

INTRODUCTION

*“une intaille est un petit univers”
Chapouthier 1932, 201*

In the summer of 1984 Dr. Ingo Pini first suggested that a bibliography for Aegean glyptic would be useful. Twenty-five years ago, the first volume (Sakellariou 1964a) in the series *Corpus der minoischen und mykenischen Siegel* appeared and it is obvious that it heralded a new interest in Aegean glyptic. While the Reverend Dr. V. E. G. Kenna is to be credited for having kept the subject alive in the years after Evans, through the 1950's and 1960's, it is apparent that the CMS volumes have fostered a more rigorous approach to the study of Aegean seals.

The present bibliography is organized by author; a thematic index follows, arranging the scholastic contributions by subject, thus highlighting those major aspects of Minoan-Mycenaean seals, finger-rings, and sealings that have received focus. These aspects are interesting, for they reflect the changing fashions in academic thought and the idiosyncratic predilections of individual scholars. It will be useful to outline these areas here in order to show the major trends of research as well as others that need further attention.

The chronology of Aegean seals has always received considerable attention, beginning with Karo's precocious article in 1910, which organized seals from Crete and the Mainland by dated context. Karo's approach, however, was overshadowed by Evans's subjective stylistic progression from simple to mature to degenerate. Organizing seals by dated context and extracting from them a stylistic progression resurfaced in the mid-1970's (Younger 1973a) and culminated in a reasonably demonstrable chronology for the LBA material based on the recognition of stylistic groups of seals that receive dates from the archaeological contexts of their members (Betts & Younger 1982 and Younger 1978-1987a). Yule 1979a/1980a joined the same approach to the statistical method of Haviland 1964 and produced a similarly reliable chronology for the EBA and MBA Cretan material. There was only one earlier notable attempt to recognize a significant stylistic group, Kenna 1966c, which recognized the late MM Group of the Chanting Priest.

Many other scholars have also participated in creating a stylistic appreciation of seals. Biesantz 1954 was a courageous foray into stylistic analysis but he applied his results less to chronology and more to the identification of forgeries. Sakellariou's studies 1964b, 1966, 1974, and 1981 have consistently analyzed modelling, especially in seals found on the Greek Mainland and have focussed on broad general stylistic trends. And Gill 1970b and 1981 has sympathetically emphasized the human element in composition and modelling. Most recently there has been some attempt to analyze the early material also in stylistic terms (Sakellarakis 1980b & c and Wiencke 1981).

Iconography has been the other major subject that has consistently attracted scholastic attention. Greek scholars who write in English, like Kardara, N. Marinatos, and Sourvinou-Inwood, have written recently and extensively on religious subjects. Monsters have always been

popular, especially amongst the French and English scholars: griffins are the subject of Dessenne 1957a and Delplace 1967a & b, while genii (the Egyptian Taweret) dominate a series of articles from Gill 1964 & 1970a to Weingarten 1987c. On the other hand, the seals in the Late Bronze Age that commonly carry animal studies have been generally ignored; exceptions, however, include Pini 1985b on lion attacks and Guest-Papamanoli 1983, Gill 1985, and Karali-Yannacopoulos 1985 on marine motifs.

Few scholars have attempted to see seal-motifs as incidents in iconographic cycles or programs: Sakellarakis 1970 illustrates the entire ceremony that culminates in bull-sacrifice; and Younger 1976a outlines bull-leaping, which probably occupied a preliminary stage in this ceremony. Niemeier 1989 points the way for applying this approach to religious scenes.

Various technical classes of seals have also received some attention. Yule 1983 and Pini 1988c have examined scarabs in order to differentiate between true Egyptian pieces and their Minoan imitations. Pini has also brought to our attention glass (1981c) and clay (1984b) seals. After a shaky beginning, Talismanic seals have finally received a solid treatment (Onassoglou 1985). And the prism, studied extensively over thirty years ago, has recently made a come-back (Onassoglou 1979 & 1989 and Weingarten 1989a) since it seems to have been an important bureaucratic tool for making multiple impressions on sealings.

The Rings of Minos and Nestor continue to attract scholars (Pini 1981a, 1987b, & 1989b, Platon 1978 & 1984, and Warren 1987), especially since a gold cast of the Ring of Minos was recently re-discovered in the Ashmolean Museum. But other than these two spectacular and problematic cases there has been little concerted effort to identify groups of possible forgeries and especially to identify the forgers; Betts's 1981 article on the Sangiorgi Group is a noteworthy exception.

