# The Statuettes and Amulets of Thonis-Heracleion

## Volume 1: Analysis

Sanda Sue Heinz

St. Cross College, University of Oxford
Michaelmas 2013

A Thesis Submitted for the Degree of Doctor of Philosophy, Archaeology
Word Count: 80,000 words, including text and footnotes,
excluding catalogue, appendices, and bibliography

**Sanda Sue Heinz**
**St. Cross College, University of Oxford**
**DPhil, Archaeology**
**Title: The Statuettes and Amulets of Thonis-Heracleion**

## Abstract

*This study catalogues and analyses 329 statuettes and amulets from Thonis-Heracleion, a sunken city off the coast of Egypt that flourished between the 7th and 2nd centuries BC. This is the first study of votive statuettes and amulets from the Late and Ptolemaic Periods that presents a comprehensive corpus from a single site, complete with detailed catalogue entries and photographs. Although some of the most exceptional pieces were previously published in an exhibition catalogue, the majority are unpublished and it is the first time they have been studied and viewed as a whole.*

*The material includes not only Egyptian-style bronzes, which are typical dedications of this period, but also a range of other materials including lead, terracotta, faience, and limestone. Some figures are represented in foreign style and attest to a small hellenized community at the site. By viewing multiple categories of votive material laterally and in context, important conclusions about cultural interactions and cult practice at Thonis-Heracleion come to light.*

*Chapter One details the find context of the statuettes and amulets, followed by a discussion of their types and the cults to which they attest in Chapter 2. Chapter 3 outlines the objects' primary functions and demonstrates the ways that lead and bronze were utilised differently. Chapter 4 focuses on bronze and lead production methods, particularly methods of replicable production that are indicative of technological exchange with other Mediterranean cultures. Finally, in Chapter 5, I look at how the votives reflect the cultural community at Thonis-Heracleion, and how they compare to others at sites throughout Egypt. Each chapter highlights how the archaeological context informs us about cultural interactions between Egyptians and Greeks and about the dynamics of cult practice at a Delta site in the Late and Ptolemaic Periods.*

**Acknowledgements**

*I have been fortunate to have the best supervisors, Bert Smith and John Baines. Both of you are so accessible, supportive, PATIENT, and above all you make a fantastic team. Thank you so much for your time and expertise. I am constantly humbled by your dedication to your students and I can never adequately express my gratitude.*

*I would also like to thank Michael Hilti and other members of the Hilti Foundation for funding this project and my thesis in particular. I have had incredible experiences over the last five years — researching new material, participating in fieldwork — all because of your generous support. Many thanks also to Franck Goddio. You allowed me access to rich material and you were always generous with your time on the* Duda *and you challenged us to look at the site and material in new ways.*

*To the rest of the IEASM team — David, Catherine, Bernard, Olivier, and Marie, I am so grateful for your hard work and help during the field seasons. David, especially, thank you for reading drafts, sending me data, and encouraging me. Yousria and Abd el-Hamid, you welcomed us to the museum but also into your family. You are our friends and I treasure our days at the depot, and an Eid that I will never forget. A very special acknowledgement must also go to Zizi Luxor. Zizi took pride in her work and city. She was such a vibrant personality and Alexandria will not be the same without her.*

*Thank you to my Oxford family. Collectively you made my time at Oxford among the best years of my life. To the original crew — Candace, Matt, Karen, Ferdinando, and Katia — thank you for the long library days and even longer laughs as we grew up together in Oxford. Henry and Andrew, thanks for those epic and at times death-defying dinners. Victoria and Brian, breakfast jokes and coffee therapy at good old Mill Street were always the best way to start the day. And thank you especially to Candace and Tyler. Without you these last few years would not have been possible. And to the Wheatley friends, Jeff, Mags, and Freddy, for those Sunday roasts and Omani swims.*

*To the Oxford/Hilti crew — Elsbeth, Emma, Damian, and Andy. I love that you enjoy Thonis-Heracleion the same way I do, and most of all, you have made this experience fun. Elsbeth, you above all have been such a huge source of support. We've been through a lot together, and I probably would have gone completely crazy without you. The tea breaks and Skype chats were especially key. I think we can say that OCMA's little social experiment succeeded beyond all expectations. You will forever be my dive buddy no matter where in the world we end up!*

*To my family, thank you for putting up with those 'working vacations' and too-short visits home. Mom and Dad, I could not have done this without you. You have always been there for me and have always put me first. You are such amazing, caring people. Thanks for encouraging me to challenge myself even if it meant letting me go halfway across the world. Grandpa, thank you for teaching me to always work hard and persevere - your threats/promises to call my teachers and demand more homework for me had the desired effect...eventually. I only wish Grandma could have seen me submit since she is so much a part of who I am today, but I know you will tell her all about it.*

*And finally, my husband, Chris Galletti. You are my best friend and the love of my life. You have seen me through this entire process, step by step, from the very beginning. You kept me going. You probably had no idea what you were getting into when you met me that fateful day in 2008, but I hope it was worth it. I admire you so much. Your passion and drive for what you do, your full embrace of life, inspires me everyday and reminds me of what is important. You are my favorite thing that came out of this thesis although, as you know, Harpokrates is a close second.*

## LIST OF ILLUSTRATIONS

### VOLUME 1

**CHAPTER 3: Form, Function, and Material**

**CHAPTER 4: Production Methods**

**CHAPTER 5: Cultural and Cultic Interactions**

**VOLUME 2**

Cover page: Faience deposit from the north-east corner of the H1 temple zone (left to right): **184, 326, 324, 304, 12, 323, 325, 182**. Photo courtesy of Christoph Gerigk ©Franck Goddio/Hilti Foundation.

All catalogue photos are by the author, except where noted otherwise. All are ©Franck Goddio/Hilti Foundation. For all maps below, the base map was provided by Franck Goddio, and the distributions mapped by the author. Like the photos, all are ©Franck Goddio/Hilti Foundation.

The Statuettes and Amulets of Thonis-Heracleion
Volume 1, Analysis

Table of Contents

# Chapter 1: The Assemblage and its Context

## 1.1. Introduction[1]

Thonis-Heracleion is an ancient harbour town situated at the mouth of the Canopic branch of the Nile in Egypt. It is a sunken city six to seven metres below sea level, approximately six kilometres from the modern coastline of Aboukir Bay and forty kilometres east of Alexandria.[2] The underwater excavations at Thonis-Heracleion offer to archaeologists and ancient historians a trove of finds and information, dated between the 7th and 2nd centuries BC: colossal statuary; a monumental temple; and an entire ancient landscape.[3] The statuettes and amulets are particularly significant for the information they offer concerning dedication practices, patterns of use, manufacture, and cultural interactions at the site. Between 2001 and 2010, the excavators from the Institut Européen d'Archéologie Sous-Marine (IEASM) recovered 329 statuettes and amulets.[4] These figures represent a coherent assemblage from a single site, one of the first to be comprehensively studied from the Late and Ptolemaic Periods in Egypt.

Many studies of Egyptian religion treat less mobile remains, such as temples, reliefs, royal statuary, or texts. Small-scale statuettes and amulets have received less attention. This neglect is not without cause. Thousands of small finds of every material have survived, but the majority reside in museum collections with little definite information regarding their context, function, or date.[5] For this reason, there are still many unanswered questions surrounding the widespread manufacture, use, and dedication of statuettes and amulets in Egypt during the Late and Ptolemaic Periods.

The primary aim of this thesis is to present the Thonis-Heracleion statuettes and amulets in full for the first time, and to address some of these questions. This thesis

---

[1] I have written three articles based on my thesis material. The first (Heinz 2011) draws primarily from Chapter 2 (typological sections) and the latter half of Chapter 3 ('Material Choice). The second and third are in review. The second concerns aspects of bronze casting from Chapter 4 and the third relates primarily to comparisons with Naukratis, from Chapter 5. These articles are attached in Appendix 13.

[2] Goddio and Fabre 2008, 45. Depth: Stanley *et al.* 2007, 47.

[3] Thonis-Heracleion monographs, theses, and catalogues: Goddio and Clauss 2006; Goddio 2007; Stanley *et al.* 2007; Stolz 2007; Goddio and Fabre 2008; Robinson 2008; von Bomhard 2008, 2012; Thiers 2009; Libonati 2010; select articles in Robinson and Wilson 2010, 2011; van der Wilt in preparation.

[4] Excavation continues and with each season, new finds are discovered. This thesis examines all statuettes and amulets discovered between 2000 and 2010. For IEASM and Thonis-Heracleion, see http://www.ieasm.org/sites.php?lang=fr&area=egypte&site=heracleion&part=1/3.

[5] For contextual problems associated with bronzes, see Hill 2001, 203; 2004, 3; Schulz 2004. For terracottas, see, for example, Nachtergael 1985, 224.

comprises two volumes: the analysis (six chapters) and the catalogue. In the analysis, I present the assemblage as a whole in order to distill its defining characteristics as well as to communicate the ways in which the material reveals new information regarding the inhabitants of the city, and how it relates to other extant material from Egypt.

One of the main benefits of the Thonis-Heracleion material is that it does have a context and therefore the material can be viewed laterally, across media. Statuettes are frequently divided into categories such as bronze and terracotta and are, for the most part, studied in separate catalogues with little reference to each other.[6] Amulet studies are more comprehensive and they consider the range of materials used to make amulets, but the amulets are still frequently dissociated from other religious artefacts.[7] At Thonis-Heracleion, because the objects are contextualised and the assemblage is a manageable size, we may examine the materials together. To some extent, a general theme throughout the text is context itself – how can the Thonis-Heracleion material, through its context, challenge or develop current theories about the use and deposition of votives in Egypt at this time, and what can it say about life in this lost city? In its own way, each chapter addresses this question of context and its implications.

In Chapter One, I describe the general character of the assemblage, as well as its archaeological context and chronology. Chapter Two focuses on iconographic subject types and concludes with a discussion about the cults at Thonis-Heracleion. Detailed description, comparanda, and bibliography for individual objects are reserved for the catalogue. For reasons discussed in greater depth below, it is difficult to date many of the statuettes and amulets on the basis of iconography or stylistic techniques, particularly the Egyptian-style objects. For these reasons, the archaeological context of each object is in the provenance section of the catalogue. I discuss more general conclusions regarding chronological trends either in context of the entire site in Chapter One or by subject type in Chapter Two.

Chapter Three addresses the functions of the objects, and how their subject types and functions relate to the material from which they were crafted (lead, bronze, terracotta, faience). Why were certain types of materials used in lieu of others? What connotations do particular materials have that made them suitable for statuettes or

---

[6] For example, for bronzes, see Roeder 1937, 1956. For terracotta, see Bailey 2008. As a general difficulty in votive studies: Osborne 2004, 3-4.

[7] For example, see Petrie 1914 or Andrews 1994. Andrews 1994, 100-106 describes the significance of many of the materials.

amulets? Chapter Four examines the manufacturing processes of the lead and bronze figures, and how evidence from the site relates to current discussions concerning mass production and replication.

Chapter 5 sets the corpus in the context of other finds from Thonis-Heracleion and in the rest of Egypt. In the first half of the chapter, I address issues of cultural interaction and foreign presence at the site, as they are or are not visible in the material. The second part of the chapter takes a wider view and looks at the Thonis-Heracleion assemblage in light of other statuette deposits throughout Egypt, addressing questions of cult and dedicatory practice.

The catalogue complements and aids the analysis; it presents each individual figure, complete with a photograph, measurements, context information, conservation status, a thorough description, and comparanda and bibliography where appropriate. The objects are organised by type with individual catalogue numbers. All of these objects have alternative excavation numbers that are designated by an 'H' (for example, H8001), while about 30% also have Supreme Council of Antiquities (SCA) numbers. A concordance of my catalogue numbers, the Thonis-Heracleion numbers, and SCA numbers is provided in Appendices 1-3. Seventy-four of the SCA objects have been preliminarily published in a catalogue related to an exhibition of the artefacts discovered by IEASM in underwater excavations at three locations: Alexandria harbour, East Canopus, and Thonis-Heracleion.[8] Another newer find (**122**) was published in a separate article.[9] These objects are referenced in the catalogue bibliographies where appropriate. Select iconographic types were highlighted in an article about the lead statuettes and amulets.[10] The remaining statuettes and amulets are currently unpublished.

### 1.2. Character of the Assemblage

The statuettes and amulets fall into three main typological divisions: anthropomorphic figures, zoomorphic figures, and inanimate objects. There is also a small number of hybrid subjects that combine anthropomorphic and zoomorphic aspects, such as Bes-images, deities that combine dwarf and leonine features. For this

[8] Goddio and Fabre 2008, 316-323, 338-340, nos 167-206, 208-209, 211-212, 319-333, 345.
[9] Fabre and Goddio 2012.
[10] Heinz 2011 (Appendix 13).

study, I define statuettes as figures 50 cm or less in height, self-supporting or supported by a base, and intended to stand on display. Amulets are smaller and were intended to be worn or easily carried.[11] The majority of the amulets have one or more suspension loops, with the exception of some of the faience amulets.

Of the 329 objects, approximately 55% (179) are bronze, 33% (110) are lead, and 12% (40) are of other materials such as terracotta, faience, and limestone — see Appendix 4 for the corpus broken down by material. The Thonis-Heracleion material is not perfectly representative. Even under ideal conditions in a dry environment, some categories of votives such as wood, cloth, unfired clay, and edibles are more likely to degrade. Moreover, for reasons related to preservation, as well as excavation retrieval practices, which I discuss in more detail in Chapter 3, the material is heavily weighted towards metal finds. Although I discuss the patterns that this material presents, it is necessary to recall that the metal artefacts, which now comprise the majority, would have been part of a larger and more varied group of material and associated practices.

All of these objects are small-scale and have been deliberately fashioned in such a way that they recall a specific form, usually anthropomorphic or zoomorphic. The majority of these artefacts were made deliberately as votives and amulets.[12] For the most part, their form holds no direct utility except for the symbolism or meaning it transfers to its owner. A few objects acted as appliqués for vessels or as parts of cult equipment; these are discussed in Chapter 3 as well as within individual catalogue entries.[13] Some mundane objects that had primary utilitarian functions may have been repurposed as votives, such as some lead bowls and fishing weights.[14] While many of these are relevant, the lead utilitarian objects are being studied by Elsbeth van der Wilt in conjunction with other lead finds from the site.[15] I therefore focus on the amulets and statuettes, but I draw connections with other materials, particularly the ritual equipment and the lead objects whenever the statuettes and amulets were dedicated with these types of item.[16]

---

[11] The terminology is flexible. Mendoza defines smaller statuettes, under 5cm, as figurines (Mendoza 2008, 15). Throughout this text the terms statuette and figurine are used interchangeably.

[12] Recent votive studies for Egypt: Pinch 1993; Stevens 2003, 2006; Kemp 1995; Exell 2009; Waraksa 2009; DuQuesne 2010. Most of these studies address periods that far pre-date the Thonis-Heracleion material, but for a short review of Egyptian votive practices spanning all periods, see Pinch and Waraksa 2009. Roeder's works on Egyptian bronze statuettes, most from the Late and Greco-Roman Periods, focus on subject types and manufacture (Roeder 1933a; 1993b; 1937; 1956).

[13] The majority of metal cult equipment from the site is catalogued in Robinson 2008.

[14] Goddio 2007, 109-110.

[15] Van der Wilt, in preparation.

[16] Ritual equipment: Robinson 2008. Lead: Van der Wilt, in preparation.

In technical studies, the term copper alloy is frequently used instead of bronze, as bronze refers to a specific combination of copper and tin.[17] Throughout this work, the term bronze is retained for its familiarity and because the majority of Egyptian cast bronzes contemporary with those from Thonis-Heracleion, when tested, prove to be leaded bronzes.[18] I use the term in its loosest sense, however, and acknowledge that we cannot know if these are true bronzes unless they are tested scientifically, a course of action that we hope to take in the future, but which is not possible within the scope of this thesis (see Chapter 4). Where the material appears unusual, I mark in the catalogue that the metal identification is questionable and those types of materials are removed from the material percentages offered in Chapter 3.

The bronzes from Thonis-Heracleion constitute what scholars have typically classified as prestigious *ex-votos*, a category that gained popularity in the Third Intermediate Period and flourished from the Late Period onwards. Most bronzes in Egypt are found in *favissae*, or pits, associated with temples. It is hypothesized that when the temples grew too crowded with dedications, the priests removed statuettes and ritually buried them in these *favissae*.[19]

These pits, however, are frequently discovered not through controlled archaeological investigation but by *sebakhin,* local farmers who dig through mounds in search of *sebakh* (fertile soil). Once discovered, the bronzes are sold to museums or private collections with no record of their discovery.[20] Sue Davies notes that it is the position of caches at low levels near temple foundations that makes them so vulnerable to *sebakhin*.[21] For those bronzes that have been excavated, records of older excavations provide scant archaeological information, while more recent discoveries, like the statuettes from the animal necropoleis at Saqqara and the Osiris deposit at ‘Ayn Manawir, await full publication.[22] Reliable dating is difficult even for excavated figures, in part because of the conservatism of some Egyptian types, but also because of the way they were deposited. Statuettes accumulated for decades or even centuries before being placed in a *favissa*.[23] For these reasons, bronzes are notoriously difficult to date, a

[17] For example, Craddock 1976; Ogden 2000.
[18] Riederer 1981, with bibliography.
[19] Smith 1974, 49-57; Hill 2001, 203; Weitz 2012, 465-468;
[20] Hill 2001, 203. *Sebakhin* and their impact on Egyptian archaeology: Bailey 1999.
[21] Davies 2007, 185.
[22] For example, for the excavation of over 17,000 statuettes at Karnak in 1902-1903, see Legrain 1906; Young 1967, 274-275, 282; Taylor *et al.* 1998, 14. For Saqqara, see Davies 2007, with bibliography. For ‘Ayn Manawir, with its deposit of Osiris statuettes, see Wuttmann *et al*. 2007 with bibliography.
[23] Hill 2001, 203; Davies 2007, 183-184.

situation only exacerbated by the fact that many also had inscriptions, but many of these inscriptions are now lost, either because the figure was separated from its base before deposition, or because the base was made of wood and the wood degraded.[24]

As a result, bronze publications primarily address museum collections or particular subject types. The standard publications include the catalogues by Günther Roeder concerning the bronze collection in the Staatliche Museen in Berlin, for which he provided hundreds of parallels from museums throughout the world, as well as Georges Daressy's publication of several hundred bronzes from the Louvre, Paris, many of which came from Mit Rahineh and the Serapeum at Saqqara.[25] After Roeder's studies, work on bronze statuettes was limited, confined primarily to short articles concerning the high quality of work from the Third Intermediate Period, or to articles concerned with the technical aspects of bronzes, such as alloy composition or casting.[26] Jack Ogden offers an excellent review of the literature, history, and technical processes related to bronze in Egypt.[27]

More recently, bronze studies have flourished. Some of the most significant examine one subject type across several museum collections, such as Marsha Hill's treatise on royal bronze statuettes and Barbara Mendoza's study of bronze priests.[28] Liliane and Jacques Aubert take a chronological approach, recording dated statuettes by period as well as by the common subject types.[29] New catalogues of bronzes from museums have also appeared, such as those from the 'Bibel + Orient' collection from the University of Friburg, the Museo Gregoriano Egizio in the Vatican, and the Glyptotek in Copenhagen.[30] A recent exhibition catalogue from the Metropolitan Museum of Art in New York includes contributions by leading scholars, where they discuss everything from the function of bronze statuettes to their decoration and alloy composition to contextualised objects from particular sites.[31] Like the material in the latter articles of that catalogue, the Thonis-Heracleion material is significant because it can provide some of the context information that is so frequently lacking otherwise.[32]

---

[24] Hill 2001, 203.
[25] Roeder 1937, 1956; Daressy 1905-1906.
[26] Ziegler 1987; Vassilika 1997; Bianchi 1990.
[27] Ogden 2000, 150-160.
[28] Hill 2004; Mendoza 2008.
[29] Aubert and Aubert 2001.
[30] Page Gasser (Bibel + Orient, Friburg) 2001; Grenier 2002 (Museo Gregoriano Egizio, Vatican); Jørgensen 2009 (Glyptotek, Copenhagen).
[31] Hill 2007.
[32] Davies 2007; Wuttmann *et al.* 2007.

Aside from this volume, one of the most comprehensive recent works is a bronze typology presented by Katja Weitz.[33] In this study Weitz collects all of the published data regarding bronze statuette finds from throughout the Delta region and not only builds a typology, but also examines the finds from each site in relation to local cults, with some targeted discussions related to bronze dedication and sacred animal cult.[34] I evaluate many of her conclusions, as well as some of the theories presented by authors in Hill's *Gifts for the Gods*, in greater detail in the following chapters in light of the full Thonis-Heracleion assemblage.[35]

Weitz's compilation of Delta sources is a significant advance in the field, as it is now easier to compare different statuettes of known provenance. Her work and this thesis are complementary in the sense that her typology offers a macro-view of bronze dedication in the Delta, while the Thonis-Heracleion material offers a more detailed, site-specific view. Weitz's publication is necessarily limited by her source material; many of the sites she reviews have only summarily published their bronzes, and frequently they offer just a list of the types and the numbers of each, with a few representative photos.[36] The best source of information for her discussions on votive use derives from the Saqqara material which, while substantially richer than many other sites, is also only partially published.[37] Moreover, because the task of cataloging the bronzes alone is a work of monumental scale, she could not compare the use of bronze statuettes with those of other materials such as faience, wood, or stone — nor was that her aim. The Thonis-Heracleion statuettes and amulets, in contrast, are presented here in full with detailed information about their find locations and their association with other materials. As a whole, however, the assemblage only speaks for Thonis-Heracleion unless it can be placed into the type of wider context that Weitz investigates (Chapter 5).

In contrast to the bronzes, the lead figures are more difficult to contextualise. Very few lead statuettes and amulets have been recorded from Egypt.[38] Marie Françoise Boussac and Merwatte Seif el-Din provide the only in-depth study of lead artefacts,

---

[33] Weitz 2012.
[34] Weitz 2012, 381-492.
[35] Particularly Chapters 4 and the latter half of Chapter 5.
[36] For example, the Naukratis find: Petrie 1886, 41-42; Weitz 2012, 442-446.
[37] Weitz 2012, 406-439. See also 'Saqqara' in Chapter 5, with bibliography.
[38] For the scarcity of lead ore in Egypt, see Ogden 2000, 168-169. For a compilation of known lead artefacts from Egypt, see Lucas and Harris 1962, 243-244. See also Pulsifer 1888, 146-174 for lead in antiquity and Nriagu 1983 for the uses of lead in antiquity (Mediterranean), especially 253-256 for lead statuettes and amulets. For a detailed account, including reasons for lead's scarcity, see 'Lead in Egypt' in van der Wilt, in preparation. See also the discussion in Chapter 3, 'Lead'.

which is a group of lead figurines from the Graeco-Roman Museum in Alexandria, primarily from the Ptolemaic Period.[39] At Thonis-Heracleion over one hundred lead statuettes and amulets have been recovered, including some figures that represent types identical to those examined by Boussac and Seif el-Din, and that material is only a fraction of the lead objects at Thonis-Heracleion, which number well over 1,000.[40] Thus the Thonis-Heracleion material presents an excellent opportunity to look at the significance of lead in a votive context in Egypt.

Among the remaining material, terracotta and faience form the largest percentage. For both materials, the literature is vast.[41] Until recently, the majority of contextualised terracottas from the Delta were few, or unpublished, and publications either generalised and termed figures 'Greco-Roman' or focused on figures from the Roman Period, such as the Fayum terracottas.[42] Recent excavations at Athribis, however, uncovered over 269 contextualised, well-dated terracottas from the Ptolemaic Period.[43] The finds from the site demonstrated that many of the types found among later Roman terracottas began much earlier than previously thought.[44] Athribis is another Delta city and is contemporary with Thonis-Heracleion, and thus it is significant as a comparative site for the terracottas. While the objects from Thonis-Heracleion do not have the same detailed stratigraphic information, all of the Thonis-Heracleion terracottas can be dated at least to the mid-second century BC or earlier.

The majority of the faience figures from Thonis-Heracleion derive from one deposit and conform to known types, and thus they are limited in terms of the amount of new information they provide. Their find location, however, is significant; nine of the faience figures were found in a deposit in the north-west corner of the main temple structure.[45] For the most part, faience figures are studied in the context of tombs.[46] Those works that discuss faience in other contexts concern settlements and temples that

---

[39] Boussac and Seif el-Din 2009.
[40] See 'Horses' and 'Elephants' in Chapter 2.
[41] Terracotta, Bailey 2008 with bibliography. For terracottas with context, see Nachtergael 1985. Faience: Nicholson 1993 and Friedman and Borromeo 1998 with bibliography.
[42] For finds from the Delta, see the overview by Nachtergael 1985, 225-227, with bibliography. For Roman terracottas, see for example, Nachtergael 1985 or Dunand 1979 and 1990.
[43] Syzmańska 2005, 7.
[44] Myśliwiec 1999; Syzmańska 2005.
[45] For a full description of this deposit see Chapter 5, 'Individual Deposits'.
[46] For example, Patch 1998. For amulets, specifically, see Andrews 1994, 6.

far pre-date Thonis-Heracleion.[47] Thus the faience figures from Thonis-Heracleion offer a new perspective, despite the small size of the sample.

Other divisions in the material occur along stylistic lines (Appendix 5). The vast majority of the corpus, about 85%, represents Egyptian subjects in Pharaonic style. Approximately 15% expresses foreign or Ptolemaic styles. Here the term 'Ptolemaic-style' refers to figures produced in Egypt during the Ptolemaic Period that made use of Greek stylistic elements to represent subjects familiar to Egyptian iconography. Many of the Egyptian-style figures described above were also made during the Ptolemaic Period, but continued iconographic and stylistic traditions from earlier periods. Thus these characterisations of different styles do not represent chronological boundaries so much as stylistic boundaries, nor should they be used as reflections of production. The Ptolemaic and Pharaonic-style figures are Egyptian in the sense that they were produced in Egypt; some of the Greek-style figures are also Egyptian (produced in Egypt), while others may have been imports.[48] The foreign-style figures include objects that drew both their style and iconography from outside Egypt; the majority of foreign-style figures from this site derive their style and iconography from the Greek world.

### 1.3. Archaeological Context and Chronology

#### *Discovery and Topography*[49]

Recent work in Aboukir Bay began in 1996, when the Institut Européen d'Archéologie Sous-Marine (IEASM) undertook a project to survey and identify underwater features in the Canopic region. Some ruins along the Aboukir coastline were already known from previous investigations conducted by an Alexandrian scholar, Prince Omar Tousson, in the 1930s.[50] Thonis-Heracleion, however, was completely unknown archaeologically until the IEASM investigations. At the start of the Aboukir mission in the late 1990s, the team surveyed the vast sunken Canopic region using a

---

[47] For instance, see Györy's article on Amarna amulets (1989), Stevens' study of the small finds from Amarna, including faience (Stevens 2006), or Pinch's study on the votives found in Hathor temples in the New Kingdom (Pinch 1993).
[48] On terminology issues, see Versluys 2010, 8-9.
[49] The majority of information regarding the site is from Goddio 2007, 69-130, from yearly unpublished Supreme Council of Antiquities reports by Franck Goddio and David Fabre, and from personal communication with the excavators. For further comprehensive site introductions to particular classes of finds, see Stolz 2007 (Byzantine jewellery), Robinson 2008 (metalware), Libonati 2010 (statuary), and van der Wilt in preparation (lead objects).
[50] Goddio 2007, 3-5.

combination of side-scan sonar, magnetometers, bathymetric sounders, and a sub-bottom profiler, which enabled them to map the general outline of the ancient topography before exploring through visual inspection and excavation.[51] This survey led to the discovery of East Canopus, a settlement approximately 4km from Thonis-Heracleion. At first, most efforts concentrated on the ruins close to shore (East Canopus), but in 2000 the site of Thonis-Heracleion was discovered (Figure 1.1).

