All descriptions 'read' the seal from the impression.

The usual procedure for discussing a seal design from the impression is followed here. This provides consistency for comparison and for the standardising of the image. Where it appears that some pieces may have been created with the intention of being 'read' in the original this is noted in the entry. The designs are to be read first for the main impact of the subject matter and then down to lesser detail (see infra No. 10).

8 All descriptions are to be as objective as possible in delineating the design.

Terms that are interpretative or emotive are avoided. If a human figure appears to be singled out by position or clothing it is not termed a 'goddess' or 'priest' but a VIP — for Very Important Person. A scene is only allowed to be 'cult' when the evidence for this is in the illustration. With certain enigmatic motifs, terms like 'ueo' for unexplained object will be retained until a satisfactory description is agreed.

9 The Iconaegean classification has five levels of description.

The seal designs are classified in five levels, the first three being in hierarchical arrangement: *Category, Theme, Icon, Element, Syntax*. At the first level, *Category*, there are nine subject choices and these are further refined by the *Theme* and *Icon* levels. The *Element* level provides fine detail in describing the constituent elements of the *Icon*. The *Syntax* level also provides fine detail in analysing the artistic composition. The *Syntax* level thus records artistic conventions and recognises the constraints imposed by the need to fit the content to the shape of the seal design.

10 Five principles govern the placement of terms in the Iconaegean classification.

Each seal design is named for its main topic (see supra No. 7) and then the artistic detail to render this topic follows. This sequence of description reflects the creative process itself in that the desire of the artist must originally be to communicate an idea or display a certain decoration and detail of how to do this is a subsequent decision. The Iconaegean classification reflects this ordering in the five principles:

important subject matter to detail
humans first
animate to inanimate
symbolic through ordinary to stylised
peaceful to war/destruction.

APPENDIX 2
ICONAEGEAN CLASSIFICATION (PROVISIONAL)

Category 1 humans

Theme A	symbolic	*Icon*	a	procession
			b	mistress of animals

			c	mistress of animal
			d	master over animals
			e	master over animal
			f	human with familiar
			g	symbolic various
Theme B	cult	*Icon*	a	procession
			b	shaking the tree
			c	holding the boulder
			d	epiphany
			e	attending the cult object
			f	riding the sacred boat
			g	cult various
Theme C	VIP	*Icon*	a	procession
			b	human head
			c	human figure
			d	audience
			e	holding the weapon
			f	VIP various
Theme D	bull sports	*Icon*	a	approach
			b	toss
			c	somersault
			d	swinging
			e	goring
			f	trampling
			g	net capture
			h	bull sports various
Theme E	ship scene	*Icon*	a	ship on shore
			b	ship at sea
			c	ship
			d	ship scene various
Theme F	war and hunt	*Icon*	a	war duel
			b	hunt duel
			c	war scene
			d	hunt scene
			e	chariot scene
			f	war and hunt various

Theme G	stylised humans	*Icon*	a	procession
			b	group
			c	human figure
			d	human with object
			e	human body part
			f	stylised humans various
Theme H	humans other			

APPENDIX 3
ICONAEGEAN DICTIONARY OF ICONOGRAPHIC TERMS (PROVISIONAL)

A (Examples)

action pose — *Syntax* see IS 11 CMS I No. 11
human figure in any lively action pose, i.e. not standing (stepping) or sitting

animal attack — *Theme* see IS 185 CMS I No. 185
where one or more animals as predator chase and/or seize an animal or animals as prey

animals at the pillar — *Icon* prototypical IS 219 CMS I No. 218
an antithetical group, variant of animals at the tree of life, with the pillar substituted for the tree of life

CMS I No. 218

animals at the tree of life — *Icon* prototypical IS 232 CMS I No. 231
an antithetical group where two animals flank, may nibble at, the central foliate symbol

CMS I No. 231

antithetical group *Syntax* see IS 144 CMS I No. 144
a particular antithetical arrangement which places two figures, each being the mirror image or a very close match of the other, about a central figure or object

audience *Icon* prototypical IS 101 CMS I No. 101
a VIP is seated and one or more humans of lesser status stand in the presence; termed 'audience' in the way one says "the king/queen grants audience to ..."

CMS I No. 101

APPENDIX 4
ICONOSTASIS LIST OF KEY WORDS (PROVISIONAL)

IMAGE The image is the drawing of the seal impression in CMS.

Number The entry lists the Iconostasis Number and the CMS Number.

IS No. CMS No.

FACTS All terms in the FACTS section are the terms used in CMS and entered, in English, into the database.

