

# Gemstones in Mycenaean Greece

Their use and significance

Eleftheria Stamatatou

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*Gemstones in Mycenaean Greece*

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## ABSTRACT

Gemstones in Mycenaean Greece: their use and significance.

Eleftheria Stamatatou

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The aim of this study is to examine the use and significance of gemstones in Mycenaean Greece.

In *Chapter One* the scope of the study is set out, the material under examination is summarised, as well as its geographical and chronological range. The material has been recorded on a database and the information derived from it is analysed in the following chapters.

*Chapter Two* is an introduction to the mineral wealth of Greece and presents the basic minerals and their varieties; the research showed that the majority of gemstones recorded can be found as raw material in Greece. *Chapter Three* considers the correlation between the gemstones and the area and location in which they were found, as well as the relationship between the types of object and the stones from which they were made; the similarities and dissimilarities in the use of gems during the Mycenaean era is demonstrated, in life and in death, and the economic and social parameters which determined the selection of specific gems in each area are explored. In *Chapter Four* are presented the results of an experiment during which gemstone objects of Mycenaean date were examined in order to detect the tools and techniques used for them. *Chapter Five* looks at the potential significance of gemstone objects in the Mycenaean period in the light of Egyptian and later Greek and Latin written sources. It is suggested that there must have been a set of beliefs about the gemstones which governed their use. *Chapter Six* presents the general conclusions of the study which has shown how widespread gemstones were in Mycenaean Greece, the highly specialised skills required to manufacture them, their importance in economic and social life, and the beliefs about their use. It is clear that more detailed recording of gemstones found during the excavation of settlements should be a priority in order to further evaluate their significance and that the cooperation of geologists is absolutely necessary in order to determine accurately the source of gemstone finds.

The second part of the study contains the catalogue of gemstone finds, recorded on a database which was created to provide the type of information required to meet the aims of the study.

## Preface

This book is substantially the publication of my PhD thesis (Liverpool 2001). In preparing the text I have taken the opportunity to make some small changes in the main text. My original thesis is available in the libraries of the University of Liverpool and the British School at Athens.

## Acknowledgments

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The research and study for this thesis were carried out in the Library of the British School at Athens. I would like to thank the Librarian, Mrs. Penny Wilson-Zarganis, and the Assistant Librarian Mrs. Sandra Pepelasis for their help. The Secretary, Mrs Helen Clark, applied for permits and Mrs. Vicki Tzavara, office personnel, was always willing to help with my enquiries.

The British School of Athens was the ideal environment for my research since it gave me the opportunity, as being away

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I dedicate this book to my parents; my father Angelos for being an ideal of strength and trying to make me have ambitions and my beloved mother Frances, introducing me to the world of literature and art, and for her surrounding me with her love.

*to Frances and Angelos*





# CONTENTS

List of figures .....	iii
List of tables .....	v
List of abbreviations .....	v
1. Introduction .....	1
2. The mineral wealth of Greece .....	3
The knowledge of the mineral wealth of Greece in classical times .....	3
The evolution of geology in Greece in modern times .....	4
The formation of minerals in general .....	5
Gemstones in Greece as related to the geological setting .....	6
Siliceous gemstones in volcanic rocks and granites .....	6
Talc and steatite in ultra basic rocks .....	7
Radiolarian chert in sedimentary rocks .....	7
Emery and corundum in metamorphic rocks .....	7
Basic minerals and their varieties .....	7
Quartz .....	7
Amethyst .....	8
Smoky Quartz .....	8
Chalcedony .....	8
Agate .....	8
Onyx .....	8
Carnelian .....	8
Sard .....	8
Heliotrope .....	8
Jasper .....	8
Flint or Chert .....	8
Opal .....	8
Distribution of gemstones and mineral resources in Greece .....	9
3. Analysing the statistics .....	10
Introduction .....	10
Analysing the statistics .....	12
Argolid .....	15
Mycenae .....	15
The Citadel and Panagia Houses .....	15
The Tombs .....	16
I. Shaft Graves .....	16
Grave Circle B at Mycenae; (The Slopes Beyond the Citadel). .....	16
II. Tholos Tombs .....	17
Tholos Tombs and The Prehistoric cemetery .....	17
III. Chamber tombs .....	18
Chamber Tombs (Tsountas' excavations) .....	18
The Third Kilometre Cemetery and Kalkani cemetery .....	19
Comments .....	20
Prosymna .....	22
The Tombs .....	22
Comments .....	23
Tiryns .....	23
The Tombs .....	24
Comments .....	25
Asine .....	25
Acropolis, Mount Barbouna, LH settlement .....	25
The Tombs .....	25
Comments .....	26
Midea .....	26
Dendra: Palaioikastro (Ancient Midea) .....	26
Acropolis and Settlement .....	26
The Tombs .....	26
Comments .....	27
Messenia .....	27
Pylos .....	28
Acropolis and Lower Town .....	28
The Tombs .....	28
I. "Grave Circle" .....	28
II. Tholos tombs .....	28



III. Chamber tombs.....	29
Chora Volimidia .....	29
Koukounara.....	29
The Tombs.....	29
Myrsinohori: Routsis.....	30
The Tombs.....	30
Peristeria: Mirou .....	30
The Tombs.....	30
Tragana: Viglitsa.....	31
The Tombs.....	31
Voidokilia Bay.....	31
The Tombs.....	31
Comments .....	31
Attica.....	32
Perati .....	32
Perati Cemetery .....	32
Comments .....	34
Conclusion .....	34
4. Techniques and tools employed in the manufacture of LBA stone objects found in the Peloponnese .....	38
Introduction.....	38
Experiment.....	39
Observations .....	40
Sealstones .....	40
Beads .....	40
Comments on the observations .....	40
Sealstones .....	40
Beads .....	42
Techniques.....	42
Perforation .....	42
Grinding.....	42
Abrasion.....	42
Tools .....	42
Rotating heads .....	43
Hand held drill, bow drill, cutting wheel .....	43
Probable tools .....	43
Conclusion .....	45
5. Beliefs about gemstones in the ancient world .....	47
Introduction.....	47
Egypt.....	47
Gemstones in ancient egyptian written sources .....	47
Comments on the egyptian texts .....	49
Archaeological evidence for the role of egyptian gemstones and amulets.....	50
Comments .....	51
Magic and gemstones in Greece .....	51
Introduction.....	51
Gemstones in ancient Greek and Latin texts.....	51
Comments .....	56
6. Use and significance of gemstones in Mycenaean Greece.....	57
General conclusion.....	59
7. Catalogue of gemstone finds .....	60
Formation of the catalogue .....	60
Problems presented while using archaeological data from excavation reports .....	60
Stones, objects and shapes .....	61
Stones.....	61
Objects .....	61
Shapes .....	61
Bibliography.....	149
Figures.....	154



## LIST OF FIGURES

### CHAPTER TWO

- 2.1 Geographical distribution of Cenozoic magmatic rocks in the Aegean area and their units according to their absolute age. (After Katsikatos 1992: fig. 49).
- 2.2 Important plutonic and volcanic outcrops in the area of the Rodopi massif, with their radiocarbon dating. (After Katsikatos 1992: fig. 202).
- 2.3 Volcanic and tectonic structure of Kimolos and Polyaigos. (After Vougioukalakis 1993: fig.4).
- 2.4 Chalcedony in thin layers and quartz crystals in pores (open spaces that permit the development of crystals). (After Chiotis).
- 2.5 Successive layers of chalcedony. (After Chiotis).
- 2.6 Detail of fig. 2.5. (After Chiotis).
- 2.7 Chalcedony in transitional stage to its transformation into quartz. (After Chiotis).
- 2.8 Detail of fig. 2.7. (After Chiotis).
- 2.9 Greek ophiolites and geotectonic zones. (After Vacondios 1997: fig. 7).
- 2.10 The presence of gemstones in Greece. (After Chiotis).
- 2.11 Amethyst from Drama; Green quartz from Serifos. (After Dimou).
- 2.12 Azurite from Lavrion. (After Dimou).
- 2.13 Garnet from Serifos. (After Dimou).
- 2.14 Malachite from Lavrion. (After Dimou).
- 2.15 Green quartz (prase) from Serifos. (After Dimou).

### CHAPTER FOUR

- 4.1 Agate sealstone from Argos, N.M.A. 5587. (After Georgakopoulos).
- 4.1.1 Mark of the traces at the leg joints of the animals. (After Goumas).
- 4.1.2 Mark of the traces at the thighs and shins of the animals and the mane of the lion. (After Goumas).
- 4.1.3 Mark of the traces at the neck of the bull. (After Goumas).
- 4.1.4 Mark of the traces in the stringhole. (After Goumas).
- 4.1.5 Figure of traces at the leg joints.(After Georgakopoulos); sketch of traces at the leg joints made of spherical and lentoid head tool. (After Goumas).
- 4.1.6 Figure of traces at the mane. (After Georgakopoulos); sketch of traces at the mane. (After Goumas).
- 4.2 Sketch of a hand held tool. (After Goumas).
- 4.3 Sketch of perforation of sealstone N.M.A. 5587. (After Goumas).
- 4.4 Sketch of rotating heads. (After Goumas).
- 4.5 Sketch of abrasion. (After Goumas).
- 4.6 Sketch of the patterns of wear made by a bow-drill. (After Goumas).
- 4.7 Sketch of tool with rotating head. (After Goumas).
- 4.8 Sketch of traces left by a tool with rotating head. (After Goumas).
- 4.8.1 Sketch of traces left by a hand held tool (After Goumas).
- 4.9 Heamatite sealstone from Midea, N.M.A. 8771. (After Georgakopoulos).
- 4.9.1 Mark of tooling traces by an unstable rotating head. (After Goumas).
- 4.9.2 Marc of tooling traces by a stable rotating head. (After Goumas).
- 4.9.3 Marc of traces of crossing lines in the blank side of the sealstone. (After Goumas).
- 4.9.4 Figure of detail of design. (After Georgakopoulos); sketch of traces. (After Goumas).
- 4.9.5 Figure of detail of 8771 sealstone, blank side. (After Georgakopoulos); sketch of traces at the blank side of 8771 sealstone. (After Goumas).
- 4.10 Carnelian sealstone from Midea, N.M.A. 8770. (After Georgakopoulos).
- 4.10.1 Mark of tooling traces. (After Goumas).
- 4.10.2 Figure of detail of 8770 sealstone. (After Gergakopoulos); sketch of tool traces. (After Goumas).
- 4.11 Agate or carnelian sealstone from Midea, N.M.A. 8769. (After Georgakopoulos).
- 4.11.1 Mark of tooling traces. (After Goumas).
- 4.11.2 Figure of detail of design. (After Georgakopoulos); sketch of spherical and lentoid rotating heads. (After Goumas).
- 4.12 Perforation hole of rock crystal bead from Prosymna, N.M.A. 13197. (After Georgakopoulos).
- 4.12.1 Sketch of the perforation of the hole using a tubular drill. (After Goumas).
- 4.12.2 Figure of traces in a circular direction on the surface of bead N.M.A. 13197. (After Georgakopoulos).
- 4.13 Perforation of marble cylinder seal from Diyala in Mesopotamia, 3200-3000 B.C. (After Gorelick and Gwinnet 1989: fig. 4).
- 4.13.1 Perforation of haematite cylinder seal from Diyala in Mesopotamia, 1800 B.C. (After Gorelick and Gwinnet 1989: fig.7).



- 4.14 Bow-drill. (After Younger 1981: fig. 2).
- 4.15 Cutting-wheel. (After Evelyn 1979: fig. 70).
- 4.16 Drills. (After Evelyn 1979: fig. 18).
- 4.17 Working-heads made of phthanite from Mundigak at Afghanistan, 2600 B.C. (After Jarigge 1985: fig. 1).
- 4.17.1 Copper drill from Mundigak at Afghanistan, 2600 B.C. (After Jarigge 1985: fig. 2).
- 4.17.2 Lapis lazuli bead from Mundigak at Afghanistan, 2600 B.C. (After Jarigge 1985: fig. 4).

## CHAPTER FIVE

- 5.1 The scribe Anni, addressing the god Anubis, is holding a necklace of coloured beads with his left hand. (After Budge 1923: 137).
- 5.2 Mycenae, carnelian sealstone. (After Sakellariou 1964: fig. 139).
- 5.3 Mycenae, carnelian sealstone. (After Sakellariou 1964: fig. 158).
- 5.4 Midea, agate sealstone. (After Sakellariou 1964: fig. 193a).
- 5.5 Perati, opal sealstone. (After Sakellariou 1964: fig. 393).
- 5.6 Mycenae, onyx sealstone. (After Sakellariou 1964: fig. 123).
- 5.7 Design from lekythos. Amsterdam, Allard Pierson M. 8196. (After Nathan 1984: fig. 79).
- 5.8 Design from lekythos. Athens Agora P 24067. (After Nathan 1984: fig. 79).
- 5.9 Mycenae, agate sealstone. (After Sakellariou 1964: fig. 80).
- 5.10 Mycenae, carnelian sealstone. (After Sakellariou 1964: fig. 144).
- 5.11 Mycenae, carnelian sealstone. (After Sakellariou 1964: fig. 145).
- 5.12 Asine, agate sealstone. (After Sakellariou 1964: fig. 198).
- 5.13 Pylos/Tragana, jasper sealstone. (After Sakellariou 1964: fig. 266).
- 5.14 Pylos/Routsi, carnelian sealstone. (After Sakellariou 1964: fig. 279).
- 5.15 Mycenae, steatite sealstone. (After Sakellariou 1964: fig. 42).
- 5.16 Mycenae, sardonyx sealstone. (After Sakellariou 1964: fig. 57).
- 5.17 Mycenae, agate sealstone. (After Sakellariou 1964: fig. 74).
- 5.18 Midea, jadeite sealstone. Royal Tombs/Tholos tomb, Pit 1. (After Sakellariou 1964: fig. 188).
- 5.19 Midea, jadeite sealstone. Royal Tombs/Tholos tomb, Pit 1. (After Sakellariou 1964: fig. 182).
- 5.20 Midea, jadeite sealstone. Royal Tombs/Tholos tomb, Pit 1. (After Sakellariou 1964: fig. 187).
- 5.21 Midea, carnelian sealstone. Royal Tombs/Chamber tomb 2. (After Persson 1931: pl. xxviii and xxxiv/3).
- 5.22 Midea, diagram of Chamber tomb 2, showing the probable position of the larger objects. (After Persson 1931: fig. 53).
- 5.23 Midea slaughter table of poros stone from Chamber tomb 2. (After Persson 1931: pl. xxix/2).
- 5.24 Mycenae, agate sealstone. (After Sakellariou 1964: fig. 116).
- 5.25 Midea, onyx sealstone. (After Sakellariou 1964: fig. 185).
- 5.26 Midea, agate sealstone. (After Sakellariou 1964: fig. 193b).
- 5.27 Athens/ Vafio, agate sealstone. (After Sakellariou 1964: fig. 252).
- 5.28 Mycenae, agate sealstone. (After Sakellariou 1964: fig. 77).
- 5.29 Mycenae, agate sealstone. (After Sakellariou 1964: fig. 36).
- 5.30 Midea, carnelian sealstone. (After Sakellariou 1964: fig. 196).
- 5.31 Vafio, agate sealstone. (After Sakellariou 1964: fig. 231).
- 5.32 Mycenae, sardonyx sealstone. (After Sakellariou 1964: fig. 73).
- 5.33 Mycenae, agate sealstone. (After Sakellariou 1964: fig. 98).
- 5.34 Mycenaean Lady, Fresco. (After Mylonas 1983: fig. 116).

## LIST OF TABLES

### CHAPTER TWO

- 2.1 Table of Mohs' Hardnesses. (After Schumann 1977, 22).

### CHAPTER THREE

- 3.1 Presentation of the occurrence of each material for each kind of object.  
3.2 Presentation of the quantities of gemstones as combination of object type and material.  
3.3 Percentage of material occurrence.  
3.4 Percentage of object type occurrence.

## LIST OF ABBREVIATIONS

(for bibliographical abbreviations see Bibliography)

EH	Early Helladic
MH	Middle Helladic
LH	Late Helladic
N	north
S	south
E	east
W	west





# CHAPTER ONE

## INTRODUCTION

The scope of the present study is the presence of gemstone objects in LBA Greece, their use and significance. The LBA finds from the areas in Greece examined in the study provide the only evidence until now of the use of gemstones for this specific time and place. There was a great interest in gemstones in antiquity as demonstrated by the many archaeological finds showing that gemstones were widely available to the inhabitants of LBA Greece. In the Argolid, Messenia and Attica, in shaft, chamber and tholos tombs they were widely used, in contrast to the limited number of gemstone finds from the palaces and settlements.

Buttons from clothing, necklaces and bracelets made of beads, sealstones, spindle whorls and many other objects show the various uses to which gemstones were put.

The research was confined to minor gemstone objects as their size requires different technology and tools from larger ones (e.g. stone vases) which constitute an independent category.

Considering the archaeological finds, not only from an artistic point of view, but also for the information that they can provide when relating the material to its source, was one aim of recording gemstone objects in the expectation that they would tell us about the presence, distribution and use of stones in the sites examined during the LBA. The research therefore focused on the material used to manufacture stone objects and not only on their use; all minor gemstone objects were recorded and not categories such as amulets etc. In the past, Blegen<sup>1</sup> and Iakovidis<sup>2</sup> wondered about the possible use of spindle whorls and buttons as garment weights. Recently Constantinidi<sup>3</sup> evaluated the presence of jewellery as related to man's emotional world.

The selection of sites for examination was based on the need to include a wide geographical range of well published material sites that covered the Early (Grave Circle B) to Late Mycenaean era (Perati). Argolid: Mycenae, Prosymna, Tiryns, Asine, Dendra; Messenia: Pylos, Chora Volimidia, Koukounara, Myrsinohori/Routsis, Peristeria/Mirou, Tragana/Viglitsa; Attica: Perati.

The research is based on the recording of information from the reports of the excavators in a catalogue; the structure of the database is explained in the catalogue introduction, as well as the problems that appeared as concerns the identification of the gemstones, the terminology for each object, or other recorded elements (colour, size). The statistical results generated from the information about the items recorded in the catalogue are analysed (chapter three) in order to relate the gemstones to their source and to the objects made of them. Since there is variation between tombs, and also between tombs and settlements it was decided to analyse each of them as a separate group in the same geographical area. The examined areas are presented with their relevant record numbers, in order to give the

possibility of referring to the catalogue of finds during the reading of the text.

When the catalogue was completed and recorded in a database, the following stage was to research the mineral wealth of Greece. Previous reference to stones characterised them as imported, so it seemed that the possibility of trade was important. The stone finds examined here were often perceived and studied by excavators as an indication of trade relationships with other countries. Mylonas<sup>4</sup> sought to demonstrate contacts with neighbouring countries from the presence of Egyptian and Syrian materials, such as rock crystal, sard and ivory. For Prosymna, Blegen<sup>5</sup> assumed that lapis lazuli, amethyst, rock crystal and malachite objects were imported in a finished state, probably from Egypt, as well as carnelian which was probably worked locally. Iakovidis<sup>6</sup> also argued about the importation of gemstones

"..rock crystal, abundant in the minerals of the Thorikos area occurs in most cases as raw material.

Sard is the only gem that occurs in relatively abundant samples.. The other gemstones are value by sparse, revealing their rarity or their probable valuability

and so required more insisted efforts for their acquisition from removal of previous burials.

It is thus determined out of the question that minerals of the area were exploited and more

probable that they were transported from other places.."

and he concludes that haematite and rock crystal must have been locally acquired and worked, though alabaster, sard, amethyst, malachite-azurite came from elsewhere, most likely Egypt, because although the minerals can be found in the area and the Aegean they were not exploited systematically as they were at that time in Egypt.

The up to date information though, from the geologists of I.G.M.E. (Institute of Geological and Mineral Exploitation) made it clear that the majority of the gemstones reported could have been found in Greece. In chapter two the sources of minerals in Greece are discussed as they occur today and also general evidence about them. This part of the study was made possible with the cooperation of I.G.M.E.

In ancient times it was most probably the natural qualities of the stones, especially their beauty and colour, which were the main reasons why man searched for them. The clarity and transparency of a mineral was also important; the quality of the deposit and the quantity needed to make an object from a specific material are reasons for the selection as well. If the stone was very pale then a larger piece was needed in order to avoid loss of colour, as happens for example with a small quantity of aquamarine that has pale colour; one carat is not enough because the colour will be "lost" and a larger quantity is needed, about ten carats. The hardness of a material could qualify it as suitable for everyday and long term use. The ability to recognise sources of the raw material and to exploit them also contributed to their importance. The rarity of a stone, as a result of few sources, or the great distance to their sources, could ensure that it was in high demand for social and also for economic reasons. This advantage could turn to

<sup>1</sup> Blegen 1937: 312.

<sup>2</sup> Iakovidis 1969: 278.

<sup>3</sup> Constantinidi 2001: 249.

<sup>4</sup> Mylonas 1972-73: 360.

<sup>5</sup> Blegen 1937: 286.

<sup>6</sup> Iakovidis 1969: 385. Translation author.



a disadvantage if the distance from the source was very far which would make it an unprofitable material. The proximity of the source, the conditions of importation and future use of the raw material or imported gemstone objects were the most important factors economically and also the reason for defining them as valuable to possess and establishing their price.

Gemstone objects reveal the technical skills and culture of that era. The techniques of working the gemstones and the tools used for the final result are the scope of chapter four. The close study of an engraver and basic lessons on gemstone production under his guidance were important in order to become familiar with this kind of work and the materials used; the lessons started with the creation of objects made of shell, bone, elephant ivory and then gemstones in order to understand the degree of difficulty that each material presents according to its natural characteristics and also to understand approximately how much virtuosity (talent and long term experience) differentiates the results and to appreciate the skill that the engraver needs to possess. During 1997 the author contacted three engravers that work in Greece: A. Goumas, N.Kielty-Lambrinides and G. Loizos. The first three months of the year I followed lectures that N. Lambrinides gave to students of the Geological Department of the University of Athens on gemstones but there was no time for the long time co-operation needed for my research. G. Loizos is also a master engraver but extremely possessive of his knowledge and I did not have the opportunity of a second discussion. Finally, it was A. Goumas who agreed to co-operate. Twice a week for six months I studied in the workshop of A.Goumas, working on various materials as stated above, observing his working environment, the way that an engraver works, starting with the creation of his own tools until the stone object is ready to be given to the client who ordered it; discussing how he approaches the material and the object that he has to create, every time a different challenge that causes new problems to arise. We also discussed published studies<sup>7</sup> of tools and techniques, the time and labour needed for the creation of an object, working areas, the single or co-operative work needed for gemstone objects; in the National Archaeological Museum at Athens we observed gemstone objects and looked for possible tools in the Museum's prehistoric collection.

A study of the traces of tools on gemstones from the sites examined in this thesis lead to important observations concerning the technology of the time and photographs of these traces make the possible techniques used clearer. The study was undertaken at the National Archaeological Museum at Athens on finds from the prehistoric collection.

In chapter five the possible role of beliefs in the use of gemstones is discussed. Belief is central to the interpretation of gemstones and many questions had to be answered. Why are these objects mostly found in tombs rather than in settlements? Why spend time and labour on their creation using gems of high hardness on the Mohs' scale and not using clay or making them of metal in moulds? The evidence given by the excavators about the exact location in which gemstone objects were found is inadequate, and very often unclear and the Linear B texts do not refer to their use. For

that reason Egyptian, Greek and Latin written sources that refer to beliefs about gemstones are examined in order to understand the ways that man in antiquity used them to express his beliefs.

These written sources provide important information about the lives of people in different geographical areas and also from those that inhabited Greece in later times and probably kept elements of the beliefs dating from earlier times. These written passages are of interest because they explain the way of thinking, the approach to belief and how stones were thought to be of assistance in life and death.

The iconography of LBA sealstones (Fig. 5.1-5.34) completes this chapter; the appearance of gemstones in tombs, the representational themes on them, and also the written sources, create a strong argument for a belief in the power of gemstones at that time.

Before we commence with our investigation, however, it is necessary to clarify that throughout this study the terms 'stone' and 'gemstone' will be used without the epithet 'precious' or 'semi-precious', since we shall be referring to a period in history when the importance given to material objects was perceived according to a set of values and beliefs that were very different to our own. This note of caution is qualified by the fact that even in our own century the value given to a particular material or object is by no means the same the world over but is determined rather by a variety of competing cultural, social and economic structures that differ from one society to the next.

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<sup>7</sup> Indicative bibliography: Semenov 1964, Evely 1979 and 1980, Gorelick and Gwinett 1978-1989, Younger 1981, Jarrige 1985, Tournavitou 1988, Dimopoulou 1997.



## CHAPTER TWO

### THE MINERAL WEALTH OF GREECE

#### THE KNOWLEDGE OF THE MINERAL WEALTH OF GREECE IN CLASSICAL TIMES

The great natural philosophers made observations and had thoughts on geology and palaeontology, and also gave geographical descriptions, that not only include accurate data about natural outcrops of useful minerals and rocks, but also basic geological knowledge. Strabo, refers to uplift and submergence of land followed by earthquakes.

In the written work of ancient writers we often find information about the origin of minerals; information which is also related to other information on the minerals, like the price of the raw material, their natural qualities, commercial value and the cutting of gems. Chrysocolla was extracted in Carthaginian Demonisos<sup>8</sup> and was worth as much as gold, sard was extracted in the mountains<sup>9</sup>; crystal, amethyst and sard appear in other rocks. Agate was considered as a good gemstone and was collected from the Agate river in Sicily; emerald, sard and anthrax are characterised as rare and small and sapphire was used for seal cutting; they all appear naturally in other rocks<sup>10</sup>. We are informed about the (related) professions to and processing of the raw material and the division of labour needed for the completion of the final product<sup>11</sup>.

Most of the information about their sources is given by Theophrastus and Pliny. The former knew not only outcrops very well but also the quality of the same mineral in different areas

"There are also other stones from which seals are cut that are (remarkable), some of them only for their appearance, such as the sardion, the iaspis, and the sappheiros, and the last of these seems to be spotted with gold."

Theophr. De lapidibus 50

"In general there are many stones of this kind, but the remarkable ones are rare and come from a few places only, such as Carthage, the country around Massalia, Egypt near the First Cataract, Syene near the city of Elephantine, and the region called Psepho. In addition, the smaragdus and the iaspis are found in Cyprus."

Theophr. De lapidibus 34

On the other hand, Pliny<sup>12</sup> in his work on stones not only informs us about gemstones but he fills in many gaps in our

knowledge about the chain that starts with the raw sources of the mineral to the final stone objects. His personal interest in and affection for earth's mineral wealth is revealed while he enriches the text with information about the land, the people where the minerals occur and gives life to the whole world of minerals, (extraction, beliefs about them, esteem for them, price). He presents the knowledge of the mining "engineers" of his time who seemed to travel and learn the earth inch by inch. In his work he combines the knowledge of his ancestors with his contemporaries, showing that the interest in minerals which started long in the past not only did not stop but was continually increasing

"Adamas..another kind, that is found in the gold mines at Philippi, is known as the Macedonian adamas: this last is about as large as a cucumber-seed in size. We next come to the Cyprian adamas..."  
Plin. HN 37.15

he contributed to the terminology and identification of the minerals

"Some persons give this molar stone the name of «pyrites»... which resembles copper. This, last, it is said, it is found in the mines, near Acamas, in the isle of Cyprus." Plin. HN 36.30

His "geological map" is extensive and great importance is given to the occurrence of the gemstones, which helps us in order to understand the trade routes of the time; as for emerald, he quotes various sites of extraction, amongst them some in Greece

"Scythia, Bactriana, Cyprus, Aethiopia, Coptos, Attica, Thoricos, Mount Taygetos."  
Plin. HN 37.17-18

In the course of time the sources of raw material tend to be found in different places since the old ones become exhausted and in the meantime the value of goods change

"Sarda...at Sardes, ...that of the vicinity of Babylon...said to be now extinct in Persia; though it is to be found in numerous other localities, Paros and Assos, for example...there are some found also in the vicinity of Leucas in Epirus, and in Egypt...Among the ancients there was no precious stone in more common use than this; at all events, it is this stone that is made so much parade of in the comedies of Menander and Philemon." Plin. HN 37.31

It is clear that in Pliny's time there was immense admiration for the natural beauty of the material, the colour and the veins that can be seen in the different layers, especially when it is carved, and for us the importance is the evaluation of their criteria for the preference of a material

"To the first rank belongs the amethystos of India; ...Petra, Lesser Armenia, Egypt, and Galatia ...the very worst of all, and the least valued, being that of Thasos and Cyprus." Plin. HN 37.40

"Achates...and coralloachates, spotted all over, like the sappheiros,

<sup>8</sup> Arist. Minor Works: 260.

<sup>9</sup> Ctesias L' Inde: 63.

<sup>10</sup> Theophr. On stones: 30.

<sup>11</sup> Plut. Pericl. 12.6.2

<sup>12</sup> Plin. HN 36: 12, 14, 15, 20, 23, 24, 37.



with drops of gold, and commonly found in Crete,  
where it is also known as «sacred» achates...

They are found also in Trachinia, in the vicinity of Mount  
Oeta,

upon Mount Parnassus, in the Isle of Lesbos, in Messene,  
where they resemble the flowers that grow in the hedges, and  
at Rhodes."

Plin. HN 37.54

Most of the minerals retain today the names they had in antiquity, such as diamond and agate. Some of them, however, have different names since technology has made the determination of composition and structure possible. "Miliastros" is kaolinite, "herakleia lithos" is magnetite, "arreniko" is orpiment, "sandarache" is realgar, "anthrax" is garnet, "kyanos" is lapis lazuli.

## **THE EVOLUTION OF GEOLOGY IN GREECE IN MODERN TIMES**

After the War of Independence from the Ottoman Empire, an attempt was made to record the mineral wealth of Greece. With contemporary conceptions geological research started early in the 19<sup>th</sup> century: i) firstly the results of the Expedition Scientifique de Morée<sup>13</sup> a treatise on geological knowledge of the Peloponnese; ii) description of isolated travellers among whom A. Boué<sup>14</sup> is the most prominent, as also the German expert K. Fielder<sup>15</sup>, during the period of 1834-1837. In the second half of the century there were large monographs, such as the one on mammals of Pikermi<sup>16</sup> or for the volcanicity of Santorini<sup>17</sup>. Systematic geological research with geological mapping starts at the end of the 19<sup>th</sup> century. This included the work of the geologist A. Cordellas who started the publication of studies about the mineral wealth of Greece in 1889<sup>18</sup> of A. Philippson<sup>19</sup>. The first half of the 20<sup>th</sup> century is dominated by the pioneer study of the Swiss geologist C. Renz<sup>20</sup>. He described the fossiliferous horizons from the upper Carboniferous to the lower Tertiary which aided him in working out a detailed description of the stratigraphy of Greece. In the same period we have important work of Greek geologists, such as K.A. Ktenas<sup>21</sup>, who contributed by approaching multilaterally the issues of stratigraphy, petrography and tectonics.

A third period of geological research of Greece started after the Second World War with the foundation of the government agency (today Institute for Geological and Mineral Exploitation, I.G.M.E.). During the period 1950-1970 French geologists made an important contribution by advancing the division of Greece into geological zones for which Renz had laid the base<sup>22</sup>. With the formulation of the theory of lithospheric plates in the 70's the modern period of

geological research in Greece started which is still in progress<sup>23</sup>.

Today, in order to evaluate whether gemstones do appear in the Greek land, we have to see if suitable conditions exist for their formation. Although published work concerning the distribution of gemstones in Greece is not great, important data can be found. Information comes not only from ancient and modern descriptions but also from personal identification mostly by scientists (geologists and mining engineers). Even in the mining industry the impression is that precious or semi-precious stones are connected with other continents and countries (Africa, Asia, America etc.). With the increasing general interest in the collection of crystals, miners are very careful in locating minerals and crystals in which commercial interest is strong.

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<sup>13</sup> Boblay and Virlet 1833.

<sup>14</sup> Boué 1837.

<sup>15</sup> Fielder 1841.

<sup>16</sup> Gaudry 1862: 67.

<sup>17</sup> Fouque 1867.

<sup>18</sup> Cordellas 1878.

<sup>19</sup> Philippson 1889.

<sup>20</sup> Renz 1955.

<sup>21</sup> Ktenas 1930.

<sup>22</sup> Auboin 1965.

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<sup>23</sup> Jacobschagen 1986.



Diamond	10	Chrysoprase	6½-7	Actinolite	5½-6	Fluorite	4-4½
Ruby	9	Demantoid	6½-7	Anatase	5½-6	Barytocalcite	4
Sapphire	9	Fossilized wood	6½-7	Beryllonite	5½-6	Magnesite	4
Alexandrite	9	Heliotrope	6½-7	Elaeolite	5½-6	Rhodochrosite	4
Chrysoberyl	9	Jadeite	6½-7	Haunite	5½-6	Dolomite	3½-4½
Rhodozite	8	Jasper	6½-7	Periclase	5½-6	Chalybite	3½-4½
Spinel	8	Kornerupine	6½-7	Psilomelane	5½-6	Aragonite	3½-4½
Taaffeite	8	Peridot	6½-7	Sodalite	5½-6	Azurite	3½-4½
Topaz	8	Sard	6½-7	Brazilianite	6	Cyprite	3½-4½
YAG	8	Tanzanite	6½-7	Chromite	6	Chalcopyrite	3½-4½
Aquamarine	7½-8	Zoisite	6½-7	Enstatie	6	Malachite	3½-4½
Beryl	7½-8	Idocrase	7	Leucite	6	Sphalerite	3½-4½
Emerald	7½-8	Saussurite	7	Moldavite	6	Cerussite	4
Gahnite	7½-8	Sinhalite	7	Natrolite	6	Howlite	4
Painite	7½-8	Smaragdite	7	Willemite	6	Witherite	4
Phenacite	7½-8	Silimanite	6-7½	Scapolite	5-6½	Coral	3-4
Almandine	7½-8	Cassiterite	6-7	Cancrinite	5-6	Pearl	3-4
Andalusite	7½-8	Epidote	6-7	Diopside	5-6	Anhydrite	3-3½
Euclase	7½-8	Hiddenite	6-7	Hypersthene	5-6	Celestine (Celestite)	3-3½
Hambergite	7½-8	Kunzite	6-7	Iimenite	5-6	Barite	3
Uvarovite	7½-8	Amazonite	6-6½	Lapis lazuli	5-6	Calcite	3
Andradite	7-7½	Aventurine feldspar	6-6½	Lazulite	5-6	Wulfenite	3
Condierite	7-7½	Benitoite	6-6½	Turquoise	5-6	Jet	2½-4
Danburite	7-7½	Ekanite	6-6½	Datolite	5-5½	Crocoite	2½-3
Garnet	7-7½	Labradorite	6-6½	Obsidian	5-5½	Garnierite	2½-3
Iolite	7-7½	Moonstone	6-6½	Sphene	5-5½	Phosgenite	2½-3
Rhodolite	7-7½	Nephrite	6-6½	Thomsonite	5-5½	Gaylussite	3
Staurolite	7-7½	Orthoclase	6-6½	Apatite	5	Proustite	3
Tourmaline	7-7½	Petalite	6-6½	Augetite	5	Pseudophite	3
Amethyst	7	Prehnite	6-6½	Diopase	5	Serpentine	3
Citrine	7	Pyrite	6-6½	Glass	5	Chrysocolla	2-5½
Dumortierite	7	Rutile	6-6½	Hemimorphite	5	Ivory	2-4
Prasiolite	7	Strontium titanate	6-6½	Smithsonite	5	Amber	2-3
Rock Crystal	7	Amblygonite	6	Wardite	5	Meerschaum	2-2½
Smoky Quartz	7	Bytownite	6	Kyanite	4½-7	Alabaster	2-2½
Rose quartz	7	Sanidine	6	Apophyllite	4½-5	Ulexite	2
Tiger's eye	7	Thulite	6	Scheelite	4½-5	Vivianite	1½-3
Zircon	6½-7	Tugtupite	6	Zincite	4½-5	Stichtite	1½-2½
Agate	6½-7	Haematite	5½-6½	Colemanite	5	Sulphur	1½-2
Axinite	6½-7	Opal	5½-6½	Kurnakovite	4½?		
Chalcedony	6½-7	Rhodonite	5½-6½	Purpurite	5		
Chloro- melanite	6½-7	Tremolite	5½-6½	Variscite	4-5		

2.1 Table of Mohs' Hardnesses. (After Schumann 1977: 22).

**THE FORMATION OF MINERALS IN  
GENERAL**<sup>24</sup>

Most of the precious stones are minerals and have a specific crystal form and composition, which defines their physico-chemical qualities.

Gemstones had a role in the evolutionary course and cultural development of man; his relation to and his dependence on stones began very early. The stones, sensu lato (minerals-ores-rocks), and the geo-areas they compose played a fundamental role in "human evolution"; they are an indispensable part of the wider natural and cultural environment and are related directly to man.

<sup>24</sup> Source information for this section was given by S. Hiotis, director of I.G.M.E.

The rocks are for geologists the "earth's memory" since they record and imprint the history of our planet in a unique way.



The formation and structure of the minerals reflect the chemical and natural environment of their creation and, as a result, the conditions that existed on earth at that moment in that specific area. Rocks are composed of one or more minerals and usually have a varied mineralogical composition, whereas minerals usually have a specific (in range) composition.

The precious or semi-precious minerals are all elementary components of sometimes geologically complex areas of the earth's crust, found in either magmatic or sedimentary or metamorphic rocks. They were formed along with the other common rocks, but in smaller quantities, either in the magmatic differentiation in or around the magma chamber and the surrounding rocks, or in the sedimentation process along with the other layers, or in the transformation of either magmatic or sedimentary rocks into metamorphic ones when buried at great depth at higher pressure and temperature.

The formation of well-shaped crystals occurred in specific environmental conditions either at depth or close to the earth's surface. They appear in small groups; crystals shine and attract attention. What exposes them on the surface is erosion which uncovers them, or tectonic events, usually associated with earthquakes in the sense of plate tectonics.

Many kinds of gemstones have a common chemical composition and are constituted specifically from silicon dioxide ( $\text{SiO}_2$ ), but they differ in colour or in crystal quality. The silicon dioxide is one of the most widespread components of the earth's crust. The crystalline form of  $\text{SiO}_2$  is quartz and its variations are rock crystal (transparent), amethyst, citrine, pink quartz. Chalcedony is a micro-crystalline form of quartz, while opal is an amorphous (non-crystalline) hydrate silicon dioxide ( $\text{SiO}_2 \cdot n\text{H}_2\text{O}$ ).

At the other end of the spectrum is volcanic glass, typically obsidian. It is an effusive rock, which, because of cooling rapidly became solid as a non-crystalline and isotropic material. Despite the common chemical composition, the above forms of  $\text{SiO}_2$  differ in hardness as a result of differences in the degree of crystallization varying from crystalline (quartz) to micro crystalline (chalcedony) and non crystalline (opal). So according to the Mohs<sup>25</sup> scale (table 2.1) the hardness of quartz is 7, chalcedony approximately 6.5 and opal 5.5 to 6.5. Their difference in colour is due to the different trace elements included. Quartz, as well as opal, are commonly related to magmatic rocks. Opal is particularly related to effusive rocks and is deposited from siliceous solutions that circulate during or after the volcanicity. Quartz can also be found in hydrothermal veins as well as in sedimentary and metamorphic rocks.

A sedimentary siliceous rock, which is widely used as a semi-precious stone, is the radiolarian chert or radiolarites. It is an organogenic (biogenic) marine sediment, since it is formed from the siliceous shells of radiolaria deposited in marine pelagic or lacustrine environments. In Greece it is abundant in the geological zone of Pindos. Radiolarites can be red, black or green in colour, due to admixture of iron oxides.

## **GEMSTONES IN GREECE AS RELATED TO THE GEOLOGICAL SETTING**

The chances of finding gemstones in Greece is strengthened by two factors: the favourable geological setting and the geological knowledge gained from the traditional exploitation of ores since antiquity.

The mining area of Lavrion is a natural museum as, of the approximately 3000 known minerals in the world, more than 265 are to be found in the area, including primary, as well as secondary minerals<sup>26</sup>. The latter were formed from the waste left over from the metallurgical production of lead, i.e. the slags dumped in the sea. Primary minerals include: haematite, magnetite, azurite-malachite in coexistence, red and yellow sandarache, fluorine, chrysokolla, cinnabar, magnetite.

For a better appreciation of Greece's potential, the known sites of gemstones are examined with emphasis on their geological setting. In this way it is shown that the known occurrences are not accidental and sporadic. On the contrary, they have been formed as a result of specific geological conditions which justify the expectation of additional resources to be found. Thus, instead of simply listing the places of origin of gemstones, the geological conditions for their formation are reviewed at the same time.

### **SILICEOUS GEMSTONES IN VOLCANIC ROCKS AND GRANITES**

Widespread calc-alkaline volcanic activity along the volcanic arc of the S Aegean is associated with the subduction of the African plate under the micro-plate of the Aegean. It is associated with volcanoes and the outcrops on Nisyros, Yiali, Kos, Patmos, Santorini, Melos, Antiparos, Krommionia, Methana, Lihades, Kamena Vourla, Psathoura and on those that are at the NW end of the volcanic arc, in the Almopia area, as well as with the volcanoes of Koula and Aidini in W Turkey (fig. 2.1).

The age of these volcanoes is Pleiocene-Quaternary (5-0 m.y.), they gradually become older as we move from the S Aegean to the N of Greece. This has created intense magmatism in the Rodopi massif and it has generally been manifested in the form of volcanic or plutonic rocks in the wider area of the N Aegean (fig. 2.2).

The volcanic activity in the Rodopi massif took place during the Tertiary period and is of calc-alkaline character. Volcanic rocks are present throughout the Rodopi massif but the most important are in the areas of Sappes, Aisymi, Kirki and Pherres and in the area S of Xanthi, close to the Greek-Bulgarian border (area Kaloticho-Dipotamo).

The geological conditions in Greece are propitious for the formation of semi precious forms of  $\text{SiO}_2$ , due to the volcanicity which is still active today (fig. 2.1) and the magmatic activity of the last 50 million years. From this point of view the most favoured areas in Greece are the massif of Rodopi (fig. 2.2), the volcanic rocks in the Aegean islands and particularly the new volcanic arc of the S

<sup>25</sup> A model scale of minerals' hardness.

<sup>26</sup> Katerinopoulos and Zisimopoulou 1994: 3.



Aegean<sup>27</sup>. The existence of amethyst near Drama and Souphli is due to this favourable geological context, particularly Souphli, which is rich in amethyst. NE of Souphli, at Dadia, the circulation of hydrothermal solutions along tectonic faults in volcanic rocks (rhyolites and dacites) created the richest accumulations of amethyst in Greece. Azure chalcedony is also found near Souphli as well as inside a neighbouring petrified forest (today in the process of excavation) associated with intense opalisation. The petrified forest at Dadia-Evros<sup>28</sup> is the result of the same volcanic activity which took place in the area about 25 million years; these circumstances also predominated in the wide area of the Aegean as well as on Lemnos and Lesvos. The petrification was caused by the replacement of the organic material by solutions rich in silicon dioxide. The following occurrences of gemstones are also connected with the magmatic activity:

Granate, amethyst and green quartz (prase) at Seriphos; chalcedony on Samos and Lesvos associated with volcanic rocks; amethyst, sard and chalcedony on Kimolos. Kimolos and Polyaegos in the central part of the volcanic arc of the southern Aegean are composed, like neighbouring Melos, mainly of volcanic rocks. The occurrence of chalcedony<sup>29</sup> on Kimolos and Polyaegos (areas B and C on fig. 2.3) as well as amethyst on Kimolos (area A on fig. 2.3), provide a typical example of the association of volcanicity and the formation of semi-precious siliceous stones. The hydrothermal alteration (rock alteration due to the circulation, mainly along faults, of hot natural solutions) is intensive and extensive on both islands and has caused the formation of bentonite and kaolinite. In addition, silicification is widespread and apparently produced amethyst, especially at the crossing of faults. Based on the chemical composition of mineral waters (geochemical thermometers), geothermal fields are currently expected on Kimolos at temperatures exceeding 100°C.

Thin sections of the Kimolos and Dadia chalcedony (Kimolos (fig. 2.4), white chalcedony; Kimolos (fig. 2.5, 2.6), red chalcedony; Dadia (fig. 2.7, 2.8), light blue chalcedony transformed into quartz) were studied under the microscope in polarised light on the photographed samples<sup>30</sup> (fig. 2.4-2.8).

## TALC AND STEATITE IN ULTRA BASIC ROCKS

The presence of the ophiolite complexes in the Greek area (fig. 2.9) shows the greatest development along the central transitional zones of Greece. Their formation was connected with the presence of Mesozoic oceans, E (Axios) and W (Pindos-sub pelagonic) of the Pelagonian zone. In the later phases which followed the oceanic enlargement, ophiolitic sections "migrated" and today they project onto other zones (Pindos, Pelagonic). Apart from the large Mesozoic ophiolitic complexes (Pindos, Vourino, Orthris, W

Halkidiki and Euboia), there are small outcrops of older Paleozoic ophiolitic rocks.

Talc is abundant in Greece and is associated with the ophiolites (fig. 2.9). The deposits of talc can be found in ophiolitic bodies in those areas which are more exposed to intensive tectonics. Some deposits without economic interest at present can be found in NW Halkidiki close to Thessaloniki, in the N Servo-Macedonian massif close to Larissa, in Crete and Tinos. The largest deposits are on Tinos. Deposits of steatite in dolomitic marbles have also been found on Tinos, as well as at Sarakina Ierapetra in Crete.

## RADIOLARIAN CHERT IN SEDIMENTARY ROCKS

In Greece radiolarian chert is abundant and found mostly in the so-called Pindos zone which constitutes the continental spine of Greece and extends into the Peloponnese and Crete. It has various colours, such as red (jasper), green or black.

## EMERY AND CORUNDUM IN METAMORPHIC ROCKS

Emery is found in metamorphic rocks and is naturally formed from bauxite buried at great depths and temperatures which is then exposed at the surface due to subsequent erosion. Since bauxite is mainly composed of hydrous  $\text{Al}_2\text{O}_3$  and iron oxides, emery consists respectively of corundum and magnetite. Emery could be used for the abrasion of the various forms of  $\text{SiO}_2$ , which is abundant in Naxos and Samos.

Corundum is also formed under similar geological conditions in contact and regionally metamorphosed rocks, and has been found near Xanthi in Thrace within marbles intercalated with gneiss. The corundum crystals are red and irregular in shape, sometimes 2cm long, crossed by numerous fissures, and therefore non transparent and of limited economic interest under present conditions. Only diamond is harder than corundum, which, along with emery, is a convenient mineral for the shaping of siliceous minerals.

## BASIC MINERALS AND THEIR VARIETIES<sup>31</sup>

### QUARTZ

$\text{SiO}_2$ , hardness 7, silicon dioxide

It is a very common mineral in sedimentary, metamorphic, and igneous rocks.

Colour: (varies according to its elements) white, darkish, chestnut, violet, greenish, yellow, pink, red, black.

It is known as an extremely widespread mineral. In Greece it is present in nearly all the rock types. Collectable samples of good quality for engraving have been observed in E Crete (transparent white quartz in the veins of schist), at Drama, Xanthi (amethyst, kapnias, morio), at Samothrace, Kimolos (amethyst); Very small crystals were also observed in mines at Olympiada at Halkidiki.

<sup>31</sup> Source information for this section was given by S. Hiotis, director of I.G.M.E.

<sup>27</sup> Katsikatos 1992: 108.

<sup>28</sup> Velitzelos 2000.

<sup>29</sup> Information and samples given by the geologist G. Vougioukalakis of I.G.M.E.

<sup>30</sup> The experiment and photographing of the samples, for the purpose of the study, took place at I.G.M.E (November 2000).



Uses: the peculiar transparent crystals are an excellent mineral to collect and are used as gems and ornamental stone.

Gem varieties of quartz: amethyst, citrine, rose quartz, green quartz, smoky quartz, rock crystal.

#### AMETHYST

Colour: light to deep purple due to the small amounts of Fe and radiation. If heated to 300°C it becomes white, and at 500°C it becomes yellow (citrine).

In Greece it is found on Kimolos island;<sup>32</sup> small, transparent crystals were also found at Drama (N of Nevrokopi). What is impressive is the presence in the area of amethyst with a base white or black quartz, topped by amethyst crystals.

#### SMOKY QUARTZ

Colour: light to dark chestnut, dark chestnut.

In Greece it is found at Drama, N of Nevrokopi, usually in the form of small crystals of smoky quartz, or as a "sceptre" (base of smoky quartz and head of amethyst). It is also found in Xanthi, E of the Kimmerion.

A variety of smoky quartz has chestnut-black to black colour. In Greece it is found with smoky quartz as small crystals in the areas of Drama (N of Nevrokopi) and Xanthi (E of the Kimmerion).

#### CHALCEDONY

SiO<sub>2</sub>, hardness 6½ - 7

This is the name given to the microcrystalline varieties of quartz usually in concretionary deposits (partially of organic origin in the case of jasper).

Colour: darkish, dark blue, darkish green, darkish white and other coloured compositions according to the admixture that it has (see varieties).

Transparency: usually translucent, transparent is rarer (in thin zones); it is transparent even when it is of a dark colour, vitreous, silky.

In Greece it is found on many sites, mostly in volcanic but also in sedimentary rocks (as nodules) and in zones of ore oxidation.

The varieties of chalcedony mentioned below are based exclusively on the colour and the shape they present and their names are mostly commercial

#### AGATE

Usually appears with concentric parallel zones of different shades and texture. In Greece the occurrences of agate are not significant. Sporadic small nodules mostly in sedimentary rocks or thin bands in silicified magmatic rocks and minerals of no particular interest. The presence of chalcedony (of a dark blue colour) occurs in the area of Souphli where it also appears in small, rare concentrations.

#### ONYX

The form and colour present parallel alternating zones of white and black (onyx) or chestnut-red and red (sardonyx). Onyx is present in very small amounts on the island of Kimolos.

#### CARNELIAN

Compact with uniform division in red, red-yellow, orange-yellow, owing to the presence of haematite or limonite.

#### SARD

Compact with uniform division of colour in chestnut, chestnut-red, orange-chestnut. When it presents zones with alternating white-red it is called sardonyx. Small amounts of sard are found on Kimolos.

#### HELIOTROPE

Dark green with red or chestnut-red spots which are like drops of blood (that is why the commercial name is "bloodstone"). The red spots are due to the iron oxides.

#### JASPER

Compact variety of chalcedony which often includes fine grains of quartz, opal. It presents a wide colour range (red, chestnut, yellow, green to black) because of the presence of mixed chlorite, haematite, organic substances etc. In Greece it exists in many places, usually in sediments.

#### FLINT OR CHERT

In Greece it is usually present in the form of spherical nodules in the limestones, as in Ioannina.

#### OPAL

SiO<sub>2</sub>.n H<sub>2</sub>O, hardness 5.5-6.6. Non-crystalline hydrous silicon dioxide

Opal has the same chemical composition as quartz but contains from 1-2% water and is not crystallized.

Colour: yellow, white, red, chestnut, green, blue, black.

In Greece the presence of common opal is observed in many areas: Melos, Samos, in W Vermio. At Lesvos big tree trunks in the petrified forest turned into opal.

Varieties: precious or noble opal, fire opal, common opal.

The above information on precious stones in Greece, shows that important mineral sources can be found in Greece (fig. 2.10) and that they can provide the gemstones that are present in the catalogue of this study, (except for lapis-lazuli and jadeite which must be considered as imported) and a strong argument arises here for the use of local sources. In the future trace element analysis will be the aim of the researcher in order to identify the relation of material used for gemstone objects included in the present study and the available sources in Greece.

Mineral resources and the distribution of gemstones in Greece are as follows.

<sup>32</sup> Information given by the geologist G. Vougioukalakis, of I.G.M.E; the author is very grateful to G. Vougiouklakis for his permission to mention it here prior to its formal publication.

## **DISTRIBUTION OF GEMSTONES AND MINERAL RESOURCES IN GREECE**

1. Amethyst: Kimolos, Sappes (Rodopi prefecture), Drama (fig. 2.11), Souphli (Evros prefecture), Dadia, Seriphos.
2. Azurite: Lavrion (fig. 2.12), Othris, Ermioni, Kirki, Xanthi, Halkidiki.
3. Chalcedony: Samos, Lesvos.
4. Emery: Naxos, Samos.
5. Galena: Halkidiki (Kassandra mines), Lavrion.
6. Garnet: Seriphos. (fig. 2.13)
7. Haematite: Peloponnese, Kythnos, Lavrion, Seriphos, Thasos, Xanthi.
8. Jadeite: Syros.
9. Kyanite: Naxos, Folegandros.
10. Magnetite: (ηρακλεία λίθος):Lavrion, Seriphos.
11. Malachite: Lavrion (fig. 2.14), Ermioni, Halkidiki, Xanthi, Seriphos, Epidaurus.
12. Marble: Hymettus, Paros, Larissa, Naxos, Tinos, Mani, Thasos, Penteli, Chios, Agrileza, Karistos, Skiros, Krokeai, Seriphos.
13. Obsidian: Melos, Kimolos, Yiali.
14. Onyx: (striped chalcedony) In Greece it has been found, over the years, in small amounts.
15. Opal: Sousaki, Thera.
16. Ophiolite: Othris and Oetea.
17. Prase (green quartz): Seriphos (fig. 2.15).
18. Phthanite: Epirus.
19. Quartz: Halkidiki, Crete.
20. Red sandarak: Lavrion.
21. Sapphire: Naxos.
22. Serpentine: Kozani, Larissa, Veroia, Edessa, Thessaloniki, Vavdos (Halkidiki).
23. Steatite: Lasithi plateau on Crete, Euboia, Macedonia, Peloponnese, Tinos.
24. Tourmaline: Syros, Cyclades, Halkidiki, Xanthi.
25. Zircon: Syros.



## **CHAPTER THREE**

### **ANALYSING THE STATISTICS**

#### **INTRODUCTION**

The statistical results in this research are presented in order to analyse the presence of gemstones in the areas examined both as raw material and objects made of raw material. Which were the gemstones used in general? Which were most frequently used? What types of objects were made? Which objects were made of which materials? What objects were made most frequently of the same material? Which gemstones are represented in each area? Which are not found in each area? What is the relation of each region to each object? Can we tell if the decision to use the specific materials found in graves and settlements was made because of the proximity of their source or because of the suitability (quality) of the gemstones for the object to be made? Or can we detect other reasons for the preference for using specific materials, such as a display of wealth, status, hierarchy, power, and beliefs related to everyday life or death. These are the questions which we will consider in this chapter.

The availability of supply and methods of manufacture can give clues to the economic wealth of an area. This information could contribute to research that has to do with other aspects of Bronze Age life, such as the relations with other geographical areas, commerce, the ability of palaces to have craftsmen to work the raw material and the economic power of an area to acquire the raw material or the stone objects.

The tables are organised in such a way so as to present an overall picture of the distribution of gemstones, informing us which was the easiest way to acquire those that appear to be the most frequently used in the area in terms of the proximity of the material as well as the prosperity and the commercial contacts of each region, or other reasons related to the culture of the region. Table 3.1 presents the quantities of materials used for each kind of object. Table 3.2 presents the quantities of combinations of object types and raw materials. In this way we can see the distribution of the specific material according to the object. Thus useful conclusions can be drawn about the frequent use of the specific object and of what material it was made. Table 3.3 presents the percentage of gemstones used in the sites examined here. In this way we can see the preference for the specific object in general. Therefore useful conclusions can be drawn about the frequency of its use in the graves and settlements. In this way we can see whether there was a preference for a specific gemstone in relation to the others, probably related to the potential for acquiring it in Greece or importing it from abroad and its quality in relation to working it. Table 3.4 presents the percentage of objects made of gemstones in these areas.

The statistical results of each site are presented in two ways:  
a) each site is analysed in relation to the objects found there; here is provided detailed information about the use of gemstones on different sites in the same geographical area.  
b) each site is analysed in relation to the gemstones found there. These results give us information about the material

found in the same region but show similarities or differences in the stone finds between tombs and settlements.

Most of the information comes from tombs. These finds, since they are related to death, obviously do not represent the image of everyday life. In their daily life it is possible that people did not use all of the items that were found in tombs and it is probable that they were placed in tombs especially for that occasion. The reaction towards death can be an act of magnification of the "moment", carefully organised by each individual for his future death or by those that take part in his interment; beliefs that do not necessarily prevail in everyday life<sup>33</sup>. The items found in the tombs can be part of a ritual that everybody followed or were the will of the individual person who died or the desire of the relatives of the deceased. Death can also be a moment when social factors are expressed, such as the position of the person in the social hierarchy, his profession, his position in the family, his age and his sex.

In the case where the stone object represents something not in common use as, for example, something exotic that originated abroad, the percentage of the material or the object can be low in the statistical results, although it could be an object highly desired by many which is not found so often because of the difficulty of acquiring it; a case where a widely accepted and wanted material or stone object is not generally used.

There is a strong possibility that there were more items in the first place which were removed afterwards in the reopening of tombs, in reuse of tombs, for religious purposes, or were lost and not found by the excavators because of destruction or robbery.

Analysing the information given by the excavators, stone finds that were found in their original position are taken into consideration for possible conclusions about social life, but even stone finds that are recorded as scattered remains in tombs or in settlements are also counted, since they can add information about how easy it was to acquire raw material or to import it, on the prosperity of the site in relation to others, as well as on their use as commercial centres. The statistical analysis may show us how often was used material not accessible but imported (lapis lazuli, jadeite).

The information given here cannot represent the exact picture of the use of gemstones in the sites examined. A number of tombs held disturbed burials and it is no longer possible to draw conclusions about the use of gemstones in funeral practices, since we are not sure about the position that each of the offerings originally had and thus to their relation to their position in the tomb, or to the body of the deceased and the probable beliefs about the gemstones. It is important to note that disturbed tombs sometimes do not contain a single gemstone, while other grave goods were found.

Since the numbers and the percentages provided by the statistical analysis make sense only when placing them in their separate context, that is to say each site with the peculiarities that the area presents and the differences from or similarities with others, information about each area<sup>34</sup>

<sup>33</sup> Mee and Cavanagh 1998: 109, 110.

<sup>34</sup> All the information related to the tombs and their finds used in this chapter is based in the work and published material of the excavators.



examined is also presented, otherwise it is impossible to come to an understanding of where, how and why the use of gemstones takes place.

When dealing with archaeological finds, if we want to see what the points were that the Mycenaean centres had in common and what their differences were during this period, then we must not look at what was signified only by the type of tomb but also more practical factors<sup>35</sup>, such as the aim in using specific offerings, the type of gemstone used for offerings and the similarities or differences between those in each area. What the results of the statistical analysis can provide is information about the ability of each region to acquire raw material and have the craftsmen with the time to work it. In this context the stone finds in the examined areas, from tombs and settlements, become useful. There is no reason to characterise them definitely as jewellery and confine the research into their presence to a restricted area of thought. The information from the presence of a stone object can even be seen simply as the raw material from which it was made and not necessarily as the final object. This is the reason why in the statistical results of the present study, even fragments are included.

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<sup>35</sup> Boyd 1999: 90, 91.

## ANALYSING THE STATISTICS

Qty	Object	Stone
1	Bead	Alabaster
1	Bead	Jasper
1	Bead	Meteorite
1	Bead	Rosso antico
2	Beads	Chalcedony
2	Beads	Haematite
2	Beads	Lapis lazuli
3	Beads	Obsidian
3	Beads	Quartz
3	Beads	Serpentine
4	Beads	Breccia
5	Beads	Sardonyx
7	Beads	Flint
8	Beads	Malachite
10	Beads	Onyx
12	Beads	Fluorite
15	Beads	Various
31	Beads	Agate
39	Beads	Crystal
48	Beads	Steatite
56	Beads	Rock crystal
74	Beads	Non identified
372	Beads	Carnelian
457	Beads	Amethyst
612	Beads	Sard
1	Bead seal	Lapis lazuli
2	Bead seals	Amethyst
1	Button	Fluorite
1	Button	Lime marl
1	Button	Rock crystal
1	Button	Serpentine
2	Buttons	Breccia
2	Buttons	Schist
6	Buttons	Sard
142	Buttons	Non identified
898	Buttons	Steatite
1	Chunk	Quartz
1	Cylinder	Agate
2	Cylinders	Rock crystal
1	Disc	Quartz
2	Discs	Rock crystal
4	Discs	Steatite

Qty	Object	Stone
7	Discs	Non identified
1	Fragment	Agate
1	Fragment	Crystal
1	Fragment	Lime marl
1	Fragment	Non identified
1	Fragment	Steatite
1	Fragment	Talc
2	Fragments	Carnelian
2	Fragments	Haematite
2	Fragments	Obsidian
11	Fragments	Rock crystal
21	Fragments	Flint
30	Fragments	Quartz
1	Group of beads	Group of rock crystal
1	Group of beads	Group of sard
1	Group of fragments	Group of Schist
3	Groups of fragments	Group of quartz
1	Group of plaques	Group of rock crystal
2	Inlays	Agate
30	Inlays	Rock crystal
1	Jewel	Rock crystal
8	Jewels	Fluorite
2	Necklaces	Group of amethyst and sard
1	Non identified	Alabaster
1	Non identified	Lime marl
1	Non identified	Malachite
2	Non identified	Carnelian
2	Non identified	Steatite
6	Non identified	Rock crystal
9	Non identified	Non identified
1	Pebble	Limonite
1	Pebble	Quartz
2	Pebbles	Non identified
1	Pendant	Carnelian
1	Pendant	Lapis lazuli
1	Pendant	Non identified
1	Pendant	Rock crystal
1	Pendant	Sardonyx
2	Pendants	Agate
2	Pendants	Steatite
2	Plaques	Schist
1	Pommel	Agate

Qty	Object	Stone
1	Pommel	Marble
1	Pommel	Rock crystal
3	Pommels	Alabaster
2	Pounders	Non identified
2	Prismas	Rock crystal
1	Ring	Rock crystal
1	Scarab	Amethyst
1	Scarab	Lapis lazuli
4	Scarabs	Steatite
1	Seal cylinder	Carnelian
2	Seal cylinders	Haematite
1	Sealstone	Crystal
1	Sealstone	Lime marl
1	Sealstone	Meteorite
1	Sealstone	Quartz
1	Sealstone	Serpentine
2	Sealstones	Amazonite
3	Sealstones	Jadeite
3	Sealstones	Lapis lacedaemonius
3	Sealstones	Lapis lazuli
6	Sealstones	Amethyst
6	Sealstones	Haematite
6	Sealstones	Jasper
7	Sealstones	Chalcedony
7	Sealstones	Non identified
9	Sealstones	Onyx
9	Sealstones	Rock crystal
10	Sealstones	Sardonyx
17	Sealstones	Carnelian
18	Sealstones	Steatite
19	Sealstones	Sard
53	Sealstones	Agate
1	Slice	Lapis lazuli
1	Spindle whorl	Limestone
1	Spindle whorl	Schist
2	Spindle whorls	Meteorite
39	Spindle whorls	Non identified
198	Spindle whorls	Steatite
1	Weight	Agate
3	Weights	Haematite

Table 3.1 Presentation of the occurrence of each material for each kind of object.



Qty	Object	Stone	Qty	Object	Stone	Qty	Object	Stone
898	Buttons	Steatite	3	Beads	Obsidian	1	Cylinder	Agate
612	Beads	Sard	3	Beads	Quartz	1	Disc	Quartz
457	Beads	Amethyst	3	Beads	Serpentine	1	Fragment	Agate
372	Beads	Carnelian	3	Groups of fragments	Group of quartz	1	Fragment	Crystal
198	Spindle whorls	Steatite	3	Pommels	Alabaster	1	Fragment	Lime marl
142	Buttons	Non identified	3	Sealstones	Jadeite	1	Fragment	Non identified
74	Beads	Non identified	3	Sealstones	Lapis lazuli	1	Fragment	Steatite
56	Beads	Rock crystal	3	Sealstones	Lacedaemonius	1	Fragment	Talc
53	Sealstones	Agate	3	Weights	Haematite	1	Group of beads	Group of rock crystal
48	Beads	Steatite	2	Beads	Chalcedony	1	Group of beads	Group of sard
39	Beads	Crystal	2	Beads	Haematite	1	Group of fragments	Group of Schist
39	Spindle whorls	Non identified	2	Beads	Lapis lazuli	1	Group of plaques	Group of rock crystal
31	Beads	Agate	2	Bead seals	Amethyst	1	Jewel	Rock crystal
30	Fragments	Quartz	2	Buttons	Breccia	1	Non identified	Alabaster
30	Inlays	Rock crystal	2	Buttons	Schist	1	Non identified	Carnelian
21	Fragments	Flint	2	Cylinders	Rock crystal	1	Non identified	Lime marl
19	Sealstones	Sard	2	Discs	Rock crystal	1	Non identified	Malachite
18	Sealstones	Steatite	2	Fragments	Carnelian	1	Pebble	Limonite
18	Sealstones	Carnelian	2	Fragments	Haematite	1	Pebble	Quartz
15	Beads	Various	2	Fragments	Obsidian	1	Pendant	Carnelian
12	Beads	Fluorite	2	Inlays	Agate	1	Pendant	Lapis lazuli
11	Fragments	Rock crystal	2	Necklaces	Group of amethyst and sard	1	Pendant	Non identified
10	Beads	Onyx	2	Non identified	Steatite	1	Pendant	Rock crystal
10	Sealstones	Sardonyx	2	Pebbles	Non identified	1	Pendant	Sardonyx
9	Non identified	Non identified	2	Pendants	Agate	1	Pommel	Agate
9	Sealstones	Onyx	2	Pendants	Steatite	1	Pommel	Marble
9	Sealstones	Rock crystal	2	Plaques	Schist	1	Pommel	Rock crystal
8	Beads	Malachite	2	Pounders	Non identified	1	Ring	Rock crystal
8	Jewels	Fluorite	2	Prismas	Rock crystal	1	Scarab	Amethyst
7	Beads	Flint	2	Seal cylinders	Haematite	1	Scarab	Lapis lazuli
7	Discs	Non identified	2	Sealstones	Amazonite	1	Seal cylinder	Carnelian
7	Sealstones	Chalcedony	2	Spindle whorls	Meteorite	1	Sealstone	Crystal
7	Sealstones	Non identified	1	Bead	Alabaster	1	Sealstone	Lime marl
6	Buttons	Sard	1	Bead	Jasper	1	Sealstone	Meteorite
6	Non identified	Rock crystal	1	Bead	Meteorite	1	Sealstone	Quartz
6	Sealstones	Amethyst	1	Bead	Rosso antico	1	Sealstone	Serpentine
6	Sealstones	Haematite	1	Bead seal	Lapis lazuli	1	Slice	Lapis lazuli
6	Sealstones	Jasper	1	Button	Fluorite	1	Spindle whorl	Limestone
5	Beads	Sardonyx	1	Button	Lime marl	1	Spindle whorl	Schist
4	Beads	Breccia	1	Button	Rock crystal	1	Weight	Agate
4	Discs	Steatite	1	Button	Serpentine			
4	Scarabs	Steatite	1	Chunk	Quartz			

Table 3.2 Presentation of the quantities of gemstones as combination of object type and material.

As seen in tables 3.1 and 3.2 beads were the most used objects. Steatite was used mostly for buttons and spindle whorls. Sard, amethyst and carnelian, gemstones high in the Mohs' scale, where selected for the majority of beads, followed by considerably fewer beads made of rock crystal. Agate was preferred for sealstones; steatite, crystal and agate beads follow, together with sard, steatite and carnelian sealstones. Among the least used were haematite, presented as sealstones (six), weights (three), beads (two), fragments (two) and cylinders (two); serpentine was used for beads (three), button (one) and sealstone (one). Among the objects least used were pommels, made of alabaster (three), agate (one), marble (one) and rock crystal (one); scarabs made of steatite (four), amethyst (one) and lapis lazuli (one).



Qty	Stone	%
1175	Steatite	34.02%
637	Sard	18.44%
466	Amethyst	13.49%
395	Carnelian	11.44%
284	Non identified	8.22%
123	Rock crystal	3.56%
92	Agate	2.66%
41	Crystal	1.19%
37	Quartz	1.07%
28	Flint	0.81%
21	Fluorite	0.61%
19	Onyx	0.55%
16	Sardonyx	0.46%
15	Haematite	0.43%
15	Various	0.43%
9	Chalcedony	0.26%
9	Lapis lazuli	0.26%
9	Malachite	0.26%
7	Jasper	0.20%
6	Breccia	0.17%
5	Alabaster	0.14%
5	Obsidian	0.14%
5	Schist	0.14%
5	Serpentine	0.14%
4	Lime marl	0.12%
4	Meteorite	0.12%
3	Group of quartz	0.09%
3	Jadeite	0.09%
3	Lapis lacedaemonius	0.09%
2	Amazonite	0.06%
2	Group of amethyst and sard	0.06%
2	Group of rock crystal	0.06%
1	Group of sard	0.03%
1	Group of Schist	0.03%
1	Limestone	0.03%
1	Limonite	0.03%
1	Marble	0.03%
1	Rosso antico	0.03%
1	Talc	0.03%
3454	SUM	100,00%

Table 3.3 Percentage of material occurrence.

Qty	Object	%
1769	Beads	51.22%
1054	Buttons	30.52%
241	Spindle whorls	6.98%
184	Sealstones	5.30%
74	Fragments	2.14%
32	Inlays	0.93%
21	Non identified	0.64%
14	Discs	0.41%
9	Jewels	0.26%
9	Pendants	0.26%
6	Pommels	0.17%
6	Scarabs	0.17%
4	Groups of fragments	0.12%
4	Pebbles	0.12%
4	Weights	0.12%
3	Bead seals	0.09%
3	Cylinders	0.09%
3	Seal cylinders	0.09%
2	Groups of beads	0.06%
2	Necklaces	0.06%
2	Plaques	0.06%
2	Pounders	0.06%
2	Prismas	0.06%
1	Chunk	0.03%
1	Group of plaques	0.03%
1	Ring	0.03%
1	Slice	0.03%
3454	SUM	100,00%

Table 3.4 Percentage of object type occurrence.

As seen in table 3.3 except for steatite which is a soft stone the materials that were used are mostly high in the Mohs' scale. Table 3.4 reveals that half of the stone finds are beads and added with buttons are 80% of the total.

## **ARGOLID**

### **MYCENAE<sup>36</sup>**

#### **THE CITADEL<sup>37</sup> AND PANAGIA HOUSES**

##### **Catalogue nos: 1-97**

Qty	Objects
44	Buttons
39	Spindle whorls
33	Beads
8	Sealstones
2	Discs
2	Pounders
1	Fragment
1	Non identified
1	Pendant
1	Weight
Qty	Gemstones
85	Steatite
17	Carnelian
14	Non identified
4	Serpentine
3	Agate
2	Crystal
2	Lapis lazuli
1	Chalcedony
1	Haematite
1	Onyx
1	Rock crystal
1	Rosso antico

**Location:** The Panagia houses

**Date:** LH IIIB

**Reference:** Shear 1987.

**Finds:** Room 23: two beads (1-2), Rooms 16 and 17: sealstone (3), Room 8: sealstone (4), Room 11: rock crystal sealstone (5), Rooms 5, 8, 10,11,15-18, 21, 23, 25, 26,28, 29, 33, 34, 36, NE excavation area, Area W of Houses, E of Houses, Drain deposit N of Room 7, E of Houses, NW area, Child's grave House I, Grave courtyard House I: 37 steatite buttons: (6-42).

**Location:** Lion Gate

**Date:** LH III

**Reference:** Wace 1921-1923: 26, 27, 31, 36

**Finds:** Two steatite spindle whorls (43-44), an agate bead (45), a stone disc (46), three steatite spindle whorls (47-49).

**Location:** The Granary

**Date:** LH IIIB

**Reference:** Wace 1921-1923: 47

**Finds:** Crystal bead (50), four spindle whorls (51-52), onyx bead (53), crystal fragment (54), lapis lazuli bead (55), steatite pendant (56), fourteen steatite spindle whorls (57-58), stone disc (59).

**Location:** The Palace shrine and adjoining chambers

**Date:** LH IIIB

**Reference:** Wace 1921-23: 223-224

**Finds:** Carnelian bead (60).

**Location:** The Cyclopean Terrace Building (NW of the Lion Gate).

**Date:** LH IIIB

**Reference:** Wace 1954: 284

**Finds:** Three steatite spindle whorls (61).

**Location:** The Perseia Area

**Date:** LH IIIB

**Reference:** Taylour 1955: 206, 231-234, 236,237

**Finds:** Chalcedony sealstone (62), five steatite buttons (63-64, 67-69), three stone beads (65-66, 70), eight carnelian beads (71), three steatite buttons (72).

<sup>36</sup> The examined areas are presented with the relevant record numbers in parentheses, in order to give the possibility to refer to the catalogue of finds with the additional information.

<sup>37</sup> Recent work on LH citadels. Iakovidis 1983.

**Location:** Shrine of the Palace

**Date:** LH IIIB

**Reference:** Porada 1957: 197-199

**Finds:** Pounder (73), steatite button (74).

**Location:** Shrine of the Palace

**Date:** LH IIIB

**References:** Porada 1957: 197

**Finds:** Five carnelian beads (75), stone bead (76), three carnelian beads (77-78).

**Location:** Area N of the S House (Causeway Deposit, Destruction Debris, LH IIIC levels)

**Date:** LH-LH IIIC

**Reference:** Wardle 1973: 342

**Finds:** Haematite weight (79), two steatite spindle whorls (80-81), stone bead (82), two steatite spindle whorls (83-84), steatite button (85), pounder (86), stone bead (87), steatite spindle whorl (88), steatite (89).

**Location:** The House with the Idols

**Date:** LH IIIB2

**Reference:** Tamvaki 1974: 264

**Finds:** Lapis lazuli sealstone (90).

**Location:** The House with the Idols

**Date:** LH IIIB2

**Reference:** Tamvaki 1974: 259-294

**Finds:** Two agate sealstones (91-92), rosso antico bead (93), two serpentine beads (94-95), serpentine sealstone (96), serpentine bead (97).

THE TOMBS

I. SHAFT GRAVES

**Grave Circle B<sup>38</sup> at Mycenae; (The Slopes Beyond the Citadel).**

**Catalogue nos: 98-149**

Qty	Objects
173	Beads
6	Non identified
4	Pommels
4	Spindle whorls
1	Fragment
1	Scarab
1	Sealstone
Qty	Gemstones
122	Sard
37	Rock crystal
14	Non identified
4	Alabaster
4	Amethyst
3	Meteorite
3	Obsidian
2	Steatite
1	Lapis lazuli

**Location:** Shaft Grave A

**Date:** LH

**Reference:** Mylonas 1972-73.

**Finds:** A rock crystal pommel (98).

**Location:** Shaft Grave Γ

**Date:** LH I

**Reference:** Mylonas 1972-73.

**Finds:** Three alabaster pommels (99-101), amethyst bead (102), stone bead (103), rock crystal beads (104-105).

**Location:** Shaft Grave I

**Date:** MH

**Reference:** Mylonas 1972-73.

**Finds:** Stone bead (106).

<sup>38</sup> Cavanagh and Mee 1998: 59 for dating of Grave Circle B; Mylonas 1973: 214-215 for dating of Shaft Built grave Pω.