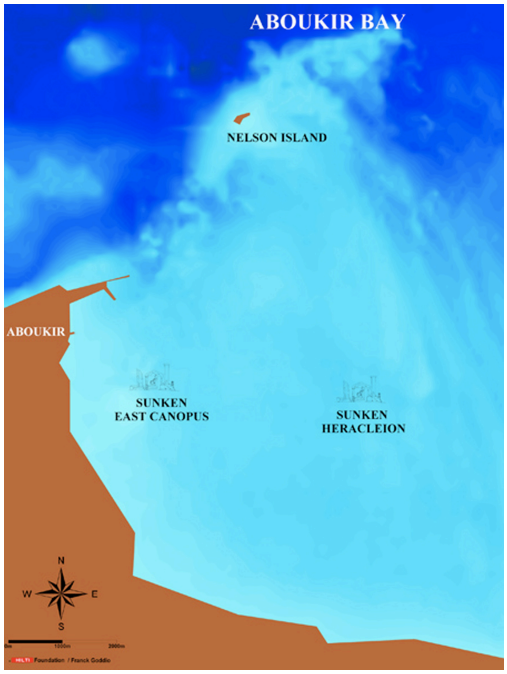


Figure 1.1. Map of the Aboukir coastline and the sunken (light blue) Canopic peninsula, including the positions of East Canopus, Thonis-Heracleion, and Nelson's Island.

The team surveyed the site visually by dividing it into 100m x 100m squares. On the initial visual survey in 2001, over 1,000 artefacts were collected, raised and entered into the database.[52] Everything has been positioned using a differential GPS.[53] After the initial survey, the team then conducted excavations of some of the most prominent monuments and magnetic anomalies. From 2001-2010, the team has continued to use a combination of electronic survey, visual survey, and excavation to determine the nature of the ancient topography of Thonis-Heracleion. Survey has been so intensively used every year because of the low visibility on site from the silt and pollution in the water from the Nile and because the whole area has a thick sediment over-layer;[54] in most areas, none of the ruins are visible on the surface, which instead looks like a vast flat expanse of sand and concretions.[55]

Over the years, the excavators have established that the harbour was sheltered from the main Canopic channel by a series of large sand dunes. Channels communicated between the harbour basins of the city and the Canopic branch.[56] The city itself comprised numerous small landmasses surrounded by waterways and harbour

[51] Goddio 2007, 10-17; Goddio and Fabre 2008, 33-37; Goddio 2010.
[52] Goddio, Supreme Council of Antiquities Report, 2001, 5, unpublished.
[53] Goddio 2007, 12.
[54] Goddio 2007, 9.
[55] Goddio 2007, 72.
[56] Goddio 2011, 127, figure 7.5.

installations.[57] Figure 1.2 shows the site map created by the excavators, while Figure 1.3 shows an artistic rendition of the site. The most prominent architectural feature is the large Egyptian temple on the central landmass.[58] Through a combination of epigraphic finds from the temple area and textual references, the excavation team has conclusively demonstrated that the submerged site is the ancient city referred to as Heracleion in Greek or Thonis in Egyptian in ancient texts, and that the two place names refer to the same location.[59] The temple has been identified as the Temple of Amun-Gereb based on the discovery of an inscribed naos in the temple area that names that deity.[60]

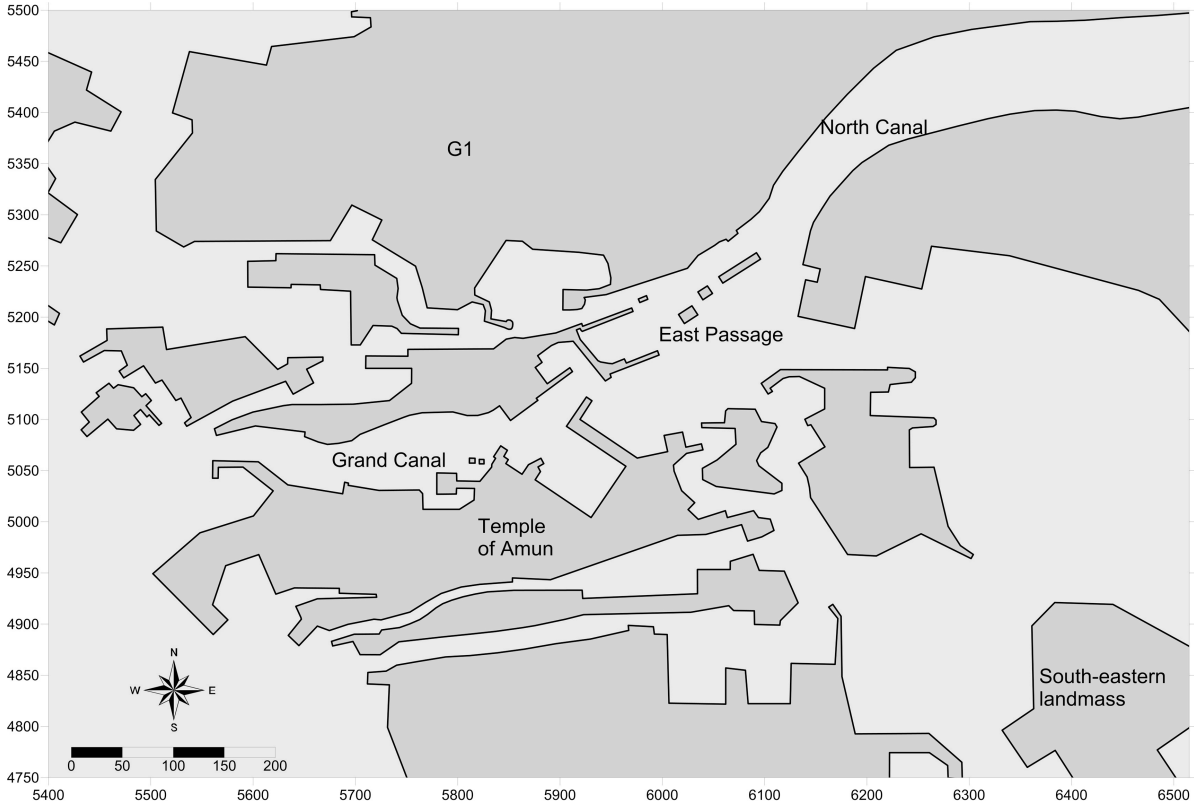



Figure 1.2. Site map with major zones indicated. Darker grey areas are landmasses, lighter grey are waterways.

[57] For the general topography: Goddio 2007, 69-130; Goddio and Fabre 2008, 44-48; Goddio 2011, 122-129.
[58] Temple: Goddio 2007, 75-101; Goddio and Fabre 2008, 44-48.
[59] Yoyotte 1958. In light of excavations: Goddio and Fabre, 2008, 45-46. See also Goddio, 2007, 1-4, and Libonati 2010, 6-13 for the full range of literary sources related to the site including excavation finds for the Canopic region.
[60] Goddio and Fabre 2008, 45, 77, 309, no. 115.

Figure 1.3. Artistic rendering of Thonis-Heracleion's monuments and landscape, viewed from the west.

The exact orientation and structure of the temple is the subject of on-going investigation. Franck Goddio details the shape of the construction and main walls in the Thonis-Heracleion *Topography* volume and initially refers to the whole structure as the temple of Amun.[61] More recently, Goddio has suggested that the southern part of the complex, bound by the southern wall and the centre-north wall, acted as the temple of Amun while the northern section was a temple of Khonsu, the son of Amun.[62] The position of the Amun naos in the southern part of the temple is the main reason why the excavators reconstruct the southern part as the Amun temple. A second (uninscribed) naos was found in the north-east corner, which the excavators hypothesize belonged to Khonsu, the son of Amun.[63] The latter naos was near the faience deposit that included a statuette of a child deity that could represent Khonsu.[64] Elsbeth van der Wilt advances a second theory about the temple complex in which the northern portion forms a raised platform or terrace that adjoins the temple.[65] For the purposes of this study, I refer to the

[61] Goddio 2007, 75-101. Also Goddio and Fabre 2008, 44-48; Goddio 2011.
[62] Goddio, 'The Sacred Topography of Thonis-Heracleion', Conference, University of Oxford, *Heracleion in Context*, March 15, 2013.
[63] Goddio and Fabre 2008, 76, 309, no. 114.
[64] See context for figure **12**.
[65] Van der Wilt, in preparation.

whole structure as the main temple, the H1 temple, or the Temple of Amun but with the knowledge that this interpretation is subject to change.

The main temple is surrounded by canals and waterways. The large platform that connects to the temple zone was a mole used for docking ships.[66] North of the central landmass, running east to west, is a large waterway that the excavators have named the 'Grand Canal'; it is filled with anchors, shipwrecks, and a wide variety of other artefacts.[67]

Throughout Franck Goddio's description of the topography of Thonis-Heracleion, and throughout this text and the catalogue, references are frequently made to specific excavation zones. These zones are designated by a letter, followed by the number of the excavation. The most prominent areas are designated by an 'H' (for Heracleion) and a number, indicating the number of the excavation in chronological order. Thus, H1, the main temple area, was the first excavation undertaken, H2 the second, and so forth. Other letters mark groups of smaller excavations in later years that were used to define certain features or to get a better sense of chronology for the site: for example, E4, G1.[68]

***Chronology and Historical Context***

A variety of subsidence factors caused a vast area of the Canopic peninsula, *c.* 110 kilometres, to sink beneath the sea. Thonis-Heracleion and its neighbouring settlement East Canopus were likely submerged due to gradual subsidence punctuated by at least one cataclysmic event, possibly a large flood or an earthquake.[69] Some evidence from the site suggests that there was some sort of disruption around the 4th century BC and around the 1st century BC.[70] Total submergence, however, likely occurred much later, around the 8th century AD; an Abbasid dinar dating to AD 775-785 is the last datable artefact.[71] The primary phase of occupation at Thonis-Heracleion was the 7th century BC to the mid-2nd century BC, encompassing the

[66] Goddio 2007, 101-102.
[67] Goddio 2007, 102-111; Goddio 2011, 127.
[68] Goddio 2007, 73-74, figure 3.5.
[69] Stanley *et al.* 2007; Goddio 2007, 8; Goddio and Fabre 2008, 40; Nur 2010; Goddio 2011, 126.
[70] Goddio 2011, 129.
[71] Abbasid dinar: Goddio and Fabre 2008, 200-201, 352, no. 432.

Late and Ptolemaic Periods in Egypt. There are few signs of Roman occupation, but the site was resettled on a smaller scale in the Byzantine Period.[72]

Thonis-Heracleion was known as an esteemed city even in antiquity. Several ancient sources attest to its general location.[73] Much of its fame derived from its critical geographic position: the port sat at the mouth of the Nile and controlled all traffic that proceeded down the Canopic branch of the Nile for trade purposes. Herodotus describes a sanctuary of Herakles at the site and states that it dated back to the age of the Trojan War.[74] This sanctuary, from which we derive the name Thonis-Heracleion, is probably the central Amun temple described above, or at least an earlier incarnation of this temple. Herakles was associated with Khonsu, the son of Amun, who may have had a cult in the same temple or at least in the same limestone complex.[75] Archaeological finds currently confirm only a later phase of the sanctuary in the early Ptolemaic Period; the temple Herodotus saw could be beneath the current Ptolemaic level, or the original temple may have been in another part of the site and was moved and re-founded in the Ptolemaic Period.[76]

The city was a major port and locus of trade during its primary phase. Ceramic finds dating as early as the Saite Period have been discovered at Thonis-Heracleion, but the majority of the finds are concentrated in the 4th and 3rd centuries BC.[77] The statuettes and amulets, in terms of their appearance and manufacture, conform to this broad date range (7th to the 2nd centuries BC). The great wealth engendered by this trade is visible in the city's grand structures, such as its monuments, statuary, and the large, central Temple of Amun.[78] Trade goods from across the Mediterranean are attested, particularly ceramics from the Eastern Mediterranean, even from the site's earliest phase.[79] Equally important are the finds that contributed to the mechanics of this trade – the many ships submerged in the harbours,[80] the thousands of coins scattered

---

[72] Goddio and Fabre 2008, p. 46; Grataloup, 2010, 151, 156-158; personal communication with the site numismatist Andrew Meadows. Byzantine artefacts in the sunken Canopic region: Stolz, 2007, 2008, 2010.
[73] See n. 59 above.
[74] Herodotus, *Histories*, II.113.
[75] Goddio and Fabre 2008, 72-73.
[76] Goddio 2007, 78; Goddio and Fabre 2008, 45.
[77] Goddio 2007, 78.
[78] Goddio 2007, 75-101; Goddio and Fabre 2008, 44-48; Baines 2008; Yoyotte 2008b; Thiers 2008, 2009; Libonati 2010; Albersmeier 2010, 191-196; von Bomhard 2012.
[79] Grataloup 2008, 2010, 2012.
[80] Fabre 2011; Fabre and Belov 2011; Fabre and Goddio 2013; Belov, in preparation.

across the site,[81] and the lead weights that aided commercial transactions.[82] Although the statuettes and amulets are not directly related to patterns of trade, the high foreign traffic through the city, as well as any foreign inhabitants, influenced subject choices and styles evident in the statuettes and amulets and thus the cultural makeup of the city must be taken into consideration when examining these objects (see Chapter 5).

The focus of excavations thus far has centred primarily on Egyptian cult buildings such as H1 (the Amun temple), G1 one in the north, the long rectangular island in the East Passage, as well as more recent excavations at M8 on the northern part of the jetty at the eastern end of the landmass north of the Grand Canal (more below). Additionally, the interrelationship between the landmasses and canals at the site is so complex that these riparian boundaries have necessarily been a large focus of excavation, in order to determine the contours of the land more precisely than we are able with the electronic survey equipment.[83] Our knowledge of these boundaries is constantly shifting, and the site map is continuously updated as excavation continues.[84]

Between these two environments, we get a sense of both the ritual activities in which the inhabitants engaged as well as their daily trade and business activities. This religious/civic mix is important with regard to Thonis-Heracleion's position in the Delta between the 7th and 2nd centuries BC. The well-preserved nature of the city and its finds, especially those discussed in this study, have the potential to illuminate an aspect of society that is rarely attested for ancient sites in the Delta – not just a religious centre, but also the city itself, an area of daily activity. Although we know the Delta was heavily populated in the Late and Greco-Roman Periods, because of problems of siltation and modern development, many sites have been lost; the excavation of civic contexts is extremely rare for this area and this period.[85] This is not to say that Thonis-Heracleion is the model Late Period or Ptolemaic Delta city, but it can perhaps shed some light on the activities of people in this region.

---

[81] Meadows 2008; in preparation.
[82] Van der Wilt 2010; in preparation.
[83] Goddio 2007, 27, 72.
[84] Compare the base map from Figure 1.2 (current) with that of 1.4 (from 2009) or to Goddio 2007, figures 3.6 and 3.87.
[85] Baines and Malek 2000, 5.

***Site Formation and the Preservation of Materials***

As noted previously, the Thonis-Heracleion material is not entirely representative for reasons pertaining to land subsidence as well as to excavation retrieval practices. One of the main benefits of the site, however, is the large amount of metal that it preserves. Although people used great quantities of metal objects in antiquity for ritual and commercial purposes little survives because objects were melted down and reused.[86] Like other cities where disaster struck, such as Pompeii and Olynthus, much of the metal in daily use survives at Thonis-Heracleion, in part because much of it was submerged and inaccessible after the 8th century AD. In more recent times, factors such as submersion, low visibility, distance from shore, and unstable weather conditions have discouraged modern looters, thus allowing for the continued preservation of material for study.[87]

The metal assemblage, however, does not perfectly reflect all metal objects that would have been commonly used. The metal material at the site is under-represented in some ways and over-represented in others. Some ancient looting and recovery does seem to have affected the assemblage. The excavators noted that many limestone blocks from the temple had been taken away for reuse before the site submerged completely. Yet, because of the 'abundance, nature, and quality' of the other finds (including the objects of this study), they concluded that the site did not undergo systematic looting and recovery.[88] Zoe Robinson, however, suggests that the site *was* systematically looted because we have so few dedications of precious metals surviving; the material that survives may have been trapped under collapsed buildings or inaccessible in the canals.[89] Those objects, however, that were buried in *favissae* or had been thrown into the canals, would have been less accessible for looters in antiquity. Richer material in precious metal, such as gold and silver, if it remained on display, would have been more vulnerable.

A metal detector was used on prospection, to delimit the contours of certain areas on site, and to check the discharge from the underwater vacuum during excavation.[90] For that reason, the metal artefacts that escaped ancient looting practices may be overrepresented. For instance, terracotta and limestone statuettes appear much

---

[86] Treister 1996, 367-370 for the reuse and melting down of metals in ancient Greece.
[87] Goddio 2007, 9.
[88] Goddio 2007, 77.
[89] Robinson 2008, 32; Cox 2008, 264.
[90] Franck Goddio, personal communication.

less frequently than I would expect in an active port. Naukratis, for instance, had over 1,500 terracotta and limestone figures, while Thonis-Heracleion has only eleven terracottas and five limestone statuettes.[91] Approximately two-thirds of the statuettes and amulets were found on prospection. Appendix 6 lists the figures found in excavations with their excavation designation as well as those found on prospection.

***Stratigraphy and Distribution Patterns***

One of the main reasons why the excavators and geomorphologists have postulated that the region was destroyed by cataclysmic events was because of the complex appearance of the stratigraphy.[92] Thonis-Heracleion was built upon layers of water-saturated sediment; when disaster struck, water from those strata was expelled which caused rapid subsidence, a phenomenon known as liquefaction.[93] Areas with heavier buildings, such as the larger monuments, would have been the most vulnerable to liquefaction; as such, it was not a uniform process, which adds to the confusion in interpreting the layers.[94] Liquefaction can in turn cause what are known as diapirs, which is a phenomenon where older layers, once under the city, are pushed up to the present sea floor by the newly-sunk land.[95]

Frequently, it is difficult to define areas based on sediment alone, even land and canal areas, because of landslides, sediment shift, and heavy erosion. The Grand Canal and other waterways were defined by large magnetic gradients and by the types of finds recovered, notably the numerous ship anchors and shipwrecks.[96] One area, just west of the temple zone, was thought to be a continuation of land until the discovery of a shipwreck in 2010 demonstrated that the area was actually a small inlet or anchorage that directly abuts the northern part of the temple compound.[97]

Some larger objects that would have protruded at the surface, such as statuary fragments, were vulnerable to trawling and may have been caught in nets and dragged.

---

[91] Gutch 1898/1899; Ross Thomas, personal communication. Thonis-Heracleion terracottas: **40, 107-108, 116-117, 124, 126, 236, 249, 252, 254**; limestone/sandstone: **109, 111, 121-122, 245**.
[92] Goddio 2007, 28; Goddio 2011, 125.
[93] Stanley *et al.* 2007, 3.
[94] Stanley *et al.* 2007, 54.
[95] Stanley *et al.* 2007, 35.
[96] Goddio, 2007, 102-103, figure 3.61.
[97] Fabre, Supreme Council of Antiquities report 2010, 30, unpublished.

This seems to be the case for some of the large-scale statuary, particularly the colossal Ptolemaic queen, whose body fragments were spread out over 272m.[98]

Moreover, for those objects that were not immediately and thickly covered by sediment, heavy wave action and currents could cause them to shift positions, a scenario that is especially likely for smaller, lighter objects like the statuettes, amulets and figurines. Thus, as Goddio notes, "it is often difficult to state whether or not an object found on the surface of or protruding in part from the sediment was still in its original position when discovered; only the archaeological context can illuminate such questions".[99] Unfortunately, for those objects found on prospection, many lack a clear stratigraphic context. Thus, in such cases where an object is found next to a coin or near datable pottery, it should not be automatically assumed that they are *in situ* and that they are associated. For the figures found on prospection, and even for any figures found in excavation where a clear stratigraphy is not provided, broad distribution patterns are sometimes more reliable than individual find information.

Such distribution patterns are discernible in the material. Despite the cautionary statements above, there is reason to believe that displacement was not whole-scale. The IEASM ceramicist, Catherine Grataloup, demonstrated that certain parts of the site have discernible ceramic chronological zones.[100] In general, the northern part of the site has older ceramic material (7th-5th centuries), perhaps indicating a shift in settlement from the north to the south.[101] Around the temple, the majority of the ceramics date to the 4th and 3rd centuries BC, corresponding to the peak of the site's influence and wealth.[102] Coin distributions show similar patterns, with the preponderance of 4th-2nd century coinage in the south.[103] Thus in the catalogue I provide the zone characterisation (ZC) for each object, based primarily on the zones outlined by Grataloup. While these characterisations do not provide a secure date for the object, it does at least give an idea of the date of surrounding material.

Another group of material with a clearly-defined distribution pattern is the corpus of bronze ladles; the ladles number close to one hundred, including full and

---

[98] Goddio 2007, 28. Queen: Yoyotte 2008b, 16-19; Albersmeier 2010, 191-195, no. 1; Libonati 2010, 95-98, no. 21.
[99] Goddio 2007, 28.
[100] Grataloup 2008, 2010.
[101] Grataloup 2010, 156, 158
[102] Goddio 2007, 78; Grataloup 2010, 155-156.
[103] Meadows, in preparation.

partial examples.[104] These objects cluster in the waterways (Figure 1.4). If the strata were completely mixed, in theory, these relatively lightweight objects would be distributed more randomly across the site. Robinson suggests that these were deliberately deposited in the canals as a ritual act, noting that some of the handles may have been ritually bent.[105] She also, however, allows for the possibility that the ladles accumulated in the canals because of wave action or currents.[106] As more and more material has been studied from the site, however, the second proposal seems unlikely.

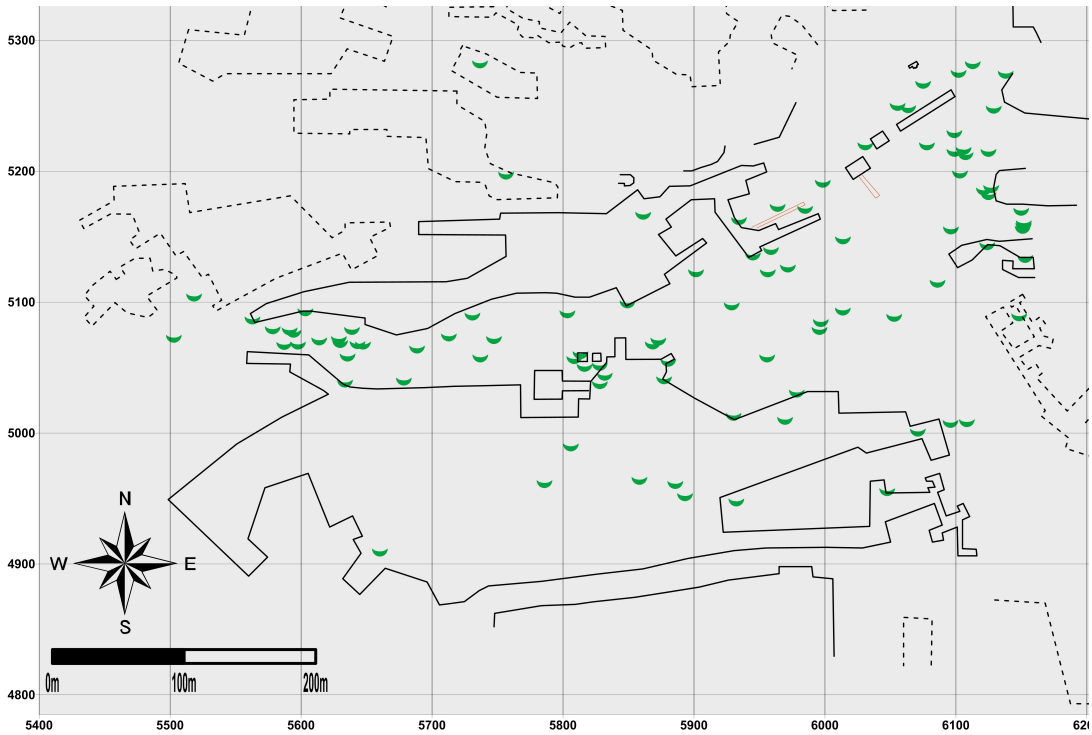



Figure 1.4. Distribution of bronze ladles (green half-moons) found between 2000-2010.

When the statuettes and amulets are mapped, the artefacts are spread across the site, but they appear in large numbers both on land and in waterways (Figure 1.5). Many are similar in weight to the ladles, and thus, if currents were responsible for the ladles' positions in the canals, then the majority would also be concentrated there, which is not the case. At least some appear to have remained *in situ*, or at least close to their original deposition location. It is possible that *favissae*, filled with artefacts, were disturbed in the cataclysmic events that resulted in the site's submergence, and the objects

[104] This is an updated estimate that takes into account finds through 2010. Robinson catalogued 53 ladles and fragments (2008, 54-87).
[105] Robinson 2008, 264.
[106] Robinson 2008, 264.

subsequently were washed away and separated.[107] There are patterns, however, that demonstrate that many of the figures are not randomly distributed.

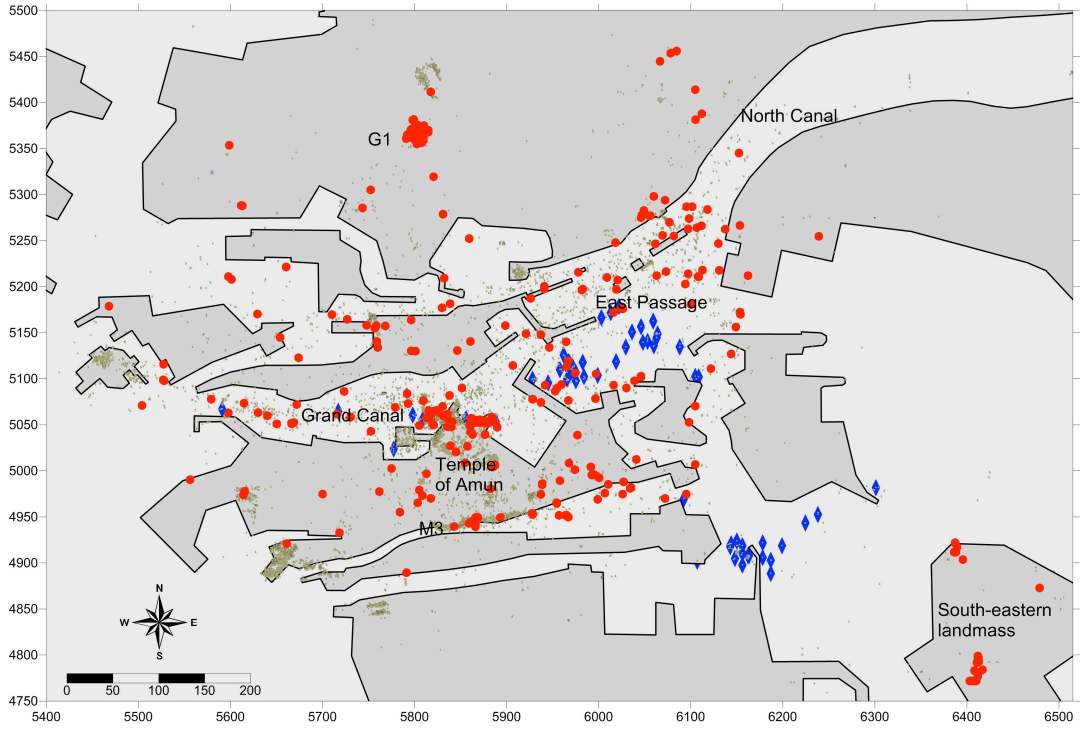



Figure 1.5. Distribution of the statuettes and amulets (red circles) against the site map, alongside shipwrecks (blue diamonds) and a distribution of all site finds (to 2010) to show the concentrations of material that indicate structures (tan, small dots).