Seal Type The entry lists the shape of the seal or preserved material. Extra notes follow this primary entry to describe details.

Examples:
amygdaloid, cushion-shaped, lentoid, signet ring, stamp seal

Seal Size The entry lists measurements in centimetres for the seal face, diameter or breadth and length as appropriate. For a sealing example, two dimensions are given.

Example:
1.5 2.0

Material The entry lists the composition of the seal or preserved material.

Examples:
agate, amazonite, amber, amethyst, carnelian, chalcedony, clay, conglomerate, glass, gold, gold with bronze core, haematite, jasper, onyx, rock crystal, sard, sardonyx, silver, steatite ...

Excavated The entry lists the archaeological provenance with up to three details for the site name, general context and particular context.

Examples:
Mycenae, Tiryns, Pylos...
Acropolis, chamber tomb, Grave Circle A, Grave Circle B, house...
Grave No., House of the Shields, Room No., SW Incline ...

Acquired The entry lists acquisition when there is no archaeological record. This entry and the one above are mutually exclusive.

As this is a free text entry to suit the individual case, there are no KEY WORDS listed.

Dated The entry lists the date given for the seal in the CMS.

Examples:
EM, LH II, LH III ...

Location The entry lists the present location of the seal with up to three details for city name, museum and/or collection and inventory number.

Examples:
Athens, Iraklion, New York, Paris ...

Archaeological Museum, Cabinet des Médailles, National Museum ...
2859, 6511α...

ICONOGRAPHY All terms in the ICONOGRAPHY section are terms newly coined or newly defined for use in Iconaegean.

Preservation The entry lists present condition of the seal and the design.

Examples:
excellent, damaged, worn, fragment, forgery, design intact ...

Analysis The iconographical analysis of the seal is provided under 5 headings.

Category:

fantastic creations, fauna, flora, geometric, human constructs, humans, other, scripts, sea life

Theme

Examples:
animal attack, animal study, attire and arms, bullsports, circular, crossing, cult, cult object, fishes, flowerage, foliage, hybrid human, linear ...

Icon

Examples:
altar, animal body part, animal head, bucrania, animals at the pillar, animals at the tree of life, arcade band, attending the cult object, audience, war scene, bird woman, bull man, chariot scene, mistress of animals ...

Element

Examples:
animal body part, animal head, bird, bow, branch, building, bucrania, bull, cat, dado, deer, marbling, petaloid, ship, tree ...

Syntax

Examples:
action pose, addorsed, antithetical group, attacking, circle, circling composition, circling twist, climactic point, diagonal play ...

Discussion The entry first lists whether the design is a prototypical for the icon and then it is available for free text.

OWN RESEARCH The entry is a free text entry as the Researcher desires.

APPENDIX 5

SealData

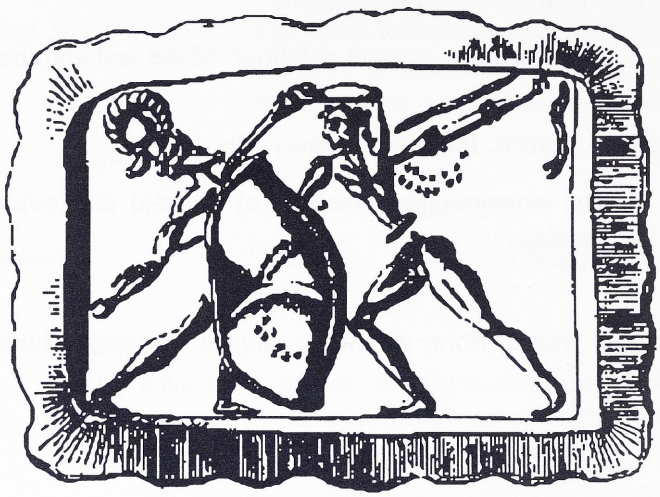

IMAGE	**Number**	IS	11	CMS	I.11
FACTS	**Seal Type**	cushion-shaped			
	Seal Size	1.2	1.8		
	Material	gold			
	Excavated	Mycenae, Grave Circle A, Grave III			
	Acquired				
	Dated	LH I			
	Location	Athens, National Museum, 35			
ICONOGRAPHY					
	Preservation	excellent, design intact			
	Analysis				
	Category	1	humans		
	Theme	F	war and hunt		
	Icon	a	war duel		
	Element	human figure 2, clothing, helmet, weapon, shield			
	Syntax	rectangle, elevation view, self-contained, focus, action pose 2, climatic point, diagonal play			
	Discussion	prototypical war duel			

OWN RESEARCH