**Location:** Shaft Grave M

**Date:** LH I

**Reference:** Mylonas 1972-73.

**Finds:** A sard bead (107), two rock crystal beads (108-109), meteorite bead (110), two sard beads (111-112).

**Location:** Shaft Grave N

**Date:** LH I

**Reference:** Mylonas 1972-73.

**Finds:** Alabaster object (113).

**Location:** Shaft Grave Ξ

**Date:** MH

**Reference:** Mylonas 1972-73.

**Finds:** Ten sard beads (114-118), eighteen rock crystal beads (119).

**Location:** Shaft Grave O

**Date:** LH I

**Reference:** Mylonas 1972-73

**Finds:** Rock crystal object (120), rock crystal pommel (121), rock crystal object (122), eleven sard beads (123), rock crystal beads (124), amethyst bead (125), two amethyst beads (126-127), rock crystal bead (128), rock crystal piece (129), 38 sard beads (130), rock crystal object (131), sard bead (132), two steatite spindle whorls (133-134) and two meteorite spindle whorls (136).

**Location:** Grave Pω (Built Grave), was constructed between the Tombs of Aegisthus and Clytaemnestra

**Date:** LH IIA

**Reference:** Mylonas 1972-73.

**Finds:** Lapis lazuli scarab (137), sard sealstone (138).

**Location:** Shaft Grave Y

**Date:** MH

**Reference:** Mylonas 1972-73.

**Finds:** Twenty sard beads (139), three rock crystal beads (140), three beads (141), four beads (142), thirty sard beads (143-144), four beads (145), obsidian bead (146), four rock crystal beads (147-148), bead (149).

II. THOLOS TOMBS  
**Tholos Tombs and The Prehistoric cemetery**  
**Catalogue nos: 150-170**

Qty	Objects
23	Beads
18	Spindle whorls
2	Pendants
1	Non identified
1	Sealstone
1	Slice
Qty	Gemstones
19	Steatite
14	Carnelian
6	Amethyst
5	Non identified
2	Lapis lazuli

**Location:** Cyclopean

**Date:** LH IIA

**Reference:** Wace 1921-23: 287- 291

**Finds:** Steatite spindle whorl (150), steatite sealstone (151).

**Location:** Epano Phournos Tomb

**Date:** LH IIA

**Reference:** Wace 1921-23: 294

**Finds:** Amethyst bead (152).

**Location:** Tomb of Aegisthus

**Date:** LH IIA

**Reference:** Wace 1921-23: 303-304

**Finds:** Pendant steatite (153), steatite spindle whorl(154), bead carnelian (155).

**Location:** Treasury of Atreus

**Date:** LH IIIA1/A2

**Reference:** Wace 1921-23: 355-357

**Finds:** Eight carnelian beads (156), steatite spindle whorl (157), marble snail (158), two carnelian beads (159), stone bead (160).

**Location:** Tomb of Clytemnestra

**Date:** LH IIIB1

**Reference:** Wace (1921-23): 363, 366, 372

**Finds:** Five amethyst beads (161), stone spindle whorl (162), two carnelian beads (163), lapis lazuli pendant (164).

**Location:** Tomb of the Genii

**Date:** LH IIB-III A1

**Reference:** Wace (1921-23): 382, 383, 385

**Finds:** Two stone beads (165), carnelian bead (166), steatite spindle whorls (167-169), slice of lapis lazuli (170).

### III. CHAMBER TOMBS

#### Chamber Tombs (Tsountas' excavations)

Catalogue nos: 171-369

Qty	Objects
512	Beads
364	Buttons
75	Sealstones
32	Inlays
9	Jewels
4	Discs
4	Fragments
2	Pendants
2	Pommels
1	Cylinder
1	Group of plaques
1	Ring
Qty	Gemstones
433	Sard
233	Steatite
142	Non identified
59	Amethyst
46	Rock crystal
37	Agate
21	Fluorite
10	Sardonyx
4	Chalcedony
4	Jasper
3	Haematite
3	Lapis lacedaemonius
2	Amazonite
2	Obsidian
2	Onyx
2	Quartz
1	Group of rock crystal
1	Marble
1	Meteorite
1	Talc

**Location:** Chamber tombs from Tsountas' excavations ( Asprohoma, Agriosykia, Kapsala, Panagia Hill Tombs 1880,1887-1889, 1892, 1893, 1895 Kalkani; 103 tombs as reported by Xenaki-Sakellariou)

**Date:** LH I -IIIC

**Reference:** Xenaki-Sakellariou 1985.



Tomb	Stone Finds
1	Steatite button (171)
2	Agate bead (172), sard bead (173), rock crystal bead (174), stone bead (175), rock crystal bead (176), agate bead (177), sardonyx pendant (178), jewel rock crystal (179), 250 sard beads (180), 36 steatite buttons (181-182)
7	Agate sealstone (183)
8	An agate sealstone (184), sardonyx sealstone (185), steatite sealstone (186), three sard beads (187)
9	Lapis lacedaemonius sealstone (188)
10	Sard sealstone (189), rock crystal sealstone (190), sardonyx sealstone (191), agate sealstone (192)
11	Agate sealstone (193), seventeen sard beads (194), eight fluorite beads (195- 197), three sard beads (198-199), two fluorite beads (200-201)
12	Two sard sealstones (202-203)
24	Sardonyx sealstone (204)
25	Rock crystal sealstone (205), chalcedony sealstone (206)
26	Sardonyx sealstone (207), agate sealstone (208), meteorite sealstone (209), two agate sealstones (210-211)
27	Two agate sealstones (212-213), sardonyx sealstone (214)
28	Chalcedony sealstone (215)
29	Agate sealstone (216), fifteen sard beads (217), fifteen amethyst beads (218), agate pommel (219),steatite button (220)
30	Sard bead (221)
42,43	Sardonyx sealstone (222), agate sealstone (223), quartz sealstone (224), jasper sealstone (225), agate sealstone (226)
44	Sard sealstone (227)
47	Agate sealstone (228), chalcedony sealstone (229), agate sealstone (230), hematite sealstone (231), 30 inlays rock crystal (232), rock crystal plaques (233)
48	Two agate sealstones (234-235)
52	Amethyst sealstone (236), fluorite bead (237), sardonyx bead (238), sard bead (239), forty eight sard beads (240-245), bead (246), sard bead (247), amethyst bead (248), jasper bead (249), seven sard beads (250-253), disc (254), eight fluoride jewels (255-256), haematite fragment (257), steatite sealstone (258), obsidian fragment (259), Talc fragment (260), eight buttons (261-265)
54	Two agate sealstones (266-267), sard sealstone (268)
56	Rock crystal sealstone (269), rock crystal cylinder (270)
55	Three beads (271), four sard beads (272), 34 steatite buttons (273), obsidian fragment (274)
56	Two steatite buttons (275)
57	Four buttons (276)

Tomb	Stone Finds
58	Jasper sealstone (277), sard sealstone (278), agate sealstone (279), sard sealstone (280), two amazonite sealstones (281-282), agate sealstones (283), two sard beads (284-285), agate beads (286), quartz disc (287), two agate inlays (288), steatite button (289)
60	27 stone buttons (290)
61	Agate sealstone (291)
68	Onyx sealstone (292), agate sealstone (293), rock crystal sealstone (294), lapis lacedaemonius sealstone (295), agate sealstone (296), four sard beads (297), two sard beads (298-299), twelve buttons (300)
70	Bead (301), button (302), bead (303), six buttons (304-305)
71	Fluorite button (306)
76	Five sard beads (307), agate bead (308), pendant (309), three buttons (310)
77	154 steatite buttons (311)
-	Button (312) <sup>39</sup>
78	Two agate sealstones (313-314)
79	Sealstone (315), agate sealstone (316), sard sealstone (317), amethyst bead (318), bead (319), two buttons (320)
81	Lapis lacedaemonius sealstone (321)
82	Button (322)
83	Agate sealstone (323), jasper sealstone (324)
84	Amethyst bead (325), bead (326), six buttons (327)
85	Sealstone (328)
86	Two sard sealstones (329-330)
88	Agate sealstone (331), sardonyx sealstone (332), 25 amethyst beads (333), three sard beads (334)
89	Sard bead (335), rock crystal bead (336), three buttons (337), marble pommel (338)
91	Ring of rock crystal (339), agate sealstone (340), chalcedony sealstone (341), two rock crystal beads (342-343), two sard beads (344-345), fluoride beads (346), sard bead (347), steatite button (348), rock crystal bead (349)
93	Two amethyst beads (350), sard bead (351)
94	Sard bead (352), sardonyx bead (353)
95	Five sard beads (354)
96	Four buttons (355)
97	Three buttons (356)
100	Nine buttons (357)
102	Haematite bead (358), four amethyst beads (359), rock crystal bead (360), rock crystal sealstone (361), agate sealstone (362), sard sealstone (363), onyx seal-stone (364), five amethyst beads (365), two sard beads (366), steatite bead (367)
102/3	42 sard beads (368), sard bead (369)

<sup>39</sup> Xenaki-Sakellariou 1985: 214. "...Mycenae, tombs 1893..."



**The Third Kilometre Cemetery and Kalkani cemetery**  
Catalogue nos: 370-463

Qty	Objects
174	Beads
95	Spindle whorls
17	Sealstones
3	Scarabs
1	Fragment
Qty	Gemstones
99	Steatite
72	Carnelian
46	Amethyst
35	Crystal
16	Non identified
16	Onyx
6	Agate

**Location:** Chamber tombs, The Third Kilometre Cemetery.

**Date:** LH IIIA-C

**Reference:** Wace 1949.

Tomb	Information	Stone Finds
502	3 skeletons LH IIIA2-C	Four steatite spindle whorls (370, 372-374), amethyst bead (371)
504	1 skeleton LH IIIB	Carnelian sealstone (375)
505	15 skeletons LH IIIA1-B	Agate piece (376)

**Location:** The Kalkani Cemetery, N Bank

**Date:** LH III

**Reference:** Wace 1949.

Tomb	Information	Stone Finds
520	5 skeletons LH IIIA1-2	29 steatite spindle whorls (377-379), a crystal bead (380)
523	9 skeletons LH IIIA2 IIIB	Agate sealstone (381), steatite sealstone (382), steatite spindle whorl (383)
524	16 skeletons LH IIIA2 IIIB IIIC	Steatite spindle whorl (384), three carnelian beads (385-386)

**Location:** The Kalkani Cemetery, S Bank

**Date:** LH I-IIIC

**Reference:** Wace 1949.

Tomb	Information	Stone
513	2 skeletons LH IIIB Finds	Carnelian sealstone (387), steatite spindle whorl (388)
515	21 skeletons LH IIIB-IIIC	Amethyst bead (389), two carnelian sealstones (390-391), four onyx sealstones (392-395), two steatite spindle whorls (396-397), twenty amethyst beads (398), two onyx beads (399-400), carnelian bead (401), two amethyst bead (402-403)
516	5 skeletons LH IIA-IIIB	Four spindle whorls (404-406), amethyst bead (407)
517	15 skeletons LH II-IIIC	Crystal bead (408), seven amethyst beads (409-412), spindle whorl (413), crystal bead (414-416), three beads and fragment (417), 28 crystal beads (418), 29 carnelian beads (419)
518	10 skeletons LH -IIIA2	Steatite spindle whorl (420), carnelian sealstone (421), onyx sealstone (422), onyx sealstone (423), onyx sealstone (424), amethyst sealstone (425), fifteen carnelian beads (426-427), onyx bead (428), two agate beads (429), three carnelian beads (430-432), three amethyst beads (433-435), agate sealstone (436), one stone bead (437)
519	6 skeletons LH IIIB	Fragmentary bead (438)
525	7 skeletons LH IIIA2-IIIB	Two steatite spindle whorls (439)
526	1 skeleton ?	Three steatite scarabs (440-442), five carnelian beads (443-444), six onyx beads (445-446), crystal bead (447), agate bead (448), four beads (449), bead (450), steatite bead (451)
529	18 skeletons LH IIA -IIIA2	Nine carnelian beads (452), five beads (453), carnelian sealstone (454), two steatite spindle whorls (455-456)
530	5 skeletons LH IIA-IIIA2	Three steatite spindle whorls (457-458)
532	20 skeletons LH IIA-IIIB	Three steatite spindle whorls (459-460)
533	7 skeletons LH IIA-IIIB	Seven steatite spindle whorls (461-463)

**COMMENTS**

It is notable that in the *Panagia Houses* the everyday objects were buttons made of steatite, a soft and common material. It seems that simplicity characterized everyday life. We know



from Shear<sup>40</sup>, that the presence of clay seals in the houses shows commercial enterprise. The stone finds, as other funerary objects, cannot be related to a meaningful context; only one bead was probably a floor deposit in Room 23 the other bead found was fill washed in the same Room. Two of the sealstones were fill washed in Rooms 8 and 11 and the third fill over the corridor of Rooms 16,17 in House II. In the houses only twenty buttons were found in a meaningful context.

Steatite spindle whorls/buttons and carnelian beads were the most used objects in the *Mycenaean palace*. A variety of other stones are also present without major differences in percentage terms.

In *Grave Circle A* beads made of carnelian and amethyst were the gemstone objects most used as also steatite buttons and spindle whorls.

Sard beads were the favoured offerings in the graves of *Circle B*. It was possible to identify fifteen men, six women, two girls and two children<sup>41</sup>. One woman was in tomb A1, one in Θ and one in Y. In tombs E, M, Ξ and O groups of bones were found with the skeletons of two women and two girls. In tomb Γ three male and one female skeleton found. Tombs E, M and O, where women were buried, are contemporary with Grave A.

According to Mylonas five chronological groups are identified: (a) the earliest tombs 1, A1 and A. (b) Λ2, Ξ, Ξ1, Π, H, P, Φ and, Z. (c) B, N, Y, Σ, T. (d) Λ, Γ, K, Λ1. (e) Δ, E, O and M.

Most of the beads formed necklaces and were found close to female skeletons. Four stone beads with representations were found. The excavator emphasised that the jewellery found here was less common than in Circle A and that only three stone beads with representations were found here.

It is notable that very few stone spindle whorls and no stone buttons were found in Grave Circle B although they are regarded as objects used for garments. Ten clay spindle whorls come from Tomb O; seven gold buttons come from Tomb O and one from Tomb N. The bronze pins with the rock crystal heads are made for garments or used in coiffures.

In Tomb Γ one of the four skeletons had, by the right hand, a sword with an alabaster pommel, a dagger and a bronze knife. Above the skull was a hydria and at the base an amber mask; also found were a gold drinking vessel and a gold cup. In the gold cup there were two alabaster pommels, six beads of glass paste, one of rock crystal and one of amethyst (102) with a representation of a bearded man, probably all forming a group placed in a wooden box.

In shaft Grave M, on the breast of a girl, was found a necklace of eleven beads. Six of them are made of stone: two of rock crystal, three of sard (the central bead is made of sard

(112); it is identified as carnelian in *CMS I*)<sup>42</sup> and one of meteorite. Of the beads one is silver and four are bronze. This interment is the second and last in the tomb as seen by the bones of a child swept aside.

Shaft Grave Ξ. In this tomb a five year old girl was buried whom Mylonas named "little princess" because of the rich offerings. On her head was a gold band decorated with three star shaped gold objects. Sard beads forming necklaces of semi circular shape were found at the temples. A necklace with eighteen beads (119) of rock crystal was found around her neck. Two beads of sard and eight of faience were found close to her right wrist. Other small gold finds are recorded. Sard was the stone most used for the beads in this tomb. This was the second interment since the bones of a mature person were swept aside.

Shaft Grave O. On the E side of the tomb by the side wall there were many clay spindle whorls probably used as necklace beads. On the skeleton of probably the last burial, above the right temple, there were two gold bands and under them a gold rosette and two big bronze pins with rock crystal heads. At the right shoulder many beads and gold metal plates were found. Above the left shoulder there were gold and stone beads. Two bracelets, two earrings and other gold objects were found. Beads of stone, probably part of two necklaces, were found on the breast. They were made of sard (123). The skeleton found in the central part of the tomb probably belonged to a woman. The rock crystal duck vase was found in this tomb. In Ξ, most of the 63 beads are made of sard. Also the many clay spindle whorls found were interpreted by the excavator also as necklace beads.

Grave Pω (Built Grave), was constructed between the Tombs of Aegisthus and Clytaemnestra. It contained a scarab of lapis lazuli (137, with a representation of The goddess Hathor or Seshshit, between two hawks) which was dated to the 17<sup>th</sup> or the 16<sup>th</sup> century. The exact position of the scarab was not recorded; probably it is the one that Mylonas and his daughter found in the tomb's earth filling.

Shaft Grave Y. This was a tomb of a woman about 37 years old. Around the body nine jugs were placed. On the skull was a cross shaped piece of jewellery of gold leaves and a gold band between the left temple and shoulder. Around the neck and the chest were beads of sard and rock crystal, also a faience pendant. After the removal of the skeleton, between the shoulder and an amphoriskos, two more faience pendants and three bronze rings and three pins, one of them with head of rock crystal, were uncovered.

The *Chamber tombs excavated by Tsountas* present sard (as in Grave Circle B) as the material mostly used here. Beads were most used; buttons made of steatite were also frequently used in these chamber tombs.

The *Cemeteries at Kalkani and the Third Kilometre* present an impressive use of steatite when compared to the stone finds of Grave Circle B. Beads here, as in the tombs of Grave Circle B, are the commonest items with a major difference from the second in use which are spindle whorls.

<sup>40</sup> Shear 1987: 4.

<sup>41</sup> Recent work on Circle B graves has changed some ideas on age. Prag et al 1995: 107-136.

<sup>42</sup> CMS I: 14, fig. 6.



In Tomb 517, around the neck of skeleton xi, there was a necklace of beads (three of amber, 28 of crystal, 29 of carnelian, one gold bead, two of faience and fifteen of glass). There were many burials. Two of the scarabs come from Tomb 526, that of a woman, and are characterised as imported from Egypt dated probably to Amenhotep III. Also the rest of the stones used here (carnelian, crystal, onyx and agate) are totally absent in Grave Circle B.

The use of stones is also shown in disturbed areas in cemeteries: carnelian beads, steatite spindle whorls, amethyst sealstones, carnelian necklace are items found scattered.

PROSYMNA

On the NE of the Argive Plain on a conical hill is situated the sanctuary of Hera at Prosymna. Near this is a quite large Mycenaean cemetery with over fifty chamber tombs. To the NW a large tholos was excavated.

THE TOMBS

Catalogue nos: 464-875

Qty	Object
311	Buttons
295	Beads
16	Sealstones
6	Non identified
1	Fragment
1	Scarab
1	Seal cylinder
Qty	Gemstones
346	Steatite
212	Carnelian
18	Amethyst
18	Rock crystal
8	Malachite
7	Flint
6	Breccia
6	Non identified
5	Agate
2	Crystal
1	Haematite
1	Lapis lazuli
1	Sard

Location: Chamber tombs

Date: LH I-IIIB2<sup>43</sup>

References: Blegen 1937.

Tomb	Information	Stone Finds
XVII	13 skeletons LH IIA-III A2	Five steatite buttons, (626-629, 805)

Tomb	Information	Stone Finds
XIX	LH IIIA2, IIIB	Two steatite beads (562,581), eight steatite buttons (633-639, 827)
XX	4 skeletons LH IIIB	Steatite button (640)
XXI	8 skeletons LH IIIA2, IIIB	Carnelian bead (488), three steatite buttons (641-643)
XXII	8 skeletons LH IIIA2, IIIB	Three steatite buttons (644-646)
I	9 skeletons LH IIA-IIIB	Three steatite beads (567, 570, 572), four steatite buttons (587-588)
XXX	5 skeletons LH IIA-IIIB	Two carnelian beads (491)
XXIX	12 skeletons LH IIB-(IIIB)	Two carnelian beads (523, 528), steatite bead (586), 43 steatite buttons (668-697, 832, 854-861)
XXVII I	11 skeletons LH IIB-IIIB	Two amethyst beads (534, 538), rock crystal bead (553), four steatite buttons (665-667,795)
XXIV	12 skeletons LH IIIA2	Twenty steatite buttons (647-661, 788, 811-812, 828-829)
XXV	16 skeletons LH I-III A2	Two carnelian beads (489), two steatite beads (563, 574)
XXVI	5 skeletons LH I-IIIB1	Six steatite buttons (662-664, 830-831, 853)
XXVII	13 skeletons LH IIIA2-IIIB	Two carnelian beads (490), amethyst bead (533), steatite bead (575)
XXXII	12 skeletons LH IIA-III A2	Five steatite buttons (698-702)
XXXII I	11 skeletons LH IIIA1-IIIB	Two agate sealstones (465-466), rock crystal sealstone (468), two carnelian beads (492, 524), five stone objects (493), thirteen steatite buttons (703-712, 789, 813, 833)
XXXI V	15 skeletons LH IIB-III A2	Hematite sealstone (470), six steatite buttons (713-716, 814, 834)
LII	2 skeletons LH I-III A1	Two steatite beads (569)
XXXV	5 skeletons LH IIIA2-IIIB	Rock crystal bead (560), steatite bead (582)
XXXV I	11 skeletons LH IIB-IIIB	Three carnelian beads (494-496), two amethyst beads (535), five rock crystal beads (558), steatite bead (568), seven steatite buttons (717-721, 815, 835)
XXXV II	14 skeletons LH IIIA2-IIIB	Four steatite buttons (722-734, 836)
XXXV III	8 skeletons LH IIIA2-IIIB	Steatite sealstone (474), eight carnelian beads (497-498), lapis lazuli bead (542), steatite bead (564), ten steatite buttons (735-737, 796-800, 862-863)

<sup>43</sup> Recent work on Prosymna. Shelton 1996.



Tomb	Information	Stone Finds
XL	3 skeletons LH IIIA	Four steatite buttons (738-739, 791)
XLIX	23 skeletons LH IIB-III B	Two carnelian beads (508, 512), bead (543), agate bead (547), breccia bead (548), rock crystal bead (557), six steatite buttons (773-776, 802, 816)
L	6 skeletons LH IIB, IIIA2	Eight steatite buttons (777-782, 817, 844)
XLI	9 skeletons LH IIIA2, III B	Two agate sealstones (464, 469), carnelian sealstone (467), three carnelian beads (499-500, 509), malachite (544), breccia bead (549), rock crystal bead (554), seventeen steatite buttons (741-742, 803, 864-871)
XLII	8 skeletons LH IIIA1-III B	Two carnelian beads (501, 525), steatite bead (584), twelve steatite buttons (743-751, 794, 837, 872)
V	5 skeletons LH III B	Three steatite buttons (593-595)
VI	9 skeletons LH IIA-III B2	Steatite sealstone (472), steatite button (845)
VII	7 skeletons LH IIA, III B	Seven steatite buttons (596-597, 820, 846-849)
VIII	16 skeletons LH IIIA2-III B	Two steatite sealstones (471, 477, 26) carnelian beads (483-484, 516, 521), rock crystal bead (406), ten steatite beads (565, 571, 573, 577-580), ten steatite buttons (598-606, 804)
IX		Carnelian bead (522), steatite button (607)
XIV	7 skeletons LH IIA-III B	Steatite bead (566), four steatite buttons (622-625), two steatite buttons (639-640), button steatite (851), a steatite scarab (875)
XV	2 skeletons LH IIIA2, III B	Two steatite buttons (825-826)
II	6 skeletons LH IIA-III A1	Sard sealstone (480), 24 carnelian beads (481-482, 510-511, 513, 519), amethyst bead (530), two steatite buttons (818)
III	15 skeletons LH IIIA1-III B	Rock crystal sealstone (475), two carnelian cylinders (478-479), eight carnelian beads (514-515, 520, 526-527, 529), two amethyst beads (531-532), four steatite buttons (589-591, 635)
XLIII	12 “ LH IIIA1-III B	48 carnelian beads (502-503), amethyst bead (537), seven flint beads (551), two rock crystal beads (555, 559), 32 steatite buttons (752-767, 792, 801, 838-841, 873-874)

Tomb	Information	Stone Finds
XI	10 skeletons LH IIIA2	Steatite sealstone (476), five carnelian beads (485), steatite bead (585), twelve steatite buttons (608-615, 821-822, 852), breccia button (850)
XII	5 skeletons LH III B	Two steatite buttons (616)
XLIII	6 skeletons LH IIA-III B	Eleven carnelian beads (504-506, 517-518), seven malachite beads (545-546), two breccia beads (550), four rock crystal beads (556), two steatite buttons (768, 842)
XLV	27 skeletons LH IIA2-III B	Carnelian bead (507), steatite bead (583), three steatite buttons (769-770, 843)
XLVII I	10 skeletons LH IIIA2	Steatite button (772)
XLVI	19 skeletons LH IIA-III A2	Steatite sealstone (473), steatite button (771)
LI	15 skeletons LH III B	Nine amethyst beads (536, 539-541), two crystal beads (561), steatite bead (576), five steatite buttons (783-787, 793)

#### COMMENTS

Steatite, one of the softest stones, was mostly in use at Prosymna. Carnelian a hard stone was the second most common in use for beads and for one seal cylinder found. Amethyst and rock crystal both hard stones, were the third in use but with great difference from the first two. Amethyst was used for eighteen beads, rock crystal for sixteen beads and two sealstones; rock-crystal beads appeared in eight tombs and two other tombs each yielded a rock crystal sealstone.

Buttons were the objects most used at Prosymna. Almost all tombs had stone buttons but the position of these objects is not clear since they were found scattered on the floor of the chambers. Beads were the second most common objects at Prosymna with only a small difference from the buttons. Carnelian was the material used for most of them. Gemstones were favourite offerings for those buried at Prosymna cemetery as seen from the finds of each tomb separately. A cylinder seal of white faience found in Tomb 38 with the inscription of four symbols is considered to be the result of the trade between the Argolid and the eastern coast of the Mediterranean.

In tomb 14 a scarab (875) made of white steatite was worn as a ring as shown by the perforation. «The good favour of Amen» is written and shows the amuletic character of the object which is dated to the XVIII Dynasty.

#### TIRYNS<sup>44</sup>

The Profitis Ilias hill 800m. E of Tiryns was the site of a large LH chamber tomb cemetery, dug into its E slope, and of at least two tholos tombs, dug into the W slope. The excavated tholos (d. 8.5 m.) proved to be empty of

<sup>44</sup> Simpson and Dickinson 1979.



prehistoric finds, and had probably been robbed by the 7th century B.C.; its advanced architecture suggests a date in LH III. The fine early Mycenaen rings and jewellery of the Tiryns Treasure might have come from this or another tholos, as might two gold head-bands reported from (of Profitis-Ilias) the NW slope. The chamber tombs range in date from LH IIA to early LH IIIC; their contents are unremarkable, consisting chiefly of pottery.

THE TOMBS

Catalogue nos: 876-905.

Qty	Objects
48	Spindle whorls
26	Beads
3	Non identified
2	Sealstones
Qty	Gemstones
47	Non identified
22	Steatite
4	Sardonyx
3	Amethyst
2	Carnelian
1	Agate

Location: Chamber tomb 1(A)

Date: LH

Reference: Rudolph 1973: 8-56

Finds: A sardonyx bead (876), two steatite spindle whorls (879, 880).

Location: Chamber tomb III (G)

Date: LH

Reference: Rudolph 1973: 8-56

Finds: Two steatite spindle whorls (877, 878) and a stone bead (882).

Location: Chamber tomb V (D)

Date: LH

Reference: Rudolph 1973: 8-56

Finds: Two stone spindle whorls (881, 883), a steatite bead (884).

Location: Chamber tomb VI ©

Date: LH

Reference: Rudolph 1973: 8-56

Finds: An agate bead (885), one stone object (886),six stone spindle whorls (887), a carnelian bead (888).

Location: Chamber tomb VII (B)

Date: LH

Reference: Rudolph 1973: 8-56

Finds: A carnelian object (889), a steatite object (890), a steatite spindle whorl (891), an amethyst bead (892), a stone spindle whorl (893).

Location: Chamber tomb VIII (E)

Date: LH

Reference: Rudolph 1973: 8-56

Finds: An amethyst bead (894), a steatite spindle whorl (895), two stone spindle whorls (896, 897).

Location: Chamber tomb XV (V)

Date: LH

Reference: Rudolph 1973: 8-56

Finds: A stone bead (898).

Location: Chamber tomb XVI (X)

Date: LH

Reference: Rudolph 1973: 8-56

Finds: A sardonyx sealstone (899), a stone spindle whorl (900).

Location: Chamber tomb XVIII

Date: LH

Reference: Rudolph 1973: 8-56

Finds: A sardonyx bead (901), a stone spindle whorl (902).

**Location:** Chamber tomb XIX (Alpha)

**Date:** LH

**Reference:** Rudolph 1973: 8-56

**Finds:** A sardonyx bead (903), a steatite sealstone (904), a stone spindle whorl (905).

#### COMMENTS

At Tiryns half of the material has not been identified. Of the rest of the stone finds spindle whorls were most common.

#### ASINE

The rocky acropolis of Asine in the Argolid is situated on a peninsula. The city is included in the Catalogue of Ships mentioned in the Illiad<sup>45</sup>, and its proximity to the sea determined the relationship of the inhabitants to commerce and travel. Not only was the Acropolis inhabited, but the slopes of Mount Barbouna as well, as shown by the finds. The LH settlement was extensive. The Mycenaean necropolis lies NE of the summit of the hill, where chamber tombs have been excavated.

#### ACROPOLIS, MOUNT BARBOUNA, LH SETTLEMENT

Catalogue nos: 906-912

Qty	Objects
6	Spindle whorls
1	Pendant
Qty	Gemstones
6	Steatite
1	Carnelian

**Location:** Barbouna Area/Levendis Sector, E of the Acropolis, Late Helladic Settlement

**Date:** LH

**Reference:** Frödin and Persson 1938: 310; Frizell 1978: 66

**Finds:** Six steatite spindle whorls (906-911), one carnelian pendant (912).

#### THE TOMBS

Catalogue nos: 913-935

Qty	Objects
78	Buttons
7	Beads
5	Sealstones
3	Spindle whorls
Qty	Gemstones
78	Steatite
6	Agate
3	Amethyst
3	Non identified
2	Carnelian
1	Rock crystal

**Location:** Cist tomb LH 13

**Date:** LH

**Reference:** Frodin and Persson 1938: 355

**Finds:** A steatite button (913).

**Location:** Chamber tomb 1. Nine skeletons.

**Date:** LH IIB-IIIA2, IIIC

**Reference:** Frodin and Persson 1938: 373-374, 376-377

**Finds:** Three agate sealstones (914, 916, 917), two sealstone of carnelian (915, 918) and 32 steatite buttons (919-921).

**Location:** Chamber tomb 2. Two skeletons.

**Date:** LH IIIA1-2, IIIC

**References:** Frodin and Persson 1938: 390

**Finds:** Three agate beads, nine rock crystal beads and one steatite button, (922-926).

**Location:** Chamber tomb 6. Five skeletons

**Date:** LH IIIA2-IIIC

**Reference:** Frodin and Persson 1938: 407

**Finds:** Six steatite buttons (927, 933-935).

<sup>45</sup> Homer, Illiad 2.560.



**Location:** Chamber tomb 7. Ten skeletons

**Date:** LH IIA-IIB, IIIA2-IIIC

**Reference:** Frodin and Persson 1938 : 420

**Finds:** Three amethyst beads (928), 38 steatite buttons (929).

#### COMMENTS

In the settlement few stone objects were found without any relevant information about their provenance. We have steatite buttons mostly found in the settlement and in the tombs.

There are more children's graves than those of adults; ten LH tombs belong to children. Not much contextual information is given for the settlement and the tombs; the position of the stone finds is not recorded, and as a result it is difficult to interpret their presence. Chamber tomb 1 had two dromoi which show the use of the tomb over different periods. Close to the most recent skeleton, on the bench in the middle of the chamber, there was found a well-preserved head of a dog. Moreover, the tomb was used for the greater part of the period, during which burials occurred in the chamber, right into the later LH period, as the LH III sherds, found in the filling, indicate.

In chamber tomb 2, one of the two skeletons was female; the chamber contained various objects made of gold, glass paste, ivory, boar tusks and parts of an Egyptian stone vessel were found in the dromos. What is striking is that chamber tomb 1:5, the richest of all, contained not even one gemstone find.

#### MIDEA

##### DENDRA: PALAIOKASTRO (ANCIENT MIDEA)

The acropolis had massive fortifications on the conical hill with cyclopean walls on the NE side and a possible palace on the top. Dendra is among the most important fortresses, not only of the Argolid. The settlement was destroyed in LH IIIB. There was also a settlement on the W slope in LH III. An important LH cemetery was founded on the area of an EH and MH settlement at the NW of the modern village. A tholos and fourteen chamber tombs were excavated.

#### ACROPOLIS AND SETTLEMENT

##### Catalogue nos: 936-939

Qty	Objects
3	Fragments
1	Sealstone
Qty	Gemstones
3	Rock crystal
1	Steatite

**Location:** Room 1.

**Date:** LH

**Reference:** Åstrom 1983: 30, 38.

**Finds:** Three rock crystal fragments (936-938), a steatite sealstone (939).

#### THE TOMBS

##### Catalogue nos: 940-1003

Qty	Objects
39	Beads
36	Buttons
17	Sealstones
14	Spindle whorls
2	Pendants
1	Weight
Qty	Gemstones
49	Steatite
21	Agate
18	Amethyst
13	Carnelian
3	Jadeite
2	Non identified
1	Haematite
1	Lapis lazuli
1	Rock crystal

**Location:** Tholos tomb. Three skeletons

**Date:** LHIIB-IIIA1

**Reference:** Persson 1931: 27-42.

**Finds:** Eleven steatite buttons (940-941, 963-965, 947-948), a lapis lazuli sealstone (942), twelve agate beads (943-945, 958, 960-961), two carnelian beads (946, 959), three agate sealstones (949-951), three jadeite sealstones (952-954), one rock crystal pendant (955), one agate pendant (956), a carnelian sealstone (957), an agate weight (962).

**Location:** Chamber tomb 1. Five skeletons.

**Date:** LH IIIA2, IIIB

**Reference:** Persson 1931: 85.

**Finds:** Eleven steatite buttons (966-967).

**Location:** Chamber tomb 3. Seven skeletons  
**Date:** LHIIIB  
**Reference:** Persson 1931: 90.  
**Finds:** One carnelian sealstone (968), nine steatite buttons (969).

**Location:** Chamber tomb 2.  
**Date:** LHII-III A  
**Reference:** Persson 1931: 100,106-107.  
**Finds:** One agate sealstone (970), one carnelian sealstone (971) and six carnelian beads (972).

**Location:** Chamber tombs 4 and 5. The two chamber tombs were excavated by N. Bertos in 1927, but not published.  
**Date:** LH  
**Reference:** Åstrom 1983: 6.  
**Finds:** Two carnelian sealstones (1001,1003) and one haematite sealstone (1002).

**Location:** Chamber tomb 6. Three skeletons.  
**Date:** LHIIA-III A2  
**Reference:** Persson 1942: 29.  
**Finds:** One amethyst bead (973).

**Location:** Chamber tomb 8. Four skeletons.  
**Date:** LHIIA, IIB  
**Reference:** Persson 1942: 48-49.  
**Finds:** One agate sealstone (974), three steatite buttons (975-977), sixteen amethyst beads (978-979).

**Location:** Chamber tomb 9  
**Date:** LHIIIB  
**Reference:** Persson 1942: 57.  
**Finds:** A steatite button (980).

**Location:** Chamber tomb 10. One skeleton.  
**Date:** LHIIA-III A2  
**Reference:** Persson 1942: 64, 81, 83, 95.  
**Finds:** One stone bead (981) and two agate sealstones (982-983).

**Location:** Chamber tomb 11. Three skeletons.  
**Date:** LHIIA2, IIB  
**Reference:** Persson 1942.  
**Finds:** One amethyst bead (984) and a steatite button (985).

**Location:** Tomb 12. Fifteen skeletons.  
**Date:** LH IIB-III B.  
**Reference:** Åstrom 1977: 72-101.  
**Finds:** Fourteen steatite spindle whorls and part of steatite spindle whorl (986-1000).

#### COMMENTS

Beads and buttons made of steatite were the most common stone offerings in the tombs at Dendra. A variety of gemstones were found including jadeite, an extremely rare, imported material.



**MESSENIA**

**PYLOS**

The palace on Ano Englianos hill, a powerful centre apparently with no fortifications<sup>46</sup>, such as at Mycenae, Tiryns, Midea and Athens, was also an administrative centre, as evidenced by the Linear B tablets. The Palace is divided into four main buildings and a total of 105 Rooms; a stone workshop (ἐργαστήριον τοῦ Λιθοξόου) was identified. It is believed that the most valuable items were removed before the fire destruction at the end of LH IIIB.

**ACROPOLIS AND LOWER TOWN**

**Catalogue nos: 1004-1048**

Qty	Objects
52	Fragments
19	Buttons
5	Sealstones
4	Beads
4	Discs
4	Group of fragments
1	Chunk
1	Non identified
1	Pendant
Qty	Gemstones
31	Quartz
21	Flint
15	Steatite
12	Non identified
3	Group of quartz
2	Agate
2	Carnelian
2	Crystal
1	Group of Schist
1	Haematite
1	Jasper

**Location:** Pylos Palace

**Date:** LH IIIA2-B

**Reference:** Blegen and Rawson 1973

**Finds:** 12 pieces of quartz (1004, 1006), one agate pendant (1008), 30 quartz fragments 1014-1016, 1009), fourteen steatite buttons (1005,1007, 1010, 1020-1022, 1030, 1033, 1035-1037, 1040, 1047,1048), three groups of quartz fragments (1012, 1017, 1018), one agate bead (1011), one group of schist fragments (1013), one crystal bead (1019), one haematite seal (1023), two carnelian beads (1031, 1042), one jasper sealstone (1034), a steatite sealstone (1043), a sealstone (1039), four discs

(1026-1028, 1041), one crystal sealstone (1024), one grey stone (1025), one stone fragment (1029), five stone buttons (1032, 1038, 1044-1046).

**THE TOMBS**

**Catalogue nos: 1049-1124**

Qty	Objects
315	Beads
6	Buttons
6	Sealstones
4	Discs
3	Bead seals
2	Spindle whorls
Qty	Gemstones
269	Amethyst
38	Carnelian
16	Steatite
6	Non identified
2	Lapis lazuli
1	Agate
1	Haematite
1	Limestone
1	Quartz
1	Schist

**I. "GRAVE CIRCLE"**

**Location:** "Grave Circle". The earliest of the important tombs to be found in the area.

**Date:** LH I-III A1

**Reference:** Blegen, Rawson, Taylour, and Donovan 1973: 134.

**Finds:** Amethyst bead (1106), steatite button (1107), agate sealstone (1108), amethyst sealstone (1109), seventeen amethyst beads (1110-1111), six carnelian beads (1112-1113), amethyst bead (1114).

**II. THOLOS TOMBS**

**Location:** Tholos tomb III is situated SW of the hill and contained at least sixteen interments. It is smaller than IV and undoubtedly later.

**Date:** LHIIA-IIIB

**Reference:** Blegen, Rawson, Taylour, and Donovan 1973: 73-95.

**Finds:** Five carnelian beads (1052, 1054-1055), amethyst bead (1053), steatite button (1056).

<sup>46</sup> Recent publication though adds information about a circuit fortification wall, Shelmerdine 2001: 378.

**Location:** Tholos tomb IV is situated NE of the Palace and it seems to have been built little later than the “Grave Circle”.

**Date:** LHI-II

**Reference:** Blegen, Rawson, Taylour, and Donovan 1973: 95.

**Finds:** Steatite button (1057), two amethyst beads seals (1058-1059), lapis lazuli sealstone (1060), lapis lazuli bead seal (1061), 246 amethyst beads (1062-1090), three carnelian beads (1091-1092), four steatite beads (1093-1094,1097-1098), four stone beads (1095-1096, 1100,1101), quartz bead (1099), four steatite discs (1102-1103), schist spindle whorl (1104), limestone spindle whorl (1105).

III. CHAMBER TOMBS

**Location:** Chamber tomb E-3

**Date:** LH IIIA-III B

**Reference:** Blegen, Rawson, Taylour, and Donovan 1973: 176.

**Finds:** Carnelian bead (1115), steatite sealstone (1116).

**Location:** Chamber tomb E-4

**Date:** LHIIIA1-III A2

**Reference:** Blegen, Rawson, Taylour, and Donovan 1973: 180.

**Finds:** 21 carnelian beads (1117-1119).

**Location:** Chamber tomb E-6

**Date:** LHIIA1-III B

**Reference:** Blegen, Rawson, Taylour, and Donovan 1973: 184.

**Finds:** Steatite button (1120), two carnelian beads (1121).

**Location:** Chamber tomb E-9

**Date:** LHII B-III B

**Reference:** Blegen, Rawson, Taylour, and Donovan 1973: 201.

**Finds:** Steatite sealstone (1122), steatite bead (1123), stone button (1124).

**Location:** Chamber tomb K-2

**Date:** LH IIIB-IIIC

**Reference:** Blegen, Rawson, Taylour, and Donovan 1973: 224.

**Finds:** Haematite sealstone (1049), steatite button (1050), stone bead (1051).

CHORA VOLIMIDIA  
Catalogue nos: 1125-1127

Qty	Objects
3	Spindle whorls
1	Bead
Qty	Gemstones
3	Steatite
1	Agate

**Location:** Angelopoulou tomb 1, Voria chamber tomb 7. A chamber tomb cemetery has been identified on the S slope of the ridge running W of the site.

**Date:** Voria tomb 7: LHIIIA-B, Angelopoulou tomb 1: LHII-LHIII.

**References:** Marinatos: (PAE 1952, 473-476: 484; 1964, 78-95: 81, 87). Boyd: 1999, 462-479.

**Finds:** Two steatite spindle whorls (1125), agate bead (1126), steatite spindle whorl (1127).

KOUKOUNARA

THE TOMBS  
Catalogue nos: 1128-1140

Qty	Objects
11	Sealstones
1	Bead
1	Spindle whorl
Qty	Gemstones
4	Sard
3	Steatite
2	Amethyst
2	Chalcedony
1	Jasper
1	Sardonyx



**Location:** Koukounara village, Gouvalari site, tholos tomb I. Gouvalari is situated E of the Katarahaki Acropolis.

**Date:** LH I-III

**References:** Marinatos (EPFON 1959, 117-125:122; 1963, 114-121:115); Boyd 1999: 313-322.

**Finds:** One amethyst sealstone (1128), jasper sealstone (1129), three sard sealstones (1130-1132) and a chalcedony sealstone (1136).

**Location:** Koukounara village, Gouvalari site, Tholos tomb II.

**Date:** MHIII-LHIII

**References:** Marinatos (EPFON 1959, 117-125:123; 1963, 114-121:119); Boyd 1999, 313-322.

**Finds:** One amethyst sealstone (1133).

**Location:** Tholos tomb Koukounara 3(=Fyties 2) at Fyties site.

**Date:** LH IIA-III A

**Reference:** Korres: ΠΑΕ 1974, 139-162: 150

**Finds:** Sard sealstone (1137), sardonyx sealstone (1138).

**Location:** Akona, Tholos tomb 1.

**Date:** LH IIIA1, IIIA2, IIIB

**Reference:** Marinatos: ΠΑΕ 1963, 114-121:119.

**Finds:** Chalcedony sealstone (1135).

**Location:** Koukounara village, Palaiochora site. Appears to have been a circular enclosure with an entrance, covered by a mound, and may be related to the tombs of Kissos and Gouvalari; seven skeletons were found.

**Date:** LH III

**Reference:** Marinatos: ΠΑΕ 1961, 169-176: 175

**Find:** Steatite sealstone (1134).

**Location:** At Koukounara village- Gouvalari site a tholos tomb (Gouvalari A6) was excavated and contained more than eight inhumations.

**Reference:** Korres: ΠΑΕ 1975 B', 428-517: 445, 446.

**Date:** LH IIIA1-2.

**Finds:** Steatite spindle whorl (1139), steatite bead (1140).

## MYRSINOHORI: ROUTSI

### THE TOMBS

**Catalogue nos: 1141-1144**

Qty	Objects
4	Sealstones
Qty	Gemstones
3	Carnelian
1	Amethyst

**Location:** Tholos tomb 2. About 1.5 km. NE of Myrsinohori three mounds and two tholos tombs have been excavated.

**Date:** LHI-III A 1.

**Reference:** Marinatos: (ΠΑΕ 1956 202-206: 205). Boyd 1999: 534-541.

**Finds:** Amethyst sealstone (1141), three carnelian sealstones (1142-1144).

## PERISTERIA: MIROU

### THE TOMBS

**Catalogue nos: 1145-1159**

Qty	Objects
32	Beads
5	Spindle whorls
3	Fragments
2	Groups of beads
1	Scarab
1	Sealstone
Qty	Gemstones
31	Amethyst
4	Non identified
3	Carnelian
3	Steatite
1	Group of rock crystal
1	Group of sard
1	Haematite

**Location:** Peristeria "Circle".

**Date:** (Λιθοσωρός LHI/IIA), "Circle": MH LH I-III B.

**References:** Marinatos: (ΠΑΕ 1962, 90-98:95; 1965, 102-120:116). Korres: (ΠΑΕ 1976 B', 469-550: 522; 1976, 469-550:476; 1977 B', 296-356: 306, 318). Boyd: 1999, 593-606.

**Finds:** 23 amethyst beads (1145), amethyst bead (1146), sard beads (1147), rock crystal beads (1148), steatite sealstone (1149), haematite fragment (1150), steatite bead (1151), carnelian bead (1152), carnelian fragment (1153), amethyst scarab (1154), four stone spindle whorls (1155-1156), five amethyst beads (1157), steatite spindle whorl (1158), amethyst bead (1159).

## TRAGANA: VIGLITSA

### THE TOMBS

**Catalogue nos: 1160-1172**

Qty	Objects
35	Beads
6	Sealstones
3	Spindle whorls
Qty	Gemstones
17	Sard
15	Various
4	Amethyst
3	Steatite
2	Non identified
1	Jasper
1	Rock crystal
1	Sardonyx

**Location:** Tholos tomb 1.

**Date:** LHI-III C.

**References:** Marinatos: ΠΑΕ 1955, 245-255: 249; 1956: 202; Korres: 1980, 120-187: 122.

**Finds:** Amethyst bead (1160), four sard beads (1167), sard sealstone (1168), three amethyst beads (1169), twelve sard beads (1170-1171), three spindle whorls (1172).

**Location:** Tholos tomb 2.

**Date:** LHI-III A.

**Reference:** Marinatos: ΠΑΕ 1955, 245-255: 25

**Finds:** Fifteen beads (made of amethyst, red

jasper, sard sealstone) (1161), rock crystal sealstone (1162), (amygdalitis?) sealstone (1163), jasper sealstone (1164), agate sealstone (1165), sardonyx sealstone (1166).

## VOIDOKILIA BAY

### THE TOMBS

**Catalogue no: 1173**

Qty	Objects
2	Necklaces
Qty	Gemstones
2	Group of amethyst and sard

**Location:** A small tholos tomb set within an earlier MH burial mound.

**Date:** LHI

**Reference:** Marinatos 1956, 202-206: 203

**Finds:** Two necklaces of amethyst and sard (1173).

### COMMENTS

The fragments of quartz and the presence of various other stones (agate, carnelian, jasper), although few in quantity, show that gemstones were used in the areas of the Palace and most probably the majority were removed by the inhabitants before the abandonment of the site. Stone finds that come from the Main Building were eleven pieces of quartz and a steatite button in the NW section, a chunk of quartz in the NE section and a steatite button. Under the place of the throne: a fragment of agate, a piece of blue paste or kyanos and a part of a gold bead. In Archives Room 8 a fragment of quartz and a steatite button. Between the Archives Rooms and the Propylon filling a fragment of agate bead or pendant and pieces of quartz. Room 23: sixteen pieces of quartz, as well as flint and obsidian fragments. Room 24: twenty pieces of quartz as well as flint and obsidian fragments. Corridor 95: pieces of quartz and obsidian and flint flakes and chops of colored stone. Room 98: quartz pieces, an obsidian arrowhead and flint flakes. Room 99: a crystal bead, three steatite buttons, a haematite seal, a flint arrowhead and obsidian blade. Area 102: part of a crystal seal, pieces of quartz and an obsidian arrowhead and a flint blade.

Beads were the most indispensable objects for those buried at Pylos. Amethyst was preferred as the material for them and Tholos Tomb IV contained 248.

The absence of buttons is interesting since their practical use in general and not only at Messenia, is questioned by the results here.

Tholos Tomb IV, in which at least seventeen individuals were buried, contained the highest quantity of amethyst beads found in all the sites examined; it is the only tomb at Pylos that contained lapis lazuli objects (a sealstone and a bead seal). None of the objects were found in their original place; reopening and reuse of the tomb is the most probable



explanation. Blegen underlines the scarcity of pottery and bones. There were no stone finds in the dromos; a lamp was found in the doorway; in the blocking wall the stone finds were a lamp, a steatite button, a flint arrowhead and an obsidian flake.

Tholos tomb 2 at Tragana Viglitsa presented a variety of material for sealtones.

Chamber tomb K-2 had the only haematite object, a sealstone, in the Messenian tombs.

At Peristeria was found the only scarab made of amethyst.

Unfortunately not all the excavators provided us with information about the position of the stone objects in the tombs at Pylos.

## ATTICA

### PERATI

On the N side of Porto Rafti bay on the E coast of Attica, a cemetery was excavated by Iakovidis, from 1953-1963. The tombs are situated at the S part of the slope of Perati mountain along the banks of the torrent of Erotospilia. The area was easily approachable by sea where the bay was an excellent natural harbour, and by land as the coast is connected with the Mesogeia plain. The cemetery was mainly used during the LH IIIC period. The 219 tombs are placed very closely together; 159 were unrobbed (1-157) and 60 robbed ( $\Sigma$  – $\Sigma$ 60); 192 are chamber tombs.

### PERATI CEMETERY

Catalogue nos: 1174-1484

Qty	Objects
196	Buttons
99	Beads
8	Fragments
8	Sealstones
4	Pebbles
3	Non identified
2	Cylinders
2	Plaques
2	Prismas
2	Seal cylinders
2	Weights
Qty	Gemstones
192	Steatite
60	Sard
16	Carnelian
15	Rock crystal
11	Non identified
9	Agate
6	Haematite
4	Lime marl
4	Schist
3	Quartz
2	Amethyst
2	Chalcedony
1	Alabaster
1	Limonite
1	Malachite
1	Serpentine

**Location:** 219 tombs.

**Date:** LH IIIC.

**References:** Iakovidis 1969.

Tomb	Information	Finds
$\Sigma$ 1	Robbed	A carnelian bead (1174)
27	3 skeletons	A haematite bead (1175)
157	4 skeletons+	Ten steatite buttons (1176-1187)
156	4 skeletons	A steatite button (1188)
155	4 skeletons	A sard bead (1189)
154	7 skeletons	An agate bead (1190), four steatite buttons (1191-1194)
152	4 skeletons	A quartz weight (1195), a sard bead (1196), two steatite buttons (1197-1198)
$\Sigma$ 2	Robbed	An agate bead (1199), a carnelian bead (1200), a sard button (1201)
78	5 skeletons	Two steatite buttons (1202-1203)
65	4 skeletons	Twelve steatite buttons (1204-1212, 1214-1215, 1217), two stone buttons (1216,1218), three sard beads (1213,1220,1222), a quartz bead (1219), a carnelian bead (1221), a piece of oligistos (1223)
74	4 skeletons	A rock crystal bead (1224), a stone bead (1225)
75	11 skeletons	Five steatite buttons (1226-1230), a sard button (1232), two sard beads (1231,1233)
82	Pit-cave, 2 skeletons	A steatite button (1234)
84	Pit, 2 skeletons	A lime marl button (1235) and a steatite button (1236)
85	Pit, 1 skeleton	A schist button (1237)
$\Sigma$ 58	Robbed	A steatite button (1238)
147	6 skeletons	An amethyst bead (1239), eleven sard beads (1240-1247, 1250-1252), an agate bead (1248), two steatite beads (1249, 1253)
149	6 skeletons	A steatite button (1254)
148	3 skeletons	A steatite bead (1255)
145	8 skeletons	A steatite bead (1256)
146	3 skeletons	A steatite button (1257)
88	2 skeletons	Two steatite buttons (1258-1259)
4	7 skeletons+	A quartz bead (1260), a carnelian bead (1261), a sard sealstone (1262), three steatite buttons (1263, 1264-1265), a stone button (1266)



Tomb	Information	Finds
1	8 skeletons	A haematite cylinder (1267), an agate cylinder (1268), a lime marl sealstone (1269), two agate sealstones (1270-1271), four steatite buttons (1272-1273, 1275-1276), a rock crystal button (1274)
5	6 skeletons	Agate bead (1277), three steatite buttons (1278-1280)
Σ3	Robbed	A rock crystal cylinder (1281), a carnelian bead (1282), a steatite button (1283)
Σ 20	Robbed	A steatite button (1284), a stone button (1285), a carnelian bead (1286)
Σ 19	Robbed	Two sard beads (1287-1288)
56	4 skeletons	Two sard beads (1289-1290)
90	2 skeletons	Four steatite buttons (1291-1294)
100	4 skeletons	A haematite weight (1295), a rock crystal prism (1296), a rock crystal piece (1297)
92	5 skeletons	Seventeen sard beads (1298,1300), a carnelian bead (1299), a steatite bead (1301)
93	8 skeletons	Two steatite buttons (1302-1303), three sard beads (1304-1305)
142	4 skeletons +	A haematite cylinder (1306), an agate sealstone (1307), eighteen steatite buttons (1308-1324, 1484)
96	3 skeletons	A steatite button (1325)
143	2 skeletons?	A piece of rock crystal (1326), a steatite button (1327)
134	6 skeletons	A carnelian bead (1328), a chalcedony bead (1329)
137	2 skeletons+	A steatite button (1330)
136	2 skeletons+	A rock crystal bead (1331), a sard bead (1332), two steatite buttons (1333-1334)
49	1 skeleton	A sard bead (1335)
15β	3 skeletons+	A steatite button (1336), a stone button (1337)
16	1 skeleton	Eleven steatite buttons (1338-1348)
10	6 skeletons	Steatite button (1349)
9	3 skeletons +	Rock crystal piece (1350)
46	4 skeleton	Steatite button (1351)
36	5 skeletons	Two steatite buttons (1352-1353)
13	7 skeletons	Malachite bead (1354), lime piece (1355), rock crystal piece (1356), stone pebble (1357), seven steatite buttons (1358-1360, 1369-1372), seven sard beads (1361-1367), a rock crystal prism (1368)

Tomb	Information	Finds
30α	Destroyed	A limonite pebble (1373), a steatite bead (1374), a haematite weight (1375), a rock crystal piece (1376), six steatite buttons (1377-1382)
30	3 skeletons	A piece of lime (1383), a chalcedony bead (1384), a steatite button (1385), a steatite bead (1386), a rock crystal piece (1387), two steatite buttons (1388, 1390), a stone button (1389)
12	3 skeletons +	Five carnelian beads (1391-1394, 1396), a steatite bead (1395), nine steatite buttons (1397-1405)
11	2 skeletons	Two steatite buttons (1406-1407)
31	1 skeleton	A sard bead (1408), three steatite buttons (1409-1411), a stone button (1412)
8	2 skeletons?	Two steatite buttons (1413-1414)
34	4 skeletons+	A steatite button (1415)
35	4 skeletons	A sard bead (1416), a steatite button (1417)
19	1 skeleton	Two steatite buttons (1418-1419)
20	1 skeleton	Four steatite buttons (1420-1424)
24	1 skeleton	A haematite sealstone (1425), a sealstone steatite (1426), a rock crystal bead (1427)
101	5 skeletons	Two steatite buttons (1428-1429)
Σ 21	Robbed	Sard bead (1430)
62	Pit, 1 skeleton	Two steatite buttons (1431-1432)
Σ 26	Robbed	Three steatite buttons (1433-1435)
Σ 14	Robbed	A steatite bead (1436)
Σ 25	Robbed	Two steatite buttons (1437-1438)
43	4 skeletons	Three steatite buttons (1439-1441)
104	1 skeleton	A sard bead (1442)
108	?	Two schist plaques (1443-1444), eight steatite buttons (1445-1452)
110	1?	Two steatite buttons (1453-1454)
111	2 skeletons+	A schist button (1455), two steatite buttons (1456-1457)
112	3 skeletons+	A steatite button (1458)
113	3 skeletons	A sard bead (1459), a carnelian bead (1460)
119	Cleared	Two sard beads (1461-1462), a steatite button (1463)
Σ 51	Robbed	Two steatite buttons (1464-1465)
123	1 skeleton	A steatite button (1466)



Tomb	Information	Finds
Σ 52	Robbed	A steatite button (1467)
124	3 skeletons	Four steatite buttons (1468-1471)
125	1 skeleton	A steatite button (1472)
127	6 skeletons+	Two steatite buttons (1473-1474), an alabaster bead (1475), a serpentine button (1476)
128	3 skeletons	A steatite button (1477), an agate sealstone (1478), two carnelian beads (1479,1481), a sard bead (1480), a steatite button (1482)
131		An amethyst bead (1483)

## COMMENTS

Steatite buttons were the most common stone objects but a variety of gemstones was also known and used as offerings for the people of Perati. In tomb 147 at the entrance were a few small vessels. Between them and the pit in the middle of the chamber was a group of beads, probably belonging to a necklace: one bead of amethyst, eight of sard and a faience scarab. In the S of the chamber there was a burial of a child; by the left shoulder a bead of agate and one of faience.

In tomb 1, between the burnt bones of two adults and a baby, burned objects were found: a seal cylinder of Syro-Hittite origin, an Egyptian cartouche of Ramses II, four gold rings, one silver ring, three sealstones (two agate and one of lime marl), seven gold beads, cylinders (bronze, faience and one of agate), various beads, also bird bones, half a bronze mirror and five steatite buttons.

In tomb 13 a malachite (1354) bead in the shape of an oxhead. Tomb 90 contained two burials. One of them, a child, had a feeding bottle close to the skull and near the neck an Egyptian scarab.

Tomb 100 contained three burials. One of them had a stirrup jar in front of the left thigh and in its mouth a prismatic piece of rock crystal. Another rock crystal piece was found under the shoulder.

In tomb 92 at least four burials were swept aside. One was found in place and had on the breast a small cup and in the hollow formed by the right elbow was a bead of steatite. Under the bones eighteen sard beads were scattered. In tomb 142 next to the thigh was a decorated haematite cylinder. In tomb 136 in front of a stirrup jar was a rock crystal bead.

In tomb 49 was one burial badly preserved. Close to the jaw was found a bead of sard and a small gold talisman. Tomb 48 was probably for a child. Only offerings and no bones were found. A female figurine of Ψ shape, a feeding bottle, and a carnelian bead formed a triangle.

In tomb 30, among bones swept aside were found four buttons of steatite and a piece of rock crystal. In the S part of the tomb a number of small Egyptian talismans made of faience were found. In tomb 35 four burials were found. Burial III had on the fingers of the right hand two silver rings, a gold one and a sard bead.

In tomb 24, between the skull and right shoulder was an alabastron and fragments of a stirrup jar. Between the right arm and the breast was a bone tube and small goat horn in pieces. Between the shoulder and the alabastron were four beads of glass paste and faience in a circle, one of rock crystal, a steatite sealstone and a haematite talisman. Tomb

104 had no bones. Apart from the other vessels there was a feeding bottle. At the height of the neck was an Egyptian faience cartouche and a sard bead.

At Perati cemetery steatite buttons were the objects most in use, as in the Panagia Houses at Mycenae and at Prosymna cemetery. Beads and sard were also favoured as objects and material. In the tombs of Perati we have the custom of stirrup jars with a piece of rock crystal in them and child burials with offerings other than the feeding bottle, a scarab or a bead (made of agate, carnelian or sard; the last two are often confused as material).

## CONCLUSION

The stone finds from the settlements and palaces present difficulties in their interpretation because those from the acropolis and settlements of Asine, Midea, and Dendra are remarkably few. At Mycenae in the Panagia Houses, although there are indications of the high economic position of the inhabitants<sup>47</sup>, the percentage of gemstone objects found was low and similarly at the palace of Pylos comparing to the gemstones found in tombs. Probably we must assume that, if they were in use, the inhabitants took them as indispensable possessions before the abandonment of the site. The stone finds from the palaces at Mycenae and Pylos can give us an idea about their everyday use.

As concerns the results from cemeteries, in the Argolid beads were used in a majority of all the tombs of Mycenae; beads were also used in most Messenian tombs. The materials were sard and steatite at Mycenae, agate at Dendra and amethyst in Messenia. So the use of the objects was the same in shaft, chamber and tholos tombs as seen from Mycenae; it is interesting though that in the tholos tombs steatite was the most used material.

Buttons and spindle whorls made of steatite were frequently used in burials at Prosymna, Dendra and Asine in the Argolid and at Perati in Attica.

Steatite and carnelian were the most common stones in the tombs excavated at the 3<sup>rd</sup> Km and Kalkani cemetery, and the tholos tombs at Mycenae. Prosymna had also a high percentage of carnelian objects. Carnelian a red-brown variety of chalcedony was not difficult to obtain; it can be found in the Peloponnese and on Kimolos. It was also used, as seen above, in significant quantities, almost as much as steatite, at Mycenae in the tombs of the 3<sup>rd</sup> Km cemetery and the tholos tombs and the tombs at Prosymna.

Few gemstones were found in the tholos tombs, although we would expect a high use of precious material for the important personalities buried in them; also apart from plain beads and buttons only one sealstone and two pendants are recorded. Chamber tombs and shaft graves hold much richer gemstone objects. As concerns the use of gemstones in tholos, the earliest ones contained slightly fewer than the three latest ones.

It is interesting that at Mycenae, in the chamber tombs that Tsountas excavated and also in the shaft graves of Circle B,

<sup>47</sup> Shear 1987: 6



sard beads were mostly used. There is no strict separation between sard and carnelian; they occur together, have similar uses and very often their close resemblance leads to confusion and wrong identification. So it is possible that we are dealing with the same material at Mycenae but wrongly identified by the excavators or they have been correctly identified but that both materials were similarly used by the inhabitants of Mycenae because of their close resemblance. In Argolid amethyst is the third in percentage identified material.

In the tombs at Messenia there is a high use of amethyst beads. As we know from the previous chapter, except for lapis lazuli and jadeite, almost all the materials used in the areas examined can be found in Greece. It is logical to make use of what is locally available. These people were experts at observing nature and it is probable that they had noticed most of the sources of raw materials in the areas that they could easily reach. Amethyst can be found on Kimolos island. Both gemstones are hard on Mohs' scale (amethyst hardness 7 and sard 6.5) and difficult to work. Amethyst can also be found at Drama, and at Alexandroupoli in the areas of Evros, Souphli, Dadia and Sappes. There is a practical difference in working, between amethyst and carnelian or sard. Amethyst, because of its hardness high in Mohs' scale is difficult to work and the raw material must be approximately 15-20 cm in diameter and thickness, bigger than the pieces needed for carnelian or sard.

Is the use of sard or carnelian at Mycenae and amethyst at Messenia relevant to the acquisition of the material, meaning by this its proximity? Pylos is very close to the sea. From Mycenae the distance to the coast is further. The N of Greece where amethyst can be found is far but not so difficult to reach especially when the weather is good in summer. Is economy and power the determination of the selection of these two gemstones from Argolid and Messenia; meaning here the relation of the region to the property of the sources?

In the dromos of the tombs were very often recorded steatite objects, the majority of which are spindle whorls/buttons. If they were fastened on the clothes of a living person they could not fall so easily, so they may have been fastened to the death shroud, without a lot of care, since it would be used only once. Another possibility is that these steatite buttons belonged to mourners in the procession and they fell because their moving during the procession involved "dancing" and not only walking; they could also suggest the reopening or reuse of tombs<sup>48</sup> and the acts involved in that by the living.

Except for steatite, which is a very soft stone that was used mostly for buttons, the rest of the materials used are hard to work with. We see a general preference for gemstones of high hardness in Mohs' scale. Amethyst, carnelian and sard are discussed above. Rock crystal and agate, which follow in preference to the first two gemstones in most areas, were not the easiest materials to work with. Steatite and serpentine, which can be found in various areas in Greece and are softer were not chosen. Also Lapis lacedaemonius which was locally available is present only at Mycenae and Proysmna and was the last favoured stone. Haematite can be found in various places Greece but the quality needed for a sealstone is located only at Lavrion, which was known as an area rich

in metal and mineral sources. Malachite and azurite can also be found at Lavrion, chalcedony at Samos, and quartz, especially prase on Seriphos. Agate also can be found in various places in Greece.

The use of a specific material was not related primarily to the proximity of the source, as explained above. Also it is very clear that apart from the steatite buttons, which must have been used for practical reasons, the rest of the objects (beads, sealstones and other) were related to death rituals. Of course the lack of information from settlements is unfortunate but from the facts that we have, from the tombs and cemeteries, it is certain that the gemstones were indispensable elements from the very first stage of the funeral. Carnelian and amethyst, which were used so much in tombs, were low in use in the settlements. Lapis lazuli, generally a rarely used material which had to be imported, was recorded in tombs and settlements.

The presence of gemstones, according to the excavators, is often related to beliefs and they refer to them as amulets, favourite trinkets and important for the after-life. Mylonas<sup>49</sup> observes that: "in all cases the head was turned to the area, where the offerings were placed"; "the offerings were placed around the corpse with great care"; "the few offerings that belonged to this corpse probably imply a sudden death at a young age, before the deceased had the chance to accumulate wealth and care for his future burial". The idea that some objects (mostly offerings) were made for the tomb is also indicated by the difference between the stone objects that, according to the statistical analysis, come first or second in use in the settlements and in the tombs. If this is the case then they must have been made long before death since the climatological conditions in Greece oblige a quick burial; these objects could even be inherited in the case of death. Only very simple (beads) and crude objects could probably be made in this short time. Is the selection of the material relevant to social factors, to rank or profession? Was the same economic class or profession characterised by sard or carnelian at Mycenae and by amethyst at Pylos? Is it possible that the political alliances that existed in life were also characterised at death by a different kind of gemstone? Was sard connected to a deity mostly worshipped at Mycenae and amethyst to another deity mostly worshipped at Pylos? Or is implied the way of dying: natural death, dying in war, murdered or executed?

By recording one by one the stone finds from each tomb, we observe that a high percentage of the use of a specific gemstone at a site is in one or two tombs and not the majority. Such results when have to be used for statistical analysis are considered as constituting a separate and different probability group.

At Mycenae 251 sard beads (180) were found in chamber tomb 2, more than half of the 433 sard objects found in the chamber tombs that Tsountas excavated. At the far end of this tomb a few scattered bones were found. In the cavity at the SE angle was a bronze vessel, a bronze dagger and the disc from a mirror. In the cavity of the E wall were two bronze vessels and under them a mirror with ivory decoration, beads (251 of sard, three of glass paste, one of black stone, one of rock crystal, one of agate, a jewel of rock

<sup>48</sup> Mee and Cavanagh 1998: 76.

<sup>49</sup> Mylonas 1972-73 : 256, 261, 48. Translation: author.



crystal in the shape of cross, a pendant of sardonyx in the shape of a pouring vessel and twelve glass paste plaques in the shape of woman). Scattered in the tomb were found a bronze ring, two gold jewels, a gold leaf with relief nautilus, gold leaves with relief rosette, an agate bead, more than forty spindle whorls, fragments of amphoras. A gold jewel was found when the earth was sieved.

Almost all the sard objects from Grave Circle B come from tombs O (50 beads) and Y (50 beads). In tomb O the fifty sard beads (123, 130, 132) formed a necklace or necklaces. The skeleton probably belonged to a woman. The famous rock crystal vase is impressive as an offering but apart from this object, not much can be concluded from the tomb. Perhaps the fact that all the sard objects were beads and found on the chest as a necklace is meaningful. But in what sense? Religion, rank? In tomb Y a woman of approximately 37 years old was buried and the sard objects found were beads around her neck together with rock crystal beads.

Of the amethyst objects found in Messenia, in the tombs, 248 come from Tholos IV (1058-1059, 1062-1090) at Pylos. The tomb is characterised by the excavator as a royal mausoleum. Approximately 17 individuals were buried in the tomb which was in use from LHI-II. In the tholos personal adornments included gold rings, beads, pendants, earrings, and other objects in the shape of birds and butterflies. Stone objects were found: 246 amethyst beads, two amethyst bead seals, a lapis lazuli bead seal, a lapis lazuli seal, three carnelian beads, steatite beads and discs, a spindle whorl and pommel of a dagger both made of limestone, an alabaster sword pommel, flint and obsidian arrowheads. Other finds were objects made of amber, ivory, boar's tusk, bone, faience, paste and terracotta.

At Prosymna, of the 212 carnelian objects, a high percentage was found in the following tombs: tomb 8 (484), tomb 33 (492) tomb 43 (502-503). As well as the carnelian beads, there were bronze weapons, pottery, female figurines and beads of crystal, glass paste, amber, steatite buttons, fragments of obsidian and silver.

Most of the sites where a specific gemstone was preferred, probably not for practical reasons, have one or maximum two sources of the highest concentration, usually in the form of beads. These tombs (Mycenae: chamber tomb 2, tomb O, tomb Y; Pylos: Tholos IV; Prosymna: tombs 8, 33, 43) and the burials to which this material belongs constitute an independent category in the statistical analysis. It is probable that we have an indication of hierarchy either in power (wanaka, rawaketa, eqeta, collector) or religion (hieriu) or that this is a result of an act related to religion. Also, the fact that they preferred hard stones for the majority of these objects, shows that they were interested in long time use (meaning here everyday use or, objects that would be inherited). Inheritance was probably the reason why some of these objects were taken away from the tombs during the reopening.

The rare use of a stone object that we observe in the statistical analysis such as the scarabs or exceptional finds such as lapis lacedaemonius could also help to explain the presence of the gemstones. It is probable that what we know today is not accurate since material was lost during time for various reasons. But if this is the real picture what is the

meaning of the rare use of a material? Are they unimportant because of the very small amount found or, because of the rarity, were they really important in their use? Can they be explained as a personal acquisition, maybe a present, and generally speaking something personal, or as an object/symbol related to belief or confined to very few and indicative of a belief or rank?

Information can be derived from the context of the stone finds and their relation to the rest of the finds. At Perati amethyst was used for two beads found in two different tombs. Chalcedony was also used for two beads from two different tombs. Malachite (malachite/azurite) was used for a bead in the shape of an ox head and the only serpentine recorded in the examined areas was used for a button; haematite was used only for sealstone (1425) found in tomb 24. This tomb presents the peculiarity that it was approachable only through the nearby tomb 18. Between the shoulder and an alabastron was the haematite sealstone (probably part of a necklace), with inscriptions (amulet?) on both sides that resemble the Hittite hieroglyphs but also have elements that are known from Linear B.

From the tombs in the Kalkani cemetery at Mycenae we have three steatite scarabs (440-442), all from tomb 526, that of a woman. Two are characterised as Egyptian imports dated to the reign of Amenhotep III onwards and the third one, which has the representation of a horned animal, as a Mycenaean or Cypriot imitation. From the shaft graves in Circle B, the lapis lazuli scarab from Tomb P $\omega$  has already been discussed (p. 21).

From the tombs that Tsountas excavated four jasper objects were found, three of lapis lacedaemonius and three of haematite. At Prosymna lapis lazuli was used for only one bead (542) found in tomb 38. From the tombs in Messenia, one sealstone made of jasper and one sealstone made of haematite were recorded. In the chamber tombs at Asine a carnelian sealstone (912) was found. None of the above, as recorded by the excavators in the description of the tombs and their context, gives us important information. At Dendra, three jadeite gems found in the same tomb seem to tell us that rare finds cannot be seen only as a simple characteristic of the personality of the deceased but, on the contrary that they could underline the position of the deceased in society or a belief related to these specific burials. In Pit 1 of the tholos tomb the three items of jadeite are part of the so called "burial gifts of the King". These three jadeite gems are the only finds that could underline the relation of the dead with the symbolism of the "decoration". Probably this tomb can be included in the same group as those from Mycenae, Pylos and, Prosymna (p. 36).

Although the stone finds analysed in this chapter provide valuable information about what was believed to be important in death, we do not know what their use was in life, or if different types of stone were in use and for what reason they were needed apart for ornamentation as jewellery. Nor is their role in death clear; when the previous interment (during the reuse of a tomb<sup>50</sup>) is moved or swept away sometimes offerings from previous burial are left in the tomb and for the new interment. It is probable that only some of the stone finds from the previous burials were reused. Or the relationship (kin or social) with the previous deaths is

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<sup>50</sup> Boyd 1999: 262

forgotten (kin) or ended (social/hierarchy)? In this case what were the factors of the selection? If, from the disturbed burials, stone finds were removed making the previous action archaeologically invisible what can this mean in the case of the intact burials? Also if the removal has to do with adornment that is no longer necessary after the decay of the flesh, what was the meaning of the other offerings left behind?

Questions still exist about the use of gemstones in life and death at the sites examined, questions that the author will also talk about and refer to in the conclusion, but valuable information concerning the similarities and differences in using gemstones in settlements and tombs and between tombs is given by analysing the statistical results.



## CHAPTER FOUR

### TECHNIQUES AND TOOLS EMPLOYED IN THE MANUFACTURE OF LBA STONE OBJECTS FOUND IN THE PELOPONNESE

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#### INTRODUCTION

Buttons, beads, necklaces, bracelets, sealstones and generally all the stone finds presented in the catalogue are difficult to create, because of their small dimensions, and when the material is hard then more problems arise. Except for their artistic value what also needs appreciation is the technological environment in which they were created; as far as the person who creates them is concerned, we have evidence from a Mari text, that "...Their work was not assessed for its artistic worth, but for the quality of its production, for its utilitarian and functional adequacy or inadequacy..."<sup>51</sup>

Today an experienced seal engraver<sup>52</sup> who works with the raw material aiming to reveal its secrets and work it in the best way, has valuable knowledge; by keeping techniques of the past, when examining ancient stone objects, he is in a position to make observations concerning tools. Hand held tools are easily distinguished from other tools. Cuttings that needed many trials before the final result are also distinguishable. An experienced hand can be recognized, as can be recognized the hand of an apprentice. As stated above, these people are not archaeologists, art historians, or intellectuals who follow "movements". Although they may have general knowledge on all that, they do not make assumptions about their craft. They know by experience the difficulties of working several materials, and the solutions that can be given to problems during work, exactly because they themselves are the hand and mind behind these objects.

Before the introduction of steam or electrical power, seal engravers were using techniques and tools that were not identical but similar to the ancient ones. In Greece, very few of the old seal engravers are still alive or working. Their knowledge is transmitted only in the case that a young one trying to learn the craft takes "private" lessons. This means a personal relationship that needs time to evolve for the "master" to feel that he can trust the person and transmit his experience acquired during a whole life. But not all of these

"masters" have been approached, and the time needed for all the knowledge to be transmitted is not available any more.<sup>53</sup>

A project by an institution or a museum in order to record all this knowledge has never occurred in Greece and now it is already too late for most of these "masters". N. KIELTY-LABRINIDES, G. LOIZOS and A. GOUMAS are among the few that possess techniques of the past. In their turn they are now part of the last group of "masters" in Greece that possess "secrets" of the craft.