The best example is the distribution of the lead elephant, horse, and child deity figurines, which date typologically to the Ptolemaic Period. Most are in the southern portion of the site in areas that are dated to the Ptolemaic Period based on ceramics, thus demonstrating that the statuette and ceramic patterns coincide.[108] Falcon pendants (**139-156**) are also tightly clustered (more so than any other type), but these, considering their small size, may simply reflect where sieves were used on excavation (Figure 1.6).

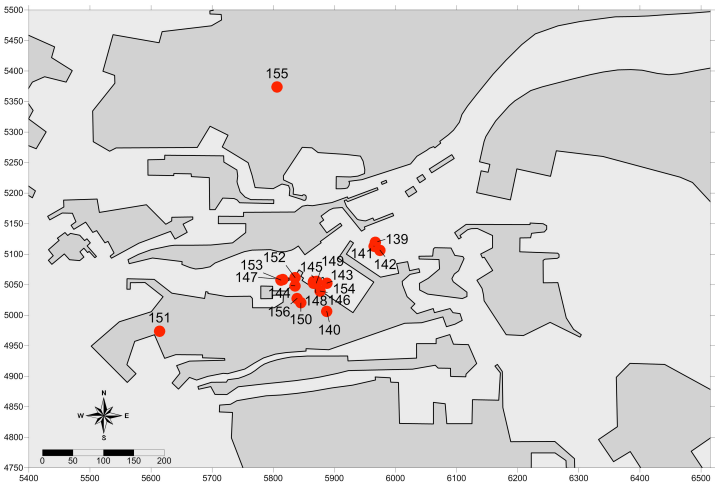



Figure 1.6. Distribution of lead falcon pendants (**139-156**)

[107] Goddio 2007, 27.

[108] Ceramics in that zone immediately adjacent to zones F (4th-2nd centuries BC) and G (3rd-2nd centuries BC) according to Grataloup 2010, 155-156. For the distribution, see Chapter 5, 'Distributions'.

### *Artefact Context*

Based on the distribution of artefacts (Figure 1.5), some of the most significant contexts are the following (Figure 1.7): the northern portion of the H1 temple zone where two large clusters of material appear in the corners of the limestone structure; the G1 sanctuary in the northern sector of the site; the long rectangular island in the East Passage; M3, a new excavation south of the H1 southern temenos wall; the southeastern landmass; and to some extent, the Grand Canal. Appendix 7 lists the objects in these contexts for quick reference; it also provides close-up images of these accumulations.

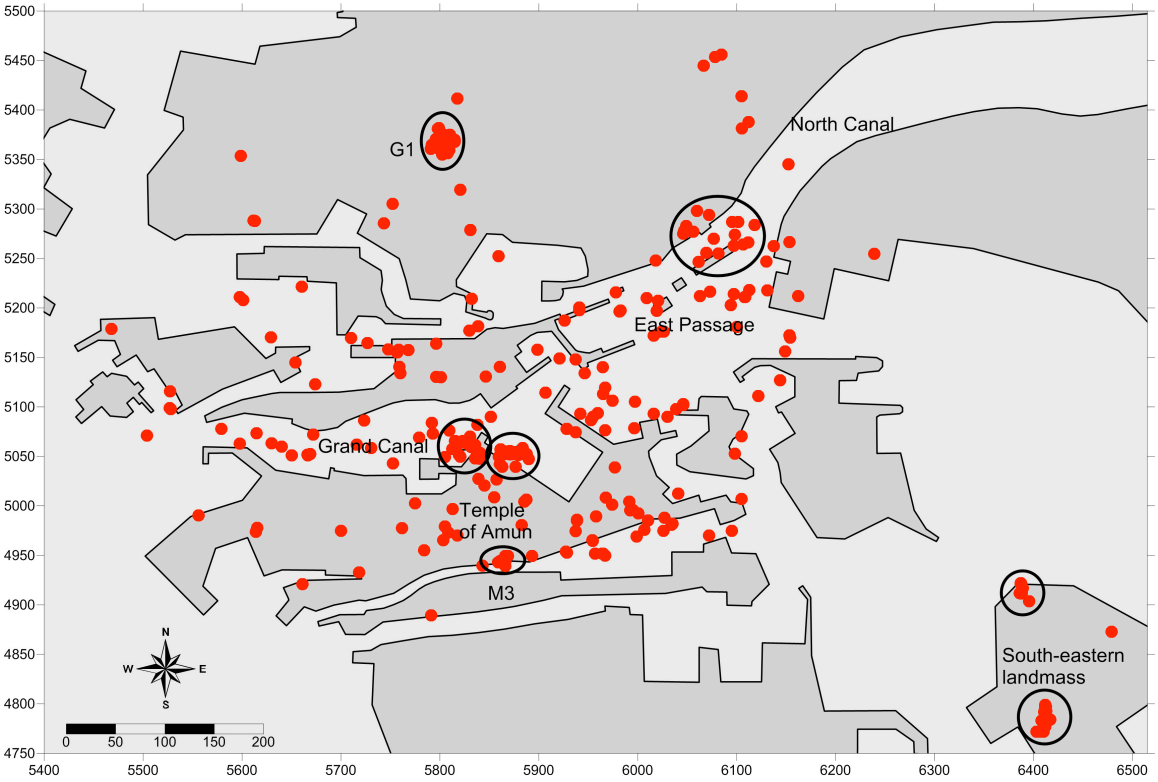



Figure 1.7. Zones with significant accumulations of statuettes and amulets.

The two clusters of objects at the northern portion of the temple in H1 as they appear on the map are actually multiple clusters of material concentrated in these two areas (Appendix 7b-c). From the density of artefacts, we may suppose that these clusters were part of larger *favissae*, but too little is understood about the stratigraphy of these areas, as well as the final destruction of the site, to make any firm conclusions.[109] Most of the objects are inside the structure, but some spill out over the walls, and it is not

[109] For a description of this area, see Goddio 2007, 96-100.

always clear whether those objects outside the walls originally belonged with objects within the walls or not.[110]

The primary difficulty is determining whether these objects were in *favissae* or whether they were *in situ* on display or in storage before the collapse of the landscape. Under Goddio's interpretation where the northern portion comprised the Amun or Khonsu temple, either situation is technically possible. Generally *favissae* were situated outside of the temple proper, which may indicate that these finds were *in situ* on display, but damaged and disrupted by natural or human phenomena. A group of faience amulets in the north-east corner, however, has been interpreted as a foundation deposit.[111] If this designation is correct, it is possible that this area encompasses a subterranean level and the objects may belong to *favissae*. Under Van der Wilt's interpretation where the northern section is a platform or terrace, *favissae* are likely.[112] This area has some of the richest material on site including gold jewellery, dense accumulations of coinage, statuettes, ceramics, metal vessels, and ritual instruments.

G1 is an area surveyed and excavated in 2003 and 2004 (Appendix 7a), with some later survey in 2007 as well. G1 is arguably the most significant find context for the statuettes and amulets. Over forty were discovered in this one area, which is approximately 40x40m. The large amount of statuettes and other ritual equipment found there suggest that the area may have contained a sanctuary.[113] Limestone blocks were jumbled and little of the architecture is preserved or understood. Despite the jumbled construction, G1 fits the profile of a *favissa* extremely well; statuettes and ritual equipment are dense while other finds, such as coins and ceramics, are not abundant. The ceramic material that is available dates to the 6th and 5th centuries BC, with an absence of Ptolemaic material.[114] This is one of the few statuette contexts where the material can reliably be considered pre-Ptolemaic.

In this way, the G1 material acts as interesting comparison for the H1 temple finds, most of which date to the Ptolemaic Period. It is important to be careful with such comparisons, however, especially when dealing with *favissae*. As Hill notes, objects may be deposited in *favissae* years after their manufacture, and thus the date of a *favissa*

---

[110] Personal communication, Franck Goddio.
[111] Fabre 2008a; see Chapter 5, 'Individual Deposits'.
[112] Smith notes that many of the Saqqara deposits were found under courtyards — areas that were associated with temples but usually were not inside the temple proper (1974, 49-50).
[113] Goddio 2007, 120.
[114] Ceramic dates, personal communication, Catherine Grataloup.

only gives the date of deposition not the date of the statuettes.[115] This fact is highlighted in particular by a statuette from Thonis-Heracleion that is dated by an inscription. It is a well-preserved pharaoh probably representing Psamtik II, *c.* 595-589 BC (**81**). This statuette was in a zone characterised by Ptolemaic ceramics and coins, despite its early date. Thus it is possible that several of the statuettes in and around the temple are older than the surrounding material.

The south-eastern landmass is similar to G1 in that the material there appears to be pre-Ptolemaic (Appendix 7h-i). This zone has two smaller clusters of artefacts, with each cluster spread over an area about 5-10m wide. No coins have been identified in the area and only a small amount of ceramic material has been collected which dates to the 5th-4th centuries BC.[116] These clusters may mark small *favissae*, perhaps a fill layer, but this area has only been surveyed and the ceramic sherds recovered were few; thus our understanding of the area is more limited than for G1.[117]

Other contexts are more like loose groupings of material than true *favissae*. For example, several statuettes are in the Grand Canal with a tighter formation towards the western end than elsewhere in the canal (Appendix 7f). The scale of the map, however, is very important to recognise; the distance between **131** on the east end and **168** on the west end is about 100m, with a lot of finds in and around these objects including anchors, fishing weights, ceramics, hooks, construction blocks, and other material. This grouping shows that this wider zone was significant in terms of deposition for formation processes, but it does not encompass one related deposit. A similar situation is apparent on the eastern end of the central landmass where many finds are concentrated, both on the landmass and in the small canal, but the finds are widespread, usually comprising multiple small groups rather than one large accumulation like G1.[118]

The remaining two sectors (M3 and the rectangular island) represent areas that may have been affected by landslides. The area on and around the rectangular island in the East Passage has a combination of lead and bronze artefacts, but the scatter is not as dense as in G1 and the degree of relation between objects is unclear (Appendix 7e). The island itself has a dense accumulation of limestone construction blocks; because of these and the surrounding finds, the island has been identified as a sacred zone.[119] The

---

[115] Hill 2001, 203.
[116] Ceramic dates, personal communication, Catherine Grataloup.
[117] See Chapter 5, 'Egyptian Dedication Patterns' for fill layers versus pristine deposits.
[118] See Chapter 5, 'Distributions' and 'Individual Deposits' for a characterisation of objects in this area.
[119] Grataloup 2012, 168, n. 5.

finds include several well-made Osiris bronzes, including the three best examples from the site (**41, 46-47**), but also other fragmented and damaged items as well (see Appendix 7e).

Some of the material may extend into the northern port because the rectangular island eroded, perhaps because it was struck by a landslide. This particular context was highlighted by Andrew Meadows, the site numismatist, because a 4th century coin die was found just past the eastern end of the island.[120] He quotes the excavation director Franck Goddio about the context, whose comments I repeat here:

> In 2009 we performed an excavation (J6)...the excavation put into light a complex stratigraphy 210cm thick, which varies along the excavation as we were excavating perpendicular to a large channel. At that place, we were 7m away from the monetary weight and 25m away from the coin die. But it however reflects the context influence of the 'island' as the 'profile' of the ceramics changed dramatically when we came close to that 'island': imported ceramics, 5th-4th century BC.[121]

He notes also that "as this die has been found in the passage close to the island, it could proceed from the erosion of that 'island'".[122]

The majority of the statuettes were even closer to J6 than the coin die, perhaps because they too were swept up in erosion from the island. Whether they were on display when the landslide eroded or whether they were in a *favissa* is unknown, but the amount of statuettes, cult instruments, and metal vessels indicate that the rectangular island probably marked a key cultic area. Some finds cluster to the south, but it is less clear whether these too eroded from the island.

The final notable cluster is situated in the M3 excavation zone south of the southern wall of the H1 temple. This area was investigated in 2009 and 2010 (Appendix 7d).[123] The strata in M3, like the area around the rectangular island in the East Passage, show signs of a landslide. The sloping stratigraphy in this zone demonstrates that the slide occurred from north to south, away from the temple (Figure 1.8). Part of the collapsed southern temple wall was also uncovered. M3 contains fewer statuettes than the other zones that I have highlighted, but those that have been found are tightly clustered. The material is also different than that found in several of the other concentrations. At Thonis-Heracleion, before 2009, only seven terracottas had been found (of all styles - Greek, Ptolemaic, and Egyptian). In 2009 and 2010, four further

---

[120] Meadows 2011, especially 95-98.
[121] Goddio in Meadows 2011, 98, fn. 3.
[122] Goddio in Meadows 2011, 98.
[123] Fabre, Supreme Council of Antiquities Reports, 2009-2011, unpublished.

terracottas (**40, 124, 249, 254**), Greek and Ptolemaic-style, were discovered in M3. These finds from one small area effectively increased the amount of terracottas at the site by one-third, which suggests that this area represents a different kind of context than the Egyptian cult contexts described previously.

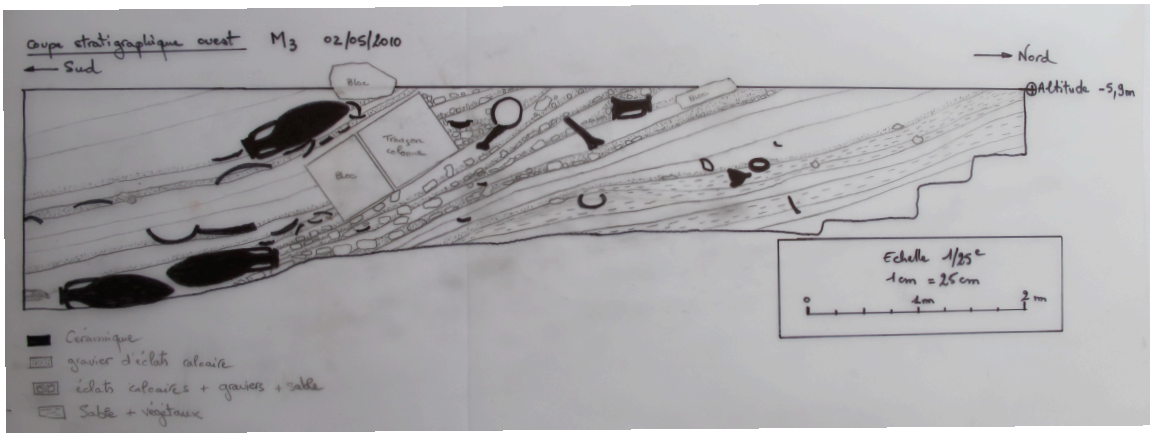



Figure 1.8. Section drawing of M3 with slanting stratigraphy, from 2010.

Some Egyptian-style figures were found in this area as well, including the bronze pharaoh Psamtik II (**81**), a bronze Isis (**61**), a faience uraeus identical to those found in the H1 temple (**185**), a sun disc (**282**), and a possible lead bark fragment (**313**). For the most part, these were between 30-40cm below the surface, either in the sandy surface layer or in the upper portion of the clay layer below. The terracottas (**124, 249, 254**), with the exception of the child deity (**40**), were between 70-80cm below the surface in the clay layer together with the accumulations of Ptolemaic pottery; the child deity was under 10cm of sediment in the surface layer. Thus it is unlikely that the terracottas and Egyptian-style figures were directly associated. Deeper levels, discovered in the 2011 excavations, revealed a fourth century phase below 1.7m, but none of the artefacts discussed above belong to this stratum.[124]

All of the contexts described above are integral to any understanding of the dedication practices at Thonis-Heracleion, as well as the overall layout of the city and the life of the city's inhabitants. The contexts are described here in detail because I will continually reference them throughout the text. The remaining statuettes and amulets that do not belong to these contexts are more loosely distributed; some are on land and some are in the canal systems. In Chapter 5, I will also address the wider question of

[124] Fabre, Supreme Council of Antiquties Report 2011, 7, unpublished.

why some of these are so scattered and dissociated from major architecture, as opposed to those from more concentrated accumulations.

As the Thonis-Heracleion excavations developed over a decade, several Egyptian sacred contexts have been discovered including many of those just described. Large-scale Egyptian-style statuary dominated the landscape, particularly near the H1 temple, which was once enhanced by three colossal statues, as well as multiple life-size or over life-size statues.[125] In literature, Thonis-Heracleion was known for its sanctuary to 'Herakles' as well as for a procession of Osiris during the Khoiak festival.[126] The archaeology has shown that these central religious institutions and rituals were grounded in a much wider, vibrant religious community — Thonis-Heracleion's 'sacred landscape' as Goddio describes it.

The large-scale statuary and the architecture of these sacred institutions speak to their grandeur, to their central role in society, and to the resources the community was willing to commit to sacred works. It is the statuettes, however, that provide the best evidence for the religious motivations behind these buildings — the cults that people practised and the deities that they honoured. The following chapters utilise the contexts described above as a launch point for investigations concerning the iconography, cult presence, function, and production of these statuettes, as well as their role in a multicultural community set against the wider backdrop of Late and Ptolemaic Egypt.

[125] Libonati 2010.
[126] See Chapter 2, 'Chronology and Cults' for the Khoiak festival.

# Chapter 2: Iconographic Types

## 2.1. Anthropomorphic Figures (1-127)

This chapter presents the iconographic types that occur in the Thonis-Heracleion material. Appendix 8 provides an overview list of the types and their related catalogue numbers. The categorisation is based on subject, rather than function. I discuss the individual functions of various pieces in Chapter Three. As noted in the introduction, the material comprises four main categories: anthropomorphic, hybrid, zoomorphic, and inanimate. Of the 329 statuettes and amulets at Thonis-Heracleion, the anthropomorphic examples are approximately 40% of the total and include the following subjects:

1. Egyptian Deities
2. Kings, Priests, or Unidentified Deities
3. Unidentified Figures and Fragments
4. Phallic and Vulvate Figures
5. Greek-style Deities and People

The majority represent Egyptian subjects. Greek types comprise a much smaller percentage but still form a cohesive group. Phallic and vulvate figures are treated separately in this thesis, both because of their distinctive iconography and because they occupy a middle ground functionally — neither divine nor quotidian.

Unlike collections acquired on the art market, this material is randomly preserved and includes some iconographic types that remain unidentified but are clearly anthropomorphic. Fragmented pieces that provide no information regarding identity are also included, such as arms and legs. More informative fragments, such as some heads, have been assigned to the appropriate categories. The types are presented in order of relative frequency of occurrence at the site. Each type is discussed in broad terms, and arguments concerning the types are broached; individual statuettes and amulets are described in the catalogue with specific comparanda.

***Egyptian Deities (1-80)***

Child Deity (**1-40**)

The most popular type at Thonis-Heracleion is the child deity, numbering 40 examples.[1] This number swells further when other related representations are added but this section focuses on the pieces that represent the child deity alone. The child deity type represents a youthful male, seated or standing, always exhibiting at least two of three main 'youth' characteristics: the child is nude, holds the right hand towards or at the mouth, and has a sidelock, a plain or plaited band of hair attached at the top of the right side of the head.[2] All of the examples from Thonis-Heracleion are male, as are most child deities.[3]

The child deity was common throughout the first millennium BC, particularly in later periods when the family group Isis, Osiris, and Horus flourished as subjects.[4] Among Ptolemaic terracottas, child deities were the most popular type, outnumbering representations of Serapis and Isis.[5] This may not be the case with bronzes; the child deity type was popular but less so than Osiris at many sites.

Among child deities, there are two main styles: one developed in the Pharaonic Period (**1-28**), one in the Ptolemaic (**29-40**). For purposes of brevity, the older style will be called the Pharaonic style, although it continued into the Ptolemaic Period. The Pharaonic style relies heavily on iconographic markers (hand position, sidelock, nudity) to indicate that a child is being represented. These figures look like adults, but with narrower shoulders and less defined musculature. When they are represented alongside adults, they are distinguished by relative size and iconographic markers.[6] The earliest surviving bronze representations date to the 25th dynasty.[7]

The Ptolemaic style relies on more realistic depictions of age achieved through altered body proportions. The Ptolemaic style at Thonis-Heracleion represents the deity

---

[1] Overview of the type: Budde *et al.* 2003; Budde 2010, with comprehensive bibliography.
[2] Feucht 1995, 497-500 (for child iconography). Child deities: Roeder 1937, 13-14; 1956, 104; Budde *et al.* 2003, 1; Sandri 2006, 97-100; Budde 2010, 2-3. Finger to mouth: Sandri 2006, 100. Nudity: Goelet 1993, 21-22, though his suggestion of a connection with death and rebirth, while plausible, is not definite and would require a wider survey of images; Sandri 2006, 97-99. Sidelock: Tassie 2005; Sandri 2006, 100-101; Budde 2010, 2-3.
[3] Tefnut is one of the exceptions; she was occasionally represented on reliefs as a child, but only as a pair with her brother Shu when he was represented as a child as well (Budde 2010, 2).
[4] For examples of such groups in bronze, see Roeder 1956, §664.
[5] Malaise 1991, 219, fn. 9 for the popularity of 'Harpokrates' in collections, citing Dunand 1979 for the Louvre, Paris (134-136), the Berlin Museum, and the Egyptian Museum, Cairo (91, note 192), and Nachtergael 1985, 227-230 for Karanis, Theadelphia, Koptos, and Edfu. See also Török 1995, 73.
[6] Feucht 1995, 501.
[7] Sandri 2006, 73.

as an infant or toddler with short, chubby limbs, a large head, and bulging belly.[8] These proportions are consistent with changes in contemporary representations of children in Greek art.[9] The closest Classical and Hellenistic parallels are the so-called 'temple boys'. 'Temple boys' are a form of statuary closely associated with Cyprus, but the type is known throughout the Mediterranean.[10]

Initially many Classical scholars considered the child deity a domestic god worshipped primarily outside the temple.[11] This view, however, does not consider the full range of the type's associations, especially associations evident in Pharaonic-style representations.[12] Child deities were equally at home on temple walls as they were among the populace.[13] The type had strong connections with kingship and borrowed much from royal imagery.[14] For instance, child iconography was originally used for pharaohs that were represented as children, suckling at the breast of goddesses. The motif goes back to the Old Kingdom in texts and representations, with a specific association with Isis in the Middle Kingdom.[15] These rulers were not children at the time they were represented. Instead, the representation had symbolic value.[16] Suckling was an act of life-giving and, especially when related to Isis, a transfer of rulership. Only later were specific deities regularly depicted in this manner.[17]

Crowns were some of the most significant attributes of child deities, highlighting their complex relationship with royalty.[18] Horus the Child, one particular child deity, wears the double crown frequently on images where he is expressly identified: nearly 40% of three-dimensional images and two thirds of relief images.[19] Child deities are also commonly shown wearing amulets, particularly the heart amulet.[20] Another type of

---

[8] For similar Ptolemaic-style 'Harpokrates', see Dunand 1979, 38-41, 52-57, 74-86, 211-258, nos 133-328; Tran Tam Tinh *et al.* 1988a, 1988b; Fischer 1994, nos 560-660; Török 1995, nos 55-99; Syzmańska 2005, nos 53-127, pls vi-xiv; Bailey 2008, 13-17, 30-38, nos 3034-3084.
[9] Neils and Oakley 2003; Schmidt 2003, 256.
[10] Temple boys: Hadzisteliou-Price 1969, specifically 97-98 for the spread of the type; Beer 1987, 1994.
[11] Dunand 1979, 108-110.
[12] Sandri 2006, 163-186 for the roles of Horus the Child specifically, but these are applicable to many child deities. More generally, Dunand 1979, 74-87; Budde *et al.* 2003, 8; Sandri 2005, 344. Budde 2010, 1, 3-5.
[13] Budde *et al.* 2003, 6.
[14] Particularly Horus the Child: Sandri 2005, 342-343; Sandri 2006, 104-127, 147-149, 166-171.
[15] Müller 1963, 8-9.
[16] For the idea that the iconography may represent a kind of junior status, not strictly childhood, see Baines 2006, 11, referring to specific Old Kingdom reliefs showing sons alongside their fathers.
[17] Müller 1963, 8-9; Tran Tam Tinh 1973, 1-6; Sandri 2006, 200-203.
[18] Daressy 1905-1906, 49-65, pls x-xii; Roeder 1937, §61-68, 73-81), pls 6-9; Roeder 1956, §153, §158-162, §171-172, §174-175, pls 15-22; Meeks 2009, 3-6, §1.4-8. In reliefs: Budde *et al.* 2003, 7. For Horus the Child: Sandri 2006, 104-118.
[19] Sandri 2006, 106.
[20] Malaise 1975, 122-129; Sandri 2006, 102-103.

amulet, the 'chest pouch', in earlier times was associated with elite status, and in certain periods was restricted to royalty.[21] This type may actually be a container for amulets or magical material; it is usually shown with a pin pushed through the fabric to keep the pouch closed.[22] Some later terracotta examples continue the tradition of representing child deities wearing amulets, many with the newer motif of the Roman *bulla*.[23]

In temple reliefs and texts, child deities are associated with concepts of prosperity and regeneration but these associations themselves are tied closely to the deity's role as king.[24] Even among Ptolemaic-style representations, there are connections with kingship. Some terracotta child deities wear either the double crown or hold the cornucopia, a symbol commonly associated with Ptolemaic rule.[25]

Scholars frequently label child deity figures 'Harpokrates.[26] Harpokrates is the Greek equivalent of the Egyptian Harpakhered, 'Horus the Child'.[27] Horus the Child was the most popular child deity but he was not a generic type.[28] He was not the first or the only deity to make use of these child-like characteristics.[29] In Ptolemaic Egypt over twenty deities shared this iconography.[30] As Sandra Sandri emphasises, without an inscription it is very difficult to determine which child deity is represented.[31] Throughout this work, I use the term 'child deity' in order to avoid misidentification. Pharaonic-style bronzes were often dedicated with inscriptions naming the deity.[32] Most terracottas do not have inscriptions, and for these the generalised 'Harpokrates' ascription may not be erroneous. In this chapter, however, I use the term 'child deity' for Ptolemaic-style figures as well as for Pharaonic-style ones.

---

[21] Baines 2006, 8-16
[22] As a container, Baines 2006, 14-15.
[23] Lucchesi-Palli 1995, 207.
[24] Associations with prosperity and regeneration for Horus the Child: Sandri 2006, 172-185.
[25] For the cornucopia, see Fischer 2003. For both, see, for example: Dunand 1979: double crown, 52, table iv; cornucopia: 224-230, nos 190-216. Tran Tam Tinh *et al.* 1988a: double crown: e.g. nos 7-11, 14-15, 29-59, 68-70, 72-76, (1988b) 242-244; cornucopia: nos 23-105, (1988b) 243-245. Fischer 1994: double crown: nos 564, 570, 575, 583-584, 586, 590-592, 596, 599, 600-601, 603-605, 610, 617, 623, 625-626, 629, 632, 637, 639, 641-642, 646, 649, 652-660, 668; cornucopia: nos 571, 587-589, 593-601, 603-604. Török 1995: cornucopia: nos 58, 77-79, 81-82. Syzmańska 2005 (double crown), nos 54, 76, 81-82, 97, 101-102, 104, 107, 114, 116, 120-121; Bailey 2008: cornucopia: 14-15, 32-33, nos 3043-3048.
[26] Sandri 2006, 2-4 surveys the use of the term 'Harpokrates' in modern literature.
[27] Excursus on the name: Sandri 2006, 17-25.
[28] Sandri 2005, 342; 2006, 4-6.
[29] Khonsu the Child at Thebes as first: Sandri 2006, 198-199; Budde 2010, 7. But this could be related to a bias towards Theban material (personal communication, John Baines).
[30] Budde *et al.* 2003, 8; Sandri 2005, 342; Budde 2010, 7.
[31] Sandri 2005, 343; Sandri 2006, 5.
[32] See Hill 2001, 203 about the common practice of inscribing bronzes, and about why so few inscriptions are preserved. See De Meulenaere 1990 for typical bronze inscriptions.