Scholars have also shied away from petrological or gemmological studies. Few articles discuss exotic materials that entered the Aegean in limited quantities: Hughes-Brock, Beck, and others concentrate on amber, of which, however, there is only one seal (CMS I No. 154); and Herrmann traces the source of lapis lazuli.

To understand more about the economy of the Bronze Age Aegean more must be known about the sources for the more common imported materials. When Krzyszkowska differentiates bone from the various ivories it is clear that many early seals were made from local bones but the sources for ivory could have varied: hippopotamus ivory was imported, presumably from Egypt originally, but elephant ivory could have come originally from either Egypt or Syria or both.

Agate and cornelian are extremely common in the Aegean and must have been deliberately imported, just as raw glass probably was (see Bass 1986 and Pulak 1988), but the sources for these two silicates have only been guessed at (Younger 1979d). In any case, while the ultimate source for these materials is of great interest, the identification of their more immediate sources would be of even greater interest for it would illuminate the internal trade patterns of the eastern Mediterranean.

In the same vein, few scholars have examined the techniques for creating seals. From unfinished sealstones and from mistakes Younger 1981a has outlined the process; Yule and Schürmann have observed modern engravers at work and have conducted experiments in heating silicates; Onassoglou 1985 clearly illustrates the various techniques used in creating Talismanic motifs; Gorelick and Gwinnett, both dentists, have reconstructed various drilling processes. In several articles Poursat and M. van Effenterre have admirably presented the Mallia

atelier, the unfinished seals, the tools and materials preserved in it, and the other workshops surrounding it, and this treatment has just begun to stimulate a few scholars (e. g., Marcellis 1989) to focus on workshop practices. Apparently, however, no scholar has yet actually mastered the skills of shaping and engraving seals and until one does our understanding of the techniques involved will remain somewhat obscure.

Similarly, the recent identification of local sources for gold and silver (Branigan, the Gales, and others) seems to have stimulated a few scholars to examine the technical processes for creating finger-rings (Sakellarakis 1981, Younger 1984b, and especially Sakellariou 1988 & 1989).

Recently, there have been four major new developments in the study of Aegean glyptic.

First, Paul Yule's book *Early Cretan Seals* (1980a) has revived interest in the early material. Sakellarakis 1980b publishes early seals from dated contexts at Archanes and Pini 1981b creates a general chronology; even the Neolithic stamp seals now seem a fit subject for analysis (Makky 1984 and Younger 1987c updating Delvoye 1948).

Second, preparations for including the Cretan sealings in the CMS series has led Pini and Weingarten to examine the sealing imprints, that is, the objects sealed. Weingarten has made sealing practices a specialized subject based on Betts's 1967a article and incorporating earlier studies by Wiencke 1958 & 1969b, Fiandra 1968 & 1975, and Ferioli & Fiandra 1989. The study of bureaucratic practices has become popular; a seminar devoted to them took place at Austin in January 1989.

And third, the advent of the computer age has just begun to leave its mark on the study of Aegean glyptic. The van Effenterres (1974, 1980, 1981, 1989) were the first to create a large data-bank of information on seals and to create statistical analyses, especially in regard to iconographic traits and style. The amount of stylistic data that needs to be entered into such computer data-banks is enormous and it is not surprising that the pioneering efforts of the van Effenterres are more impressive than successful. That such data-banks eventually will be extremely helpful is beyond dispute and the van Effenterres have shown us the way; the offices of the CMS now boast a computer which manipulates a data-bank of information. How helpful these computerized data-banks will be, depends of course on the accuracy and completeness of the statistical data to be entered. The early CMS volumes often omitted important dimensions like the thickness or the short diameter of a seal; none yet gives a seal's weight. And important physical characteristics, like a conical reverse or a begun stringhole, are often overlooked. There always will be the need for scholars, novices as well as the experienced, to handle the material in museums.

Finally, only one scholar, Walberg 1986, has analytically compared seals to another medium, in this case MM pottery. No sealstone scholar, however, has attempted this subject; a comparison between glyptic styles and compositions and the other sculptural and figural media is seriously needed.

This brief summary of recent trends in glyptic research reveals the new directions it has taken under the guidance of the CMS and those areas that will profit from a new generation of scholars.