Struggling under the pressure of production that demands the use of modern techniques and tools, the old ones are in decline. Lack of demand makes old techniques useless and through abandonment they are more or less lost.

At present archaeology is attempting "a deeper understanding of the ancient human activity and through it the understanding of man himself".<sup>54</sup> Current research is re-defining terms (e.g. workshop, artist) and is leading away from assumptions based on modern theories and life style.

I. Tournavitou proposes as " ...another method for establishing and/or confirming the basic principles about BA workshops, once identified as such.... The First stage would involve the study of a modern, but traditionally operated atelier; the craft would in this case be examined as a technical process, where the particular facilities, and working conditions required, would be set out. This should result in the extraction of a Model of what such a workshop be like, and what must be the bare essentials for the craft".<sup>55</sup>

D. Evelyn proposed, instead "...of defining and recognizing craft and craftsmen..." rather "...to give the briefest of outlines...to an equally major topic – that of the examination of the actual processes followed. There is an urgent need for a more vague term to permit the necessary reporting and discussion. Perhaps *work area* will do? It would mean nothing more than "a place where some work activity occurred". Thereafter, as the circumstances encouraged, irregular, seasonal; agricultural, domestic, craft; metallurgical, ceramic etc; palatial, private, rural...and so on."<sup>56</sup>

Visiting today a modern, but traditionally operated atelier, owned by A. Goumas, few interesting observations, which would differentiate it from a BA workshop, emerge:

- The light is available 24 hours, meaning not only that the seal engraver is able to work whenever he wants to, but most important that he can work inside.
- Even if he works in the limits of a traditionally operated atelier, and without tools that need electric power, the cutting edge is always made of metal, and we do not know if this was happening in BA as well.
- The atelier can be anywhere. There is no need to be close to any source for raw material, or water, or market in order to acquire the raw material.

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<sup>51</sup> Moorey 1994: 13.

<sup>52</sup> The term "seal engraver" used, is of proven worth: it involves the man producing the object. The distinction between a seal engraver and an artist was rejected as inappropriate to BA circumstances; likewise any distinction between the maker of the tools and their user (who is likely to be the same person). Without clear proof -from written sources of the time- concepts such as these, let alone specialists such as gemmologists, cannot be discussed sensibly.

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<sup>53</sup> Jewellers, "masters" of gemstone techniques were invited in 1990 by the jeweller Lalaounis for a workshop, and the sealstones they created are exhibited in the Lalaounis Jewellery Museum.

<sup>54</sup> Kotsakis 1986: 52.

<sup>55</sup> Tournavitou 1988: 459.

<sup>56</sup> Evelyn 1988: 399.



Today, when visiting a traditionally operated atelier in Greece, having in mind the above, we can make the following observations that can help us to approach in a more accurate and reliable way our archaeological finds:

- Furniture: In A.Goumas's working area the wooden work - bench and stool - were made by himself, in order to serve him in the best way.
- Tools: We can say that a seal engraver needs few things in order to work, apart from his hands and experience. He makes most of the tools he uses, in order to be able to confront the problems of the work. He designs on paper what he wants to create and then he realises it on the material. Plasticine is used to make trials.
- Light: there is ample light from the window, but a lamp on the wooden table provides the light for his work.
- Raw material: he has some gemstones from his personal collection and he might use them if needed. Usually he works after an order by a client, and then he tries to find the appropriate material in the market. On rare occasions the client might have the material in raw condition and demands the use of it.

In his private collection of material that he can use in case it is useful are also: wooden pieces, usually collected from the sea or river shores. They are smoothed by the water and attracted him to collect them by their shape. Seashells, wool, rope and leather string (that are used very often for hanging pendants) are also among the materials in his collection.

Today, if the seal engraver does not follow the rules for mass production, his profits are extremely limited and he has to do another job to sustain himself. And maybe this could be similar to the situation of a BA seal engraver as well, as has already been suggested<sup>57</sup>. Of course, there is the possibility of acquiring fame for the originality of the work, the exceptional good quality and the uniqueness of each object that can attract a rich clientele and in this way the seal engraver creates fewer objects than through mass production but the profit is the same or more.

Small stone objects, as sealstones, spindle whorls and beads, can become valuable evidence of stone know-how and technology, in the Late Bronze Age. In comparison to the tools needed for larger stone objects such as vases, there are some differences as these tools are meant to be used for fine work, they are very small in size and very accurate. For the above reasons they represent the latest form of technology possessed by the seal engraver concerning the creation of stone objects.

The written sources, Linear B, do not give information either on the "lithic" technology, or on the seal engravers. Either this information was lost during time elapsed or the palace administration was not interested in recording it. Unfortunately, in the representations on frescoes, pottery or

sealstones deriving from the Greek area, we do not have scenes that could enlighten us in the subject.

We may of course use written information or representations deriving from other geographical areas familiar to the Bronze Age Greeks, as an idea of their knowledge.

But even in these areas not all is known about stone object technology. Lack of evidence has led researchers to experimental archaeology and replica experiments<sup>58</sup>. The following study examines the methods and techniques employed in the manufacture of LBA stone objects found in the Peloponnese.

The tools used to make a stone object leave their traces on it. The direction of the movement of the tool, the angle it is presented to the object as well as the skill of the hand that worked it, can all be identified by the marks left behind.

Though the exact conditions surrounding the creation of a stone object and the method of its manufacture cannot be fully recovered, yet the tool's traces do offer a most valuable set of evidence. Any item may provide clues each being, in a sense, unique (since stone objects cannot be reproduced by moulds) and its information of an exact nature. Study of a group thus helps reveal the technical "know-how" of a period.

Apart from the traditional typological approach, stone objects can also be submitted to stereoscopic scrutiny in order to reveal the characteristic details of the tools used. Such evidence can then be compared in order to distinguish, for example, the similarities or dissimilarities between tool marks from various geographical regions in BA.

## **EXPERIMENT**

In order to identify traces of tools an experiment was held in the National Museum at Athens on small stone objects from the Museum's collection. The experiment was decided by the author in order to know the technology and the tools of the time in Greece and see how able they were to create such objects here or if they had to import them because of lack of the needed know-how.

The work was undertaken in July 1998 in the study room of the National Museum at Athens<sup>59</sup>. The objects that were seen (sealstones and beads) consisted of finds from sites in the Peloponnese. The artefacts included in the catalogue originate from the same sites as the objects examined here or from nearby.

The experiment was supervised by Mr. A. Goumas, who is familiar with the techniques and tools employed in the manufacture of jewellery and engraved stones.

In the expectation that the working of a design would need more tools than would the simple perforation of a string-hole – and moreover tools of the highest standards of technology of that era – it was decided to study not only plain stone objects but sealstones as well.

<sup>58</sup> Gorelick and Gwinnett 1978, 1989.

<sup>59</sup> The permission was given by the acting director of the National Museum at Athens, Ios Zervoudaki, Ephor of Antiquities. Permission No: 3219, 8/7/1998. Experimental archaeology in Greece has been done in order to create stone tools, Matzanas 1999.

<sup>57</sup> Tournavitou 1988: 447. "...Domestic workshops...the individuals working in this setting did not necessarily depend, at least wholly, on this one craft for their livelihood...".



The following observations were made with the help of a stereoscope (of magnification x 80). The stereoscope was selected as the instrument most suited to observing traces of tools.

With the exception of one sample, it was decided to use stones that possessed a high degree of hardness on the Mohs' scale. It was hoped that the choice of samples would offer a broad selection of complementary evidence supporting the aims of the experiment. The sample comprised the following: steatite (greenish variety of talc) hardness 1, agate (quartz group) hardness 6½-7, sard (quartz group) hardness 6½-7, jasper (quartz group) hardness 6½-7, rock-crystal (quartz group) hardness 7 and amethyst (quartz group) hardness 7.

The tools needed to engrave such hard stones of high hardness reveal a high degree of technological sophistication. The examination was carried out by comparing trace marks of known tools used today with those that were observed on the LBA stone objects.

## OBSERVATIONS

### SEALSTONES

**FIND** *N.M.A. 5587*: fig. 4.1.  
**Location:** Tomb Aspidos Argous, Bertou excavations, *CMS I 204*.  
**Stone:** agate.  
**Shape:** lentoid.  
**Colour:** brown and white.  
**Dimensions:** diameters: 0.0271m x 0.0295m; thickness at edge: 0.0057m, at middle: 0.0071m.  
**Decoration:** lion and bull.  
**Traces:** traces at the leg-joints, fig. 4.1.1; traces at the thigh and shin, fig. 4.1.2; the mane has very clear traces of 4.1.2 sort; traces of tooling for the neck, fig. 4.1.3 In the stringhole were traces, fig. 4.1.4. A very small amount of crystallized material is left in the stringholes. In the middle the perforation is of wider diameter. The sealstone is polished.

**FIND** *N.M.A. 8771*: fig. 4.9  
**Location:** Midea, Bertou excavation, *CMS I 195*.  
**Stone:** Haematite  
**Shape:** Lentoid  
**Colour:** black  
**Dimensions:** diameters: 0.0156m x 0.0155m  
**Decoration:** two bird-like humans, their posture implies a kind of dance.  
**Traces:** traces of tooling, fig. 4.9.1; trace of tooling mark, fig. 4.9.2 crossing lines can be observed on the reverse, fig. 4.9.3. The sealstone is polished.

**FIND** *N.M.A. 8770*: fig. 4.10  
**Location:** Midea, Bertou Excavation, *CMS I 196*.  
**Stone:** Carnelian  
**Shape:** Lentoid  
**Colour:** red-brown with white stitches  
**Dimensions:** diameters: 0.0158m x 0.0158m; thickness at middle: 0.0041m  
**Decoration:** two griffins  
**Traces:** traces of tooling, fig. 4.10.1; at the back

crossing lines are observed, as with the two previous sealstones. The sealstone is polished.

**FIND** *N.M.A. 8769*: fig. 4.11  
**Location:** Midea, Bertou excavation, *CMS I 194*.  
**Stone:** agate or carnelian  
**Shape:** Lentoid  
**Colour:** brown-orange with transparent patch on left  
**Dimensions:** diameters: 0.017m x 0.0171m.  
**Decoration:** three lions in a row, one leg.  
**Traces:** traces of tooling, fig. 4.11.1; radial lines rightwards are observed here. The sealstone is polished.

### BEADS

**FIND** *N.M.A. 13124*  
**Location:** Prosymna XXXVI  
**Stone:** steatite  
**Shape:** lentoid  
**Colour:** black with white lines  
**Dimensions:** diameters: 0.0182m x 0.0202m  
**Traces:** crossed lines

**FIND** *N.M.A. 13197*: fig. 4.12.  
**Location:** Prosymna XXVIII  
**Stone:** rock-crystal  
**Shape:** Flattened sphere  
**Colour:** white transparent stone  
**Dimensions:** height: 0.0058m; width: 0.0082m  
**Traces:** traces on the surface in round direction

**FIND** *N.M.A. 13197*  
**Stone:** Amethyst  
**Shape:** Lentoid  
**Colour:** white, dull transparent stone  
**Dimensions:** Diameters: 0.0129m x 0.0122m

**FIND** *N.M.A. 13197*  
**Stone:** Agate  
**Shape:** Sphere  
**Colour:** mauve-white, stone dull transparent  
**Dimensions:** height: 0.0059m; width: 0.0075m  
**Perforation:** one end shows two attempts, other smaller.  
**Traces:** the lines are dense; the perforation for string is not centrally positioned.

## COMMENTS ON THE OBSERVATIONS

### SEALSTONES

- *N.M.A. 5587*.<sup>60</sup>

The tool used to work the leg-joints had a spherical type of head, like the one shown on fig. 4.1.1, fig. 4.1.5. We can assume either that the tool was made of emery or that emery powder was used - for only that substance will work the quartzes (other than diamond). The trace left in the leg-joints, as we see on fig. 4.1.5, shows that the spherical type of head used here was perforated from one end to the other and not only from one side, in order to be fixed on the tool, fig. 4.1.5;

<sup>60</sup> Photographs were taken at the N.M.A. (Permission No 3954, 10/7/2000) by the expert photographer Mr. D. Georgakopoulos.



the thigh and the shin must have been cut by a tiny, lentoid-shaped tool, capable of being rotated, sketch e of fig. 4.4.

On the mane fig. 4.1.6 the well-defined lines show the use of the same sort of tool 4.1.2, whilst a wider one must have been required for the neck of the bull, 4.1.3. It is possible too that a tubular rotating head, drill, may have been used, sketch d of fig. 4.4. The shape of the tool-heads on sealstone 5587 are shown on fig. 4.1.6.

The smoothness of the cut lines throughout presupposes the use of a device with great stability. The seal engraver must have worked with such tools and not with a hand-held one (e.g. made of bone with an obsidian blade held in place, fig. 4.2).

A small amount of crystalline material observed on hollows of the hole might be remains of the abrasive material used to cut it. The exactness of the lines and their clean cutting both lead to the conclusion that no outline sketches were done on the stone. Rather the cutting was effected in one operation - no traces of earlier work can be detected. The seal engraver knew exactly what he had to do. Perhaps he had previously executed the design on a softer material in order to learn the steps and the motions his hand had to follow.

The fact that the stringhole is wider at its middle leads us to the conclusion that it was opened from both sides. The axes of the two perforations however were not absolutely aligned, leading to two eccentric cylinders but partially converging. The seal engraver trying to respond to this ground it further at the centre to produce a smooth hole that would ease the passing of the string, fig. 4.3.

At the edges of the stringhole we did not observe any of the missing flakes that usually occur there when the tip of the drill emerges from within the seal. This means that the drill-work was conducted from each side in two stages, as is also made apparent by the misalignments mentioned above.

The traces left in the stringhole show that the cutting tool was slightly unstable in its rotation. Even in such cases the use of a stable tool can be differentiated from one that is not. It is probable that the tool used for making the perforation was different from the one used for cutting the design on the seal-face.

The torque produced by the action of friction on the perforating tool is proportional to the depth of the hole. When the perforation is thus executed from two sides, the depth actually worked is half the thickness of the object and the problems correspondingly reduced. This "mistake" could even be of use: a knot in the string could be worked into position here and maintain the pendant at a fixed place on the string when in use. This specific sealstone, because it is so large cannot have been used as a ring but as a pendant worn round the wrist.

- *N.M.A. 8771, fig. 4.9*

The lines here are not smooth nor even: it seems that the seal engraver made several trials and correcting incisions in order to achieve his final result, fig. 4.9.4. From practical experiments we know that when a seal engraver tries to reposition his rotating tool in a previous cut, the tool will act in one of two ways as it touches the material:

a) the tool first makes contact with the edge of the groove, destroying the smoothness of the earlier mark. It is then gradually driven to the centre line of the groove in order to continue it or correct it. In this case the seal engraver feels the varying degrees of resistance produced by the friction between the rotating tool-head and the object.

b) the tool comes immediately into contact with the mid line of the groove. Consequently, it is exposed to friction across the whole surface of the groove, thus producing quite suddenly the final torque. In this case the seal engraver usually loses control of the tool, producing a scratch in the cut.

The opposite situation applies to the arcs: here the seal engraver had absolute control of his tool, producing a very smooth line. The tool also contributed to this high-quality cut, by virtue of its stable character. The tool used here is keener than the one used for the sealstone 5587.

The shape of the tool-heads used on sealstone 8771 are shown in fig. 4.4: a) small disc-wheel d) tubular, e) lentoid and f) conical. In some places here we can also assume that a hand-held tool was used after the rotating one had done its work. The traces of such reveal that considerable power was applied to the tool.

Sealstone 8771 shows lack of control of the tool - seen in the irregular lines in the stringhole and marks around the opening of the same.

The blanks of sealstones 5587 and 8771 were made the same way: namely by holding them to the grinding wheel, fig. 4.9.5. This is revealed from the crossing lines observed on their backs, fig. 4.9.5.

- *N.M.A. 8770, fig. 4.10.*

The smoothness of the curves reveals that they were worked by a rotating tool-bit. In some cases the seal engraver used a hand-held tool (with obsidian tip) in order to emphasize some lines, fig. 4.10.1. The shape of the tools heads, fig. 4.10.2, used on sealstone 8770 are shown on fig. 4.4: b) spherical, d) tubular and e) lentoid.

The crossing lines observed on the reverse lead to the same conclusion about grinding as for the above two sealstones.

- *N.M.A. 8769, fig. 4.11.*

Here the seal engraver has tried to cut very thin grooves, using a rotating tool. This observation is based on circular traces left in the grooves, fig. 4.11.1. The technology of fixing a shaft at that time must have been relatively primitive, resulting in difficulties in ensuring accurate positioning and a tendency for the shaft of the tool to vibrate. The thickness of the lines is in keeping with the accuracy of the bearing and as a consequence the cuts are not smooth. The shape of the tool-heads used on sealstone 8769 are shown on fig. 4.4: b) spherical, and e) lentoid, fig. 4.11.2.

The clockwise radial lines observed, reveal that the seal engraver could not prevent his rotating tool from skidding over the surface. The stringhole perforation is very neat: abrasive powder of a fine calibre was used. The rim of the perforation is cleaner cut than 5587 and 8771.



## BEADS

- *N.M.A. 13124.*

- Steatite: The crossed lines observed here reveal it was ground to shape.

- *N.M.A. 13197, fig. 4.12.*

- Rock crystal: fig. 4.12 and fig. 4.12.1 show that the perforation was achieved using a tubular drill, from both ends.

- The traces in a round direction observed on the surface, fig. 4.12.2, reveal that the grinding was done not with a lathe, but most probably by being placed between two separate and rotating components, rather like millstones. This technique was practised in Greece, in the Paiania area of Attica, by women shaping corals until 1990. The grinding wheel anyway is used not for spherical shapes but for others, e.g. lentoid because it is not possible to achieve the roundness using a grinding wheel.

- Amethyst *N.M.A. 13197*: The smoother traces observed here reveal work carried out by a rotating head, cylindrical in form.

The seal engraver after opening the stringhole from one side, switched to the other: this last one was for some reason considered unsatisfactory and a second one was opened close by, which proved to be successful. Here is a very good example showing that such perforation was worked from both sides. Though the standards achieved in making the hole are very good, yet the hole itself is not centrally placed. The most probable reason for this is that the perforation was done first and then the overall shaping. The seal engraver perhaps began with a blank, roughly cuboid in shape, which was only fashioned into a sphere by grinding it between stones after the stringhole was complete. It is impossible to ensure with this method that the stringhole was centrally positioned and balanced.

- Agate *N.M.A. 13197*: The traces observed here, associated with the stringhole, reveal a tool that does not have a good perforating ability. The established habit of perforation conducted from both sides is not detected here with absolute certainty, nor is the way of grinding (by grinding wheel or stones).

On the agate bead No 13197, the traces of the rotary turns of the drill were different in each hole. This happens when the speed of drilling is different.

## TECHNIQUES

The observations concerning each examined object, when compared with those of other researchers, confirm either common ground or reveal contrasts which in turn need exploring.

## PERFORATION

The technique of carrying out a perforation from both sides, used for small stone objects such as cylinder seals and beads, was detected on the objects that we examined. It was already practised in other regions and had been over a long period of time.

For example marble cylinder seals fig. 4.13, dated from between 3200-2900 BC and similar items made from haematite fig. 4.13.1 dated 1800 BC were excavated in the

region of Diyala in Mesopotamia.<sup>61</sup> Cylinder seals made of chalcedony from the Achaemenid period have been dated to 500 BC, and examples in agate were manufactured as late as 500 AD from the Sassanian period.<sup>62</sup> The reason why the perforation on both ours and the Mesopotamian ones was done from both sides, is that it reduced the lengths of the drill-bit needed, and lessened chances of breaking the object and the drill.

To avoid loss of time and labour after shaping, and cutting of the object had been carried out; it is likely that drilled holes were made in the stone during the first stages of the manufacturing process.

## GRINDING

The observations made concerning sealstones 5587, 8771, 8770 and bead 13124 show two ways of grinding something to shape: a) with the use of two separate and rotating components and b) with the use of a grinding wheel. In the latter case by holding the object up to the fixed grinding wheel and little by little abrading the stone away, it is possible to create the desired shape. This method is confirmed by other scholars, though as yet without archaeological finds.<sup>63</sup>

Until the first quarter of the 20<sup>th</sup> century in Germany<sup>64</sup> another variant on the last method was used, which involves the use of a water-driven mill. The seal engraver is seated or lies on his belly, holding the stone to the surface of the wheel, which is turned by running water.

## ABRASION

The use of an abrasive material both for cutting lines on the surface and for the perforation (fig. 4.5) of stone objects is proven fact. But how did they work corundum or emery to a powder in the first place? Working with stones of the same "family" is not possible. And diamond was not yet known as a material in use before the Roman period.<sup>65</sup> Crushing is a possibility, especially with the inferior and adulterated grades.

## TOOLS

Comparing the tool marks in the cuts on sealstone 8770 with those on the one that we made with modern tools, we see no big differences. This ought to mean that the griffins' wings were made in a manner similar to those we created. Therefore, the tool used is closer to a diamond in hardness than to corundum: the grain here is finer, the crystal better. As concerns sealstones 5587 and 8771, the pattern of wear and the argued use of a rotational head could imply a device very close to the modern drill - with its diamond head and rotating speeds of 3.000 - 7.000 r.p.m. But even here the clarity of the line is lost if the seal engraver, in order to observe the progress of the work by using trial-cuts, returns again and again to the same point.

<sup>61</sup> Gorelick and Gwinnett 1989: 32.

<sup>62</sup> Gorelick and Gwinnett 1978: 41.

<sup>63</sup> Evelyn 1979: fig. 70

<sup>64</sup> At the institute for engraving and shaping of stones, IDAR-OBERSTEIN, close to Frankfurt.

<sup>65</sup> Moorey 1994: 82.



In the case of sealstone 8771 the seal engraver exerted high pressure on the shank of the tool (of bone or wood): this seems less easy to do with copper (or even a tin-bronze)<sup>66</sup> because the shank will distort and bend. It is obvious that the seal engraver was in complete control of the tool when cutting the curved line for the belly.

#### ROTATING HEADS

All the objects examined confirmed the existence of rotational movement in their working. The hand-held tool was employed by the seal engravers only for specific actions to improve the quality of a particular cut. We have therefore detected six different shapes of rotating heads (fig. 4.4): a) disc-wheel, b) spherical, c) cylindrical, d) tubular, e) lentoid and f) conical. Could it be argued that the evidence reveals only one type of rotating head and these differences are due merely to later working with the hand-held tool? We believe not: the latter tool leaves very different marks.

It is easy enough to confirm this by comparing the differences present in the lines inscribed on Linear A and B tablets with those found on sealstones. The hand-held tool is not able to overpass the swellings of the stone and the trace left is like fig.4.8.1, in contrast the rotating head is working without hook on the obstacles of the stone and the trace left by it is like fig. 4.8.

Previous investigations did not come to the conclusion that "rotating heads" existed. The possible tools as concluded from other researchers are: hand held drill, bow-drill, cutting wheel.

#### HAND HELD DRILL, BOW DRILL, CUTTING WHEEL

We will now review the use of these three tools:

- A) Using only his hand, a man can perform only part of a complete rotation (of 360 degrees). In order to turn something in a full circle and in one direction he must repeat the action several times: adjusting his grip as he does so. This way gives but a poor stability, and no speed can be achieved. Using both hands the rotation can be completed more easily, but the stability again is not good. All such work in practice tends to result in a to-and-fro movement.
- B) The bow-drill fig. 4.14 would be preferable: its application to working stone objects is generally accepted by most scholars.<sup>67</sup> Its use during antiquity is also confirmed by contemporary representations. The bow-drill, with its restricted to-and-fro action, leaves specific patterns of wear (fig. 4.6). The types of drill-head that have been conclusively identified are 1) tubular (traces of which are confirmed in some stone objects)<sup>68</sup> or 2) solid. The perforation of the stringhole does not need the variety of rotational heads, as does the cutting of the design. On the stone objects that we examined we have not observed the characteristic traces. The use of abrasive material to erase these seems unlikely here, as the cuts are not so easily worked as the

stringhole. A hand-held tool would have altered their appearance, leaving different sorts of marks. Representations of a drill for bead perforation present uncertainties.<sup>69</sup>

- C) The cutting-wheel fig. 4.15, suitably supported can manage linear grooves, of varying profiles depending on the size of the wheel. Its application is limited. Representations of such a wheel show that it is used for cutting rather than piercing.

The tools proposed in earlier research for accomplishing perforations and cuts present the following problems:

How can one make a hollow tube from copper or bronze fig. 4.16? Casting in the lost-wax method is technically feasible, but would be unreliable with such small pieces perhaps. Sheet metal provides a readier answer. How were the sides joined? A seam will produce a swelling. But the sides need not in fact be closed permanently - just abutted and the whole fixed securely into some wood or bone sleeve.

The robustness of all such tools is a critical point. Those that are too slender or too long will be vulnerable to the downward and twisting pressures exerted in use.

The traces detected, combined with the tools that have been found to date, lead to the following main conclusions as to the identification of the tool type: namely that with a rotating head.

#### PROBABLE TOOLS

It is argued that the tool has to be made up of two separate pieces, the stem/shank and the head. The material used for the stem would have needed to withstand the pressure applied to it without bending or breaking in two. Moreover, the stem needed to be connected to the head in such a way so as to avoid being ground down itself whilst in use. How did they fix the rotational head of corundum or emery to a wood or bone handle? If so, the rotational head ought to be secured with glue, otherwise it will be the shank which will be ground down, instead of the sealstone.

Any such glue would have to have been of a very high quality. If glue was involved in any of these constructions, it too would have to have been of sufficient durability to have been used in the presence of any fine-grained abrasive material.

Some of the cutting visible on the archaeological specimens does not obviously differ in appearance and character from that achieved today with the use of a diamond and rotation speeds of up to 7000 r.p.m.

The determining factor for success in these cases would appear to be the stability of the device by which the cutting action was carried out. As already suggested by the author, the use of bow-drills present obvious problems here.

It is most likely that the stem/shank of the tool was made from wood or bone. The rotating head was made from emery (or another stone with a high hardness) and shaped to the

<sup>66</sup> Varoufakis 1988: 57.

<sup>67</sup> Moorey 1994: 19, fig. 3a; Evelyn 1979: 273b, fig. 31; Gorelick 1981: 24, fig. 9b.

<sup>68</sup> Wace 1955: Plate 23.

<sup>69</sup> Charleston 1964: fig.3; Evelyn 1979: fig. 32.



appropriate form to give the kind of incision desired by the seal engraver.

The rotating head was attached to the stem fig. 4.7, at the one end of which were two splits, so that the rotating head could be firmly wedged in place before being further secured by being whipped about by a cord.

Therefore we assume that this two-piece tool was used with the bow. Even though, in examination no traces of the back and forth movement of the bow-drill were observed.

Archaeological finds, dated to 2600 BC, from the Mundigak area of Afghanistan prove that rotating-head tool technology was known to the people there, long before our period of interest.<sup>70</sup>

Working-heads, made of phthanite ("lydian stone")<sup>71</sup> fig. 4.17 and a copper drill fig. 4.17.1 found in a broken lapis lazuli bead fig. 4.17.2, are reported from Mundigak. The so-called "forets" are our rotating heads. The copper drill (*tige elicoidal*) was used with the pointed end up (to be hafted) and the wider end down (to be connected with the rotating heads). We might well assume that the drill was initially shaped as a solid cylinder (without the helicoidal grooves that we observe today), and that these grooves were developed in the use of the tool affected by the frictional heat built up during rotation and by the pressure applied to it at that time. But this is not the case here: rather the grooves are very well shaped, showing that they were not made by accident but intentionally.

The finds from Mundigak therefore provide an excellent example of the kind of tools used by seal engravers producing objects similar to the ones we are examining.

In Greece until now we do not have similar archaeological finds. Their extremely small size makes them difficult to identify, not only in areas excavated in the past<sup>72</sup> but also from the latest excavated areas named workshops<sup>73</sup>.

In the Prehistoric Collection of the National Museum at Athens various objects were observed by the author and A. Goumas, excavated from different areas and from different time periods, that have been recognized and characterized as seal engraver's tools<sup>74</sup>:

- *N.M.A. 11901*: Prosymna.  
Knife.
- *N.M.A. 2744*: Mycenae Acropolis, 1886.  
Four bronze knives.

<sup>70</sup> Jarrige 1985: 287.

<sup>71</sup> Chamber's Mineralogical Dictionary, 1948: 29. "...Lydian stone, lydite, or touchstone is a highly siliceous rock, normally black in colour; the name touchstone has reference to the use of lydite as a streak plate for gold; the colour left on the stone after rubbing the metal across it indicates to the experienced eye the amount of alloy..."

<sup>72</sup> As stated by Tournavitou I. (pers. comm. 6/5/1999): rotating heads have not been found in the Ivory Houses.

<sup>73</sup> Dimopoulou 1997: 433-446.

<sup>74</sup> Reference was provided by the Director of the Prehistoric Collection Dr. E. Papazoglou.

- *N.M.A. 7218*: Lemnos.  
Bronze chisel with handle (animal bone).
- *N.M.A. 7219*: Lemnos  
Bronze chisel with handle (animal bone).
- *N.M.A. 7220*: Lemnos  
Bronze chisel with handle (animal bone).
- *N.M.A. 8697*: Mycenae, Circle B/tomb Γ  
Bronze chisel.
- *N.M.A. 8786*: Perati, tomb 123  
a) Bronze chisel; 4-sided rod with triangular point.  
b) Bronze chisel; cylindrical shape with sharp point.
- *N.M.A. 8136*: Perati, excavation 1954.  
Bronze tool; wide rectangular rod with triangular point.
- *N.M.A. 8226*: Perati, excavation 1955.  
Iron knife; oxidize condition,
- *N.M.A. 5901 and 5903*: Sesklo  
Three bronze knives, one of which is double-edged.
- *N.M.A. 5909*: Sesklo.  
Bronze chisel.
- *N.M.A. 4338*: Troy.  
Two bronze 4-sided tools with sharp point.

Another tool, whose existence cannot be vouchsafed when examining tool traces on stone objects, is the optical lens.<sup>75</sup> Some objects display minute details whose execution would have demanded very keen eyesight. Since there is no good evidence for the use of any sort of optical lens, it is thought that such work was performed by short-sighted (myopic) people.<sup>76</sup>

A problem with such people is that their myopia does not remain constant in their lifetime: if today it is possible to keep it stable and thus prolong their ability to work (in some cases), yet this was not possible in the BA. Also short-sighted people can more easily do cutting than grinding because the powder that results from such work will get in their eyes, since they have to work really close to the object to be able to see.

The time needed to achieve a piece of work under prehistoric working conditions is longer than it would be today, and assumptions made without replica experiments are far from reality.<sup>77</sup> With modern tools, an experienced seal engraver will need at least three weeks<sup>78</sup> to create a sealstone from a stone like lapis lazuli (brought in a prepared condition -

<sup>75</sup> Evans 1921: 469-472; Sines and Sakellarakis 1987: 191.

<sup>76</sup> Plantzos 1997: 458.

<sup>77</sup> Sakellarakis 1972: 239. "...It was then possible for the seal to be easily detached from the cylinder and the simple work left to be done were the cutting of the surfaces, the perforation and the final abrasion of the stone." Translation: author.

<sup>78</sup> Information given by Mr. A. Goumas.



ready to be worked on); so, in the past it could be possible to create about three a year but it would be really an exaggeration to expect more than five. Without steel, without diamond, without a high rotation per minute, it is difficult to explain how Bronze Age seal engravers achieved the high quality of stone cutting evidenced by the samples. The skill of the seal engraver can be detected in his ability to use the tool to its best effect, while the sophistication of the tool technology can be seen in the stability achieved when working. For example, with sealstones 8771 and 5587: the marks show that the former employs rotating heads of poorer quality than those used on 5587 which means that the difference here is due to tool technology and not the skill of the seal engravers. Individual skill, whilst important, is not the sole answer; technology is also fundamental to the question, as is the time spent on each stone object.

## CONCLUSION

The most important single factor in this stone technology, including its tools and methods, is the seal engraver himself. Examining these objects alone, without taking into consideration the role of the individual who made them, will give but a partial understanding of the processes involved in the creation and development of the tools and of the techniques used. The "talent" of the seal engraver and the social and cultural conditions under which the work was conducted are also integral parts of this matter. The subject is germane in situations where questions concerning manufacture are difficult to appreciate under regular circumstances.

Such an approach would help us explain the differences in manufacture presented by an assemblage of objects and the differences in the quality of decoration within a group of sealstones. To elucidate the personal contribution of each seal engraver is a worthwhile goal, if one hard to achieve.

A typological examination of the objects is not enough to establish an appreciation of the technological environment in which the material was created. Likewise, any scientific approach to the material must be as objective as possible. A preference for one kind of method or approach will automatically condition the type of information by the investigation. Ideally a variety of methods should be selected in order to avoid a skewed interpretation of the results. In addition, the person conducting the study should be aware of his own subjective position and his own possible preconceived notions about the past.

The most obvious problem confronting any study of prehistory is the gap of time that separates us from the period under scrutiny. Terms like *artist*, *aesthetic*, *talent*, *large-scale production* etc. as well as aesthetic concepts that were developed much later may be very misleading if applied anachronistically and retrospectively. Distortion inevitably results, affecting adversely our conclusions. The "theories attraction"<sup>79</sup> not only concerning art but also economy

(massive production etc.) did not determine the interest for the very first idea about the experiment and did not direct the research. The questions were raised by the archaeological finds themselves.

The general framework, within which the observations formed in this study and also its conclusions were made, may be described as follows:

One may start from the observation that stone objects cannot be mass-produced because they cannot be made from moulds. The seal engraver, contemplating the irregular raw material with which he must work, will first turn his mind to how he will produce the desired item from it. There are two ways to work:

- a) When he knows well what he wants to create and makes his plans accordingly, whatever problem may arise, he can anticipate it and has the skills to solve it, without undue revision either of his intended route or of his desired result.
- b) He has prepared only a general plan or concept: some preliminary sketches perhaps. Though he knows what he wants to achieve, if during the manufacturing process something occurs, he is sufficiently sensitive and open-minded to be able to change his plans and to incorporate the new elements.

In case (a) any unforeseen occurrences are dealt with without influencing the final result. Case (b) is more of an "exchange", a "dialogue" between the seal engraver and the material. Here the material may reveal to him some new aspect, which leads him to adjust his plans to accommodate a different final result. The seal engravers of the LBA in the Aegean were very much of the second pattern.

Working with the material and finding a defect, one can either try to hide it or even present it as part of the design. No one is able to know beforehand what lies within every material: with the layered quartzes such as agates or the chalcedonies, the seal engraver has to guess at what is inside and how the design will be affected. There is no perfection; he must adapt to the material and what it offers, what it will show him. Proceeding piecemeal this gradual approach leads the seal engraver onto something that he is striving for. His general plan as conceived is fleshed out as he works.

Obviously, it is important for a seal engraver to know the characteristics and the appearance of the substance that he intends to work with. Thus, to work a stone he must firstly know very well the material. This can be achieved by attentive observation and training and also by the sense of touch. The last is an important "tool" for the seal engraver.

By feeling the surface of a material, a skilled seal engraver can to a degree identify its peculiarities. The fingertips work as tools of identification and guidance, revealing details that the eye cannot.

This appreciation of the material is very important, because usually it is the material that directly influences the final expression - its form and quality.

Just as important as the material is the tool-kit, and the mastery of the same. The tools may already exist - at times he may need to invent some or adapt the ones he already has. A tool is created from the need to work a specific material,

<sup>79</sup> Theoharis 1970: 28. "...Above all we must understand that the past, and indeed the remote past, is not enlightening if we project it on the present, it is not adequately interpreted by our standards and contemporary criteria...". Translation: author.



and is affected by the physical properties of the same. The evolution of tools accompanied that of the seal engraver himself - in a feedback process. The light, the bench, the tools and everything that is part of the seal engraver's working environment were "created" from need, not accidentally. During work, his mind constantly searches for and finds solutions to what he faces. The drill and the wheel did not appear from nowhere. Many generations may have passed before the creation of some advance in the manner of approaching and working the material better. The tools, as well as the objects made by them, are statements of the struggle of the seal engraver to express himself more effectively.

Another critical factor in such miniature, but exacting work, is good light. A supply of natural light will have been of equal importance in determining not only the final result of a stone object but the site of the workplace too. All aspects of work will have benefited, in particular delicate cutting to form the design. Information on known workshop areas (as opposed to debris from such, or even storerooms) in Crete is almost non-existent: that at Quartier Mu at Mallia (Protopalatial)<sup>80</sup>, another at Poros<sup>81</sup>. Here too space and light seem restricted. Probably, then, the likelihood that much work was done in such open surroundings accounts for the lack of identified interior working areas.

What could probably be found in an inside area are the trials pieces that the seal engraver is making with his tools before starting to work on the final object. After using the rotating heads for the creation of an object, they are worn and new ones must be made, so the seal engraver makes further trials with them to see the result; in addition, even if he is using tools with which he worked in the past, he has to make trials again for the new object. In an area where he was keeping his tools one expects to find not only the tools but many trials and cuttings as well.<sup>82</sup>

The time needed, not for plain stone objects of lesser hardness but for sealstones of higher hardness (shaping, perforation, cutting, polishing), is long, e.g. in practice to polish an agate about two to three weeks are needed. Also, the "ability" to cut representations in 3-dimensions is acquired by observation. And observation means time. The "ability" to cut something in front and something else behind it is a matter of long time observation. When thinking about a seal engraver who is capable of 3-dimensional cuts, we must assume that he is not a very young person.

So, it may be assumed that time was very important for stone object manufacture. If one person had to find the raw material, grind it and incise it then he would be able to make no more than three a year. The answer to that might be a cooperative work, as already stated about Quarter Mu in Mallia.

It can be assumed that those involved were:

- a) the person who had the experience to find the raw material or having the experience to acquire raw material of good quality
- b) the person that grinds
- c) the person that incises (today seal engravers are able to make cuttings without the aid of lenses until the age of 30 years old).
- d) probable apprentices were also present.<sup>83</sup>

In such an extensive geographical region (from the Peloponnese to the Levant), the technology for the most important points was arguably held in common.

The ways by which such knowledge travelled are many. The need for raw material - let alone the movements of groups of people and their culture all assist in the spread of ideas. Afghanistan was supplying lapis lazuli to Egypt and the Near East, other stones and perhaps metals travelled from about as far. The sort of stone-cutting technology found at Mundigak may have journeyed alongside such items. On the other hand the use of emery was probably tried and established by local seal engravers in the Cyclades.

This "know-how" becomes a background held in common to the objects that each individual seal engraver made. The differences in the quality of a tool or the completed stone object are due to each seal engraver separately. As shown when comparing sealstone 8771 from Midea with 5587 from Argos, the difference in quality is great, so much so that it might even suggest different workshops.

Common sense plays a part in the manufacture of these items every bit as much as any learned skills and disciplines. Experienced seal engravers followed a specific order in the stages of manufacture: the perforation of the stringhole for example was done before the shaping or the cutting of the design. Finds revealing the opposite order of procedure are rare, possibly showing inexperience on the part of the artisan. Experienced seal engravers knew very well the characteristics of stone-types, inventing and using their tools in such a way to get round the defects of the specific piece and took care to recycle the expensive material when they could.

The use of stone of high durability and great hardness underlines the nature of the evolved technology. The learning and compiling of experience and technique were owed as much to earlier generations of artisans. This study reveals their competence since technology and know-how cannot be imitated, but it does raise some new questions concerning certain tool-types and their operation in the period of the BA in Mycenaean Greece and specifically in the area of the Peloponnese. Lacking written sources or representations, we can only progress by examining the stone finds: replica experiments are the only way to confirm suggestions on tools and technique.

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<sup>80</sup> Poursat 1996.

<sup>81</sup> Dimopoulou 1997.

<sup>82</sup> Poursat 1996.

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<sup>83</sup> Moorey 1994: 104. "...A text of the Achaemenid period indicates that an apprentice seal-cutter then served for four years...he will teach him the stones pertaining to the whole of the seal-cutter's craft".



### **BELIEFS ABOUT GEMSTONES IN THE ANCIENT WORLD**

### **GEMSTONES IN ANCIENT EGYPTIAN WRITTEN SOURCES**

#### **INTRODUCTION**

The use of particular stones varies according to the purpose for which they were originally intended. The use of stones as material for "manufacture" can be divided into five groups: The first two (a) and (b) which are not related to our study are as follows:

a) The stone would appear to be chosen at random in order to make an object. This type of random selection concerns not only the use of one stone instead of another but also the use of stone in place of another material, such as wood or clay. Its selection is due, therefore, to a factor that is not dictated by a specific preference for a particular material.

b) The stone is selected primarily on account of its natural or physical properties, such as its hardness or workability, that deem it suitable for the manufacture of a specific object. This group is determined by the skill and experience of the seal engraver.

c) A third distinction may also be made in which the stone is selected for reasons that concern properties attributed to it by man but not of the kind that we are interested in the present study. In this case the stone is selected in order to make an object whose importance will be reflected by the material value of the substance from which it was made. If the importance of the object is indicated by the material of its manufacture, we can assume that a different set of considerations, of a "social" rather than practical nature, have influenced the choice of that material. Moreover, we can assume that a common value has been placed upon a particular material - one that is shared by most if not all members of a given society.

The last two groups (d and e) are the ones that most closely concern our study and they can be defined and explained as follows:

d) The stone is selected for an object that has an important task or role to perform. The function of the object may be construed as both practical and symbolic. Its purpose (recorded or unrecorded) is determined by very specific social or cultural practices.

e) The stone is selected because of the properties that are attributed to it by a person or society's beliefs or superstitions. In the examples we shall encounter below the supposed magical properties of stones are also closely related to aspects of the community's religious life and, in particular, those beliefs concerning death and the notion of an afterlife.

Stones were used in Egypt since pre-dynastic times for the manufacture of personal ornament. In ancient Egypt the dead were escorted to their place of burial accompanied by written texts. These texts were made at first for the Kings and Queens, then for nobles and later for the common people. Depending on the material upon which they were written (stone, wood or papyrus) they are generally referred to as "Pyramid Texts", "Coffin Texts" or "Books of the Dead"<sup>84</sup> written on papyrus. These texts are invariably concerned with the future of the dead in the afterlife. They often relate to the judgement of the deceased and the fear of a second death. Moreover, the texts provide for the well being of the dead person at the hands of imaginary forces and contain spells that were intended to be protect the individual who recited them. By furnishing their dead with these texts the Egyptians were in a sense providing themselves with a guidebook to the unknown as well as a means of interfering with a part of creation that still lies beyond human understanding. The texts themselves clearly played an important role in ancient Egyptian religion<sup>85</sup>.

"...and the pious Egyptian, whether King or ploughman..  
lived with the teaching of the Book of the Dead..  
and he based his hope for everlasting life and happiness upon  
the efficacy of its hymns and prayers  
and words of power.." (Budge 1923: x)

Not only do the texts suggest a better afterlife but also provide the reader with the necessary rubric by which he or she might obtain success and happiness in the underworld

"..If this chapter be known by the deceased he shall be  
victorious both upon earth and in the underworld.." (Budge 1923: 221)

Elsewhere they offer assurances in the case of certain fears and dangers

"..The chapter of not dying a second time.." (Budge 1923: 221)

In short, the Egyptians believed that they could interfere with and alter the possibility of an adverse or unwelcome fate and, by doing so, secure their own well-being in the underworld.

The interest here is focused on objects that were made of stone because of the supernatural properties attributed to various stones by the ancient Egyptians (i.e. groups d and e). Ancient Egyptian written sources provide some interesting clues to our understanding of the way in which stones were perceived in Egypt at the time. These written sources form a substantial body of evidence to which will be added the general accounts of later writers and historians. Finally we shall discuss the work of archaeology in this area and the relevance of particular finds to the present investigation.

Stones are often mentioned in these texts and their occurrence can be summarized by the following cases:

<sup>84</sup> Petrie 1924: 170; Morenz 1973: 227.

<sup>85</sup> Petrie 1924: 201; Morenz 1973: 227.



i) the use of a specific stone in order to cast a spell. Examples of these are usually found at the end of a text and take the following rubrics

"..This chapter shall be recited over a basalt scarab, which shall be set in a gold setting, and it shall be placed inside the heart of the man for whom the ceremonies of "opening of the mouth" and of anointing with unguent have been performed. And there shall be recited by way of a magical charm the words.. "  
(Budge 1923: 147)

"..These words are to be said over a scarab of green stone encircled with a band of refined copper and having a ring of silver, which shall be placed on the neck of the *khu*.. "  
(Ibid: 151)

"..And behold, thou shalt make a scarab of green stone, with a rim plated with gold.. "  
(Ibid: 222)

"..These words are to be said over a soul of gold inlaid with precious stones and placed on the breast of Osiris.. "  
(Ibid: 281)

"..This chapter shall be recited over a *Tet* of crystal.. "  
(Ibid: 419)

"..This chapter shall be recited over an *Uchat* of real lapis-lazuli or of *mak* stone plated with gold.. And thou shalt make another *Uchat* of jasper.. "  
(Ibid: 427)

"..This chapter shall be said over a buckle of carnelian.. "  
(Ibid: 523)

"...This chapter shall be said over an *Uatch* of mother-of-emerald whereupon it hath been inscribed, and the *Uatch* shall be placed on the neck of the deceased.. "  
(Ibid: 527)

"...And this chapter shall be written with anti either upon a *meh* stone.. or upon mother-of-emerald of the south and dipped in water of the western lake.. "  
(Ibid: 537)

From another rubric we learn that the specific Chapter was to be recited over a figure of Horus made of lapis-lazuli which was to be laid upon the neck of the deceased, and that the performance of this ceremony was believed to be most efficacious in securing important benefits for the dead.

ii) stones that appear in the title of a chapter

"THE CHAPTER OF A HEART OF CARNELIAN"  
(Budge 1898: 76)

"THE CHAPTER OF A BUCKLE OF CARNELIAN"  
(Budge 1923: 522)

"THE CHAPTER OF THE UATCH AMULET  
MADE OF MOTHER-OF-EMERALD"  
(Ibid: 526)

"THE CHAPTER OF GIVING AN UATCH OF  
MOTHER-OF-EMERALD to the scribe Nebseni.. "  
(Ibid: 527)

iii) stones that are indirectly related to the meaning of the text

"..This chapter was found in the city of Khemennu upon a block of iron of the south, which had been inlaid with letters of real lapis-lazuli.. "  
(Ibid: 221)

iv) stones referred to in the text whose existence is purely imaginary

"...*Maat* (i.e., right and truth) is in my body: its mouths are of turquoise and rock-crystal. My homestead is among the furrows which are of the colour of lapis-lazuli.. "  
(Ibid: 262)

"...I, even I, know the two Sycamores of turquoise between which Ra showeth himself.. "  
(Ibid: 318)

"...THEN SHALL THE HEART WHICH IS RIGHTEOUS  
AND  
SINLESS SAY:...What then, didst thou do to the flame of fire and the tablet (or sceptre) of crystal after thou hadst buried them?... I extinguished the fire, and I broke the tablet (or sceptre), and I created a pool of water.. "  
(Ibid: 375)

".. I know the two sycamore trees of turquoise, from between which the god Ra doth emerge.. "  
(Ibid: 487)

"..I am the Uatch of mother-of-emerald which cannot be injured.. "  
(Ibid: 527)

"..thin eye-lashes are fixed each day, and the upper eyelids to which they belong are of veritable lapis-lazuli;...thy buttocks and testicles are of crystal"  
(Ibid: 583)

"..I am the Ibis with the black head,... and the lapis-lazuli back.. "  
(Ibid: 692)

"..in the Field of Turquoise.. "  
(Faulkner 1969: 161)

" ..the King is bound for his throne of malachite, his food is in the Fields of Offerings in the Lakes of Turquoise.. "  
(Ibid, 260)

v) Vignettes that allude to the possible presence of stone

"..the scribe Ani..In his left hand.. Ani holds a necklace of several rows of coloured beads.. "  
(Budge 1923: 281)



## COMMENTS ON THE EGYPTIAN TEXTS

The text, the words recited as a charm, the reciter, the stones, the objects, the part of the body or the place that the objects had to be placed, the ceremony, all these factors play a part in determining the afterlife of the deceased and it is for this reason that here are presented sections from the Book of the Dead and not only the parts in which stones appear. Information is given about all the elements involved in these religious texts and their close relation to one another. If only the presence of stone was demonstrated here, not only could this give a false impression about the importance of stones but also their role during these situations and ceremonies and consequently in Egyptian thought could not be explained clearly. The parts of the text that refer to stones were incorporated and "interwoven" with the basic functions of the texts in many ways. It is very clear by reference to group (i) that the ancient Egyptians believed that stones possessed supernatural properties that could transform simple words into magic spells when recited above a specific stone. Such a spell could ensure that "the darkness in the underworld would disappear".

In (i) the stone is a basic and indispensable element in the text-spell. In this instance it is clear that supernatural properties were attributed to the stones. These examples conform to the definition given earlier in this chapter as group (e). A specific stone is selected in most of the chapters included in group (i) and it is also suggested that these stones will secure the realization of the words. Also in (i) we see that objects such as *Tet*, *Utchat*, and the figure of the god Horus, were used and were indispensable instruments for these ritual ceremonies. These stone objects signified meaning directly by their shape. According to Hourmouziades an object conveys its purpose or meaning by its shape and material<sup>86</sup>. The significance or value of the material, in our case stone, are the properties attributed to it by man.

"..the symbol is a term, a name or an image that,  
although seems to us familiar in everyday life,  
they possess ...implications,  
added to its conventional and evident signification."  
(Jung 1964: 20-21. Translation: author)

The power of the object (*Tet*, a figure of God etc.) is increased by the material. In our case the stone-objects become the tools by which the ritual activity and thought presented in the Book of the Dead and the Pyramid Texts were made tangible events in the underworld. The belief in supernatural properties is explained in group (d) by the shape of the stone object and in (e) by the material element (the stone itself).

When in (i) the soul of gold is inlaid with precious stones, the term "precious" indicates the supernatural properties of the stone rather than its material value. Material value cannot be judged a crucial factor in a belief system that compelled men to recite spells created for kings who were deeply concerned about their afterlife. Nor can material values explain the value of stone here since it is connected with the

manufacture of objects that were believed to have supernatural powers (group d). Also, since these texts became the "property" of the common people and not only the kings and nobles, then the material value of highly prized stones cannot be used as an explanation of "precious".

The stone, in general, can be used to perform a role or service in a situation where supernatural powers are called upon to intercede in the afterlife of the deceased. These texts-spells were at first written on pyramids, then on coffins and lastly on papyri buried with the dead. All these texts were influenced by Egyptian mythology and may be viewed as expressions of a desire not to die a second time or to be misjudged in the underworld. Implicit in these texts is a belief in the supernatural and the otherworldly, an assumption that is suggested also by the divine status of the original addressees of these spells, i.e. the Egyptian kings and queens, as well as by their manifest concern with the easy transition of the deceased from this world to the next. What is presented is a world that existed in the imagination of the ancient Egyptians, a world that had grown out of a desire to understand and control the unfathomable forces that appeared to govern human existence whilst providing for an alternative and reassuring vision of life after death. The role of these texts in the attainment of this final goal was clearly important. To some degree at least it is arguable that these texts were also regarded as powerful religious objects or talismans in their own right. Even when the practice of writing spells was adopted by ordinary individuals for their own funerary rites and in later years degenerated into gibberish with many of the words in the text either misspelled or left out altogether, the mere presence of a text of some description would, it appears, suffice. Often in these cases the references that are made to particular types of stone appear vague and allusive: for instance "green stone", a possible reference to nephrite, "*meh* stone", alabaster or "crystal":

"..What still made religious sense in the Pyramid Texts when  
applied to the divine nature of the king  
was gradually depraved and cheapened  
by applications to everybody who could afford  
to buy his copy of the "BD"  
into base magic pure and simple..  
(Harris 1971: 159)

The "green" stone, however, might indicate that, over the centuries, any stone that was green in colour came to be regarded as powerful and consequently any green stone could be substituted for it without lessening the potency of the spell. The symbolism of the stone and the spell that follows was "learned by heart" and thereafter the property of whosoever recited this "information"<sup>87</sup>.

The whole ritual of texts-spells is shown to involve the use of certain requisite stones, such as those which we see in case (ii). For the dead not any chapter was recited but in particular that of the heart of carnelian, of the *Utchat* of mother-of-emerald was considered appropriate. Carnelian (red jasper)

<sup>86</sup> These thoughts are based on the ideas of Hourmouziadis (1978: 30-46) about prehistoric tools.

<sup>87</sup> About the relation of gemstones as presented in The Book of the Dead and those found in tombs (the basalt scarab is a scarab of nephrite, the buckle of carnelian is a *tie*-amulet of red jasper, the *Utchat* of mother-of-emerald is a papyrus amulet of feldspar), see Shorter 1935: 171; Allen 1974: 39, 40, 56, 155, 156.



and mother-of-emerald (feldspar) were considered to be powerful enough to be used to represent objects that were thought to possess special powers. It is also worth pointing out that stone dust was also the material with which these texts were written (iii). Lapis Lazuli, in particular was used to write one of the oldest chapters "of the coming forth by day in the underworld".

As we have shown above, stones play an important part in an imaginary world that was the centre-piece of a whole belief system created by the ancient Egyptians in order to explain and rationalize the afterlife of the dead. For example, in case (iv) organic objects as well as parts of the gods' bodies are likened to or described as types of stone - a choice of simile or synonym clearly intended to convey a sense of divine permanency in the face of mortal death and decay.

"..turquoise and lapis-lazuli are for your face, all sorts of magnificent precious stones for the openings of the head.."

(Goyon 1972: 65. Translation: author)

The particularization of stones such as turquoise, crystal, lapis lazuli, mother-of-emerald suggests that the substance divinity itself is stone. These specific stones functioned in much the same way as the idea of divinity in the Egyptian imagination.

The vignettes, included in the group mentioned above, also provide some interesting information on the use of stone during religious rituals and ceremonies, such as case (v) which depicts the offering of coloured beads from the scribe Ani to the god Anubis (fig. 5.1). For this reason we have included the vignette as an inseparable part of the textual evidence

"..It is not simply a decorative luxury: the vignette was playing its role, in the efficacy of the magical ticket, the title same as the text; one was completing the other.."

(Sauneron 1970: 6. Translation: author)

The written sources clearly indicate that among the ancient Egyptians there was widespread belief in the supernatural powers of stones and that their use during the rites and ceremonies related to the important matter of the afterlife leaves no room to argue that the decision to choose these stones was simply dictated by chance.

Reading these sources, it is clear that the supernatural powers the texts call upon are conjured up by a variety or combination of factors: persons, objects, words and actions. Not only do stones appear in the texts but also the figures of gods. Elsewhere the purity of the reciter is also specified. Yet the common denominator of each text remains the use of stone. For at least as long as the tradition of writing these "Coffin Texts" or "Books of the Dead" continued, these materials, such as basalt, carnelian and others, were associated with and attributed magical powers by the Egyptians. Indeed, such was the power of this tradition, so deeply rooted in ancient Egyptian belief and its relation to matters of life and death, that the supernatural powers attributed to these stones also attracted the interest and comments of later writers

"..the falsehoods of the magicians would persuade us that these stones are preventive of inebriety.."

Pliny HN 37.40)

What these passages tell us is that stones acquired from Egypt or used by the Egyptians were thought to have magical or medical powers and, despite Pliny's ironical treatment of magicians, it is clear that the ancient Egyptian belief in the power of stones to secure happiness and well-being in this life and the next was still active in later times. For a long period of time from ancient Egypt to the first centuries A.D. there persisted a long "tradition" of belief in the supernatural power of stone both as a weapon against the soul-devouring creatures of the underworld and, more prosaically, as an antidote against the dangers and pitfalls of everyday existence such as poisonous snakes and scorpions. Even at the time of Pliny's written commentary, stones were still closely connected with what the ancient Egyptians considered to be the last and most important journey for a man - the passage of his soul from this world into the next.

## ARCHAEOLOGICAL EVIDENCE FOR THE ROLE OF EGYPTIAN GEMSTONES AND AMULETS

Petrie accepts the material of the amulets as important and he gives a catalogue of more than twenty stones named as such. He adds that "..often the form is disregarded, so long as the special material can be obtained..<sup>88</sup> Lucas and Harris refer to 22 stones, among them agate, amethyst, beryl, carnelian, chalcedony, feldspar, haematite, jade, lapis lazuli and turquoise which were used in ancient Egypt for amulets and jewellery<sup>89</sup>. In the work of these archaeologists the stones are even used as evidence to explain the divine character of objects and identify the "..divine character of two mummiform statuettes..", made of lazuli, "..material of which divine bodies (god) are made..<sup>90</sup>.

From the archaeological finds we also have evidence about the use of stone for the manufacture of objects considered to be the recipient of supernatural properties themselves<sup>91</sup>:

- a) The scarab amulet that is often mentioned in the Book of the Dead is made of jade, lapis lazuli, green felspar, glazed steatite and other stones.
- b) The *pss-kf* instrument that was used in the "opening of the mouth ceremony" which is mentioned in the Book of the Dead is also called an amulet and is sometimes made of carnelian or metal.
- c) The heart amulet is made of carnelian, sard, basalt, haematite, steatite and lapis lazuli among many other stones.
- d) The *djed* pillar is made of lapis lazuli.
- e) The *uzat* eye amulet of amethyst, jasper, jade, turquoise.
- f) The Horus figure is made of black steatite, quartz crystal, lapis lazuli, carnelian.
- g) The papyrus sceptre is made of lapis lazuli, green felspar, steatite, beryl, haematite, carnelian.

Many other objects which are also referred to as amulets are made of stone in the shapes of rams, serpents, hippopotami,

<sup>88</sup> Petrie 1914: 52.

<sup>89</sup> Harris 1962: 386.

<sup>90</sup> Schneider 1977: i.

<sup>91</sup> d'Auria 1988; Harris 1971; Naville 1910; Petrie 1914, 1917, 1925; Roth 1992; Shorter 1935; Smithe 1979.



cats, gods, phalli, head-rests, and ushabti. Beads were also worn as amulets and were made of stone<sup>92</sup>. Petrie mentions sixteen materials from which the amulets placed on the mummies were made and thirteen of these materials are stones including carnelian, green felspar, lapis lazuli<sup>93</sup>.

## COMMENTS

"...When texts are inscribed in the king's tomb, the recitation of which is intended to guarantee his royal existence for all eternity, and whose statements about his divinity have a real analogy in the terrestrial concept of sacrosanct monarchy..."  
(Morenz 1973: 230)

In Egypt, gem-stones were used as materials to which were attributed properties other than their natural ones. The stones are mentioned in texts commissioned by kings and queens, a factor that determines the character of all the elements present in the "group". By reciting these texts the ancient Egyptians hoped to achieve a safe transition to and resting place in the underworld. The stones, either independently or in combination with metal or other materials, played an important role in securing that wish. We have analysed the role of the stones in five cases.

The belief in the "power" of stones existed previously, even before these texts, and this was the reason for their selection and use as a material for manufacturing "powerful" objects. The practice continued for as long as the tradition of the spells persisted. It is possible too that the stones were considered to be the autonomous recipients of supernatural powers and independent, therefore, of any other material or object. All the preparations and the provisions made by the living for their death extended also into everyday life. The supernatural powers of the stones were called upon and used by the living as well for the dead in order to ward off danger and pestilence of different kinds. Finally, the reputation of the stone amulets, persisted until later times as can be seen from the works of later writers such as Theophrastus, Dioscourides and Pliny.

Taking a simplistic view of the evidence offered by the written sources it is easy to dismiss the beliefs shared by these accounts as mere coincidence. It is important, however, to recognise the power of these beliefs. The belief that both king and commoner could use the same "tool" (the text) in the underworld explains the fact that sometimes the artefacts that are found alongside these burials are made of many-coloured pieces of glass rather than the stones that are mentioned in the texts. Whether they were written on pyramids, coffins or papyrus the "power" associated with the materials described by these texts remained the same. Such was the belief in the supernatural power of stone that merely mentioning the name of the stone during the recital of the spell was considered sufficient. Even if the spell was recited by a king who was able to acquire the requisite turquoise or lapis lazuli, the spell performed the same task for the common Egyptian who was not in a position to acquire or purchase such materials.

"...under the form of multi-coloured glass-  
the precious stones incrustated in the wood..."

(Goyon 1972: 235)

The actual presence of stone was not considered to be essential. The ancient Egyptian belief in the supernatural properties of stone required only symbolic affirmation.

## MAGIC AND GEMSTONES IN GREECE

### INTRODUCTION

The stone objects presented in the catalogue show that the stones were highly regarded by all the inhabitants of the areas examined and that they used them for many personal objects, although the procedure of their making (working with raw material of extreme hardness or preparing the sealstones and seal rings) took time.

### GEMSTONES IN ANCIENT GREEK AND LATIN TEXTS

We will examine the possibility of magic being one of the reasons for the use of stones for small personal objects worn as part of the clothing, jewellery or as indispensable elements in the tomb. This period was propitious for the birth and development of superstitions. Ignorance of the natural phenomena, the presence and future of man on earth, the end of life, even everyday problems, bad luck and personal relations were believed to be resolved by magic which served as the weapon to fight against all problems and insecurities

"They used to say, my friend, that the words of the oak  
in the holy place of Zeus at Dodona were the first  
prophetic utterances. The people of that time,  
not being so wise as you young folks,  
were content in their simplicity to hear an oak  
or a rock, provided only it spoke the truth;"  
(Pl. Phdr. 275c)

There are words and descriptions in the Greek texts that indicate the practice of magic, myths about the use of magic, as well as the characterisation of geographical areas where magicians often came from. Words which are used and, as a consequence, prove the belief in magic and the use of magic for various purposes include: ἡ φαρμακεία (poisoning), ἐπωδές (incantations, charms) γητέματα (witchcraft), ἀγωγαί (magic that lead phantoms against living people), καταδεσμοί (binding spells), πείθειν (persuade to serve), γόης<sup>94</sup>, μαγγανεία (incantation, charm), μαγεία (magic), μαντική (art of divination). The time for those practising magic goes back to the Minoan period.<sup>95</sup> Plato gives us an excellent explanation of how magic works

"Interpreting and transporting human things  
to the gods and divine things to men; entreaties  
and sacrifices from below, and ordinances and  
requitals from above: being midway between it  
makes each to supplement the other, so that the  
whole is combined in one."  
(Pl. Symp. 208)

<sup>94</sup> In Greek the word "γόης" (the one that charms, the magician) is used for the one acting as intermediary and proves a connection with magic and practice of death rituals, since the word (γοάω = θρηνῶ = mourning) is related to death. Johnston 1999: 16.

<sup>95</sup> Persson 1942; Petrie 1914; Olivier 1982.

<sup>92</sup> Harris 1982: 41.

<sup>93</sup> Petrie 1914.



"In everyday life the usual problems and human relations  
were driving everyone to face magic."  
(Pl. The Resp. I.364b5)

"Moreover, a serpent  
was once seen lying stretched out by the side of  
Olympias as she slept, and we are told that this,  
more than anything else, dulled the ardour of Philip's  
attentions to his wife, so that he no longer came  
often to sleep by her side, either because he feared  
that some spells and enchantments might be practised  
upon him by her, or because he shrank from her  
embraces in the conviction that she was the partner  
of a superior being."  
(Plut. Alex. II.4)

"Will not the sable-palled Avenging Spirit quit the  
house, when the gods receive oblation at thy hands?"  
(Aesch. Sept. 700)

The popularity of magic is attested also by finds, such as the  
curse tablets, from the Agora at Athens. They seem to be  
objects widely used and for many purposes<sup>96</sup>, in love,  
profession, oratory. A particular talent is often understood as  
something uncommon in human nature and is perceived as  
related, in a way, to magic. A statue which gives the  
impression that it is ready to move, a marble face which is  
ready to talk, all are like souls imprisoned in stone that only  
the sculptor is able to set free by using his magical tools.  
Magical abilities live in talent, in thought and in action. An  
orator at the podium, who leads his audience to change their  
minds about a subject, is someone distinguished who  
possesses a magic art.<sup>97</sup> The poets and writers are introducing  
us to this world where magic, ritual and ceremonies were  
needed to propitiate the gods, win a battle, or stop the winds  
from blowing. Human ill fortune was the result of disrespect  
to the gods or the dead and should find justice and express  
repentance

"A sacrifice must I first offer here."  
(Eur. IA 673)

"Then Calchas cried-how gladly ye may guess:  
"O chieftains of this leagued Achaean host,  
see ye this victim by the Goddess laid  
before her altar, even a mountain hind?  
This holds she more acceptable than the maid,  
that she stain not with noble blood her altar.  
Gladly she hath accepted this, and grants  
to us fair voyage and onset upon Troy."  
(Eur. IA 1592)

"..he clasped Themistocles  
by the hand and bade him consecrate the youths,  
and sacrifice them all to Dionysus Carnivorous, with  
prayers of supplication; for on this wise would the  
Hellenes have a saving victory. Themistocles was  
terrified, feeling that the word of the seer was mon-  
strous and shocking; but the multitude, who, as is  
wont to be the case in great struggles and severe  
crises, looked for safety rather from unreasonable  
than from reasonable measures, invoked the god

with one voice, dragged the prisoners to the altar..  
..and compelled the fulfilment of the sacrifice, as the  
seer commanded..  
(Plut. Them. 13.2)

"..and when the seer, urging  
Artemis as cause, proclaimed to the chieftains  
another remedy, more grievous even than the bitter  
storm, so that the sons of Atreus smote the ground  
with their staves and stifled not their tears-  
Then the elder king spake and said: "Hard is  
my fate to refuse obedience, and hard, if I must  
slay my child, the glory of my home, and at the  
altar-side stain with streams of a virgin's blood a  
father's hand..  
(Aesch. Ag. 200)

"..So we were engaged in thanksgiving, and the  
Thebans in acknowledging the deliverance  
that they owed to us..  
(Dem. De Cor. 218)

Simple mortals were on a par with the powerful leader when  
facing the commands of the seer. Sacrifices, thanksgiving,  
offerings to the gods and the dead are the visible, the  
practical part of magic. The belief in powers which  
demanded the blood (human or animal) be poured on the  
altar was a way of life for these people and determined their  
acts. According to the occasion or the expected result, the  
corresponding procedure of ritual and the etiquette were  
followed

"..Whenever a magistrate holds a public  
sacrifice, the next thing is for a crowd of choirs-  
not merely one- to advance and take their stand,  
not at a distance from the altars, but often quite close  
to them; and then they let out a flood of blasphemy  
over the sacred offerings, racking the souls of their  
audience with words, rhythms and tunes most  
dolorous, and the man that succeeds at once in  
drawing most tears from the sacrificing city carries..  
(Pl. Leg. 7.800.C8)

".. and following all,  
the chief magistrate of Plataea, who may not at  
other times touch iron or put on any other raiment  
than white, at this time is robed in a purple tunic,  
carries on high a water-jar from the city's archive  
chamber, and proceeds, sword in hand, through the  
midst of the city to the graves; there he takes water  
from the sacred spring, washes off with his own hands  
the gravestones, and anoints them with myrrh; then  
he slaughters the bull at the funeral pyre, and, with  
prayers to Zeus and Hermes Terrestrial, summons  
the brave men who died for Hellas to come to the  
banquet and its copious draughts of blood; next he  
mixes a mixer of wine, drinks, and then pours a  
libation from it, saying these words: "I drink to the  
men who died for the freedom of the Hellenes."  
These rites, I say, are observed by the Plataeans  
down to this very day..  
Plut. Arist. 21.4)

"..In all cases where a free man disobeys the State,  
not by acts deserving of stripes, imprisonment or  
death, but in respect of matters such as attendance

<sup>96</sup> Gager 1992.

<sup>97</sup> de Romilly 1973; Corso 1999: 28.



at festivals or processions or public ceremonies of a similar kind-matters involving either a sacrifice in peace or a contribution in time of war, - in all such cases the first necessity is to assess the penalty.." (Pl. Leg. 9.949.C6)

A ritual was fixed and important; the colour of the clothing which the chief magistrate would wear as well as the role of iron; all are symbols which concern the tradition supporting magic. Specific words which had to be said; the placement of the crowd in respect of the altar and the role it had to play during the ritual show the involvement of all in magic. Finally, law is applied against those who do not show proper respect. The appeal of magic was such that it became a subject of criticism and had to be expelled by law from people's lives

"..For whereas the one class will be quite frank in its language about the gods and about sacrifices and oaths, and by ridiculing other people will probably convert others to its views, unless it meets with punishment, the other class, while holding the same opinions as the former, yet being specially "gifted by nature" and being full of craft and guile, is the class out of which are manufactured many diviners and experts in all manner of jugglery.." (Pl. Leg. 10.908)

"..Distinct from this is the type which, by means of sorceries and incantations and spells (as they are called), not only convinces those who attempt to cause injury that they really can do so, but convinces also their victims that they certainly are being injured by those who possess the power of bewitchment.

...And it is futile to approach the souls of men who view one another with dark suspicion if they happen to see images of moulded wax at doorways, or at points where three ways meet, or it may be at the tomb of some ancestor, to bid them make light of all such portents, when we ourselves hold no clear opinion concerning them.

...And if it be held that a man is acting like an injurer by the use of spells, incantations, or any such mode of poisoning, if he be a prophet or diviner, he shall be put to death.." (Pl. Leg. 11. 933A)

"..and at the very beginning we cut off the whole art of magic which is concerned with antidotes and spells.." (Pl. Plt. 280E)

"Socrates:..For you must not suppose that while sticks and stones and birds and snakes are sacred, men are not; nay, the good man is the most sacred of all these things, and the wicked man is the most defiled.." (Pl. Minos 319A)

As shown above, we have a description of acts which prove the use of magic in Greece amongst the people of that time. But how was the belief in the magical abilities of an object created? What is the reason for its gaining the characterisation of being sacred? The beginning of belief in the supernatural abilities of a stone is said by the writers to

be its relation to a natural phenomenon, a historical incident or its relation to something already perceived as sacred

"Troizen: They say it was on the sacred stone in front of this temple that nine Troizen men purified Orestes from his mother's murder.." (Paus. II.31.7)

"..Among the silphium, also, a snake is found, for the bite of which a certain stone is said to be a cure: a stone that is brought from the grave of an ancient king, which stone is put into water and drunk off.." (Arist. Hist.an. 607a.24)

The word λίθος (λάας) is used to denote the simple stone, as well as building material, and it also refers to the material used for personal objects, such as buttons, beads, sealstones. Simple stones<sup>98</sup> are known to have been perceived as sacred and Pausanias mentions the adoration of simple, shapeless and uncut stones, which had their place in front of temples (πρόναοι); meaning that in times of non-figurative religion, stones represented the divine and they received the honours and the adoration that later were attributed to statues of gods and goddesses. The time when magic in relation to "stones" appears goes far back. There was an early period when the whole of Greece paid divine honours to simple stones instead of statues.<sup>99</sup> All around Greece stones were adored as statues were later, but we cannot say when or be precise about whether the stones and pillars ever stopped being worshipped

"Achaia: Very near the statue stand some stone blocks: there are just thirty of them, and the people of Pharai worship them, calling each one by the name of a god.." (Paus. 1.7.22.3)

We know that this belief existed not only in the faith in, and the fame of the magical abilities of the stones, but in ceremonies as well, since rituals concerning the use of libation, even for simple stones and pillars, were thought to be sacred. Various writers attest even sacrifices to them

"When he passes one of the smooth stones set up at crossroads he anoints it with oil from his flask, and will not go on his way till he has knelt down and worshipped it..He is for ever purifying his house on the plea that Hecate has been drawn thither.." (Theophr. Char. 16.5)

"Phokis: from this memorial you come to a stone, not very large; they pour oil on it every day and at every festival they offer unspun wool.." (Paus. 1.10.24.6)

In the written works of authors, from the Classical period to the 1st century A.D., stone is described as having properties other than its natural ones. It is described variously as a soul, or an amulet and it is even prescribed as a form of remedy.

<sup>98</sup> Stone used as building material and the related belief in the ancient world is analysed in the work of Mayassis 1966.

<sup>99</sup> Pausanias 1.7.22.3.



We can say, therefore, that it belongs to group (e). Here we do not have religious spells. Stone occupies man's thought as having a soul, which can move iron, as a cure against human illness and as a tool in agriculture

"La chrysocolle a la propriété de faire disparaître  
les cicatrices,  
de réduire les excroissances de chair,  
d' être purgative, astringente,  
brûlante, septique et légèrement rongeante.  
Elle fait partie des  
vomitifs et peut occasionner la mort."  
(Dioscourides, De materia medica V.89.12)<sup>100</sup>

"La...pierre d'hématite...avec du lait de femme,  
elle convient pour les ophtalmies,  
les ruptures de veines  
et les épanchements de sang dans les yeux."  
(Dioscourides, De materia medica V.126.4)

"Le schiste..a les propriétés de l'hématite,  
seulement il n'a pas sa vertu.  
Délaié dans du lait de femme,  
il remplit les crevasses  
et pour les ruptures de veines et la cataracte,  
comme pour les engorgements des paupières  
et les staphylômes,  
il est extrêmement efficace."  
(Dioscourides, De materia medica V.cxliv)

"...la pierre gagate...En fumigation,  
elle révèle l' épilepsie et guérit les maladies de matrice;  
brûlée, elle chasse les serpents: on la  
mêle aux remèdes  
pour les gouteux et aux préparations fortifiantes."  
(Dioscourides, De materia medica V.cxlv)

"La pierre d'albâtre, appelée onyx (ὄνυξ),  
calcinée et mêlée  
à la résine ou à la poix,  
amollit les indurations: avec le cérat,  
elle soulage les douleurs de l'estomac;"  
(Dioscourides, De materia medica V.clv)

"Le saphir en potion soulage, dit-on,  
ceux qui ont été mordus par un scorpion.  
On le boit aussi pour les ulcérations intestinales:  
il est également salubre pour les excroissances  
qui viennent aux yeux,  
il arrête les staphylômes et les pustules, et resserre  
les déchirures de membranes."  
(Dioscourides, De materia medica V.clvii)

"Pierre ophite...Toutes sont utiles,  
portées comme amulettes par ceux  
qui ont été mordus par un serpent  
ou par ceux qui ont mal à la tête.  
Spécialement celle qui a des lignes est, dit-on,  
précieuse pour ceux  
qui sont en léthargie  
et pour ceux qui ont mal à la tête."  
(Dioscourides, De materia medica V.clxii)

"L'émeril...est utile pour les remèdes septiques  
et caustiques: elle sert pour soigner les gencives ulcérées et  
pour nettoyer les dents."