At Thonis-Heracleion, both styles, Pharaonic and Ptolemaic, are in evidence. The child deity type is the only type that represents an Egyptian deity in both Pharaonic and Ptolemaic style at Thonis-Heracleion. The majority of the Ptolemaic-style statuettes are lead, while all but five of the Pharaonic style are bronze. The lead ones are comparable to many terracottas and presumably have a similar date and function (see 'Ptolemaic figures' below). Michel Malaise cites three bronzes of this type in the British Museum, London.[33] Günther Roeder provided examples of bronze child deities in Greek style, some sitting in a similar manner, but none holds a vessel on his left arm like the Thonis-Heracleion figures.[34] Achille Adriani described a coarsely-made lead figure from Ras el-Soda that holds its finger to its mouth, but he did not mention if it carried a pot and did not provide an image.[35] Otherwise, I know of no comparable lead child deities outside of Thonis-Heracleion.

*Pharaonic-style: Characteristics (**1-28**)*

All of the Pharaonic-style figures at Thonis-Heracleion exhibit at least two of the three Egyptian signifiers of youth: nudity, right hand to mouth, and sidelock on the right. Appendix 9a provides a list of the signifiers they exhibit. Both **11** and **20** are made of lead rather than bronze and both show the child deity in an unusual tightly-constructed block-like form with little detail. I have categorised them as Pharaonic-style because they do not exhibit any obvious Ptolemaic-style characteristics, but they are not typically Pharaonic-style either. They may be casts of unfinished models, similar to bronzes found at Galjûb, but even the Galjûb models have more prepared detail.[36]

Of the Pharaonic figures in Appendix 9a, the majority express at least two of the three main signifiers, and frequently all three. All of these are bronze, except for one of finely-crafted faience that belongs to a larger faience votive group (**12**) and four in lead, two striding (**11, 27**) and two seated (**19, 20**). Beyond those characteristics, physical features and attributes vary. They range from 3.2cm to 11.9cm in height, from 12.5 grams to 277.3 grams in weight. The smallest, **19** and **21**, probably sat on the lap of an Isis statuette, like those on **61-67**, but the goddess is not extant.

---

[33] Malaise 1991, 226.
[34] Roeder 1956, §162, 167, pls 16-18.
[35] Adriani 1952, 32.
[36] Ippel 1922 for the find, 17-19 for the items as models. Review of the Galjûb find: Treister 2001, 253-273.

The Pharaonic child deities exhibit two basic body positions: striding and seated. A third, crouched position is used for one Pharaonic-style figure (**8**). These positions are standard and have been noted elsewhere, in particular by Roeder in his iconographic subsection on child types.[37]

Some have suspension loops. The most common body position for those with suspension loops is the seated/reclining position, even though a striding figure would lie flatter against the chest: four seated child deities have suspension loops whereas two striding figures have a loop (Appendix 9). The use of this seated position even for figures with suspension loops suggests that the position had important connotations.

The child deities are organised in the catalogue by crowns, their most distinguishing feature, then subdivided according to whether they are seated or standing. Five types of crowns are extant and their relative use is shown in Appendix 9: the double crown (**1-5**), the *hemhem* crown with the *nemes* (**6-8**), the blue crown (**9**), the red crown (**10**), and possibly a schematic rendition of the double feather Amun crown (**11**).[38] In addition, at least one figure wears a skullcap (**12**). It is possible that others wore a skullcap but the detail on many is lost.[39] Figure **12** is the only faience child deity, and faience preserves detail that is often worn away on bronze or lead.[40]

In addition to crowns, a few of the more elaborate deities wear collars or amulets. Figure **23** wears a broad collar.[41] Some of the more elaborate Osiris bronzes also wear this collar (**46-47**). The faience Isis (**68**) wears the narrow, u-shaped *usekh* collar, like those described by Christina Riggs.[42] In addition, one child deity wears an amulet similar to the chest pouch described above; in this case the amulet is circular with two crossed lines through it, perhaps pins holding the pouch closed (**14**).

---

[37] Description of the positions: Roeder 1956, 104. Striding examples: Roeder 1956, §150-163; crouched: §164-167; seated: §168-176.
[38] Child deities with the double crown: Roeder 1956, §153, §159, §162a, §172b, §175b; Meeks 2009, 4, §2.1, nos 102-121 (striding); 4, §2.2, nos 122-131 (seated); Knigge Salis 2009, 2, §2.2, no. 11. *Hemhem* crown with *nemes*: Roeder 1956, §175l; Meeks 2009, 5, §6, nos 154-160; Knigge Salis 2009, 2, §2.2, no. 15. Blue Crown: Roeder 1956, §149g, §160, §172a, §175a; Meeks 2009, 5, §5, nos 148-152.
[39] Meeks 2009, 2, §1.1.1, nos 1-22 (striding); 2-3, §1.1.2, nos 23-64 (seated).
[40] A point made by Tom Hardwick for the faience Isis from Thonis-Heracleion (**68**): Hardwick in Goddio and Fabre 2008, 151, 344, no. 370.
[41] Broad collars: Handoussa 1981 (*usekh* specifically); Andrews 1990, 118-123.
[42] Riggs 2001.

*Pharaonic-Style: Identifications*

At Thonis-Heracleion, one statuette base bears an inscription naming Horus the Child as the recipient of the dedication (**292,** Appendix 11). This inscription demonstrates that Horus the Child was worshipped at this site, but the base lacks a statuette. The holes on its top suggest that it supported a striding figure. Most of the examples of child deities wearing the double crown at Thonis-Heracleion probably represent Horus the Child as well.

The double crown is a composite crown made of two elements: the white crown, essentially representing Upper Egypt, and the red crown, essentially representing Lower Egypt. Together, the crowns represent the unity of Egypt, rulership over the entire land, and possession of essential aspects of kingship. The double crown thus is a powerful symbol of authority related to kingship.[43] Horus the Child was the son of Isis and Osiris, and was closely linked with the pharaoh.[44] As Sandri notes, he was not just a son, but Osiris' first-born and heir to his throne.[45] Some other child deities are known to wear the double crown, but it is the most common crown in Horus the Child's repertoire.[46] Without inscriptions it is impossible to know with certainty what deity is being represented, but we can identify at least five (with caution) as Horus the Child. If we include the examples associated with Isis (**19** and **21**), as well as base **292** and the Isis *lactans* statuettes (**61-67**), the number increases to fifteen (likely) attestations of Horus the Child. If figure **11** wears the double feather crown, then this figure may also represent Horus the Child.[47] Examples of similar inscribed child deity statuettes name Horus the Child, who was called the 'son of Amun' in certain inscriptions.[48]

The identities of the remaining Pharaonic-style deities are less secure; at least some probably represent Khonsu in light of his reputed importance at the site. Typically, Khonsu is mummiform with a crook and flail, but this type is most commonly associated with his cult in Thebes and the deity is also known in other forms.[49] Three bronze statuettes wear the *hemhem* crown with the *nemes* (**6-8**). Various child deities

---

[43] Abubakr 1937, 60-62; Strauss 1980, 813; Collier 1996, 16-36; Goebs 2008, 35-110. For statuettes, Weitz 2012, 31, 2.2.2.2.e.
[44] Sandri 2006, 129-135.
[45] Sandri 2006, 132.
[46] Sandri 2006, 106-109; Meeks 2009, 4, §2 (Harpocrates). For examples of child deities with the double crown, see the comparanda for **1** and **2** in Volume 2.
[47] Weitz provides a list of child deity statuettes with the double feather crown and sun disc from Delta sites; all with preserved inscriptions name Harpakhered (2012, 991-992, table 2, types 62 and 64).
[48] Sandri 2006, 147-149.
[49] Knigge Salis 2009.

were represented in bronze wearing the *hemhem* crown with the *nemes,* including Horus the Child, Khonsu, and Somtus.[50] The third figure (**8**) represents a nude child deity seated on a lotus flower.[51] Figures on lotus flowers use this combination of the *hemhem* and *nemes* frequently (see Figure 2.1 for comparison).[52] The examples of child deities on lotus blossoms are often linked with Somtus or Horus the Child.[53] The *hemhem* crown establishes the royal status of the child, while the lotus associates the child with the rising sun, rebirth, and renewal. Similar representations are known particularly from Sais and Memphis.[54] Statuette **10** may also have some relationship with Sais, not only because it shares the same crown as Neith, but also because child deities with this crown are occasionally found in groups with Neith (see comparanda).[55]

Image removed for reasons of copyright

Figure 2.1. Child deity wearing the *hemhem* crown, seated on a lotus. Bronze. Egyptian Museum, Cairo, no. 31657.

Figure **9** represents a seated child deity wearing the blue crown, a crown usually associated with royal legitimacy and the coronation.[56] The crown is one worn most frequently by kings, and among bronzes, child deities are the only deities to wear it, again cementing the connection between the child deity and royalty.[57] Two inscribed examples of a striding child deity wearing the blue crown, noted by Dimitri Meeks, are named as Horus the Child.[58] If the crown is directly linked with the legitimate passage

---

[50] Yoyotte and Chuvin 1988, 175-176. Horus the Child: Sandri 2006, 112-115. Harpokrates: Meeks 2009, 5, §6, nos 153-160. Khonsu: Knigge Salis 2009, 2, §2.2, no. 15.
[51] Daressy 1905-1906, 62-64, nos 38219-38225, pls xi-xii; Roeder 1956, §166; Hornemann 1951-1969, III, pl. 781; Meeks 2009, 6, §7.5, nos 191-193. Horus the Child on the lotus: Sandri 2006, 120.
[52] Daressy 1905-1906, 62-63, nos 38219-38221, pl. xi; Roeder 1956, §166.
[53] Sandri 2006, 120; Meeks 2009, 6, §7.5. Meeks cites one inscribed Horus the Child (no. 191). For Harsomtus, see Waitkus 2002. Emma Swan Hall associates the figure with Nefertem because lotus blossoms have a strong connection with his iconography: Hall 1977, 55, fig. 2, pl. xxiv, citing in note 8, page 58, Morenz and Schubert 1954, 64-68 for Nefertem on the lotus. She refers to the figure shown here, Figure 2.1. As Budde notes, however, Nefertem never acquired the designation *pa-khered* and was never represented as a child deity (2010, 7). Even the figure Hall describes as Nefertem was actually originally described by Daressy as 'Harpocrate' (1905, 63, no. 38221, pl. xi).
[54] Weitz 2012, 144.
[55] Neith and Horus: Sayed 1982, 111-114.
[56] Royal coronation and legitimacy: Davies 1982, 75-76; Collier 1996, 118-126 suggests a specific link to Amun which Hardwick rejects (Hardwick 2003, 121, n. 21). Hardwick argues that the crown expresses the pharaoh's humanity (2003, 119-121). Weitz (2012, 29-30) notes, meanwhile, that the blue colour has celestial connotations.
[57] Weitz 2012, 133
[58] Meeks 2009, 5, §5, nos 148-152.

of power, the most likely candidates to wear the crown at Thonis-Heracleion would be Horus the Child as son of Osiris and Isis, or Khonsu the Child as the son of Amun.

One statuette may represent Khonsu the Child (**12**) more because of its context than its appearance.[59] Figure **12** is striding, with a finger held to the mouth, nude, and wearing a skullcap with a uraeus. It was discovered along with a group of fine faience amulets in a deposit in the main temple area. David Fabre suggests that this faience child deity was intended to represent Khonsu, in view of the prominence of Khonsu at the sanctuary and the significant placement of this deposit, which he argues is a foundation deposit.[60] Andrews, when discussing glazed-composition (faience) amulets like figure **12**, says that all represent Harpakhered, the son of Isis and Osiris, but the lack of inscriptions on amulets and the recent studies emphasising the multiplicity of child deities and the complexities of their iconography makes this statement difficult to support.[61]

Fabre's identification of figure **12** as Khonsu calls into question the degree to which Horus the Child and Khonsu the Child are distinct at this site. Khonsu's typical iconography represents him as nude or mummiform, and usually with a moon disc on his head,[62] but as Carsten Knigge Salis notes, Khonsu takes on more and more of Horus the Child's iconography in the first millennium BC.[63] Direct conflation of the deities, where they are referred to as Khons-Harpakhered*,* also occurs in three separate cases: once on a temple relief at Philae, on a statuette in Baltimore, and in an oracle papyrus from the Third Intermediate Period.[64] The same association at Thonis-Heracleion may explain the complete lack of 'typical' Khonsu figures at a site where Khonsu was one of the most prominent deities.

*Ptolemaic Figures: Characteristics (**29-40**)*

The Ptolemaic-style examples contrast sharply with those of Pharaonic style. Nine of the twelve conform to the same type; all nine are lead (see Appendix 9b). Within this type, the figure is nude and wears a sidelock; it is always seated on its buttocks on a

[59] See Chapter 5, 'Individual Deposits'.
[60] Fabre 2008, 138.
[61] Andrews 1994, 16.
[62] Daressy 1905-1906, 65-66, nos 38228-38229, pls xxii, xxvii-xxviii; Roeder 1956, §152, 159b, 161a, 171b, 175l; Knigge Salis 2009, 1-2, §1, 2.1; Weitz 2012, types 66-68 (nude), 76 (mummiform), pls 19a-c, 20f-i.
[63] Knigge Salis 2009, 2, §2.2, nos 8-16 citing Daressy 1905-1906, nos 38182 [11], 38202–38203. See also Roeder 1956, §175l.
[64] Sandri 2006, 155-156.

small platform with its short, chubby legs extended in front, usually with the feet touching. The belly is bulging and rounded, often with a deeply indented navel, and each figure holds a small pot under the left arm. Five have a large phallus resting between the feet, one has lotus buds instead of a sidelock, and one has lotus buds in addition to the sidelock.

The type representing a child deity holding a pot is common among terracottas and emerged in the first half of the third century BC.[65] The contents of the pot are debated. Some argue that it contains food intended to nourish the child and his followers, while others suggest Nile water, which nourished the fields and produced the abundance of food for which Egypt was famous.[66] Among the Ptolemaic figures, the child deity's powers of fertility and productivity come to the forefront of the iconography. However the pot's contents are interpreted, the underlying symbolism revolved around ideas of nourishment and productivity.[67] The enlarged phallus is another such symbol, and is rooted in the iconographic tradition of both the Greeks and the Egyptians.[68]

One lead figure (**38**) is seated as if on a throne in a pose much like some of the Pharaonic-style statuettes, but with an enlarged phallus reaching to its knees and possibly a double crown. The posture combined with the enlarged phallus, has a few pre-Ptolemaic terracotta parallels, but the earliest stratified date for terracotta figures with the double crown is the first half of the third century.[69] The final two figures (**39-40**) are fragmentary but both show the child deity wearing a large wreath which places them in a festival context.[70] Figure **39** also wears a version of the double crown on top of the wreath. The details are not sharp because the lead wears easily. Figure

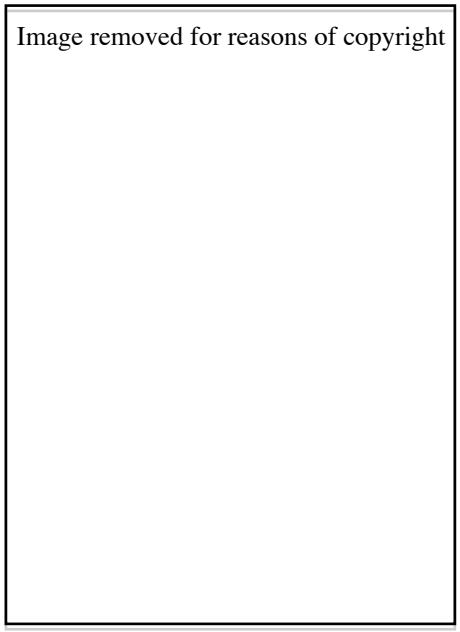



Figure 2.2. Ptolemaic-style child deity wearing the lotus buds and double crown on top of a wreath. Terracotta. Sammlung Schreiber, Tübingen, no. 4924/25.

[65] Malaise 1991, with comprehensive bibliography; 1994; Györy 2003. Date: Györy 2003, 168.
[66] Malaise 1991, 226-231; Fischer 2003, 148; Györy 2003, 188-189.
[67] Malaise 1991, 231-232; Györy 2003, 193.
[68] Fischer 1999, 37-42; Schmidt 2003, 253-256.
[69] Fischer 1994, 79, no. 560, 565. For the development of the use of the enlarged phallus: 1994, 79-80; 1999, 37-42; for the double crown: 1994, 79.
[70] Compare the Dionysiac wreaths at Athribis: for example, Syzmańska 2005, 203, no. 127, pl. xiv.

2.2 shows the crown, lotus buds, and wreath in detail, and gives an idea of what is represented on figure **39**.

Osiris (**41-60**)

From the site come seventeen intact Osiris figures (**41-57**), and three fragments (**58-60**). They range in size from 6.0 to 32.2cm, and in weight from 12.5 grams to 206 grams. All are bronze. Osiris is one of the central deities of Egyptian religion, and his prominence is reflected at Thonis-Heracleion.[71] Osiris is first securely attested in the 5th Dynasty in texts and images. He had two primary, interrelated aspects: ruler of the underworld and guarantor of fertility and regeneration. In the first aspect, Osiris was closely related to the pharaoh, acting almost as 'a personification of dead kingship' as stated by Alan Gardiner.[72] The pharaoh was assimilated in life to Horus and in death with Osiris. Initially Osiris may have originated at either Busiris or Abydos. He became increasingly popular in the Late and Ptolemaic Periods and was worshipped throughout Egypt.[73] At sites where the iconographic subjects of bronzes have been tallied, Osiris is often the most common type by a wide margin (see Chapter 5).

Osiris was mostly commonly represented standing or seated and fully draped in a shroud-like garment from which his head and hands emerged.[74] In this form, Osiris holds the crook and flail, two symbols related to kingship, and he wears a divine beard.[75] His usual crown is a composite consisting of the white crown flanked by two feathers, which is a specialised version of the *atef* crown.[76] More elaborate versions add curving ram horns at the bottom and further uraei. Even more uraei, often in pairs, can hang from beneath the horns. These more elaborate versions, which are first attested in the 18th Dynasty, are common in relief and can also be seen on bronze or mixed media figures (at Thonis-Heracleion, **265**).[77] The crown has associations with rebirth and

---

[71] I give a brief summary here of Osiris' characteristics and cult connections from Bonnet 2000, 568-576, and Griffiths 1982 and 2001. For further bibliography see Griffiths 1980 (cult origins); Otto and Hirmer 1968 (art and cult); Wegner 2002 (Abydos); Coulon 2010 (cult in the first millennium BC). For the status (and difficulties) of iconographic studies of Osiris, see Baines 1972.
[72] Gardiner 1960, 104.
[73] Griffiths 1982, 625; Coulon 2010.
[74] Daressy 1905-1906, nos 38230-38412, pls xii-xxi; Roeder 1937, §89-106; 1956, §177-231.
[75] Griffiths 1982, 627-628; Bonnet 2000, 575. Crook and flail: Roeder 1937, §425-426.
[76] Collier 1996, 44-53 argues that it is a separate crown from the *atef*, but others treat it as an alternate version. For use of the term *atef* crown: Abubakr 1937, 7-18; Strauss 1980, 814; Griffiths 1982, 627-628; 2001; Weitz 2012, 28-29.
[77] Elaborate versions with uraei and sun discs developed in the eighteenth dynasty: Collier 1996, 139; Weitz 2012, 29.

regeneration, as related to Osiris' rule of the underworld.[78] The colour of Osiris' skin often was painted deep green or black on reliefs, emphasising his fertility aspect.[79]

In general, Osiris at Thonis-Heracleion conforms to standard iconography, but the statuettes contribute to discussions of typology and iconography in one important way. Roeder, in his study on Egyptian bronzes, concluded that the arm positions of Osiris bronzes reflected the region or workshop in which they were made (Figure 2.3):[80] Osiris bronzes with the right fist above the left fist were made in Lower Egypt, the Delta region (the asymmetrical position); those with fists held close or touching were thought to come from Middle Egypt (symmetrical); those with arms crossed were thought to be from Upper Egypt.[81] In addition to the position of the hands, Roeder also identified other markers that, for him, had geographic significance.[82] Appendix 10 lists the majority of these characteristics for the Thonis-Heracleion figures.

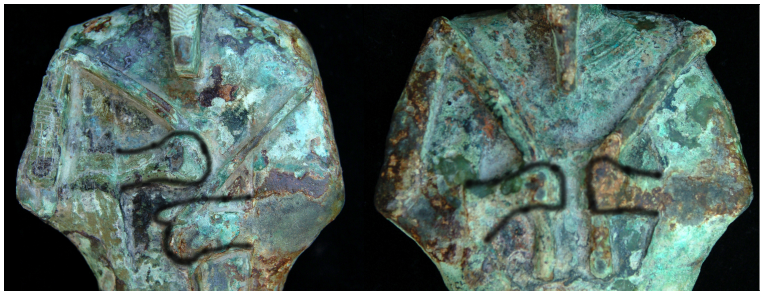


Image removed for reasons of copyright

Figure 2.3. Osiris arm positions. Right fist above left, asymmetrical, 'Lower Egyptian', **41** (left); fists parallel, symmetrical, 'Middle Egyptian', **47** (middle); arms crossed, 'Upper Egyptian' (right). Figure with crossed arms: Staatliche Museen, Berlin, no. 8671.

From Appendix 10, the first striking result is the distribution of hand positions. None from Thonis-Heracleion have the crossed arms position, a fact that conforms to Roeder's theory since he associated that position with Upper Egypt. The majority of the Thonis-Heracleion figures (twelve), however, show the 'Middle Egyptian' symmetrical position, where the fists are held opposite each other. The remaining five show the 'Lower Egyptian' position where the right fist is held above the left (asymmetrical).

The supporting characteristics present equally conflicting results. A few conform to his schema. A sun disc may have surmounted the crown on **56**,[83] and **43**, **48**, and **55**

[78] Collier 1996, 47.
[79] Baines 1972, note 1 for a concise summary of the sources.
[80] I use Wuttmann's (*et al.* 1996, 433) terms for the arm positions, 'symmetrical and asymmetrical', to simplify the English phrasing (as opposed to right fist above left fist and so on).
[81] Roeder 1937, §345; 1955, §2, 248-249; 1956, §223-225.
[82] The following section is a summary of Roeder's views (1955, §3, 249-252) regarding secondary characteristics.
[83] Roeder 1955, 251, §3e.

have additional loops at the feet, for Roeder a 'Middle Egyptian' characteristic. Two of these are symmetrical, and one is asymmetrical, but the latter is close to a hybrid type identified by Weitz, where the hands are only slightly asymmetrical.[84]

Most do not conform, however. For example, on three symmetrical bronzes ('Middle Egyptian'), the ends of the crook and flail are omitted, a supposedly 'Upper Egyptian' characteristic.[85] In the case of cloak slits, three of the five 'Lower Egyptian' bronzes show them, but four of the symmetrical figures do so too.[86] The beard is fully attached to the neck and chest on fourteen of the sixteen figures. Roeder noted that most 'Middle Egyptian' symmetrical examples had beards that were separate but attached with a strut. Only one beard is attached with a strut (**41**), and the arm position is asymmetrical, not symmetrical. One figure (**46**) has a beard that inserted separately, for Roeder an 'Upper Egyptian' trait, but this figure does not have crossed arms.[87] Eight have a pedestal beneath their feet (a 'Lower Egyptian' characteristic);[88] of those that do have a pedestal, half are symmetrical and half are asymmetrical. Osiris **48** and Osiris **43** have decorated shafts for the crook and flail with single, evenly-spaced lines, a characteristic that Roeder assigns to the crossed arms 'Upper Egyptian' position, but **43** is asymmetrical, while **48** is symmetrical.[89]

Overall, the Osiris bronzes do not support Roeder's assertions either in the key iconography of arm position or in the secondary iconographic elements. Jean-Claude Grenier also acknowledges that the association with geographic regions is probably incorrect, but notes that the typology itself is functional.[90] Grenier examines the statuettes from the Museo Gregoriano Egizio, Vatican in light of Roeder's typology, and notes several additional interesting patterns in the material, particularly that the symmetrical type frequently switches the positions of the crook and flail, but the asymmetrical type never does.[91] Hill, who edited a comprehensive exhibition catalogue on Egyptian bronzes, also expressed reservations about using Roeder's Osiris typology in a geographic sense.[92] Nevertheless, in the same volume, another author used this very

---

[84] Multiple loops: Roeder 1955, 252, §3l.
[85] Omitted crook and flail ends: Roeder 1955, 251-252, §3j-k.
[86] Cloak slits: Roeder 1955, 250, §3c.
[87] Beard attachments: Roeder 1955, 251, §3g.
[88] Presence of pedestal: Roeder 1955, 252, §3l.
[89] Crook and flail decoration: Roeder 1955, 251-252, §3j-k.
[90] Grenier 2002, 93.
[91] Grenier 2002, 93-94. Also for Thonis-Heracleion (**44, 49-50**) and Weitz 2012, 378. Grenier also notes that any Osiris bronzes with double loops (back and foot) also have back pillars. This is not always the case at Thonis-Heracelion (**48**).
[92] Hill 2007, 127, fn. 10.

argument for the catalogue entry of an Osiris bronze, noting that the figure was probably from Upper Egypt because of its crossed arm position.[93]

Few scholars have directly confronted Roeder's assertions with provenanced evidence and for that reason this geographic association persists. Michel Wuttmann noted that at 'Ayn Manawir, of the bronze statuettes that had been restored, none had crossed arms, even though 'Ayn Manawir is an Upper Egyptian site with a large collection of Osiris bronzes. Instead, as at Thonis-Heracleion, most had a symmetrical arm position while a smaller number had the asymmetrical position, but Wuttmann did not use this material to directly contradict Roeder's study.[94]

Christiane Ziegler notes that the statuettes discovered by Auguste Mariette at Saqqara do not conform to Roeder's iconographic schema, but she does not contradict his basic theory; instead she suggests that perhaps people brought *ex-votos* from their own regions to the site.[95] At Thonis-Heracleion, however, most do not reflect what for Roeder would be a Delta origin. Pilgrimage cannot explain such a large discrepancy. Moreover, upon closer inspection, of those Osiris statuettes that did have a provenance in Roeder's study, few match up with the geographic assignation that Roeder gave them based on iconographic markers.[96]

Weitz, in her study on Delta bronzes, contradicts Roeder but continues to assign a geographic significance to the arm positions.[97] She notes very few statuettes with the crossed arm position, and likewise notes that both the 'Middle Egyptian' and 'Lower Egyptian' types are common in the Delta.[98] She concludes that, as Roeder suggested, the crossed arm position was an 'Upper Egyptian' position, but that the other two positions were both 'Lower Egyptian' positions.[99] If we consider the evidence from 'Ayn Manawir, however, we see that the same patterns are evident no matter the geographic location. The crossed arm type is rare in Upper and Lower Egyptian sites, and the symmetrical and asymmetrical types are common in both of those geographic regions.[100] Weitz constructed tables of provenanced Osiris statuettes, and her tables do show that some Upper Egyptian sites have examples with the crossed arm position, but

---

[93] Maarten Raven in Hill 2007, 128.
[94] Wuttmann *et al.* 1996, 433.
[95] Ziegler 1996, 36.
[96] Roeder 1937, 227, §630; Hill also critiques Roeder's geographic divisions (2007, 127, fn. 10).
[97] Weitz 2012, 377-378.
[98] Weitz 2012, 378.
[99] Weitz 2012, 378.
[100] Wuttmann *et al.* 1996, 433.

most are from Medinet Habu; it is possible that this position has a special significance to that settlement and immediate area.[101]

The main support for Roeder's argument is that when he examined groups of statuettes, he associated the Osiris iconography with the local deity with whom Osiris was represented — if he was represented with Neith, he was shown with a 'Lower Egyptian' position.[102] At times, however, Egyptian deities were shown in contrasting rather than complementary pairs. Collier notes this tendency in representations of crowns and sees it as part of a wider Egyptian tendency to emphasise duality.[103] Finally, when Roeder's schema is applied to relief and statuary, the results do not match well.[104]

This is not to say there is no significance to the arm positions. As Grenier notes, the typology itself is useful and does highlight real iconographic patterns, even if those should not be related to geography.[105] Josef Riederer also noted that when he tested statuettes with metal analysis, the alloys fell into three distinct groups matching those arm positions;[106] this does not mean that they relate to specific geographic workshops, but simply that the types are distinct and significant in some way. To understand the meaning behind these iconographic clues, however, we need to start looking at potential reasons for these differences beyond geography. For some of the characteristics, certain tendencies could be explained in terms of quality. For example, lower quality items may have less modelling and would have the beard attached. Alternatively, the arm positions could relate to the real or imagined ritual context of the Osiris statuette.