To produce this bibliography I extracted pertinent authors and articles from Nestor and from Sepp 1985, obtained copies of interesting papers from the offprint collections compiled by John H. Betts and by Ingo Pini at the CMS offices, and consulted Helen Hughes-Brock and Judith Weingarten; I am most indebted to these generous scholars. The Duke University Research Council generously supplied financial assistance. I am also grateful to Catherine I. Rine, Thomas D. McCreight, Kimberly B. Flint, and Steven Cerutti for their assistance.

There are only two precursors to this particular bibliography: Maaskant-Kleibrink's "A Survey of Glyptic Research in Publication During 1960–1968," in BABesch 44 (1969) 166–180 and D. J. Content's "Glyptic Arts – Ancient Jewelry: An Annotated Bibliography" (Derek J. Content Rare Books, Inc.; Crow Hill, Houlton ME 04730, USA, 1985).

Within the bibliography, works are listed first by author, then publication date, then the articles arranged alphabetically by title; untitled "Comments" and "Replies to Reviews" are placed at the end of each chronological section.

A paragraph within a set of square brackets provides either additional interesting information, including a description of the subject of the article if the title does not clearly specify it, or a specific reference to where the work can be found in Part B, the Thematic Index.

Although the Table of Contents outlines the organization of the Thematic Index clearly, a few comments may be helpful.

The first three sections of the index consist of works of primary interest to the specialist in Aegean glyptic. The first section lists primary source material: catalogues of seals, excavation reports of seals not yet incorporated into the CMS series, and books or sections of books with general discussions of Aegean glyptic. The second section lists articles or books that concern Aegean glyptic in detail (themes are listed alphabetically). And the third section lists reviews of books or articles on Aegean glyptic.

Section four of the index lists articles and books that concern the Aegean Bronze Age in general; Aegean glyptic specialists will find those that deal with iconography and sculptural techniques especially helpful.

Section five of the index presents articles and books that concern the glyptic of other Bronze Age civilizations in the Eastern Mediterranean as well as of other civilizations at later times. The bibliography does not attempt to include all such scholastic works, but rather only those that the Aegean specialist might find most helpful for obtaining some general grasp on foreign glyptic. This section also includes those studies on foreign seals that have been found in the Aegean.

Section six of the index cites general and specific works on materials and techniques; these include articles on the sources of the stones, quarries, tools and drilling techniques, and special methods for photographing seals and taking their impressions. One must keep in mind that discussions of style may strike one's audience as subjective but techniques and technical traits are demonstrable and may persuasively guide one's stylistic analyses.

In closing, three terms seem to conjure problems to the archaeologist; I should like to define them:

- *Classes and Groups* – For these two terms I take my cue from Sir John D. Beazley (ARV ed. 2, p. xliii): "The words 'Group' and 'Class' are used in special senses." While for Beazley 'Group' referred to 'style of drawing' and 'Class' referred to shape, we may adapt his terminology so that 'Class' refers to any grouping of seals according to technical or iconographic criteria and 'Group' refers to seals that share stylistic traits. Thus foot amulets, glazed steatite seals, and seals with bull heads all constitute *classes* defined by demonstrable criteria; seals presenting agrimia whose heads are outlined by two lines at an acute angle containing a tiny dot-eye and seals presenting stick-figure quadrupeds merely gouged into the soft-stone face both comprise *groups* (the MM Group of the Couchant Agrimi and the LH Mainland Popular Group, respectively).
- *Deposits* – I should like to define a deposit as a group of seals or seal impressions which either

Bronze Age Aegeans assembled together or which a Bronze Age event brought into association with each other in the same archaeological horizon. Thus, the two mounds of 12 seals each at either hand of the Vapheio 'Prince' and the sealings fired by a conflagration in LM IB at Ayia Triada are both deposits. One could also make a case for the following to constitute deposits: the impressed hearth rims from Ayia Irini in Keos, all of which belong to EC/EH II though undoubtedly they were broken and discarded at various times; the Hieroglyphic Deposit of sealings strewn about the north end of the Long North-South Corridor at Knossos though much of this material Evans assembled because the sealings bore hieroglyphic inscriptions and/or because the fired clays of the sealings looked similar; and the 12 sealstones found in the East Sanctuary at Phylakopi though they were undoubtedly deposited there at different times, albeit for presumably the same purpose. In this bibliography both the editor and I have taken a rather broad definition of the term 'deposit'.