(Dioscourides, De materia medica V.clxvi)

"On trouve à Samos une pierre...Il paraît que, portée,  
elle facilite l'accouchement  
et est un phylactère pour les femmes ayant conçu."  
(Dioscourides, De materia medica V.clxxiii)

When a belief is transmitted from one man to another, from one place to another, it is changed; some elements disappear while others are added, but what is always the same is the magical ability of the object (the emerald becomes green stone but the power of a stone that is green is what always remains the same.) In general terms, a belief which was based upon repetition and habit depended not only upon the constant repetition of magical actions and magical words but also, and perhaps most importantly, upon its desired result. The repeated action of using the stone during certain ceremonies and the repetition of the word "stone" or the name of a specific stone reinforced the belief that the stone was an essential "tool" for the attainment of human wishes. From that moment onwards the rumour about the magical stone travels through time and places and is adapted by different cultures. Most of the stones that appear in the Greek texts, such as jasper, lapis-lazuli, crystal, carnelian, rock-crystal, malachite, green-stone, hold an important role in The Book of the Dead in Egypt during the ceremonies for the realization of spells. It is probable that the belief about stones (one or more) being able to cure diseases or help those travelling to the unknown had been adopted by the Greeks who knew about magic and the beliefs in other countries

"..The first of these teaches him the magian lore of  
Zoroaster, son of Horomazes; and that is the worship  
of the gods.."  
(Pl. Alc. 122)

The first to bring back the belief or the stone itself were sailors or merchants; sea people were superstitious and had their own seer, Glaukos.<sup>101</sup>

The symbolism of the stone and the meaning that followed was "learnt by heart" and consequently whoever came into contact with it could receive the "information" about its power. Magic was in use on a daily basis, not only when the war fleet could not sail because of the winds which the god was asked to blow. It is important to clear the picture which was not of a dark, secluded world, given to us by The Book of the Dead, where a chosen person (whose emotions were uncontrolled) performs a ceremony in Egypt, but a situation where provision for the dead by his relatives or by himself before his death is made during daylight/everyday life, when the buttons, or beads and sealstones are created. This period probably is already related to the ritual or not yet; those that take part in the creation of the powerful object or find the specific material that will perform a "magical" role. The stone is prepared for its role by living people and from then on it will be used as a "tool" not only for well-being after death, but for occasions in life as well. The object believed to have power is prepared during the day and the relationship with it is not only at the moment that it is used as a

<sup>100</sup> Translation in French of part of the work of Dioscourides  
*De Materia Medica* in Demely 1902: 17-26.

<sup>101</sup> Eur. Or.: 25.



"weapon". It takes a long time, from the moment when someone starts looking for the primary material until the last moment when the powerful object is used for good or evil. The owner of a similar object shows it to his family and the community. It takes a greater role in everyday life among people who become used to magic. Magical objects are common and do not appear only for a single moment in a special ceremony. People did not use only incised gemstones as amulets with apotropaic powers, such as the gold ring from a tomb at Mavrospilio in Knossos.<sup>102</sup> We also have indications of stones in their raw form used as amulets

"La pierre sélénite...les femmes s'en servent  
comme d'amulette,  
à la place de phylactères. Il paraît aussi qu'en la plaçant  
au pied des arbres, elle leur fait produire des fruits."  
(Dioscourides, De materia medica V.clix)

"...jaspe...Tous s'accordent à dire que,  
portés au cou, ce sont des  
phylactères et qu'attachés à la cuisse, ils facilitent  
l'accouchement."  
(Dioscourides, De materia medica V.clx)

"Pierre ophite...Toutes sont utiles,  
portées comme amulettes par  
ceux qui ont été mordus par un serpent  
ou par ceux qui ont mal à la tête.  
Spécialement celle qui a des lignes est, dit-on,  
précieuse pour ceux qui sont en léthargie  
et pour ceux qui ont mal à la tête."  
(Dioscourides, De materia medica V.clxii)

"At the Tigris they say there is a stone, called  
in foreign tongue "Mondon," of a very white colour;  
any man who holds it suffers no harm from wild beasts."  
(Arist. On Marvellous Things Heard 846a.3)

Written information on stones is provided in literature (we probably have to do here with the stones used to make beads or sealstones that could be perceived as magical, having amuletic powers), related to gods or the divine and, most importantly, related to mysteries

"..Near the mountain Sipylus they say that there  
is a stone in the shape of a cylinder, which when pious  
sons find it they place in the shrine of the mother of  
the gods, and never err in the matter of impiety,  
but are always affectionate to their fathers.."  
(Arist. On Marvellous Things Heard 846b.4)

"..On the mountain Berecynthus there is said  
to be a stone called "Dagger". If anyone finds it  
when the mysteries of Hecate are being celebrated,  
he becomes mad, as Eudoxus says.."  
(Arist. On Marvellous Things Heard 847a. 5)

Their role in beliefs was important, since they were related to mysteries performed for a goddess, at a shrine of the mother of gods. The connection of a stone to the mysteries of Hecate is a strong argument that stones were perceived as magical. Hecate is a divinity, related to night and all the mysterious powers of nature expressed during night. One of her many adjectives is "chthonic", because of her relation to the

underworld. She protected the unburied dead and was believed to be the goddess of magic<sup>103</sup>. Stones were also used as personal objects because of their supernatural abilities and were related to ceremonies, as attested by Dioscourides

"Lemnian earth is said to be brought  
from a subterranean cave  
and mixed with goat blood. People from there model it  
with the image of a goat and call it seal. It has great  
preventative power as an antidote against fatalities when  
drunk with wine and compulse the poison to be vomitted.."  
(Dioscourides, De materia medica V.97)<sup>104</sup>

What Dioscourides writes about "Lemnian earth" and the people having the habit of mixing it with the blood of a goat shows an act that has to do with a ceremony related to a belief. The next step in this process was to create a seal from this mixture, decorated with the representation of a goat (figs. 5.2-5.5). This additional detail is especially interesting since many seals of the Greek Bronze Age also bear representations of goats. "Lemnian earth" had medical properties<sup>105</sup> since its components are antidotes for various infections.

Is the stone brought from the grave of an ancient king probably a link with a famous ancient king (p. 53)? Is the importance of the stone based on its relation to death and its place in a tomb (p. 53)? We do not know what the symbolism of the decorative theme of the goat is and what the reason is that related it to "magic"; it is often depicted on sealstones from Greece.

The theme, which is depicted on the sealstones, argues for well-grounded hypotheses related to the use of magic where stones played their role. Apart from the decoration with the goat one of the themes often represented on sealstones is a stone, altar or pillar framed by animals<sup>106</sup>. Plato gives us a hint about sacred pillars and sacrifices of animals for the adoration of simple stones or pillars. When we have a representation of an animal or animals close to a stone, altar or pillar this probably has to do with sacrifice, an act related to the ritual<sup>107</sup> of magic (figs. 5.5-5.8, 5.12, 5.13, 5.16, 5.17)

"Harmocrates:...And when they were about to give  
Judgement....and whatsoever bull they captured  
they led up to the pillar  
and cut its throat over the top of the pillar,  
raining down blood on the inscription. And inscribed  
upon the pillar, besides the laws, was an oath which  
invoked mighty curses upon them that disobeyed.  
When, then, they had done sacrifice according to their  
laws and were consecrating all the limbs of the bull,  
they mixed a bowl of wine and poured in on behalf of  
each one a gout of blood, and the rest they carried  
to the fire, when they had first purged the pillars  
round about.."  
(Pl.Critias 119E)

<sup>103</sup> Grant and Hazel 1993: 151.

<sup>104</sup> Translation author.

<sup>105</sup> Lecture by Dr. E. Photou-Jones in March 2001 at the B.S.A. "The elusive earths: exploitation of industrial minerals in antiquity in the Aegean".

<sup>106</sup> Detienne 1979: 173, fig. 11.

<sup>107</sup> Bowie 2000: 153, 158.

<sup>102</sup> Olivier 1982.



When examining themes of depictions on sealstones we observe that some are widely used in all sites and are presented in many materials such as stone, metal and artificial too (e.g. faience); the relation symbolism-decoration can be seen here. Depictions in which symbolic objects or religious symbols as an altar, a column, a plant, a tree, or an eight-shaped shield are included; probably refer to objects related or symbolising an action related to belief (figs. 5.10-5.19). On fig. 5.10 is depicted a figure (possibly a woman from the representation of the breasts) with horns of consecration on the head which is presented in a symbolic way and on fig. 5.11 we have exactly the same scene the body has the same characteristics though if we look closely the head seems more that of a man's since it is bold; this disguise is not a depiction of an everyday life scene, rather it symbolises a specific act related to belief since the horns of consecration are also needed to be presented.

The bull and goat are the animals most often used in the depictions on sealstones (figs. 5.18, 5.20, 5.21) and were found also in tombs with altars and tables of offerings (figs. 5.22, 5.23). Scenes that depict only the animals or that symbolise the sacrifice of the animal, a bull on a sacrificial table and figure in the act of sacrifice (fig. 5.9). Depictions on pottery exist presenting all the possession of the animal to the sacrificial location; this last one is similar to the ones we observe on sealstones (fig. 5.7, 5.8). The act of sacrifice is the "tool/intermediary" for the achievement of a purpose and is addressed to the notional world. The description of Persson<sup>108</sup> about the finding of a carnelian sealstone (fig. 5.21) in the second pit of chamber tomb 2 at Dendra/Midea is relevant

The second pit...was full of animal bones, belonging to oxen and sheep, or goats. Among the bones, was found a silver cup... a large, unusually beautiful carnelian with an intaglio design of two recumbent bulls, a large ivory flower... and at the bottom of all a sacrificial knife of bronze.

As seen from the diagram of the chamber of the tomb (fig. 5.22), a sacrificial table, a slaughtering table (fig. 5.23) and a hearth or altar were also revealed in the chamber. The gem with the representation of recumbent bulls found in a pit with oxen bones and the sacrificial knife form a group; the lack of a written document that could explain to us the relation of gemstones with beliefs related to death is replaced here by the remains of "action".

At the same site, in Pit 1 of the Tholos tomb, were found the three jadeite gems (figs. 5.18-5.20) that include in their decoration symbols of religion: a wild goat and a palm tree (953), figure-of-eight shield and a lion (954), horns of consecration and two wild goats (952).

The lion attacking a bull is also a favourable depiction on gemstone finds from tombs (figs. 5.24-5.29). Much later in Hellenistic time the theme was depicted on tomb paintings having an eschatological symbolism. It is probable that in BA the theme was also related to death; on the same sealstone (3-sided in shape) we have the incident of two themes probably related to belief (fig. 5.26 the scene of the lion attacking the bull and fig. 5.4 with the goat and the third side plain).

Gemstone objects are also selected in order to depict on them scenes of "imaginary" creatures such as griffins; what is questioned here is the relation of fossil-myth connection. The relation of the remains of the distant past because of their unknown provenance were connected to the mystery of another world; the unknown world is the world of all the answers that the man has not yet found. These remains of the past with which the man of BA came in contact with were surrounded with myth and probably related to belief. The abundant fossil sites are those for which in classical times mythical battles were described

"By comparative anatomy and skeletal reconstruction... they, too, recognized fossils as evidence of past life, now extinct...  
...the griffin was based on illiterate nomads' observations of dinosaur skeletons in the deserts of Central Asia"  
Mayor 2000

These impressive finds could be perceived as creatures of another world belonging to the past, but how did they measuring this past in BA? How many ages before their generation and what was the power of this unknown world on the one they knew, the one they were living in. The depiction of these kinds of imaginary creatures such as griffins, daemons and large human figures (figs. 5.30-5.33) shows that they were related in their concept with the life that they themselves were living and that is why they selected similar creatures and figures in the gemstone objects buried with them.

All the gemstone finds that relate to a belief could be objects of inheritance.

## COMMENTS

The ideas presented by the above writers also show that stones were thought to have had supernatural properties and could be used as amulets. It is clear that the "stone" has an importance as "δύναμιν ἔχειν" (possessing power). Stones were often regarded as having certain medicinal qualities due to somewhat specious theories concerning their natural properties or appearance. We can therefore assume that their role in Mycenaean times, apart from their natural beauty, was strongly related to the beliefs people had in them and probably the analysis about the percentage of gemstones found in tombs in the conclusion of chapter three is relevant here. Gems are closely related to and used in the ritual of magic; there is a whole world of symbolism, such as the colour of the garment (white or purple), the material not to be touched (iron), which have their roots in the past of these people and the situations they have experienced. The stone objects were mostly found in tombs, next to the deceased or scattered among other offerings; beads and sealstones were especially made to help them in the underworld. The Mycenaean fresco with the woman who is holding the two necklaces made of coloured beads, in a stance as if offering them (fig. 5.34), bears similarities to the illustration where the scribe Ani is holding a necklace of coloured beads in his left hand addressing the god Anubis (fig. 5.1). The presence of stone objects (buttons, beads, sealstones) in tombs (near the body or as objects worn by the deceased) because of their being placed with those buried, possibly shows a similar practice of offering jewellery at the funeral related to superstition, belief in the powers of the underworld, and use of magic even in man's last voyage.

<sup>108</sup> Persson 1931: 80.



## CHAPTER SIX

### **USE AND SIGNIFICANCE OF GEMSTONES IN MYCENAEAN GREECE**

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Few gemstones used in everyday life were found, as the steatite buttons and beads from the settlements and palaces prove. Their presence though was highly required in tombs: sard and cornelian in the Argolid, as also at the Perati cemetery in Attica, and amethyst beads in the Messenian tombs. Their use was the same in shaft, chamber and tholos tombs as seen from Mycenae. The more analytical picture that is presented by the statistics is the following: in the palaces and houses on the citadel at Mycenae and in the Panagia Houses mostly steatite buttons but also beads, at Asine steatite spindle whorls, at Midea rock crystal. In the palace at Pylos it is interesting that pieces of quartz were found. It seems that gemstones were not so important in everyday life or they were removed by their owners when they left.

As concerns the tombs:

- in Argolid beads were mostly found in Grave Circle A, Grave Circle B, 3<sup>rd</sup> km cemetery, Kalkani cemetery and Dendra/ Midea. Buttons were mostly found at Prosymna, Tiryns and Asine.
- in Messenia amethyst beads.
- in Attica from Perati, where the cemetery consist mostly of chamber tombs, steatite buttons were frequently in use.

As concerns the different use of stone over time, sard beads were the favoured offerings in the graves of Circle B (early Mycenaean era) and also in the chamber tombs (LH I-IIIC) that Tsountas excavated; steatite buttons were mostly used at Prosymna (along with carnelian beads) but we also observed in the tombs at Dendra/ Midea (LH IIA-IIIB) and Asine (LH IIA-IIIC) as well as Perati (LH IIIC). It seems that the passing of time did not much influence the choice of gemstones which suggests that the reason why people used them did not change and they retained the same importance and value.

The mineral wealth of Greece and its geomorphology are described in chapter two, which shows the "possibilities" of mineral formation in the area. The research that took place with the co-operation of I.G.M.E. indicated that sources of all gemstones represented in the catalogue were recorded, apart from lapis lazuli and jadeite: in Attica and the Peloponnese, azurite, galena, haematite, jasper, kyanite, magnetite, marble, red sandarak, steatite; in the Aegean islands amethyst, chalcedony, emery, garnet, haematite, kyanite, magnetite, malachite, marble, obsidian, opal, sapphire, steatite, tourmaline, zircon, in Crete, jasper, quartz and steatite; in northern Greece amethyst, azurite, chalcedony, corundum, galena, haematite, jasper, malachite, marble, quartz, radiolarian chert, serpentine, steatite, tourmaline.

As stated in chapter two, in the past it had been assumed that they may have not have been locally acquired. However, as sources of gemstones were identified in Greece this is a

strong argument for their local acquisition; analytical work is needed in order to detect the raw sources of the gems. In the future the aim of the author would be trace element analysis that could provide useful information in order to find out if the raw material used for the gemstone objects from the examined sites, originates from the sources available in Greece.

Access to these mineral sources by land or sea from the areas examined was possible in LBA and it would have been preferable to travel to the north of Greece for example, since the inhabitants were more familiar with the climate, land and sea than a long journey by sea to Egypt.

The way of acquiring material could have been:

- direct; by going to the source of minerals and exploiting it. In this case Messenia seemed to own the deposits of amethyst. The closest source of amethyst to the Peloponnese is Kimolos and it seems that Messenia had the exclusive access to this, if not the absolute ownership.
  - indirect; from those profiting from the raw material source, for example the people from the Cyclades used amethyst as part of a cargo that they sold elsewhere.
- Also the north of Greece, wealthy in gem sources, is accessible and trade relations with this area would be logical.

The study of minor stone artefacts is an important contribution to the knowledge of the technology of the era, since for their working it is necessary to have tools that represent the highest form of technology. The knowledge and technology of the LBA was at an advanced stage, as can be seen from the minor stone artefacts. The engravers knew their material, its possibilities and the difficulties that it could present, as proved when observing the traces of tools on these objects. The advanced technical knowledge is also proved by the fact that they were using gemstones of high durability on the Mohs' scale.

The capabilities and competence needed by an engraver and also his physical state (eyes and hand abilities) are dependant on his age as also the length of time that he would be able to be creative. The great need for good and ample light in this fine work suggests that the location of the working area would have been outside; what could be found inside are raw pieces of material for future work, not only gems but also wool, wood, shells and anything that seemed interesting to work with, the tools kept safely inside as also a stool or a bench that could be moved outside for grinding, engraving, abrading, indicating the open space as a working area.

The length of time needed for the creation of gemstone objects characterises the "productivity" of an engraver making it hardly possible to achieve more than five sealstones a year, or more realistically, three to five and that the engravers do need to co-operate. The probable situation entails: the person that acquires the raw material, the person that grinds, the person that incises and apprentices.

The past generations of artisans are "present" in every development of tools and techniques. The possession of the craft from the competent engravers of these areas is seen in the final product, since technology and skills cannot be imitated. The contacts with other geographical areas made the most important points of the craft common knowledge. The need for the use of gemstones is shown by their wide



distribution which involves the engraver and his working "environment" and his presence can be detected only from his remaining work; no evidence is given in the Linear B tablets or on frescoes and, in contrast to the depictions of craftsmen in other geographical areas (such as Egypt), in Greece until now, we do not have any.

Gemstone engravers could have been itinerant workmen since their tools could be carried and just good light would be needed for the working area but patronage must have been a determining factor. It is of course possible that engravers were slaves but what meaning does the word slave have exactly? Generally we use the term to express the status of a person who has no freedom at all. Slavery would be a contradiction with the freedom of thought, creativity, experimentation, free time to observe nature and everything that would be an indispensable part of the life that someone who creates must have (on pages 45-46 are presented the limits of freedom in which an engraver can work his material). In their possession, they could have simple materials found in nature (such as wood or shells) but in order to have work to accomplish, to create and improve their skill, gemstone material is needed and also time; meaning that some kind of place to live and probably food must have been provided in order for them to focus on their work as much as possible, since they could not work in fine and miniature work for 24 hours continuously. In a non-monetary economy their status could have been as itinerant gemstone workers under patrons.

The use of the archaeological finds was, from the beginning, more of a re-interpretation since they have already been defined as jewellery, miscellaneous and often as simply stone objects with no other information concerning their finding place or any clue about their material or dimensions. Usually gemstones are related to everyday life and, as such, have a place in a tomb in the same way as daggers and helmets have; but as already discussed above what was made clear, was their importance in the Greek book of the dead, meaning the Greek way of death, and that they were an important requirement in all the acts before entering the tomb, during the interment and also for the reopening of the tomb and the related rituals; beads made of sard, amethyst and carnelian and also steatite buttons/ spindle whorls were widely found.

Great care for the dead is clear in all Mycenaean Greece; a great length of time was needed for the construction of tombs, for example the Treasury of Atreus. The offerings also require expense in time and work; the real value of objects can be understood only when the actual time available, in a lifetime at that period, is estimated. The length of life was short and in conditions of peace the working time was determined by climate, light, provision for food, housing and clothing. So, although there is a difference in tomb architecture, we do have similarities in tomb offerings and, as in Egypt, we do have care and customs for death. The use of gemstones as offerings is not arbitrary but deliberately chosen; they were fundamental for the dead:

- They are objects made before the time of burial and this was necessary at least because of the climate in Greece.

- The time spent on their engraving, since they could have been made using clay or metal and made by moulds determines the relation of material to death.

- The preference for gems, hard on the Mohs' scale, characterise their long-term use.

- The thematic depictions present similarities and specific themes show widespread repetition.

- Consistency appears in tombs from the widespread presence of gemstones in general and also specifically, for example the use of stone of high hardness, steatite buttons in the dromos of tombs, a carnelian or agate bead with child burials or a piece of rock crystal in a stirrup-jar.

The relationship of material and belief is a strong argument for these finds in tombs; the so-called amulets, defined as such by the excavators, are objects of apotropaic character, inscribed sealstones with decoration that includes religious symbols such as figure-of-eight shields, altars, a large human figure, a griffin, a daemon, or scarabs because they were sacred objects in Egypt. Different typology for the same object (amulet, pendant, jewel) raises the question of what an amulet is<sup>109</sup>. Is it something with specific characteristics (e.g. a scarab) or could any object (e.g. a piece of rock crystal or a bead) become an amulet?

The absence of written sources led the research to be based on other evidence, such as the site where the stones were found, their exact place when this is recorded by the excavator, their material, shape, decoration if they have any, and the depiction of gemstones in frescoes. If these fresco scenes are symbolism of a specific act related to ritual (fig. 5.34) nothing in the picture is there by chance, instead everything such as the position of the body and action, the colour of the clothes, whatever the figures wears or holds, have a role.

From the wide use of stone beads in tombs there is a probability that any object could be used as an amulet because, or despite, its material or shape. This can be underlined from written sources quoted in chapter five that explain the "mechanisms" that could lead in Classical times to the attribution of special powers to an object:

- In the dromos of the tombs steatite objects were very often recorded, the majority of which are buttons/spindle whorls. If they were fastened to the clothes of a living person they could not fall off so easily, so they may have been fastened to the death shroud, without a lot of care, since it would be used only once or we could probably think of a different way of wrapping the corpse and a different use of the so called "buttons and spindle whorls" when found in tombs. Another possibility is that the steatite buttons found in a dromos belonged to mourners in the procession and they fell because their movement during the procession involved "dancing" and not only walking; they could also suggest the reopening or reuse of tombs<sup>110</sup> and the acts involved in that by the living.

- Gemstone objects could characterise the same economic class or profession or political alliances that existed in life and these could be the reasons for the wide use of sard/carnelian in the Argolid and Attica (Perati) and, amethyst in Messenia.

- Inherited objects, that characterise a specific moment in life such as puberty or an age that marks the transition from boyhood to manhood, or the acquisition of a high position in the social or political hierarchy for which a ceremony took place. For such situations as described above, a seal with a specific depiction could be needed but any gemstone object

<sup>109</sup> Iakovidis 1969: 312.

<sup>110</sup> Mee and Cavanagh 1998:76.



that the person was carrying during the ceremony might have acquired an importance which led to them being inherited as heirlooms.

-An object from an earlier burial could also be characterised as an amulet, and for that reason in the reopening it might have been taken away; meaning that objects once buried acquire special "properties". The "particular" stone (p. 53), from the tomb of an ancient King obviously possesses powers beyond the ones that a simple gemstone has and this written information verifies the practice; such objects could be those found in:

Mycenae / chamber tomb 2, tomb O, tomb Y; Pylos/ tholos IV; Prosymna/ tombs 8, 33, 43 and the three jadeite gems in the tholos tomb at Dendra (952, 953, 954). Inheritance and magical abilities, acquired by objects that were buried, was probably the reason why some of these objects were taken away from the tombs during the reopening. It seems that reopening of tombs was part of the many chapters of the Greek book of the dead.

-When examining themes of depictions on sealstones we observe that some are widely used on all sites and are present on items of many different materials, such as stone, metal and artificial material (faience); the relation between symbolism-decoration can be seen here. Depictions in which symbolic objects or religious symbols that probably refer to objects related to or symbolising a specific moment in one's life as discussed above are included such as: an altar, a column, a plant or a tree, a figure-of-eight shield, horns of consecration, the goat, the bull, the lion attacking a bull, as also scenes that depict creatures referring to the "mythology" of the time. Not only do these themes repeatedly occur as decoration on objects found in tombs but they are testified from written sources of later times as connected to death, sacrifice, ritual. The passages quoted in chapter five give an insight into what is needed when human involvement is not enough to solve problems, and this situation involves not only the problems that occurs to an individual but also acts established as customs for all those that share the same past. It is a strong possibility that the reason Linear B tablets do not refer to these matters is because they were kept in mind and transmitted from one generation to the other orally. Their preoccupation with the remnants of the past that they envisaged appears in the mythological human and animal creatures depicted also on gems found in tombs.

environment, the working area and their identification during excavations.

## **GENERAL CONCLUSION**

The wealth of mineral resources in Greece led to the wide use of gemstones and already in the LBA the level of skill and technology was advanced. Their contribution to the economy and power that depended on the ownership of these resources and also the extent of the demand for rare materials could be important. Future trace element analysis of gemstone objects could reveal the relation between the gem finds and the raw material sources. The archaeological information of gemstone finds showed that their role in life and death was related not only to clothing and decoration but also to belief. In the absence of written sources our present knowledge for their use in the LBA can be enlarged by new excavations, not only in tombs, but in settlements as well. Experimental archaeology will help us to understand the man behind the object better and in this way to attribute the value of his struggle for knowledge and a better interpretation of his existence. The understanding of the techniques and tools used will give us more evidence about the working



## **CHAPTER SEVEN**

### **CATALOGUE OF GEMSTONE FINDS**

#### **FORMATION OF THE CATALOGUE**

In the description of the archaeological reports and publications the characteristics that define each artifact are mainly the following:

- the place it was found
- the artefact number
- the object type e.g. bead
- the material it is made of
- the dimensions of the artefact
- the colour(s) of the artefact
- the shape of the artefact

According to the above, a "database" can be formed in order to store in an organised manner the list of artefacts from archaeological excavations, reports, publications. A data base is an electronic file that can facilitate the work of the present and future researcher. The enrichment of the file can be easier and faster by the use of pre-defined lists of characteristics such as the material and the colour. The presentation of the file, its re-production and its transmission can be also easy with the use of electronic tools for formatting, printing and mailing. The research of specific artefacts such as categories of artefacts or quantities of artefacts with common characteristics can be very fast with the use of electronic tools called "queries".

As a database the above list is not particularly complex. A data base can be viewed as a table, the lines of which represent the items and the columns of which represent the characteristics of the items. For each item there is a line, the columns of which contain the characteristics of the item. Another way of viewing a database is as records with fields. Each record represents an item and the fields represent the characteristics of the item.

The above form is the simplest form of a database. This simplicity dictates restrictions such as the following: an artefact may have two or three colours, may have several dimensions that should be mentioned. It is obvious that the simple two-dimensional matrix is not sufficient for the above cases. The "relational databases" were made to cover the organisation of complex multidimensional matrix information.

A relational database consists of more than one databases. Each record of a database can be "related" to records of other databases. For example if we have information on artefacts, then the place they were found, their identification number, and their general description in a one to one relationship can be stored in a single database. For each record (artefact) of this database there is a unique number called "key". The colours of the artefacts are stored in another database. This last one has two columns; the first column has numbers and the second has colours. Multiple records of the second database are related to each record of the first one. These records have the same number in the first column and different colours in the second column. The number is the

same as the "key" of the artefact in the first database. In the same way, for each characteristic that may have more than one circumstances for an artefact a separate database must be formed.

For the present study a relational database was formed, named catalogue, consisting of the following databases. The first database contains all the characteristics which are particular to each artefact and the other databases contain characteristics which may be multiple for each artefact:

- finds; this one contains the "key", order number, site, subsite, location, artefact identification, shape, material, object, quantity and comments
- finds/colours; contains the colours of the artefacts.
- finds/diameter; contains the diameter of artefacts in meters.
- finds/width; contains the width of artefacts in meters.
- finds/height; contains the height of artefacts in meters.
- finds/thickness; contains the thickness of artefacts in meters.
- finds/length; contains the length of artefacts in meters.

There are also some databases of minor importance that act as reference tables. These databases are used each time the researcher is entering data for a characteristic that has limited choices such as the colour, the raw material etc. These databases are :

- colors
- dimensions
- objects
- shapes
- sites
- stones

For the implementation of the database Microsoft Access 97 was chosen as a popular and low cost database software with most of the facilities and tools of "heavier" programmes like SQL server, Oracle, SYBASE etc. The user/researcher finds it easy to make use of this data entering, querying, presentation forming, or even creating additional databases with new relations.

#### **PROBLEMS PRESENTED WHILE USING ARCHAEOLOGICAL DATA FROM EXCAVATION REPORTS**

All the information of the catalogue is from archaeological reports and publications. During the recording of the finds in the present catalogue different identifications of gemstones appeared between what the excavators and the CMS record (for example 376, agate in the report, but steatite in CMS I); in similar cases in the comments of each record is included the information from CMS (for example 1058). Each excavator makes an identification according to his knowledge of the gemstones, not the knowledge of an expert; also there is a question about the identification of the same material by the excavators. As an example the identification of a stone as meteorite (110, 135, 136, 209) can be used which is rare as a material and extremely difficult to identify even by a geologist; also the identification of a stone as amygdalitis (1163), which is not known as a mineral but it is only a name given by archaeologist.



When in the statistics of each examined group, only the number of gemstones or objects is given without the specification of the type of gemstone or the object, it means that there was no identification by the excavator and that is recorded in the publication only as "non identified stone" or "non identified stone object" (1223)

The fields presented in the catalogue are the following:

- number: the record number of the stone object in this catalogue.
- find id: the number given to the stone object in the archaeological report or publication.
- site: general site e.g. Pylos.
- subsite: specification of the site e.g.: Nestor's Palace.
- location: type of tomb e.g. tholos.
- object: e.g. button. In two cases (1296, 1368) an object was identified as prisma related to its shape and not to its use.
- stone: e.g. carnelian
- shape: e.g. conical
- colour: e.g. brown
- qty: in many cases more than one object is under the same record. This happens because it was published in this way e.g.: (1298)
- dimensions: (diameter, height, length, width, thicknes). Excavators do not always give dimensions. In many cases of groups of artefacts with similar characteristics the information provided about their size is the min. and max. Also, when an object is broken or in bad condition if they give dimension it is recorded in the present catalogue as e.g. present diameter (1234).
- Comments: Each excavator informs us about the stone objects in his own way and the result is that some give more than others e.g.: the direction of the perforation (1201), or the state of the find e.g.: down part missing (1234). Additionally in the comments of Prosymna gemstone finds (464-875) is also mentioned the reference of each object, as in the publication the stone artefacts are sorted not according to their tomb number but according to object type and shape.

### STONES, OBJECTS AND SHAPES

The following terminology of stones, objects and shapes was recorded from the archaeological reports and publications related to the examined sites in the present study.

#### STONES

Agate	Haematite	Onyx
Alabaster	Heliotrope	Phthorite
Amazonite	Jadeite	Quartz
Amethyst	Jasper	Rock crystal
Amiant	Lapis lacedaemonius	Rosso antico
Amygdalitis	Lapis lazuli	Sard
Azurite	Lime marl	Sardonyx
Breccia	Limestone	Schist
Carnelian	Limonite	Serpentine
Chalcedony	Malachite	Steatite
Crystal	Marble	Talc
Flint	Meteorite	
Fluorite	Obsidian	

#### OBJECTS

Bead	Jewel	Ring
Bead seal	Necklace	Scarab
Bead spacer	Pebble	Seal cylinder
Button	Pendant	Sealstone
Cylinder	Pommel	Spindle whorl
Disc	Pounder	Weight
Fragment	Prisma	

#### SHAPES

3 bevelled sides	Ellipsoid	Prisma
4 bevelled sides	Ellipsoid-prisma	Jug
5 bevelled sides	Faceted	Pyramid
3-sided	Flattened	Quatrefoil
4-sided	Flattened curved	Rectangular
5-sided	Flattened cylinder	Rosette
7-sided	Flattened conical	Round
Acorn	Flattened spherical	Segmented
Amygdaloid	Globular	Semiglobular
Argonaut	Heart	Shanked
Barrel	Hemispherical	Shanked discoid
Biconical	Hexagonal	Shanked or button
Biconvex	Hexagonal prisma	Shanked/ campaniform
Bicurved	Hippopotamus	Shanked/ conoid
Bored axe	Irregular	Shapeless
Bottle	Lancet	Short cone
Bud	Lentoid	Simple
Button type	Lily bud	Snail
Campaniform	Loop	Spherical
Carinated	Lozenge	Spindle
Concave base	Melon	Square
Conical	Mushroom	Squat cone
Crenellated	Oblately circular	Tabular
Cross	Oblong	Toggle
Cube	Olive	Trapezoid
Cylindrical	Oval annular	Truncated
Discoid	Ox-head	Truncated bicone
Double cone	Papyrus	Truncated cone
Double conoid	Pear	Tubular
Drop	Pendant	Two cones base to base
Drum	Pentagonal	Wedge
Duck	Poppy-head	



## Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
1	Mycenae Panagia houses	Possible Floor deposit Rm 23	154	Bead	Non identified	round	red	0.006 min 0.007 max 0.001 hole	0.002 min 0.004 max				1	bead with flat sides, pierced through from one flat side to other
2	Mycenae Panagia houses	Fill washed into S part Rm 23	157	Bead	Non identified	cylindrical	green	0.009			0.02		1	pierced through longest dimension
3	Mycenae Panagia houses	Fill over corridor House II, E of Rms 16,17	160	Sealstone	Non identified	round	black	0.01	0.007 max				1	sealstone bead, convex on front, pierced through center, decoration: short lines
4	Mycenae Panagia houses	Fill washed into Rm 8	161	Sealstone	Non identified	round	black	0.02	0.007 max			0.008 present	1	broken sealstone bead fairly flat on inscribed surface, convex on opposite side; decoration: short lines
5	Mycenae Panagia houses	Fill washed into Rm 11	162	Sealstone	Rock crystal			0.02	0.001 min 0.006 max				1	broken sealstone bead; hole along diameter; convex front and back; decoration: two animals and foliage
6	Mycenae Panagia houses	Fill Rm 21	237	Button	Steatite	conical	grey	0.02		0.01			1	convex sides; found with 243
7	Mycenae Panagia houses	Rm 5 Fill earliest floor of House I	239	Button	Steatite	conical	black	0.003		0.018			1	striation marks
8	Mycenae Panagia houses	Rm 15 Fill below buned floor	240	Button	Steatite	conical	black	0.02		0.014			1	striation marks
9	Mycenae Panagia houses	Burned fill Rm 15	241	Button	Steatite	conical	black	0.02		0.015			1	striation marks; chips off bottom; found with 242
10	Mycenae Panagia houses	Burned fill Rm 15	242	Button	Steatite	conical	black	0.02		0.014			1	striation marks; found with 241
11	Mycenae Panagia houses	Fill Rm 21	243	Button	Steatite	conical	black	0.02		0.016			1	striation marks; found with 237
12	Mycenae Panagia houses	Grave Rm 21	244	Button	Steatite	conical	black	0.03		0.016			1	striation marks; marked signs of wear around piercing hole
13	Mycenae Panagia houses	Rm 16 fill below restored floor	245	Button	Steatite	conical	black	0.01 min 0.02 max		0.01			1	striation marks
14	Mycenae Panagia houses	Burned fill Rm 17	246	Button	Steatite	conical	black	0.02		0.015			1	
15	Mycenae Panagia houses	Fill Rm 18	247	Button	Steatite	conical	purple	0.02		0.01			1	found with 248, 263
16	Mycenae Panagia houses	Fill Rm 18	248	Button	Steatite	conical	black	0.02		0.011			1	striation marks; chip off top at piercing hole; found with 247, 263



## Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
17	Mycenae Panagia houses	Child's Grave S part courtyard House I Area I	249	Button	Steatite	conical	purple	0.02		0.009			1	found with 250
18	Mycenae Panagia houses	Grave Courtyard House I	250	Button	Steatite	conical	purple	0.02		0.013			1	large chip off bottom; found with 249
19	Mycenae Panagia houses	Fill Rm 8	251	Button	Steatite	conical	black	0.02		0.009			1	
20	Mycenae Panagia houses	Area N of Rm 8	252	Button	Steatite	conical	purple	0.02		0.01			1	chip off bottom
21	Mycenae Panagia houses	Area E of Rm 18	253	Button	Steatite	conical	black	0.02		0.011			1	small chips missing at top and bottom
22	Mycenae Panagia houses	Fill area 26	254	Button	Steatite	conical	black	0.02		0.011			1	identical dimensions to 255
23	Mycenae Panagia houses		255	Button	Steatite	conical	purple	0.02		0.011			1	identical dimensions to 254
24	Mycenae Panagia houses	Fill Rm 10	256	Button	Steatite	conical	black	0.02		0.012			1	striation marks; large chip missing on one side
25	Mycenae Panagia houses	Fill Rm 29	257	Button	Steatite	conical	black	0.02		0.018			1	Chips off top
26	Mycenae Panagia houses	Disturbed fill NE excavation area	258	Button	Steatite	conical	dark grey	0.03		0.018			1	string marks at piercing hole
27	Mycenae Panagia houses	Fill Rm 25	259	Button	Steatite	conical	black	0.03		0.019			1	
28	Mycenae Panagia houses	Fill Rm 28	260	Button	Steatite		black	0.02		0.01			1	concave sides; chips missing
29	Mycenae Panagia houses	Fill RM 36	261	Button	Steatite		grey green	0.02		0.009			1	concave sides; striation marks
30	Mycenae Panagia houses	Surface fill W of Houses	262	Button	Steatite		black	0.02		0.012			1	concave sides; chips off top
31	Mycenae Panagia houses	Fill Rm 18	263	Button	Steatite		grey green	0.02		0.009			1	concave sides, disc-shape bottom; top broken; found with 247,248
32	Mycenae Panagia houses	Surface fill E of Houses	264	Button	Steatite		grey green	0.02		0.013			1	concave sides;roughly half of button preserved
33	Mycenae Panagia houses	Fill Rm 33	265	Button	Steatite		grey green	0.02		0.009			1	concave sides
34	Mycenae Panagia houses	Fill Rm 34	266	Button	Steatite		grey green	0.02		0.01			1	concave sides; 1/3 missing



## Catalogue of gemstone finds

No	Site/Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
35	Mycenae Panagia houses	Drain deposit N of Rm 7	267	Button	Steatite	discoid	black	0.02		0.012			1	faint striation marks, small chips missing
36	Mycenae Panagia houses	Drain deposit N of Rm 7	268	Button	Steatite		light grey green	0.02		0.007 present			1	striation marks; top and chips from disc missing
37	Mycenae Panagia houses	floor deposit (?) in Rm 23	269	Button	Steatite	discoid	light grey green	0.02		0.008			1	found with 270, 271; top of stem missing
38	Mycenae Panagia houses	Floor deposit (?) in Rm 23	270	Button	Steatite	discoid	light grey green	0.02		0.008			1	found with 269,271; top of stem missing
39	Mycenae Panagia houses	Floor deposit (?) in Rm 23	271	Button	Steatite	discoid	grey green	0.02		0.003			1	found with 269,270; stem missing
40	Mycenae Panagia houses	Surface Fill E of Houses	272	Button	Steatite	discoid	black	0.02		0.012			1	
41	Mycenae Panagia houses	Surface fill E of Houses	273	Button	Steatite	discoid	grey green	0.02		0.004 present			1	Stem and half of disc missing
42	Mycenae Panagia houses	Disturbed fill NW excavation area	274	Button	Steatite	discoid	grey green	0.02		0.01 present			1	top missing
43	Mycenae Lion Gate	Staircase		Spindle whorl	Steatite	conical							4	stratification debris: 41:00-41:60; pottery LH III
44	Mycenae Lion Gate	Staircase		Spindle whorl	Steatite	conical							5	stratification debris: 41:60-41:90
45	Mycenae Lion Gate	Staircase		Bead	Agate	tubular	pink						1	stratification debris:41:90-42:10;pottery LHIII
46	Mycenae Lion Gate			Disc	Non identified		white	0.25	0.13				1	well polished; stratification debris 41:90-42:10; pottery LHIII
47	Mycenae Lion Gate	Staircase		Spindle whorl	Steatite	conical							1	stratification debris:42:10-42:30; pottery LH III
48	Mycenae Lion Gate	Staircase		Spindle whorl	Steatite	conical							1	stratification debris:42:45-42:60; pottery LHIII
49	Mycenae Lion Gate	Staircase		Spindle whorl	Steatite	conical	black						2	stratification debris: 43:30-43:70; LHIII
50	Mycenae The Granary	West Basement		Bead	Crystal		white						1	LH III
51	Mycenae The Granary	West Basement		Spindle whorl	Steatite	conical							2	LHIII
52	Mycenae The Granary	West Basement		Spindle whorl	Steatite	shanked or button							2	LHIII



## Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
53	Mycenae The Granary	East Basement		Bead	Onyx	tubular					0.02		1	pierced lengthwise; LH III
54	Mycenae The Granary	East Basement		Fragment	Crystal	hexagonal	white						1	point of a natural hexagonal crystal; LHIII
55	Mycenae The Granary	East Basement		Bead	Lapis lazuli	rosette		0.02					1	The bead is broken; pierced along the axis for threading. Sinking in centre of the rosette for insertion of inlay
56	Mycenae The Granary	East Basement		Pendant	Steatite	oxhead			0.04		0.02		1	perforated on top for threading
57	Mycenae The Granary	East Basement		Spindle whorl	Steatite	conical							11	
58	Mycenae The Granary	East Basement		Spindle whorl	Steatite	shanked or button							2	
59	Mycenae The Granary	East Basement		Disc	Non identified		soft	0.04					1	the disc is broken; pierced for suspension
60	Mycenae The Palace-shrine & adjoining chambers			Bead	Carnelian			0.05					1	
61	Mycenae The Cyclopean Terrace building			Spindle whorl	Steatite		grey black purple						3	three whorls buttons (two chipped one in good condition)
62	Mycenae The Perseia Area:The East-West Wall		7(53-99)	Sealstone	Chalcedony	lentoid	milky	0.03	0.001 min 0.006 max				1	LH IIIB slightly shipped; chalcedony or banded agate; decoration:two antithetical griffins standing either side of a column and attached to it; below a man
63	Mycenae The Perseia Area:The East-West Wall		No8 (53-106)	Button	Steatite	truncated cone		0.03 max 0.009 min		0.019			1	button or spindle whorl; LHIII
64	Mycenae The Perseia Area:Great Poros Wall	Trench L Upper Level	No 96 (53-193)	Button	Steatite	truncated cone	black blue	0.009 min 0.03 max		0.017			1	damaged; LHIII
65	Mycenae The Perseia Area:Great Poros Wall	Trench L NW sector Burnt Patch	No 102 (53-391)	Bead	Non identified	square	dark blue		0.003 max	0.011		0.012	1	bead spacer;carved to represent an argonaut or nautilus in relief; LHIII
66	Mycenae The Perseia Area:Great Poros Wall	Trench L NW Sector Burnt Patch	No 103 (53-392)	Bead	Non identified	quatrefoil	dark blue		0.003	0.01		0.01	1	perforated;LH III
67	Mycenae The Perseia Area:Great Poros Wall	Trench L NW Sector Burnt Patch	No 106 (53-394)	Button	Steatite	conical	light green	0.004 min 0.02 max		0.009			1	shape between conical and later campariform; LH III



## Catalogue of gemstone finds

No	Site/Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
68	Mycenae The Perseia Area:Great Poros Wall	Trench L SW sector	No 122 (52-595)	Button	Steatite	truncated cone	purple white dots	0.01 min 0.03 max		0.016			1	LH III
69	Mycenae The Perseia Area:Great Poros Wall	Trench L SW Sector	No 123 (52-599)	Button	Steatite		blue black	0.01 min 0.02 max		0.015			1	similar to No 122; LH III
70	Mycenae The Perseia Area:Great Poros Wall	Trench L SW sector	No 125 (53-748)	Bead	Non identified	flattened spherical		0.006			0.004		1	one of two beads with the same No 125; LH
71	Mycenae The Perseia Area:Great Poros Wall	Trench L SW sector	No 126 (53-792)	Bead	Carnelian	discoid		0.003 average			0.003 max		8	eight miniature beads disc or cylindrical; LH
72	Mycenae The Perseia Area:Great Poros Wall	Trench D	No 168 (53-694)	Button	Steatite	truncated cone	dark purple	0.01 min 0.03 max		0.009			1	LH III
73	Mycenae Shrine of the Palace		No 39-172	Pounder	Non identified		green				0.06	0.035	1	
74	Mycenae Shrine of the Palace		No 39-173a	Button	Steatite					0.008			1	
75	Mycenae		No 39-177	Bead	Carnelian	spherical		0.007					5	five of nine beads with the same No 39-177
76	Mycenae		No 39-177	Bead	Non identified	spherical	pink	0.01					1	one of nine beads with the same No 39-177
77	Mycenae		No 39-177	Bead	Carnelian	spherical		0.008 0.006					2	two of nine beads with the same No 39-177
78	Mycenae		No 39-177	Bead	Carnelian	spherical		0.01					1	one of nine beads with the same No 39-177
79	Mycenae	Causeway deposit	(60-18)	Weight	Haematite	biconical					0.05	0.019 max	1	
80	Mycenae	Causeway deposit	(60-10)	Spindle whorl	Steatite	shanked							1	
81	Mycenae	Causeway deposit	(60-11)	Spindle whorl	Steatite	conical							1	
82	Mycenae	Causeway deposit	(60-14)	Bead	Non identified								1	
83	Mycenae	Causeway deposit	(60-17)	Spindle whorl	Steatite	shanked							1	
84	Mycenae	Causeway deposit	(60-107)	Spindle whorl	Steatite	conical							1	
85	Mycenae		(60-7)	Spindle whorl	Steatite	conical							1	from destruction debris (D)
86	Mycenae		(60-103)	Pounder	Non identified								1	from destruction debris (D)



### Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
87	Mycenae		(60-209)	Bead	Non identified								1	destruction debris (D)
88	Mycenae		(59-246)	Spindle whorl	Steatite	conical							1	Levelling and Wash (E); M.N.14700
89	Mycenae		(59-216)	Non identified	Steatite								1	from contaminated context; LH IIIC; levels (F); M.N. 14678
90	Mycenae Citadel House Area		No3 68-2637	Sealstone	Lapis lazuli	lentoid	dark blue		0.5 max		1.3	1.2 max	1	pierced longitudinal from top to bottom; decoration: a goat and the head of a second one placed antithetically; LH IIIB2
91	Mycenae House with Idols		No 4 69-728	Sealstone	Agate	lentoid	brown white	1.95	0.65				1	the seal is unfinished made of banded agate; decoration: lion(?); LH IIIB2 deposit
92	Mycenae House with Idols		No 5 69-813	Sealstone	Agate	lentoid	brown greyish blue	2.2	0.5				1	sealstone of banded agate; decoration: two animals (bulls?) a man and tree; LH IIIB2
93	Mycenae House with Idols		No 6 62-337	Bead	Rosso antico	lentoid	dark red		0.7		1.6		1	fragmentary condition of seal or bead; probably rosso antico; LH IIIB2
94	Mycenae		No7 62-640	Bead	Serpentine	lentoid	dark green	1.7 0.3 hole	0.3				1	serpentine-steatite; fragmentary condition; perforated seal; Mycenaean; M.N. 14935
95	Mycenae		No 8 64-143	Bead	Serpentine	lentoid	dark blue	2 max 0.2 hole	0.7				1	serpentine-steatite; broken; LH IIIC
96	Mycenae		No 9 68-21	Sealstone	Serpentine	lentoid	black		0.5 max		1.2	0.6 min	1	serpentine-steatite; seal(?); post Mycenaean context (?)
97	Mycenae		No 10 68-1634	Bead	Serpentine	lentoid	black	1.6 0.3 hole	0.5			1.2	1	serpentine-steatite; very worn
98	Mycenae Grave Circle B	Tomb A	A-259	Pommel	Rock crystal	spherical		0.004		0.025			1	pommel of pin; the pommel is divided by grooves in nine parts; N.M.A. 8565
99	Mycenae Grave Circle B	Tomb Γ	Γ-440	Pommel	Alabaster	hemispherical		0.05 max 0.03 base 0.02 hole		0.033 max		0.004 hole	1	found inside bronze cup Γ-316; N.M.A. 8698
100	Mycenae Grave Circle B	Tomb Γ	Γ-441	Pommel	Alabaster	hemispherical		0.05 max 0.03 base 0.02 hole		0.038 max			1	N.M.A. 8698
101	Mycenae Grave Circle B	Tomb Γ	Γ-442	Pommel	Alabaster			0.06 present 0.03 base 0.02 hole		0.029 max			1	N.M.A. 8698
102	Mycenae Grave Circle B	Tomb Γ	Γ-443	Bead	Amethyst	round		0.009	0.006				1	decoration: bearded man with long hair; C.M.S. I-5( discoid, D:1,0 hole D:0,4), N.M.A.8708



## Catalogue of gemstone finds

No	Site/Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
103	Mycenae Grave Circle B	Tomb Γ	Γ-444	Bead	Non identified	flattened spherical	black	0.01			0.009		1	one of seven necklace beads with the same No Γ-444(five of them are of glass paste); perforation vertical; N.M.A. 9192
104	Mycenae Grave Circle B	Tomb Γ	Γ-444	Bead	Rock crystal	ellipsoid					0.03		1	one of seven necklace beads with the same No Γ-444(five of them are of glass paste); perforation horizontally; N.M.A. 9192
105	Mycenae Grave Circle B	Tomb Γ	Γ-445	Non identified	Rock crystal	flattened spherical							1	one of thirteen necklace beads( found with eleven of nielo and one of bronze); N.M.A. 8568
106	Mycenae Grave Circle B	Tomb I	I-449	Bead	Non identified	spherical		0.01		0.009			1	N.M.A. 8622
107	Mycenae Grave Circle B	Tomb M	M-452, No 1	Bead	Sard	spherical					0.005	0.006	1	one of ten necklace beads; perforation length; N.M.A. 8673
108	Mycenae Grave Circle B	Tomb M	M-452 No 2	Bead	Rock crystal	flattened spherical					0.004	0.006	1	one of ten necklace beads; perforation length; N.M.A. 8673
109	Mycenae Grave Circle B	Tomb M	M-452 No 6	Bead	Rock crystal	flattened spherical		0.01			0.009		1	one of ten necklace beads (Nos 3 and 5 are of bronze and No 4 is of silver); N.M.A. 8673
110	Mycenae Grave Circle B	Tomb M	M-452 No 7	Bead	Meteorite	spherical		0.01			0.01		1	one of ten necklace beads; N.M.A. 8673
111	Mycenae Grave Circle B	Tomb M	M-452 No 10	Bead	Sard	flattened spherical		0.006			0.005		1	one of ten necklace beads (Nos 8 and 9 are of bronze); N.M.A. 8673
112	Mycenae Grave Circle B	Tomb M	M-453	Bead	Sard	amygdaloid			0.007 max		0.02 max	0.014 max	1	perforation; decoration: palm tree behind a rock(?); C.M.S. I-6( carnelian,D: 1,75x1,4), N.M.A. 8672
113	Mycenae Grave Circle B	Tomb N	N-458	Non identified	Alabaster	ellipsoid		0.09 base		0.055			1	topless; N.M.A. 8594
114	Mycenae Grave Circle B	Tomb Ξ	Ξ-455	Bead	Sard	ellipsoid			0.006 average		0.01 average		4	four of eight beads; N.M.A. 8633
115	Mycenae Grave Circle B	Tomb Ξ	Ξ-455	Bead	Sard	spherical		0.004 min 0.007 min			0.003 min 0.007 max		4	four of eight beads; N.M.A. 8633
116	Mycenae Grave Circle B	Tomb Ξ	Ξ455a	Bead	Sard	spherical		0.007 min 0.009 max			0.005 min 0.008 max		4	four of eight beads; N.M.A. 8633
117	Mycenae Grave Circle B	Tomb Ξ	Ξ- 455a	Bead	Sard	ellipsoid					0.01 min 0.01 max	0.006 min 0.009 max	4	four of eight beads with No Ξ-455; N.M.A. 8633
118	Mycenae Grave Circle B	Tomb Ξ	Ξ-456	Bead	Sard								2	two of sard (with eight of faience) found close to the right wrist of a little girl; N.M.A. 9595
119	Mycenae Grave Circle B	Tomb Ξ	Ξ-457	Bead	Rock crystal			0.005 min 0.008 max	0.002 min 0.006 max				18	vertically perforated; N.M.A. 8632
120	Mycenae Grave Circle B	Tomb O	O-312	Non identified	Rock crystal	spherical		0.06 max		0.044			1	N.M.A. 8635



## Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
121	Mycenae Grave Circle B	Tomb O	0-313	Non identified	Rock crystal	round		0.04		0.037			1	pommel of bronze pin; N.M.A. 8636
122	Mycenae Grave Circle B	Tomb O	0-314	Non identified	Rock crystal			0.03 max		0.034			1	N.M.A. 8637
123	Mycenae Grave Circle B	Tomb O	0-461	Bead	Sard	flattened spherical		0.005 min 0.009 max			0.009 min 0.01 max		11	eleven of seventeen necklace beads; in the centre was bead 0-464; N.M.A. 8655
124	Mycenae Grave Circle B	Tomb O	0-461	Bead	Rock crystal	flattened spherical		0.005 min 0.009 max			0.009 min 0.01 max		1	N.M.A. 8655
125	Mycenae Grave Circle B	Tomb O	0-461	Bead	Amethyst	flattened spherical		0.005 min 0.009 max			0.009 min 0.01 max		1	N.M.A. 8655
126	Mycenae Grave Circle B	Tomb O	0-461	Bead	Amethyst	3-sided							1	round sides; N.M.A. 8655
127	Mycenae Grave Circle B	Tomb O	0-461	Bead	Amethyst	ellipsoid							1	N.M.A. 8655
128	Mycenae Grave Circle B	Tomb O	0-461	Bead	Rock crystal	ellipsoid		0.01 max			0.02		1	N.M.A. 8655
129	Mycenae Grave Circle B	Tomb O	0-461	Fragment	Rock crystal	4-sided					0.01 max		1	N.M.A. 8655
130	Mycenae Grave Circle B	Tomb O	0-462	Bead	Sard	flattened spherical		0.005 min 0.008 max			0.004 min 0.007 max		38	thirtyeight necklace beads; N.M.A. 8653
131	Mycenae Grave Circle B	Tomb O	0-463	Non identified	Rock crystal	ellipsoid			0.004 max		0.02 max	0.017 max	1	N.M.A. 8652
132	Mycenae Grave Circle B	Tomb O	0-464	Bead	Sard	amygdaloid			0.009 max		0.02 max	0.011 max	1	decoration:two sea shells; C.M.S. I-7, N.M.A. 8656
133	Mycenae Grave Circle B	Tomb O	0-596 No4	Spindle whorl	Steatite	conical		0.009 top 0.02 base		0.018			1	N.M.A. 8661
134	Mycenae Grave Circle B	Tomb O	0-596 No 14	Spindle whorl	Steatite	conical		0.01 top 0.03 base 0.005 hole		0.022			1	N.M.A. 8661
135	Mycenae Grave Circle B	Tomb O	0-596 No3	Spindle whorl	Meteorite	conical		0.009 top 0.02 base		0.016			1	N.M.A. 8661
136	Mycenae Grave Circle B	Tomb O	0-596 No 7	Spindle whorl	Meteorite	conical		0.03 base 0.02 top 0.004 hole		0.024			1	N.M.A. 8661
137	Mycenae Grave Circle B	Tomb Pø	P-466	Scarab	Lapis lazuli		blue				0.02	0.009	1	plasterwork; decoration: column of goddess Hathor or Seshshit between two hawks; scarab of azure stone
138	Mycenae Grave Circle B	Tomb P	P-465	Sealstone	Sard	lentoid		0.02 0.02					1	sealstone slightly curved front and curved back; decoration: deer; LHI or LHII; C.M.S. I-8, N.M.A.8683



## Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
139	Mycenae Grave Circle B	Tomb Y	Y-467	Bead	Sard	spherical		0.004 min 0.006 max					20	twenty of thirty six necklace beads (six of them are of faience); Y-467 were found with Y-468 close to sternum and back bone; these twenty beads are spherical or flattened spherical; N.M.A. 9179
140	Mycenae Grave Circle B	Tomb Y	Y-467	Bead	Rock crystal			0.002 min 0.005 max					3	three of thirty six necklace beads; N.M.A. 9179
141	Mycenae Grave Circle B	Tomb Y	Y-467	Bead	Non identified	3-sided	black				0.009 min 0.02 max		3	three of thirty six necklace beads; N.M.A. 9179
142	Mycenae Grave Circle B	Tomb Y	Y-467	Bead	Non identified	flattened spherical	black				0.004 hole		4	four of thirty six necklace beads; N.M.A. 9179
143	Mycenae Grave Circle B	Tomb Y	Y-468	Bead	Sard	flattened spherical					0.02 min 0.008 max		29	twenty nine of forty five necklace beads found with Y-467; five of them are made of faience; N.M.A. 9180
144	Mycenae Grave Circle B	Tomb Y	Y-468	Bead	Sard	ellipsoid					0.01		1	one of forty five necklace beads; N.M.A. 9180
145	Mycenae Grave Circle B	Tomb Y	Y-468	Bead	Non identified	flattened spherical	black				0.004 min 0.005 max		4	four of forty five necklace beads; N.M.A. 9180
146	Mycenae Grave Circle B	Tomb Y	Y-468	Bead	Obsidian						0.008 min 0.01 max		3	three of forty five necklace beads; N.M.A. 9180
147	Mycenae Grave Circle B	Tomb Y	Y-468	Bead	Rock crystal						0.004 min 0.002 max		3	three of forty five necklace beads; N.M.A. 9180
148	Mycenae Grave Circle B	Tomb Y	Y-470	Bead	Rock crystal	cylindrical		0.004 hole 0.005 hole			0.02	0.016 center	1	perforation length; N.M.A. 8677
149	Mycenae Grave Circle B	Tomb Y	Y-471	Bead	Non identified		dark				0.02	0.016	1	perforation on top; N.M.A. 8679
150	Mycenae Tholos Tombs	Cyclopean Tomb		Spindle whorl	Steatite	button type							1	LH III; N.M.A. 2819
151	Mycenae Tholos Tombs	Cyclopean Tomb		Sealstone	Steatite	lentoid							1	broken and worn; N.M.A. 2819
152	Mycenae Tholos Tombs	Epano Fournos		Bead	Amethyst	round		0.01					1	polished
153	Mycenae Tholos Tombs	Tomb of Aegisthus/Dromos		Pendant	Steatite						0.02		1	pendant in shape of bull's or lion's head; pierced vertically for threading; hole on nose
154	Mycenae Tholos Tombs	Tomb of Aegisthus/Dromos		Spindle whorl	Steatite	pyramid				0.01			1	
155	Mycenae Tholos Tombs	Tomb of Aegisthus/Dromos		Bead	Carnelian			0.006					1	rough and unpolished like those from the Treasury of Atreus



## Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
156	Mycenae Tholos Tombs	The Treasury of Atreus/side chamber/dromos	No 93	Bead	Carnelian	irregular		0.005 min 0.01 max					8	(one is large the other seven small); roughly made, unpolished; N.M.A. 1200
157	Mycenae Tholos Tombs	The Treasury of Atreus/side chamber/dromos	No 95	Spindle whorl	Steatite	conical							1	
158	Mycenae Tholos Tombs	The Treasury of Atreus/side chamber	No 5	Non identified	Non identified	snail	green			0.007			1	found under the Threshold
159	Mycenae Tholos Tombs	The Treasury of Atreus	No 6	Bead	Carnelian	flat		0.007 0.01					2	very rough and irregular like No 93 (found under the threshold)
160	Mycenae Tholos Tombs	The Treasury of Atreus	No8	Bead	Non identified	lentoid	blue				0.001		1	found under the threshold
161	Mycenae Tholos Tombs	The Tomb of Clytemnestra	No 67	Bead	Amethyst			0.01 min 0.02 max					5	very narrow perforations, string on thin bronze wire; N.M.A. 1199
162	Mycenae Tholos Tombs	Tomb of Clytemnestra	No78	Spindle whorl	Non identified								1	
163	Mycenae Tholos Tombs	Tomb of Clytemnestra	No 6	Bead	Carnelian			0.005					2	two beads small and rough; N.M.A. 2835
164	Mycenae Tholos Tombs	Tomb of Clytemnestra	No 6	Pendant	Lapis lazuli	lilly bud					0.02		1	pierced at base for threading; N.M.A. 2835
165	Mycenae Tholos Tombs	Tomb of Genii	4541 h	Bead	Non identified	cylindrical	grey	0.001					2	two beads
166	Mycenae Tholos Tombs	Tomb of Genii	4542a	Bead	Carnelian	irregular		0.007					1	like No 93/N.M.A.1200
167	Mycenae Tholos Tombs	Tomb of Genii	4545	Spindle whorl	Steatite	shanked	pale green dark purple	0.02 max		0.014			10	ten of fourteen whorls or buttons; shape like inverted mushrooms; the color is varying from pale green to dark purple
168	Mycenae Tholos Tombs	Tomb of Genii	4545	Spindle whorl	Steatite	shanked	pale green dark purple						2	two of fourteen whorls or buttons
169	Mycenae Tholos Tombs	Tomb of Genii	4545	Spindle whorl	Steatite	conical		0.02		0.01			2	two of fourteen whorls or buttons; conical or pyramidal style
170	Mycenae		4537c	Slice	Lapis lazuli			0.01					1	thin slice of lapis-lazuli (gold nail-head, in the centre is the thin slice of lapis-lazuli)



## Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
171	Mycenae Asprohoma-Agriosykia/ 1887	Chamber Tomb 1	Λ 2353 (1)	Button	Steatite			0.02		0.014			1	button type Θ
172	Mycenae Asprohoma-Agriosykia/ 1887	Chamber Tomb 2	2338 (2)	Bead	Agate	spherical		0.01					1	gold around hole, bead type 1
173	Mycenae Asprohoma-Agriosykia/ 1887	Chamber Tomb 2	2348 (1)	Bead	Sard	round		0.01 min 0.01 max					1	round type 2
174	Mycenae Asprohoma-Agriosykia/ 1887	Chamber Tomb 2	2348 (2)	Bead	Rock crystal	round		0.007 min 0.01 max					1	round type 2
175	Mycenae Asprohoma-Agriosykia/ 1887	Chamber Tomb 2	2348 (3)	Bead	Non identified		black	0.01			0.02		1	hardness 3, type 35
176	Mycenae Asprohoma-Agriosykia/ 1887	Chamber Tomb 2	2348 (4)	Bead	Rock crystal			0.01 max			0.02		1	type 37
177	Mycenae Asprohoma-Agriosykia/ 1887	Chamber Tomb 2	2348 (5)	Bead	Agate			0.01 max			0.02		1	bead spindle shape type 37
178	Mycenae Asprohoma-Agriosykia/ 1887	Chamber Tomb 2	2348 (6)	Pendant	Sardonyx	prohous				0.018		0.007	1	type 84
179	Mycenae Asprohoma-Agriosykia/ 1887	Chamber Tomb 2	2348 (7)	Jewel	Rock crystal	cross					0.009	0.009	1	bicurved cross shape type 124; hole in the middle
180	Mycenae Asprohoma-Agriosykia/ 1887	Chamber Tomb 2	2362	Bead	Sard			0.005 min 0.008 max				0.003 min 0.005 max	250	irregular type 32
181	Mycenae Asprohoma-Agriosykia/ 1887	Chamber Tomb 2	2359 (1)	Button	Steatite			0.01 min 0.02 max		0.007 min 0.011 max			24	
182	Mycenae Asprohoma-Agriosykia/ 1887	Chamber Tomb 2	2359 (2)	Button	Steatite			0.01 min 0.02 max		0.008 min 0.001 max			12	twelve buttons,type Δ
183	Mycenae Asprohoma-Agriosykia/ 1887	Chamber Tomb 7	2321	Sealstone	Agate	lentoid		0.02				0.006	1	gold around hole; C.M.S. I-44
184	Mycenae Asprohoma-Agriosykia/ 1887	Chamber Tomb 8	2312	Sealstone	Agate	lentoid		0.02				0.008	1	decoration: two wild goats and tree; C.M.S. I-45
185	Mycenae Asprohoma-Agriosykia/ 1887	Chamber Tomb 8	2316	Sealstone	Sardonyx	lentoid		0.002 min 0.02 max				0.009	1	decoration: heraldic complex, two lions confronted and altar; C.M.S. I-46



## Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
186	Mycenae Asprohoma-Agriositykia/ 1887	Chamber Tomb 8	2322	Sealstone	Steatite	lentoid	brown	0.02 min 0.03 max				0.007	1	decoration: schematic representation of three animals (goats?) C.M.S. I-47
187	Mycenae Asprohoma-Agriositykia/ 1887	Chamber Tomb 8	2395 (18)	Bead	Sard			0.005 min 0.006 max		0.004 min 0.005 max			3	irregular, type 32
188	Mycenae Asprohoma-Agriositykia/ 1887	Chamber Tomb 9	2315	Sealstone	Lapis lacedaemonius	lentoid		0.02 min 0.02 max	0.008				1	
189	Mycenae Asprohoma-Agriositykia/ 1887	Chamber Tomb 10	2314	Sealstone	Sard	ellipsoid			0.008		0.02	0.016	1	ellipsoid bicurved; dec: two bulls; C.M.S. I-50
190	Mycenae Asprohoma-Agriositykia/ 1887	Chamber Tomb 10	2317	Sealstone	Rock crystal	lentoid		0.02 min 0.03 max	0.008				1	decoration: lion and man's leg; C.M.S. I-51 (D: 2.0-2.2)
191	Mycenae Asprohoma-Agriositykia/ 1887	Chamber Tomb 10	2319	Sealstone	Sardonyx			0.02	0.007				1	decoration: bull and tree; C.M.S. I-52
192	Mycenae Asprohoma-Agriositykia/ 1887	Chamber Tomb 10	2320	Sealstone	Agate	lentoid		0.02 min 0.02	0.008				1	decoration: bull,goats and plants; C.M.S. I-53
193	Mycenae Asprohoma-Agriositykia/ 1887	Chamber Tomb 11	2318	Sealstone	Agate	lentoid		0.02 min 0.02 max					1	decoration: lion and sacred knot; C.M.S. I-54;
194	Mycenae Asprohoma-Agriositykia/ 1887	Chamber Tomb 11	2387 (11)	Bead	Sard	round		0.006 min 0.008 max					17	
195	Mycenae Asprohoma-Agriositykia/ 1887	Chamber Tomb 11	2387 (12)	Bead	Fluorite	round		0.01					1	type 2
196	Mycenae Asprohoma-Agriositykia/ 1887	Chamber Tomb 11	2387 (13)	Bead	Fluorite	round		0.009					1	type 3
197	Mycenae Asprohoma-Agriositykia/ 1887	Chamber Tomb 11	2387 (14)	Bead	Fluorite	round		0.009 min 0.01 max					6	type 5
198	Mycenae Asprohoma-Agriositykia/ 1887	Chamber Tomb 11	2387 (15)	Bead	Sard	round		0.01					1	
199	Mycenae Asprohoma-Agriositykia/ 1887	Chamber Tomb 11	2387 (16)	Bead	Sard			0.005					2	type 31
200	Mycenae Asprohoma-Agriositykia/ 1887	Chamber Tomb 11	2387 (17)	Bead	Fluorite	4-sided					0.03		1	type 46



## Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
201	Mycenae Asprohoma-Agriosykia/ 1887	Chamber Tomb 11	2387 (18)	Bead	Fluorite	drop				0.015		0.008	1	type B
202	Mycenae Asprohoma-Agriosykia/ 1887	Chamber Tomb 12 (Yannikou field)	2313	Sealstone	Sard	lentoid		0.02 min 0.02 max	0.007				1	decoration: deer hit by javelin; C.M.S. I-55
203	Mycenae Asprohoma-Agriosykia/ 1887	Chamber Tomb 12	2323	Sealstone	Sard	lentoid			0.008		0.02	0.018	1	decoration: schematic representation of lion; C.M.S. I-56
204	Mycenae Kato Phournos Cemetery/ 1888	Chamber Tomb 24	2433	Sealstone	Sardonyx	lentoid		0.02	0.08				1	decoration: bull and tree; C.M.S. I-57
205	Mycenae Kato Phournos Cemetery/ 1888	Chamber Tomb 25	2422	Sealstone	Rock crystal	lentoid		0.02	0.01				1	decoration: two lions in semi-circle belly to belly, the semi-circles divided by branch; C.M.S. I-60
206	Mycenae Kato Phournos Cemetery/ 1888	Chamber Tomb 25	2431	Sealstone	Chalcedony	lentoid		0.02 min 0.02 max	0.008				1	decoration: bull and plant; C.M.S. I-61
207	Mycenae Panagia Hill Cemetery/ 1888(Pano Pigadi)	Chamber Tomb 26	2421	Sealstone	Sardonyx	lentoid		0.02 min 0.02 max	0.009				1	decoration: lion seated and dog; C.M.S. I-62
208	Mycenae Panagia Hill Cemetery/ 1888	Chamber Tomb 26	2427	Sealstone	Agate	lentoid		0.02 min 0.02 max	0.01				1	decoration: bull; C.M.S. I-63
209	Mycenae Panagia Hill Cemetery/ 1887	Chamber Tomb 26	2428	Sealstone	Meteorite	lentoid		0.02	0.01				1	decoration: bull; C.M.S. I-64
210	Mycenae Panagia Hill Cemetery/ 1888	Chamber Tomb 26	2429	Sealstone	Agate	lentoid		0.02	0.007				1	decoration: bull; C.M.S. I-65
211	Mycenae Panagia Hill Cemetery/ 1888	Chamber Tomb 26	2438	Sealstone	Agate	lentoid		0.02	0.01				1	decoration: bull; C.M.S. I-66
212	Mycenae Panagia Hill Cemetery/ 1888	Chamber Tomb 27	2434	Sealstone	Agate	lentoid		0.02 min 0.02 max	0.01				1	decoration: cow with calf; C.M.S. I-67
213	Mycenae Panagia Hill Cemetery/ 1888	Chamber Tomb 27	2446	Sealstone	Agate	barel		0.009 max			0.02 max		1	decoration: naked man; C.M.S. I-68



## Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
214	Mycenae Panagia Hill Cemetery/ 1888	Chamber Tomb 27	2639	Sealstone	Sardonyx			0.02	0.008				1	decoration: two bulls; C.M.S. I-69
215	Mycenae Panagia Hill Cemetery/ 1888	Chamber Tomb 26	2432	Sealstone	Chalcedony	lentoid		0.02 min 0.02 max	0.008				1	decoration: lion against bull; C.M.S. I-70
216	Mycenae Panagia Hill Cemetery/ 1888	Chamber Tomb 29	2437	Sealstone	Agate	lentoid		0.02	0.009				1	decoration: two lions seated; C.M.S. I-71
217	Mycenae Panagia Hill Cemetery/ 1888	Chamber Tomb 29	2339 (1)	Bead	Sard	round		0.008 min 0.01 max					15	type 2
218	Mycenae Panagia Hill Cemetery/ 1888	Chamber Tomb 29	2339 (2)	Bead	Amethyst	round		0.009 min 0.01 max					15	type 2
219	Mycenae Panagia Hill Cemetery/ 1888	Chamber Tomb 29	2339 (3)	Pommel	Agate	mushroom		0.05		0.023			1	pommel of sword; agate & iaspis
220	Mycenae Panagia Hill Cemetery/ 1888	Chamber Tomb 29	2339 (5)	Button	Steatite			0.02		0.012 present			1	type K
221	Mycenae Panagia Hill Cemetery/ 1888	Chamber Tomb 30	2771 (6)	Bead	Sard	spherical		0.01					1	type 1
222	Mycenae Kapsala Cemetery	Chamber Tomb 42,43	2424	Sealstone	Sardonyx			0.02 min 0.03 max	0.009				1	decoration: heraldic complex of two griffins and altar; C.M.S. I-73
223	Mycenae Kapsala Cemetery	Chamber Tomb 42,43	2425	Sealstone	Agate	lentoid		0.02 min 0.02 max	0.008				1	decoration: two goats and palm tree; C.M.S. I-74 (not 30 as Sakellariou reports)
224	Mycenae Kapsala Cemetery	Chamber Tomb 42,43	2426	Sealstone	Quartz	lentoid		0.02	0.009				1	decoration: bull and symbols of eight shaped shields; C.M.S. I-75
225	Mycenae Kapsala Cemetery	Chamber Tomb 42,43	2430	Sealstone	Jasper	lentoid	red	0.02 max 0.02 max	0.01				1	decoration: bull and plant; C.M.S. I-76
226	Mycenae Kapsala Cemetery	Chamber Tomb 42,43	2440	Sealstone	Agate	lentoid		0.02 min 0.02 max	0.007				1	decoration: lion with man's body attacks an animal; C.M.S. I-77
227	Mycenae Kato Phournos Cemetery/ 1888	Chamber Tomb 44	2442	Sealstone	Sard	ellipsoid		0.02	0.009		0.02		1	decoration: bull and man above him holding his horns; C.M.S. I-79
228	Mycenae Panagia Hill Cemetery/ 1888	Chamber Tomb 47	2423	Sealstone	Agate	lentoid		0.02 min 0.02 max					1	decoration: sacrifice scene, bull on bench and a man with a knife; C.M.S. I-80



## Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
229	Mycenae Panagia Hill Cemetery/ 1888	Chamber Tomb 47	2435	Sealstone	Chalcedony	lentoid		0.02	0.008				1	chalcedony with onyx, antithetic complex of three animals (deer and two dogs); C.M.S. I-81
230	Mycenae Panagia Hill Cemetery/ 1888	Chamber Tomb 47	2439	Sealstone	Agate	lentoid		0.02	0.005				1	decoration:bullfight; C.M.S. I-82
231	Mycenae Panagia Hill Cemetery/ 1888	Chamber Tomb 47	2447	Sealstone	Haematite			0.01 0.007 hole		0.022			1	decoration: four figures (man,daemon...); C.M.S. I-Suppl.3 (meteorite)
232	Mycenae Panagia Hill Cemetery/ 1888	Chamber Tomb 47	2612 (1)	Inlay	Rock crystal	flattened curved			0.003		0.01 min 0.02 max		30	
233	Mycenae Panagia Hill Cemetery/ 1888	Chamber Tomb 47	2612 (2)	Group of plaques	Group of rock crystal			0.03 max				0.014 max	1	
234	Mycenae Panagia Hill Cemetery/ 1888	Chamber Tomb 48	2436	Sealstone	Agate	lentoid		0.01	0.006				1	decoration: bull and object; C.M.S. I-83 (onyx)
235	Mycenae Panagia Hill Cemetery/ 1888	Chamber Tomb 48	2441	Sealstone	Agate	lentoid		0.02	0.006				1	decoration: lion;C.M.S. I-84 (half missing)
236	Mycenae Panagia Hill Cemetery/ 1888	Chamber Tomb 52	2443	Sealstone	Amethyst	lentoid		0.03	0.09		0.02		1	decoration: griffin; C.M.S. I-85
237	Mycenae Tombs 1887-1888	Chamber Tomb 52	2279 (21)- γ	Bead	Fluorite			0.009	0.003				1	
238	Mycenae Tombs 1887-1888	Chamber Tomb 52	2293 (6)	Bead	Sardonyx	round		0.007					1	type 2;
239	Mycenae Tombs 1887-1888	Chamber Tomb 52	2293 (7)	Bead	Sard								1	(two fragments of bead); type 5
240	Mycenae Tombs 1887-1888	Chamber Tomb 52	2349 (5)	Bead	Sard			0.005	0.003				9	type 31
241	Mycenae Tombs 1887-1889	Chamber Tomb 52	2351 (1)	Bead	Sard	round		0.007 min 0.01					13	type 2
242	Mycenae Tombs 1887-1888	Chamber Tomb 52	2351 (2)	Button	Sard	spherical		0.009 min 0.01 max					4	type 5
243	Mycenae Tombs 1887-1888	Chamber Tomb 52	2351 (3)	Bead	Sard			0.009 min 0.01 max					1	
244	Mycenae Tombs 1887-1888	Chamber Tomb 52	2352 (1)	Bead	Sard	spherical		0.007					2	type 5
245	Mycenae Tombs 1887-1888	Chamber Tomb 52	2352 (2)	Bead	Sard			0.004 min 0.007 max	0.003 min 0.005 max				18	type 32



## Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
246	Mycenae Tombs 1887-1888	Chamber Tomb 52	2378 (21)α	Bead	Non identified	spherical	black white	0.02					1	hardness 5
247	Mycenae Tombs 1887-1888	Chamber Tomb 52	2378 (21)β	Bead	Sard	spherical		0.01					1	
248	Mycenae Tombs 1887-1888	Chamber Tomb 52	2378 (21)γ	Bead	Amethyst	spherical		0.009					1	
249	Mycenae Tombs 1887-1888	Chamber Tomb 52	2378 (21)δ	Bead	Jasper	spherical	red	0.02					1	
250	Mycenae Tombs 1887-1888	Chamber Tomb 52	2378 (22)	Bead	Sard	spherical		0.01					1	spherical with grooves; type 5
251	Mycenae Tombs 1887-1888	Chamber Tomb 52	2378 (23)	Bead	Sard			0.006	0.005				2	type 32
252	Mycenae Tombs 1887-1888	Chamber Tomb 52	2378 (25)	Bead	Sard	ellipsoid			0.008		0.02	0.016	1	ellipsoid bicurved type 50; in the middle of each side flat rib
253	Mycenae Tombs 1887-1888	Chamber Tomb 52	2495 (28)	Bead	Sard	round		0.006 min 0.009 max					3	type 2
254	Mycenae Tombs 1887-1888	Chamber Tomb 52	2374 (9)	Disc	Non identified	discoïd	ash	0.01	0.002				1	hardness 3
255	Mycenae Tombs 1887-1888	Chamber Tomb 52	2279 (24)	Jewel	Fluorite	lozenge		0.02	0.003		0.01		1	
256	Mycenae Tombs 1887-1888	Chamber Tomb 52	2279 (25)	Jewel	Fluorite			0.01 min 0.01 max			0.01 min 0.02 max		7	type 130
257	Mycenae Tombs 1887-1888	Chamber Tomb 52	2378 (26)	Fragment	Haematite				0.007	0.015		0.014	1	triangular shape; hole in center
258	Mycenae Tombs 1887-1888	Chamber Tomb 52	2378 (27)	Sealstone	Steatite	lentoid		0.02 0.002 base	0.006				1	
259	Mycenae Tombs 1887-1888	Chamber Tomb 52	2415 (2)	Fragment	Obsidian						0.02	0.018	1	
260	Mycenae Tombs 1887-1888	Chamber Tomb 52	2415 (3)	Fragment	Talk	loop	darkish		0.01 max		0.02		1	hardness 2
261	Mycenae Tombs 1887-1888	Chamber Tomb 52	2360 (1)	Button	Non identified			0.02	0.01				1	type A
262	Mycenae Tombs 1887-1888	Chamber Tomb 52	2360 (2)	Button	Non identified	conical		0.01 min 0.03 max		0.008 min 0.025 max			8	type A
263	Mycenae Tombs 1887-1888	Chamber Tomb 52	2360 (3)	Button	Non identified			0.01 min 0.02 max		0.006 min 0.015 max			22	
264	Mycenae Tombs 1887-1888	Chamber Tomb 52	2361 (1)	Button	Non identified			0.01 min 0.02 max		0.007 min 0.015 max			14	tomb 33(?)
265	Mycenae Tombs 1887-1888	Chamber Tomb 52	2361 (2)	Button	Non identified	conical		0.01 min 0.02 max		0.01 min			2	type Δ
266	Mycenae Tombs 1880	Chamber Tomb 54	2572	Sealstone	Agate	lentoid		0.02	0.009				1	decoration: ram or deer hit by javelin; C.M.S. I-36 (D:0.02)



## Catalogue of gemstone finds

No	Site/Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
267	Mycenae Tombs 1890	Chamber Tomb 54	2573	Sealstone	Agate	lentoid		0.03 min 0.03 max	0.01				1	decoration: lion attacking bull; C.M.S. I-36
268	Mycenae Tombs 1890	Chamber Tomb 54	2574	Sealstone	Sard	lentoid		0.02	0.009				1	decoration: lion; C.M.S. I-43
269	Mycenae Tombs 1892	Chamber Tomb 56	2861	Sealstone	Rock crystal	lentoid		0.02	0.01				1	decoration: bull; C.M.S. I-88
270	Mycenae Tombs 1892	Chamber Tomb 56	2852 (2)	Cylinder	Rock crystal			0.01			0.02		1	type 22a
271	Mycenae Tombs 1892	Chamber Tomb 55	2831 (2)	Bead	Non identified	spherical	green red	0.01 min 0.02 max					3	two ash green beads, one red bead
272	Mycenae Tombs 1892	Chamber Tomb 55	2831 (3)	Bead	Sard	round		0.007 min 0.009 max					4	beads type 2
273	Mycenae Tombs 1892	Chamber Tomb 55	2871	Button	Steatite			0.02 min 0.02 max		0.01 min 0.013 max			34	
274	Mycenae Tombs 1892	Chamber Tomb 55	2896 (6)	Fragment	Obsidian						0.04	0.01	1	
275	Mycenae Tombs 1892	Chamber Tomb 56	2832	Button	Steatite			0.02 0.02		0.01 0.015			2	
276	Mycenae Tombs 1892	Chamber Tomb 57	2872 (8)	Button	Non identified			0.02 min 0.02 max		0.011 min 0.013 max			4	
277	Mycenae Tombs 1892	Chamber Tomb 58	2852	Sealstone	Jasper	ellipsoid	red				0.03	0.018	1	ring-seal; decoration: man with two lions; C.M.S. I-89
278	Mycenae Tombs 1892	Chamber Tomb 58	2858	Sealstone	Sard	lentoid		0.02	0.01				1	decoration: two bulls back to back; C.M.S. I-92 (carnelian)
279	Mycenae Tombs 1892	Chamber Tomb 58	2859	Sealstone	Agate	lentoid		0.03	0.008				1	decoration: two goats; C.M.S. I-93
280	Mycenae Tombs 1892	Chamber Tomb 58	2862	Sealstone	Sard	lentoid		0.02	0.008				1	decoration: bull and head of goat; C.M.S. I-94
281	Mycenae Tombs 1892	Chamber Tomb 58	2863	Sealstone	Amazonite	lentoid	blue green	0.02	0.01				1	decoration: man and bull; C.M.S. I-95
282	Mycenae Tombs 1892	Chamber Tomb 58	2664a	Sealstone	Amazonite	lentoid	blue green	0.02	0.07				1	decoration: goat and eight-shaped chields; C.M.S. I-96
283	Mycenae Tombs 1892	Chamber Tomb 58	2875	Sealstone	Agate	lentoid		0.02	0.009				1	decoration: two griffins and altar; C.M.S. I-98
284	Mycenae Tombs 1892	Chamber Tomb 58	2792 (11)	Bead	Sard	round		0.01					1	bead type 1
285	Mycenae Tombs 1892	Chamber Tomb 58	2792 (12)	Bead	Sard			0.009	0.001				1	bead type 31
286	Mycenae Tombs 1892	Chamber Tomb 58	2792 (13)	Bead	Agate	rectangular			0.006		0.03	0.022	1	back side flat, front side like four cylinders connected
287	Mycenae Tombs 1892	Chamber Tomb 58	2792 (14)	Disc	Quartz			0.009	0.001				1	



## Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
288	Mycenae Tombs 1892	Chamber Tomb 58	2803	Inlay	Agate	lozenge							2	
289	Mycenae Tombs 1892	Chamber Tomb 58	2884 (11)	Button	Steatite			0.02		0.011			1	button type Δ
290	Mycenae Tombs 1892	Chamber Tomb 60	2870	Button	Non identified			0.01 min 0.03 max		0.007 min 0.015 max			27	buttons of different types: 2 of type Δ, 9 of type K, 2 of type O, 12 of type II, 1 of type O or I
291	Mycenae Tombs 1892	Chamber Tomb 61	2860	Sealstone	Agate	lentoid		0.02 min 0.02 max	0.01				1	decoration: two wild goats; C.M.S. I-99
292	Mycenae Tombs 1893	Chamber Tomb 68	2973	Sealstone	Onyx	lentoid		0.03 min 0.03 max	0.01				1	decoration: lion and ram; C.M.S. I-103
293	Mycenae Tombs 1893	Chamber Tomb 68	2974	Sealstone	Agate			0.02 min 0.02 max	0.01				1	decoration: cow with calf; C.M.S. I-104 (not 85 as Sakellariou reports)
294	Mycenae Tombs 1893	Chamber Tomb 68	2975	Sealstone	Rock crystal	lentoid		0.02 min 0.02 max	0.008				1	decoration:ram,bussts of rams and eight-shaped shield; C.M.S. I-105
295	Mycenae Tombs 1893	Chamber Tomb 68	2976	Sealstone	Lapis lacedaemonius	lentoid		0.02 min 0.02 max				0.009	1	decoration:lioness with baby lion; C.M.S. I-106 (not 68 as Sakellariou reports)
296	Mycenae Tombs 1893	Chamber Tomb 68	2977	Sealstone	Agate	barrel		0.009 max			0.02		1	sealstone slightly six-sided;decoration: man and in the other five sides columns; C.M.S. I-107
297	Mycenae Tombs 1893	Chamber Tomb 68	2927 (1)	Bead	Sard	round		0.01 min 0.01 max					4	type 2;
298	Mycenae Tombs 1893	Chamber tomb 68	2927 (2)	Bead	Sard	round		0.008					1	type 7
299	Mycenae Tombs 1893	Chamber Tomb 68	2927 (3)	Bead	Sard	spindle		0.007 max			0.01		1	type 35
300	Mycenae Tombs 1893	Chamber Tomb 68	2931	Button	Non identified			0.004 min 0.02 max		0.005 min 0.012 max			12	buttons of different type
301	Mycenae Tombs 1893	Chamber Tomb 70	3012 (3)	Bead	Non identified	round		0.01					1	type 2
302	Mycenae Tombs 1893	Chamber Tomb 70	3012 (4)	Button	Non identified	round		0.01					1	type 3
303	Mycenae Tombs 1893	Chamber Tomb 70	3012 (5)	Bead	Non identified	conical		0.02		0.008			1	button shape
304	Mycenae Tombs 1893	Chamber Tomb 70	3012 (6)	Button	Non identified	biconical	black brown	0.01 min 0.02 max		0.011 min 0.014 max			3	buttons of different type Θ,Z,H
305	Mycenae Tombs 1893	Chamber Tomb 70	3021	Button	Non identified			0.02 min 0.02 max		0.01 min 0.017 max			3	buttons of different type: 2 of type Y, 1 of type II
306	Mycenae Tombs 1893	Chamber Tomb 71	3038 (5)	Button	Fluorite	conical		0.02		0.01			1	



## Catalogue of gemstone finds

No	Site/Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
307	Mycenae Tombs 1893	Chamber Tomb 76	3019 (2)	Bead	Sard	irregular		0.007 min 0.01 max					5	
308	Mycenae Tombs 1893	Chamber Tomb 76	3042 (8)	Bead	Agate			0.01			0.02		1	type 35;
309	Mycenae Tombs 1893	Chamber Tomb 76	30442 (9)	Pendant	Non identified	biconical	black brown	0.02 max		0.012			1	down side biconical, upper side flattened and pierced horizontally
310	Mycenae Tombs 1893	Chamber Tomb 76	3042 (10)	Button	Non identified			0.01 min 0.02 max		0.01 min 0.015 max			3	type II;
311	Mycenae Tombs 1893	Chamber Tomb 77	3033	Button	Steatite			0.01 min 0.03 max		0.008 min 0.015 max			154	buttons of different type
312	Mycenae 1893	Chamber Tomb	2933 (2)	Button	Non identified			0.03		0.016			1	no grave sign; button (top-less), type Δ
313	Mycenae Tombs 1895, Kalkani Cemetery	Chamber Tomb 78	3088	Sealstone	Agate	lentoid		0.03 min 0.03 max	0.01				1	decoration: two bulls; C.M.S. I-109
314	Mycenae Tombs 1895, Kalkani Cemetery	Chamber Tomb 78	3089	Sealstone	Agate	lentoid		0.02	0.007				1	decoration: lion's head, quadruple, horse head, ram; C.M.S. I-110 (onyx)
315	Mycenae Tombs 1895, Kalkani Cemetery	Chamber Tomb 79	3094	Sealstone	Non identified	lentoid			0.009		0.02	0.015	1	decoration:man with javelin attacks lion; C.M.S. I-112 (rock-crystal)
316	Mycenae Tombs 1895, Kalkani Cemetery	Chamber Tomb 79	3095	Sealstone	Agate	lentoid		0.02 min 0.02 max	0.008				1	decoration:three rams; C.M.S. I-113
317	Mycenae Tombs 1895, Kalkani Cemetery	Chamber Tomb 79	3096	Sealstone	Sard	lentoid		0.009 min 0.01 max	0.005				1	decoration: oinochoe; C.M.S. I-114
318	Mycenae Tombs 1895, Kalkani Cemetery	Chamber Tomb 79	3097 (8)	Bead	Amethyst	round		0.008 min 0.01 max					5	type 1
319	Mycenae Tombs 1895, Kalkani Cemetery	Chamber Tomb 79	3097 (9)	Bead	Non identified	round		0.02					1	type I; stone hardness 5
320	Mycenae Tombs 1895, Kalkani Cemetery	Chamber Tomb 79	3097 (10)	Button	Non identified	round		0.01 0.02		0.009			2	type Δ
321	Mycenae Tombs 1895, Panagia Hill Cemetery	Chamber Tomb 81	3115	Sealstone	Lapis lacedaemonius	lentoid		0.02	0.008				1	decoration: lion,ram and eight-shaped shield; C.M.S. I-115
322	Mycenae Tombs 1895, Panagia Hill Cemetery	Chamber Tomb 82	3123 (19)	Button	Non identified			0.02 min 0.02 max		0.009 min 0.014 max			1	



## Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
323	Mycenae Tombs 1895, Kalkani Cemetery	Chamber Tomb 83	3137	Sealstone	Agate	lentoid		0.03 min 0.04 max	0.02				1	decoration: lion attacks oxen; C.M.S. I-116
324	Mycenae Tombs 1895, Kalkani Cemetery	Chamber Tomb 83	3138	Sealstone	Jasper	lentoid	red	0.03 min 0.03 max	0.01				1	decoration: two lions and quadruped; C.M.S. I-117
325	Mycenae Tombs 1895, Kalkani Cemetery	Chamber Tomb 84	3146 (18)	Bead	Amethyst	round		0.008					1	type 1
326	Mycenae Tombs 1895, Kalkani Cemetery	Chamber Tomb 84	3146 (19)	Bead	Non identified	spherical	black white	0.02					1	type 1; hardness 4
327	Mycenae Tombs 1895, Kalkani Cemetery	Chamber Tomb 84	3146 (21)	Button	Non identified			0.01 min 0.02 max		0.009 min 0.017 max			6	
328	Mycenae Tombs 1895, Kalkani Cemetery	Chamber Tomb 85	3218	Sealstone	Non identified	lentoid		0.01	0.005				1	decoration: quadruple; C.M.S. I-120
329	Mycenae Tombs 1895, Kalkani Cemetery	Chamber Tomb 86	3149	Sealstone	Sard	lentoid		0.02	0.008				1	
330	Mycenae Tombs 1895, Kalkani Cemetery	Chamber Tomb 86	3150	Sealstone	Sard	lentoid		0.01	0.005				1	decoration: bull and tree; C.M.S. I-122
331	Mycenae Tombs 1895, Kalkani Cemetery	Chamber Tomb 88	3154	Sealstone	Agate	lentoid		0.02 min 0.02 max	0.008				1	decoration: heraldic complex of two chamois and between them a tree; C.M.S. I-123 (onyx)
332	Mycenae Tombs 1895, Kalkani Cemetery	Chamber Tomb 88	3156	Sealstone	Sardonyx	lentoid		0.02	0.01				1	decoration: two lions and two dogs; C.M.S. I-124 (onyx)
333	Mycenae Tombs 1895, Kalkani Cemetery	Chamber Tomb 88	3157 (2)	Bead	Amethyst	round		0.008 min 0.02 max					25	twenty four of type 1 and one of type 3
334	Mycenae Tombs 1895, Kalkani Cemetery	Chamber Tomb 88	3157 (3)	Bead	Sard	round		0.009					3	type 2
335	Mycenae Tombs 1895, Panagia Hill Cemetery	Chamber Tomb 89	3177 (4)	Bead	Sard	round		0.008					1	type 2
336	Mycenae Tombs 1895, Panagia Hill Cemetery	Chamber Tomb 89	3177 (5)	Bead	Rock crystal	spindle		0.008			0.02		1	type 37
337	Mycenae Tombs 1895, Panagia Hill Cemetery	Chamber Tomb 89	3177 (6)	Button	Non identified			0.02		0.01 min 0.013 max			3	



## Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
338	Mycenae Tombs 1895, Panagia Hill Cemetery	Chamber Tomb 89	3231	Pommel	Marble	mushroom		0.07		0.04			1	pommel of sword
339	Mycenae Tombs 1895, Panagia Hill Cemetery	Chamber Tomb 91	3207	Sealstone	Agate	lentoid		0.02 min 0.02 max	0.01				1	decoration: bull and cow; C.M.S. I-130
340	Mycenae Tombs 1895, Panagia Hill Cemetery	Chamber Tomb 91	3208	Sealstone	Chalcedony	lentoid		0.01	0.006				1	
341	Mycenae Tombs 1895, Panagia Hill Cemetery	Chamber Tomb 91	3192 (1)	Ring	Rock crystal			0.02 external	0.003			0.004	1	
342	Mycenae Tombs 1895, Panagia Hill Cemetery	Chamber Tomb 91	3192 (2)	Bead	Rock crystal			0.009					1	type 1
343	Mycenae Tombs 1895, Panagia Hill Cemetery	Chamber Tomb 91	3192 (3)	Bead	Rock crystal	round		0.02 min 0.02 max					1	type 2
344	Mycenae Tombs 1895, Panagia Hill Cemetery	Chamber Tomb 91	3192 (4)	Bead	Sard	round		0.008 min 0.009 max					1	type 2
345	Mycenae Tombs 1895, Panagia Hill Cemetery	Chamber Tomb 91	3192 (5)	Bead	Sard	round		0.01					1	type 5
346	Mycenae Tombs 1895, Panagia Hill Cemetery	Chamber Tomb 91	3192 (6)	Bead	Fluorite			0.01	0.004				1	type 20
347	Mycenae Tombs 1895, Panagia Hill Cemetery	Chamber Tomb 91	3192 (7)	Bead	Sard	round		0.006			0.005		1	
348	Mycenae Tombs 1895, Panagia Hill Cemetery	Chamber Tomb 91	3192 (8)	Button	Steatite			0.02		0.01			1	
349	Mycenae Tombs 1895, Panagia Hill Cemetery	Chamber Tomb 91	3206 (2)	Bead	Rock crystal	round		0.003			0.01		1	type 22a
350	Mycenae Tombs 1895, Asprohoma-Agriosykia	Chamber Tomb 93	4550 (15)	Bead	Amethyst	round		0.008 0.01					2	type 2
351	Mycenae Tombs 1895, Asprohoma-Agriosykia	Chamber Tomb 93	4550 (16)	Bead	Sard			0.04					1	type 31
352	Mycenae Tombs 1895, Asprohoma-Agriosykia	Chamber Tomb 94	4554 (3)	Bead	Sard	round		0.01					1	



## Catalogue of gemstone finds

No	Site/Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
353	Mycenae Tombs 1895, Asprohoma-Agriosykia	Chamber Tomb 94	4554 (4)	Bead	Sardonyx	irregular		0.006					1	
354	Mycenae Tombs 1895, Asprohoma-Agriosykia	Chamber Tomb 95	4561 (10)	Bead	Sard			0.005				0.003 min 0.004 max	5	type 31
355	Mycenae Tombs 1895, Panagia Hill Cemetery	Chamber Tomb 96	4557	Button	Non identified			0.02		0.01 min 0.015 max			4	type Δ
356	Mycenae Tombs 1896, Kalkani Cemetery	Chamber Tomb 97	4567	Button	Non identified			0.02 min 0.03 max		0.01 min 0.017 max			3	2 of type Δ, 1 of type E
357	Mycenae Tombs 1897, Panagia Hill Cemetery	Chamber Tomb 100	5417	Button	Non identified			0.01 min 0.02 max		0.012 min 0.013 max			9	1 of type Λ, 1 of type Ξ, 2 of type Π, 3 of type Y
358	Mycenae Tombs 1897-1898, Panagia Hill Cemetery	Chamber Tomb 102	4910 (10)	Bead	Haematite	lentoid		0.02				0.015	1	
359	Mycenae Tombs 1897-1898, Panagia Hill Cemetery	Chamber Tomb 102	4910 (12)	Bead	Amethyst	round		0.006 min 0.01 max					4	type 1
360	Mycenae Tombs 1897-1898, Panagia Hill Cemetery	Chamber Tomb 102	4910 (15)	Disc	Rock crystal	discoid		0.02	0.006				2	flat curved, with magnifying properties
361	Mycenae Tombs 1898, Panagia Hill Cemetery	Chamber Tomb 103	4927	Sealstone	Rock crystal	lentoid		0.02 0.02	0.008				1	decoration: three women to the right and two eight-shaped shields; C.M.S. I-132
362	Mycenae Tombs 1898, Panagia Hill Cemetery	Chamber Tomb 103	4928	Sealstone	Agate	lentoid		0.03 0.03	0.01				1	decoration: man and lion; C.M.S. I-133
363	Mycenae Tombs 1898, Panagia Hill Cemetery	Chamber tomb 103	4929	Sealstone	Sard	lentoid		0.01 0.02	0.005				1	decoration: two women; C.M.S. I-134
364	Mycenae Tombs 1898, Panagia Hill Cemetery	Chamber Tomb 103	4930	Sealstone	Onyx	lentoid		0.02 0.02	0.007				1	decoration: wild pig
365	Mycenae Tombs 1898, Panagia Hill Cemetery	Chamber Tomb 103	4938 (1)	Bead	Amethyst	round		0.007 min 0.01 max					5	type 2
366	Mycenae Tombs 1898, Panagia Hill Cemetery	Chamber Tomb 103	4938 (2)	Bead	Sard	discoid		0.007 0.01	0.004				2	type 18; hole in the middle



## Catalogue of gemstone finds

No	Site/Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
367	Mycenae Tombs 1898, Panagia Hill Cemetery	Chamber Tomb 103	4938 (3)	Bead	Steatite	discoid		0.007	0.004				1	type 18
368	Mycenae	Chamber Tomb 102 or 103	5405 (7)	Bead	Sard			0.003 min 0.008 max	0.003 min 0.006 max				42	type 32
369	Mycenae	Chamber Tomb 102 or 103	5405 (8)	Bead	Sard	ellipsoid		0.02	0.02				1	type 53
370	Mycenae Chamber tombs/ 3rd Km cemetery	Tomb 502/Dromos	4	Spindle whorl	Steatite	shanked-button type	pale green	0.03		0.017			1	LH III
371	Mycenae Chamber tombs/ 3rd Km cemetery	Tomb 502/chamber	30	Bead	Amethyst	spherical		0.01					1	polished
372	Mycenae Chamber tombs/ 3rd Km cemetery	Tomb 502/chamber	31a	Spindle whorl	Steatite	conical	pale greenish yellow			0.013			1	the first of two spindle whorls with the same No 31; LH III
373	Mycenae Chamber tombs/ 3rd Km cemetery	Tomb 502	31b	Spindle whorl	Steatite	shanked-button type	pale greenish yellow			0.007			1	the second of two spindle whorls with the same No 31; shanked or button type; LH III
374	Mycenae Chamber tombs/ 3rd Km cemetery	Tomb 502/chamber	32	Spindle whorl	Steatite	conical	dark green	0.02		0.019			1	LH III
375	Mycenae Chamber tombs/ 3rd Km cemetery	Tomb 504	1	Sealstone	Carnelian	amygdaloid					0.02		1	decoration: bull-baiting scene (naked man and bull); C.M.S. I-137, N.M.A. 6526; LH III
376	Mycenae Chamber tombs/ 3rd Km cemetery	Tomb 505/chamber unit		Fragment	Agate	lentoid					0.01		1	only fragment preserved; decoration: back side of an animal; C.M.S. I-138 (steatite), N.M.A. 6497
377	Mycenae Chamber tombs/ Kalkani cemetery N bank	Tomb 520/dromos	37a	Spindle whorl	Steatite	shanked-button type	purple grey green			0.006 min 0.015 max			14	fourteen of 29 spindle whorls with indented base
378	Mycenae Chamber tombs/ Kalkani cemetery N bank	Tomb 520/dromos	37b	Spindle whorl	Steatite	shanked-button type	red			0.006 min 0.015 max			4	four of 29 spindle whorls with flat base
379	Mycenae Chamber tombs/ Kalkani cemetery N bank	Tomb 520	37c	Spindle whorl	Steatite	conical				0.006 min 0.002 min			11	eleven of 29 spindle whorls with the same No 37



## Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
380	Mycenae Chamber tombs/ Kalkani cemetery N bank	Tomb 520/doorway	46	Bead	Crystal	spherical		0.02					1	
381	Mycenae Chamber tombs/ Kalkani cemetery N bank	Tomb 523/chamber	9	Sealstone	Agate	lentoid		0.02					1	decoration: heraldic type of two animals (lions?, goats?) C.M.S. I-157(steatite, D: 0,017) , N.M.A. 6511b
382	Mycenae Chamber tombs/ Kalkani cemetery N bank	Tomb 523/chamber	16	Sealstone	Steatite	lentoid		0.03	0.005				1	perforated diametrically; decoration: engraved with linear signs; C.M.S. I-156, N.M.A. 6511a
383	Mycenae Chamber tombs/ Kalkani cemetery N bank	Tomb 523	18	Spindle whorl	Steatite	conical	purple green			0.01 min 0.016 max			15	
384	Mycenae Chamber tombs/ Kalkani cemetery N bank	Tomb 524/chamber	24	Spindle whorl	Steatite	conical	dark pale green			0.011 min 0.018 max			7	
385	Mycenae Chamber tombs/ Kalkani cemetery N bank	Tomb 524/chamber	28	Bead	Carnelian	amygdaloid					0.02 0.02		2	two of three beads with the same No 28
386	Mycenae Chamber tombs/ Kalkani cemetery N bank	Tomb 524/chamber	28	Bead	Carnelian	spherical		0.004					1	one of three beads with the same No 28
387	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 513/chamber	7	Sealstone	Carnelian	flattened spherical					0.01		1	decoration: running deer with long horns; C.M.S. I-139( 0,8x1,2), N.M.A. 6561
388	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 513/chamber	9	Spindle whorl	Steatite	conical	black yellow green brown red	0.01 min 0.02 max		0.01 min 0.013 max			15	two of them are red the others are blackish, yellow, green, brown; their shape is conical or developed conical type, and button type



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No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
389	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 515/Dromos	29	Bead	Amethyst	spherical		0.008 0.01					2	
390	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 515/Dromos	31	Sealstone	Carnelian	lentoid		0.02					1	decoration: the intaglio design shows a woman, horns, double axe; C.M.S. I-144, N.M.A. 6442e
391	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 515/Dromos	32	Sealstone	Carnelian	lentoid		0.02					1	decoration: similar to previous 515/31; C.M.S. I-145, N.M.A. 5442f
392	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 515/Dromos	33	Sealstone	Onyx	lentoid		0.02					1	decoration: lion, C.M.S. I-141 (agate D:2,1), N.M.A. 6442b;
393	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 515/Dromos	34	Sealstone	Onyx	lentoid		0.02					1	decoration: cow with calf; C.M.S. I-140, N.M.A. 6442a
394	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 515/Dromos	35	Sealstone	Onyx	lentoid		0.02					1	decoration: two oxen; C.M.S. I-142 (agate, D: 2,0-2,1) N.M.A. 6442c
395	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 515/Dromos	36	Sealstone	Onyx	lentoid		0.02					1	decoration: wild goat; C.M.S. I-143 (agate, D: 1,7) N.M.A. 6442d
396	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 515/Dromos	37	Spindle whorl	Non identified	conical	red			0.01			1	first of two spindle whorls with the same No 37
397	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 515/Dromos	37	Spindle whorl	Steatite	two cones base to base	dark green			0.002			1	second of two spindle whorls with the same No 37, shaped like two cones base to base



## Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
398	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 515/Doorway	11	Bead	Amethyst	spherical		0.005 min 0.02 max					29	twenty beads unpolished and eight fragments polished, partially polished one;
399	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 515/Doorway	42	Bead	Onyx	spherical		0.03					1	
400	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 515/Doorway	43	Bead	Onyx	lentoid		0.03					1	
401	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 515/Doorway	44	Bead	Carnelian	two cones base to base					0.01		1	
402	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 515/Chamber	70	Bead	Amethyst	spherical		0.02					1	polished
403	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 515/Chamber pit	77	Bead	Amethyst	spherical		0.008					1	unpolished
404	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 516/Chamber	11a	Spindle whorl	Steatite		dark grey	0.02		0.024			1	first of four spindle whorls with the same No 11; shape like two talish cones base to base
405	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 516/Chamber	11b	Spindle whorl	Steatite		dark grey	0.02		0.016			1	second of four spindle whorls with the same No 11; shape like two cones base to base
406	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 516/Chamber	11c	Spindle whorl	Steatite	conical	dark grey			0.011			2	two of four spindle whorls with the same No 11



## Catalogue of gemstone finds

No	Site/Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
407	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 516/Chamber	12	Bead	Amethyst	spherical		0.005					1	polished
408	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 517/Chamber pit	37a	Bead	Crystal	spherical		0.01					1	first of seven beads with the No 37; unpolished
409	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 517/Chamber pit	37b	Bead	Amethyst	spherical		0.01 min 0.01 max					3	three of seven beads with the No 37; unpolished
410	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 517/Chamber pit	37c	Bead	Amethyst	flattened		0.02					2	two of seven beads with the No 37; unpolished and unperforated
411	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 517/Chamber pit	37d	Bead	Amethyst	amygdaloid					0.02		1	one of seven beads with No 37; unpolished
412	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 517/Chamber enclosure	39	Bead	Amethyst	spherical		0.01					1	from the enclosure of stones with skeletons VIII and IX; unpolished
413	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 517/Chamber enclosure	40	Spindle whorl	Steatite	conical	dark green			0.012			1	from the enclosure of stones with skeletons VIII and IX
414	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 517/Chamber	42a	Bead	Crystal	oval					0.01		3	three of five beads with No 42; found with skeleton X; unpolished
415	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 517/Chamber	42b	Bead	Crystal	spherical		0.005					1	one of five beads with No 42; found with skeleton X; unpolished



### Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
416	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 517/Chamber	42c	Bead	Carnelian	tubular		0.006			0.006		1	one of five beads with No 42; found with skeleton X; polished
417	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 517/Chamber	43	Bead	Non identified						0.009 min 0.01 max		3	three beads and one fragment; found with skeleton XI
418	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 517/Chamber	44	Bead	Crystal	spherical					0.007 min 0.01 max		28	found with skeleton XI; unpolished
419	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 517/Chamber	45	Bead	Carnelian	flat		0.006 min 0.009 max					29	found with skeleton XI;
420	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 518/Chamber	60b	Spindle whorl	Steatite	shanked		0.02					1	LH III
421	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 518/Chamber centre	61	Sealstone	Carnelian	tubular					0.03		1	bound at ends with gold; intaglio design of a figure leaping over bull; C.M.S. I-152 (D: 1,0x2,7), N.M.A. 6489ε
422	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 518/Chamber	63	Sealstone	Onyx	lentoid		0.02					1	decoration: flying dove; C.M.S. I-150 (agate, D:1,4), N.M.A. 6489γ
423	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 518/Chamber	64	Sealstone	Onyx	lentoid		0.02					1	decoration: two birds flying; C.M.S. I-151 (agate, D:1,5) N.M.A. 6489δ
424	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 518/Chamber	65	Sealstone	Onyx	shanked-button type		0.009		0.01			1	decoration: helmet protected with boar's tusks; C.M.S. I-153 (3-sided prisma), N.M.A.6489ζ



## Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
425	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 518/Alcove	66	Sealstone	Amethyst	lentoid		0.02					1	decoration:bull with uncertain object (man?), behind a pole or spear; C.M.S. I-147( D: 1,4-1,6), N.M.A.6438
426	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 518/Chamber	67	Bead	Carnelian	amygdaloid					0.03		1	decoration: incised lines horizontally
427	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 518/Chamber	68a	Bead	Carnelian	oval					0.02 min 0.03 max		14	
428	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 518/Chamber	68b	Bead	Onyx	spherical		0.02					1	
429	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 518/Chamber	68c	Bead	Agate	lentoid		0.02					2	
430	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 518/Chamber	68d	Bead	Carnelian	spherical		0.01					1	
431	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 518/Chamber	68e	Bead	Carnelian	cylindrical		0.05					1	
432	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 518/Chamber	68f	Bead	Carnelian	lentoid		0.02					1	
433	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 518/Chamber	68g	Bead	Amethyst	amygdaloid		0.03					1	

## Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
434	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 518/Chamber	68h	Bead	Amethyst	spherical		0.01					1	polished
435	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 518/Alcove	68i	Bead	Amethyst	spherical		0.09					1	polished
436	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 518/Chamber	62	Sealstone	Agate	lentoid					0.02		1	decoration: lion; C.M.S. I-149 (D: 1,8),N.M.A. 6489β
437	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 518/Chamber	72	Bead	Non identified								1	
438	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 519/Chamber	19	Bead	Non identified	tubular	dark red				0.02 present		1	fragment
439	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 525/Chamber	15	Spindle whorl	Steatite	conical	grey purple			0.013 0.01			2	one is dark grey the other is purple
440	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 526/Chamber	1	Scarab	Steatite						0.02		1	pierced for suspension; decoration: Horus hawk with the ankh and uraeus, "Ankh-Hor"; Egyptian XVIIIth Dynasty
441	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 526/Chamber	2	Scarab	Steatite						0.02		1	pierced for suspension; decoration: goose and signs (Maat-se-Re?) Egyptian XVIII Dynasty
442	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 526/Chamber	3	Scarab	Steatite		dark grey				0.007		1	pierced for suspension; decoration: uncertain animal; Mycenaean or Cypriote, imitation of Egyptian work



## Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
443	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 526/Chamber	4a	Bead	Carnelian	spherical		0.01					3	
444	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 526/Chamber	4b	Bead	Carnelian	amygdaloid					0.02		2	
445	Mycenae Chamber tombs/Kalkan i cemetery	Tomb 526/Chamber	4c	Bead	Onyx	cylindrical					0.02		1	
446	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 526/Chamber	4d	Bead	Onyx	spherical		0.01 min 0.02 max					5	
447	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 526/Chamber	4e	Bead	Crystal	spherical		0.01					1	
448	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 526/Chamber	4f	Bead	Agate	amygdaloid					0.02		1	
449	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 526/Chamber	4g	Bead	Non identified	spherical	dark	0.01 min 0.02 max					4	
450	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 526/Chamber	4h	Bead	Non identified	oval					0.02		1	
451	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 526/Chamber	4i	Bead	Steatite	spherical	dark	0.01					1	

# Catalogue of gemstone finds

No	Site/Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
452	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 529/Chamber	36a	Bead	Carnelian	oval					0.02		9	beads similar to beads from Third Shaft Grave at Mycenae
453	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 529/Chamber	36b	Bead	Non identified	pear					0.03		5	beads similar to beads from Third Shaft Grave at Mycenae
454	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 529/Chamber	37	Sealstone	Carnelian	lentoid		0.02					1	decoration: wild goat lying down similar to tomb 515/36; LH II; C.M.S. I-158 (D:1,7), N.M.A.6522
455	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 529/Chamber	40a-40c	Spindle whorl	Steatite	conical		0.01 min 0.02 max					1	
456	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 529/Chamber	40d	Spindle whorl	Steatite	shanked		0.01					1	
457	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 530/Chamber	20	Spindle whorl	Steatite	conical	yellow			0.011			1	the first of three spindle whorls with the same No 20
458	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 530/Chamber	20	Spindle whorl	Steatite	shanked	dark grey			0.016 0.011			2	two of three spindle whorls with the same No 20
459	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 532/Pit and Chamber	23	Spindle whorl	Steatite	conical				0.011			2	
460	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 532/Pit and Chamber	24	Spindle whorl	Steatite	shanked				0.01			1	



## Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
461	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 533/Chamber	26	Spindle whorl	Steatite	button type		0.03		0.019			1	
462	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 533/Chamber	27	Spindle whorl	Steatite	conical	purple	0.02		0.01			3	
463	Mycenae Chamber tombs/ Kalkani cemetery S bank	Tomb 533/Chamber	28	Spindle whorl	Steatite	conical	purple	0.02		0.01			3	
464	Prosymna	Tomb XLI	2	Sealstone	Agate	lentoid	light brown	0.01	0.005 center				1	decoration: minotaur and eight-shield; C.M.S. I-216, N.M.A.7111; Blegen 1937: 274
465	Prosymna	Tomb XXXIII	3	Sealstone	Agate	lentoid	brownish grey	0.02	0.009 center				1	decoration: male figure wearing Cretan belt and holding two lions; C.M.S. I-Suppl 27, N.M.A.11658; Blegen 1937: 274
466	Prosymna	Tomb XXXIII	4	Sealstone	Agate	lentoid	milky white	0.02	0.009				1	decoration: cow suckling a calf; C.M.S. I-Suppl. 28; Blegen 1937: 275
467	Prosymna	Tomb XLI	5	Sealstone	Carnelian	lentoid		0.02	0.007				1	LH I; decoration: two animals fighting; C.M.S. I-214, N.M.A.7109; Blegen 1937: 275
468	Prosymna	Tomb XXXIII	6	Sealstone	Rock crystal	lentoid		0.02	0.01				1	decoration: two deer back to back running; Blegen 1937: 276
469	Prosymna	Tomb XLI	7	Sealstone	Agate	lentoid	brown	0.02	0.007				1	decoration: three running animals (deers ?); Blegen 1937: 276
470	Prosymna	Tomb XXXIV	8	Sealstone	Haematite	lentoid		0.02	0.007				1	decoration: antelope and conventionalized tree; Blegen 1937: 276
471	Prosymna	Tomb VIII	9	Sealstone	Steatite	lentoid	purple black	0.02	0.007				1	decoration: bull with long horns; Blegen 1937: 277
472	Prosymna	Tomb VI	10	Sealstone	Steatite	lentoid	black	0.02	0.006				1	decoration: deer (?) and (palm ?) tree; C.M.S. I-210, N.M.A.6249; Blegen 1937: 277
473	Prosymna	Tomb XLVI	11	Sealstone	Steatite	lentoid	black	0.02	0.007				1	decoration: two creatures (centaurs); Blegen 1937: 277
474	Prosymna	Tomb XXXVIII	12	Sealstone	Steatite	lentoid	black	0.02	0.009				1	decoration: horned animal and tree; Blegen 1937: 278

## Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
475	Prosymna	Tomb III	13	Sealstone	Rock crystal	lentoid		0.02	0.008				1	decoration: circles, crescents, straight lines ( conventionalised animal's mask?), probably amulet or talisman; C.M.S. I-208, N.M.A.6425a; Blegen 1937: 278
476	Prosymna	Tomb XI	14	Sealstone	Steatite	lentoid	green	0.02	0.006				1	four sets of double chevrons arranged with their points towards a common centre. Design with talismanic character; C.M.S. I-211, N.M.A.8471; Blegen 1937: 278
477	Prosymna	Tomb VIII	15	Sealstone	Steatite	lentoid	purple black	0.02	0.007				1	decoration: five central dots assymetrically placed and a series of concentric arcs arranged in four groups; Blegen 1937: 279
478	Prosymna	Tomb III	16	Seal cylinder	Carnelian		red		0.006		0.01	0.012	1	decoration: divided in two zones, filled with crescents or semi-circles, amuletic significance; C.M.S. I-207, N.M.A.6423; Blegen 1937: 279
479	Prosymna	Tomb III	19	Sealstone	Carnelian	amygdaloid			0.01		0.02 present		1	large seal, only half preserved decoration: the back is cut in three facets, at the front the figure of an animal;C.M.S. I-209, N.M.A.6425b; Blegen 1937: 280
480	Prosymna	Tomb II	20	Sealstone	Sard	cylindrical		0.007 min 0.008 max			0.02		1	decoration: two zones are engraved, one shows two hippocampus the other two bird-griffins; C.M.S. I-206, N.M.A.6409; Blegen 1937: 280
481	Prosymna	Tomb II		Bead	Carnelian	spherical		0.008 min 0.01 max			0.01 min 0.002 max		2	Blegen 1937: 288
482	Prosymna	Tomb III		Bead	Carnelian	spherical		0.001 min 0.006 max					6	Blegen 1937: 288
483	Prosymna	Tomb VIII		Bead	Carnelian	spherical		0.005 min 0.01 max			0.004 min 0.009 max		2	roughly cut; Blegen 1937: 288
484	Prosymna	Tomb VIII		Bead	Carnelian	spherical		0.004 min 0.007 max			0.004 min 0.006 max		22	roughly cut; Blegen 1937: 288
485	Prosymna	Tomb XI		Bead	Carnelian	spherical		0.006 min 0.008 max			0.005 min 0.006 max		5	Blegen 1937: 288
486	Prosymna	Tomb XIV		Bead	Carnelian	spherical		0.006 max			0.005 max		3	Blegen 1937: 289
487	Prosymna	Tomb XVIII		Bead	Carnelian	spherical							1	broken; Blegen 1937: 289
488	Prosymna	Tomb XXI		Bead	Carnelian	spherical		0.01			0.01		1	perforation with one hole double than the other; Blegen 1937: 289
489	Prosymna	Tomb XXV		Bead	Carnelian	spherical		0.008			0.007		2	perforation with one hole double than the other; Blegen 1937: 289



## Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
490	Prosymna	Tomb XXVII		Bead	Carnelian	spherical		0.009					2	perforation with one hole double than the other; Blegen 1937: 289
491	Prosymna	Tomb XXX		Bead	Carnelian	spherical		0.009			0.007		2	Blegen 1937: 289
492	Prosymna	Tomb XXXIII		Bead	Carnelian	spherical		0.006 min 0.009 max			0.006 min 0.008 max		52	perforation of varying sizes; Blegen 1937: 289
493	Prosymna	Tomb XXXIII		Non identified	Non identified	spherical		0.005			0.003		5	perforation of varying sizes; Blegen 1937: 289
494	Prosymna	Tomb XXXVI		Bead	Carnelian	spherical		0.008			0.007		1	Blegen 1937: 289
495	Prosymna	Tomb XXXVI		Bead	Carnelian	spherical		0.009			0.007		1	bottom harmed by fire; Blegen 1937: 289
496	Prosymna	Tomb XXXVI		Bead	Carnelian	spherical		0.006			0.005		1	Blegen 1937: 289
497	Prosymna	Tomb XXXVIII		Bead	Carnelian	spherical		0.01 min 0.01 max			0.01 min 0.01 max		2	roughly cut; Blegen 1937: 289
498	Prosymna	Tomb XXXVIII		Bead	Carnelian			0.005 min 0.008 max			0.005 min 0.007 max		6	roughly cut; Blegen 1937: 289
499	Prosymna	Tomb XLI		Bead	Carnelian	spherical		0.007 min 0.008 max			0.006 min 0.007 max		2	perforation with one hole larger than the other; Blegen 1937: 289
500	Prosymna	Tomb XLI		Bead	Carnelian	spherical		0.008			0.01		1	gold capped; Blegen 1937: 289
501	Prosymna	Tomb XLII		Bead	Carnelian	spherical		0.005					1	Blegen 1937: 289
502	Prosymna	Tomb XLIII		Bead	Carnelian	spherical		0.009 min 0.01 max			0.007 min 0.01 max		41	Blegen 1937: 289
503	Prosymna	Tomb XLIII		Bead	Carnelian	spherical		0.006			0.004 min 0.005 max		7	Blegen 1937: 289
504	Prosymna	Tomb XLIV		Bead	Carnelian	spherical		0.006 min 0.01 max			0.006 min 0.009 max		7	Blegen 1937: 290
505	Prosymna	Tomb XLIV		Bead	Carnelian	spherical		0.004			0.003		1	Blegen 1937: 290
506	Prosymna	Tomb XLIV		Bead	Carnelian	spherical		0.01			0.007		1	gadroned spherical; Blegen 1937: 290
507	Prosymna	Tomb XLV		Bead	Carnelian	spherical		0.006			0.004		1	roughly cut, perforation large; Blegen 1937: 290
508	Prosymna	Tomb XLIX		Bead	Carnelian	spherical		0.005			0.004		1	Blegen 1937: 290
509	Prosymna	Tomb LI		Bead	Carnelian	spherical		0.009			0.008		1	Blegen 1937: 290
510	Prosymna	Tomb II		Bead	Carnelian	flattened spherical		0.01 0.006			0.007 0.004		2	Blegen 1937: 290
511	Prosymna	Tomb II		Bead	Carnelian	cylindrical		0.01			0.006		1	short cylinder, opaque perhaps harmed by fire; Blegen 1937: 290
512	Prosymna	Tomb XLIX		Bead	Carnelian	annular		0.009			0.004		1	Blegen 1937: 290
513	Prosymna	Tomb II		Bead	Carnelian	ellipsoid		0.009 min 0.01 max			0.02 min 0.03 max		12	Blegen 1937: 290

## Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
514	Prosymna	Tomb III		Bead	Carnelian	ellipsoid		0.02 0.02					1	Blegen 1937: 290
515	Prosymna	Tomb III		Bead	Carnelian	biconical		0.007			0.02		1	Blegen 1937: 290
516	Prosymna	Tomb VIII		Bead	Carnelian	biconical		0.02			0.03		1	Blegen 1937: 290
517	Prosymna	Tomb XLIV		Bead	Carnelian			0.01			0.02		1	from dromos; Blegen 1937: 291
518	Prosymna	Tomb XLIV		Bead	Carnelian	biconical		0.01			0.02		1	from chamber; Blegen 1937: 291
519	Prosymna	Tomb II		Bead	Carnelian	amygdaloid			0.007		0.02	0.015	1	decoration: three facets on each side; Blegen 1937: 291
520	Prosymna	Tomb III		Bead	Carnelian	amygdaloid			0.01		0.02	0.016	1	Blegen 1937: 291
521	Prosymna	Tomb VIII		Bead	Carnelian	amygdaloid			0.006		0.01	0.011	1	three facets on each side; Blegen 1937: 291
522	Prosymna	Tomb IX		Bead	Carnelian	amygdaloid			0.008		0.02		1	decoration: on each side three facets with incised line down the centre; Blegen 1937: 291
523	Prosymna	Tomb XXIX		Bead	Carnelian	amygdaloid			0.01		0.02		1	decoration: three facets in each side; Blegen 1937: 291
524	Prosymna	Tomb XXXIII		Bead	Carnelian	amygdaloid			0.006		0.01	0.013	1	decoration: three facets on each side but shorter and broader than previous bead; Blegen 1937: 291
525	Prosymna	Tomb XLII		Bead	Carnelian	amygdaloid			0.007		0.02	0.015	1	decoration: three facets on each side; Blegen 1937: 291
526	Prosymna	Tomb III		Bead	Carnelian	drop	opaque coral	0.02 max			0.04		1	drop pendant; opaque colored perhaps by fire; Blegen 1937: 291
527	Prosymna	Tomb III		Bead	Carnelian	drop		0.008 min 0.01 max			0.01 0.02		3	three drop pendants; Blegen 1937: 291
528	Prosymna	Tomb XXIX		Bead	Carnelian	drop		0.01 max			0.02		1	perforation from both ends harmed by fire broken in one side; Blegen 1937: 291
529	Prosymna	Tomb III		Bead	Carnelian	hippopotamus			0.01	0.02	0.04		1	amulet or charm probably imported by Egypte; Blegen 1937: 292
530	Prosymna	Tomb II		Bead	Amethyst	spherical		0.01			0.009		1	perforation; Blegen 1937: 292
531	Prosymna	Tomb III		Bead	Amethyst	spherical		0.01			0.01		1	Blegen 1937: 292
532	Prosymna	Tomb III		Bead	Amethyst	spherical		0.02			0.01		1	smoothly polished; Blegen 1937: 292
533	Prosymna	Tomb XXVII		Bead	Amethyst	spherical		0.01			0.01		1	perforation, one hole larger than other; Blegen 1937: 292
534	Prosymna	Tomb XXVIII		Bead	Amethyst	spherical		0.01					1	perfect sphere; Blegen 1937: 292
535	Prosymna	Tomb XXXVI		Bead	Amethyst	spherical		0.01					2	Blegen 1937: 292
536	Prosymna	Tomb LI		Bead	Amethyst	spherical		0.008 min 0.01 max			0.007 min 0.001 max		6	Blegen 1937: 292



## Catalogue of gemstone finds

No	Site/Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
537	Prosymna	Tomb XLIII		Bead	Amethyst	flattened spherical		0.008			0.005		1	half broken the type of bead is characteristic Egyptian of this time; Blegen 1937: 293
538	Prosymna	Tomb XXVIII		Bead	Amethyst	lentoid		0.02	0.006				1	Blegen 1937: 293
539	Prosymna	Tomb LI		Bead	Amethyst	hemispherical		0.01			0.009		1	Blegen 1937: 293
540	Prosymna	Tomb LI		Bead	Amethyst	ellipsoid		0.01			0.01		1	spirally gadrooned; Blegen 1937: 293
541	Prosymna	Tomb LI		Bead	Amethyst	barel		0.009			0.006		1	perforation; Blegen 1937: 293
542	Prosymna	Tomb XXXVIII		Bead	Lapis lazuli	flattened spherical		0.01			0.006		1	perforation; Blegen 1937: 294
543	Prosymna	Tomb XLIX		Bead	Non identified	amygdaloid		0.01			0.02		1	Blegen 1937: 294
544	Prosymna	Tomb XLI		Non identified	Malachite	spherical		0.005					1	with gold caps; Blegen 1937: 294
545	Prosymna	Tomb XLIV		Bead	Malachite	spherical		0.006 min 0.009 max			0.01 min 0.02 max		3	Blegen 1937: 294
546	Prosymna	Tomb XLIV		Bead	Malachite	double conoid							4	four small beads; Blegen 1937: 294
547	Prosymna	Tomb XLIX		Bead	Agate	lentoid		0.02			0.01		1	Blegen 1937: 294
548	Prosymna	Tomb XIX		Bead	Breccia	spherical	black white	0.01 min 0.02 max			0.01 min 0.02 max		1	Blegen 1937: 295
549	Prosymna	Tomb XLI		Bead	Breccia	spherical	black white	0.01 min 0.02 max			0.01 min 0.02 max		1	Blegen 1937: 295
550	Prosymna	Tomb XLIV		Bead	Breccia	spherical	black white	0.01 min 0.02 max			0.01 min 0.02 max		2	Blegen 1937: 295
551	Prosymna	Tomb XLIII		Bead	Flint	crenellated	red	0.006			0.002		7	Blegen 1937: 295
552	Prosymna	Tomb VIII		Bead	Rock crystal	spherical		0.02			0.02		1	LH III; Blegen 1937: 293
553	Prosymna	Tomb XXVIII		Bead	Rock crystal	spherical		0.01					1	LH III; Blegen 1937: 293
554	Prosymna	Tomb XLI		Bead	Rock crystal			0.01			0.01		1	LH III; Blegen 1937: 293
555	Prosymna	Tomb XLIII		Bead	Rock crystal	spherical		0.005			0.004		1	Blegen 1937: 293
556	Prosymna	Tomb XLIV		Bead	Rock crystal	spherical		0.009 min 0.02 max			0.008 min 0.01 max		4	three of them spirally gadrooned (one badly broken not measured); LHI; Blegen 1937: 293
557	Prosymna	Tomb XLIX		Bead	Rock crystal	spherical		0.01			0.01		1	spirally gadrooned; Blegen 1937: 293
558	Prosymna	Tomb XXXVI		Bead	Rock crystal			0.009 min 0.01 max			0.005		5	LH III; Blegen 1937: 294
559	Prosymna	Tomb XLIII		Bead	Rock crystal	lentoid		0.008					1	Blegen 1937: 294
560	Prosymna	Tomb XXXV		Bead	Rock crystal	tabular			0.004		0.008		1	flat square; LH III; Blegen 1937: 294
561	Prosymna	Tomb LI		Bead	Crystal	round		0.03 0.03					2	perforation; Blegen 1937: 294

## Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
562	Prosymna	Tomb XIX		Bead	Steatite	spherical	white	0.01			0.01		1	Blegen 1937: 295
563	Prosymna	Tomb XXV		Bead	Steatite	spherical	greyish black	0.001					1	perforation; Blegen 1937: 295
564	Prosymna	Tomb XXXVIII		Bead	Steatite	spherical	black	0.01			0.01		1	perforation off centre, spirally gadrooned; Blegen 1937: 295
565	Prosymna	Tomb VIII		Bead	Steatite	faceted	grey				0.01	0.007	1	huge perforation at one end and a slotted hole at the other, bead long square in section with rounded edges; Blegen 1937: 295
566	Prosymna	Tomb XIV		Bead	Steatite	ellipsoid	black						1	fragmentary piece with longitudinal grooving; Blegen 1937: 295
567	Prosymna	Tomb I		Bead	Steatite	lentoid	purple	0.01	0.005				1	small carefully drilled perforation, flat bead; Blegen 1937: 295
568	Prosymna	Tomb XXXVI		Bead	Steatite	lentoid	black	0.02	0.008				1	large perforation, flat bead; Blegen 1937: 295
569	Prosymna	Tomb LII		Bead	Steatite	lentoid							2	two fragments flat lentoid; Blegen 1937: 295
570	Prosymna	Tomb I		Bead	Steatite	crenellated	green	0.009	0.005				1	with eight crenellations; Blegen 1937: 295
571	Prosymna	Tomb VIII		Bead	Steatite	toggle	brown	0.006			0.008		1	perforation at waist; Blegen 1937: 295
572	Prosymna	Tomb I		Bead	Steatite	wedge	blue		0.009		0.02	0.014	1	huge perforation off centre; Blegen 1937: 296
573	Prosymna	Tomb VIII		Bead	Steatite	wedge	grey		0.004		0.01		1	flat wedge with round contour and concave sides; Blegen 1937: 296
574	Prosymna	Tomb XXV		Bead	Steatite	wedge	greyish black	0.01	0.009 min 0.01 max				1	Blegen 1937: 296
575	Prosymna	Tomb XXVII		Bead	Steatite	wedge	pink	0.007	0.002 min 0.005 max				1	Blegen 1937: 296
576	Prosymna	Tomb LI		Bead	Steatite	wedge	black	0.01	0.009				1	broken, flat sides; Blegen 1937: 296
577	Prosymna	Tomb VIII		Bead	Steatite	pendant	purple	0.01			0.16		1	pierced horizontally through the neck; "button" type; Blegen 1937: 296
578	Prosymna	Tomb VIII		Bead	Steatite	pendant		0.01 0.01			0.01 0.01		2	Blegen 1937: 296
579	Prosymna	Tomb VIII		Bead	Steatite	pendant	green	0.01			0.02		1	Blegen 1937: 296
580	Prosymna	Tomb VIII		Bead	Steatite	pendant	brown	0.01 min 0.01 max			0.01 min 0.01 max		3	Blegen 1937: 296
581	Prosymna	Tomb XIX		Bead	Steatite	pendant	purple	0.01			0.01		1	Blegen 1937: 296
582	Prosymna	Tomb XXXV		Bead	Steatite	pendant	purple	0.01			0.02		1	Blegen 1937: 296
583	Prosymna	Tomb XLV		Bead	Steatite	pendant	purple	0.01			0.02		1	Blegen 1937: 296
584	Prosymna	Tomb XLII		Bead	Steatite	biconical	grey	0.02			0.02		1	pendant bead, biconical almost top shaped, with suspension holes roughly pierced near top; Blegen 1937: 296



## Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
585	Prosymna	Tomb XI		Bead	Steatite	drop	black	0.006			0.01 present		1	drop pendant; broken at top were hole had been drilled; Blegen 1937: 296
586	Prosymna	Tomb XXIX		Bead	Steatite	rectangular	black		0.005 min 0.007 max		0.02	0.01	1	pendant bead,large perforation; Blegen 1937: 296
587	Prosymna	Tomb I		Button	Steatite	short cone	purple	0.02			0.01		1	flat base no bevelled edge; Blegen 1937: 318
588	Prosymna	Tomb I		Button	Steatite	short cone	brownish purple	0.02 0.02 0.02			0.01 0.01 0.01		3	bevelled around lower edge, large perforation drilled from both ends; Blegen 1937: 318
589	Prosymna	Tomb III		Button	Steatite	short cone	red	0.03			0.02		1	large perforation drilled from both ends; Blegen 1937: 318
590	Prosymna	Tomb III		Button	Steatite	short cone	black	0.02			0.01		1	large perforation drilled from both ends; Blegen 1937: 318
591	Prosymna	Tomb III		Button	Steatite	short cone	brownish black	0.02			0.01		1	perforated from both ends; Blegen 1937: 318
592	Prosymna	Tomb IV		Button	Steatite	short cone	mottled	0.02			0.02		1	flat base , no bevel, large perforation well drilled; Blegen 1937: 318
593	Prosymna	Tomb V		Button	Steatite	short cone	greyish	0.02			0.02		1	flat base bevelled color slightly translucent; Blegen 1937: 318
594	Prosymna	Tomb V		Button	Steatite	short cone	dark grey opaque	0.02			0.01		1	flat base, slightly bevelled edge; Blegen 1937: 318
595	Prosymna	Tomb V		Button	Steatite	short cone	purple						1	broken flat base, slightly bevelled edge; Blegen 1937: 318
596	Prosymna	Tomb VII		Button	Steatite	short cone	soft green	0.02			0.01		1	very large perforation, rounded edge at base; Blegen 1937: 318
597	Prosymna	Tomb VII		Button	Steatite	short cone	black	0.03			0.01		1	flat base and top; Blegen 1937: 318
598	Prosymna	Tomb VIII		Button	Steatite	short cone	black	0.02			0.01		1	large perforation, round base and top; Blegen 1937: 318
599	Prosymna	Tomb VIII		Button	Steatite	short cone	green	0.01			0.01		1	round base and top; Blegen 1937: 318
600	Prosymna	Tomb VIII		Button	Steatite	short cone	black	0.02			0.02		1	huge perforation, flat base, round top and edge; Blegen 1937: 318
601	Prosymna	Tomb VIII		Button	Steatite	short cone	reddish	0.03			0.18		1	flat base, round top and edge; Blegen 1937: 318
602	Prosymna	Tomb VIII		Button	Steatite	short cone	purple	0.02			0.01		1	flat base, round top and edge; Blegen 1937: 318
603	Prosymna	Tomb VIII		Button	Steatite	short cone	purple	0.02			0.009		1	flat to, flat base with rounded edge; Blegen 1937: 318
604	Prosymna	Tomb VIII		Button	Steatite	short cone	black	0.02			0.01		1	Blegen 1937: 318
605	Prosymna	Tomb VIII		Button	Steatite	short cone	purple	0.01			0.008		1	flat top and base, bevelled edge; Blegen 1937: 318

## Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
606	Prosymna	Tomb VIII		Button	Steatite	short cone	black	0.02			0.009		1	flat top, flat base with bevelled edge; Blegen 1937: 318
607	Prosymna	Tomb IX		Button	Steatite	short cone	black	0.02			0.01		1	flat top and base, bevelled edge; Blegen 1937: 318
608	Prosymna	Tomb XI		Button	Steatite	short cone	purple	0.03			0.02		1	flat base and top, bevelled edge; Blegen 1937: 318
609	Prosymna	Tomb XI		Button	Steatite	short cone	black	0.02			0.01		1	flat base and top, bevelled edge; Blegen 1937: 318
610	Prosymna	Tomb XI		Button	Steatite	short cone	purple	0.02			0.009		1	Blegen 1937: 318
611	Prosymna	Tomb XI		Button	Steatite	short cone	purple	0.02			0.02		1	budly preserved, flat base without bevel; Blegen 1937: 318
612	Prosymna	Tomb XI		Button	Steatite	short cone	dark red	0.02			0.01		1	budly preserved, flat base without bevel; Blegen 1937: 318
613	Prosymna	Tomb XI		Button	Steatite	short cone	purple	0.02			0.01		1	damaged; Blegen 1937: 318
614	Prosymna	Tomb XI		Button	Steatite	short cone	dark purple	0.02			0.01		1	large perforation,flat base with rounded edge,round top; Blegen 1937: 318
615	Prosymna	Tomb XI		Button	Steatite	short cone	purple	0.02			0.01		1	Blegen 1937: 318
616	Prosymna	Tomb XII		Button	Steatite	short cone	purple	0.02 0.02			0.02 0.02		2	flat base without bevel, round top; Blegen 1937: 318
617	Prosymna	Tomb XIII		Button	Steatite	short cone	reddish purple	0.02			0.01		1	round edge at base, top round; Blegen 1937: 319
618	Prosymna	Tomb XIII		Button	Steatite	short cone	dark grey	0.02			0.01		1	badly preserved, round edge at base, top round; Blegen 1937: 319
619	Prosymna	Tomb XIII		Button	Steatite	short cone	dark grey	0.02			0.01		1	round edge at base, top round; Blegen 1937: 319
620	Prosymna	Tomb XIII		Button	Steatite	short cone	pale green	0.02			0.01		1	round edge at base, top round; Blegen 1937: 319
621	Prosymna	Tomb XIII		Button	Breccia	short cone	bepper sal	0.02			0.01		1	neatly made and finally polished, bevelled edge at base; Blegen 1937: 319
622	Prosymna	Tomb XIV		Button	Steatite	short cone	greyish green	0.02			0.01		1	flat base; Blegen 1937: 319
623	Prosymna	Tomb XIV		Button	Steatite	short cone	grey	0.02			0.01		1	flat base; Blegen 1937: 319
624	Prosymna	Tomb XIV		Button	Steatite	short cone	purple	0.02			0.01		1	flat base, bevelled edge; Blegen 1937: 319
625	Prosymna	Tomb XIV		Button	Steatite	short cone	purple	0.01			0.008		1	flat base slightly bevel; Blegen 1937: 319
626	Prosymna	Tomb XVII		Button	Steatite	short cone	purple	0.02			0.02		1	round top, flat base with rounded edge, surface badly eroded; Blegen 1937: 319
627	Prosymna	Tomb XVII		Button	Steatite	short cone	purple	0.02			0.009		1	flat base, bevelled edge; Blegen 1937: 319



## Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
628	Prosymna	Tomb XVII		Button	Steatite	short cone	black	0.02			0.01		1	flat base with bevelled edge, surface covered with scratches and striations; Blegen 1937: 319
629	Prosymna	Tomb XVII		Button	Steatite	short cone	purple	0.02			0.01		1	round top, flat base with bevelled edge; Blegen 1937: 319
630	Prosymna	Tomb XVIII		Button	Steatite	short cone		0.03			0.02		1	broken at one edge, flat base, lime encrusted; Blegen 1937: 319
631	Prosymna	Tomb XVIII		Button	Steatite	short cone	purple	0.02			0.01		1	broken at one edge, lime encrusted; Blegen 1937: 319
632	Prosymna	Tomb XVIII		Button	Steatite	short cone	purple	0.02			0.01		1	flat base with bevelled edge; Blegen 1937: 319
633	Prosymna	Tomb XIX		Button	Steatite	short cone	purple	0.02			0.02		1	large perforation drilled from top down, flat base; Blegen 1937: 319
634	Prosymna	Tomb XIX		Button	Steatite	short cone	black	0.01			0.008		1	flat base; Blegen 1937: 319
635	Prosymna	Tomb XIX		Button	Steatite	short cone	purple	0.02			0.01		1	flat base with slightly rounded edge to base; Blegen 1937: 319
636	Prosymna	Tomb XIX		Button	Steatite	short cone	purple	0.02			0.02		1	flat base with slightly rounded edge to base; Blegen 1937: 319
637	Prosymna	Tomb XIX		Button	Steatite	short cone	purple green	0.02			0.01		1	perforation drilled from both ends, flat base; Blegen 1937: 319
638	Prosymna	Tomb XIX		Button	Steatite	short cone	greyish green	0.03			0.02		1	perforation from both ends, flat base with bevel at edge; Blegen 1937: 319
639	Prosymna	Tomb XIX		Button	Steatite	short cone	black	0.01			0.009		1	flat base with bevel at edge; Blegen 1937: 319
640	Prosymna	Tomb XX		Button	Steatite	short cone	green	0.02			0.02		1	large perforation drilled from both ends, flat base with bevelled edge; Blegen 1937: 319
641	Prosymna	Tomb XXI		Button	Steatite	short cone	purple	0.03			0.02		1	large perforation drilled from both ends, slightly bevelled edge; Blegen 1937: 319
642	Prosymna	Tomb XXI		Button	Steatite	short cone	purple	0.02			0.02		1	perforation off centre, slightly bevelled edge; Blegen 1937: 319
643	Prosymna	Tomb XXI		Button	Steatite	short cone	purple	0.02			0.01		1	perforated from top down, flat base; Blegen 1937: 319
644	Prosymna	Tomb XXII		Button	Steatite	short cone		0.03			0.02		1	large perforation drilled from both ends, flat base , wide bevelled edge, round top; Blegen 1937: 319
645	Prosymna	Tomb XXII		Button	Steatite	short cone	purple	0.02			0.01		1	flat top; Blegen 1937: 319
646	Prosymna	Tomb XXII		Button	Steatite	short cone	purple	0.02			0.01		1	Blegen 1937: 319
647	Prosymna	Tomb XXIV		Button	Steatite	short cone	purple	0.02			0.02		1	perforated from both ends, flat base with bevelled edge; Blegen 1937: 320
648	Prosymna	Tomb XXIV		Button	Steatite	short cone	purple	0.02			0.01		1	flat base with bevelled edge; Blegen 1937: 32

## Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
649	Prosymna	Tomb XXIV		Button	Steatite	short cone	purple	0.02			0.01		1	flat base with bevelled edge; Blegen 1937: 320
650	Prosymna	Tomb XXIV		Button	Steatite	short cone	purple	0.02			0.01		1	flat base with bevelled edge; Blegen 1937: 320
651	Prosymna	Tomb XXIV		Button	Steatite	short cone	purple	0.01			0.01		1	flat base with bevelled edge; Blegen 1937: 320
652	Prosymna	Tomb XXIV		Button	Steatite	short cone	black	0.03			0.02		1	flat base with bevelled edge; Blegen 1937: 320
653	Prosymna	Tomb XXIV		Button	Steatite	short cone	mave	0.02			0.02		1	flat base with bevelled edge, mottled; Blegen 1937: 320
654	Prosymna	Tomb XXIV		Button	Steatite	short cone	purple	0.02			0.01		1	large perforation, flat base with bevelle edge; Blegen 1937: 320
655	Prosymna	Tomb XXIV		Button	Steatite	short cone	black	0.03			0.02		1	flat base, round top; Blegen 1937: 320
656	Prosymna	Tomb XXIV		Button	Steatite	short cone	purple	0.02			0.01		1	large perforation, flat base, round top; Blegen 1937: 320
657	Prosymna	Tomb XXIV		Button	Steatite	short cone	purple	0.02			0.009		1	large perforation, flat base, round top; Blegen 1937: 320
658	Prosymna	Tomb XXIV		Button	Steatite	short cone	black	0.02			0.01		1	perforated from both ends, flat base with slightly round edge and rounded top; Blegen 1937: 320
659	Prosymna	Tomb XXIV		Button	Steatite	short cone	greyish green	0.01			0.01		1	flat top, flat base with slightly bevelled edge; Blegen 1937: 320
660	Prosymna	Tomb XXIV		Button	Steatite	short cone		0.03			0.02		1	large streaked steatite, flat top, flat base with slightly bevelled edge; Blegen 1937: 320
661	Prosymna	Tomb XXIV		Button	Steatite	short cone		0.03			0.02		1	streaked steatite, flat top, flat base with slightly bevelled edge; Blegen 1937: 320
662	Prosymna	Tomb XXVI		Button	Steatite	short cone	green	0.02			0.01		1	small perforation, flat base with slightly bevelled edge, flat top; Blegen 1937: 320
663	Prosymna	Tomb XXVI		Button	Steatite	short cone	purple	0.02			0.01		1	flat base with slightly bevelled edge, flat top; Blegen 1937: 320
664	Prosymna	Tomb XXVI		Button	Steatite	short cone	purple	0.02			0.01		1	perforated from both ends and off centre, flat base with slightly bevelled edge, flat top; Blegen 1937: 320
665	Prosymna	Tomb XXVIII		Button	Steatite	short cone	purple	0.02			0.01		1	flat base with slightly bevelled edge, flat top; Blegen 1937: 320
666	Prosymna	Tomb XXVIII		Button	Steatite	short cone	purple	0.02			0.01		1	Blegen 1937: 320
667	Prosymna	Tomb XXVIII		Button	Steatite	short cone	black	0.02			0.01		1	large perforation, round top, flat base with rounded edge; Blegen 1937: 320
668	Prosymna	Tomb XXIX		Button	Steatite	short cone	reddish purple	0.02			0.01		1	large perforation, flat base with bevelled edge, flat top; Blegen 1937: 320



## Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
669	Prosymna	Tomb XXIX		Button	Steatite	short cone	black	0.02			0.01		1	perforation, flat base with bevelled edge, flat top; Blegen 1937: 320
670	Prosymna	Tomb XXIX		Button	Steatite	short cone	grey	0.02			0.01		1	flat base with bevelled edge, flat top; Blegen 1937: 320
671	Prosymna	Tomb XXIX		Button	Steatite	short cone	streaked grey	0.02			0.01		1	Blegen 1937: 320
672	Prosymna	Tomb XXIX		Button	Steatite	short cone	purple	0.02			0.01		1	Blegen 1937: 320
673	Prosymna	Tomb XXIX		Button	Steatite	short cone	purple	0.02			0.01		1	flat base with bevelled edge, flat top; Blegen 1937: 320
674	Prosymna	Tomb XXIX		Button	Steatite	short cone	grey	0.02			0.01		1	flat base with bevelled edge, flat top; Blegen 1937: 320
675	Prosymna	Tomb XXIX		Button	Steatite	short cone	purple	0.02			0.01		1	flat base with bevelled edge, flat top; Blegen 1937: 320
676	Prosymna	Tomb XXIX		Button	Steatite	short cone	purple	0.02			0.009		1	flat base with bevelled edge, flat top; Blegen 1937: 320
677	Prosymna	Tomb XXIX		Button	Steatite	short cone	black	0.02			0.01		1	flat base with bevelled edge, flat top
678	Prosymna	Tomb XXIX		Button	Steatite	short cone	purple	0.01			0.01		1	flat base with bevelled edge, flat top; Blegen 1937: 320
679	Prosymna	Tomb XXIX		Button	Steatite	short cone	purple black	0.02			0.01		1	large perforation, lat base with round edge, round top; Blegen 11937: 320
680	Prosymna	Tomb XXIX		Button	Steatite	short cone	purple	0.02			0.01		1	flat base with rounded edge, round top; Blegen 1937: 320
681	Prosymna	Tomb XXIX		Button	Steatite	short cone	purple	0.02			0.01		1	flat base with rounded edge, round top; Blegen 1937: 320
682	Prosymna	Tomb XXIX		Button	Steatite	short cone	purple	0.02			0.01		1	flat base with rounded edge, round top; Blegen 1937: 320
683	Prosymna	Tomb XXIX		Button	Steatite	short cone	purple	0.02			0.01		1	flat base with rounded edge, round top; Blegen 1937: 321
684	Prosymna	Tomb XXIX		Button	Steatite	short cone	purple	0.02			0.01		1	flat base with round edge, round top; Blegen 1937: 321
685	Prosymna	Tomb XXIX		Button	Steatite	short cone	purple	0.02			0.01		1	perforation off centre at base, flat base with rounded edge, round top; Blegen 1937: 321
686	Prosymna	Tomb XXIX		Button	Steatite	short cone	purple	0.02			0.01		1	flat base with round edge, round top; Blegen 1937: 321
687	Prosymna	Tomb XXIX		Button	Steatite	short cone	black	0.02			0.009		1	flat base with rounded edge, round top; Blegen 1937: 321
688	Prosymna	Tomb XXIX		Button	Steatite	short cone	grey	0.02			0.01		1	flat base with rounded edge, round top; Blegen 1937: 321
689	Prosymna	Tomb XXIX		Button	Steatite	short cone	purple	0.02			0.01		1	flat base with rounded edge, round top; Blegen 1937: 321

## Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
690	Prosymna	Tomb XXIX		Button	Steatite	short cone	grey	0.02			0.01		1	small perforation, flat base with bevelled edge, round top; Blegen 1937: 321
691	Prosymna	Tomb XXIX		Button	Steatite	short cone	black	0.02			0.01		1	flat base with rounded edge, round top; Blegen 1937: 321
692	Prosymna	Tomb XXIX		Button	Steatite	short cone	purple	0.02			0.01		1	flat base, rounded top; Blegen 1937: 321
693	Prosymna	Tomb XXIX		Button	Steatite	short cone	purple	0.02			0.01		1	large perforation, flat base and top; Blegen 1937: 321
694	Prosymna	Tomb XXIX		Button	Steatite	short cone	black	0.01			0.01		1	flat base and top; Blegen 1937: 321
695	Prosymna	Tomb XXIX		Button	Steatite	short cone	black	0.02			0.01		1	flat base and top; Blegen 1937: 321
696	Prosymna	Tomb XXIX		Button	Steatite	short cone	dark grey	0.02			0.01		1	flat base and top; Blegen 1937: 321
697	Prosymna	Tomb XXIX		Button	Steatite	short cone	purple	0.02			0.01		1	large perforation, lat top, slightly convex base; Blegen 1937: 321
698	Prosymna	Tomb XXXII		Button	Steatite	short cone	purple	0.02			0.02		1	perforation off centre, flat base, rounded edge and top; Blegen 1937: 321
699	Prosymna	Tomb XXXII		Button	Steatite	short cone	reddish purple	0.02			0.02		1	large perforation, flat base, rounded edge and top; Blegen 1937: 321
700	Prosymna	Tomb XXXII		Button	Steatite	short cone	black	0.03			0.02		1	flat base, rounded edge and top; Blegen 1937: 321
701	Prosymna	Tomb XXXII		Button	Steatite	short cone	purple	0.03			0.02		1	flat base, rounded edge and top; Blegen 1937: 321
702	Prosymna	Tomb XXXII		Button	Steatite	short cone	pale green	0.02			0.01		1	flat base, rounded edge, flat top; Blegen 1937: 321
703	Prosymna	Tomb XXXIII		Button	Steatite	short cone	reddish purple	0.03			0.02		1	large perforation, flat top and base with bevelled edge; Blegen 1937: 321
704	Prosymna	Tomb XXXIII		Button	Steatite	short cone	purple	0.02			0.01		1	flat top and base with bevelled edge; Blegen 1937: 321
705	Prosymna	Tomb XXXIII		Button	Steatite	short cone	purple	0.02			0.01		1	loop-sided, flat top and base with bevelled edge; Blegen 1937: 321
706	Prosymna	Tomb XXXIII		Button	Steatite	short cone	purple	0.03			0.02		1	flat top and base with bevelled edge; Blegen 1937: 321
707	Prosymna	Tomb XXXIII		Button	Steatite	short cone	purple	0.03			0.01		1	large perforation which shows traces of rubbing by sting or wire, flat base with rounded edge, round top; Blegen 1937: 321
708	Prosymna	Tomb XXXIII		Button	Steatite	short cone		0.02			0.01		1	flat base with rounded edge, round top; Blegen 1937: 321
709	Prosymna	Tomb XXXIII		Button	Steatite	short cone	purple	0.02			0.01		1	flat base with rounded edge, round top; Blegen 1937: 321



### Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
710	Prosymna	Tomb XXXIII		Button	Steatite	short cone	purple	0.02			0.01		1	large perforation, rounded base and top; Blegen 1937: 321
711	Prosymna	Tomb XXXIII		Button	Steatite	short cone	purple	0.02			0.01		1	large perforation, rounded base, flat top; Blegen 1937: 321
712	Prosymna	Tomb XXXIII		Button	Steatite	short cone	black	0.01			0.006		1	flat base, rounded top; Blegen 1937: 321
713	Prosymna	Tomb XXXIV		Button	Steatite	short cone	purple	0.02			0.02		1	large perforation, flat top and base with bevelled edge; Blegen 1937: 321
714	Prosymna	Tomb XXXIV		Button	Steatite	short cone	tan	0.02			0.008		1	medium perforation, flat top and base with bevelled edge; Blegen 1937: 321
715	Prosymna	Tomb XXXIV		Button	Steatite	short cone	purple	0.02			0.01		1	medium perforation, flat base and top; Blegen 1937: 321
716	Prosymna	Tomb XXXIV		Button	Steatite	short cone	purple	0.02			0.01		1	flat base and top; Blegen 1937: 321
717	Prosymna	Tomb XXXVI		Button	Steatite	short cone	black	0.02			0.01 present		1	huge perforation broken at top, flat base with rounded edge, round top; Blegen 1937: 322
718	Prosymna	Tomb XXXVI		Button	Steatite	short cone	black	0.02			0.01		1	perforation off centre, flat base with rounded edge, round top; Blegen 1937: 322
719	Prosymna	Tomb XXXVI		Button	Steatite	short cone	black	0.02			0.02		1	large perforation broken, rounded top flat base; Blegen 1937: 322
720	Prosymna	Tomb XXXVI		Button	Steatite	short cone	red	0.02			0.01		1	small perforation, flat base and top, tiny bevel; Blegen 1937: 322
721	Prosymna	Tomb XXXVI		Button	Steatite	short cone	pale green	0.02			0.01		1	perforation off centre, flat base and top, tiny bevel; Blegen 1937: 322
722	Prosymna	Tomb XXXVII		Button	Steatite	short cone	greyish purple	0.02			0.01		1	huge perforation filling entire top also off centre, rounded base; Blegen 1937: 322
723	Prosymna	Tomb XXXVII		Button	Steatite	short cone	purple	0.03			0.02		1	perforation off centre, flat base and top; Blegen 1937: 322
724	Prosymna	Tomb XXXVII		Button	Steatite	short cone	purple	0.02			0.01		1	flat base and top; Blegen 1937: 322
725	Prosymna	Tomb XXXVII		Button	Steatite	short cone	purple	0.01			0.008		1	broken at lower part, flat base and top; Blegen 1937: 322
726	Prosymna	Tomb XXXVII		Button	Steatite	short cone	grey	0.01			0.006		1	flat base and top; Blegen 1937: 322
727	Prosymna	Tomb XXXVII		Button	Steatite	short cone	purple	0.02					1	only the lower part is preserved; Blegen 1937: 322
728	Prosymna	Tomb XXXVII		Button	Steatite	short cone	black	0.02			0.009		1	flat base, round top; Blegen 1937: 322
729	Prosymna	Tomb XXXVII		Button	Steatite	short cone	black	0.02			0.01		1	large perforation, flat base with rounded bevel, round top; Blegen 1937: 322

## Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
730	Prosymna	Tomb XXXVII		Button	Steatite	short cone	purple	0.02			0.01		1	flat base with rounded bevel and round top; Blegen 1937: 322
731	Prosymna	Tomb XXXVII		Button	Steatite	short cone	purple	0.02			0.01		1	flat base with rounded bevel, rounded top; Blegen 1937: 322
732	Prosymna	Tomb XXXVII		Button	Steatite	short cone	black	0.02			0.01		1	rounded base and top; Blegen 1937: 322
733	Prosymna	Tomb XXXVII		Button	Steatite	short cone	brown	0.02			0.01		1	rounded base and top; Blegen 1937: 322
734	Prosymna	Tomb XXXVII		Button	Steatite	short cone	black	0.01			0.008		1	flat base with wide bevel, flat top; Blegen 1937: 322
735	Prosymna	Tomb XXXVIII		Button	Steatite	short cone	purple	0.01			0.009		1	flat top and base; Blegen 1937: 322
736	Prosymna	Tomb XXXVIII		Button	Steatite	short cone	dark purple	0.02			0.01		1	perforation off centre, flat base, slightly rounded top; Blegen 1937: 322
737	Prosymna	Tomb XXXVIII		Button	Steatite	short cone	purple	0.02			0.01		1	perforation off centre done from one end, flat top and base with small bevel; Blegen 1937: 322
738	Prosymna	Tomb XL		Button	Steatite	short cone	purple	0.01			0.01		1	perforation off centre, flat base and top; Blegen 1937: 322
739	Prosymna	Tomb XL		Button	Steatite	short cone	green	0.02			0.01		1	flat base and top; Blegen 1937: 322
740	Prosymna	Tomb XL		Button	Steatite	short cone	black	0.01			0.009		1	flat top, flat base with bevelled edge; Blegen 1937: 322
741	Prosymna	Tomb XLI		Button	Steatite	short cone	purple	0.02			0.01		1	flat base and top; Blegen 1937: 322
742	Prosymna	Tomb XLI		Button	Steatite	short cone	purple	0.01			0.008		1	huge perforation off centre, round top, flat base with bevelled edge; Blegen 1937: 322
743	Prosymna	Tomb XLII		Button	Steatite	short cone	purple	0.02			0.01		1	flat top and base with bevelled edge; Blegen 1937: 322
744	Prosymna	Tomb XLII		Button	Steatite	short cone	purple	0.02			0.01		1	large perforation, flat top and base with bevelled edge; Blegen 1937: 322
745	Prosymna	Tomb XLII		Button	Steatite	short cone	purple	0.02			0.01		1	huge perforation off centre, rounded top, flat base with rounded edge; Blegen 1937: 322
746	Prosymna	Tomb XLII		Button	Steatite	short cone	black	0.02			0.01		1	rounded top, flat base with rounded edge; Blegen 1937: 322
747	Prosymna	Tomb XLII		Button	Steatite	short cone	black	0.02			0.01		1	rounded top, flat base with rounded edge; Blegen 1937: 322
748	Prosymna	Tomb XLII		Button	Steatite	short cone	greenish						1	only the top; Blegen 1937: 323
749	Prosymna	Tomb XLII		Button	Steatite	short cone	purple	0.02			0.01		1	flat base and top; Blegen 1937: 323
750	Prosymna	Tomb XLII		Button	Steatite	short cone	purple	0.01			0.009		1	flat base and top; Blegen 1937: 323
751	Prosymna	Tomb XLII		Button	Steatite	short cone	black	0.01			0.007		1	flat base and top; Blegen 1937: 323
752	Prosymna	Tomb XLIII		Button	Steatite	short cone	black	0.01			0.008		2	flat base and top; Blegen 1937: 323
								0.01			0.007			



### Catalogue of gemstone finds

No	Site/Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
753	Prosymna	Tomb XLIII		Button	Steatite	short cone	purple	0.01			0.009		1	perforation off centre, flat base and top; Blegen 1937: 323
754	Prosymna	Tomb XLIII		Button	Steatite	short cone	purple	0.01			0.008		1	perforation off centre, flat base and top; Blegen 1937: 323
755	Prosymna	Tomb XLIII		Button	Steatite	short cone	purple	0.01			0.006		1	flat base and top; Blegen 1937: 323
756	Prosymna	Tomb XLIII		Button	Steatite	short cone	black	0.02			0.008		1	flat top, flat base with bevelled edge; Blegen 1937: 323
757	Prosymna	Tomb XLIII		Button	Steatite	short cone	black	0.01			0.007		1	flat top, flat base with bevelled edge; Blegen 1937: 323
758	Prosymna	Tomb XLIII		Button	Steatite	short cone	purple	0.02 0.02			0.02 0.01		2	two buttons, flat top, flat base with bevelled edge; Blegen 1937: 323
759	Prosymna	Tomb XLIII		Button	Steatite	short cone	black	0.02			0.01		1	flat top, flat base with bevelled edge; Blegen 1937: 323
760	Prosymna	Tomb XLIII		Button	Steatite	short cone	black	0.02			0.01		1	flat top, flat base with bevelled edge; Blegen 1937: 323
761	Prosymna	Tomb XLIII		Button	Steatite	short cone	purple	0.02			0.01		2	flat top, flat base with bevelled edge; Blegen 1937: 323
762	Prosymna	Tomb XLIII		Button	Steatite	short cone	purple	0.01			0.009		4	flat top, flat base with bevelled edge; Blegen 1937: 323
763	Prosymna	Tomb XLIII		Button	Steatite	short cone	purple	0.02			0.008		3	flat top, flat base with bevelled edge; Blegen 1937: 323
764	Prosymna	Tomb XLIII		Button	Steatite	short cone	green	0.02			0.01		1	rounded top, flat base with rounded edge; Blegen 1937: 323
765	Prosymna	Tomb XLIII		Button	Steatite	short cone		0.02			0.01		1	streaked steatite; rounded top, flat base with rounded edge; Blegen 1937: 323
766	Prosymna	Tomb XLIII		Button	Steatite	short cone		0.02			0.01		1	rounded top, flat base with rounded edge; Blegen 1937: 323
767	Prosymna	Tomb XLIII		Button	Steatite	short cone	grey	0.01			0.009		1	flat base, rounded top; streaked steatite; Blegen 1937: 323
768	Prosymna	Tomb XLIV		Button	Steatite	short cone	black	0.02			0.01		1	flat base and top; Blegen 1937: 323
769	Prosymna	Tomb XLV		Button	Steatite	short cone	black	0.02			0.01		1	flat base with rounded edge and rounded top; Blegen 1937: 323
770	Prosymna	Tomb XLV		Button	Steatite	short cone	purple	0.02			0.009		1	flat base with rounded edge and rounded top; Blegen 1937: 323
771	Prosymna	Tomb XLVI		Button	Steatite	short cone	green	0.02			0.01		1	round top, flat base with rounded edge; Blegen 1937: 323
772	Prosymna	Tomb XLVIII		Button	Steatite	short cone	purple	0.02			0.02		1	perforation off centre, flat top, flat base with rounded edge; Blegen 1937: 323
773	Prosymna	Tomb XLIX		Button	Steatite	short cone	black	0.02			0.01		1	large perforation, flat top, flat base with bevelled edge; Blegen 1937: 323
774	Prosymna	Tomb XLIX		Button	Steatite	short cone	grey	0.02			0.01		1	flat top, flat base with bevelled edge; Blegen 1937: 323

## Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
775	Prosymna	Tomb XLIX		Button	Steatite	short cone	purple	0.02			0.01		1	large perforation, rounded top and base; Blegen 1937: 323
776	Prosymna	Tomb XLIX		Button	Steatite	short cone	purple	0.02			0.01		1	huge perforation, flat base with round edge, round top; Blegen 1937: 323
777	Prosymna	Tomb L		Button	Steatite		purple	0.02			0.02		1	rounded top, flat base with rounded edge; Blegen 1937: 323
778	Prosymna	Tomb L		Button	Steatite	short cone	purple	0.02			0.01		1	flat base, flat top without bevel; Blegen 1937: 323
779	Prosymna	Tomb L		Button	Steatite	short cone	purple	0.02			0.02		1	flat top, flat base with bevelled edge; Blegen 1937: 323
780	Prosymna	Tomb L		Button	Steatite	short cone	purple	0.02			0.01		1	Blegen 1937: 323
781	Prosymna	Tomb L		Button	Steatite	short cone	purple	0.01			0.008		1	broken; Blegen 1937: 323
782	Prosymna	Tomb L		Button	Steatite	short cone	black						1	only the top half is preserved, rounded top; Blegen 1937: 323
783	Prosymna	Tomb LI		Button	Steatite	short cone	black	0.02			0.01		1	flat base, round top; Blegen 1937: 324
784	Prosymna	Tomb LI		Button	Steatite	short cone	purple	0.03			0.02		1	flat top, flat base with rounded edge; Blegen 1937: 324
785	Prosymna	Tomb LI		Button	Steatite	short cone	black	0.02			0.01		1	flat top, flat base with rounded edge; Blegen 1937: 324
786	Prosymna	Tomb LI		Button	Steatite	short cone	purple	0.02			0.01		1	flat top, flat base with rounded base; Blegen 1937: 324
787	Prosymna	Tomb LI		Button	Steatite	short cone	purple	0.02			0.01		1	flat base, round top; Blegen 1937: 324
788	Prosymna	Tomb XXIV		Button	Steatite	standard cone	green	0.02			0.02		1	perforation from both ends, flat base; Blegen 1937: 324
789	Prosymna	Tomb XXXIII		Button	Steatite	standard cone	purple	0.01			0.02		1	flat base with bevelled edge, flat top; Blegen 1937: 324
790	Prosymna	Tomb XXXIX		Button	Steatite	standard cone	black	0.02			0.02		1	perforation off centre, very rounded convex base, rounded top; Blegen 1937: 234
791	Prosymna	Tomb XL		Button	Steatite	standard cone	purple	0.02			0.02		1	perforation off centre, flat base with large bevel; Blegen 1937: 324
792	Prosymna	Tomb XLII		Button	Steatite	standard cone	purple	0.02			0.02		1	flat top, flat base with rounded edge; Blegen 1937: 324
793	Prosymna	Tomb XLIII		Button	Steatite	standard cone	purple	0.008			0.008		1	flat top, flat base with bevelled edge; Blegen 1937: 324
794	Prosymna	Tomb LI		Button	Steatite	standard cone	purple	0.009			0.009		1	flat top, flat base with bevelled edge; Blegen 1937: 324
795	Prosymna	Tomb XXVIII		Button	Steatite	squat cone	purple	0.02			0.009		1	large perforation, flat base, rounded edge; Blegen 1937: 324
796	Prosymna	Tomb XXXIII		Button	Steatite	squat cone	black	0.02			0.007		1	very loop-sided; Blegen 1937: 324
797	Prosymna	Tomb XXXIII		Button	Steatite	squat cone	reddish purple	0.03			0.02		1	flat top, flat base with bevelled edge; Blegen 1937: 324



### Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
798	Prosymna	Tomb XXXIII		Button	Steatite	squat cone	purple	0.02			0.01		1	flat top, flat base with bevelled edge, crude workmanship; Blegen 1937: 324
799	Prosymna	Tomb XXXIII		Button	Steatite	squat cone	purple	0.04			0.02		1	large perforation, rounded top, flat base; Blegen 1937: 327
800	Prosymna	Tomb XXXIII		Button	Steatite	squat cone	purple	0.03			0.02		1	rounded top, flat base; Blegen 1937: 327
801	Prosymna	Tomb XLIII		Button	Steatite	squat cone	purple	0.02			0.007		1	flat top, flat base with bevelled edge; Blegen 1937: 324
802	Prosymna	Tomb XLIX		Button	Steatite	squat cone	purple	0.03			0.02		1	huge perforation, rounded top, flat base with rounded edge; Blegen 1937: 324
803	Prosymna	Tomb LI		Button	Steatite	squat cone	purple	0.02			0.01		1	huge perforation, flat base, round top; streaked steatite; Blegen 1937: 324
804	Prosymna	Tomb VIII		Button	Steatite	biconical	black	0.02			0.02		1	truncated; Blegen 1937: 325
805	Prosymna	Tomb XVII		Button	Steatite	truncated bicone	greenish grey	0.01			0.03		1	very large perforation off centre at one end; long truncated biconical; Blegen 1937: 325
806	Prosymna	Tomb XVIII		Button	Steatite	biconical	dark grey	0.02			0.03		1	large perforation bored from opposite ends, button unsymmetrically truncated; Blegen 1937: 325
807	Prosymna	Tomb XVIII		Button	Steatite	biconical	greenish grey	0.02			0.02		1	unsymmetrically truncated; Blegen 1937: 325
808	Prosymna	Tomb XVIII		Button	Steatite	biconical	grey	0.02			0.02		1	bored from both ends, button symmetrically truncated; Blegen 1937: 325
809	Prosymna	Tomb XVIII		Button	Steatite	biconical	greenish grey	0.02			0.02		1	symmetrically truncated but hollowed around perforation at each end; Blegen 1937: 325
810	Prosymna	Tomb XVIII		Button	Steatite	biconical	greenish grey	0.02			0.02		1	asymmetrically truncated; Blegen 1937: 325
811	Prosymna	Tomb XXIV		Button	Steatite	biconical	black	0.02			0.01		1	large perforation from both ends off centre at one end, asymmetrically truncated, ends flat; Blegen 1937: 325
812	Prosymna	Tomb XXIV		Button	Steatite	biconical	purple	0.02			0.005 min 0.007 max		1	asymmetrically truncated, flat ends with bevelled edges; Blegen 1937: 325
813	Prosymna	Tomb XXXIII		Button	Steatite	biconical	grey	0.02			0.02		1	large perforation; Blegen 1937: 325
814	Prosymna	Tomb XXXIV		Button	Steatite	biconical	black	0.02			0.009		1	huge perforation, ends flat with wide bevelled edges; Blegen 1937: 325
815	Prosymna	Tomb XXXVI		Button	Steatite	biconical	grey	0.02			0.01		1	huge perforation; short bicone; Blegen 1937: 325
816	Prosymna	Tomb XLIX		Button	Steatite	biconical	greenish	0.03			0.03		1	perforation, rounded ends; short bicone; Blegen 1937: 325
817	Prosymna	Tomb L		Button	Steatite	biconical	black	0.02			0.01		1	rounded ends; short bicone; Blegen 1937: 325

# Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
818	Prosymna	Tomb II		Button	Steatite	shanked conoid	bluish	0.01			0.009		2	large perforation; Blegen 1937: 325
819	Prosymna	Tomb III		Button	Steatite	shanked conoid	blue grey	0.02			0.01		1	perforation, flat base, bevelled edge; Blegen 1937: 325
820	Prosymna	Tomb VII		Button	Steatite	shanked conoid	dark red	0.02			0.02		1	flat base, bevelled edge, cone-shaped shank; Blegen 1937: 325
821	Prosymna	Tomb XI		Button	Steatite	shanked conoid	greenish grey	0.02			0.01		1	Blegen 1937: 325
822	Prosymna	Tomb XI		Button	Steatite	shanked conoid	greenish grey	0.02			0.007		1	flat base, bevelled edge, short shank; Blegen 1937: 325
823	Prosymna	Tomb XIV		Button	Steatite	shanked conoid	black	0.02			0.01		1	straight shank; Blegen 1937: 326
824	Prosymna	Tomb XIV		Button	Steatite	shanked conoid	red	0.01			0.008		1	flat base; Blegen 1937: 326
825	Prosymna	Tomb XV		Button	Steatite	shanked conoid	grey	0.02			0.01		1	flat base with tiny bevel; Blegen 1937: 326
826	Prosymna	Tomb XV		Button	Steatite	shanked conoid	greenish grey	0.01			0.009		1	flat base; Blegen 1937: 326
827	Prosymna	Tomb XIX		Button	Steatite	shanked conoid	purple	0.02			0.009		1	flat base, shank short but broken at one side; Blegen 1937: 326
828	Prosymna	Tomb XXIV		Button	Steatite	shanked conoid	black white	0.02			0.01		1	flat base, rounded edge; Blegen 1937: 326
829	Prosymna	Tomb XXIV		Button	Steatite	shanked conoid	dark purple	0.02			0.01		1	flat base, rounded edge with bevelled edge; Blegen 1937: 326
830	Prosymna	Tomb XXVI		Button	Steatite	shanked conoid	grey green	0.02			0.01		1	flat base with bevelled edge; Blegen 1937: 326
831	Prosymna	Tomb XXVI		Button	Steatite	shanked conoid	black	0.02			0.01		1	concave base, rounded edges and rounded moulding at top of shank; Blegen 1937: 326
832	Prosymna	Tomb XXIX		Button	Steatite	shanked conoid		0.02			0.01		1	flat base, slightly bevelled edge, flaring cone-shaped shank; streaked stone; Blegen 1937: 326
833	Prosymna	Tomb XXXIII		Button	Steatite	shanked conoid	grey	0.02			0.01		1	flat base with rounded upturning edge; Blegen 1937: 326
834	Prosymna	Tomb XXXIV		Button	Steatite	shanked conoid	green	0.02			0.01		1	flat base with bevel; Blegen 1937: 326
835	Prosymna	Tomb XXXVI		Button	Steatite	shanked conoid	black	0.02					1	concave base, shank broken; Blegen 1937: 326
836	Prosymna	Tomb XXXVII		Button	Steatite	shanked conoid	green grey	0.03			0.02		1	shank conical; Blegen 1937: 326



## Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
837	Prosymna	Tomb XLII		Button	Steatite	shanked conoid	black	0.02			0.01		1	Blegen 1937: 326
838	Prosymna	Tomb XLIII		Button	Steatite	shanked conoid	black	0.02			0.02		1	flat base, conical shaped shank; Blegen 1937: 326
839	Prosymna	Tomb XLIII		Button	Steatite	shanked conoid	grey	0.02 0.02			0.01 0.01		2	base with bevelled edge, shank in form of concave cone; Blegen 1937: 326
840	Prosymna	Tomb XLIII		Button	Steatite	shanked conoid	purple	0.02			0.008		1	base with bevelled edge, shank in form of concave cone but with shorter shank; Blegen 1937: 326
841	Prosymna	Tomb XLIII		Button	Steatite	shanked conoid	grey	0.02			0.01		1	flat base, shank in form of concave cone; Blegen 1937: 326
842	Prosymna	Tomb XLIV		Button	Steatite	shanked conoid		0.02			0.01		1	small perforation, flat base with rounded edge; Blegen 1937: 326
843	Prosymna	Tomb XLV		Fragment	Steatite	shanked conoid	black						1	fragment only; Blegen 1937: 326
844	Prosymna	Tomb L		Button	Steatite	shanked conoid	green	0.02			0.01		1	concave base, cone-shaped shank; Blegen 1937: 326
845	Prosymna	Tomb VI		Button	Steatite	shanked campaniform	green grey	0.02			0.01 present		1	with up-rolling edge on base, shank broken; Blegen 1937: 327
846	Prosymna	Tomb VII		Button	Steatite	shanked campaniform	black	0.02			0.008		1	short shank; Blegen 1937: 327
847	Prosymna	Tomb VII		Button	Steatite	shanked campaniform	black	0.02			0.01		2	Blegen 1937: 327
848	Prosymna	Tomb VII		Button	Steatite	shanked campaniform	black	0.02			0.01		1	Blegen 1937: 327
849	Prosymna	Tomb VII		Button	Steatite	shanked campaniform	brownish	0.02					1	broken shank; Blegen 1937: 327
850	Prosymna	Tomb XI		Button	Breccia	shanked campaniform	black white	0.02			0.007 present		1	saucer-like base of button with large hole; Blegen 1937: 327
851	Prosymna	Tomb XIV		Button	Steatite	shanked campaniform	purple	0.02			0.02		1	rolled edge; Blegen 1937: 327
852	Prosymna	Tomb XI		Button	Steatite	shanked campaniform	red	0.02					1	rolled edge, shank broken; Blegen 1937: 327
853	Prosymna	Tomb XXVI		Button	Steatite	shanked campaniform	purple	0.02			0.009		1	large perforation, developed form with very thin curved base; Blegen 1937: 327
854	Prosymna	Tomb XXIX		Button	Steatite	shanked campaniform	black	0.02			0.01		1	concave base with flaring convex rim; Blegen 1937: 327
855	Prosymna	Tomb XXIX		Button	Steatite	shanked campaniform	black	0.02			0.01 0.01 0.01 0.006 present		4	four buttons (one has shank broken); Blegen 1937: 327
856	Prosymna	Tomb XXIX		Button	Steatite	shanked campaniform	black	0.01			0.01		1	concave base, long shank; Blegen 1937: 327

# Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
857	Prosymna	Tomb XXIX		Button	Steatite	shanked campaniform	black	0.02					1	concave base, broken shank; Blegen 1937: 327
858	Prosymna	Tomb XXIX		Button	Steatite	shanked campaniform	greyish green	0.02			0.01		2	concave base; Blegen 1937: 327
859	Prosymna	Tomb XXIX		Button	Steatite	shanked campaniform	purple	0.02			0.01		1	convex base like saucer; Blegen 1937: 327
860	Prosymna	Tomb XXIX		Button	Steatite	shanked campaniform	black	0.02			0.009		1	flat base with rounded edge; Blegen 1937: 327
861	Prosymna	Tomb XXIX		Button	Steatite	shanked campaniform	purple grey	0.02			0.01		1	flat base with rounded edge; Blegen 1937: 327
862	Prosymna	Tomb XXXVIII		Button	Steatite	shanked campaniform	black	0.02			0.01		1	Blegen 1937: 327
863	Prosymna	Tomb XXXVIII		Button	Steatite	shanked campaniform	grey white	0.02			0.008		1	Blegen 1937: 327
864	Prosymna	Tomb XLI		Button	Steatite	shanked campaniform	green	0.02			0.01		1	very flat top; Blegen 1937: 327
865	Prosymna	Tomb XLI		Button	Steatite	shanked campaniform	green	0.02			0.01		4	Blegen 1937: 327
866	Prosymna	Tomb XLI		Button	Steatite	shanked campaniform	green	0.02			0.01		2	Blegen 1937: 327
867	Prosymna	Tomb XLI		Button	Steatite	shanked campaniform	green	0.02			0.009		1	Blegen 1937: 327
868	Prosymna	Tomb XLI		Button	Steatite	shanked campaniform	dark grey	0.02			0.01		1	Blegen 1937: 327
869	Prosymna	Tomb XLI		Button	Steatite	shanked campaniform	dark grey	0.02			0.009		3	two buttons with shank broken; Blegen 1937: 327
870	Prosymna	Tomb XLI		Button	Steatite	shanked campaniform	grey	0.02			0.01		1	Blegen 1937: 327
871	Prosymna	Tomb XLI		Button	Steatite	shanked campaniform	grey	0.02			0.008		1	Blegen 1937: 327
872	Prosymna	Tomb XLII		Button	Steatite	shanked campaniform	green	0.03			0.01		1	flat top, short shank; Blegen 1937: 327
873	Prosymna	Tomb XLIII		Button	Steatite	shanked campaniform	green	0.02			0.01		1	flat top; Blegen 1937: 327
874	Prosymna	Tomb XLIII		Button	Steatite	shanked campaniform	grey	0.02			0.01		1	loop-sided but roughly campaniform; Blegen 1937: 327
875	Prosymna	Tomb XIV		Scarab	Steatite	scarab					0.01	0.011	1	
876	Tiryns Profitis Elias Cemetery	I(A)	13 (2267)	Bead	Sardonyx			0.007					1	
877	Tiryns Profitis Elias Cemetery	III (G)	10 (2277)	Spindle whorl	Steatite	conical		0.03					1	



## Catalogue of gemstone finds

No	Site/Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
878	Tiryns Profitis Elias Cemetery	III (G)	10 (2277)	Spindle whorl	Steatite	conical		0.02					1	
879	Tiryns Profitis Elias Cemetery	I(A)	12 (2266)	Spindle whorl	Steatite	conical		0.03					1	
880	Tiryns Profitis Elias Cemetery	I(A)	12 (2266)	Spindle whorl	Steatite	conical		0.02					1	
881	Tiryns Profitis Elias Cemetery	V (D)	14 (2303)	Spindle whorl	Non identified	conical		0.02					1	
882	Tiryns Profitis Elias Cemetery	III (G)	11 (2278)	Bead	Non identified	cylindrical		0.09			0.01		1	
883	Tiryns Profitis Elias Cemetery	V (D)	14 (2303)	Spindle whorl	Non identified	conical		0.03					1	
884	Tiryns Profitis Elias Cemetery	V (D)	16 (2305)	Bead	Steatite	round		0.01					1	
885	Tiryns Profitis Elias Cemetery	VI (C)	28 (2339)	Bead	Agate			0.005 min 0.02 max					1	
886	Tiryns Profitis Elias Cemetery	VI (C)	29 (2340)	Non identified	Non identified			0.007 min 0.01 max			0.01 min 0.02 max		1	
887	Tiryns Profitis Elias Cemetery	VI (C)	32 (2343)	Spindle whorl	Non identified	conical		0.01 min 0.03 max					6	
888	Tiryns Profitis Elias Cemetery	VI (C)	34 (2345)	Bead	Carnelian			0.005 min 0.02 max					1	
889	Tiryns Profitis Elias Cemetery	VII (B)	15 (2360)	Non identified	Carnelian			0.01					1	
890	Tiryns Profitis Elias Cemetery	VII (B)	15 (2361)	Non identified	Steatite			0.02					1	
891	Tiryns Profitis Elias Cemetery	VII (B)	19 (2364)	Spindle whorl	Steatite			0.01 min 0.02 max					12	
892	Tiryns Profitis Elias Cemetery	VII (B)	20 (2365)	Bead	Amethyst			0.01 min 0.02 max					1	
893	Tiryns Profitis Elias Cemetery	VII (B)	23 (2368)	Spindle whorl	Non identified			0.02					1	
894	Tiryns Profitis Elias Cemetery	VIII (E)	13 (2384)	Bead	Amethyst			0.01 min 0.02 max					2	
895	Tiryns Profitis Elias Cemetery	VIII (E)	15 (2386)	Spindle whorl	Steatite	conical	green grey	0.02 min 0.02 max					3	
896	Tiryns Profitis Elias Cemetery	VIII (E)	16 (2387)	Spindle whorl	Non identified	conical		0.01 min 0.03 max					3	
897	Tiryns Profitis Elias Cemetery	VIII (E)	17 (2388)	Spindle whorl	Non identified	conical		0.01 min 0.02 max					12	

## Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
898	Tiryns Profitis Elias Cemetery	XV (V)	16 ( 2419)	Bead	Non identified								16	
899	Tiryns Profitis Elias Cemetery	XVI (X)	46 (2467)	Sealstone	Sardonyx								1	decoration: lion
900	Tiryns Profitis Elias Cemetery	XVI (X)	50 (2471)	Spindle whorl	Non identified	conical		0.02 min 0.02 max					3	
901	Tiryns Profitis Elias Cemetery	XVIII	7 (2479)	Bead	Sardonyx	rosette		0.006 min 0.01 max					1	
902	Tiryns Profitis Elias Cemetery	XVIII	8 (2480)	Spindle whorl	Non identified	conical		0.02 min 0.03 max					1	
903	Tiryns Profitis Elias Cemetery	XIX (Alpha)	14 (2495)	Bead	Sardonyx								1	
904	Tiryns Profitis Elias Cemetery	XIX (Alpha)	15 (2496)	Sealstone	Steatite	lentoid		0.02					1	decoration: deer
905	Tiryns Profitis Elias Cemetery	XIX (Alpha)	17 (2498)	Spindle whorl	Non identified			0.02			0.02		1	
906	Asine Barbouna Area	Levendis Sector, 1970-72	No 7/Trench 15 Str.2	Spindle whorl	Steatite	conical	green	0.03 base 0.01 top 0.004 hole		0.002			1	
907	Asine Barbouna Area	Levendis Sector, 1970-72	No 8/Trench 15 Str.2	Spindle whorl	Steatite	conical	maroon	0.03 base 0.001 top 0.004 hole		0.018			1	
908	Asine Barbouna Area	Levendis Sector, 1970-72	No 9/Trench 15 Str.2	Spindle whorl	Steatite	shanked	maroon	0.02 base 0.006 top 0.004 hole		0.014			1	
909	Asine Barbouna Area	Levendis Sector, 1970-72	No10/Central Trench Str.4	Spindle whorl	Steatite	conical	green	0.003 base 0.001 top 0.005 hole		0.018			1	
910	Asine East of the Acropolis	Main Area	No 33	Spindle whorl	Steatite	conical	green brown	0.001 top 0.03 base 0.005 hole		0.019			1	trench 6, stratum of excavation 6
911	Asine East of the Acropolis	Main Area	No 467	Spindle whorl	Steatite	conical				0.014	0.002 base 0.001 top 0.005 hole		1	from various context
912	Asine Late Helladic III Settlement			Pendant	Carnelian	bored axe				0.017			1	pendant bead
913	Asine Cist tombs	L.H. 13		Button	Steatite	conical		0.03		0.05			1	



## Catalogue of gemstone finds

No	Site/Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
914	Asine Chamber tombs	1	No 1	Sealstone	Agate	lentoid	dark				0.03 0.02 hole		1	threading hole follows vertical axis of design; decoration: two bulls lying in opposite direction, circles appear between their heads and on the ground; C.M.S. I-197 (D: 2,3-2,5)
915	Asine Chamber tombs	1	No 2	Sealstone	Carnelian	lentoid					0.02 hole 0.02		1	threading hole follows vertical axis; decoration: lion attacking a lying calf from the head
916	Asine Chamber tombs	1	No 3	Sealstone	Agate	rectangular	greyish				0.02 0.02 hole		1	threading hole follows horizontal axis of representation; decoration: two standing bulls, between them a tree; C.M.S. I-198 (D: 1,9-2,1)
917	Asine Chamber tombs	1	No 4	Sealstone	Agate	rectangular	greyish				0.01 0.02 hole		1	threading hole follows vertical axis; decoration: standing bull and behind him a man with a Cretan kilt; C.M.S. I-199 (agate, D: 1,4x1,8)
918	Asine Chamber tombs	1	No 5	Sealstone	Carnelian					0.015			1	decoration: crescent with disc
919	Asine		A	Button	Steatite	conical		0.02 min 0.03 max		0.01 min 0.02 max			13	
920	Asine		B	Button	Steatite			0.02 min 0.03 max		0.008 min 0.019 max			15	concave notch round the string-hole
921	Asine		C	Button	Steatite			0.02 min 0.02 max		0.012 min 0.014 max			4	hollows on base and notch on back
922	Asine	Chamber tomb 1:2	No 1	Bead	Agate	tubular		0.01			0.02		1	
923	Asine	Chamber tomb 1:2	No 2	Bead	Agate	tubular		0.01			0.01		1	
924	Asine	Chamber tomb 1:2	No 3	Bead	Agate	carinated		0.006			0.01		1	
925	Asine	Chamber tomb 1:2	No 4	Bead	Rock crystal	hemispherical		0.003					1	nine hemispheres belonging to ivory flower buds found in the same tomb
926	Asine	Chamber tomb 1:2	No 6	Button	Steatite	conical		0.02		0.01			1	
927	Asine	Chamber tomb 1:6		Button	Steatite			0.02 min 0.01 max		0.009 min 0.012 max			2	one conical button and one shanked button
928	Asine	Chamber tomb 1:7	No 1	Bead	Amethyst	round		0.005 min 0.008 max					3	
929	Asine	Chamber tomb 1:7	No 2	Button	Steatite			0.01 min 0.02 max		0.009 min 0.015 max			38	15 of type A, 7 of type B, 16 of type C
930	Asine East of the Acropolis	East of Kastraki - East area	F 72-1037 1972	Spindle whorl	Non identified								1	trench 12/15, stratum 5, position E 13.7/N 17.4, level 348

# Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
931	Asine East of the Acropolis	East of Kastraki - East area	F 72-1042 1972	Spindle whorl	Non identified								1	found in "hearth" II
932	Asine East of the Acropolis	East of Kastraki - East area	F 72-1055 1972	Spindle whorl	Non identified								1	found within foundation 2A; trench 17/15, stratum 2
933	Asine Mycenaean Necropolis I	Chamber tomb 6	II	Button	Steatite								2	found close to bone collection II
934	Asine Mycenaean Necropolis I	Chamber tomb 6	IV	Button	Steatite								1	found close to bone collection IV
935	Asine Mycenaean Necropolis I	Chamber tomb 6	V	Button	Steatite								1	found close to bone collection V
936	Dendra Midea-Citadel, Trench A	Room 1	No 8 (1)	Fragment	Rock crystal		pale green		0.007 min 0.008 max		0.03	0.235	1	surface cut flat, only three sides preserved; incomplete
937	Dendra Midea-Citadel, Trench A	Room 1	No 8 (2)	Fragment	Rock crystal		pale green		0.01		0.004	0.013	1	four bevelled sides preserved, incomplete
938	Dendra Midea-Citadel, Trench A	Room 1	No 8 (3)	Fragment	Rock crystal	flat	bluish green		0.007 min 0.008 max		0.03	0.002	1	flat piece with five bevelled sides, incomplete
939	Dendra Midea-Citadel, Trench A	Room 1	No 5	Sealstone	Steatite	biconvex	black	0.01	0.06				1	decoration: bull running to the left.
940	Dendra Midea-Royal tombs	Tholos Tomb	No 4/Dromos	Button	Steatite			0.01		0.007			1	found at dromos
941	Dendra Midea-Royal tombs	Tholos Tomb	No 3	Button	Steatite			0.01		0.009			1	found at the door (outer walling of the doorway)
942	Dendra Midea-Royal tombs	Tholos Tomb	No 10	Sealstone	Lapis lazuli	oval		0.01 min 0.02 max					1	found at the floor of the chamber; the threading hole runs along the horizontal axis; decoration: deer in intaglio; C.M.S. I-181 (amygdaloid, 1,5x1,7), N.M.A.7330
943	Dendra Midea-Royal tombs	Tholos Tomb	No 11	Bead	Agate	tubular		0.009 min 0.02 max					1	found at the floor of the chamber; end of perforation mounted with gold
944	Dendra Midea-Royal tombs	Tholos Tomb	No 12	Bead	Agate	tubular		0.008 min 0.02 max					1	found at the floor of the chamber
945	Dendra Midea-Royal tombs	Tholos Tomb	No 13	Bead	Agate	tubular		0.007 min 0.009 max			0.02 min 0.03 max		6	found at the floor of the chamber; polished
946	Dendra Midea-Royal tombs	Tholos Tomb	No 14	Bead	Carnelian			0.003 min 0.004 max					1	found at the floor of the chamber
947	Dendra Midea-Royal tombs	Tholos Tomb	No 31	Button	Steatite	conical		0.02					1	found at the floor of the chamber



### Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
948	Dendra Midea-Royal tombs	Tholos Tomb	No 32	Button	Steatite	conical		0.008					1	found at the floor of the chamber
949	Dendra Midea-Royal tombs	Tholos Tomb (the pits in the chamber)	No 3a	Sealstone	Agate		dark brown			0.039 hole	0.04		1	found at pit 1, the burial gifts of the King; decoration: lion devouring a bull; the hole follows the vertical axes of the scene; C.M.S. I-185 (onyx, lentoid, D: 4,0), N.M.A.7332
950	Dendra Midea-Royal tombs	Tholos Tomb (pits in the chamber)	No 3b (Pit 1, the burial gifts of the King)	Sealstone	Agate		light blue veins			0.035 hole	0.04		1	found at pit 1, the burial gifts of the King; decoration: bull attacked by two lions; the hole follows the vertical axes of the scene; C.M.S. I-186 (lentoid, D:3,6-4,0), N.M.A.7333
951	Dendra Midea-Royal tombs	Tholos Tomb (the pits in the chamber)	No 3c (Pit 1, the burial gifts of the King)	Sealstone	Agate		light blue veins			0.035 hole	0.04		1	found at pit 1, the burial gifts of the King; decoration: lion and bull lying down; the hole follows the vertical axes; C.M.S. I-183 (onyx, lentoid, D:3,7), N.M.A. 7329
952	Dendra Midea-Royal tombs	Tholos Tomb (pits in the chamber)	No 3d (Pit 1, the burial gifts of the King)	Sealstone	Jadeite					0.022 hole	0.02		1	found at pit 1, the burial gifts of the King; decoration: two wild goats, horns of consecration; the hole follows the vertical axes of the scene; C.M.S. I-187 (lentoid, D:2,3-2,5), N.M.A. 7334
953	Dendra Midea-Royal tombs	Tholos Tomb (the pits in the chamber)	No 3e (Pit 1, the burial gifts of the King)	Sealstone	Jadeite					0.021 hole	0.02		1	found at pit 1, the burial gifts of the King; decoration: wild goat, palm tree; the hole follows the vertical axes of the scene; C.M.S. I-188 (lentoid, D:2,2), N.M.A.7335
954	Dendra Midea-Royal tombs	Tholos Tomb (the pits in the chamber)	No 3f (Pit 1, the burial gifts of the King)	Sealstone	Jadeite	lentoid				0.021 hole	0.02		1	found at pit 1, the burial gifts of the King; decoration: lion, eight shield and part of animal; the hole follows the vertical axes of the scene; C.M.S. I-182 (lentoid, D:2,2), N.M.A.7328
955	Dendra Midea-Royal tombs	Tholos Tomb (pits in the chamber)	No 14a (Pit 1, the burial gifts of the King)	Pendant	Rock crystal						0.02		1	found at pit 1, the burial gifts of the King; one of two pendant jewels found near the neck
956	Dendra Midea-Royal tombs	Tholos Tomb (pits in the chamber)	No 14b (Pit 1, the burial gifts of the King)	Pendant	Agate	heart					0.03		1	found at pit 1, the burial gifts of the King; one of two pendant jewels found near the neck; perforation below a knob which is shaped in figure of eight shield
957	Dendra Midea-Royal tombs	Tholos Tomb (pits in the chamber)	No 2 (Pit 1, the burial gifts of the queen)	Sealstone	Carnelian	lentoid				0.025	0.03		1	found at pit 1, the burial gifts of the Queen; the gem was found by the left wrist of the queen; the hole follows the vertical axes; decoration: two boars; C.M.S. I-184 (D:2,6-2,8), N.M.A.7331

### Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
958	Dendra Midea-Royal tombs	Tholos Tomb (pits in the chamber)	No 3 (Pit 1, higher layers)	Bead	Agate	tubular		0.007			0.02		1	found at pit 1, higher layers; gold mounting at both ends
959	Dendra Midea-Royal tombs	Tholos Tomb (pits in the chamber)	No 4 (Pit 1, higher layers)	Bead	Carnelian			0.006 0.003 hole					1	found at pit 1, higher layers
960	Dendra Midea-Royal tombs	Tholos Tomb (pits in the chamber)	No 4 (Pit IV)	Bead	Agate	square					0.01		1	found at pit IV; the first of three beads with the same No 4
961	Dendra Midea-Royal tombs	Tholos Tomb (pits in the chamber)	No 4 (Pit IV)	Bead	Agate	lancet					0.003 0.02		2	found at pit IV; two of three beads with the same No 4
962	Dendra Midea-Royal tombs	Tholos Tomb (pits in the chamber)	No 5 (Pit IV)	Weight	Agate	duck				0.009	0.02		1	found at pit IV; pierced weight of agate in the shape of a duck, the head of the duck is turned back, resting on its back
963	Dendra Midea-Royal tombs	Tholos Tomb (pits in the chamber)	No 9 (Pit IV)	Button	Steatite	conical				0.009 min 0.007 max			4	found at pit IV; four of seven buttons with the same No 9
964	Dendra Midea-Royal tombs	Tholos Tomb (pits in the chamber)	No 9 (Pit IV)	Button	Steatite	conical				0.009 min 0.013 max			2	found at pit IV; two of seven buttons with the same No 9; conical with concave sides
965	Dendra Midea-Royal tombs	Tholos Tomb (pits in the chamber)	No 9 (Pit IV)	Button	Steatite	bud				0.013			1	found at pit IV; one of seven buttons with the same No 9
966	Dendra Midea-Royal tombs	Chamber Tomb 1		Button	Steatite	conical		0.02 min 0.02 max		0.01 min 0.014 max			6	
967	Dendra Midea-Royal tombs	Chamber Tomb 1		Button	Steatite	shanked		0.02 min 0.02 max		0.012 min 0.013 max			5	
968	Dendra Midea-Royal tombs	Chamber Tomb 3		Sealstone	Carnelian	amygdaloid					0.02		1	hole follows the horizontal axis; decoration: bull in intaglio; C.M.S. Suppl. 22 (L:1,99 W:1,46 D:0,85) N.M.A.10121
969	Dendra Midea-Royal tombs	Chamber Tomb 3		Button	Steatite					0.011 min 0.015 max			9	buttons of different types
970	Dendra Midea-Royal tombs	Chamber Tomb 2(pit in front hearth-altar)	No 2	Sealstone	Agate	lentoid					0.03 0.02 hole		1	hole follows vertical axis; decoration: two recumbent bulls in intaglio also traces of vegetation; C.M.S. Suppl. 20 (D:1.08), N.M.A.10120
971	Dendra Midea-Royal tombs	Chamber Tomb 2 (floor of chamber)	No 52	Non identified	Carnelian	lentoid					0.01 0.01 hole		1	hole follows vertical axis; decoration: antelope in intaglio; C.M.S. Suppl. 21(D:0,67), N.M.A. 10136



### Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
972	Dendra Midea-Royal tombs	Chamber Tomb 2 (floor of chamber)	No 53	Bead	Carnelian	irregular							6	
973	Dendra Midea (New Tombs)	Chamber Tomb 6/The Necropolis	No 19 (from long shaft )	Bead	Amethyst	biconical		0.02 hole					1	material from Egypt?
974	Dendra Midea (New Tombs)	Chamber Tomb 8/The Necropolis	No 16	Sealstone	Agate	lentoid		0.02					1	string hole vertical to representation; decoration: lion rending a bull; C.M.S. I-190 (lentoid D: 1,9)
975	Dendra Midea (New Tombs)	Chamber Tomb 8/The Necropolis	No 18	Button	Steatite	biconical	black	0.02		0.02			1	the first of three buttons with the same No 18
976	Dendra Midea (New Tombs)	Chamber Tomb 8/The Necropolis	No 18	Button	Steatite	conical	black	0.03		0.015			1	the second of three buttons with the same No 18
977	Dendra Midea (New Tombs)	Chamber Tomb 8/The Necropolis	No 18	Button	Steatite	conical	greenish	0.03		0.012			1	the third of three buttons with the same No 18;concave side
978	Dendra Midea (New Tombs)	Chamber Tomb 8/The Necropolis	No 19	Bead	Amethyst	round		0.008 min 0.01 max					14	fourteen of sixteen beads with the same No 19; ( nine beads were found in the chamber and seven in dromos); Egyptian origin?
979	Dendra Midea (New Tombs)	Chamber Tomb 8/The Necropolis	No 19	Bead	Amethyst	drop		0.01 max					2	two of sixteen beads with the same No 19 (nine beads were found in the chamber and seven in dromos); Egyptian origin?
980	Dendra Midea (New Tombs)	Chamber Tomb 9/The Necropolis	No 4	Button	Steatite	biconical		0.02					1	
981	Dendra Midea (New Tombs)	Chamber Tomb 10/The Necropolis	No 2 (from Stomion	Bead	Non identified	drop	bluish		0.006		0.04		1	bead-pendant;
982	Dendra Midea (New Tombs)	Chamber Tomb 10 (Shaft 1)/The Necropolis	No 29	Sealstone	Agate	prisma					0.02 hole		1	3-sided prisma;gold plated threading hole; decoration on two sides only: a) two recumbent wild goats b) lion rending a wild goat; C.M.S. I-193, N.M.A. 8754
983	Dendra Midea (New Tombs)	Chamber Tomb 10/The Necropolis	No 30	Sealstone	Agate	lentoid	light	0.03					1	sealstone from bracelet; decoration: boar and curiously shaped engraving; C.M.S. I-192, N.M.A.8755
984	Dendra Midea (New Tombs)	Chamber Tomb 11/The Necropolis	No 22 (from chamber)	Bead	Amethyst	oblatelly circylar		0.01					1	

## Catalogue of gemstone finds

No	Site/Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
985	Dendra Midea (New Tombs)	Chamber Tomb 11/The Necropolis	No 26 (from chamber)	Button	Steatite	conical		0.02					1	
986	Dendra Midea	Tomb 12/Dromos	No 1	Spindle whorl	Steatite	conical	lilac	0.03		0.015			1	cylindrical hole
987	Dendra Midea	Tomb 12/Pit IV East	No 10	Spindle whorl	Steatite	conical	lilac	0.02		0.001			1	spindle or whorl or button; cylindrical hole
988	Dendra Midea	Tomb 12/Pit I	No 11	Spindle whorl	Steatite	conical	grey blue	0.02		0.011			1	spindle or whorl or button; concave sides, shanked on top
989	Dendra Midea	Tomb 12/Pit I	No 12	Spindle whorl	Steatite		blue			0.007 present			1	shanked; upper part of it
990	Dendra Midea	Tomb 12/Pit I	No 13	Spindle whorl	Steatite	conical	grey blue	0.02		0.016				cylindrical hole
991	Dendra Midea	Tomb 12/Pit I	No 14	Spindle whorl	Steatite	conical	grey blue	0.02		0.014			1	cylindrical hole
992	Dendra Midea	Tomb 12/Pit I	No 15	Spindle whorl	Steatite	conical	grey blue	0.02		0.014			1	cylindrical hole
993	Dendra Midea	Tomb 12/Pit I	No 16	Spindle whorl	Steatite	conical	blue red	0.02		0.008			1	concave-conical shape; cylindrical hole
994	Dendra Midea	Tomb 12/Pit I	No 17	Spindle whorl	Steatite	discoid	grey black	0.002		0.007			1	shanked
995	Dendra Midea	Tomb 12/Pit III	No 18	Spindle whorl	Non identified	conical	green	0.02		0.012			1	shanked; cylindrical hole
996	Dendra Midea	Tomb 12/Pit VI	No 22	Spindle whorl	Steatite	conical	blue lilac	0.02		0.011			1	shanked; cylindrical hole
997	Dendra Midea	Tomb 12/Pit VI	No 23	Spindle whorl	Steatite	conical	grey brown	0.003		0.019			1	shanked; cylindrical hole and sharply bevelled base
998	Dendra Midea	Tomb 12/Pit VI West	No 31	Spindle whorl	Steatite		blue black				0.02 present		1	fragment
999	Dendra Midea	Tomb 12	No 48	Spindle whorl	Steatite	conical	black	0.02		0.014			1	conical(?) shanked type (?) from the dump



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1000	Dendra Midea	Tomb 12	No 49	Spindle whorl	Steatite	flat	black	0.02		0.009			1	shank; from the dump
1001	Dendra Midea	Tholos Tombs	194	Sealstone	Carnelian	lentoid		0.002					1	decoration: three lions; C.M.S. I-194, N.M.A.8769
1002	Dendra Midea	Tholos Tombs	195	Sealstone	Haematite	lentoid		0.02					1	decoration: two men; C.M.S. I-195; N.M.A.8771
1003	Dendra Midea	Tholos Tombs	196	Sealstone	Carnelian	lentoid		0.02					1	decoration: two antithetic griffins; C.M.S. I-196, N.M.A.8770
1004	Pylos Nestor's Palace-Main Building	NW Sector		Fragment	Quartz								11	
1005	Pylos Nestor's Palace-Main Building	NW Sector		Button	Steatite	shanked		0.02		0.009			1	
1006	Pylos Nestor's Palace-Main Building	SW Sector		Chunk	Quartz								1	
1007	Pylos Nestor's Palace-Main Building	SW Sector		Button	Steatite	shanked		0.02		0.012			1	
1008	Pylos Nestor's Palace-Main Building	Under the throne		Pendant	Agate								1	fragment of the pendant, N.M.A. 7762
1009	Pylos Nestor's Palace-Main Building	Archives room 8		Fragment	Quartz								1	fragment found with tablets 345
1010	Pylos Nestor's Palace-Main Building	Archives room 8		Button	Steatite	shanked							1	found with tablets 642
1011	Pylos Nestor's Palace-Main Building	Area between Archive & Propylon		Bead	Agate			0.002	0.002	0.018		0.011	1	
1012	Pylos Nestor's Palace-Main Building	Area between Archive & Propylon		Group of fragments	Group of quartz								1	
1013	Pylos Nestor's Palace-Main Building	Area between Archive & Propylon		Group of fragments	Group of Schist								1	
1014	Pylos Nestor's Palace-Main Building	Room 23		Fragment	Quartz								16	
1015	Pylos Nestor's Palace-Main Building	Room 24		Fragment	Flint								21	

### Catalogue of gemstone finds

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1016	Pylos Nestor's Palace-Main Building	Room 24		Fragment	Quartz								2	
1017	Pylos Nestor's Palace-NE Building	Corridor 95		Group of fragments	Group of quartz								1	
1018	Pylos Nestor's Palace-NE Building	Room 98		Group of fragments	Group of quartz								1	
1019	Pylos Nestor's Palace-NE Building	Room 99		Bead	Crystal	spherical		0.009		0.008			1	
1020	Pylos Nestor's Palace-NE Building	Room 99		Button	Steatite	flattened spherical		0.02		0.007			1	
1021	Pylos Nestor's Palace-NE Building	Room 99		Button	Steatite	shanked		0.02		0.01			1	
1022	Pylos Nestor's Palace-NE Building	Room 99		Button	Steatite	conoid		0.01		0.009			1	
1023	Pylos Nestor's Palace-NE Building	Room 99		Sealstone	Haematite			0.02	0.004				1	decoration: animal; N.M.A. 8530, C.M.S. 298
1024	Pylos Nestor's Palace-Area 102	Between NE building & Wine Magazine		Sealstone	Crystal								1	half bead; decoration: animal; N.M.A. 8533, C.M.S. 300
1025	Pylos Nestor's Palace-Acropolis & Lower Town	NE Gateway & Wall	No 20	Non identified	Non identified		grey	0.03			0.04		1	
1026	Pylos Nestor's Palace-Acropolis & Lower Town	NE Gateway & Hall	No 12	Disc	Non identified			0.05	0.006				1	fragment of disc; sandy stone
1027	Pylos Nestor's Palace-Acropolis & Lower Town	Circuit Wall		Disc	Non identified		light grey	0.05	0.005				1	central perforation; trench W31
1028	Pylos Nestor's Palace-Acropolis & Lower Town	Belvedere Area	No 9	Disc	Non identified			0.06 0.007 hole	0.008				1	half preserved



## Catalogue of gemstone finds

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1029	Pylos Nestor's Palace-Acropolis & Lower Town	Belvedere Area	No 10	Fragment	Non identified		opaque				0.03	0.028	1	
1030	Pylos Nestor's Palace-Acropolis & Lower Town	Belvedere Area	No 8	Button	Steatite	shanked conoid	brownish	0.03 0.005 hole		0.02			1	steatite(?)
1031	Pylos Nestor's Palace-Acropolis & Lower Town	Belvedere Area	No 3	Bead	Carnelian	spherical		0.006		0.005			1	perforated
1032	Pylos Nestor's Palace-Acropolis & Lower Town	Trenches SE of Palace & Aqueduct	No 10	Button	Non identified	conical	greenish	0.04 0.003 hole		0.007			1	trench MY I
1033	Pylos Nestor's Palace-Acropolis & Lower Town	Area NE & SW of Wine Magazine	No 4	Button	Steatite	shanked conoid	dark bluish	0.02 0.004 base					1	from area NW and SE of Wine Magazine; perforation off centre
1034	Pylos Nestor's Palace-Acropolis & Lower Town	remains under Palace Mycenaean III B		Sealstone	Jasper	amygdaloid			0.007		0.02	0.017	1	found under Hall 65; perforation longitudinally; decoration: cuttlefish; C.M.2532
1035	Pylos Nestor's Palace-Acropolis & Lower Town		No 6	Button	Steatite								1	
1036	Pylos Nestor's Palace-Acropolis & Lower Town	remains under Palace Mycenaean III B	No 11	Button	Steatite	conical		0.001 0.003 hole		0.008			1	found under Room 74
1037	Pylos Nestor's Palace-Acropolis & Lower Town		No 6	Button	Steatite	conical	brownish	0.01 0.002 hole		0.006			1	from Trenches NW of main Building (W 14); in C.M. without number
1038	Pylos Nestor's Palace-Acropolis & Lower Town		No 7	Button	Non identified	conical	green	0.02 0.004 hole		0.012			1	from Trenches NW of main Building; in C.M. without number
1039	Pylos Nestor's Palace-Acropolis & Lower Town		No 8	Sealstone	Non identified		greyish	0.02	0.01 max				1	unfinished; decoration: probably a representation of goddess with raised arms; not pierced; from Trenches NW of main Building

## Catalogue of gemstone finds

No	Site/Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
1040	Pylos Nestor's Palace-Acropolis & Lower Town	Lower Town	No 5	Button	Steatite			0.02 0.004 hole		0.008			1	trench W9
1041	Pylos Nestor's Palace-Acropolis & Lower Town	Lower Town	No 10	Disc	Non identified	flat	greenish	0.04 0.003 hole	0.004				1	trench W 16; flat surface, convex bottom
1042	Pylos Nestor's Palace-Acropolis & Lower Town	Lower Town	No 16	Bead	Carnelian	spherical		0.008 0.003 hole					1	SW quarter/trench LT1/third settlement
1043	Pylos Nestor's Palace-Acropolis & Lower Town	Lower Town		Sealstone	Steatite	3-sided	dark green	0.004 hole			0.02		1	trench LT III; decoration: side a) human caricature, side b) circles, side c) figure; C.M. 2512
1044	Pylos Nestor's Palace-Acropolis & Lower Town	Lower Town		Button	Non identified	truncated bicone	dark grey	0.03 0.006 hole		0.015			1	trench LT III
1045	Pylos Nestor's Palace-Acropolis & Lower Town	Lower Town		Button	Non identified	conical	dark purple	0.02 0.004		0.009			1	trench LT III
1046	Pylos Nestor's Palace-Acropolis & Lower Town	Lower Town		Button	Non identified		dark bluish	0.02 0.008 hole		0.01			1	trench LT III
1047	Pylos Nestor's Palace-Acropolis & Lower Town	Lower Town	No 5	Button	Steatite		dark blue	0.03 0.006 hole		0.015			1	trench LT IV
1048	Pylos Nestor's Palace-Acropolis & Lower Town	Lower Town	No 11	Button	Steatite		dark bluish	0.02 0.005		0.01			1	trench LT IV
1049	Pylos Nestor's Palace-Outside the Citadel	K-2/Chamber		Sealstone	Haematite	lentoid	black	0.02 min 0.02 max	0.009				1	decoration: goat; N.M.A.8535, C.M.S I-295 (D: 1,6)
1050	Pylos Nestor's Palace-Outside the Citadel	K-2/Chamber		Button	Steatite		dark green	0.01 min 0.02 max 0.004 hole		0.017			1	C.M.2152



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1051	Pylos Nestor's Palace-Outside the Citadel	K-2/Chamber		Bead	Non identified								1	C.M.2154
1052	Pylos Nestor's Palace-Tholoi	Tholos III/Dromos		Bead	Carnelian	amygdaloid			0.004		0.002	0.008	1	N.M.A.7865
1053	Pylos Nestor's Palace-Tholoi	Tholos III/Doorway		Bead	Amethyst	spherical	dark purple	0.01					1	N.M.A.7869
1054	Pylos Nestor's Palace-Tholoi	Tholos III/Doorway		Bead	Carnelian	spherical		0.01					1	N.M.A.7871; decorated with shallow fluting;
1055	Pylos Nestor's Palace-Tholoi	Tholos III/Chamber		Bead	Carnelian	spherical		0.005 average					3	N.M.A.7869
1056	Pylos Nestor's Palace-Tholoi	Tholos III/Chamber		Button	Steatite								1	chunk of button (two fragments);
1057	Pylos Nestor's Palace-Tholoi	Tholos IV/Blocking Wall		Button	Steatite			0.02 0.003 hole		0.005 present			1	LH III A-B
1058	Pylos Nestor's Palace-Tholoi	Tholos IV-Furniture Decoration		Bead seal	Amethyst	amygdaloid			0.009		0.03	0.018	1	perforation along axis; decoration: bearded man with sword attacking lion; N.M.A.7983, C.M.S. I-290 (Grab Δ, D: 2,0x3,0)
1059	Pylos Nestor's Palace-Tholoi	Tholos IV-Furniture Decoration		Bead seal	Amethyst	amygdaloid	black				0.02	0.015	1	decoration: cow with calf; N.M.A.7984, C.M.S. I-291 (Grab Δ, D: 1,6x2,1)
1060	Pylos Nestor's Palace-Tholoi	Tholos IV-Furniture Decoration		Sealstone	Lapis lazuli	lentoid		0.02	0.007				1	decoration: wild goat pierced by javelin; C.M.S. I-289 ( Grab Δ), N.M.A.7982
1061	Pylos Nestor's Palace-Tholoi	Tholos IV-Furniture Decoration		Bead seal	Lapis lazuli	pentagonal			0.004		0.02	0.01	1	pseudo-pentagonal; decoration: lion walking; N.M.A.7981,C.M.S.288 (Grab Δ, D: 1,1x1,6)
1062	Pylos Nestor's Palace-Tholoi	Tholos IV-Furniture Decoration		Bead	Amethyst	spherical	blue	0.005					4	four of 246 beads; N.M.A.7892-3
1063	Pylos Nestor's Palace-Tholoi	Tholos IV-Furniture Decoration		Bead	Amethyst	spherical	blue	0.007					16	sixteen of 246 beads; N.M.A. 7892-3
1064	Pylos Nestor's Palace-Tholoi	Tholos IV-Furniture Decoration		Bead	Amethyst	spherical	blue	0.008					54	fifty four of 246 beads; N.M.A.7892-3
1065	Pylos Nestor's Palace-Tholoi	Tholos IV-Furniture Decoration		Bead	Amethyst	spherical	blue	0.009					49	forty nine of 246 beads; N.M.A.7892-3
1066	Pylos Nestor's Palace-Tholoi	Tholos IV-Furniture Decoration		Bead	Amethyst	spherical	blue	0.01					22	twenty two of 246 beads; N.M.A.7892-3

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1067	Pylos Nestor's Palace-Tholoi	Tholos IV-Furniture Decoration		Bead	Amethyst	spherical	blue	0.01					13	thirteen of 246 beads; N.M.A.7892-3
1068	Pylos Nestor's Palace-Tholoi	Tholos IV-Furniture Decoration		Bead	Amethyst	spherical	blue	0.01					12	twelve of 246 beads; N.M.A.7892-3
1069	Pylos Nestor's Palace-Tholoi	Tholos IV-Furniture Decoration		Bead	Amethyst	spherical	blue	0.01					3	three of 246 beads; N.M.A.7892-3
1070	Pylos Nestor's Palace-Tholoi	Tholos IV-Furniture Decoration		Bead	Amethyst	spherical	blue	0.01					4	four of 246 beads; N.M.A.7892-3
1071	Pylos Nestor's Palace-Tholoi	Tholos IV-Furniture Decoration		Bead	Amethyst	flattened spherical	blue	0.006					1	one of 246 beads; N.M.A.7895
1072	Pylos Nestor's Palace-Tholoi	Tholos IV-Furniture Decoration		Bead	Amethyst	flattened spherical	blue	0.007					4	four of 246 beads; N.M.A.7895
1073	Pylos Nestor's Palace-Tholoi	Tholos IV-Furniture Decoration		Bead	Amethyst	flattened spherical	blue	0.008					11	eleven of 246 beads; N.M.A.7895
1074	Pylos Nestor's Palace-Tholoi	Tholos IV-Furniture Decoration		Bead	Amethyst	flattened spherical	blue	0.009					5	five of 246 beads; N.M.A.7895
1075	Pylos Nestor's Palace-Tholoi	Tholos IV-Furniture Decoration		Bead	Amethyst	flattened spherical	blue	0.01					2	two of 246 beads; N.M.A.7895
1076	Pylos Nestor's Palace-Tholoi	Tholos IV-Furniture Decoration		Bead	Amethyst	flattened spherical	blue	0.01					2	two of 246 beads; N.M.A.7895
1077	Pylos Nestor's Palace-Tholoi	Tholos IV-Furniture Decoration		Bead	Amethyst	flattened spherical	blue	0.01					1	one of 246 beads; N.M.A.7895
1078	Pylos Nestor's Palace-Tholoi	Tholos IV-Furniture Decoration		Bead	Amethyst	flattened spherical	blue	0.01					1	one of 246 beads; N.M.A.7895
1079	Pylos Nestor's Palace-Tholoi	Tholos IV-Furniture Decoration		Bead	Amethyst	carinated	blue	0.008 min 0.01 max 0.01					9	nine of 246 beads; N.M.A.7897
1080	Pylos Nestor's Palace-Tholoi	Tholos IV-Furniture Decoration		Bead	Amethyst	pear		0.01 max			0.01 min 0.02 max		9	nine of 246 beads; N.M.A.7897
1081	Pylos Nestor's Palace-Tholoi	Tholos IV-Furniture Decoration		Bead	Amethyst	oval	blue	0.006 min 0.01 max			0.007 min 0.01 max		7	seven of 246 beads; N.M.A.7896



## Catalogue of gemstone finds

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1082	Pylos Nestor's Palace-Tholoi	Tholos IV-Furniture Decoration		Bead	Amethyst	lozenge	blue				0.009 min 0.02 max		5	five of 246 beads; N.M.A.7899
1083	Pylos Nestor's Palace-Tholoi	Tholos IV-Furniture Decoration		Bead	Amethyst	spherical	blue	0.009 min 0.01 max					5	five of 246 beads; two string-holes; N.M.A.7893(?)
1084	Pylos Nestor's Palace-Tholoi	Tholos IV-Furniture Decoration		Bead	Amethyst	tubular	blue	0.01			0.01		1	one of 246 beads; N.M.A.7898 (?)
1085	Pylos Nestor's Palace-Tholoi	Tholos IV-Furniture Decoration		Bead	Amethyst	drum	blue	0.009			0.006		1	one of 246 beads; N.M.A.7898
1086	Pylos Nestor's Palace-Tholoi	Tholos IV-Furniture Decoration		Bead	Amethyst	ellipsoid			0.007	0.012	0.01		1	one of 246 beads; N.M.A.7898
1087	Pylos Nestor's Palace-Tholoi	Tholos IV-Furniture Decoration		Bead	Amethyst		blue		0.006		0.01	0.009	1	one of 246 beads; beetle head; N.M.A.7898
1088	Pylos Nestor's Palace-Tholoi	Tholos IV-Furniture Decoration		Bead	Amethyst	lozenge			0.005		0.01	0.003 min 0.008 max	1	one of 246 beads; N.M.A.7898
1089	Pylos Nestor's Palace-Tholoi	Tholos IV-Furniture Decoration		Bead	Amethyst	pentagonal	blue		0.008		0.02	0.006 min 0.014 max	1	one of 246 beads; N.M.A.7896
1090	Pylos Nestor's Palace-Tholoi	Tholos IV-Furniture Decoration		Bead	Amethyst	pear					0.01	0.01	1	bead-pendant; one of 246 beads; N.M.A.7896
1091	Pylos Nestor's Palace-Tholoi	Tholos IV		Bead	Carnelian	spherical		0.004 0.008					2	two of three beads with same N.M.A. No 7927
1092	Pylos Nestor's Palace-Tholoi	Tholos IV-Furniture Decoration		Bead	Carnelian	quatrefoil			0.004			0.006	1	one of three beads with the same N.M.A. No 7927; quatrefoil of four tiny spheres, this type of bead is common in gold and not in stone
1093	Pylos Nestor's Palace-Tholoi	Tholos IV-Furniture Decoration		Bead	Steatite	flattened spherical	black yellow	0.02	0.009				1	steatite(?); N.M.A.7926-27(bead a)
1094	Pylos Nestor's Palace-Tholoi	Tholos IV-Furniture Decoration		Bead	Steatite	flattened spherical		0.006	0.004				1	steatite (?); N.M.A.7926-27 (bead b)
1095	Pylos Nestor's Palace-Tholoi	Tholos IV-Furniture Decoration		Bead	Non identified	flattened spherical	pink yellow	0.01	0.007				1	N.M.A.7926-27 (bead c)
1096	Pylos Nestor's Palace-Tholoi	Tholos IV-Furniture Decoration		Bead	Non identified	flattened spherical	grey	0.09					1	N.M.A.7926-7 (bead d)

## Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
1097	Pylos Nestor's Palace-Tholoi	Tholos IV-Furniture Decoration		Bead	Steatite	cylindrical	blue	0.006			0.02		1	N.M.A. 7927
1098	Pylos Nestor's Palace-Tholoi	Tholos IV-Furniture Decoration		Bead	Steatite	drum	blue	0.008				0.005	1	N.M.A.7927
1099	Pylos Nestor's Palace-Tholoi	Tholos IV-Furniture Decoration		Bead	Quartz	drum		0.007				0.004	1	N.M.A.7930
1100	Pylos Nestor's Palace-Tholoi	Tholos IV-Furniture Decoration		Bead	Non identified	irregular	dark brown	0.004 hole	0.005		0.01	0.014	1	N.M.A.7927
1101	Pylos Nestor's Palace-Tholoi	Tholos IV-Furniture Decoration		Bead	Non identified		brown						1	pebble, fragment, polished; N.M.A.7927
1102	Pylos Nestor's Palace-Tholoi	Tholos IV-Furniture Decoration		Disc	Steatite		black	0.009	0.002				2	two of four discs with N.M.A.7978; glass-like surface
1103	Pylos Nestor's Palace-Tholoi	Tholos IV-Furniture Decoration		Disc	Steatite		black	0.009	0.002				2	two of four discs with N.M.A.7978; glass-like surface;
1104	Pylos Nestor's Palace-Tholoi	Tholos IV-Furniture Decoration		Spindle whorl	Schist		greenish grey	0.05 0.008 hole	0.006				1	N.M.A.7952
1105	Pylos Nestor's Palace-Tholoi	Tholos IV-Furniture Decoration		Spindle whorl	Limestone	carinated		0.01 min 0.03 max		0.027			1	whorl or button; carinated convex above, conical bellow; N.M.A.7942
1106	Pylos Nestor's Palace	Grave Circle-Pit 2		Bead	Amethyst	spherical		0.01 0.002 hole					1	C.M. 2043b
1107	Pylos Nestor's Palace-Grave Circle	no specification of pit		Button	Steatite	shanked	dark blue	0.008 top 0.004 hole		0.016			1	C.M. 2065
1108	Pylos Nestor's Palace-Grave Circle	Vagena		Sealstone	Agate	lentoid	red	0.02 0.003 hole	0.001 min 0.01 max				1	decoration: naked man with boar's tusk helmet is spearing wild boar between the eyes and a dog is aiding him; N.M.A.8532, C.M.S. I-294 (Vagena, D: 2,3x2,45)
1109	Pylos Nestor's Palace-Grave Circle	Vagena		Sealstone	Amethyst	lentoid	dark violet	0.002 hole	0.009		0.01	0.005 min 0.012 max	1	decoration: altar with horns of consecration; N.M.A.8531, C.M.S I-299 (Vagena, amygdaloid, D: 1,2x1,5)
1110	Pylos Nestor's Palace-Grave Circle			Bead	Amethyst	spherical		0.005 min 0.01 max					15	fifteen of seventeen beads



## Catalogue of gemstone finds

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1111	Pylos Nestor's Palace-Grave Circle			Bead	Amethyst	flattened spherical		0.006	0.004				2	two of seventeen beads
1112	Pylos Nestor's Palace-Grave Circle			Bead	Carnelian	spherical		0.004					5	
1113	Pylos Nestor's Palace-Grave Circle			Bead	Carnelian	flattened spherical		0.009	0.006				1	
1114	Pylos Nestor's Palace-Grave Circle			Bead	Amethyst			0.01 0.002 hole	0.006				1	C.M. 2095
1115	Pylos Nestor's Palace-Chamber tombs	Grave E-3		Bead	Carnelian	flattened spherical		0.02	0.006				1	C.M. 2155; from stones above grave
1116	Pylos Nestor's Palace-Chamber tombs	Trial trenches-Trench V		Sealstone	Steatite	lentoid	black		0.005		0.02		1	decoration: quadruped in profile moves to left; part of it is missing; C.M.2156
1117	Pylos Nestor's Palace-Chamber tombs	E-4/Dromos		Bead	Carnelian	spherical		0.007 min 0.01 max					9	C.M.2167
1118	Pylos Nestor's Palace-Chamber tombs	E-4/Chamber		Bead	Carnelian	spherical		0.008 0.01					11	C.M.2166
1119	Pylos Nestor's Palace-Chamber tombs	E-4/Chamber		Bead	Carnelian	cylindrical		0.009			0.02		1	C.M. 2166
1120	Pylos Nestor's Palace-Chamber tombs	E-6/Dromos		Button	Steatite	short cone	dark grey	0.02		0.009			1	C.M. 2173
1121	Pylos Nestor's Palace-Chamber tombs	E-6/Chamber		Bead	Carnelian	spherical		0.008 0.001					2	C.M. 2180
1122	Pylos Nestor's Palace-Chamber tombs	E-9/Chamber		Sealstone	Steatite	lentoid	black	0.02					1	decoration: quadruped moving left, and a bird (?); C.M.2902

## Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
1123	Pylos Nestor's Palace-Chamber tombs	E-9/Chamber		Bead	Steatite	oval		0.01			0.02		1	C.M. 2905b
1124	Pylos Nestor's Palace-Chamber tombs	E-9/Chamber Pit 3		Button	Non identified	short cone	brown	0.02		0.01			1	C.M. 2905a
1125	Pylos Necropolis	Tomb 1(Angelopoulou group of tombs)		Spindle whorl	Steatite								2	
1126	Pylos Necropolis	Tomb 1(Angelopoulou group of tombs)		Bead	Agate	cylindrical							1	
1127	Pylos Volimidia nekropolis	Voria chamber tomb 7		Spindle whorl	Steatite	conical							1	
1128	Pylos Koukounara	Gouvalari Tholos tomb 1-Koukounara 4		Sealstone	Amethyst	flattened cylinder							1	decoration: two fighters with helmets are holding four shords
1129	Pylos Koukounara	Gouvalari Tholos tomb 1-Koukounara 4		Sealstone	Jasper	flattened cylinder	red						1	decoration: grypas with deer in his mouth
1130	Pylos Koukounara	Gouvalari Tholos tomb 1-Koukounara 4		Sealstone	Sard	flattened cylinder							1	decoration: bull bending knees and hit by arrow
1131	Pylos Koukounara	Gouvalari Tholos tomb 1-Koukounara 4		Sealstone	Sard	amygdaloid							1	decoration: deer or bull bending knees and hit
1132	Pylos Koukounara	Gouvalari Tholos tomb 1-Koukounara 4		Sealstone	Sard	amygdaloid							1	decoration: four leaves
1133	Pylos Koukounara	Gouvalari tomb 2		Sealstone	Amethyst	amygdaloid							1	decoration: bull hit by arrow and spear
1134	Pylos Koukounara-Palaiochora			Sealstone	Steatite	lentoid							1	decoration: two head of aries
1135	Pylos Koukounara-Akona	Tholos tomb 1		Sealstone	Chalcedony		green						1	decoration: young men over a wild goat



## Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
1136	Pylos Koukounara	Gouvalari Tholos tomb 1		Sealstone	Chalcedony	lentoid	white						1	decoration: two wild goats
1137	Pylos Fyties	Tholos tomb 2		Sealstone	Sard						0.02		1	sealstone(?) among two hundred beads of blue paste
1138	Pylos Fyties	Tholos tomb 2		Sealstone	Sardonyx			0.007 base			0.01		1	decoration: dog hunting wild goats
1139	Pylos Koukounara- Gouvalari	Tomb 6		Spindle whorl	Steatite								1	
1140	Pylos Koukounara- Gouvalari	Tholos tomb 6		Bead	Steatite								1	
1141	Pylos Mirsinohori- Routsi	Tholos tomb 2-Pit 2		Sealstone	Amethyst	prisma							1	three sided prisma; decoration:a) wild duck b) wild duck c) plain; N.M.A.8331,C.M.S. I-273
1142	Pylos Mirsinohori- Routsi	Tholos tomb 2-Pit 2		Sealstone	Carnelian	lentoid							1	decoration: woman in front of altar with horns of consecration; N.M.A..8323, C.M.S. I-279
1143	Pylos Mirsinohori- Routsi	Tholos tomb 2-Pit 2		Sealstone	Carnelian	lentoid							1	decoration: two lions and two men; N.M.A.8322, C.M.S. I-280
1144	Pylos Mirsinohori- Routsi	Tholos tomb 2-Pit 2		Sealstone	Carnelian	cylindrical							1	decoration: birds, fishes, deers, goats, tree of life (?); N.M.A.8335, C.M.S. I-284
1145	Pylos Peristeria	Tholos tomb 2		Bead	Amethyst	spherical							23	beads forming necklace (23 beads as seen in Praktika 1962: Fig.102 )
1146	Pylos Peristeria	Tholos tomb 3 (in the shaft)		Bead	Amethyst								1	
1147	Pylos Peristeria	Tholos tomb 3 (in the shaft)		Group of beads	Group of sard								1	
1148	Pylos Peristeria	Tholos tomb 3 (in the shaft)		Group of beads	Group of rock crystal								1	
1149	Pylos Peristeria- Circle & Tholos tombs 2&3	E end of Circle		Sealstone	Steatite	lentoid		0.02	0.02				1	decoration: schematic representation of deer
1150	Pylos Peristeria- Circle & Tholos tombs 2&3	E end of Circle		Fragment	Haematite								1	
1151	Pylos Peristeria- Circle & Tholos tombs 2&3	E end of Circle		Bead	Steatite			0.01	0.01				1	perforation

## Catalogue of gemstone finds

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1152	Pylos Peristeria- Circle & Tholos tombs 2&3	SE house		Bead	Carnelian				0.005 max		0.01		1	
1153	Pylos Peristeria- Circle & Tholos tombs 2&3	SE house		Fragment	Carnelian								2	
1154	Pylos Peristeria	Tholos tomb 1	No 1	Scarab	Amethyst			0.003 hole		0.007	0.02	0.011	1	
1155	Pylos Peristeria	Tholos tomb 1	No 3	Spindle whorl	Non identified	conical		0.02 base 0.02 base 0.02 base		0.014 0.015 0.010			3	
1156	Pylos Peristeria	Tholos tomb 1	No 4	Spindle whorl	Non identified	round		0.03 0.009 hole		0.015			1	
1157	Pylos Peristeria	Tholos tomb 1	No 5	Bead	Amethyst	spherical		0.009 min 0.01 max		0.007 min 0.011 max			5	
1158	Pylos Trifylia- Peristeria	W of Tholos tomb 1		Spindle whorl	Steatite	conical		0.02 max		0.012			1	
1159	Pylos Trifylia- Peristeria	Lithosoros 2		Bead	Amethyst			0.01					1	
1160	Pylos Tragana	Tholos tomb 1		Bead	Amethyst	lentoid							1	decoration: a bearded man has already defeated an enemy and is ready to attack another; N.M.A.. 8404, C.M.S. I-263
1161	Pylos Tragana	Tholos tomb 2-Pit 3		Bead	Various								15	beads of amethyst, red iaspis, rock crystal
1162	Pylos Tragana	Tholos tomb 2-Pit 3		Sealstone	Rock crystal	lentoid							1	gold perforation; decoration: bull and table of offerings; N.M.A..8402, C.M.S. I-264 (D: 2,4)
1163	Pylos Tragana	Tholos tomb 2-Pit 3		Sealstone	Non identified								1	(amygdalitis?) decoration: bull; N.M.A. 8403, C.M.S. I-265 (D: 2,2)
1164	Pylos Tragana	Tholos tomb 2-Pit 3		Sealstone	Jasper	lentoid	red						1	decoration: heraldic complex of two capricorns between a plant column; N.M.A.. 8406, C.M.S. I-266 (D:2,1)
1165	Pylos Tragana	Tholos tomb 2-Pit 3		Sealstone	Non identified	lentoid							1	decoration: two cattles; N.M.A..8407, C.M.S. I-267(D: 2,2)
1166	Pylos Tragana	Tholos tomb 2-Pit 3		Sealstone	Sardonyx								1	decoration: cow; N.M.A.. 8405, C.M.S. I-268 (D: 2.0)
1167	Pylos Tragana	Tholos tomb 1		Bead	Sard								4	
1168	Pylos Tragana	Tholos Tomb I(Iota)		Sealstone	Sard	flattened cylinder			0.005		0.02	0.009	1	decoration: griffins; C.M. 3157 LH III
1169	Pylos Tragana	Tholos Tomb 1		Bead	Amethyst	spherical							3	C.M. 3232, 3241,3242



## Catalogue of gemstone finds

No	Site/Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
1170	Pylos Tragana	Tholos Tomb 1		Bead	Sard	spherical							3	one is flattened; C.M. 3234,3272,3294b
1171	Pylos Tragana	Tholos Tomb 1		Bead	Sard	cylindrical							9	C.M. 3243, 3244, 3245, 3249, 3273, 3282, 3291, 3294a, 3301
1172	Pylos Tragana	Tholos Tomb 1		Spindle whorl	Steatite								3	C.M. No:3241
1173	Pylos Voidokilia	Tholos tomb (small)		Necklace	Group of amethyst and sard								2	
1174	Perati	Σ 1 chamber	Λ 23	Bead	Carnelian	flattened spherical		0.008					1	perforated
1175	Perati	Chamber Tomb 27	Λ 94	Bead	Haematite	bicurved	reddish				0.01	0.008	1	perforated length 4-sided
1176	Perati	Chamber Tomb 157	Λ 320	Button	Steatite	conical	iodine	0.02		0.014			1	
1177	Perati	Chamber Tomb 157	Λ 321	Button	Steatite	conical	ash green	0.02		0.014			1	
1178	Perati	Chamber Tomb 157	Λ 322	Button	Steatite		darkish	0.02		0.013			1	
1179	Perati	Chamber Tomb 157	Λ 323	Button	Steatite		iodine	0.02		0.01			1	
1180	Perati	Chamber Tomb 157	Λ 324	Button	Steatite		darkish	0.01		0.006			1	
1181	Perati	Chamber Tomb 157	Λ 325	Button	Steatite		darkish	0.02		0.015			1	
1182	Perati	Chamber Tomb 157	Λ 326	Button	Steatite		ash	0.02		0.013			1	
1183	Perati	Chamber Tomb 157	Λ 327	Button	Steatite	hemispherical		0.02		0.011			1	
1184	Perati	Chamber Tomb 157	Λ 328	Button	Steatite		darkish	0.02		0.008			1	
1185	Perati	Chamber Tomb 157	Λ 329	Button	Steatite	conical	dark	0.02		0.009			1	
1186	Perati	Chamber Tomb 157	Λ 330	Button	Steatite		darkish brown	0.02		0.008			1	
1187	Perati	Chamber Tomb 157	Λ 331	Button	Steatite	hemispherical	darkish	0.02		0.007			1	
1188	Perati	Chamber Tomb 156	Λ 319	Button	Steatite	conical	darkish	0.03		0.011			1	
1189	Perati	Tomb 155	Λ 318	Bead	Sard	poppy-head					0.02		1	perforated top, flattened curved
1190	Perati	Chamber Tomb 154	Λ 313	Bead	Agate	shanked	brown white	0.02				0.008	1	perforated horizontally
1191	Perati	Tomb 154	Λ 314	Button	Steatite	conical	iodine	0.02				0.011	1	

## Catalogue of gemstone finds

No	Site/Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
1192	Perati	Tomb 154	Λ 315	Button	Steatite		darkish	0.02		0.009			1	curved base
1193	Perati	Tomb 154	Λ 316	Button	Steatite		darkish brown	0.02		0.009			1	round rim
1194	Perati	Tomb 154	Λ 317	Button	Steatite		ash	0.02		0.012			1	
1195	Perati	Chamber Tomb 152	Λ 309	Pebble	Quartz		green	0.02 max					1	(weight?)
1196	Perati	Chamber Tomb 152	Λ 310	Bead	Sard	barel					0.02 max		1	perforated length
1197	Perati	Chamber Tomb 152	Λ 311	Button	Steatite	conical	ash	0.02		0.012			1	round rim
1198	Perati	Chamber Tomb 152	Λ 312	Button	Steatite	conical	ash green	0.02		0.012			1	
1199	Perati	Chamber Tomb Σ2	Λ 24	Bead	Agate	barel	white brown	0.006			0.008		1	perforation horizontaly
1200	Perati	Chamber Tomb Σ2	Λ 25	Bead	Carnelian	acorn		0.006			0.01		1	perforated length
1201	Perati	Chamber Tomb Σ2	Λ 26	Button	Sard	acorn		0.07			0.02		1	perforated length
1202	Perati	Chamber Tomb 78	Λ 173	Button	Steatite	conical	darkish green	0.02		0.014			1	
1203	Perati	Chamber Tomb 78	Λ 174	Button	Steatite		black	0.01		0.007			1	
1204	Perati	Chamber Tomb 65	Λ 142	Button	Steatite	conical	ash	0.02		0.017			1	round rim
1205	Perati	Chamber Tomb 65	Λ 143	Button	Steatite	conical		0.02		0.01			1	
1206	Perati	Chamber Tomb 65	Λ 144	Button	Steatite	conical	purple	0.03		0.016			1	round rim
1207	Perati	Chamber Tomb 65	Λ 145	Button	Steatite	conical	dark	0.02		0.015			1	
1208	Perati	Chamber Tomb 65	146	Button	Steatite	conical		0.04		0.022			1	
1209	Perati	Chamber Tomb 65	Λ 147	Button	Steatite	conical	yellow	0.02		0.015			1	
1210	Perati	Chamber Tomb 65	Λ 148	Button	Steatite	conical	ash	0.03		0.017 present			1	cut top
1211	Perati	Chamber Tomb 65	Λ 149	Button	Steatite	conical	darkish	0.02		0.014			1	
1212	Perati	Chamber Tomb 65	Λ 150	Button	Steatite	conical	purple	0.02		0.015			1	
1213	Perati	Chamber Tomb 65	Λ 152	Bead	Sard	olive					0.02	0.015	1	perforation length



## Catalogue of gemstone finds

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1214	Perati	Chamber Tomb 65	Λ 153	Button	Steatite	conical	ash	0.02				0.015	1	concave sides
1215	Perati	Chamber Tomb 65	Λ 154	Button	Steatite	conical		0.02				0.014	1	glued
1216	Perati	Chamber Tomb 65	Λ 155	Button	Steatite	conical		0.02		0.015			1	concave base
1217	Perati	Chamber Tomb 65	Λ 156	Button	Steatite	conical	grey	0.02		0.011			1	
1218	Perati	Chamber Tomb 65	Λ 157	Button	Steatite	conical		0.02		0.014			1	
1219	Perati	Chamber Tomb 65	Λ 158	Bead	Quartz	acorn	white	0.01			0.02		1	perforated length
1220	Perati	Chamber Tomb 65	Λ 159	Bead	Sard	amygdaloid					0.02	0.012	1	perforated length, 6-sided, decoration: incised lines on two sides
1221	Perati	Chamber Tomb 65	Λ 160	Bead	Carnelian	acorn					0.01	0.007	1	perforated
1222	Perati	Chamber Tomb 65	Λ 161	Bead	Sard	spherical		0.003					1	perforated
1223	Perati	Chamber Tomb 65	Λ 162	Non identified	Non identified	shapeless		0.02 max					1	(oligistos?)
1224	Perati	Chamber Tomb 74	Λ 163	Bead	Rock crystal	rosette		0.009					1	perforated
1225	Perati	Chamber Tomb 74	Λ 164	Bead	Non identified	cylindrical	green	0.007			0.01 max		1	perforated length, soft stone probably steatite
1226	Perati	Chamber Tomb 75	Λ 165	Button	Steatite	conical	iodine	0.02		0.015			1	round rim
1227	Perati	Chamber Tomb 75	Λ 166	Button	Steatite		black	0.02		0.014			1	
1228	Perati	Chamber Tomb 75	Λ 167	Button	Steatite		darkish	0.02		0.011			1	
1229	Perati	Chamber Tomb 75	Λ 168	Button	Steatite		iodine	0.02		0.009			1	
1230	Perati	Chamber Tomb 75	Λ 169	Bead	Steatite	barrel	darkish green	0.01			0.01		1	perforated length with white and black marks
1231	Perati	Chamber Tomb 75	Λ 170	Bead	Sard	spherical		0.005					1	perforated
1232	Perati	Chamber Tomb 75	Λ 171	Button	Sard	ellipsoid		0.02 max			0.03		1	perforation length, 6-sided, decoration: rectilinear incisions on sides
1233	Perati	Chamber Tomb 75	Λ 172	Bead	Sard	poppy-head		0.006 max		0.014			1	perforation top
1234	Perati	Chamber Tomb 82	Λ 175	Button	Steatite		ash	0.02 present		0.01 present			1	down part is missing
1235	Perati	Shaft Grave 84	Λ 176	Button	Lime marl	conical	dark	0.03		0.022			1	

## Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
1236	Perati	Tomb 84	Λ 177	Button	Steatite		dark green	0.02 max		0.017			1	
1237	Perati	Shaft Grave 85	Λ 178	Button	Schist	conical	ash	0.03		0.016			1	
1238	Perati	Tomb Σ 58	Λ 332	Button	Steatite	conical	ash	0.02		0.012			1	round rim
1239	Perati	Chamber Tomb 147	Λ 293	Bead	Amethyst	drop		0.008 max			0.01		1	perforation top
1240	Perati	Chamber Tomb 147	Λ 294	Bead	Sard	flattened spherical		0.01					1	perforation, irregular surface, coarse made
1241	Perati	Chamber Tomb 147	Λ 295	Bead	Sard	flattened spherical		0.09					1	
1242	Perati	Chamber Tomb 147	Λ 296	Bead	Sard	flattened spherical		0.01					1	
1243	Perati	Chamber Tomb 147	Λ 297	Bead	Sard	flattened spherical		0.01					1	
1244	Perati	Chamber Tomb 147	Λ 298	Bead	Sard	flattened spherical		0.007					1	
1245	Perati	Chamber Tomb 147	Λ 299	Bead	Sard	flattened spherical		0.008					1	
1246	Perati	Chamber Tomb 147	Λ 300	Bead	Sard	flattened spherical		0.01					1	
1247	Perati	Chamber Tomb 147	Λ 301	Bead	Sard	flattened spherical		0.01					1	
1248	Perati	Chamber Tomb 147	Λ 302	Bead	Agate	4-sided	brown milky				0.02	0.01	1	perforation length, flat curved
1249	Perati	Chamber Tomb 147	Λ 303	Bead	Steatite	lentoid	green dark	0.01					1	perforated
1250	Perati	Chamber Tomb 147	Λ 304	Bead	Sard	cylindrical		0.005			0.004		1	perforated
1251	Perati	Chamber Tomb 147	Λ 305	Bead	Sard	spherical		0.007					1	perforated
1252	Perati	Chamber Tomb 147	Λ 306	Bead	Sard	spherical	dark	0.005					1	
1253	Perati	Tomb 147	Λ 306a	Bead	Steatite	bicurved	dark				0.01	0.01	1	perforation length, 4-sided
1254	Perati	Chamber Tomb 149	Λ 308	Button	Steatite	conical	ash	0.02		0.011			1	round rim
1255	Perati	Chamber Tomb 148	Λ 307	Bead	Steatite	ellipsoid	dark				0.02	0.013	1	perforation; flattened curved; decoration: two rectilinear oblique incisions
1256	Perati	Chamber Tomb 145	Λ 291	Button	Steatite	conical	ash	0.02		0.011			1	
1257	Perati	Chamber Tomb 146	Λ 292	Button	Steatite	conical		0.02		0.015			1	



## Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
1258	Perati	Chamber Tomb 88	Λ 179	Button	Steatite	conical	dark green	0.03		0.024			1	
1259	Perati	Chamber Tomb 88	Λ 180	Button	Steatite		black	0.02		0.013			1	
1260	Perati	Chamber Tomb 4	Λ 12	Bead	Quartz	acorn	white transparent	0.009			0.02		1	perforation horizontally, oblong
1261	Perati	Chamber Tomb 4	Λ 13	Bead	Carnelian	poppy-head		0.006 max			0.01		1	perforation top
1262	Perati	Chamber Tomb 4	Λ 14	Sealstone	Sard	olive					0.02	0.014	1	perforation horizontally; decoration : two animals, one of them running; C.M.S. I-395, N.M.A. 8097
1263	Perati	Chamber Tomb 4	Λ 15	Button	Steatite	conical	black	0.02		0.016			1	decoration: incisions in form of rays at the base
1264	Perati	Chamber Tomb 4	Λ 16	Button	Steatite	conical	green	0.02		0.016			1	
1265	Perati	Chamber Tomb 4	Λ 17	Button	Steatite	hemispherical	green	0.02		0.007			1	
1266	Perati	Chamber Tomb 4	Λ 18	Button	Non identified		purple	0.02		0.007			1	corrupted surface
1267	Perati	Chamber Tomb 1	Λ 1	Seal cylinder	Haematite	cylindrical		0.05			0.32		1	Syrohittite; decoration: between two narrow marges two complexes with daemons (height of main figures 0.019-0.020); C.M.S. I-Suppl 54, N.M.A. 8088.
1268	Perati	Chamber Tomb 1	Λ 3	Cylinder	Agate	cylindrical	ash	0.01			0.03		1	perforation length, corrupted by fire, gold plated at edge
1269	Perati	Chamber Tomb 1	Λ 4	Sealstone	Lime marl	lentoid		0.02				0.007	1	C.M.S. I-392, N.M.A. 8092
1270	Perati	Chamber Tomb 1	Λ 5	Sealstone	Agate	lentoid		0.02 present				0.008 present	1	perforation horizontally, white and black fades, mat by fire; decoration: bull; C.M.S. I-394, N.M.A. 8093
1271	Perati	Chamber Tomb 1	Λ 6	Sealstone	Agate	lentoid	ash	0.03 present				0.01 present	1	perforation, mat by fire; decoration: chamois; C.M.S. I-393, N.M.A. 8094
1272	Perati	Chamber Tomb 1	Λ 7	Button	Steatite	concave base	dark	0.02		0.01			1	
1273	Perati	Chamber Tomb 1	Λ 8	Button	Steatite		dark	0.02		0.01			1	
1274	Perati	Chamber Tomb 1	Λ 9	Button	Rock crystal			0.02 present		0.012 present			1	only a piece is preserved; flat base
1275	Perati	Chamber Tomb 1	Λ 10	Button	Steatite		ash blue	0.02		0.012			1	
1276	Perati	Chamber Tomb 1	Λ 11	Button	Non identified		blue ash	0.02		0.13			1	

## Catalogue of gemstone finds

No	Site/Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
1277	Perati	Chamber Tomb 5	Λ 19	Bead	Agate	lentoid	dark brown	0.01					1	perforation horizontally; milky fades
1278	Perati	Chamber Tomb 5	Λ 20	Button	Steatite	conical	black	0.02		0.014			1	round rim
1279	Perati	Chamber Tomb 5	Λ 21	Button	Steatite	concave base		0.02 present		0.006 present			1	broken top
1280	Perati	Chamber Tomb 5	Λ 22	Button	Steatite	conical	ash	0.02		0.015			1	round rim
1281	Perati	Chamber Tomb Σ 3	Λ 27	Cylinder	Rock crystal	cylindrical	transparent	0.01			0.02		1	perforation length, gold plated at edges
1282	Perati	Chamber Tomb Σ 3	Λ 28	Bead	Carnelian	ellipsoid-prisma					0.02	0.016	1	perforation horizontally; decoration: rectilinear incision
1283	Perati	Chamber Tomb Σ 3	Λ 30	Button	Steatite	conical	greenish	0.03		0.01			1	
1284	Perati	Tomb Σ 20	Λ 131	Button	Steatite	conical	iodine	0.02		0.01			1	
1285	Perati	Tomb Σ 20	Λ 132	Button	Non identified			0.02		0.011			1	
1286	Perati	Tomb Σ 20	Λ 133	Bead	Carnelian	ellipsoid-prisma		0.02			0.01		1	perforation length
1287	Perati	Tomb Σ 19	Λ 129	Bead	Sard	acorn		0.007			0.02		1	perforation length
1288	Perati	Tomb Σ 19	Λ 130	Bead	Sard	acorn		0.004			0.01		1	perforation length
1289	Perati	Tomb 56	Λ 127	Bead	Sard	ellipsoid-prisma					0.02	0.015	1	perforation length; decoration: thin incisions
1290	Perati	Tomb 56	Λ 128	Bead	Sard	flattened spherical		0.01					1	perforation; the shape is irregular; improvised work
1291	Perati	Chamber Tomb 90	Λ 181	Button	Steatite	conical	ash green	0.02		0.014			1	
1292	Perati	Chamber Tomb 90	Λ 182	Button	Steatite	shanked discoid	green	0.02		0.007			1	round rim
1293	Perati	Chamber Tomb 90	Λ 183	Button	Steatite	shanked discoid	iodine	0.02		0.007			1	
1294	Perati	Chamber Tomb 90	Λ 184	Button	Steatite		iodine	0.02		0.009			1	
1295	Perati	Chamber Tomb 100	Λ 208	Weight	Haematite	ellipsoid	black			0.011	0.02	0.013	1	surface very well smoothed, flat curved; weight 9,35 gr.
1296	Perati	Chamber Tomb 100	Λ 209	Prisma	Rock crystal	hexagonal prisma					0.02	0.012	1	unequal sides
1297	Perati	Chamber Tomb 100	Λ 210	Fragment	Rock crystal	shapeless					0.03 max		1	
1298	Perati	Chamber Tomb 92	Λ 185-191	Bead	Sard	poppy-head		0.05 min 0.08 max			0.01 min 0.02 max		7	perforation top
1299	Perati	Chamber Tomb 92	Λ 192	Bead	Carnelian	poppy-head		0.01			0.02		1	perforation top; flat curved



## Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
1300	Perati	Chamber Tomb 92	Λ 193-201	Bead	Sard	flattened spherical		0.007 min 0.008 max					9	perforation
1301	Perati	Chamber Tomb 92	Λ 202	Bead	Steatite	barrel	ash	0.007			0.008		1	perforation length
1302	Perati	Chamber Tomb 93	Λ 203	Button	Steatite	conical	ash	0.02		0.012			1	round rim
1303	Perati	Chamber Tomb 93	Λ 204	Button	Steatite		black	0.02		0.012			1	
1304	Perati	Chamber Tomb 93	Λ 205	Bead	Sard	acorn		0.006			0.02		1	perforation length
1305	Perati	Chamber Tomb 93	Λ 206	Bead	Sard	poppy-head		0.05			0.009		1	perforation top
1306	Perati	Chamber Tomb 142	Λ 267	Seal cylinder	Haematite	cylindrical	black	0.16			0.34		1	decoration: one main figure with two secondaries; probably Cypriot derivation with Egyptian, Asiatic influence; C.M.S. I-Suppl 57 (meteorite), N.M.A.8844
1307	Perati	Chamber Tomb 142	Λ 268	Sealstone	Agate	lentoid	milky dark	0.2 min 0.21 max				0.009	1	decoration: four deers; C.M.S. I-Suppl 56 N.M.A.8845
1308	Perati	Chamber Tomb 142	Λ 269	Button	Steatite	conical	ash	0.02		0.012			1	round rim
1309	Perati	Chamber Tomb 142	Λ 270	Button	Steatite	shanked	ash	0.02		0.008			1	curved base
1310	Perati	Chamber Tomb 142	Λ 271	Button	Steatite		ash green	0.02		0.014			1	
1311	Perati	Chamber Tomb 142	Λ 272	Button	Steatite	conical	dark	0.02 present		0.009 present			1	only part is preserved
1312	Perati	Chamber Tomb 142	Λ 273	Button	Steatite	shanked	dark	0.03 min		0.006 max			1	
1313	Perati	Chamber Tomb 142	Λ 274	Button	Steatite	biconical	dark	0.02		0.013			1	
1314	Perati	Chamber Tomb 142	Λ 275	Button	Steatite	conical	dark	0.02		0.007			1	
1315	Perati	Chamber Tomb 142	Λ 276	Button	Steatite	conical		0.03		0.016			1	
1316	Perati	Chamber Tomb 142	Λ 277	Button	Steatite			0.02 present		0.006 present			1	only part is preserved
1317	Perati	Chamber Tomb 142	Λ 278	Button	Steatite	conical		0.02		0.012			1	
1318	Perati	Chamber Tomb 142	Λ 279	Button	Steatite	conical		0.02		0.01			1	
1319	Perati	Chamber Tomb 142	Λ 280	Button	Steatite			0.03		0.021			1	

## Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
1320	Perati	Chamber Tomb 142	Λ 281	Button	Steatite			0.02		0.014			1	
1321	Perati	Chamber Tomb 142	Λ 282	Button	Steatite		ash	0.02		0.014			1	round rim
1322	Perati	Chamber Tomb 142	Λ 284	Button	Steatite			0.02		0.01			1	
1323	Perati	Chamber Tomb 142	Λ 285	Button	Steatite			0.03		0.018			1	
1324	Perati	Chamber Tomb 142	Λ 286	Button	Steatite			0.02		0.018			1	
1325	Perati	Chamber Tomb 96	Λ 207	Button	Steatite	conical	iodine	0.02		0.013			1	round rim
1326	Perati	Chamber Tomb 143	Λ 288	Non identified	Rock crystal	prisma					0.04 max	0.021 max	1	irregular
1327	Perati	Chamber Tomb 143	Λ 290	Button	Steatite	conical	dark iodine	0.02			0.01		1	
1328	Perati	Chamber Tomb 134	Λ 259	Bead	Carnelian	poppy-head		0.006			0.02		1	perforation top
1329	Perati	Chamber Tomb 134	Λ 260	Bead	Chalcedony	spherical		0.009					1	perforation
1330	Perati	Chamber Tomb 137	Λ 266	Button	Steatite	conical	black	0.02		0.013			1	
1331	Perati	Chamber Tomb 136	Λ 261	Bead	Rock crystal	lentoid		0.02				0.01	1	perforation; decoration: incisions on the periphery
1332	Perati	Chamber Tomb 136	Λ 262	Bead	Sard	barel		0.006			0.009		1	perforation length; improvised work
1333	Perati	Chamber Tomb 136	Λ 263	Button	Steatite	conical	dark	0.02		0.013			1	round rim
1334	Perati	Chamber Tomb 136	Λ 264	Button	Steatite	conical		0.02		0.012			1	
1335	Perati	Tomb 49	Λ 126α	Bead	Sard	flattened spherical		0.006					1	perforation; improvised work
1336	Perati	Tomb 15β	Λ 71	Button	Steatite	conical	ash green	0.03		0.012			1	
1337	Perati	Tomb 15β	Λ 72	Button	Non identified			0.03		0.016			1	
1338	Perati	Tomb 16	Λ 73	Button	Steatite	conical	ash	0.02		0.012			1	round rim
1339	Perati	Tomb 16	Λ 74	Button	Steatite		black	0.02 present		0.013 present			1	only part of the button is preserved
1340	Perati	Tomb 16	Λ 75	Button	Steatite		iodine	0.03		0.016			1	
1341	Perati	Tomb 16	Λ 76	Button	Steatite			0.02		0.015			1	
1342	Perati	Tomb 16	Λ 77	Button	Steatite		dark	0.02		0.013			1	
1343	Perati	Tomb 16	Λ 78	Button	Steatite		ash	0.02		0.012			1	



## Catalogue of gemstone finds

No	Site/Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
1344	Perati	Tomb 16	Λ 79	Button	Steatite		black	0.02		0.014			1	
1345	Perati	Tomb 16	Λ 80	Button	Steatite		iodine	0.02		0.009			1	
1346	Perati	Tomb 16	Λ 81	Button	Steatite	7-sided	ash	0.02		0.007			1	coarse work; only part is preserved
1347	Perati	Tomb 16	Λ 82	Button	Steatite	conical	dark	0.02		0.01			1	
1348	Perati	Tomb 16	Λ83	Button	Non identified			0.02		0.016			1	
1349	Perati	Chamber Tomb 10	Λ 34	Button	Steatite		blue green	0.02		0.016			1	
1350	Perati	Chamber Tomb 9	Λ 33	Fragment	Rock crystal		trasparent	0.02 min 0.02 max					1	
1351	Perati	Tomb 46	Λ 124α	Button	Steatite	conical	black	0.02		0.01			1	
1352	Perati	Tomb 36	Λ 122	Button	Steatite	conical	black	0.02		0.009			1	round rim
1353	Perati	Tomb 36	Λ 123	Button	Steatite	shanked discoid	grey	0.02		0.003			1	
1354	Perati	Tomb 13	Λ 52	Bead	Malachite	oxhead	blue green				0.02	0.008 min 0.011 max	1	perforation top
1355	Perati	Tomb 13	Λ 53	Fragment	Lime marl	oblong	green				0.02		1	
1356	Perati	Tomb 13	Λ 54	Fragment	Rock crystal		trasparent	0.02 max 0.03 max 0.03 max					3	two trasparent fragments
1357	Perati	Tomb 13	Λ 55	Pebble	Non identified	amygdaloid					0.02 0.03		2	
1358	Perati	Tomb 13	Λ 56	Button	Steatite	conical	ash	0.02 base		0.01 max			1	
1359	Perati	Tomb 13	Λ 57	Button	Steatite		grey	0.02		0.009			1	
1360	Perati	Tomb 13	Λ 58	Button	Steatite			0.02 max		0.014			1	
1361	Perati	Tomb 13	Λ 59	Bead	Sard	acorn		0.007			0.02		1	perforation length
1362	Perati	Tomb 13	Λ 60	Bead	Sard			0.007			0.02		1	
1363	Perati	Tomb 13	Λ 61	Bead	Sard	spherical		0.01 min 0.01 max					1	perforation
1364	Perati	Tomb 13	Λ 62	Bead	Sard	lozenge					0.01	0.007	1	perforation length
1365	Perati	Tomb 13	Λ 63	Bead	Sard	flattened spherical		0.004 min 0.005 max					1	
1366	Perati	Tomb 13	Λ 64	Bead	Sard	biconical		0.007			0.01		1	perforation length
1367	Perati	Tomb 13	Λ 65	Bead	Sard	flattened spherical		0.005 min 0.007 max					1	perforation
1368	Perati	Tomb 13	Λ 66	Prisma	Rock crystal	prisma		0.02			0.03 max		1	hexagonal
1369	Perati	Tomb 13	Λ 67	Button	Steatite	conical	green	0.02		0.012			1	
1370	Perati	Tomb 13	Λ 68	Button	Steatite		black	0.02		0.016			1	

### Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
1371	Perati	Tomb 13	Λ 69	Button	Steatite		ash green	0.02		0.014			1	
1372	Perati	Tomb 13	Λ 70	Button	Steatite		dark	0.02		0.011			1	
1373	Perati	Chamber Tomb 30α	Λ 104	Pebble	Limonite	cube	brown red			0.008	0.009	0.006	1	
1374	Perati	Chamber Tomb 30α	Λ 105	Bead	Steatite	flattened spherical	ash blue	0.02					1	perforation
1375	Perati	Chamber Tomb 30a	Λ106	Weight	Haematite	cylindrical		0.02 min 0.02 max		0.026			1	weight 36,1 gr.
1376	Perati	Chamber Tomb 30α	Λ 107	Fragment	Rock crystal			0.01 max					1	
1377	Perati	Chamber Tomb 30α	Λ 108	Button	Steatite	conical	dark	0.02		0.011			1	
1378	Perati	Chamber Tomb 30α	Λ 109	Button	Steatite	conical	iodine	0.02		0.009			1	
1379	Perati	Chamber Tomb 30α	Λ 110	Button	Steatite	conical	black	0.02		0.006			1	part of it missing
1380	Perati	Chamber Tomb 30α	Λ 111	Button	Steatite	conical	dark	0.02		0.01			1	
1381	Perati	Chamber Tomb 30α	Λ 112	Button	Steatite	conical	greenish	0.02		0.008			1	
1382	Perati	Chamber Tomb 30α	Λ 113	Button	Steatite	conical	black	0.01		0.009			1	
1383	Perati	Chamber Tomb 30	Λ 69	Non identified	Lime marl	biconical		0.02			0.03		1	probably stalactite
1384	Perati	Chamber Tomb 30	Λ 97	Bead	Chalcedony	barel	light brown	0.007			0.01		1	perforation length
1385	Perati	Chamber Tomb 30	Λ 98	Button	Steatite	hemispherical	ash	0.02		0.006			1	
1386	Perati	Chamber Tomb 30	Λ 99	Bead	Steatite	acorn	ash	0.005			0.02		1	perforation length, very oblong bead
1387	Perati	Chamber Tomb 30	Λ 100	Fragment	Rock crystal	shapeless		0.01 max					1	
1388	Perati	Chamber Tomb 30	Λ 101	Button	Steatite	conical	dark blue	0.02		0.01			1	
1389	Perati	Chamber Tomb 30	Λ 102	Button	Non identified	conical		0.02		0.009			1	
1390	Perati	Chamber Tomb 30	Λ 103	Button	Steatite	conical	dark green	0.03		0.02			1	
1391	Perati	Chamber Tomb 12	Λ 37	Bead	Carnelian	flattened spherical		0.009 present					1	perforation



### Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
1392	Perati	Chamber Tomb 12	Λ 38	Bead	Carnelian			0.006					1	
1393	Perati	Chamber Tomb 12	Λ 39	Bead	Carnelian	spherical		0.009					1	perforation
1394	Perati	Chamber Tomb 12	Λ 40	Bead	Carnelian	spherical		0.006					1	perforation, the shape is irregular
1395	Perati	Chamber Tomb 12	Λ 41	Bead	Steatite	cylindrical	dark green	0.006			0.007		1	perforation length
1396	Perati	Chamber Tomb 12	Λ 42	Bead	Carnelian	ellipsoid	light milky stain				0.008	0.007	1	perforation length, prisma, 6-sided
1397	Perati	Chamber Tomb 12	Λ 43	Button	Steatite	conical	iodine	0.02		0.011			1	
1398	Perati	Chamber Tomb 12	Λ 44	Button	Steatite		black	0.02		0.011			1	
1399	Perati	Chamber Tomb 12	Λ 45	Button	Steatite		dark	0.02		0.011			1	
1400	Perati	Chamber Tomb 12	Λ 46	Button	Steatite		iodine	0.02		0.017			1	
1401	Perati	Chamber Tomb 12	Λ 47	Button	Steatite		dark green	0.02		0.01			1	
1402	Perati	Chamber Tomb 12	Λ 48	Button	Steatite		ash	0.02		0.014			1	
1403	Perati	Chamber Tomb 12	Λ 49	Button	Steatite		ash	0.02		0.006 present			1	only the bottom is preserved
1404	Perati	Chamber Tomb 12	Λ 50	Button	Steatite	conical	dark green	0.01		0.009			1	
1405	Perati	Chamber Tomb 12	Λ 51	Button	Steatite		ash	0.01 present		0.006 present			1	only the top is preserved (probably the second half of Λ 49)
1406	Perati	Chamber Tomb 11	Λ 35	Button	Steatite	conical	ash	0.02		0.013 present			1	
1407	Perati	Chamber Tomb 11	Λ 36	Button	Steatite	conical	iodine	0.02		0.013			1	
1408	Perati	Chamber Tomb 31	Λ 114	Bead	Sard	amygdaloid					0.02 present	0.014 present	1	perforation; not intact;
1409	Perati	Chamber Tomb 31	Λ 115	Button	Steatite	conical	black	0.02		0.009			1	
1410	Perati	Chamber Tomb 31	Λ 116	Button	Steatite	discoid	dark	0.02		0.008			1	
1411	Perati	Chamber Tomb 31	Λ 117	Button	Steatite	conical	black	0.02		0.009			1	
1412	Perati	Chamber Tomb 31	Λ 118	Button	Non identified	conical		0.02		0.012			1	

## Catalogue of gemstone finds

No	Site/Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
1413	Perati	Tomb 8	Λ 31	Button	Steatite	shanked discoid	black	0.02		0.009			1	
1414	Perati	Tomb 80	Λ 32	Button	Steatite	shanked		0.02		0.006			1	
1415	Perati	Chamber Tomb 34	Λ 119	Button	Steatite	conical	ash green	0.04		0.024			1	
1416	Perati	Tomb 35	Λ 120	Bead	Sard	trapezoid					0.02	0.012	1	perforation length; decoration: rectilinear incisions on two bigger sides
1417	Perati	Tomb 35	Λ 121	Button	Steatite	conical	dark	0.02		0.016			1	
1418	Perati	Chamber Tomb 19	Λ 84	Button	Steatite	conical	dark	0.02		0.012			1	
1419	Perati	Chamber Tomb 19	Λ 85	Button	Steatite	conical	ash	0.02		0.01			1	
1420	Perati	Chamber Tomb 20	Λ 86	Button	Steatite	conical	greenish	0.02		0.015			1	round rim
1421	Perati	Chamber Tomb 20	Λ 87	Button	Steatite		dark	0.02		0.016			1	
1422	Perati	Chamber Tomb 20	Λ 88	Button	Steatite	conical	ash green	0.03		0.015			1	
1423	Perati	Chamber Tomb 20	Λ 89	Button	Steatite	conical	black	0.02		0.016 max			1	round rim; curved base
1424	Perati	Chamber Tomb 20	Λ 90	Button	Steatite	conical		0.02		0.013			1	curved base
1425	Perati	Tomb 24	Λ 91	Sealstone	Haematite	lentoid	red purple	0.03				0.013	1	perforation length; decoration: inscription
1426	Perati	Tomb 24	Λ 92	Sealstone	Steatite	conical	green	0.02 min 0.01 max		0.008 present			1	perforation on top, the seal side is ellipsoid; decoration: horned animal; C.M.S. I-396, N.M.A. 8185
1427	Perati	Tomb 24	Λ 93	Bead	Rock crystal	flattened spherical		0.01					1	perforation
1428	Perati	Tomb 101	Λ 211	Button	Steatite	conical	iodine	0.02		0.01			1	
1429	Perati	Chamber Tomb 101	Λ 212	Button	Steatite			0.02		0.015			1	
1430	Perati	Tomb Σ 21,shaft	Λ 136	Bead	Sard	acorn	red orange dark veins	0.006			0.02		1	perforation length
1431	Perati	Tomb 62,shaft	Λ 134	Button	Steatite	conical	dark	0.02		0.01			1	top of head is cut and smoothed
1432	Perati	Tomb 62	Λ 135	Button	Steatite	shanked discoid	ash	0.03		0.009			1	
1433	Perati	Chamber Tomb Σ 26	Λ 139	Button	Steatite	conical	black	0.02		0.012			1	



## Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
1434	Perati	Chamber Tomb Σ 26	Λ 140	Button	Steatite		ash green	0.02		0.01			1	
1435	Perati	Chamber Tomb Σ 26	Λ 141	Button	Steatite		iodine	0.02		0.015			1	high round rim
1436	Perati	Chamber Tomb Σ14	Λ 95	Bead	Steatite	acorn	green milky stain	0.06			0.02		1	perforation length
1437	Perati	Chamber Tomb Σ 25	Λ 137	Button	Steatite	conical	dark	0.02		0.013			1	part of it missing
1438	Perati	Chamber Tomb Σ 25	Λ 138	Button	Steatite	conical	iodine	0.02		0.015			1	
1439	Perati	Tomb 43	Λ 124	Button	Steatite	conical	ash	0.02		0.01			1	concave base
1440	Perati	Tomb 43	Λ 125	Button	Steatite	conical	ash green	0.02		0.012			1	
1441	Perati	Tomb 43	Λ 126	Button	Steatite	conical	ash	0.02		0.09			1	
1442	Perati	Chamber Tomb 104	Λ 213	Bead	Sard	ellipsoid					0.02	0.015	1	perforation length, prismatic-6 sided
1443	Perati	Chamber Tomb 108	Λ 214	Plaque	Schist								1	
1444	Perati	Chamber Tomb 108	Λ 215	Plaque	Schist								1	
1445	Perati	Chamber Tomb 108	Λ 217	Button	Steatite	conical	black	0.02		0.011			1	
1446	Perati	Chamber Tomb 108	Λ218	Button	Steatite		iodine	0.02		0.013			1	missing part
1447	Perati	Chamber Tomb 108	Λ 219	Button	Steatite		ash	0.02		0.013			1	
1448	Perati	Chamber Tomb 108	Λ 220	Button	Steatite	shanked	ash	0.02		0.01			1	curved base
1449	Perati	Chamber Tomb 108	Λ 221	Button	Steatite	conical	ash	0.02		0.015			1	concave base
1450	Perati	Chamber Tomb 108	Λ 222	Button	Steatite	conical	dark	0.02		0.016			1	
1451	Perati	Chamber Tomb 108	Λ 223	Button	Steatite	conical	ash	0.02		0.013			1	
1452	Perati	Chamber Tomb 108	Λ 224	Button	Steatite	conical	dark	0.02		0.014			1	
1453	Perati	Chamber Tomb 110	Λ 225	Button	Steatite	conical	iodine	0.02		0.016			1	
1454	Perati	Chamber Tomb 110	Λ 226	Button	Steatite	conical	grey green	0.02		0.013			1	
1455	Perati	Chamber Tomb 111	Λ 227	Button	Schist	hemispherical	white	0.02		0.005			1	

# Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
1456	Perati	Chamber Tomb 111	Λ 228	Button	Steatite	shanked	dark	0.18		0.008			1	
1457	Perati	Chamber Tomb 111	Λ 229	Button	Steatite	conical	ash	0.02		0.008			1	
1458	Perati	Chamber Tomb 112	Λ 230	Button	Steatite		grey	0.02		0.007			1	
1459	Perati	Chamber Tomb 113	Λ 231	Bead	Sard	ellipsoid		0.01				0.01	1	perforation length; prismatic-6 sided
1460	Perati	Chamber Tomb 112	Λ 232	Bead	Carnelian	barel		0.003			0.003		1	perforation
1461	Perati	Chamber Tomb 119	Λ 233	Bead	Sard	flattened spherical		0.007					1	perforation
1462	Perati	Chamber Tomb 119	Λ 234	Bead	Sard	spherical		0.007					1	half bead
1463	Perati	Chamber Tomb 119	Λ 235	Button	Steatite	conical	ash	0.02		0.011 max			1	round rim
1464	Perati	Chamber Tomb Σ 51	Λ 255	Button	Steatite	conical	iodine	0.02		0.012			1	
1465	Perati	Chamber Tomb Σ 51	Λ 256	Button	Steatite		ash	0.03		0.017			1	
1466	Perati	Chamber Tomb 123	Λ 236	Button	Steatite	conical	ash	0.02		0.013			1	
1467	Perati	Chamber Tomb Σ 52	Λ 257	Button	Steatite	conical	iodine	0.02		0.012			1	
1468	Perati	Chamber Tomb 124	Λ 238	Button	Steatite	conical	white	0.02		0.009			1	
1469	Perati	Chamber Tomb 124	Λ 239	Button	Steatite		iodine	0.03		0.025			1	
1470	Perati	Chamber Tomb 124	Λ 241	Button	Steatite	conical	iodine	0.02		0.008			1	
1471	Perati	Chamber Tomb 124	Λ 242	Button	Steatite	conical	iodine	0.03		0.021			1	
1472	Perati	Chamber Tomb 125	Λ 243	Button	Steatite	conical	ash	0.02		0.013			1	round rim
1473	Perati	Chamber Tomb 127	Λ 244	Button	Steatite	conical	dark	0.02		0.01			1	
1474	Perati	Chamber Tomb 127	Λ 245	Button	Steatite		iodine	0.02		0.016			1	
1475	Perati	Chamber Tomb 127	Λ 246	Bead	Alabaster	flattened spherical	green	0.008					1	
1476	Perati	Chamber Tomb 127	Λ 247	Button	Serpentine	conical	dark	0.02		0.007			1	flat top; decoration: running spiral spindle whorl(?)
1477	Perati	Chamber Tomb 128	Λ 248	Button	Steatite	shanked	dark	0.02		0.006			1	curved base, round rim



### Catalogue of gemstone finds

No	Site/ Subsite	Location	Find id	object	Stone	Shape	Color	Diam.(m)	Thick(m)	Height(m)	Length(m)	Width(m)	Qty	Comments
1478	Perati	Chamber Tomb 128	Λ 249	Sealstone	Agate	lentoid	white brown	0.02 hole	0.009				1	perforation length; decoration : deer galloping and above a head of another deer; C.M.S. I-Suppl 55, N.M.A.8794
1479	Perati	Chamber Tomb 128	Λ 250	Bead	Carnelian	flattened spherical		0.009					1	coarse made
1480	Perati	Chamber Tomb 128	Λ 251	Bead	Sard			0.006					1	
1481	Perati	Chamber Tomb 128	Λ 252	Bead	Carnelian	barel		0.006			0.005		1	
1482	Perati	Chamber Tomb 128	Λ 253	Button	Steatite	conical	ash	0.02		0.014			1	
1483	Perati	Chamber Tomb 131	Λ 254	Bead	Amethyst	spherical		0.009					1	very good work and very well preserved
1484	Perati	Tomb 142	Λ 283	Button	Steatite			0.02		0.013			1	

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### Bibliographical abbreviations

AAA	Athens Annals of Archaeology (Αρχαιολογικά Ανάλεκτα ἐξ Ἀθηνῶν)
AJA	American Journal of Archaeology
Arch. Eph.	Αρχαιολογική Ἐφημερίς
BAR	British Archaeological Reports
BSA	Annual of the British School at Athens
CMS	Corpus der Minoischen und Mykenischen Siegel
JEA	Journal of Egyptian Archaeology
OJA	Oxford Journal of Archaeology
PAE	Πρακτικά τῆς ἐν Ἀθῆναις Αρχαιολογικῆς Ἑταιρείας
SIMA	Studies in Mediterranean Archaeology

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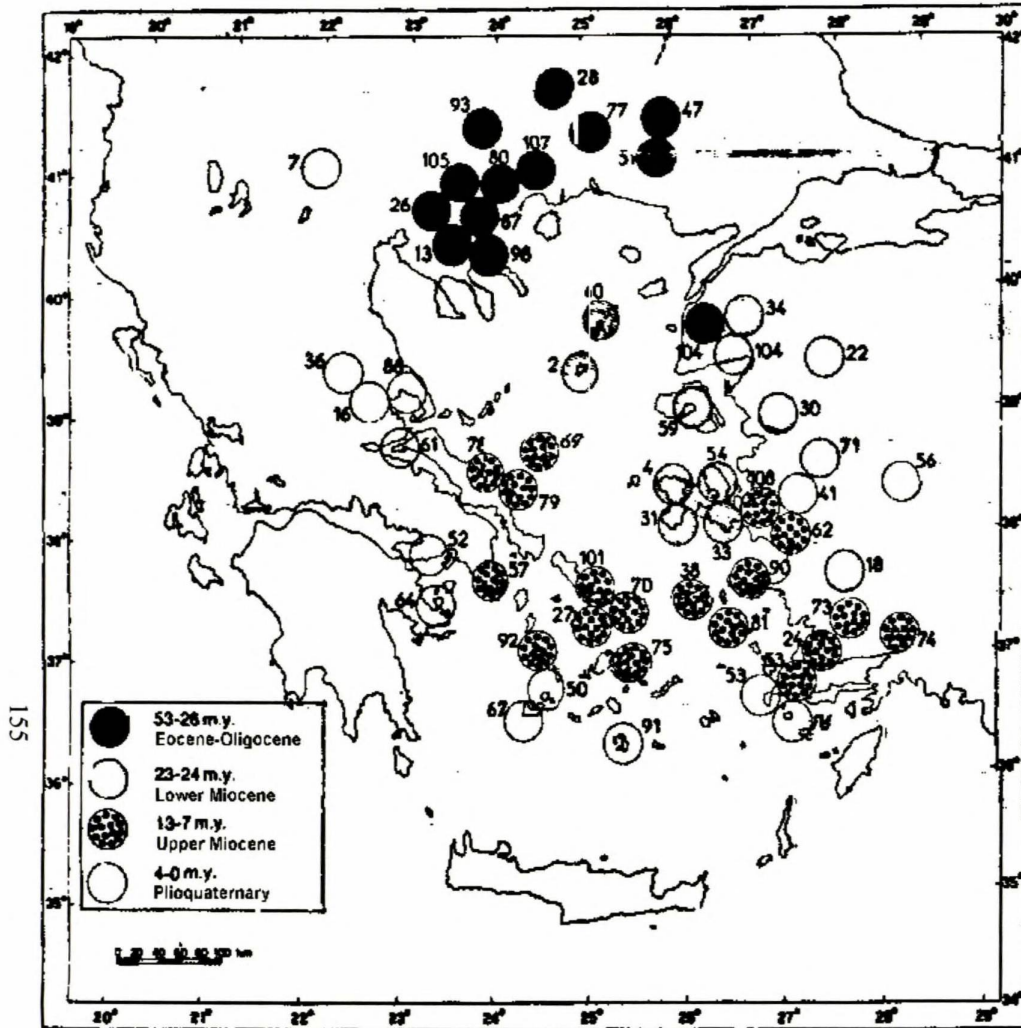
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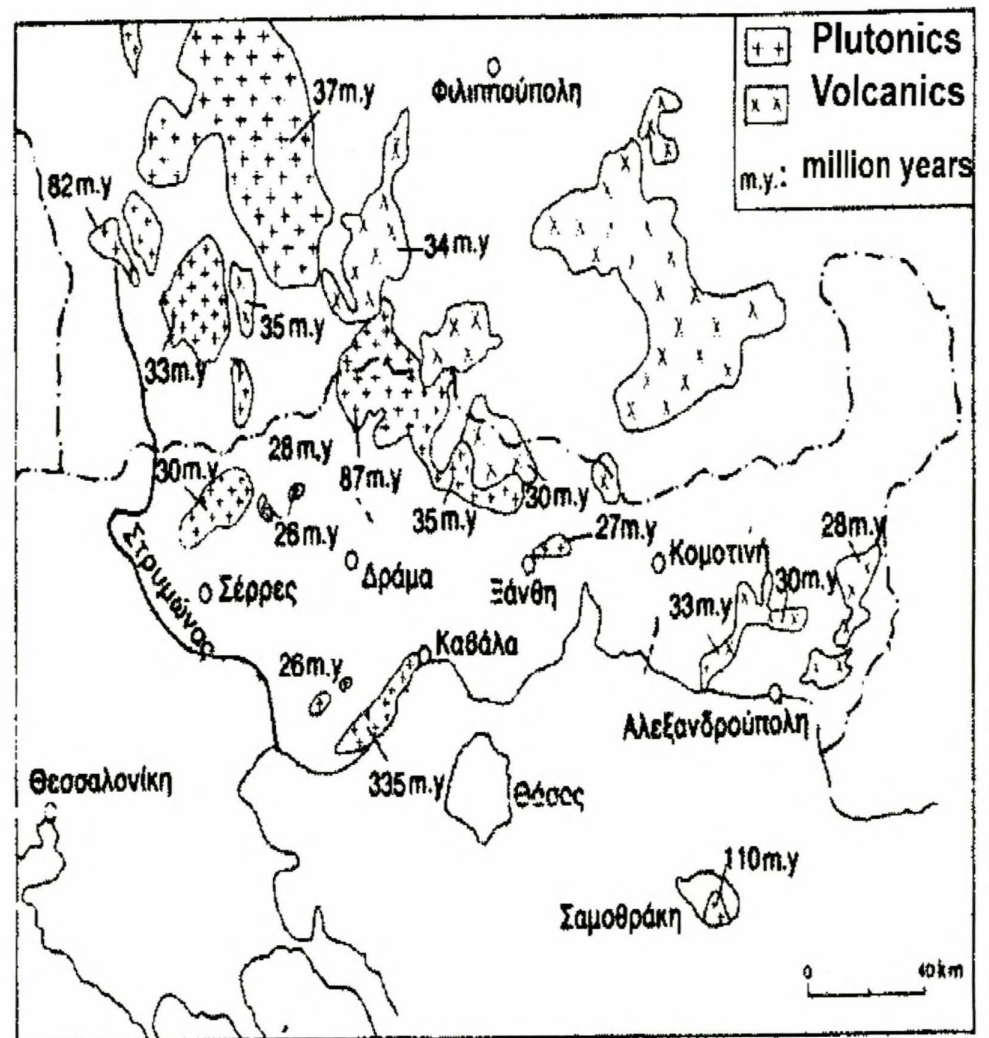
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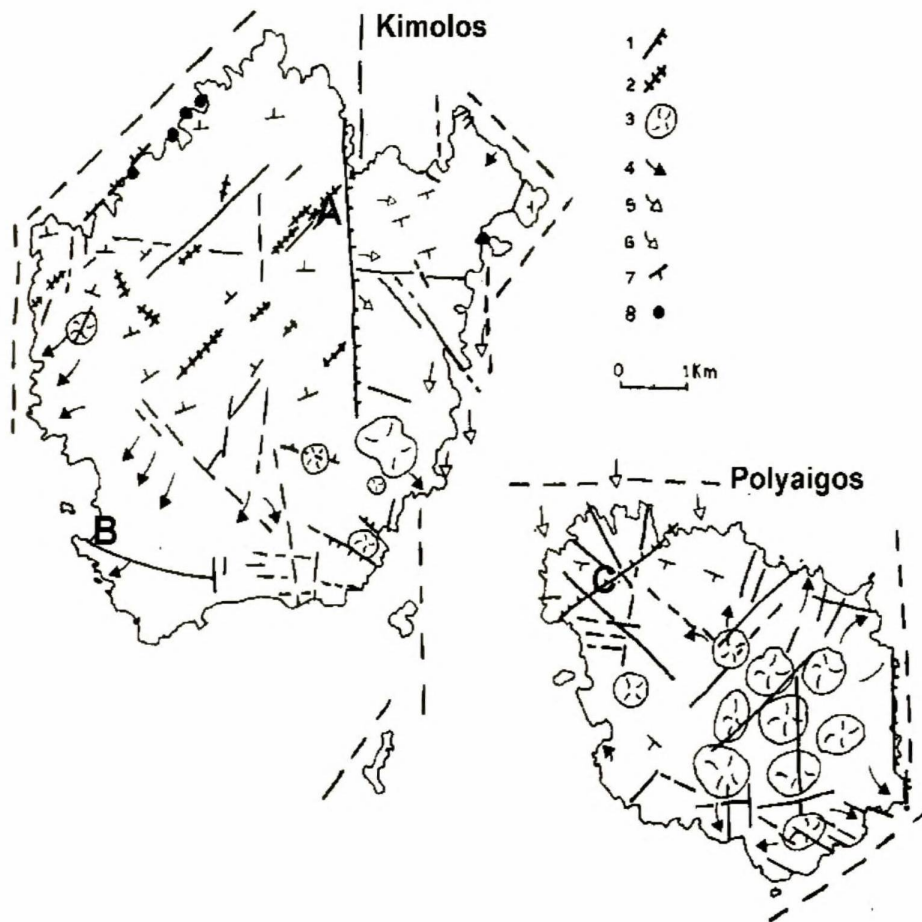


2.1 Geographical distribution of Cenozoic magmatic rocks in the Aegean area and their units according to their absolute age. (After Katsikatsos 1992: fig.49).



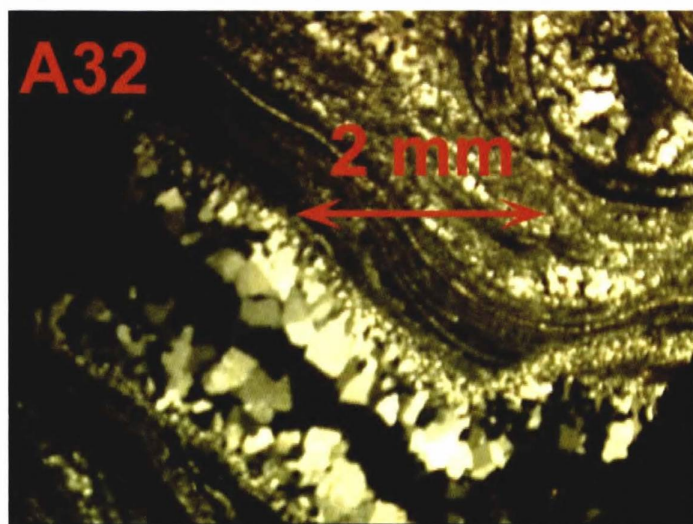
2.2 Important plutonic and volcanic outcrops in the area of the Rodopi massif, with their radiocarbon dating. (After Katsikatsos 1992: fig. 202).



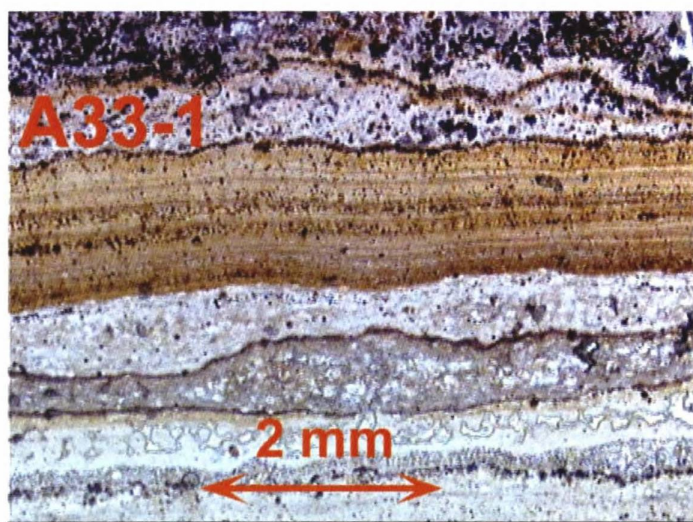


- 1, Faults. 2, Dykes. 3, Domes. 4, Lava flow directions. 5, Surge directions.  
 6, Nuee ardente flow directions. 7, Strike and dip of pyroclastic flow units.  
 8, Hot springs.

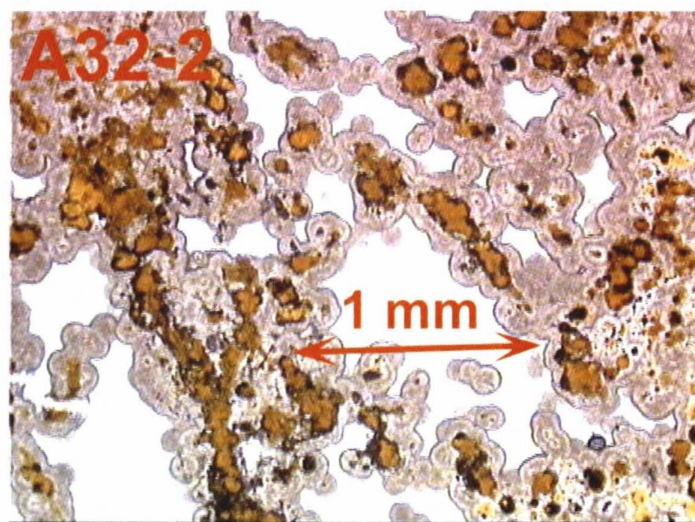
2.3 Volcanic and tectonic structure of Kimolos and Polyaigos. (After Vougioukalakis 1993: fig. 4)



2.4 Chalcedony in thin layers and quartz crystals in pores (open spaces that permit the development of crystals). (After Chiotis).



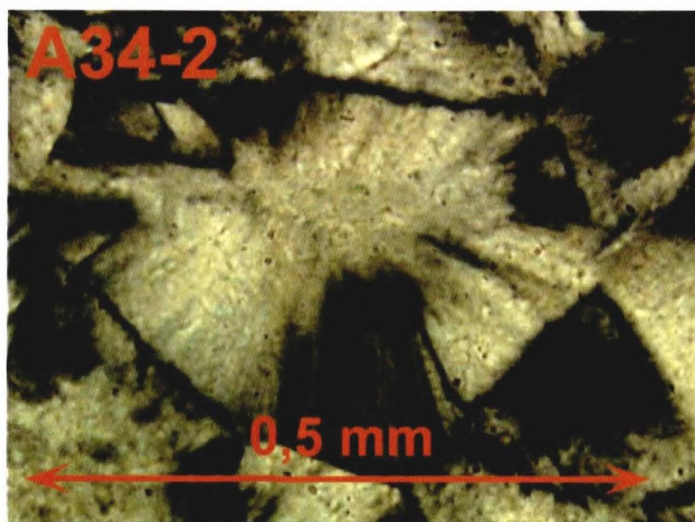
2.5 Successive layers of chalcedony. (After Chiotis).



2.6 Detail of figure 2.5. (After Chiotis).

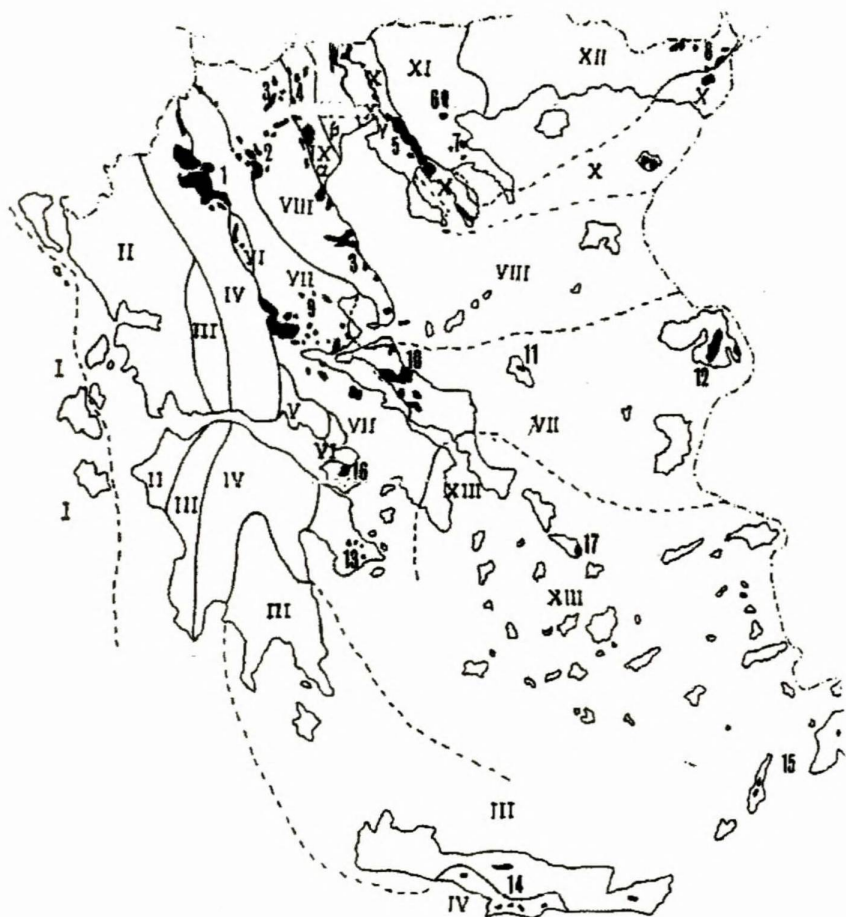


2.7 Chalcedony in transitional stage to its transformation into quartz. (After Chiotis).



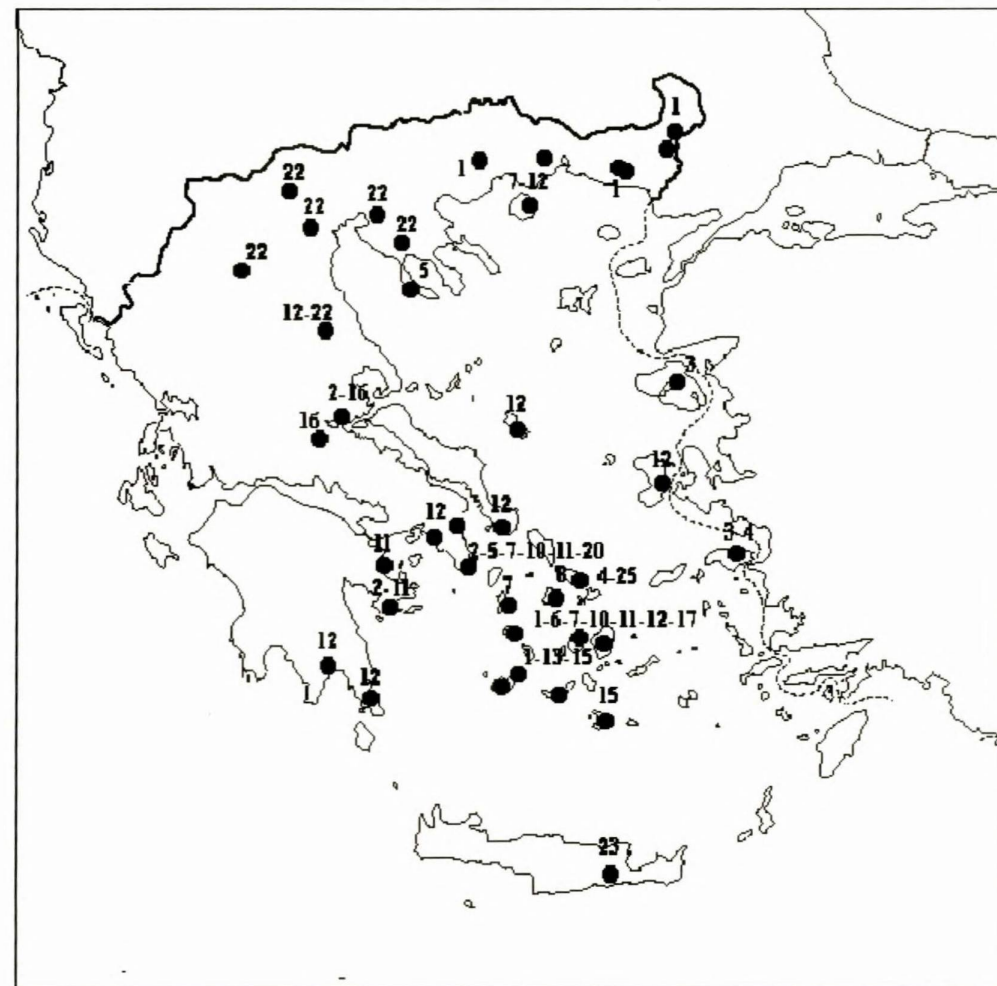
2.8 Detail of figure 2.7. (After Chiotis).





Ophiolites: 1, Pindos. 2, Vourinos. 3, Pelagonic. 4, Almopia. 5, W.Chalcidiki. 6, Nigrita. 7, Gomati. 8, Rodopi. 9, Othris. 10, Euboea. 11, Skyros. 12, Lesvos. 13, Argolid. 14, Crete. 15, Karpathos & Rhodes. 16, Gerania. 17, Tsiknias in Tinos.

2.9 Greek ophiolites and geotectonic zones. (After Vacondios 1997: fig. 7).



1. Amethyst, 2. Azurite, 3. Chalcedony, 4. Emery, 5. Galena, 6. Garnet, 7. Haematite, 8. Jadeite, 9. Kyanite, 10. Magnetite, 11. Malachite, 12. Marble, 13. Obsidian, 14. Onyx, 15. Opal, 16. Ophiolite, 17. Prase, 18. Phthanite, 19. Quartz, 20. Red sandarak, 21. Sapphire, 22. Serpentine, 23. Steatite, 24. Tourmaline, 25. Zircon

2.10 The presence of gemstones in Greece. (After Chiotis).



2.11 Amethyst from Drama; Green quartz from Serifos. (After Dimou).

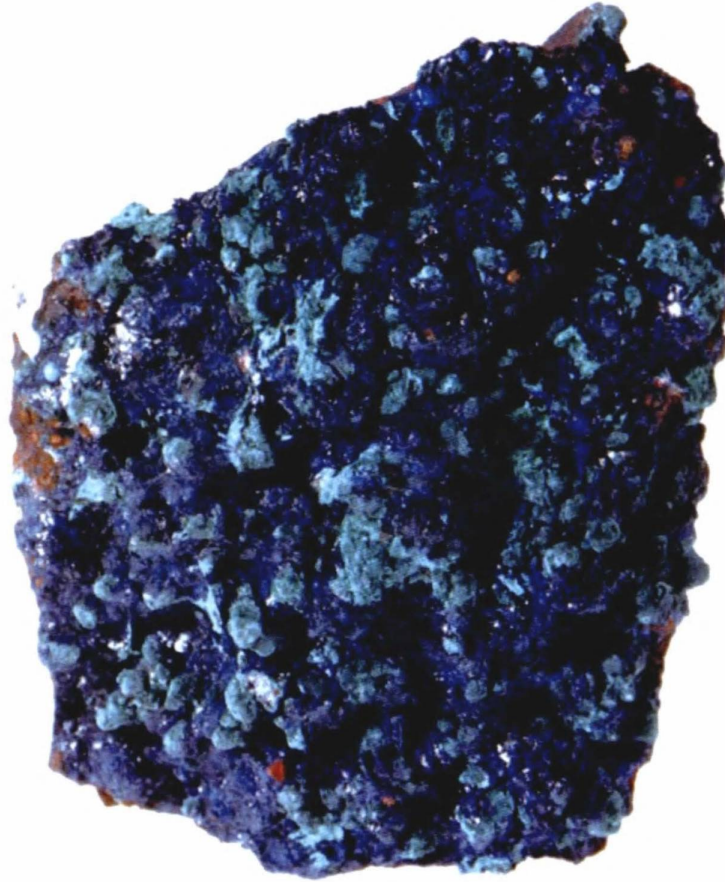


2.12 Azurite from Lavrion. (After Dimou).

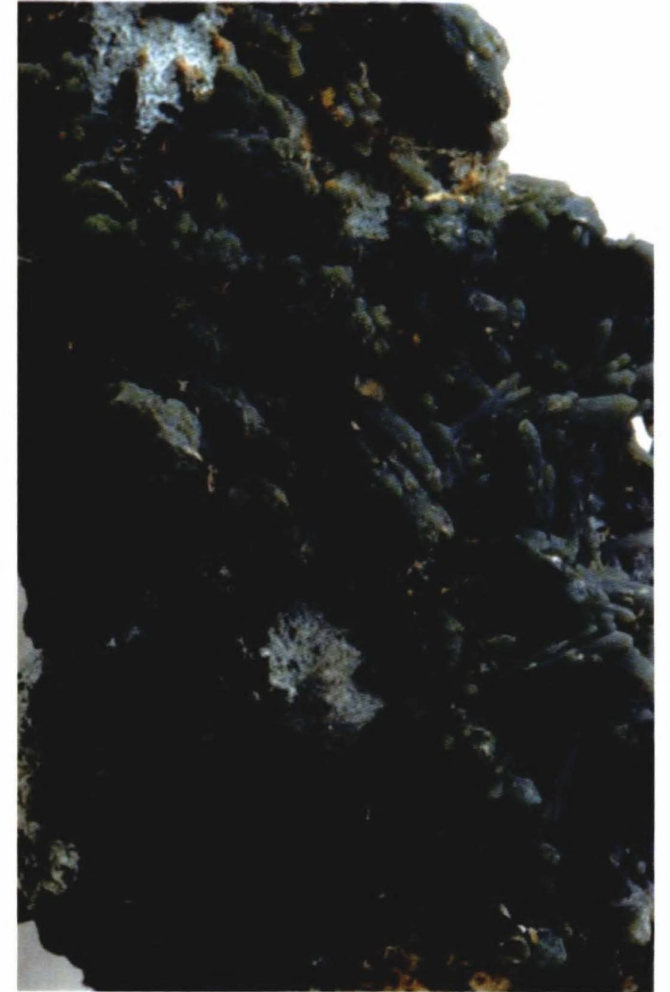




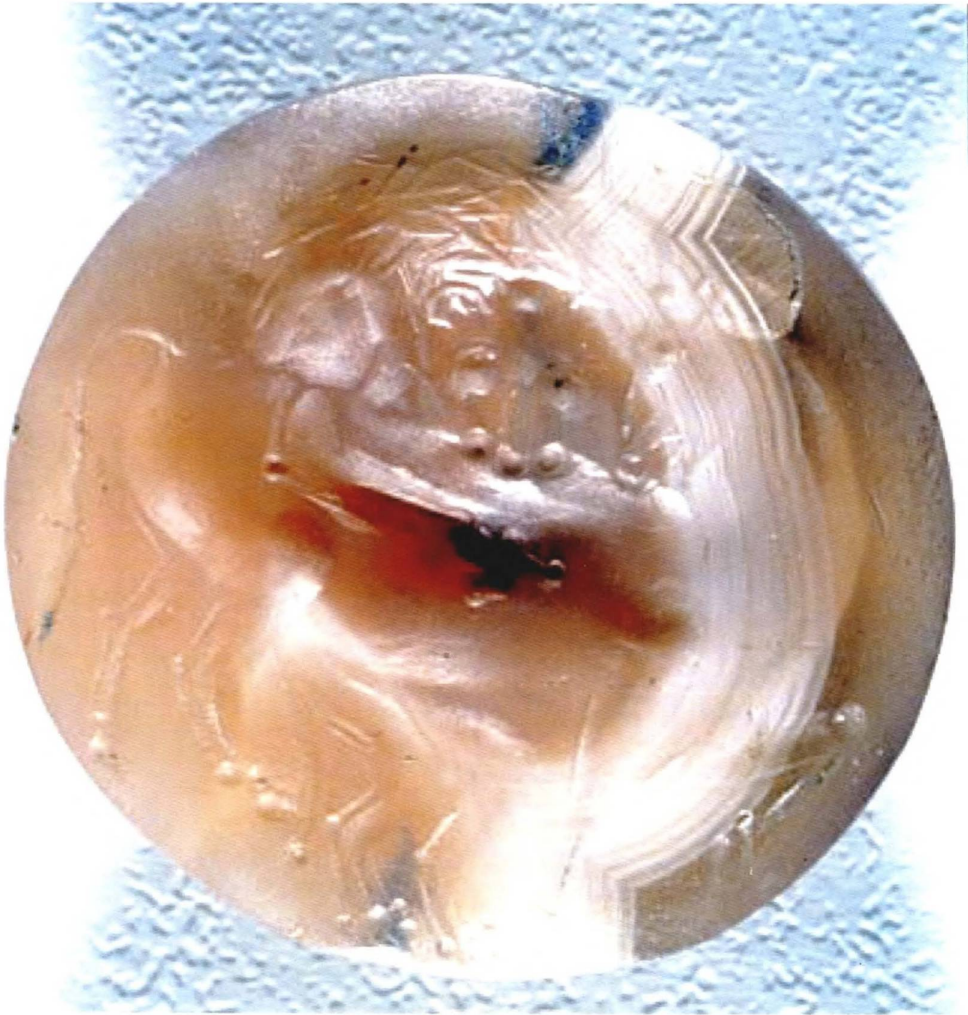
2.13 Garnet from Serifos. (After Dimou).