Roeder rejected chronology as an explanatory factor,[107] but it may have played a role. As noted in Chapter 1 ('Stratigraphy'), at Thonis-Heracleion the distribution of the ceramics suggests that the northern section of the site is older than the southern part and that occupation gradually transitioned from north to south. Figure 2.4 shows the distribution of Osiris at the site. The green circles mark the figures with symmetrical fists while the blue circles mark those with the asymmetrical position.

---

[101] Weitz 2012, 1003-1006, Table 3b.
[102] Roeder 1955, 249; 1956, §179.
[103] Collier 1996, 150.
[104] Roeder 1955, 281.
[105] Grenier 2002, 93.
[106] Riederer 1981, 240-241.
[107] Roeder 1955, 247.

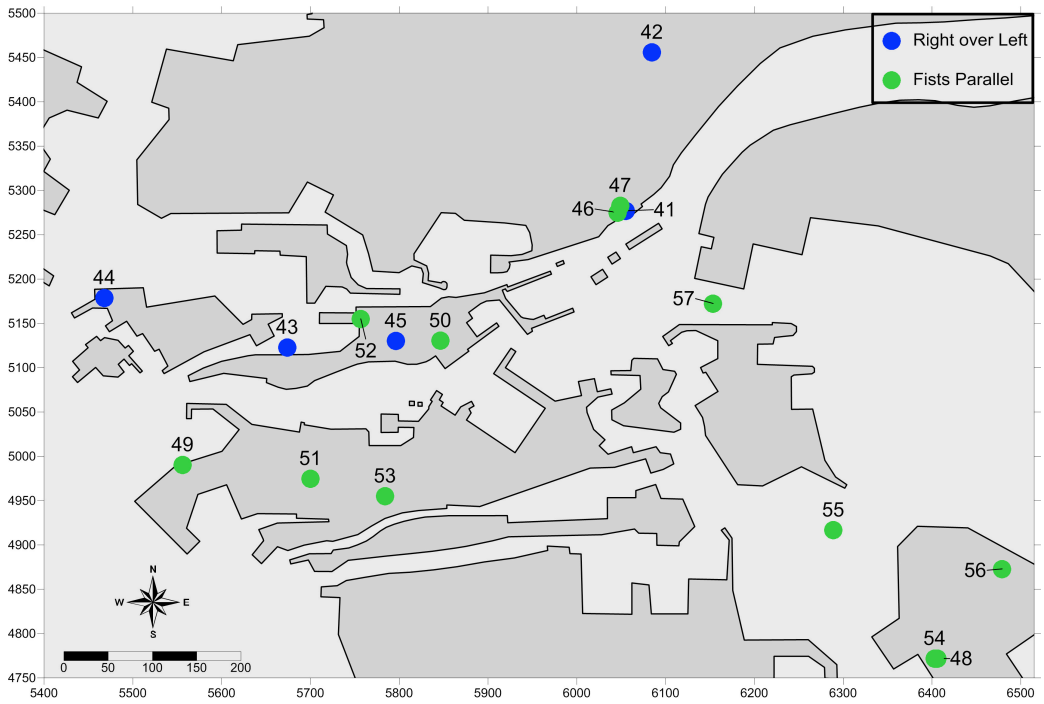



Figure 2.4. Distribution of Osiris figures with the fists in the symmetrical position (fists even, green) against the asymmetrical position (right over left, blue).

The distribution is significant. The blue dots are confined to the area north of the Grand Canal which is mostly characterised by fifth and fourth century pottery, or older material, while the green dots are more widely distributed.[108] This suggests that the asymmetrical type is an early type that does not extend into the Ptolemaic Period. None appear in areas characterised primarily by Ptolemaic ceramics and Ptolemaic-style figurines (see Chapter 5).[109] The sample size (only five for the asymmetrical type), is too small, and the disturbed stratigraphy also forces caution. The distribution should be further tested at other sites as more Osiris statuettes are found in controlled excavations. Nevertheless the hypothesis offers a good starting point for future considerations that break from the geographic mindset.

## Isis (**61-68**)

Eight Isis figures have been discovered, seven bronze (**61-67**), and one of green-glazed faience (**68**). Isis, like Horus the Child and Osiris, was one of the most popular deities in Egypt, particularly in the first millennium BC. She was the sister-wife of Osiris and the mother of Horus and thus was symbolically mother to the pharaoh. Her

[108] Grataloup 2010, 151-154.
[109] Grataloup 2010, 155-156.

name is first attested in the fifth dynasty in the Pyramid texts.[110] In the Late Period, her popularity dramatically increased and by the Ptolemaic Period she was worshipped in her hellenised form all over the Mediterranean.[111]

Isis is nearly always shown in anthropomorphic form, standing or seated on a throne.[112] Among bronzes, the most common representation of Isis is the nursing type, where Isis holds a child deity (Horus) and offers him her breast to suckle.[113] The figures at Thonis-Heracleion all show this type in Pharaonic form, rather than in the Greco-Roman *lactans* version.[114] Pharaonic-style Isis wears the traditional tight sheath dress of Egyptian goddesses, she has a frontal posture, and her child sits perpendicular to her body. Seven of the eight examples are seated. The eighth figure (**68**) is only preserved from the chest up. It clearly belongs to the nursing type, but we cannot assume it was seated like the others, since there are some examples of the nursing/suckling type where both Isis and Horus the Child are standing.[115]

Isis commonly wears one of two crowns, both of which are attested at Thonis-Heracleion. The first has the appearance of a throne, which is the hieroglyph for Isis.[116] Not only does the crown provide her name, but it emphasises her role as queen and mother of the legitimate heir to the throne, Horus. This throne is worn only by the faience Isis (**68**).[117] The remaining seven wear the 'Hathor crown'. This crown consists of a sun disc set into two long cow horns, often resting on a circular support formed by uraei placed side-by-side.[118] Originally the crown was associated with the goddess Hathor, but from the Middle Kingdom onwards, Isis and Hathor were often assimilated and Isis was frequently shown wearing the crown.[119] In addition to the crown, figure **63** wears the vulture head-dress, an attribute usually reserved for mother-figures among

---

[110] Bergman 1980, 186; Bonnet 2000, 326-333.
[111] For the diffusion of Isis throughout the Greco-Roman world, see e.g. Witt 1971; Dunand 1973; Arslan 1997. Cult at Karnak in the Ptolemaic Period: Coulon 2010.
[112] Bergman 1980, 189.
[113] For the *lactans* type in general, see Müller 1963 and Tran Tam Tinh 1973, especially 7-16. Although Tran Tam Tinh focuses on the Greco-Roman manifestations of this type, he provides a good overview of the Pharaonic development. For Pharaonic-style bronzes where Isis nurses Horus, see Daressy 1905-1906, pls lxi-lxii; Roeder 1937, §140-148; 1956, §688a-f. For Greek Isis bronzes, see Bricault and Podvin 2008.
[114] Müller 1963, 13-15 for the stylistic differences between the Pharaonic and Greek representations.
[115] Hornemann 1951-1969, V, pls 1254-1257; Roeder 1956, §685d, although most show her sitting.
[116] Andrews 1994, 48, for faience and stone Isis amulets with the throne crown.
[117] Bergman 1980, 186-188; Bonnet 2000, 326.
[118] Bergman 1980, 186; Bonnet 2000, 328-329.
[119] Malaise 1976, on the development of this crown. More recently, Malaise 2009 for the Greco-Roman version.

queens and goddesses.[120] The faience figure **68** wears a short, beaded, u-shaped *usekh* collar.[121]

Of the eight Isis statuettes, seven have a child attached. The child is on Isis' lap, at a right angle to her, with the head near her left breast, and supported by her left hand. In typically Pharaonic style, the head of the child faces forward and is not turned toward Isis' breast. The feet dangle off Isis' lap on the right. Like other child deities, he is nude with the sidelock. Six have both hands at their sides; the position of the right arm is undetermined on the remaining figure (**67**). Four have heads intact, none with an extant crown.

Nefertem (**69-76**)

Eight Nefertems come from Thonis-Heracleion. Since the Old Kingdom, Nefertem manifested through the lotus blossom, and was associated with the perfume of the lotus flower and pleasant aromas.[122] He also had a militaristic and punitive side and was alternatively named as the son of Bastet or Sekhmet, reflecting the pacific and aggressive aspects of feline goddesses.[123] In the Late Period, Nefertem's role altered further and he became associated with good luck.[124] Two major cult centres for Nefertem were Memphis and Bubastis.[125]

Nefertem usually appears in anthropomorphic guise as a striding figure, wearing a short kilt, the tripartite wig, a beard, and a distinctive crown.[126] The crown is comprised of a lotus blossom framed by a menat sign on either side and surmounted by two tall feathers. The crown itself, however, can also symbolise Nefertem.[127] The majority hold their arms stiffly at their sides; some carry a scimitar.[128]

All six figures represent the same iconographic type and they vary only in quality, weight, and height. Five are lead and three are bronze. The intact bronze Nefertem (**69**) preserves the most detail, including striations on the kilt and on the tripartite wig. All

---

[120] Roeder 1937, §470; Weitz 2012, 48.
[121] Riggs 2001.
[122] Schlögl 1982, 378-379. For Nefertem, see also Bonnet 2000, 508-510; Houser-Wegner 2001; Aubert and Aubert 2001, 292-295.
[123] Schlögl 1982, 379; Bonnet 2000, 509-510. Connections with Bastet: Roeder 1956, 20, §19c, 20d, 23a, 444a, 602c, 633a. Connections with Sekhmet: Roeder 1956, 19-20, §663e, 687c.
[124] Schlögl 1982, 379; Bonnet 2000, 510.
[125] Roeder 1956, 19-20.
[126] Daressy 1905-1906, nos 38076-38100, pl. vii; Roeder 1937, §10-18; 1956, §19-25.
[127] Schlögl 1982, 379; Houser-Wegner 2001.
[128] Roeder 1956, 21; Schlögl 1982, 379; Houser-Wegner 2001.

are striding with their hands at their sides; none carry the scimitar. Roeder noted that larger figures carried the scimitar while smaller figures have their hands at their sides.[129]

All have suspension loops except for **71** and **76**. Several scholars have noted that many Nefertem figures have loops, even large, bulky statuettes.[130] Although this is not a phenomenon associated solely with Nefertem, as Georg Steindorff suggested,[131] it is an important signifier of Nefertem's role as a protector and bearer of good fortune. Nefertem is also a common subject among small faience, metal, and glass amulets.[132]

Miscellaneous Deities (**77-80**)

In addition to the types described above, which are all represented by multiple statuettes, a further four Egyptian deities appear only once in anthropomorphic form: Amun (**77**), Shu (**78**), Neith (**79**), and Maat (**80**). Amun was one of the most important deities of the Egyptian pantheon, with major centres of worship in Thebes and Luxor, and, as noted previously, he also had a central role in religious life at Thonis-Heracleion as the titular deity of the sanctuary.[133] Amun is always represented in human form, usually seated or striding, wearing the double feather crown, and numerous bronzes exist that inform the original appearance of Amun **77**.[134]

Shu is a creator god, and is associated with the atmosphere and life. Together with Tefnut, he created Nut and Geb, the sky and earth. He separated the two by lifting Nut aloft.[135] As an amulet, he is frequently shown lifting a sun disc and thereby supporting the sky.[136] Amulet **78** is the only attestation of Shu at Thonis-Heracleion, but it is important to note that the Naos of the Decades, which features Shu-Sopdu, originates from nearby Canopus and dates to 378-361 BC, contemporary with Thonis-Heracleion.[137] Thus, while his presence is limited at Thonis-Heracleion, the god was a significant figure in the neighbouring city.

---

[129] Roeder 1956, 21. Roeder commented on this distribution and also provided a table representing which figures in his catalogue have the suspension loop and which do not (ten do, two do not).
[130] Nefertem amulets: Andrews 1994, 63-64. For large pendants, Steindorff 1946, 42; Roeder 1956, 21.
[131] Steindorff 1946, 42.
[132] Andrews 1994, 18-19.
[133] See introduction, Chapter 1 for Amun at Thonis-Heracleion. For Amun in Egyptian religion, see Wainwright 1934; Otto and Hirmer 1968; Morenz 1973; Assmann 1995; Tobin 2001; Guermeur 2005. As a dedication: Aubert and Aubert 2001, 254-260.
[134] See the comparanda for **77** in Volume 2.
[135] Te Velde 1984; Aubert and Aubert 2001, 170-173.
[136] Andrews 1994, 19.
[137] Von Bomhard 2008, 2010; Thiers 2010.

Like Amun, Neith is a popular figure, frequently represented in bronze, commonly depicted striding, wearing a long form-fitting dress and the red crown. She had a wide range of roles but was well known as the goddess of Lower Egypt. She gained great prominence in the Late Period as patron goddess of Sais, when that city acted as the capital for the rulers of the 26th (Saite) Dynasty.[138] Neith's position as a powerful goddess in the same geographic region as Thonis-Heracleion, as well as her contemporaneous rise in power, explains her appearance at Thonis-Heracleion. Like the Amun example, the only surprise, perhaps, is that more representations of Neith have not been discovered.

Maat is represented in bronze elsewhere, but less frequently. The concept *maat* has connotations of balance, order, and harmony; *maat* held back the forces of chaos and destruction, and was an important element in Egyptian theology. The goddess Maat acted as a personification of these elements.[139] In bronze, Maat is commonly shown wearing an ostrich feather as a crown, seated by herself or in a group, accompanied by baboons or ibises.[140] In wider media, Maat was rarely the recipient of cult offerings, but rather acted an offering herself; when a person offered Maat, the action was a symbolic representation of restoring balance.[141] The Thonis-Heracleion Maat appears to sit at the top of a standard, and may have been carried in procession, signifying the restoration of order and balance achieved through ritual action.

***Pharaohs, Priests, and Unidentified Deities (81-90)***

Representations of bronze pharaohs and priests fall into two main categories: individualised and generic. Individualised priests and pharaohs are those that represent particular people, usually with inscriptions identifying them, like the fine Egyptian bronze priest discovered at Ephesos or the pharaoh from Thonis-Heracleion (**81**).[142] Generic characters act in a secondary context, as part of a group, and are important not for their individual features, but for the action in which they participate.[143] Examples of both individualised and generic priests are catalogued in Mendoza's monograph on

---

[138] For Neith in Egyptian religion, see Schlichting 1982; Sayed 1982; Watterson 1996; Simon 2001. As a dedication: Aubert and Aubert 2001, 315-320.
[139] Assmann 1990; Teeter 2001.
[140] Roeder 1956, §258b.
[141] For Maat in Egyptian religion, see Assmann 1990; Teeter 1997; Teeter 2001. As a dedication: Aubert and Aubert 2001, 185-186.
[142] Priest: Winter 1971.
[143] Mendoza 2008, 2-3. See also, for example, Daressy 1905-1906, 39379, pl. lxiii.

Egyptian priestly bronzes as are individualised and generic representations of kings in Hill's monograph on royal bronzes.[144] Hill notes that the production of generic kings began in the Third Intermediate Period and was popular in the Late Period.[145]

Three kings are represented, two of which were probably individualised (**81, 83**) while one appears to be generic (**82**). Figure **81** is one of the finest statuettes from Thonis-Heracleion, and it represents a striding pharaoh, 21 cm in height, wearing the blue crown. An inscription on the belt shows a royal name in a cartouche. It is difficult to read, not from wear or corrosion, but because the person who inscribed the name did not know hieroglyphs well (see Appendix 11 for hieroglyphic inscriptions). One suggestion is that it names Psamtik II, who ruled Egypt from 595-589 BC during the 26th dynasty.[146] Psamtik II's royal name is the closest approximation for the hieroglyphs shown of any king that ruled when Thonis-Heracleion was an active port.[147]

One of the closest parallels for this figure is a kneeling bronze king wearing the blue crown, which Hill assigns to the 26th dynasty.[148] Stylistically, the oblong, or triangular face, the prominent ears, small, plump mouth, pointed chin, and softly modelled torso of pharaoh **81** fit well with representations from the 26th dynasty. Bernard Bothmer implies that the decorative circles on the blue crown only came back into fashion (from earlier New Kingdom examples) in the post-Persian Period, as compared with Saite representations with plain blue crowns.[149] Hill, however, contradicts Bothmer, noting instead that the presence or lack of decoration appears to be a difference between stone and bronze rather than a chronological indicator.[150] Thus, the decoration on the crown does not contradict the identification of Psamtik II.

While the Saite statuette is a good parallel, a statuette from the 4th century BC of a kneeling king wearing the blue crown, widely identified as Achoris, is perhaps even closer in some ways.[151] Nearly every iconographic feature of the two statuettes is similar, except their poses: the blue crown with decorative discs, a uraeus whose tail

---

[144] Hill 2004; Mendoza 2008.
[145] Hill 2004, 75-76.
[146] Personal communication, David Fabre. For Psamtik II in bronze, see Hill 2004, 82-83. For representations of Saite kings, see Myśliwiec 1988; later royal images, Josephson 1997. Late Period iconography and statuary in general, Bothmer 1960.
[147] Von Beckerath 1984, 216-217, 3.T1.
[148] Hill 2004, 87, 217, LPPt-8, no. 212, pl. 56.
[149] Bothmer 1960, 88-89, no. 71, pl. 67 (post-Persian with circles - Achoris) compared with undecorated examples dating to the Saite Period (Apries, 58-59, no. 51, pl. 47 and Amasis, 61-62, no. 53, pl. 50).
[150] Hill 2004, 87 (fn. 48), 94. John Baines (personal communication) also points to the lack of securely-identified stone statuary and relief from this period; to make a chronological judgment from such a limited sample is not necessarily reflective of the reality.
[151] Hill 2004, 92-94, 166-167, LPPt-20, no. 32, pl. 65 (Bothmer's no. 71, pl. 67 in his 1960 volume).

extends far up the crown, a border around the edges of the crown, tabs in front of the ears, an unusual streamer at the back of the crown, and a belt with an inscription that curves beneath the belly on the top edge and is straighter on the bottom edge. One of the few differences is that the uraeus on the Achoris statuette has double coils, while the Thonis-Heracleion example has single coils. A further parallel from the fourth century shows a kneeling bronze king wearing the blue crown with a similar streamer.[152] The face of this figure is narrower, like pharaoh **81**, and the breasts are similarly fleshy with prominent nipples.[153]

On all three statuettes, the most important diagnostic feature is the streamer that extends down the back, from the crown to the waist. Hill states that the streamer on Achoris projects outward at the neck, curves, and then rejoins the back and progresses in a vertical line down to the belt, creating a small loop at the neck, exactly like figure **81**.[154] This type of streamer is very distinct and, according to Bothmer and Hill, is probably a post-Persian feature.[155] Figure **81**, however, demonstrates that this motif began as early as the Saite Period.

This striding position, with one arm raised and the other at the side, appears in bronze first under the Kushite kings.[156] If figure **81** is accepted as Psamtik II, then this stance demonstrates at least some continuity of motifs between dynasties in bronze. A few of the Kushite kings also have holes pierced through their fists, presumably for attributes like a mace, staff, or stave. The significance of this position in the context of ritual is ambiguous. Hill notes that some of the statuettes with this pose are reflexive representations, some with the left arm raised, others with the right arm raised (like **81**). Based on this observation she suggests that they may have worked as complementary pairs, perhaps as guardians or as steersmen for barks.[157] If they were on a bark, Hill says the steersmen held the mooring line in the raised hand. For **81**, with holes for two attributes, the guardian position with staff and mace seems most appropriate.[158]

In addition to **81**, one other bronze fragment may represent an individualised king (**83**). Even though the face is fragmentary, the angle of the neck indicates that the

---

[152] Hill 2004, 96-97, 212, LPPt-23, no. 193, pl. 68
[153] Hill 2004, 212.
[154] Hill 2004, 93.
[155] Hill 2004, 93-94. Bothmer links the dating of this feature to the decoration of blue crowns (Bothmer 1960, no. 71), and thus considers the streamer post-Persian. While Hill disagrees with Bothmer regarding the blue crown decoration (page 47 and note 150 a, she maintains that the streamer is likely post-Persian.
[156] Hill 2004, 71-72; for the standing type in general, 122-123.
[157] Hill 2004, 122-123.
[158] See also Chapter 3, 'Standards', for associations with installations like the Osiris fetish.

king was in a lowered or running kneeling position with the head tilted upwards.[159] Bothmer studied one particular life-size granite statue of Osorkon II in the lowered kneeling position whose head had the same tilt, and he references other examples in statuary.[160] The position is related to the ritual of the coronation of the king.[161] Hill states that the running kneeling and lowered kneeling positions are very rare in bronze, based on current evidence, and cites only two in the running kneeling position, and one prostrate figure.[162] She suggests that there are so few not because we are missing a range of types, but because there may have been some sort of convention against representing kings in bronze in that fashion.[163] As a result, **83** is either part of a very unique statuette, or it demonstrates that there may be more fragmentary kingly bronzes of this type than previously suspected.[164] That the figure is individualised rather than generic is evident from the facial modelling, albeit worn, and by the size. When complete, the figure would have been larger even than **81**.

In addition to these individualised statuettes, there are a range of unidentified males, all smaller scale and more corroded. The smallest (**82**) wears the red crown, and can be compared with a few bronze kings, even though this is not a crown frequently shown on royal bronzes.[165] The red crown could relate to the Saite kings, because of their relationship to Neith and their rule of Lower Egypt, but, as Hill notes, one example from Saqqara that dates to the 4th-2nd c. BC demonstrates that the crown continued in use for royal bronzes even after the Saite Period.[166] Another generic image may represent a priest or cult servant (**84**). The figure is bald, like a priest, although its kneeling position is peculiar; this figure has the right leg folded beneath him, but has the left knee raised with its foot flat on the ground.[167] Roeder cites a few parallels, all of which he describes as cult attendants in the context of Bes and child deity cult.[168] Ptolemaic-style representations of child deities, as well as Cypriot style temple boys show a similar posture (‘Ptolemaic-style Child Deities’, above). Hadzisteliou-Price

---

[159] For these terms, see Hill 2004, 123.
[160] Bothmer *et al.* 2004, 106-107, 117 note 13.
[161] Hill 2004, 123.
[162] Hill 2004, 123-124.
[163] Hill 2004, 123.
[164] It is possible that some, perhaps even **83**, were mixed media, which would be much harder to identify as kings if their wooden parts decomposed or if bronze attachments broke.
[165] See, for example, the limited number of representations in Hill 2004 in the comparanda for **82** in Volume 2.
[166] Hill 2004, 101, 189-190, no. 103, pl. 80 and 239, no. 298, pl. 55.
[167] For typical offering positions with both legs folded under the body, see Hill 2004, 121-129 (royalty), and Mendoza 2008, 2 (priests).
[168] Roeder 1956, §164.

suggests that the seated position developed from representations that show a child deity crouched on a lotus blossom (like **8**).[169]

For many of the remaining anthropomorphic finds, the difficulty stands in determining whether they represent kings or deities. Most have a beard, something that rarely appears on royal bronzes, at least as it seems from Hill's corpus of royal statuettes.[170] Several of the Thonis-Heracleion examples are also in the striding position which is a rare position for kings in bronze.[171] Both of these factors suggest that the majority of the unidentified males are deities rather than kings.[172] Christian Herrmann names similar striding, bearded, kilted, and uncrowned figures as Nefertem.[173] While the iconography fits well with Nefertem, I hesitate to make that conclusion without a crown. Nevertheless, if these were added to Nefertem's corpus, it is interesting to note that there would be fewer pendants proportionally, but still a higher proportion of lead than bronzes.[174] It would also raise the profile of this popular deity further.

***Unidentified Figures and Fragments (91-105)***

Where possible, fragments that belong to an identifiable type were assigned to that category. There are several fragments, however, that cannot be so easily assigned. The majority are identifiably Egyptian: for instance, **99** and **100** both show the lower portion of a frontal figure in a long dress extending to the ankles. This type of dress is similar to one worn by goddesses.[175] The arm fragments have clenched fists or open palms face down, as on the pharaoh and Nefertem representations or the child deities. Other fragments are ambiguous. Four related figures, all from the same pre-Ptolemaic zone, are particularly enigmatic (**91-94**). The projecting tubular elements perhaps

---

[169] Hadzisteliou-Price 1969, 95-96.
[170] Hill 2004: only nos 55 (red crown, kneeling), 188 (nemes, kneeling), 103 (LPPt-36, pl. 80, red crown, kneeling), 297 (double crown, seated), 301 (TIP-19, pl. 28, nemes, kneeling) have beards, excluding kings in the guise of a god or sphinx.
[171] Hill 2004, 122-123.
[172] Although in relief, in contrast, the royal beard is very common. For example, see the reliefs at Dendara (Cauville 1997). Why some kings in relief wear the beard and others do not is unclear; the presence of the beard does not appear to be related to crown type. See, for example, Cauville 1997, vol. 1, pl. vii where two kings wear the blue crown, one with and one without the beard; or vol. 2, pl. v which shows a figure with a red crown and a figure with a blue crown without beards, but a figure with a cap crown with a beard. These are just a few of many examples and the relationship between these patterns and the subjects of the reliefs should be studied in more depth. The striding position is also common in these reliefs, although this may have more to do with filling the relief space. These discrepancies do, however, raise the question to what degree statuettes really are modelled after local reliefs as Hill suggests (2004, 111-112), as opposed to statuary, and how much is determined by rules of decorum and representation suited only to bronze. A broader comparison between bronzes and relief may answer some of these questions.
[173] Herrmann 2003, 94, no. 87.
[174] See Chapter 3, 'Material Choice'.
[175] Weitz 2012, 47, §3.1.1.1.

represent a headdress or hair, but I have not discovered any parallels that reveal their identity.

### *Vulvate and Phallic Figures (106-113)*[176]

This category encompasses figures whose most heavily emphasised characteristic is the genital region. Scholars have used different terms to describe such *ex-votos*, including erotica and fertility figures, neither of which are entirely satisfactory.[177] To avoid presupposing their function as much as possible, I address their physical appearance rather than their function. Even then, by putting emphasis on the vulva or phallus, I may give short shrift to some. Nor is this category complete; some figures, such as the phallic Ptolemaic-style child deities could also be included, but better fit another typological category (**29-33**).

Females include two lead 'Baubo' statuettes and two nude terracotta plaque women. The 'Baubo' statuettes show a woman with her legs spread, displaying her vulva (**106-107**).[178] The Thonis-Heracleion figures rest their hands on their knees, but some terracotta examples have one hand pointing, touching, or covering the genital region further emphasising the vulva.[179] The sexual attributes of **106** are outlined with metal inlay. Some scholars use the term 'Baubo' in reference to a character from Greek myth. Whether these figures actually represent Baubo is a matter of debate. The type is more common in Egypt than Greece; instead it seems likely that they were generic fertility-promoting females.[180] I retain the descriptor 'Baubo' for familiarity, but with reservations.

Figures **108** and **109** represent two terracotta nude women. A mould sibling at Naukratis reveals that **108** was nude and held a tambourine (Figure 2.5).[181] Figure **109** probably held one as well or some other attribute; terracotta plaque women without attributes hold their arms at their sides with the hands near the hips, but the hands are

---

[176] Described in Heinz 2011, 216 as 'genital-display'.
[177] 'Erotica', for example: Derchain 1981. Fertility figures: Pinch 1993, 198-234. Problems with the terminology as it stands: Waraksa 2009, 12-15.
[178] For a good review of this type in terracotta (similar in style and representation to the lead examples) see Török 1995, 190-191; Karagiorga-Stathatopoulou 1986 for Baubo as related to Classical imagery. On the gesture performed by Baubo, and its possible ancient interpretations, see Dexter and Mair 2010, 33-41.
[179] For example, Fischer 1994, nos 831-839, pls 87-88; Török 1995, 131-132, nos 186-190, pls c-ci, as well as other examples listed under the comparanda for **106**.
[180] See Török 1995, 132-133, no. 190 and Bailey 2008, 46-47 for concise reviews of the debate.
[181] Museum of Classical Archaeology, Cambridge, NA589. See Villing *et al.* 2013, for this figure with photo and bibliography.

not visible on statuette **109**.[182] László Török suggests that those who held tambourines represent women associated with Hathor, the goddess of love, dance, and music, although probably not the goddess herself, who was usually clothed.[183]

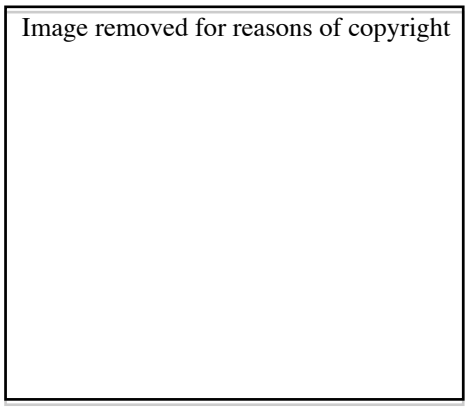



Figure 2.5. Mould sibling of figure 108. Terracotta. Originally from Naukratis. Museum of Classical Archaeology, Cambridge, NA589.

Terracotta statuettes of nude women were relatively common in Pharaonic art and were produced through the Ptolemaic and Roman Periods. This particular type has a date range between 550 and 330 BC.[184] Figure **108** was found in the Grand Canal, in a zone with 5th-4th century finds, while **109** was near a 6th century wreck. Many similar nude females of the New Kingdom through the Late Period are presumed to be fertility figures.[185] Free-standing women and relief representations on plaques, like this one, were very popular and the identity of the goddess represented, or whose cult encouraged the production of statuettes and plaques like these, is again debated.[186]

Elizabeth Waraksa, however, proposes that these terracottas actually acted as aids in healing rituals, and were ritually broken after the spell, based on her study of the finds from the Mut precinct at Karnak.[187] The breakage pattern of the Thonis-Heracleion figures, particularly **109**, is consistent with her proposal. Waraksa acknowledges that these females were probably connected to fertility but more generally to health. She argues convincingly that a desire or hope for fertility is not always the primary motivation behind figures just because they are represented nude.[188] Admittedly, with females that are not only nude, but which emphasise the genital region, sexual fertility was probably a larger concern (such as 'Baubo' **106)**.

---

[182] I use the term 'plaque' here because it is general usage, but Waraksa argues against the use of 'plaque' and says that these figures should be considered as lying down on a bed (2009, 26, fn. 133).
[183] Török 1995, 138-139, nos 208-209. See Bailey 2008, 7-8 for the range of identifications, with bibliography. See also Fink 2009.
[184] Villing *et al.* 2013, with full bibliography and dating for this figure (NA589).
[185] See Waraksa 2009, 116-117 for a review. For later nude goddesses, also traditionally presumed to be fertility figures, see Bailey 2008, 7-9 with bibliography.
[186] For instance, as opposed to Török above, Waraksa suggests that the figures are deliberately generic, and are imbued with a goddess' essence (perhaps different goddesses even with the same figurine type) only during the ritual for which they were used (2009, 169).
[187] Waraksa 2009, particularly, 116-123, 166-175. As noted previuosly, most were found in dumps where they were discarded after the ritual (2009, 16-18, 20-21, 72-76, 169).
[188] Waraksa 2009, 67-69; for the execration spells: 124-165.

In addition to the female vulvate statuettes, the site has one phallic male in limestone, *c.* 14 cm high, which represents a nude adult carrying a child on his shoulders (**110**).[189] The child has an enlarged phallus that extends above the adult's right shoulder. In *Egypt's Sunken Treasures,* the adult is described as a woman because of the child and because of the adult's rotund belly, which does resemble the stomach of a pregnant female.[190] Below the stomach, however, a round break indicates where an enlarged phallus protruded. This male strongly resembles others of stone, terracotta, and faience found in deposits at Saqqara and elsewhere, in specialised cult areas and also in public contexts.[191] These men are thought to be cult attendants related to the cult of child deities, Bes, and the Ptah-Sokar-Osiris *phallophoria*. The shaven head suggests a priest, and his protruding belly, large phallus, and the child's phallus underline the concepts of fertility and regeneration so central to those cults.[192] These phallic cult attendants date as early as the 6th century and continue into the Ptolemaic Period. This figure probably dates to the beginning of the Ptolemaic Period or slightly earlier based on stylistic parallels.[193] The adult's head is ovular and falls under the 'egg-head' type described by Robert Bianchi, which he places in the 4th century.[194]

In addition to the full-size phallic figure, there is a fragmented phallus and two model phalli (**111-113)**. Amulets representing phalli are not common in Egypt, although earlier wooden model phalli provide evidence for a pre-established tradition.[195] Carol Andrews and Claudia Müller-Winkler both draw a material distinction, noting that dark stone examples are more likely of the Late Period while faience and glass examples are probably Ptolemaic.[196] Phalli **111-113** are difficult to characterise according to these

---

[189] For the protective symbolism of this stance, see Page Gasser 2001, 119.
[190] Goddio and Fabre, 191, 308 no. 111.
[191] For Saqqara, see Quibell 1907, 12-14, 28-29; Derchain 1981; Jeffreys and Smith 1988, 33-35, 41, 63. For Athribis, Myśliwiec 1997. See also Fischer 1994, 29-30 for comparanda at other sites (Memphis, Mit-Rahine, Naukratis, Ras el-Soda, Hermopolis, El-Kantara, Cyprus), Martin 1987 for examples in the Egyptian Museum, Cairo and Bailey 2008, 69-80, pls 36-46 for the British Museum, London. For close parallels, as well as more general ones such as these, see the comparanda for **110** in Volume 2.
[192] For a good overview of these types and their connection to cult, see Derchain 1981; Fischer 1994, 29-35; Török 1995, 52-57, nos 48-53, particularly nos 48 and 50; Bailey 2008, 69-80. The two types (cult attendants and seated Harpokrates) are undoubtedly related: Török 1995, 54.
[193] Fischer 1994, 31. Török gives a later date, around the end of the Late Period and beginning of the Ptolemaic Period (1995, 52), but these examples are different from figure **110**. Fischer's example is the best parallel (Fischer 1994, no. 2, pl. 1) and he dates this piece to the beginning of the Ptolemaic Period.
[194] Bianchi 1982, esp. 149.
[195] For the rarity of phallic amulets, see Müller-Winkler 1987, 190. Wooden model phalli (comparable with limestone phallus **112**) are known from Hathor temples of the New Kingdom. See, for example, Pinch 1993, 233-245, pls 52a,b-53. These may have been more common than surviving evidence suggests, but many may have degraded unless preserved under the right conditions.
[196] Müller-Winkler 1987, 191-192 (material), 193 (date); Andrews 1994, 71. Müller-Winkler narrows the dating of stone examples and suggests that they date to the 26th dynasty (1987, 191, 193), although a wider sample is necessary to test this hypothesis.

criteria. Andrews suggests that the amulet was intended to protect and preserve the owner's phallus.[197] Müller-Winkler acknowledges this interpretation but suggests that it more strongly represented concepts of regeneration, sexual potency, and fertility enhancement.[198] Some model phalli in limestone have been found in Saqqara and Ras el-Soda, together with the deposits of phallic cult attendants (described above), and it may be in this context that the Thonis-Heracleion pieces should be interpreted — as *ex-votos* for the *phallophoria* or for the deities of related cults.[199]

***Greek-Style Figures (114-127)***

Females (**114-119**)

Several anthropomorphic figur imitate types developed in the Greek mainland. The only securely-identified Greek deity is Athena, of which there are three representations. One is a small bronze statuette, *c.* 9.2 cm, while the second and third are bronze medallions displaying busts of Athena (**114-116**). The statuette conforms to a common small-scale bronze type that draws from large-scale statuary of the fifth and fourth centuries BC. Later Roman copies provide a glimpse of what the original large-scale statues looked like, particularly copies such as the Athena Giustiniani, Athena Rospigliosi, and Athena Velletri.[200] The Athena Giustiniani, which is shown to the right (Figure 2.6), is a particularly close comparison for Athena **114** and many other similar small-scale bronzes in terms of its stance and overall appearance.[201]

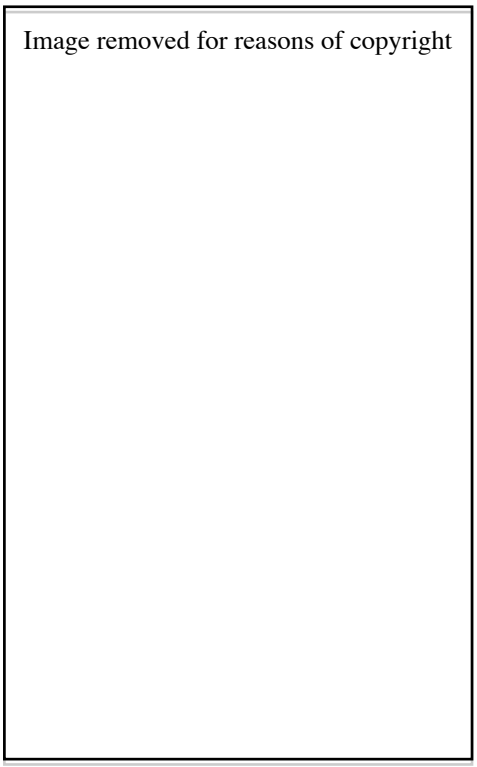



Figure 2.6. Athena Giustiniani, Braccio Nuovo, Vatican, no. 114. Roman marble copy of a Classical Greek bronze original.

[197] Andrews 1994, 71.
[198] Müller-Winkler 1987, 190.
[199] As noted by Török 1995, 56. In cult contexts: Quibell 1907, 12-14, 28-29, pls xxvi-xxix; Adriani 1952: phallic figures, 29, type 2 — pls xiii (figs 1-2), iv (fig. 4), xv (figs 1-6), xxix (fig. 3), xxv (figs 4,6); phalli: pl. xxv (fig. 5); Derchain 1981.
[200] Boucher 1976, 138-139. See also the Velletri type: Harrison 1977, 150-155, 164-178; Ridgway 1981, 176-177, with bibliography on 190. Louvre, Paris copy: Nocca 1997.
[201] For this particular type's importance as a model for small-scale bronzes, see Boucher 1976, 138-139, especially fn. 98. For this statue in particular, see, for example, Furtwängler 1895, 359, 362, fig. 157.

The medallions are a pair, probably decorations for vessels, furniture, or personal adornments. They each display Athena's head and shoulders in three-quarter profile with the same attributes but mirrored, with one facing left (**116**) and the other facing right (**115**). On each medallion, Athena wears a triple-crested Corinthian helmet. Early examples are known from Lycian coins as early as 380 BC.[202] The type is also common on the obverse of Alexander's gold coinage, the stater and distater starting in 330 BC; these show her wearing a triple-crested helmet, with similar long, stylised curls framing her face.[203]

Apart from the Athena representations, two further terracottas represent goddesses (**117-118**). Figure **117** is an enthroned draped female dressed in a chiton and himation. The figure is much like other seated goddess types from the Late Archaic and Classical Periods; the type was most popular in Rhodes followed by Athens, Corinth, and Boeotia, but was imitated all over the Mediterranean.[204] Thousands of examples of seated goddesses are known from the sanctuary of Demeter and Kore in Cyrene, many imported.[205] The seated goddesses have been alternately identified with Athena, Hecate, Artemis, Demeter, or Cybele.[206] Figure **117** probably belongs to a type that was especially common in the 5th-4th centuries — the so-called phiale type.[207] Figure **118** may represent the head of one such figure; the figure wears a crown called the *polos* together with a wreath, on which traces of paint remain.[208]

Unlike the previous examples, a small lead figurine of a young girl probably represents a mortal figure (**119**). The girl stands and holds something at her side, possibly a bird as known from parallels;[209] she has her hair in the rolled melon coiffure so popular among Tanagra figurines. Tanagra terracottas are common throughout the Mediterranean in the Hellenistic Period and represented (usually) women and girls in a wide range of daily activities. Stylistically **119** fits well with some of the earliest Tanagra-type terracottas around the mid-fourth century BC.[210] This example, however,

---

[202] Villing 1997, 214.
[203] Mørkholm 1991, 42-44, figs 7-8, for identification and examples. For possible identifications for the obverse, see Bellinger 1963, 3-6. Villing 1997, 214.
[204] Higgins 1967, 57-58.
[205] Uhlenbrock 1992, 2010.
[206] Higgins 1967, 60, 88 (Demeter and Persephone), 72 (Athena, Hecate), 74, 80 (Artemis), 92 (Hera). For Hellenistic representations of Cybele as a seated goddess, see Thompson 1963, 57-58.
[207] Uhlenbrock 2010, 93-100.
[208] *Polos*: Müller 1915. Painted terracottas: Jeammet 2003, 192-197. For Greco-Roman terracottas in general: Fischer 1994, 22-23.
[209] See comparanda for **119**.
[210] Thompson 1952, 1952, 138-140, nos 29-32, pl. 3.

has no himation or it is hanging low and off the shoulders, unlike the heavily-draped early examples discussed by Dorothy Burr Thompson.[211] It is more akin to a series of Tanagra figures from Alexandria that date to the end of the fourth century, and that have their himation loose around their hips.[212] The melon coiffure looks like later versions from the early third century where the hair is pulled back in a bun, but **119** lacks detail.[213]

Males (**120-127**)

Greek male deities are few. The first (**120**) probably represents Dionysus, the Greek god of grapes, wine, and revelry; he is distinguishable from Serapis by the lack of a modius as well as by the shorter-cropped hair that ends just above his ears.[214] Generally Serapis' hair is thicker, longer, and frames the face.[215] Other divinities have a similar appearance, such as the greywacke Nile god discovered in Canopus, but this lead object may have been an appliqué for a vessel.[216] Images of Dionysus and Silenus frequently decorated vessels because of their association with wine and drinking and thus Dionysus seems to be the most suitable identification for this object.[217] Jean Yoyotte emphasises the role of Dionysus in the Canopic region, and at Thonis-Heracleion specifically, because of the god's close association with Osiris.[218]

Herakles (**121**) is nude and well-muscled, but wearing a chlamys or possibly a lion skin that drapes down his back to the ground. The figurine is worn but the proportions of the head are exaggerated; it may be laureate. Herakles is frequently shown nude and laureate on terracottas from Egypt.[219] Similar lead statuettes from the Graeco-Roman Museum in Alexandria are also identified as Herakles.[220] Herakles was associated with Khonsu by the Egyptians, and he was popular in Egypt from at least the 6th century BC.[221] This, however, is the only Herakles at Thonis-Heracleion thus far.

---

[211] For Tanagras, see Thompson 1952, 128-137; Kleiner 1983; Jeammet 2003; 2007; Tezgör 2007. For the melon coiffure, see Kleiner 1984, 15; Thompson 1952, 138-140, nos 29-32, pl. 36.
[212] See Tezgör 2007 in the comparanda for **119**, Volume 2.
[213] Thompson 1952, 139.
[214] Visual survey of Dionysus: Gasparri 1986.
[215] Serapis heads from Canopus: Goddio and Fabre 2008, 52, 177, 294-295, nos 19-20.
[216] Smith 2008, 80-83.
[217] *Cf*. Williams 1976, 52, no. 4 (Dionysus) and 51-52, no. 3 (satyr mask). See also Jenkins 1994 for a range of higher quality Dionysiac masks from metal vessels, which he discusses in the context of Dionysus/Pan's association with Osiris-Apis in Egypt.
[218] Yoyotte 2010.
[219] For example, Breccia 1934, pl. xliv.
[220] See the comparanda for **120** in Volume 2.
[221] For Herakles in Egypt, see Höckmann 2010.

The most impressive Greek-style male is a large, detailed limestone head (**122**). In a preliminary analysis, Zsolt Kiss suggested that the fragment represents the head of a deity, possibly Baal or Herakles-Melqart, because of the fine quality, its size, and the iconographic peculiarities of the cap it wears. The conical cap has several unusual features, including a row of four protrusions that run vertically down the cap, in addition to a large bow at the front where the cap's ear flaps are tied up. According to Kiss, the large protrusions down the front of the cap may be studs or precious stones sewn to the cap. The value of these stones contribute to his identification of the figure as a god.[222] It is a Cypriot work, as evidenced by the large, almond-shaped, flat-relief eyes. Kiss dates the piece between the late sixth and early fifth centuries BC.[223]

Fabre and Goddio briefly mention the alternative possibility that the head could come from a non-divine statue, and this theory seems more likely.[224] While the figure is very finely crafted, Cyprus has a strong tradition in the Late Archaic and Early Classical Periods of fine limestone statuary, frequently representing human beings who offer their own votive image.[225] Moreover, for a deity like Baal, one would expect a bearded face, while Herakles-Melqart wears the lion skin headdress.[226] The head fits very well with a series of Cypriot limestone shaven male heads from Golgoi that was established around the 5th century BC and continued into the 4th century (Figure 2.7).[227] The archaeological context at Thonis-Heracleion, defined by pottery from the 5th and 4th centuries, corresponds with this stylistic date.[228] For two busts, Antoine Hermary suggests that the rounded protrusions on the cap may represent amulets.[229] Alternatively, if the cap was made of leather, these could be studs (see above), or they could be stiffened areas.[230]

Image removed for reasons of copyright

Figure 2.7. Limestone head of a male votary wearing a pointed cap. Louvre, Paris, AM 3276.

---

[222] Kiss in Fabre and Goddio 2012, 82.
[223] Kiss in Fabre and Goddio 2012, 82.
[224] Fabre and Goddio 2012, 93, 99-100, fn. 48.
[225] For examples, see Gjerstad 1948; Vermeule 1974; Hermary *et al.* 1989; Karageorghis 2000; Faegersten 2003.
[226] For example, Hermary *et al.* 1989, 299-304, nos 597-607; Lembke and Xenophontos 2004, 42-47 (5.1.1), 155-162, nos 35-100, pls 5-11.
[227] Hermary *et al.* 1989, 219-235, nos 444-474.
[228] Fabre and Goddio 2012, 85-88.
[229] Hermary *et al.* 1989, 234, 261.
[230] Decorative attachments on the *pilos*: Daremberg and Saglio 1962, 479.

In the Archaic Period the conical cap was very popular in Cyprus, and was worn by all people, dignitaries and commoners alike; it appeared on large limestone statuary and among terracotta figurines.[231] With these later heads, this tradition continues, but the cultural significance of the cap altered somewhat. Hermary notes that this particular cap is very similar to one worn by Persian kings, and he theorises that these statues represent the young sons of elite Cypriots who used the cap as a way of signifying their support of the Persian satrapy, but indirectly through their sons.[232] One early example of a Cypriot 'temple boy' has the same almond-shaped eyes in flat relief and a similar pointed cap, although without the distinctive nodules and bow.[233] This example may shed light on the body types for the heads catalogued by Hermary and for figure **122**.[234]

The remaining males are smaller and less articulated. The first is a small, blocky sandstone head (**123**) with large, loaf-shaped, flat-relief protruding eyes and ears. It may be another Cypriot-style object but I have no precise parallels. It is cut very smoothly across the neck, as if the head was a stand-alone piece, but it could just be that the break smoothed over. Two final items may be related to theatre, and thereby the god of the theatre, Dionysus. One is a partial theatre mask, similar to many others discovered in Egypt (**125**). Another represents a small bronze head wearing a pointed cap (**126**). In Greek tradition, the *pilos* is a pointed cap, often worn by common people and travellers. As a result, it is a common attribute for representations of actors, a category of representations that was popular in Egypt around the third century BC.[235]

### 2.2. *Hybrid Deities* (128-138)

The most common hybrid figure, with four examples, is Bes, a composite representation of a dwarf with a leonine face (**128-131**).[236] This type of image was used to represent a number of deities but the representation is collectively referred to as a Bes-image or just Bes.[237] The Bes-image was known since the Old Kingdom.[238] Bes had a number of functions, foremost among them being a bringer of good luck and a

---

[231] Hermary *et al.* 1989, 22-42.
[232] Hermary *et al.* 1989, 219.
[233] Beer 1994, 21-22, no. 36, pl. 84d; secondarily, 61-62, no. 205, pl. 130c-d.
[234] Temple boys: Hadzisteliou-Price 1969; Beer 1987, 1994.
[235] *Pilos*: Daremberg and Saglio 1962, 479-481. See the comparanda for **126** for a range of possible identifications.
[236] For Bes-images, see Ballod 1913; Bonnet 1952, 101-109; Altenmüller 1975; Romano 1989; Abdi 1999; Dasen 1993, 55-83; Malaise and Mertens-Fonck 2001; Kaiser 2003.
[237] Ballod 1913; Romano 1989, 12-14; Dasen 1993, 55-57.
[238] Chronological study of Bes-images: Romano 1989.

protector of women and children.[239] He was a very popular figure and was commonly represented as an amulet at least since the Eighteenth Dynasty, and as a bronze statuette since the Late Period.[240] The value of his image as an apotropaic symbol is attested by the many representations of him on domestic items, such as containers, furniture, and toiletries.[241] At least three figurines show him with a feathered headdress (**128-129, 131**), an element that was a major part of his iconography since the New Kingdom.[242]

In addition to the Bes-images, seven further hybrid deities fall into two main categories: falcon-headed (**132-135**) and feline-headed (**136-138**). Three of the four falcon-headed deities wear the double crown. Figure **132**, in its current state, looks lion-headed but the double crown is an attribute far more common among hybrid falcons.[243] The crown and the falcon are associated with Horus, the heir to Osiris' throne, with whom the pharaoh was assimilated; this crown is the same as that worn by some child deities described above (**1-5**). Two with the double crown, both lead, may represent Horus the Child (**133-134**). Georges Michaïlidis highlights a bronze representation of a nude falcon-headed Horus the Child.[244] The smaller proportions, narrow faces, and crowns of **133** and **134** parallel Michaïlidis' 'Harpokrates'. Figure **133** also sits in a seated/reclining position similar to many bronze child deities. Goddio and Fabre associate the final falcon-headed figure (**135**) with Khonsu. Weitz notes that the figure wears a solar disc rather than a lunar disc, from which she suggests the figure could be a solar deity such as Horus of Letopolis.[245] Images of a falcon-headed Khonsu wearing the solar disc are known, however, from Karnak;[246] thus either interpretation is possible but in light of the context Khonsu seems likely.

The feline-headed bronzes include one representation with a cat head and two with lion heads (**136-138**). The cat-headed figure (**136**), Bastet, holds an aegis. The right fist is pierced and probably held a sistrum, one of Bastet's most common attributes in

---

[239] Bes' functions: Dasen 1993, 67-80.
[240] For Bes in the Late and Ptolemaic Periods, see Romano 1989, 170-211. For comparanda, see **128-129** in Volume 2.
[241] For example, Page Gasser 2001, 114. Bes-vases: Kaiser 2003.
[242] Bes iconography, summary: Romano 1989, 212-221; Dasen 1993, 57-60.
[243] See, for example, Roeder 1956, §116-120.
[244] Michaïlidis 1968, 78, pl. XII, A. Meeks also mentions falcon-headed Harpokrates examples, although I do not know if they have the tripartite wig or not: Meeks 2009, 7 (2.2.B.1).
[245] Weitz 2012, 397.
[246] Degardin 2000.

this form.[247] Bastet is a common subject among bronze representations, but at Thonis-Heracleion this deity is more frequently represented as a seated cat. The lion-headed deities are also striding (**137-138**). These types of bronzes are frequently referred to as Sekhmet, the best-known female lion-headed deity, but they may actually represent a range of deities including Wadjet and Bastet.[248] Weitz notes that sometimes the provenance of the figure is actually the best determinant of its identity; for example, these lion-headed goddesses are Bastet at Bubastis and Wadjet at Sais.[249] Thonis-Heracleion probably hosted a cult of Bastet (see 'Cults'), but not enough is known about it to identify these figures confidently as Bastet.

### 2.3. Zoomorphic Figures (139-261)

Zoomorphic figures are only slightly less popular than anthropomorphic at 38% of the assemblage, and the percentage is smaller if only Egyptian-style animals are taken into account. Frequently zoomorphic images in Egyptian art are categorised as domestic or wild.[250] In tomb paintings and relief, domestic and wild animals are commonly used to create settings with symbolic meaning related to the afterlife.[251] Among statuettes, however, this division has less relevance. Statuettes still have an imagined context, but usually one related to ritual in a sacred setting. For this reason, these statuettes are better assigned to categories like 'sacred' and 'non-sacred'.

Domestic and wild animals both had roles as sacred animals (for instance, the cat and the falcon respectively). Sacred animals were associated with particular deities (the cat for Bastet, the ibis for Thoth, the ram for Amun) and non-sacred animals were those of everyday, domestic life or those that belong in the wild, and which are not directly connected to a deity. Most sacred animals were not worshipped as deities on their own but they were held in special regard by divinities and deities could manifest themselves in such forms.[252]

---

[247] See 'cats' below for bibliography for Bastet. For examples of Bastet with the sistrum, see, for example, Roeder 1956, §329-330. For the significance and use of the sistrum, see Bonnet 1952, 716-720; Ziegler 1984, cols 958-963; Manniche 2001. For the aegis, see Bonnet 1952, 8-9; Ivanov 2003. For a specific example of an elaborated aegis and its significance, see Ivanov 2009.
[248] For example, Bothmer 1949. Lion-headed goddesses: Bonnet 1952, 643-646; Roeder 1956, §334-349; Aubert and Aubert 2001, 288-292; Weitz 2012, types 143-146, pls 37e-h, 38a-f.
[249] Weitz 2012, 390.
[250] See, for instance, the primary categorisations in Vernus and Yoyotte 2005.
[251] See, for example, scenes from the tomb of Nebamun of the 18th Dynasty: Parkinson 2008.
[252] See 'Cults' below and Chapter 3, 'Animal Sarcophagi'.