2.14 Malachite from Lavrion. (After Dimou).



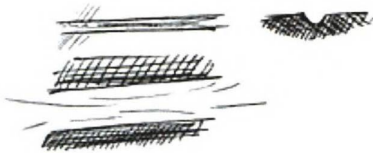
2.15 Green quartz (prase) from Serifos. (After Dimou).



4.1 Agate sealstone from Argos, N.M.A.5587. (After Georgakopoulos).



4.1.1 Mark of the traces at the leg joints of the animals. (After Goumas).



4.1.2 Mark of the traces at the thighs and shins of the animals and the mane of the lion. (After Goumas).

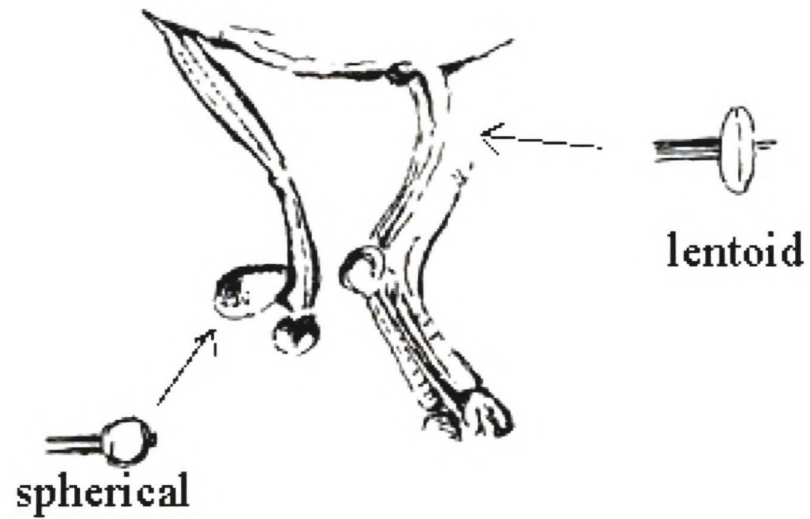


4.1.3 Mark of the traces at the neck of the bull. (After Goumas).

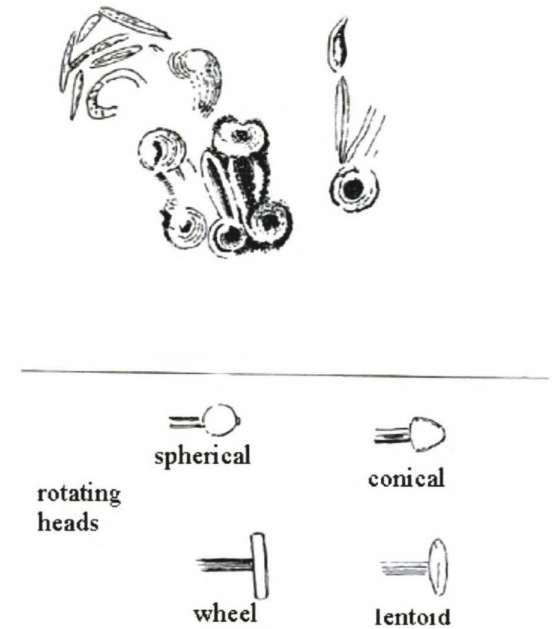


4.1.4 Mark of the traces in the stringhole. (After Goumas).

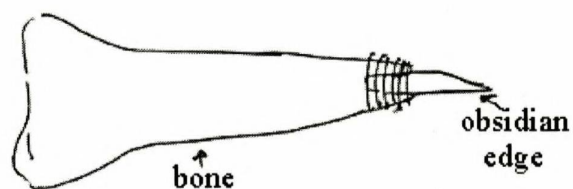




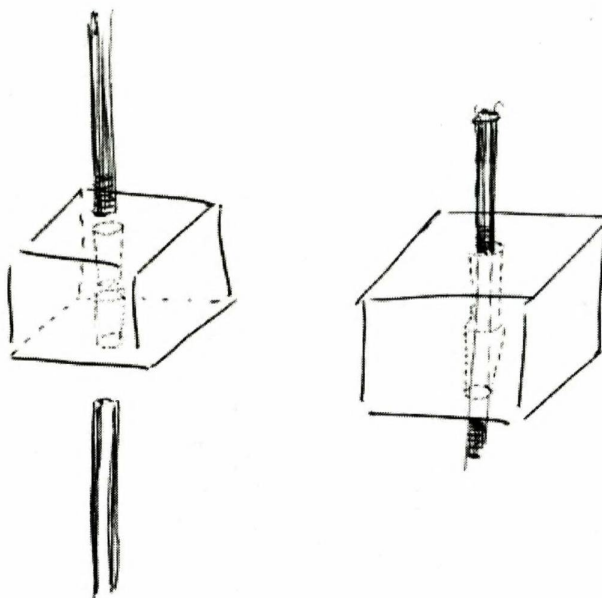
4.1.5 Figure of traces at the leg joints (After Georgakopoulos); sketch of traces at the leg joints made of spherical and lentoid head tool. (After Goumas).



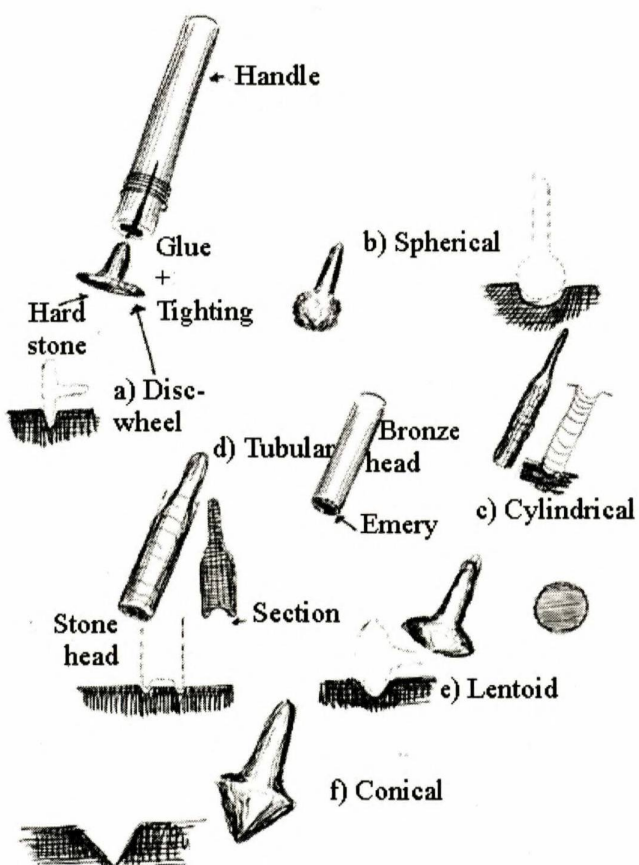
4.1.6 Figure of traces at the mane. (After Georgakopoulos); sketch of traces at the mane. (After Goumas).



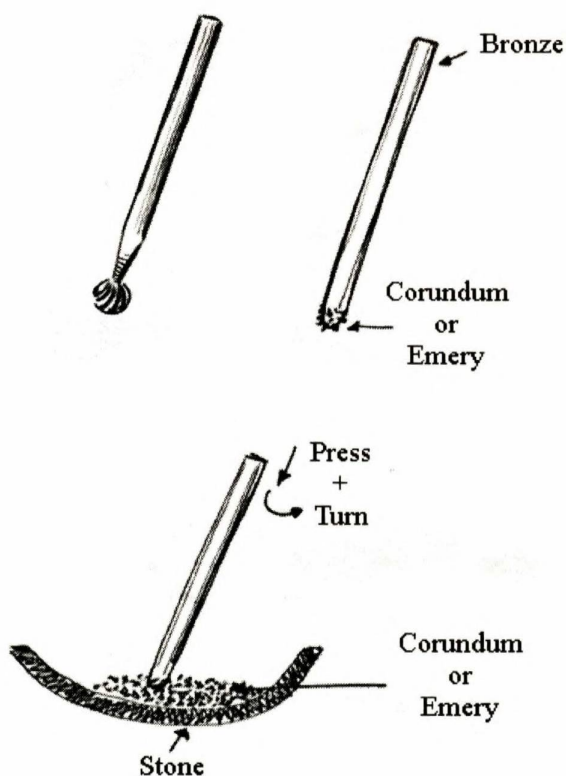
4.2 Sketch of a hand held tool. (After Goumas).



4.3 Sketch of perforation of sealstone N.M.A. 5587. (After Goumas).



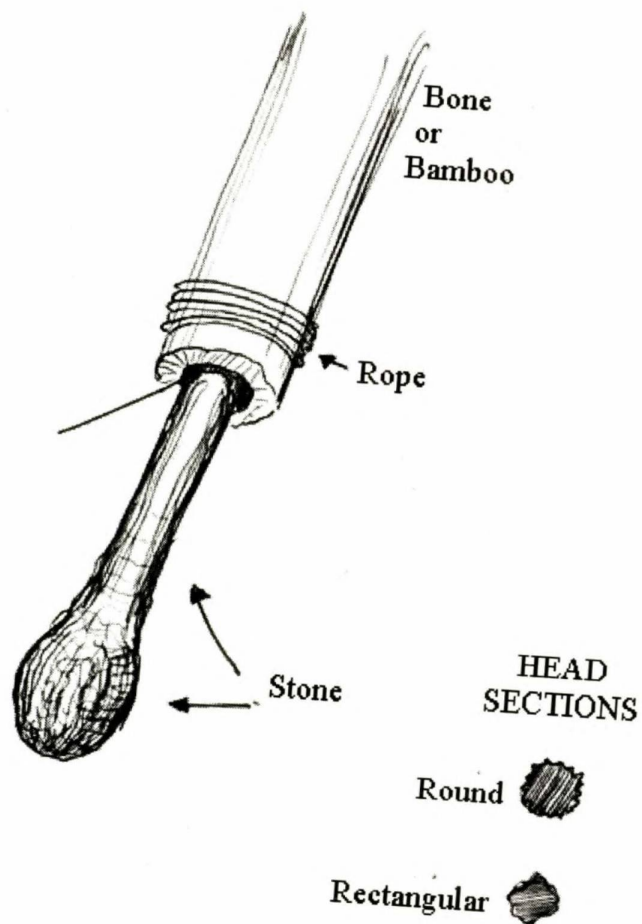
4.4 Sketch of rotating heads: a) disc-wheel; b) spherical; c) cylindrical; d) tubular; e) lentoid; f) conical. (After Goumas).



4.5 Sketch of abrasion. (After Goumas).



4.6 Sketch of the patterns of wear made by a bow-drill. (After Goumas).



4.7 Sketch of tool with rotating head. (After Goumas).



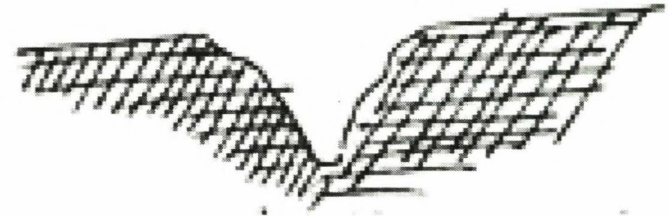
4.8 Sketch of traces left by a tool with rotating head. (After Goumas).



4.8.1 Sketch of traces left by a hand held tool. (After Goumas).



4.9 Haematite sealstone from Midea, N.M.A. 8771. (After Georgakopoulos)



4.9.1 Mark of tooling traces by an unstable rotating head. (After Goumas).

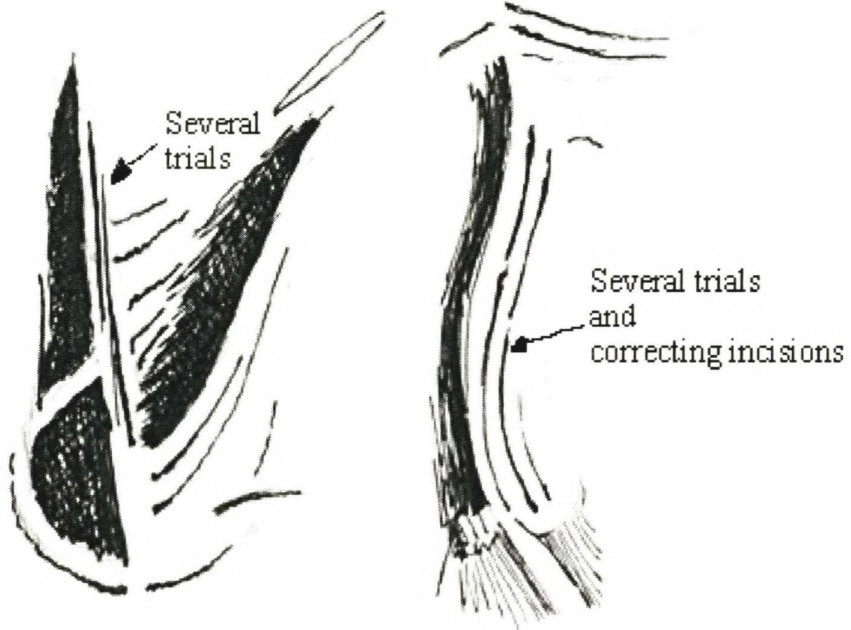
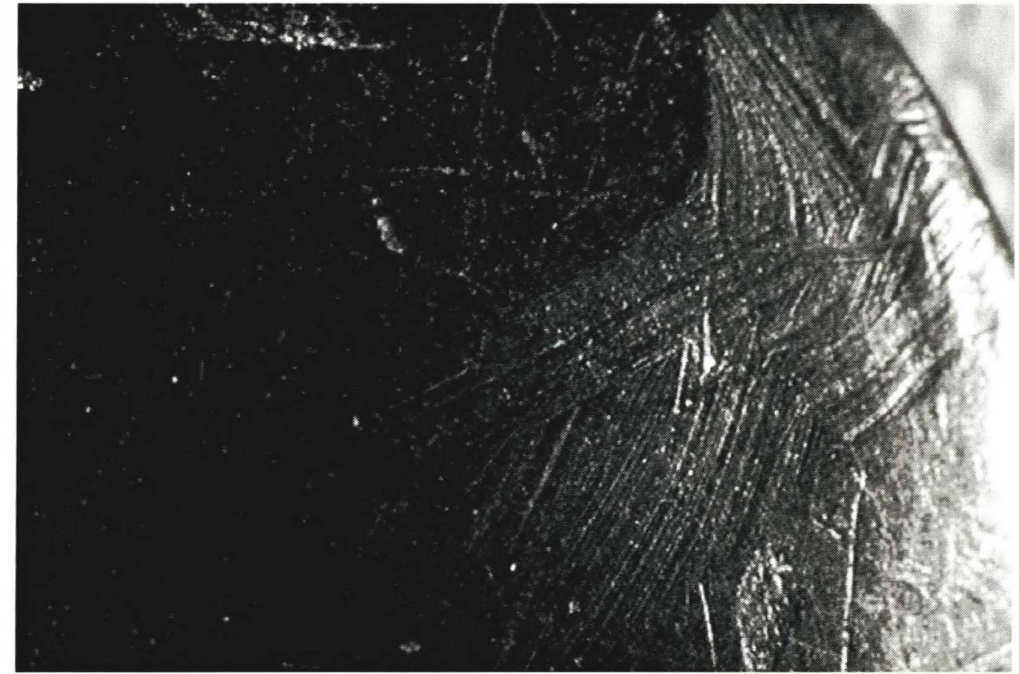


4.9.2 Mark of tooling traces by a stable rotating head. (After Goumas).

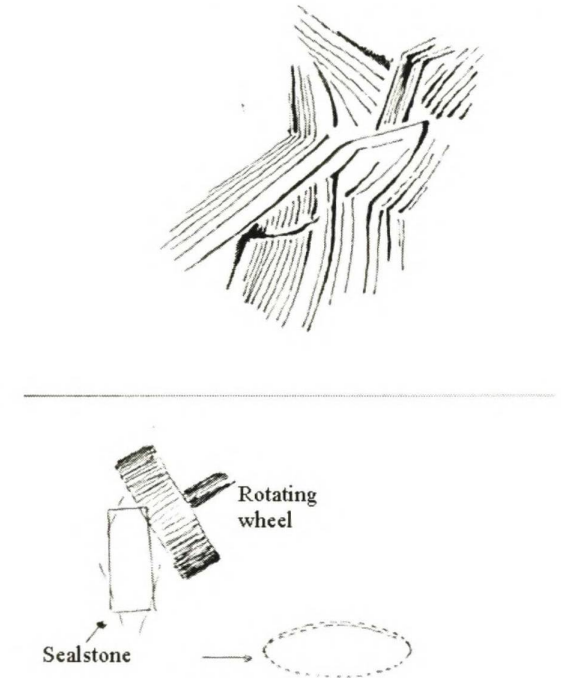


4.9.3 Mark of traces of crossing lines in the blank side of the sealstone. (After Goumas).





4.9.4 Figure of detail of design. (After Georgakopoulos); sketch of traces. (After Goumas).

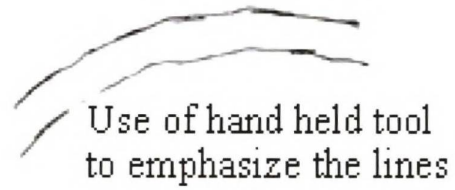
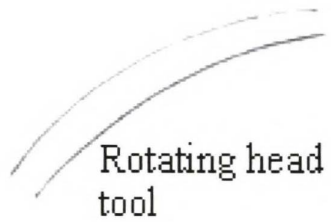


4.9.5 Figure of detail of 8771 sealstone, blank side. (After Georgakopoulos); sketch of traces at the blank side of 8771 sealstone. (After Goumas).

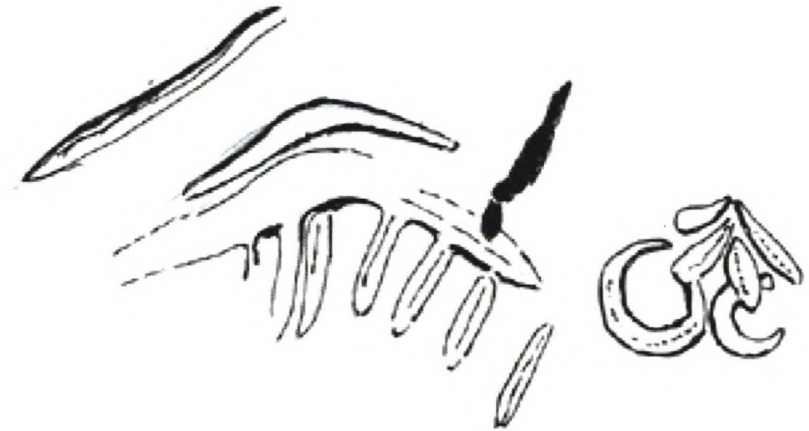




4.10 Carnelian sealstone from Midea, N.M.A. 8770. (After Georgakopoulos).

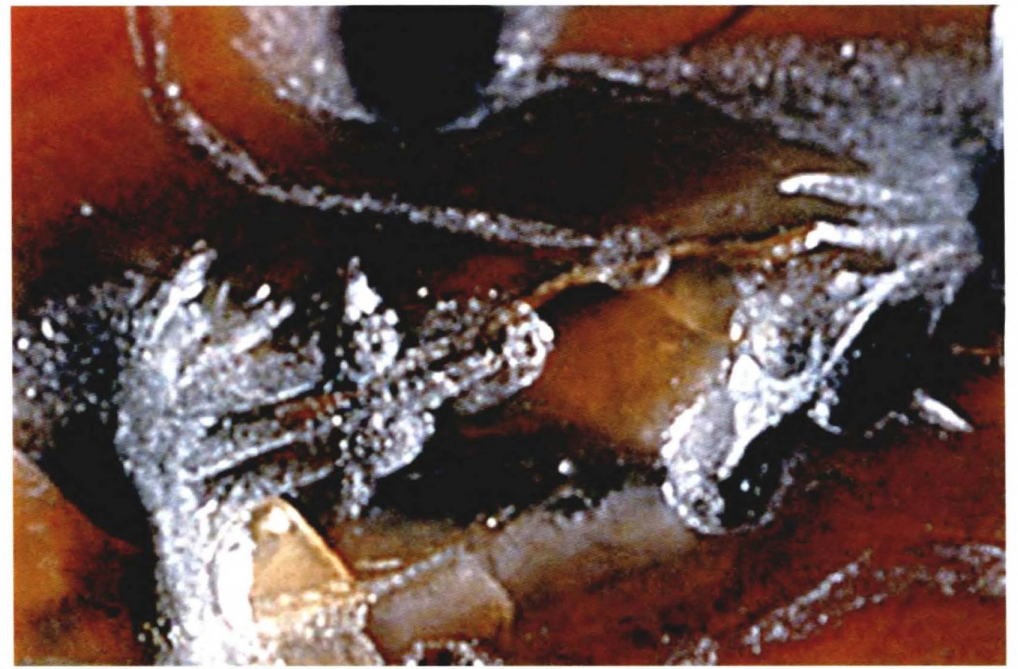


4.10.1 Mark of tooling traces. (After Goumas).

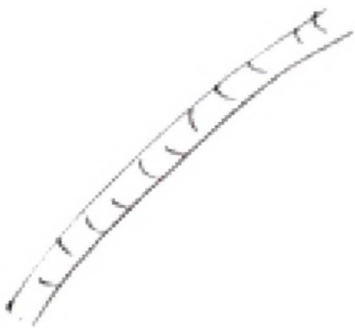


4.10.2 Figure of detail of 8770 sealstone. (After Georgakopoulos); sketch of tool traces. (After Goumas).

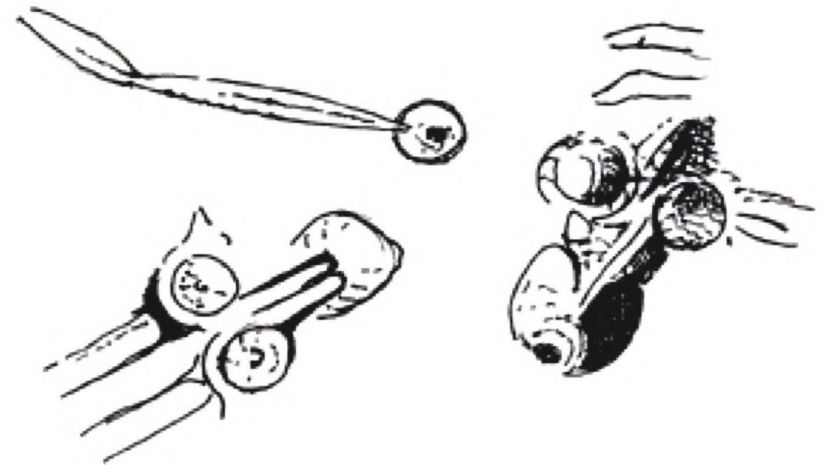




4.11 Agate or carnelian sealstone from Midea, N.M.A. 8769. (After Georgakopoulos).



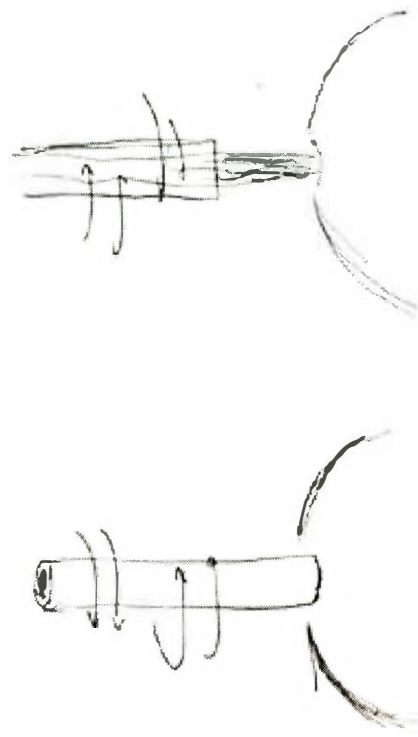
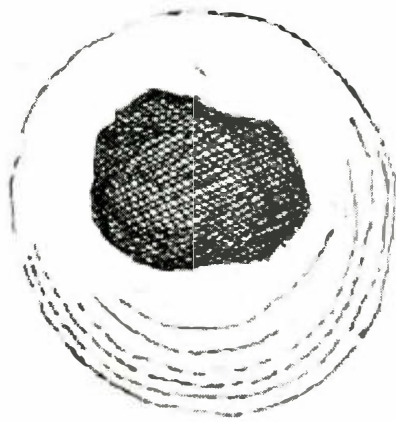
4.11.1 Mark of tooling traces. (After Goumas).



4.11.2 Figure of detail of design. (After Georgakopoulos); sketch of spherical and lentoid rotating heads. (After Goumas).

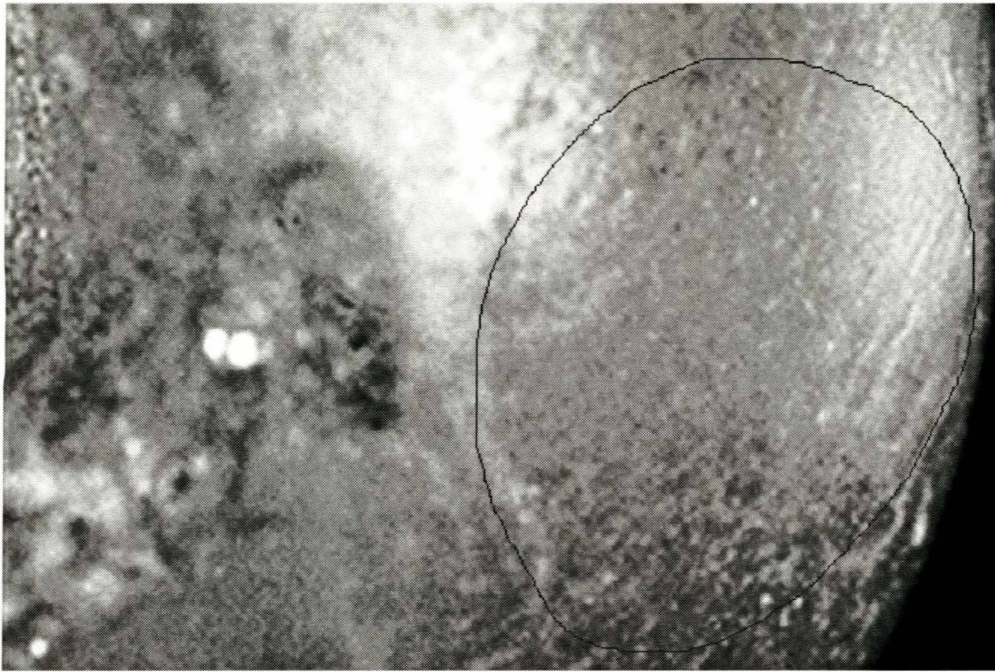


4.12 Perforation hole of rock crystal bead from Prosymna, N.M.A. 13197. (After Georgakopoulos).

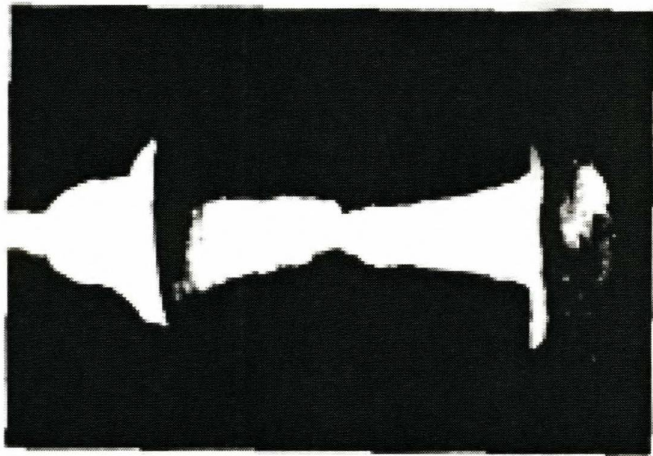


4.12.1 Sketch of the perforation of the hole using a tubular drill. (After Goumas).

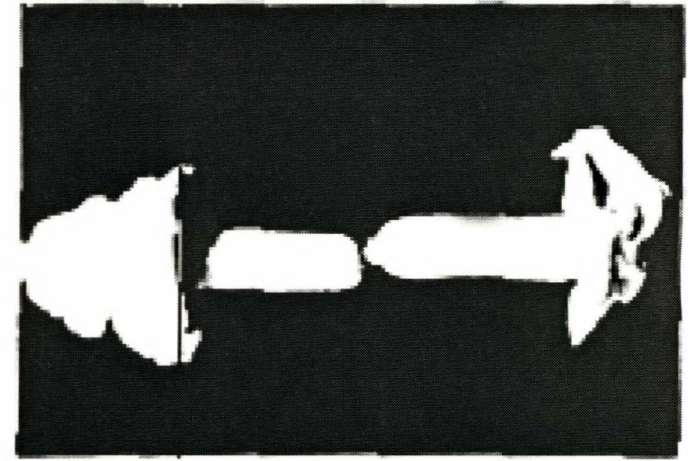




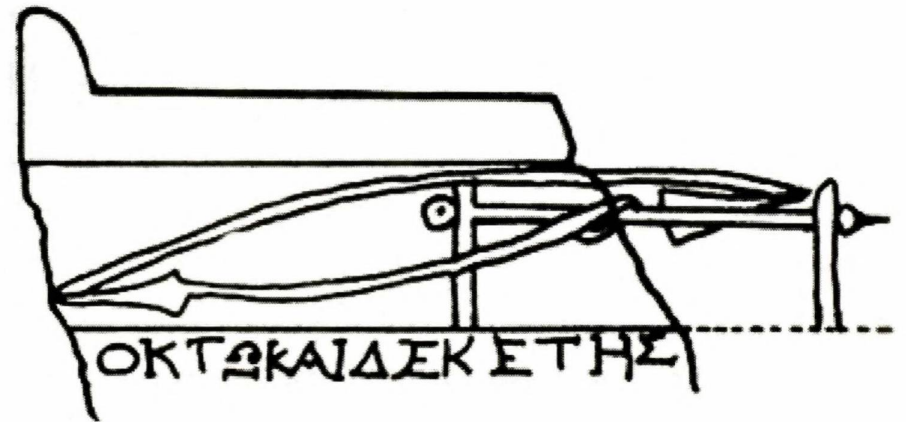
4.12.2 Figure of traces in a circular direction on the surface of bead N.M.A.13197. (After Georgakopoulos).



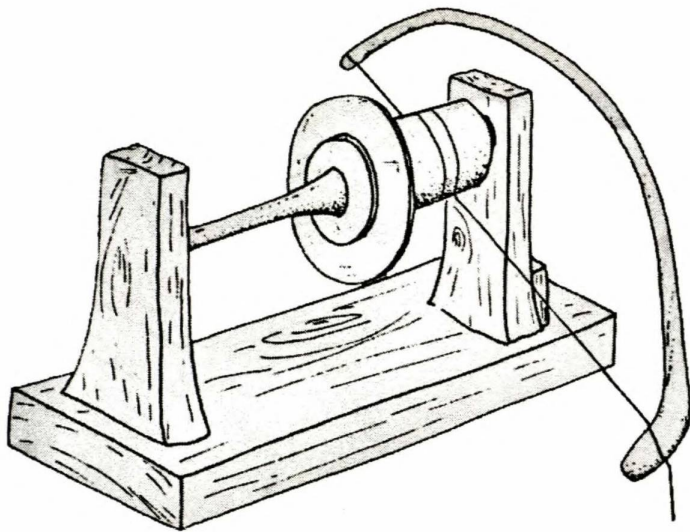
4.13 Perforation of marble cylinder seal from Diyala in Mesopotamia, 3200-3000 B.C. (After Gorelick and Gwinnet 1989: fig. 4).



4.13.1 Perforation of haematite cylinder seal from Diyala in Mesopotamia, 1800 B.C. (After Gorelick and Gwinnet 1989: fig. 7).



4.14 Bow drill. (After Younger 1981: fig. 2).

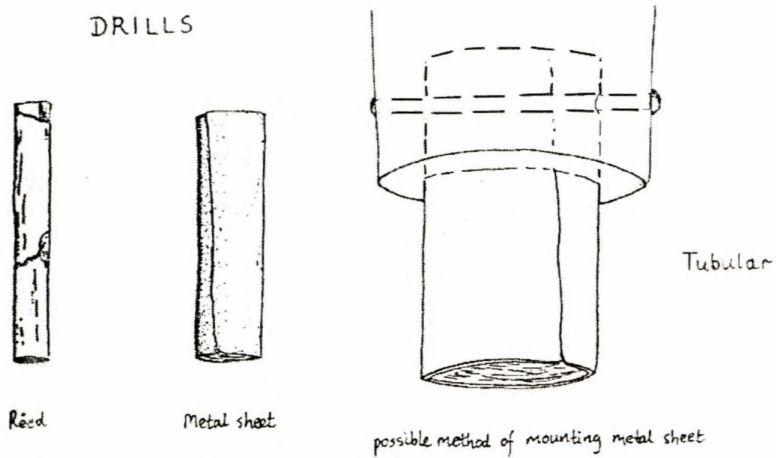


4.15 Cutting wheel. (After Evely 1979: fig. 70).



4.17 Working-heads made of phthanite from Mundigak at Afghanistan, 2600 B.C. (After Jarigge 1985: fig. 1).

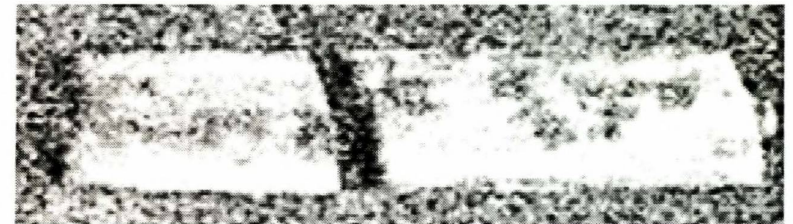
#### DRILLS



4.16 Drills. (After Evely 1979: fig. 18).



4.17.1 Copper drill from Mundigak at Afghanistan, 2600 B.C. (After Jarigge 1985: fig. 2).



4.17.2 Lapis lazuli bead from Mundigak at Afghanistan, 2600 B.C., perforated by the copper drill of fig. 4.17.1. (After Jarigge 1985: fig. 4).

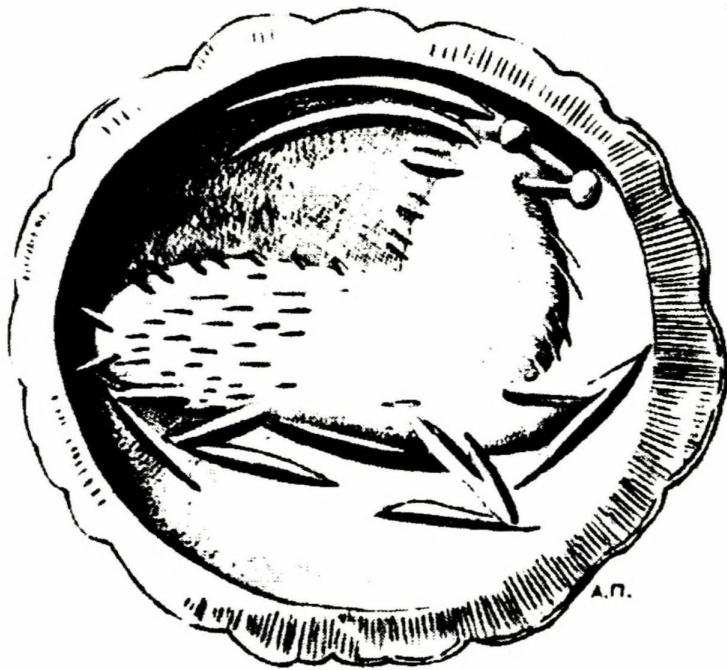




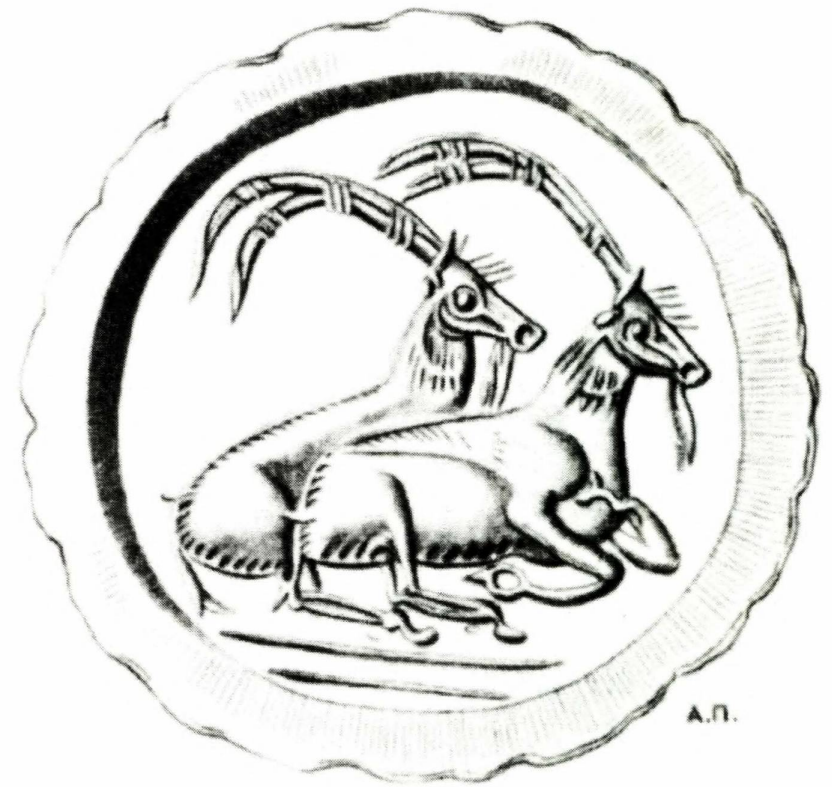
5.1 The scribe Anni, addressing the god Anubis, is holding a necklace of coloured beads with his left hand. (After Budge 1923: 137).



5.2 Mycenae, carnelian sealstone. (After Sakellariou 1964: fig. 139).

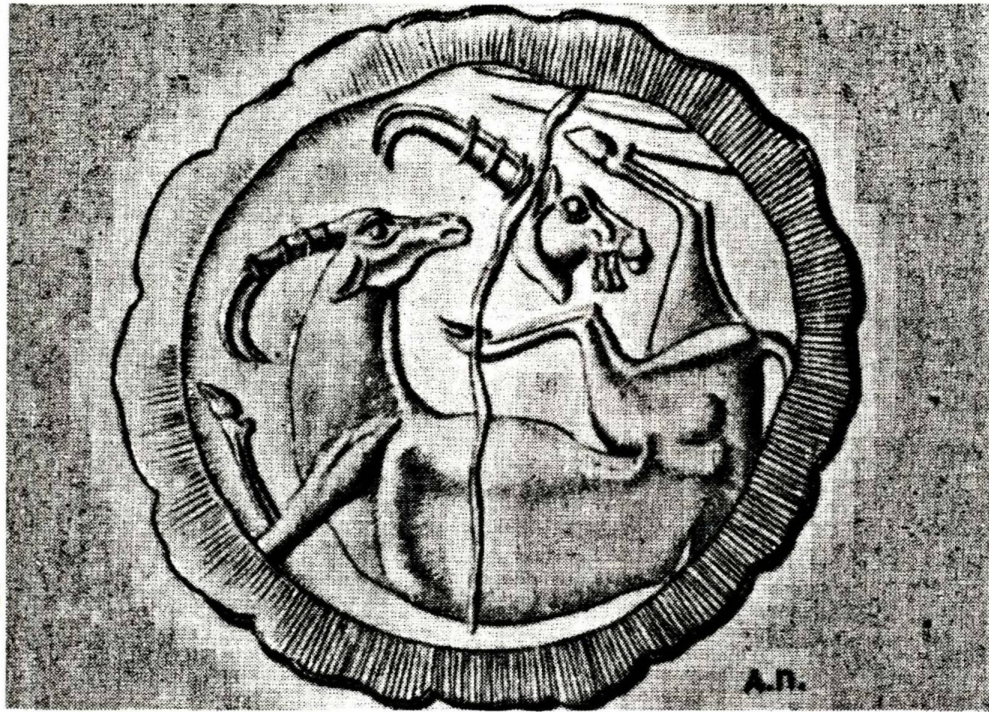


5.3 Mycenae, carnelian sealstone. (After Sakellariou 1964: fig. 158).

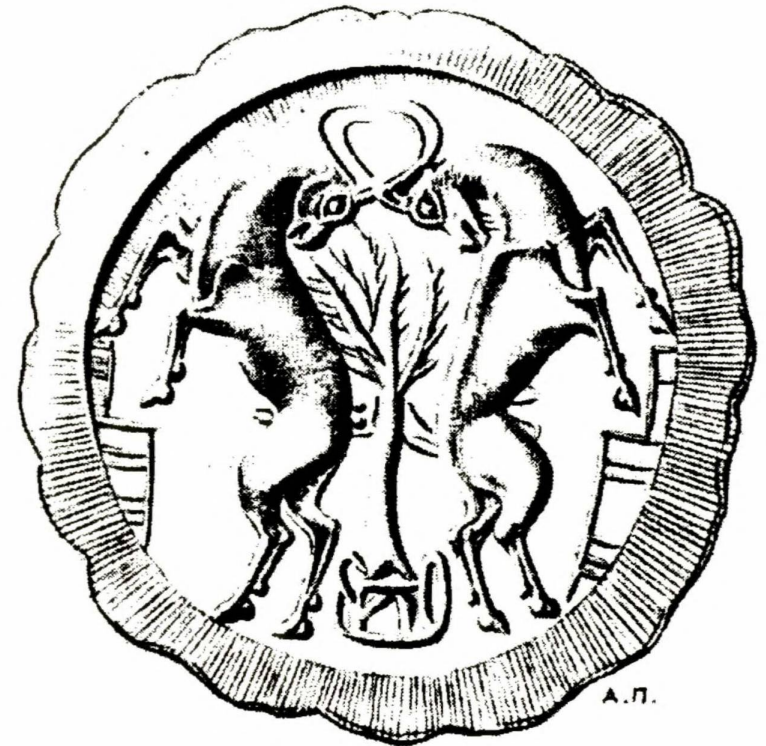


5.4 Midea, agate sealstone. (After Sakellariou 1964: fig. 193a).

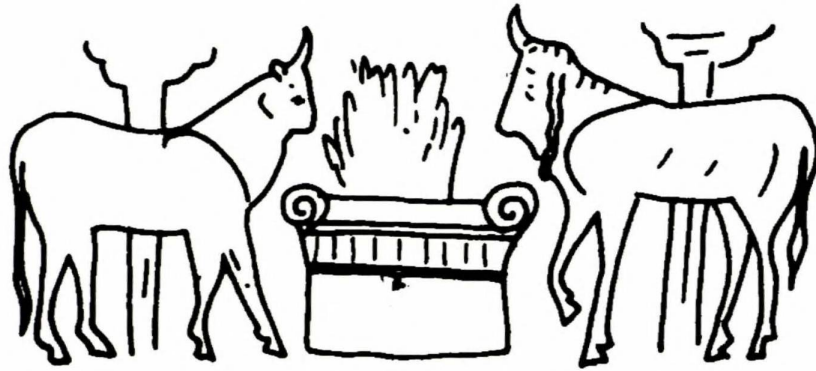




5.5 Perati, opal sealstone. (After Sakellariou 1964: fig. 393).



5.6 Mycenae, onyx sealstone. (After Sakellariou 1964: fig. 123).

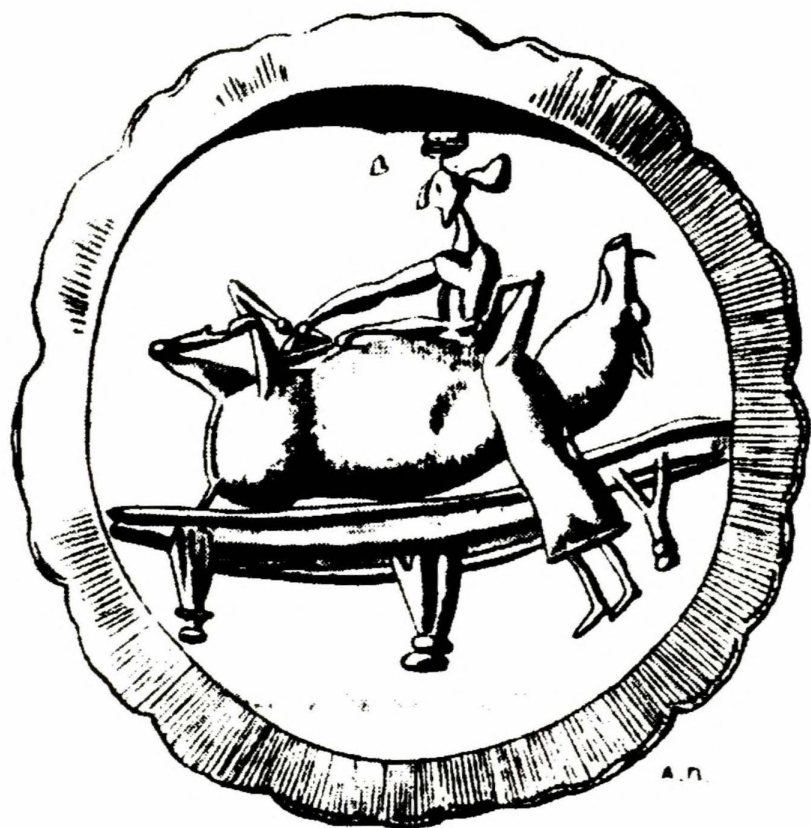


5.7 Design from lekythos. Amsterdam, Allard Pierson M. 8196. (After Nathan 1984: fig. 79).



5.8 Design from lekythos. Athens Agora P24067. (After Nathan 1984: fig. 79).





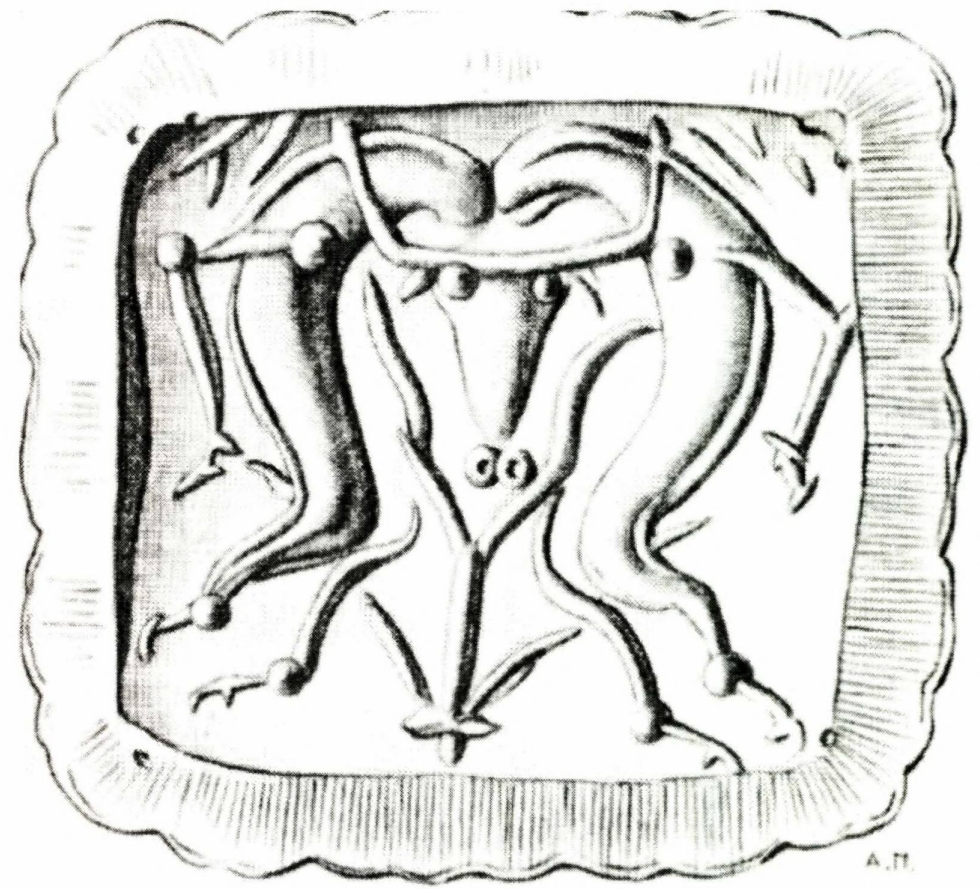
5.9 Mycenae, agate sealstone. (After Sakellariou 1964: fig. 80).



5.10 Mycenae, carnelian sealstone. (After Sakellariou 1964: fig. 144).



5.11 Mycenae, carnelian sealstone. (After Sakellariou 1964: fig. 145).



5.12 Asine, agate sealstone. (After Sakellariou 1964: fig. 198).





5.13 Pylos/Tragana, jasper sealstone. (After Sakellariou 1964: fig. 266).



5.14 Pylos/Routsi, carnelian sealstone. (After Sakellariou 1964: fig. 279).

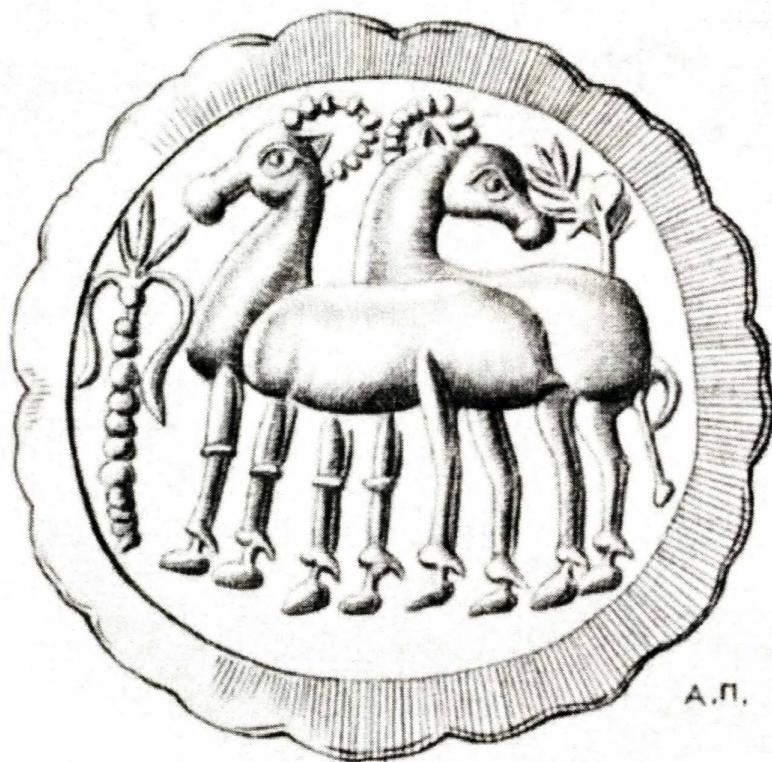


5.15 Mycenae, steatite sealstone. (After Sakellariou 1964: fig. 42).



5.16 Mycenae, sardonyx sealstone. (After Sakellariou 1964: fig. 57).





5.17 Mycenae, agate sealstone. (After Sakellariou 1964: fig. 74).



5.18 Midea, jadeite sealstone. Royal Tombs/ Tholos tomb, Pit 1. (After Sakellariou 1964: fig. 118).





5.19 Midea, jadeite sealstone. Royal Tombs/ Tholos tomb, Pit 1.  
(After Sakellariou 1964: fig. 182).



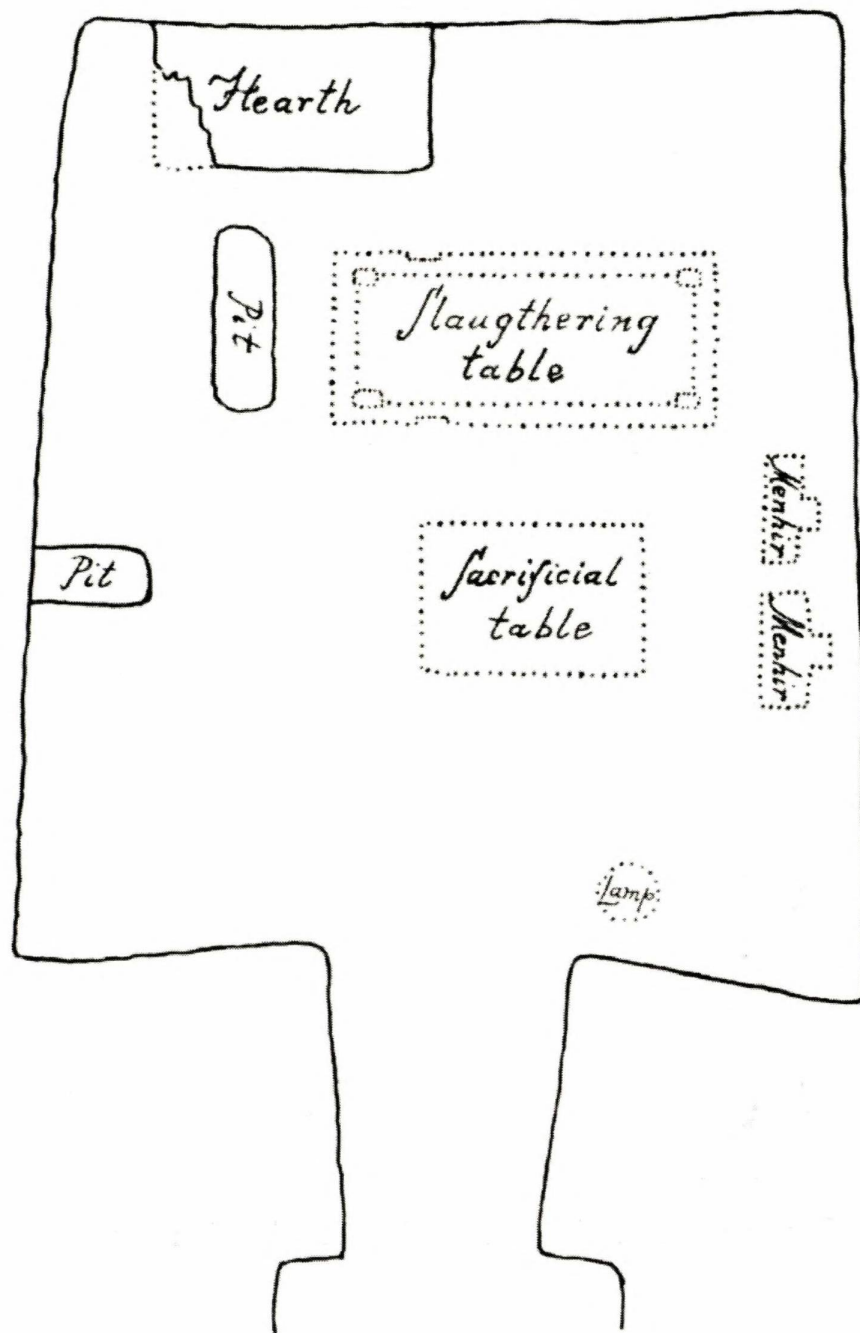
5.20 Midea, jadeite sealstone. Royal Tombs/ Tholos tomb, Pit 1. (After  
Sakellariou 1964: fig. 187).



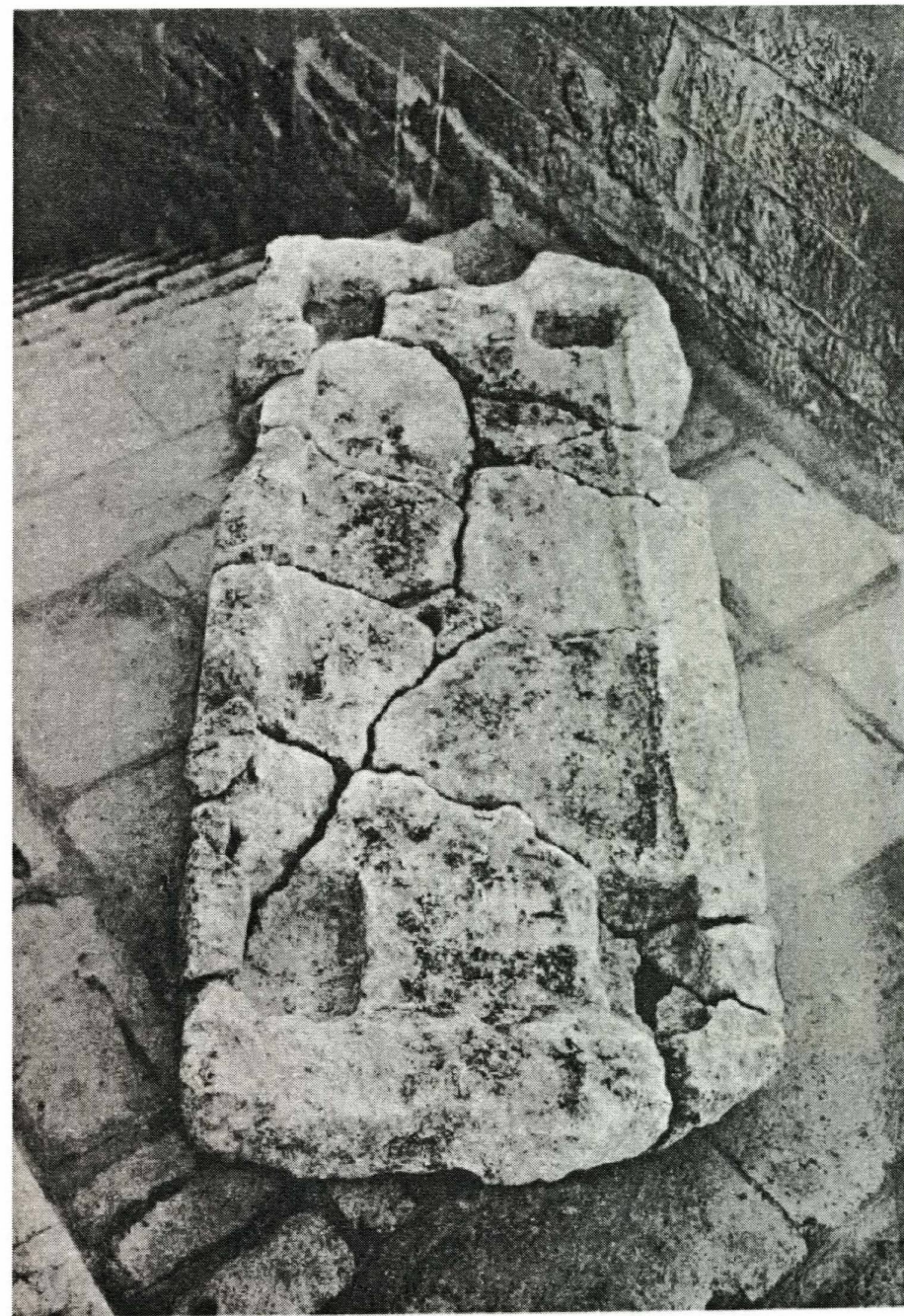


5.21 Midea, carnelian sealstone. Royal Tombs/ Chamber tomb 2. (After Persson 1931: pl. xxviii & xxxiv/3).



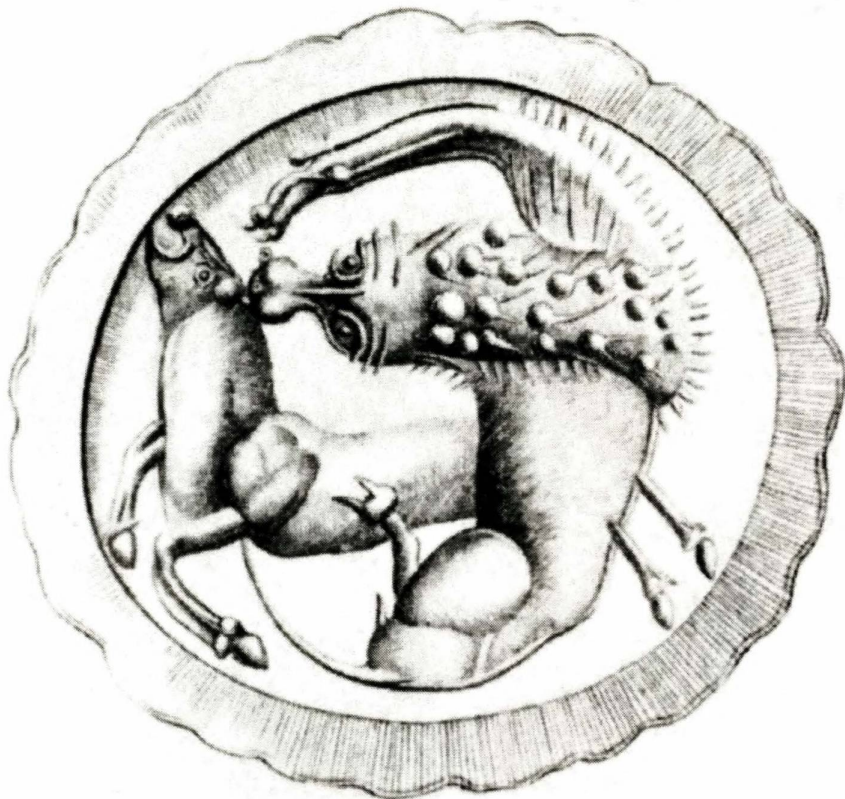


5.22 Midea, diagram of Chamber tomb 2 showing the probable position of the larger objects. (After Persson 1931: fig. 53).



5.23 Midea, slaughter table of poros stone from chamber tomb 2. (After Persson 1931: pl. xxix/2).





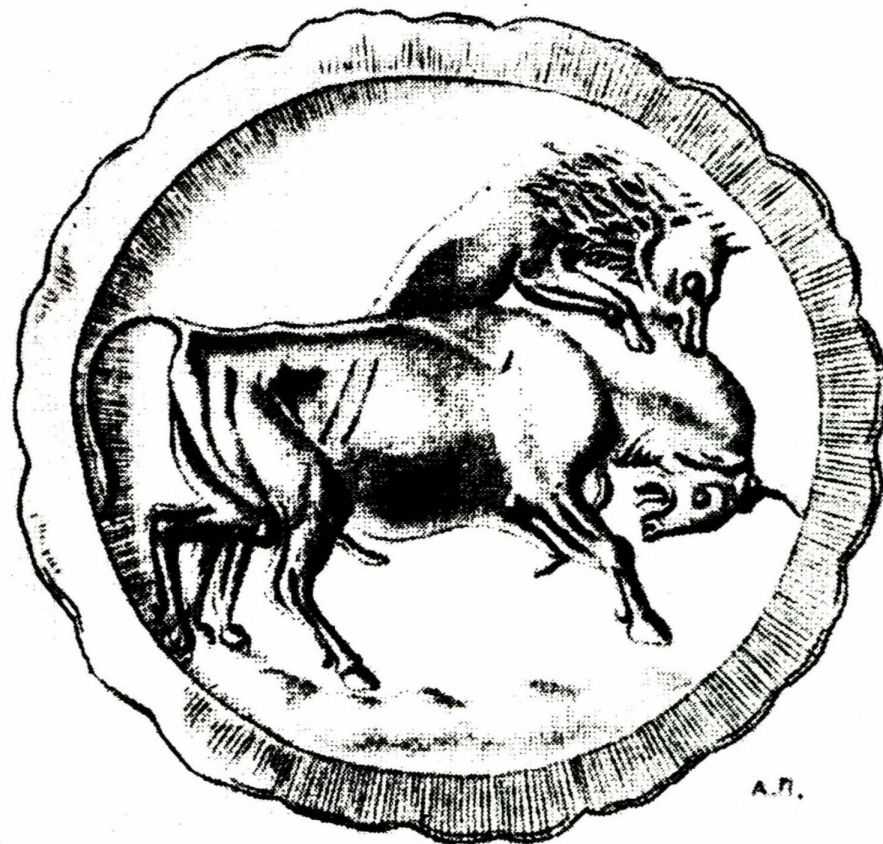
5.24 Mycenae, agate sealstone. (After Sakellariou 1964: fig. 116).



5.25 Midea, onyx sealstone. (After Sakellariou 1964: fig. 185).

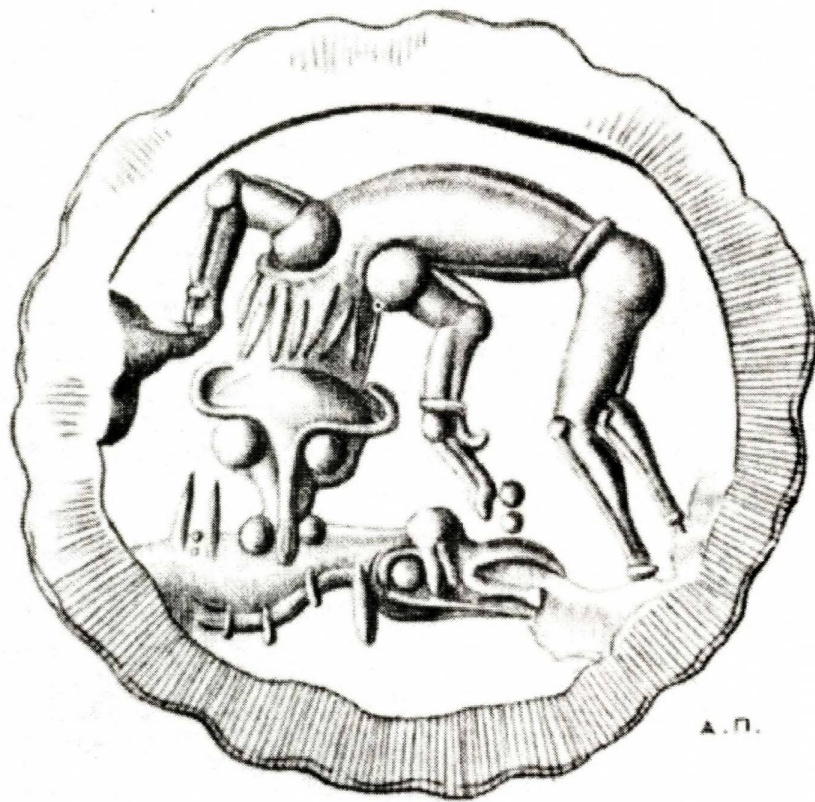


5.26 Midea, agate sealstone. (After Sakellariou 1964: fig. 193b).



5.27 Athens/Vafio, agate sealstone. (After Sakellariou 1964: fig. 252).



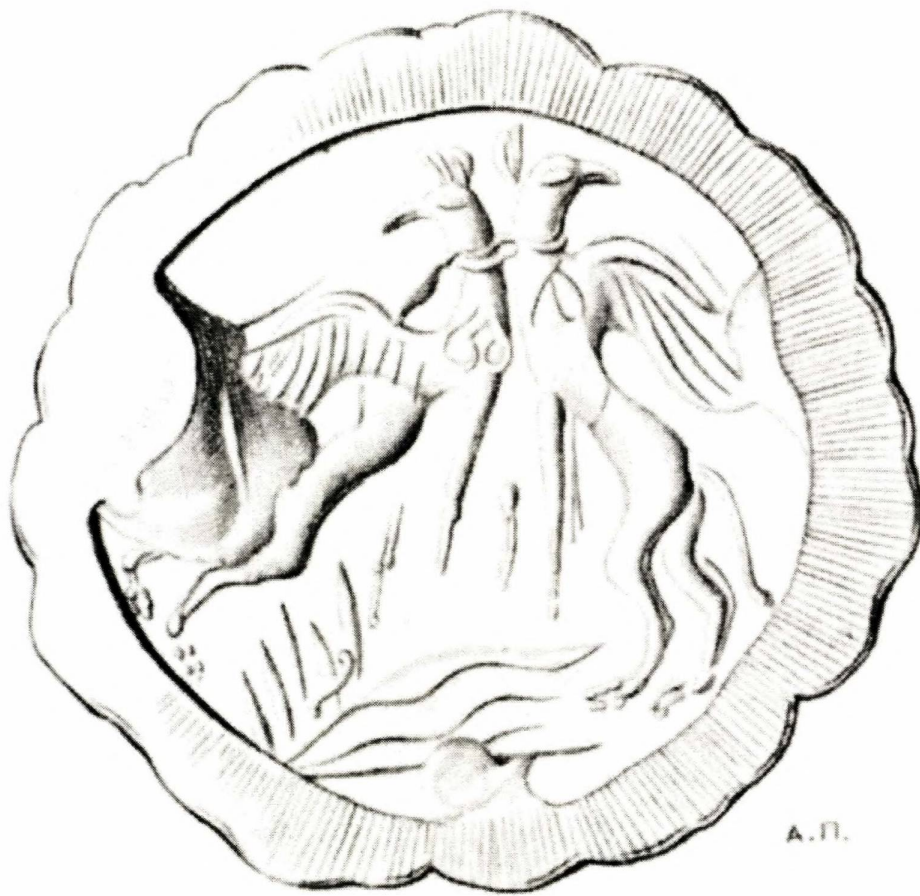


A. Π.

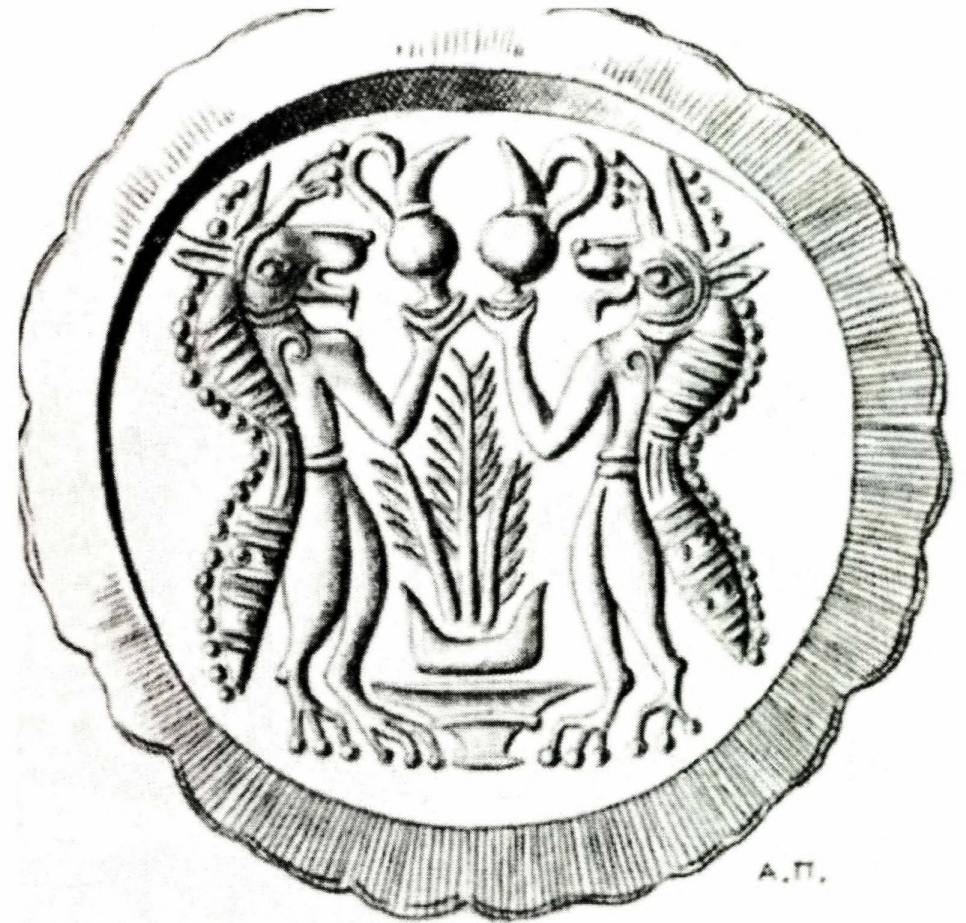
5.28 Mycenae, agate sealstone. (After Sakellariou 1964: fig. 77).



5.29 Mycenae, agate sealstone. (After Sakellariou 1964: fig. 36).

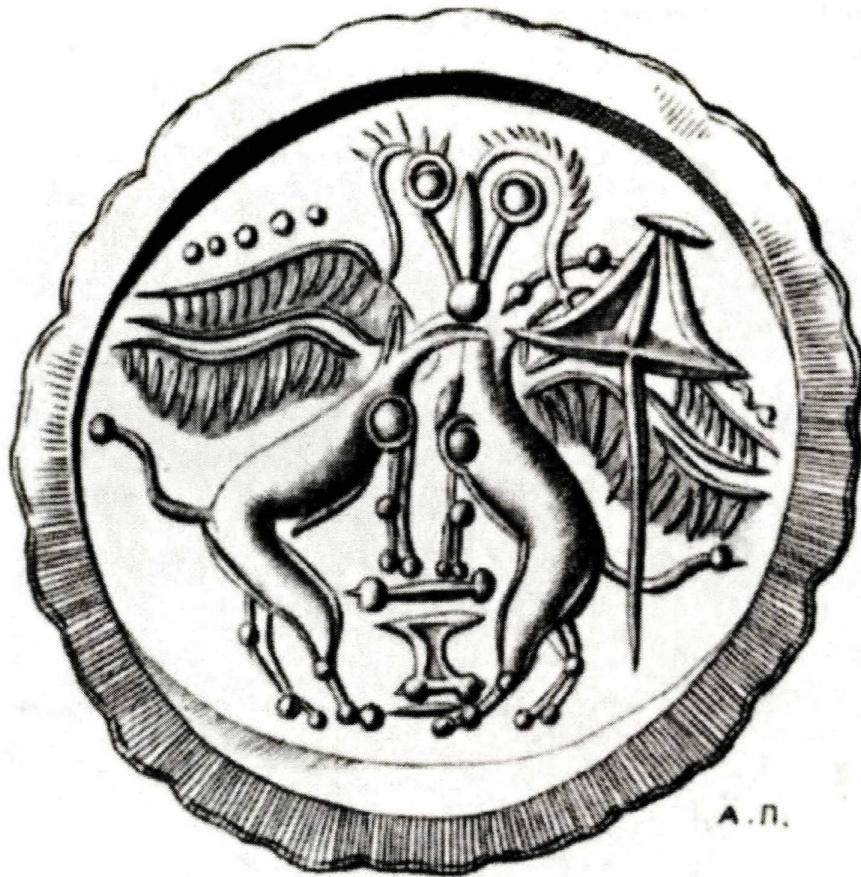


5.30 Midea, carnelian sealstone. (After Sakellariou 1964: fig. 196).



5.31 Vafio, agate sealstone. (After Sakellariou 1964: fig. 231).





Α.Π.

5.32 Mycenae, sardonyx sealstone. (After Sakellariou 1964: fig. 73).



Α.Π.

5.33 Mycenae, agate sealstone. (After Sakellariou 1964: fig. 98).





5.34 Mycenaean Lady, Fresco. (After Mylonas 1983: fig. 116).