These categories are imperfect qualifiers. For example, some of the 'profane' representations still had sacred connections even if they did not directly represent a particular deity (for example, lions **238-240** or hippopotamus **256**). Even the horses (**229-236**) and elephants (**215-228**), which are the most numerous of the profane subjects, are related to cult practice. Nevertheless, these categories display the most significant divisions among the material, as long as we acknowledge a high degree of permeability.

***Sacred Animals (139-214)***

Falcons (**139-162**)

The figures in this category represent a falcon wearing the double crown of Egypt, standing with its wings drawn tight against its body.[253] Falcons were closely linked to solar deities, like Horus the Elder, as well as to the king as Horus, son of Osiris and Isis. By the Late Period, these two deities were inextricably linked, and both are probably represented by the falcon amulets with double crowns.[254] The double crown reaffirms Horus' rule over Upper and Lower Egypt, as it does on the falcon-headed hybrids (**132-134**) and the child deities above (**1-5**). Mummified falcons, some stored in hollow bronzes, were very common as dedications for animal cults, although none of the intact Thonis-Heracleion bronzes were used to store remains.[255]

Eighteen are lead pendants, alike in size and manufacture. The falcon pendants are small, under 2.4cm in height and under 4.7g. Not all are identical but they conform to the exact same type: their wings are close to their breast, the legs are together (and appear as one leg), their tails sweep backwards until they touch the base, and they stand on narrow platforms. All have, or once had, suspension loops at the back of the neck. At least three different mould series are represented by two or more examples: **139-141** (series 1), **142-143 (**series 2), **148-149** (series 3).[256] Five further bronze Horus falcons have been discovered all of which have the same pose and at least four wear the double crown. Four are much larger and more elaborate than the pendants (**157-159, 161**). The smaller one has no pendant loop but a small tenon instead (**160**). How this tiny falcon was used or displayed is unknown. For falcon fragments, see **168-175** below.

---

[253] The falcon in Egypt: Altenmüller 1977; Bonnet 1952, 178-180; Aubert and Aubert 2001, 229-239; Vernus and Yoyotte 2005, 369-387.
[254] Andrews 1994, 27-28.
[255] Falcon catacombs at Saqqara: Davies and Smith 2005. For falcon coffins, see Jett *et al.* 1985.
[256] See chapter 4, 'Lead Casting' for the significance of these mould siblings.

Ibises (**163-167**)

The sacred, or white, ibis was associated with Thoth, the divine scribe of the gods.[257] Thoth, who was a central deity in Egyptian religion, upheld the rules of Egyptian society and maintained the balance of the universe. When Thoth is in hybrid form, he is shown with an ibis head.[258] The ibis increased greatly in popularity in the Late Period, almost rivalling the falcon as the most significant sacred bird.[259] It was a common sacrifice for the widespread animal cults of the Late and Ptolemaic Periods as attested by the extensive ibis necropoleis at Tuna el-Gebel, Saqqara, and elsewhere.[260] It was also popular as the subject of bronze dedications, many of which were associated with those necropoleis.[261]

The importance of this type as a dedication is not immediately evident at Thonis-Heracleion because so few survive intact. Only one (mostly) complete figure survives, and even then it is missing its head (**163**). The reason so few are intact is because many were mixed media, or composite, statuettes.[262] It was very common to represent ibises with heads and legs of bronze, but with gilded wooden bodies.[263] The primary evidence for the ibises at Thonis-Heracleion comes from bronze leg fragments; three are shown striding and two are seated. Other fragments, which may belong to ibises or falcons, are discussed below.

Falcon, Ibis, and Vulture Fragments (**168-177**)

Eight leg fragments belong either to falcons or ibises. Most appear to be from falcons because the tenon can directly slot into the falcon's body.[264] Usually striding ibises have a knee joint, similar to figure **163**.[265] One ibis at the Metropolitan Museum of Art in New York, however, has legs exactly like these that slot directly into the body (Figure 2.8).[266] It is possible that these types of legs were manufactured and used for either type. In addition to these fragments, there is also one example of a head of

---

[257] Zivie 1980; Bonnet 1952, 320-321; Aubert and Aubert 2001, 190-193; Vernus and Yoyotte 2005, 387-389.
[258] Vernus and Yoyotte 2005, 388-389 point to an association between the long, curved beak of the ibis and a scribe's pen.
[259] Vernus and Yoyotte, 387-392, especially 390.
[260] Tuna el-Gebel ibises: Bosseneck *et al.* 1987; von den Driesch *et al.* 2005; Kessler and Nur el-Din 2005. For the structure and practice of the ibis cult according to papyri, see Smelik 1979.
[261] For example, from Tuna el-Gebel, Kessler 2008; Nasr el-Dine 2010.
[262] See Chapter 3, 'Large statuettes and statuary'.
[263] Schorsch 1988, 41 on mixed media ibises.
[264] As on Davies and Smith 2005, FCO-144, pl. xxxvi(a-b).
[265] Also Jørgensen 2009, 240-241, no. 84.1.
[266] Metropolitan Museum of Art, New York, 04.2.462.

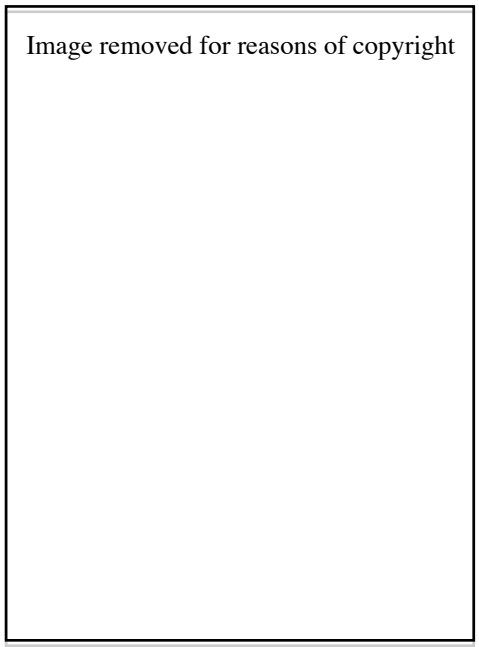



Figure 2.8. Bronze striding ibis with separately cast, single-jointed legs that were mechanically joined to the body. Metropolitan Museum of Art, New York, 04.2.462.

Nekhbet, the vulture deity who was the tutelary deity of Upper Egypt and who complemented the Lower Egyptian goddess Wadjet (**177)** whenever they were shown together on crowns.[267] One fragment of a bird carrying a *shen* amulet is probably from a falcon or vulture as seen on many pieces of jewellery (**176**). The *shen* amulet is a papyrus rope bound in a circle, a circle that encompasses all things under the power of the sun. It also acts as a protective amulet, which is why it is carried by the falcon or vulture.[268]

Cobras (**178-187**)

The majority of these representations are uraei, symbols of royal power that would have surmounted headgear or crowns of deities and royalty. The goddess Wadjet is represented as a rearing cobra, usually wearing a sun disc and depicted with its hood opened wide and with single or double coils behind it. She was the tutelary goddess of Lower Egypt, whose image was the embodiment of royal power. She was the eye of the sun god, and was fiercely protective, a goddess who spat fire at the enemies of the king.[269] As the eye of a god, she also acted as the 'Wadjet eye', the restored eye of Horus, a powerful amulet that represented wholeness and which was one of the most powerful protective amulets.[270]

Many of the uraei are crown elements (**178-181**) but some were free-standing. Three faience examples, **182-184**, formed part of a dedication that is discussed in Chapter 5, 'Individual Deposits'. Figure **185** is nearly identical, and may have been produced for a similar purpose.[271] Figure **186** shows a cobra wearing the white crown, flanked by two smaller snakes. This figure probably relates to similar snakes that sit

[267] Aubert and Aubert 2001, 197-198; Vernus and Yoyotte 2005, 418-422.
[268] Andrews 1994, 76-77.
[269] Bonnet 1952, 844-847; Martin 1986; Johnson 1990; Andrews 1994, 75-76; Aubert and Aubert 2001, 199, 204-205; Vernus and Yoyotte 2005, 321-334; 336-338.
[270] Andrews 1994, 43-44. See the comparanda for wadjet eye **323**.
[271] See also the provenance information for child deity **12** and cobra **182**.

atop papyrus pillars, usually wearing a variety of crowns often expressing connections with other deities.[272] In this case, the Upper Egyptian crown suggests an association with Nekhbet, again linking the two deities. Finally, figure **187** represents a snake, or possibly an eel, with its belly to the ground rather than rearing up like uraei.[273] Unlike the others, it may have decorated the top of a small animal sarcophagus or it was a subsidiary figure for another statuette.[274]

Canine Figures (**188-194**)

Seven canines are attested, including an ear fragment. At least five represent Wepwawet, a canine deity that led the deceased through the underworld and acted as lord of the necropolis; he also functioned as a protective deity.[275] Wepwawet may be distinguished from Anubis because Wepwawet is usually shown standing while Anubis is recumbent, although this does vary occasionally.[276] Figure **188** is the largest, and is one of the best-constructed and most impressive bronzes from Thonis-Heracleion. This example could represent a bark sphinx (Figure 2.9), rather than Wepwawet.[277] The large socket at the rear would support an upraised tail, but there are no signs of the nemes at the front. The other five are shown in this same pose. All stand on a platform; most would have acted as, or symbolised, processional standards in accordance with Wepwawet's role as 'Opener of the Ways'.[278]

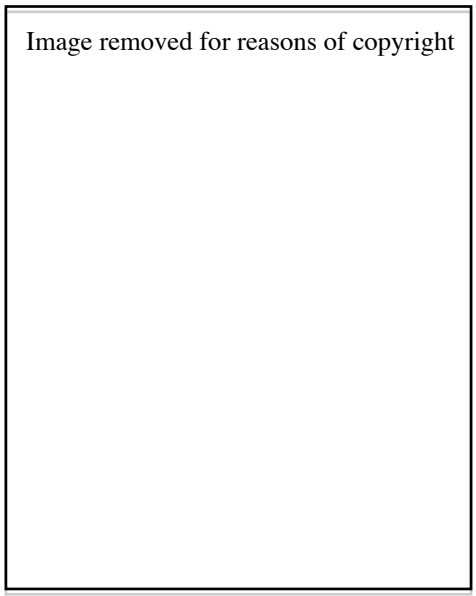



Figure 2.9. Bark sphinx standard, bronze, with a similar body type as Wepwawet but with an upraised tail. Metropolitan Museum of Art, New York, 2011.96.

[272] Page Gasser 2001, 130-134, nos 31-32.
[273] Confusion between snakes and eels: Myśliwiec 1981.
[274] For examples of these sarcophagi, see Roeder 1956, §518, and see Chapter 3, 'Animal Sarcophagi'. Sometimes snakes acted as subsidiary elements such as those found on the base of some canine or sphinx standards (Roeder 1956, §439g; Jørgensen 2009, 203, no. 69). These, however, are usually shown rearing up at the front like other uraei.
[275] Bonnet 1952, 842-844; Graefe 1986; Houser-Wegner 2001; DuQuesne 2005, 63-64, 110-131, 255-256; Vernus and Yoyotte 2005, 123-124; Pouls Wegner 2007.
[276] Aubert and Aubert 2001, 254; DuQuesne 2005, 63; Pouls Wegner 2007, 141.
[277] See this suggestion (and further examples) under the comparanda for **188**.
[278] See Chapter 3, 'Standards'.

Cats (**195-200**)

Six examples of cats have been recovered, all bronze and seated upright. These cats probably represent Bastet, a goddess known since the Old Kingdom, with a strong cult centre in the Delta city Bubastis.[279] She was a protective deity, but was also known for her powers of fertility, presumably related to the actual fecundity of cats.[280] The cats conform to the same type, although they vary widely in weight and size; the largest figure (**196**) is also the heaviest at the site at over 6kg. One of the most famous examples of this type is the Gayer-Anderson cat at the British Museum, London. This cat wears jewellery and has a scarab on its forehead, a symbol also seen on other examples.[281] The Thonis-Heracleion cats are relatively unelaborated with no evidence of piercing for jewellery and no extant inlay or inscribed designs. Cat **198** has an unusual base, which has been noted for a few other figures as well and various interpretations have been suggested for its connection with Bastet (Figure 2.10).[282]

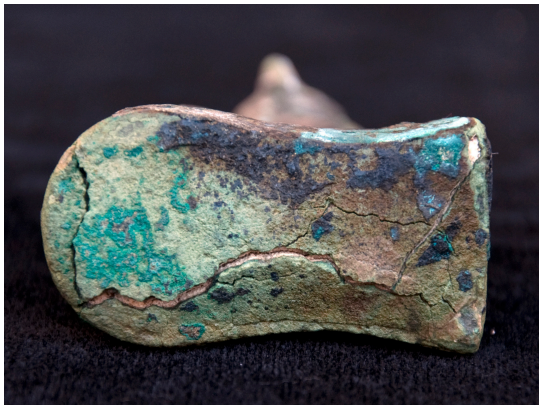


Figure 2.10. Base of seated cat **198**, cracked, with a plaster core.

Other Sacred Animals (**201-214**)

Several other sacred animals are represented at Thonis-Heracleion. Three types have three examples each: bulls (**201-203**), baboons and a monkey (**204-206**), and rams (**206-208**). The bulls represent the Apis with a sun disc on its head.[283] The Apis bull also had very distinctive solar markings.[284] None of the Thonis-Heracleion bulls have these markings, but all are corroded and worn from underwater exposure. In addition to the Apis, there are at least two baboons, an animal closely linked with Thoth like the ibises above, but Thoth in zoomorphic form.[285] These two show the baboon in its typical form,

---

[279] Bastet: Bonnet 1952, 80-82; Helck 1980; Aubert and Aubert 2001, 300-310. Cats and cult: Stück 1976; Delvaux and Warmenbol 1991; Malek 1993, 73-111; Aubert and Aubert 2001, 300-310; De Jong 2001; Zivie and Lichtenberg 2005; Vernus and Yoyotte 2005, 513-534.
[280] Amulets showing Bastet with many kittens emphasise this aspect: Andrews 1994, 33.
[281] Spencer 2007.
[282] Aubert and Aubert 2001, 309 (menat); Jørgensen 2009, 208 (lyre-shaped).
[283] Otto 1938; Bonnet 1952, 751-753; Kater-Sibbes and Vermaseren 1975a-b; Helck 1986; Vos 1993; Aubert and Aubert 2001, 283-288; Kessler *et. al* 2001; Vernus and Yoyotte 2005, 560-601.
[284] For these designs, see Kater-Sibbes and Vermaseren 1975b, 97-107.
[285] Vernus and Yoyotte 2005, 616-627.

crouched with the sun disc on it head.[286] The third figure may be a monkey, which displays its enlarged genitals, in which case a direct association with Thoth is less likely. The ram is also represented by three examples, one of which is double headed; the rams are associated with Amun, the titular deity of the main temple of Thonis-Heracleion.[287] In addition to these figures, there are two ichneumons, one shrew, and one lizard, all of which decorated the top of animal sarcophagi (**210-213**), and have close connections with solar cult.[288] The last is a single stone scarab (**214**).

***Non-Sacred Animals*** **(215-261)**

In addition to sacred animals, there are several other animal representations from the site. The main types are described in detail. Those that remain are grouped under 'other non-sacred animals' and only those with a contextual significance are further described; for the remainder, see the relevant catalogue entries with comparanda.

Elephants (**215-228**)

The most popular type of non-sacred animals consists of fourteen lead elephants. All except one represent the same type: the elephant stands on a plinth and has a rider on its back. Many appear to have triangular tents but it is clear from the best preserved examples that these 'tents' are riders whose upper bodies have broken away and whose legs are not visible. The iconography is militaristic. The rider wore Greek military dress, including a broad short *chitoniskos* with striations indicating vertical folds. These elephants also have one unpublished parallel (C3246) from the IEASM excavations at East Canopus. Figure **228** varies slightly from the other elephant representations. It has a large rectangular structure on its back, probably a tower, and a crosshatched decorated cloth covering its body.[289]

The elephants are small-scale, ranging in height from 2.8 to 4.2 cm, and weight from 9.7g to 29.8g; those at the low end of the range are damaged and lack significant amounts of metal, and most lie within a range of 16-25g. They are hollow-cast with a

[286] Bonnet 1952, 7-8; Störk 1982; Kessler *et al.* 2001; Aubert and Aubert 2001, 190-193; Vernus and Yoyotte 2005, 616-627.
[287] Aubert and Aubert 2001, 259-260; Vernus and Yoyotte 2005, 471-490.
[288] Brunner-Traut 1965 (shrew and ichneumon); Vernus and Yoyotte 2005, 334-336 (lizard), 614 (shrew).
[289] See, for example, a terracotta elephant with a tower and mahout: Toynbee 1973, fig. 10 (further comparanda in volume 2). See Scullard 1974, 240-245 on the use of towers for elephants.

rectangular open bottom edge. Direct lead parallels are known in museums, most with a provenance associated with Alexandria and the Canopic region.[290]

The majority were in the southern part of the site east of the main temple, an area dominated by Ptolemaic ceramics. The iconography is also consistent with a Ptolemaic date. Although representations of elephants exist in Egyptian art before this period, they are few and elephants had no significant role in Egyptian religion. From the Hellenistic Period forward, elephants were more common across the Mediterranean as weapons of war and in images.[291] In 326 BC at the battle of Hydaspes, Alexander defeated King Porus in India and captured his elephants, and later used them for his own campaigns. When these died, the Ptolemies undertook elephant hunts in Africa to rebuild the stock of military elephants.[292] The Thonis-Heracleion elephants appear to be Indian elephants, although to what extent artists were careful to distinguish Indian from African elephants on these figures is unclear.[293] Robert Lunsingh Scheurleer, for instance, published a number of faience elephants from Ptolemaic Egypt, many of which are used in scenes of combat and/or are dressed in battle attire.[294]

One of the more intriguing elements of the iconography is the rider's identity. Only one rider (**215**) preserves the head. On the right side there is a small protrusion that looks like a sidelock, which suggests that the rider may be a child deity in military dress (Figure 2.11). The subject of a child deity in military dress riding animals is common among terracottas. Many are later examples from the Roman Period when the type becomes very popular.[295] Evaristo Breccia, however, records a terracotta from the cemetery at Chatby that represents a child deity riding an elephant, which demonstrates that this type was known as early as the third century BC.[296]

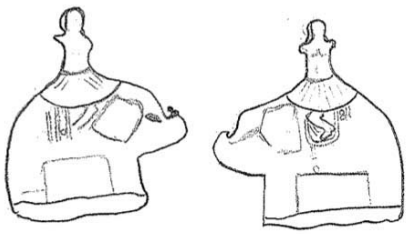


Figure 2.11. Sketch of elephant **215**, lead, left and right sides.

[290] See especially Boussac and Seif el-Din 2009, 226, nos 20–23 with parallels.
[291] Elephant in Egypt: Vernus and Yoyotte 2005, 134-136. Elephants in the Greek and Roman Periods: Toynbee 1973, 32-54; Scullard 1974; Casson 1993; Jennison 2005, 28-31, 37-40.
[292] Toynbee 1973, 33; Scullard 1974, 123-133; Casson 1993; Jennison 2005, 29, 31, 37-40.
[293] For the physical variations between African (large ears and concave back) and Indian (smaller ears and convex back) elephants, see Scullard 1974, 15-20. It is hard to judge the scale of the ears on the Thonis-Heracleion figures, but the elephant's back appears to be convex, even with the rider covering most of it.
[294] Lunsingh Scheurleer 1979, especially 100-105, 107-109, nos 1-5, figs 1-5, 8-9.
[295] For Harpokrates riding animals (terracotta), see, for example, Fischer, 1994, nos 614–629, or Dunand 1990, 81–90, 92–94, nos 165–193. For Harpokrates on a horse, see Poulin 1994, particularly 483–484, fn. 2, for a comprehensive list of examples in catalogues.
[296] Breccia 1930, p. 74-75, no. 483, pl. xlii, 3.

Hanna Syzmańska and Karol Myśliwiec also record a terracotta from the second half of the second century B.C. at Athribis; although this figure's rider is not extant, subsidiary figures including Bes and two phallic males suggest that the rider was a child deity.[297] Finally, the elephants were frequently found in similar contexts as the lead child deities, subjects that have a clear votive significance and that may relate to the elephant rider.[298]

Horses (**229-237**)

In addition to the elephants, there are eight lead horses (**229-236**) and one unrelated terracotta horse head (**237**). Among the lead horses there are two types, with and without a rider (**235-236** and **229-234** respectively). The rider, like the elephant's rider, is dressed in military gear but he has a layered *chitoniskos* and a chlamys that streams behind him.[299] The rider-less horses also display themes related to warfare: below each horse, the lower left register displays a fallen enemy, while the lower right register displays a shield and a cuirass (Figure 2.12).

Figure 2.12. Sketch of horse **229**, lead, left and right sides.

Parallel lead examples with the same motifs are known in museums, the majority of which are reputedly from the Alexandria or Canopic regions.[300] A close parallel in the Graeco-Roman Museum in Alexandria shows that the fallen enemy is positioned above a round shield and faces a long, thin object, perhaps a sword;[301] these extra details are lost on the Thonis-Heracleion horses. The horses with riders also have two unpublished parallels from East Canopus, C3387 and C3710. The *chitoniskos* of the riders (on elephants and horses) and the rounded shield and cuirass associated with the rider-less horses, are similar to the weaponry and battle dress of Macedonian warriors.[302]

Like the majority of the elephant riders, the heads of the cavalrymen, including unpublished examples from East Canopus (C3387 and C3710), are not extant and the

---

[297] Myśliwiec 1997, 128-135; Syzmańska 2005, 242, no. 239, pl. xxix.
[298] See the context notes for each and Chapter 5, 'Distributions'.
[299] None of the Thonis-Heracleion examples preserve the chlamys, but it is visible on the example provided by Boussac and Seif el-Din (2009, 224, 248, no. 9, fig. 8) as well as on one of the unpublished East Canopus examples, C3710.
[300] See especially Boussac and Seif el-Din 2009 in the comparanda for **229** and **235** in Volume 2.
[301] Boussac and Seif el-Din 2009, 224, no. 10, fig. 9.
[302] Snodgrass 1998, 114-130; Heckel 2006, 13-18.

identity of the rider is unknown. Terracottas of Macedonian riders, however, were common in the early Ptolemaic Period and provide good contemporary parallels.[303] Some even complement motifs of the rider-less horses and show a rider trampling an enemy[304] while others show the rider above a shield.[305] Images of soldiers were also on painted grave stele in Alexandrian cemeteries in the early Ptolemaic Period,[306] and the mounted rider type was used widely in statuary, particularly for royal monuments.[307]

Terracottas of child deities mounted on a horse were popular, but the origin of that motif is generally dated to the end of the Ptolemaic Period or to the early Imperial Period, although many of their characteristics can be traced back to the early Macedonian riders.[308] Dunand, based on the later terracottas of mounted child deities, suggests that 'Harpokrates' may have been a patron or protector deity for soldiers.[309] Such a role may explain why 'child deities with pots' were found in the same zone as elephant and cavalry statuettes. What we see at Thonis-Heracleion may be the first direct link between votives of cavalrymen (royal or otherwise) and votives of child deities, even if the full amalgamation of those concepts in the form of an equine–mounted child deity did not take shape until much later.

Horse head **237** is unrelated to the lead horses described above. It is a hand-modelled terracotta. The figure is fragmented, but originally the horse would have been full-form with a rider. The rider's arms are still attached to the horse's neck. The horse was made of Nile silt and was locally produced,[310] but the type is known as a 'Persian rider' terracotta because of parallels in the Near East and in Cyprus that generally date

---

[303] Bayer-Niemeier 1985, 27; Fischer 1994, 46-47; Syzmańska 2005, 69-72. Comparisons with rider plaques from Troy also helped to establish this dating: Thompson 1963, 85-86.

[304] Originally these terracottas were thought to be much later in date, with most scholars assigning them to the Roman Period and relating them to the triumphal iconography of the Roman emperors (Fischer 2004, esp. 487 with bibliography). New finds from Athribis, however, place them in the late 4th century BC (Fischer 2004, 488-489, fig. 1a-b). Fischer argues that the rider who tramples the enemy is Ptolemy I, based primarily on the colour of the rider's *kausia* and the position of the enemy, which hearkens back to Egyptian representations of pharaohs dominating submissive enemies (2004, 489-494). If Fischer is correct in her identification, the Thonis-Heracleion figures probably were not linked to the same event. Not only is the fallen enemy in a different position, but rider-less horses would also defeat the purpose of commemorating a specific king. Nevertheless, the congruencies show that the same iconographic motifs were circulating at this time period.

[305] From Naukratis: see Villing *et al.* 2013 for figures NA499 and NA500 from the Museum of Classical Archaeology, Cambridge. Bayer-Niemeier describes similar terracottas that show a Macedonian rider leaping over a round shield, but she dates them stylistically to the 4th century AD (1985, 36). Based on the re-dating of the figures described in the footnote above (which she directly compares to the shield examples), her shield examples should be re-dated also, closer to the late 4th or 3rd c. BC.

[306] Breccia 1912, 10-14, nos 9-12, pls xxii-xxvii.

[307] Laubscher 1991.

[308] Bayer-Niemeier 1985; Poulin 1994.

[309] Dunand 1979, 81-82.

[310] Fabrics: Grataloup 2012, 168.

between the 7th and 4th centuries BC.[311] This type is well known and attested throughout the Mediterranean and at other sites throughout Egypt.[312]

Lions (**238-245**)

Eight representations of lions have been discovered. The lion's role in Egypt is diverse. It was used as as a potent symbol of royal power and authority, it embodied certain religious concepts, and it was also used for more secular decoration, although probably still apotropaic.[313] In zoomorphic form, lions guarded the entrance to the temples. A pair of lions were also used to represent the eastern and western horizons; together they encompassed the world.[314] Figures **238-240** represent at least one pair of lions, and possibly one of another set. As a pair they may have represented the twin aspects of the horizon. Another possibility is that they supported a throne. Several bronze thrones have lions as arm supports, serving to strengthen the royal appearance of the enthroned figure (Figure 2.13).[315] This possibility may explain the thick metal ridge that runs down the back of lions **238-240**. The remaining lions represent a range of forms, mostly truncated with the focus on the head, with the exception of **245**. Without associated artefacts it is difficult to determine what types of lions these were — decorative, royal, religious? Many probably formed parts of furniture or cult equipment.[316]

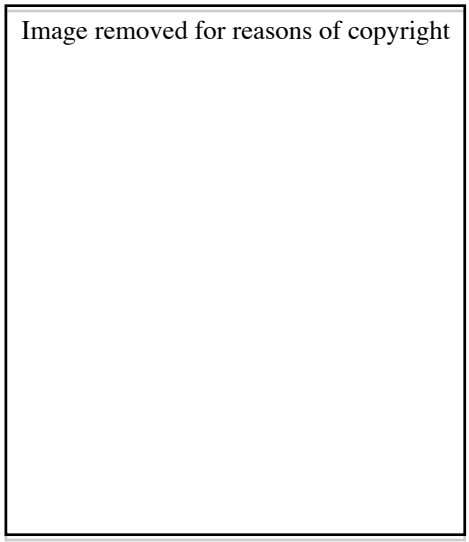



Figure 2.13. Lion throne, bronze.
Staatliche Museen, Berlin, no. 4580.

Birds (**246-251**)

The most numerous animals after elephants, horses, and lions are birds. Two are of particular interest. The first is a limestone figure (**246**) that may represent an owl. It was not a common subject in Egypt.[317] The owl, however, was closely associated with

[311] For example, Elayi 1991, 187-202; Moorey 2000; Crouwel and Tatton-Brown 2002, 411-429.
[312] See figure NA595 from the Museum of Classical Archaeology, Cambridge in Villing *et al.* 2013, with bibliography. For production and trade of such figures, see Pruss 2000.
[313] De Wit 1951; Vernus and Yoyotte 2005, 152-166. As a decorative motif in bronze: Roeder 1956, §468-469.
[314] Vernus and Yoyotte 2005, 160.
[315] See the comparanda for lion **238** in Volume 2.
[316] See Chapter 3, 'Miscellaneous' and comparanda in the relevant catalogue entries.
[317] The owl in Egypt, see Newberry 1951; Vernus and Yoyotte 2005, 361-363.

Athena and this statuette could be viewed in connection with her cult, or in relation to child deities who are sometimes in later periods represented with an owl instead of the more traditional falcon.[318] That being said, owls are rare dedications even in the Greek world.[319] The piece is so worn that it could represent another subject, such as Bes, who is represented in limestone.[320] The dividing line at the back, however, does give the appearance of folded wings, so for now the identification as an owl, or at least a bird, stands. The second 'bird' (**247**) functioned as a bell, its clapper lost. A number of other small bells with animal features are known from Egypt, many with canine heads or a canine head with ram heads (see **247**, Volume 2). In its current state of preservation, this bell looks bird-like, but it is possible that the 'beak' is a worn animal head and the holes on top are not eyes but attachment points. This bell and other undecorated bells may have been used in religious rites.[321]

Miscellaneous Non-Sacred Animals (**252-261**)

The remaining types are varied; most are either self-evident or unidentified. A small lead hippopotamus, however, was part of a more complex representation than its current appearance suggests (**256**). The hippopotamus was an ambiguous figure in Egyptian thought. Its female form, best exemplified by Thoueris, represented positive ideas such as protective qualities in relation to children.[322] The male form, however, was highly dangerous, symbolising chaos and disorder.[323] One of the few statuette groups that shows both a myth and ritual in action is the expression of Horus victoriously engaging in a hippopotamus hunt, with the hippopotamus representing Seth and similar chaotic forces.[324] This hunting motif is known since the Old Kingdom and is closely associated with the king's (Horus') role of preserving order in the cosmic and earthly realms.[325] Hippopotamus **256** would have been speared by Horus in a similar tableau.[326]

Some of the remaining figures may have had similar contextual significance, but the full meaning of the majority is unknown. A few are clearly of Greek origin, such as

---

[318] For an example of this association between Athena and the owl, see the Athenian owl coins at Thonis-Heracleion, representative of the most trusted and famous currency of its time (Fabre 2008b, 224-225). Possible connections with child deities: Malaise 1993.
[319] Toutain 1944, 124-126, describes a bronze owl and cites eight others.
[320] For example, at the Louvre, Paris, Bes N 437, which is almost one metre tall (92cm).
[321] Robinson 2008, 194-198, including other bells from Thonis-Heracleion.
[322] Andrews 1994, 40-41.
[323] The hippopotamus in Egypt: Vernus and Yoyotte 2005, 248-263.
[324] For this type in bronze, see the comparanda for **256** in Volume 2.
[325] As a religious motif: Säve-Söderbergh 1953; Behrmann 1989; Hartung 2010.
[326] Page Gasser 2001, 85-93, no. 22, pls xxii-xxiii.

the rooster (**250**) and pigs (**252-254**). None of these subjects had an abiding role in Egyptian religion, although the rooster did have sacrificial associations starting in the Ptolemaic Period.[327] The sow was represented with piglets as an amulet because of its connection with fertility, but the boar has no equivalent.[328]

## 2.4. Inanimate Objects (262-329)

The final general type category, entitled 'Inanimate Objects', includes objects that acted as headgear (crowns and beards), as supports for statuettes (barks, thrones, bases), and as amulets that are neither anthropomorphic nor zoomorphic. The term inanimate is not used strictly here, as some of these, particularly the crowns and the barks, may actually have been 'animate' in the sense that they personified religious concepts or represented deities. The category acts primarily as a catch-all for figures that are not anthropomorphic, hybrid, or zoomorphic.

### *Crowns, Beards, and Misc. Fragments (262-291)*

The largest group in this category are crowns and their associated elements. Some crowns were sacred themselves. The white and red crowns were honoured as deities in their own right, indistinguishable in many ways from Wadjet and Nekhbet.[329] Hymns were composed in honour of these crowns.[330] In reliefs, crowns are shown as offerings, and some amulets were fashioned as crowns and never belonged to a larger deity statuette or amulet.[331] At Thonis-Heracleion, however, all of the crown elements are fragments; none appear to be created as votives themselves, although they may have acted as votives if deposited singly in caches.[332]

Image removed for reasons of copyright

Figure 2.14. Bronze Osiris with separately cast *atef* crown attachments. Museo Gregoriano Egizio, Vatican, no. 18376.

[327] The rooster in Egypt, Brunner-Traut 1980; Eggler 2009. Sacrificial associations: Török 1995, 116, no. 156 and 173, no. 283. See also Boussac and Seif el-Din 2009, 19-20, 227, no. 28, 252, fig. 27 (with comparanda) for small lead roosters, which are associated with lead finds that generally derive from temple, private, and funerary contexts. The pig: Newberry 1928; Vernus and Yoyotte 2005, 556-560.
[328] See the comparanda for **254** in Volume 2.
[329] Goebs 2008, 175-182.
[330] Erman 1911.
[331] Crown amulets, for example: Reisner 1907, nos 5856-5881, pl. vi; Petrie 1914, 17-18, nos 48-50, pls iv, xxxiv, xliii-xliv; Andrews 1994, 74-75.
[332] Fabre in Goddio and Fabre 2008, 322, no. 202.

Most have tenons that would have attached to a statuette, as Figure 2.14 above illustrates. Furthermore, while individual crowns are represented as amulets of stone or faience, this phenomenon appears to be much less common among bronzes; numerous such fragments are in bronze collections and are offered as comparanda in the catalogue. One crown (**263**) may have been attached to a cult statue of Khonsu (Chapter 3, 'Large Statuettes and Statuary').

***Bases (292-304)***

The bases that are inscribed follow traditional formulae in which a particular deity gives life to the dedicant, whose familial relations are then listed.[333] The inscriptions from bases at Thonis-Heracleion are provided in Appendix 11. All of these bases, small and large, have simple forms, either square or rectangular and many are finely made with thin, even walls. Some are hollow and others have a heavy fill, such as **298** which is weighted with lead, now visible where the bronze cracked. During the Hellenistic Period, bases for Greek bronze statuettes and terracottas changed form from the traditional simple rectangular and square bases to more elaborated ones. The base of the terracotta boar exhibits this type of embellishment (**252**). Heather Sharpe links this embellishment with the increasing tendency to produce Greek bronzes primarily for domestic decor rather than for strictly religious reasons.[334] Contemporaneous Egyptian-style bronzes never make this transition, perhaps because most were still produced for primarily religious reasons or for their traditional appearance.

In addition to these bases, a few other supports have been discovered including a wooden naos (**304**), a standard whose primary subject is now indeterminate (**301**), and what may be a papyrus standard (**303**), which would have supported a small deity.[335]

***Barks and Thrones (305-319)[336]***

Some of the most notable statuettes from the assemblage are the lead barks and their associated thrones. The lead papyriform bark models are larger than the rest of the lead votives, and are not typical dedications. I know of no precise parallels from the

---

[333] De Meulenaere 1990.
[334] Sharpe 2006, 173-176 touches briefly on this subject but it was elaborated in greater detail in a conference paper: 'The mounting and display of Archaic Greek bronze statuettes', XVIIth International Congress of Ancient Bronzes, Izmir, May 23, 2011.
[335] For the association of this naos with the faience deposit, see Chapter 5, 'Individual Deposits' and the entry for **304** in Volume 2.
[336] Throne **319** is a throne but is typologically different and does not belong to a bark.

Late and Ptolemaic Periods. I therefore describe and contextualise them in more detail here than some of the other amulets and statuettes. Five full-length barks range between 12.1 and 39.8 cm in length (**305-309**). Four of the five have a throne at their centre. The fifth, **309**, also had a lead throne, **316,** although the two have become separated. Two other lead thrones, **317** and **318**, may attest to further barks. The remaining six items, **310-315**, may be bark fragments, although they are less distinctive in their design.

The design of the five full barks is simple. Each consists of a thin, flat bar of lead that curves upwards at either end. The degree of curvature differs markedly between the examples. Two, **305-306**, have designs on the top portion of the bark, presumably mimicking the appearance of the bundles used to fashion papyrus boats.[337] Bark **306** has repeated rectangular groupings of four horizontal bars while bark **305** has a more complex design with groupings of horizontal bars interspersed with blank rectangles and crosshatching. The thrones for each are similarly decorated. Bark **307**, while displaying no incised decoration, retains a papyrus finial. Bark **305** has designs on the sides, possibly stars, that may allude to a divine aspect of the sacred bark.[338]

In Egypt, the importance of boats in daily life and religion was paramount.[339] Boat dedication and burial is known from the beginning of the Dynastic Period onward, with the stunningly preserved boats from Giza being the most famous examples.[340] The deposition of model boats was common in tombs. The majority may have been intended to aid the owner of the tomb in his own afterlife. Additionally, there were models of funerary boats with a mummy either enthroned or prostrate on a bier.[341] Some of the closest parallels for the Thonis-Heracleion barks derive from Tutankhamun's tomb, though his are larger wooden models and they retain painted decoration. In his tomb, there were thirty-five boat models. Six papyriform models, comprising two types, correspond approximately to the Thonis-Heracleion examples. Of these six, four have a throne mid-ship and upward-curved bows and sterns; the remaining two have the inwardly curved papyrus finials, like **307**.[342] Papyrus boats were used to represent

---

[337] Papyrus bundles: Goddio and Fabre, 2008, 340, cat. no. 333 (**306**).
[338] Goebs 1998b, for barks and celestial associations.
[339] See, for instance, Ward 2000, 1–13 for the use of boats in Egyptian life and representations.
[340] Nour *et al.* 1960; Lehner 2008, 118–119, with bibliography on 249. Boat burials: Jones 1995, 33–35.
[341] Jones 1995, 12–25 (boat types). See also Reisner 1913, i–xxvii for a typology of boat models, with a catalogue of examples in the Egyptian Museum, Cairo. Specific tombs: Freed and Doxey 2009, 166–177 (Djehutynakht); Winlock 1955, 45–69, pls 33–53, 55, 70–86 (Meket-Re).
[342] Jones 1990, 12, 43–50, 60–62, nos 30–35 (Carter nos 308, 312, 285–286, 307, and 311 respectively), pl. xi, xxviii, xxix. For his typology of the Tutankhamun models, see Jones 1990, 16, and 1995, appendix 1, 92 for a summary of his typology alongside Reisner's.

symbolic, religious, and ceremonial boats, either funerary, solar, or divine/sacred.[343]

The dedication of model boats in the funerary realm declined in the New Kingdom.[344] In view of the non-funerary context and later date of the Thonis-Heracleion barks, unlike the examples in Tutankhamun's tomb, they are probably model sacred barks, and the thrones would have carried an image of a deity rather than a mummy.[345] In ancient Egypt, in processions the cult statue of a deity often travelled on a real barge or priests carried the cult statue on bark models as this procession symbolised the deity's journey across the sky and through the underworld.[346] In depictions the sacred barks are elaborately decorated papyrus boats, often gilded and bedecked with jewels, with adorants or other deities accompanying the primary deity.[347]

In contrast with model boats in earlier tombs, the deposition of model sacred barks in a religious setting is much less common.[348] Representations of sacred barks are better known from texts and temple reliefs than from material remains, a fact that highlights the significance of the Thonis-Heracleion barks.[349] Some individual models have been found, including larger stone statuary, but none of lead and no other contextualised group of this number.[350] Bronze barks are known, complete with naoi, deity statuettes, and decorations on the bow and stern; few are published in detail. Many are processional standards, and they rest on top of a papyriform column (Figure 2.15).[351] There is no sign that the Thonis-Heracleion examples were standards; instead they appear to be self-supporting dedications. Wooden bark models were dedicated at the Temple of Ahmose in Abydos. The excavators report that they were distributed along the walls in an orderly fashion,

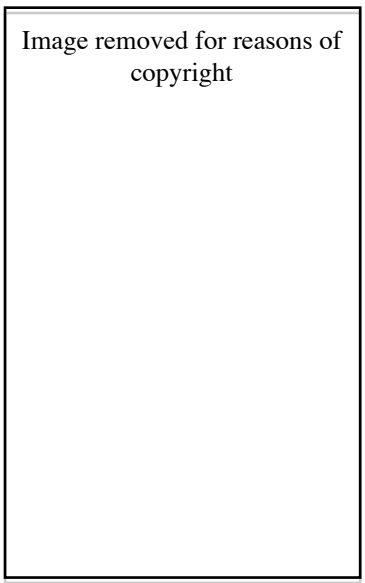



Figure 2.15. Bronze bark standard. Rijksmuseum, Leiden, no. AED 87.

[343] Jones 1990, 3 (subdivision 2), 5, 60–62, 1995, 48 (in a funerary setting).
[344] Jones 1995, 26–33, for boat models from the 6th Dynasty to the New Kingdom.
[345] Sacred barks: Reisner 1913, xvii (Type VII); Kitchen 1975; Vinson 1994, 50–52. Jones 1995, 20–25; Aubert and Aubert 2001, 336–38; Brand 2001; Karlshausen 2009. See Jones 1990, 61 for the hypothesis that the throne carried an image of the deceased.
[346] Kitchen 1975, cols 619–20, 623–24; Vinson 1994, 51; Jones 1995, 20–22; Karlshausen 2009.
[347] Decoration: Roeder 1956, §584, 625; Göttlicher and Werner 1971, 5; Kitchen 1975, cols 620–623; Jones 1995, 20–25, 66–68; Karlshausen 2009, 154–243.
[348] On the scarcity of models from later periods, see Landström 1970, 140.
[349] Kitchen 1975, and Brand 2001, with bibliography; Jones 1995, 20–25.
[350] In terms of material, the closest parallels are lead bark models from Naxos, but these date to the Early Cycladic Period (third millennium), thus far removed in type and date: Gale and Stos-Gale 1981, 83-84.
[351] See the comparanda for bark **305** in Volume 2.

but the wood mostly "had been destroyed by the white ants"; only small sticks and oars remained.[352] If bark models were consistently made of wood, it is possible that they simply do not survive well since they are not sealed in tombs, but even at Saqqara, which has thousands of statuettes and where wood survives well, these types of dedications are not known. Nor does Weitz list anything similar in her study on Lower Egyptian bronzes.[353] This situation suggests that they are rare, and possibly distinctly suited for a ritual or practice at Thonis-Heracleion.

There may be further representations of sacred barks among material already known, but some examples are so basic that they cannot easily be assigned. For instance, a black wax figure in the Rijksmuseum in Leiden shows Neith standing in a small papyrus craft, with a support for a second figure in front of her. As Maarten Raven remarks, the boat may highlight her association with the inundation, or it may have a narrower meaning associated with sacred barks.[354] Similarly, a common motif among many types of terracotta is the representation of a child deity in a boat.[355] Anna Stevens also notes evidence for a few wooden and clay boat models in domestic and public contexts at Amarna, but these are rare and do not have thrones; they are also of a much earlier date than the Thonis-Heracleion barks.[356] In addition to the barks mentioned above, fragments and elements of decoration such as statuettes, oars, and finials attest to the existence of further bronze or wooden barks.[357] Bark **308**, for instance, has holes in the side for oars that are not extant.

The Thonis-Heracleion barks would not have carried the temple's primary cult statues. Many elements used for rituals and festivals are extant from Thonis-Heracleion, including ritual vessels and standards, but the lead barks are relatively unelaborated and are too small and narrow to have carried a cult image that could be seen in a procession.[358] Even if one takes into account that Egyptian cult statues were normally not large, extant representations and texts suggest that temple barks were of a size that

---

[352] Ayrton and Currelly 1904, 34.
[353] Weitz 2012.
[354] Raven 1983, 16, 36, no. 31, pl. 6.
[355] Sandri 2006b.
[356] Stevens 2006, 115-116.
[357] For example, Roeder, 1956, §584; Terrace 1959; Aubert and Aubert, 2001, 337–338.
[358] Thonis-Heracleion cult vessels: Robinson 2008, 258–278. For standards, see Chapter 3.

priests had to carry them on their shoulders.[359] The Thonis-Heracleion models and their statuettes probably acted as dedications rather than as the focus of any worship.

The imagery of the bark resonated with the population of Thonis-Heracleion, and some people invested in large and complex votive barks. The relative scarcity of such pieces makes their presence all the more notable and perplexing. A possible explanation is that bark imagery had a special significance for people of this harbour town because of the local topography. As the entrance to the Canopic branch of the Nile, the city had a prime maritime location, and the city itself was a marshy landscape composed of an interconnecting group of landmasses and canals. A specific, recurrent event may also have played a significant role. The excavators have suggested that these dedications were associated with the Khoiak festival, when the image of Osiris was placed on a sacred bark and would have travelled from Thonis-Heracleion to East Canopus and back again. The lead barks may have been mementos of participation in this festival (see 'Chronology and Cults' below for further discussion on the deities that may have been associated with these barks).[360]

***Inanimate Amulets (320-329)***

This category consists of miscellaneous popular amuletic types. The highest number of any single type is two miniature offering tables and two *wadjet* eyes. The offering tables themselves may have been votives or could have been part of a tableau in which a worshipper presented the offering table to a deity. Separate examples usually have two suspension loops.[361] The Thonis-Heracleion examples show only the offerings, whereas more elaborate tables have figures attached to each corner and a central offering priest at the front. Usually the corner figures are two frogs, or baboons, and two jackals. The imagery on these miniature offering tables can be compared with that on decorated situlae from temple contexts that show the movement and adoration of the evening and sun barks.[362] These situlae were ritual equipment, and like bronze

[359] For a reconstruction of the size and movement of the portable bark of Amun as it travelled on its procession, see Sullivan 2012.
[360] Goddio and Fabre 2008, 145–147, from a reading of the Canopus Decree, 238 BC. See also Yoyotte 2010, for Osiris at Thonis-Heracleion. Connections between Canopus and Thonis-Heracleion for the Khoiak festival: Franck Goddio, 'The Celebration of the Mysteries of Osiris in the Submerged Canopic Region. From epigraphy to archaeology', Paper, University of Oxford, November 18, 2013.
[361] Teeter 1994, 256. See Chapter 3, 'Amulets'.
[362] Teeter 1994, 259-263.

statuettes, were presented in temples and buried in caches.[363] For the *wadjet* eyes, see Wadjet under 'Cobras' above. For the significance of many of the faience amulets, see Chapter 5, 'Individual Deposits'. Mould **329** is discussed in detail in Chapter 4, 'Bronze Casting'.

## 2.5. Conclusions: Chronology and Cults

### *Chronology*

The statuettes and amulets conform stylistically and typologically to the site's overall dates provided by the ceramics, namely the Late and Ptolemaic Periods. Jacques and Liliane Aubert list the most common Egyptian deities represented as bronze statuettes in the Late Period, a list that encompasses the main types presented above.[364] A few technological factors that I discuss in Chapter 4 also provide broad dates for these figures. It is very difficult to narrow these dates further. Two Egyptian-style inscribed objects are datable to the Late Period (**81** and **292**) on the basis of their inscriptions. A few others, such as the phallic cult servant and the nude female terracotta plaques (**108-110**), are identifiable as Late Period by their iconographic markers. The Osiris bronzes with the symmetrical arm position may belong to the Late Period in view of their consistent northerly distribution, but there are too few to make a secure claim.

Clear iconographic differences within one type according to stratigraphic locations — north versus south, Late Period versus Ptolemaic — are not identifiable for two main reasons: much of the material in G1 (the best pre-Ptolemaic context) is fragmentary; and only two subjects, child deities and Osiris, are present in sufficient numbers for a functional comparison.[365] Some of the foreign-style objects are more easily attributed to narrower chronological ranges on the basis of their artistic style and outside parallels (**122, 237**).

For the Greek and Ptolemaic-style terracottas that date to the Ptolemaic Period, and the lead types that imitate those terracottas, the best comparable dated material is from Athribis, the only settlement site published so far with well-documented, stratified terracottas from the Ptolemaic Period.[366] Hanna Syzmańska proposes, on the basis of the context of Athribis figurines, that the late fourth century terracottas comprised

---

[363] Green 1987, 66-104; Aubert and Aubert 2001, 348-351; Gosling *et al.* 2004.
[364] Aubert and Aubert 2001: list,163-164; detailed discussions of each type, 165-356.
[365] See Chapter 5, 'Egyptian Dedication Practices'.
[366] Syzmańska 2005. Also to some extent the Alexandrian necropoleis: Breccia 1930, 1934.

primarily mainland Greek types, such as Macedonian soldiers and horsemen. In the third century, more Hellenistic types joined the repertoire (Tanagras, Dionysiac themes), as well as some Ptolemaic-style types (Isis-Aphrodite, Harpokrates). Throughout the third and second century more and more Ptolemaic-style types appeared, while Greek types became increasingly rare, and animal representations became more common.[367] The Greek and Ptolemaic-style types at Thonis-Heracleion conform broadly to that schema and best fit the characterisation of the fourth and early third century types, with the exception of the terracottas from M3, which were found near 3rd-2nd century pottery.

***Cults***

Before IEASM's excavations, inscriptions and literary sources firmly attested three Egyptian cults at Thonis-Heracleion. The first is the cult of the titular deity, Amun-Gereb, the second of the associated child deity Khonsu, and the third of Osiris. The most important evidence for the Amun-Gereb sanctuary and the cult of Osiris at Thonis-Heracleion is the Canopus Decree of 238 BC. This decree states that during the Khoiak festival the image of Osiris processed from the sanctuary of Amun-Gereb in Thonis-Heracleion to his sanctuary in Canopus.[368] To celebrate the revivification of Osiris and renewal of the crops, an Osiris corn mummy was created consisting of soil and seeds that were watered and germinated to form a living figure of Osiris. Corn mummies were made each year.[369] Herodotus mentioned a temple of Herakles at the site, the temple that furnished the site with its Greek name; Herakles and Khonsu were frequently identified with each other, and the naming suggests that Khonsu held an important role in the city.[370]

Inscriptions on a large rose granite naos and a draped male statue confirm that the main sanctuary is linked to Amun-Gereb.[371] Other inscriptions provide the names of deities that were not previously known to be associated with the city. Two are on statuette bases: base **292** names Harpakhered and base **294** names Bastet.[372] Another two come from non-figurative objects: one is the rim of a bronze situla which has a

---

[367] Syzmańska 2005, 65-130.
[368] Goddio and Fabre 2008, 145-147, as noted above.
[369] Corn mummies: Raven 1982; Tooley 1996; Schulz 2009; Centrone 2009.
[370] Herodotus, *Histories*, II.113.
[371] Yoyotte 2004, 36-38.
[372] Yoyotte 2004, 33-35.

standard inscription in which Isis gives life to the dedicant;[373] the other is on a bronze plaque recently discovered in the northern part of the site, which names the deity Khonsu-Thoth.[374] Isolated inscriptions do not confirm that the deity had a cult at the site. Gifts to Isis, for instance, may be in association with Osiris or child deity cult. The inscriptions, however, complement the visual evidence provided by the statuettes.

Cult at Thonis-Heracleion has been discussed in a broad overview in a scholarly context twice previously in relation to the Egyptian-style statuettes. The first discussion was by Fabre in the exhibition catalogue which represented the initial publication of about 20% of this assemblage, among other finds from the region of Alexandria, Canopus, and Thonis-Heracleion.[375] Fabre focuses on two main aspects of cult at the site: foundation deposits, and the celebration of the Khoiak festival. He proposes that a group of faience figurines from the temple were part of a foundation deposit; that deposit is discussed in more detail in Chapter 5, 'Individual Deposits' (see also **12**).[376] He also reconstructs in detail the Khoiak festival as it would have been performed at Thonis-Heracleion, relating the many Osiris bronzes, the barks, and the metal cult vessels to this celebration or to other processions.[377] Yoyotte too discussed Osiris and the Khoiak festival at Thonis-Heracleion, but as it related to the worship of Osiris in the wider Canopic region, and with less direct reference to the material finds.[378]

To what extent the barks related to the Khoiak festival or any other procession is unclear. They would not have supported an image of Osiris, as Osiris images are usually represented standing; nor would the corn mummies have been appropriate. It is possible, however, that the barks carried deities who would accompany Osiris in his procession.[379] Aubert and Aubert note that Isis holds a privileged position on several barks and some even have dedicatory inscriptions naming Isis.[380] Another possibility, unrelated to actual processions, is that these objects acted as simplified barks for a solar deity for display.[381] The close association of the barks with the supposed processional

[373] Goddio and Fabre 2008, 328, no. 249; Robinson 2008, 141, no. 97.
[374] Fabre, Supreme Council of Antiquities Report, 2010, 18-19, unpublished.
[375] Fabre 2008a.
[376] Fabre 2008a, 138-139.
[377] Fabre 2008a, 145-146.
[378] Yoyotte 2010.
[379] Fabre 2008a, 145 (accompanying deities).
[380] Aubert and Aubert 2001, 337-338.
[381] Teeter 1994, 260, fig. 19.4.

way of the Grand Canal and Central Port, however, favours the former interpretation (see Catalogue Map 30, Volume 2).

Weitz provides a comprehensive summary of the cults that she bases on the Thonis-Heracleion bronze statuettes that were exhibited in a traveling exhibition (see Chapter 1, 'Introduction'). She notes the importance of figures of Amun and the popularity of the Osirian family.[382] Like Fabre, she associates the Osiris statuettes with the Khoiak celebration and the child deities with Khonsu, although she notes that some could also represent Horus the Child or other child deities.[383] She suggests that the site may have been home to a fertility cult related to Bastet because of the numerous feline and feline-headed representations, and perhaps a solar cult because of the falcon representations.[384] The extensive unpublished evidence presented here reinforces most of her conclusions, but the objects in the touring exhibition were not completely representative, so that both her account and Fabre's can be expanded.

In the corpus as a whole, the Osirian family completely dominates the material. In the exhibition catalogue, Amun appeared to be well represented, but the total number of objects associated with him is only eight.[385] Mut, the mother in the triad of Amun, Mut, and Khonsu, is not attested at all. Osiris has 32 representations including crown and beard fragments, and Isis has 12 including crown fragments. Child deities are very popular, with 30 Egyptian-style representations (including crowns and the base), more if the Isis *lactans* examples are included, and even more if the Ptolemaic-style figures are counted, although the child deities are not all necessarily related to Osiris. The quantity of Osiris and child deity figures attest to the strength of the local cults of Osiris, Horus the Child, and Khonsu, while also being paralleled by the wider popularity of Osiris and child deities throughout Egypt (see Chapter 5). Does the amount of these figures at Thonis-Heracleion suggest that these cults were more popular than the cult of Amun? Or were some dedicated on special occasions, such as festivals, so that the numbers would reflect those practices? The material cannot say; the distributions and the number of finds do not form clear patterns that could answer these questions.

Pinpointing locations for the cults of these major deities is difficult, if not impossible from the statuettes. Even the Amun figures are distributed widely, despite

---

[382] Weitz 2012, 395-397.
[383] Weitz 2012, 397.
[384] Weitz 2012, 397.
[385] Head: **77**; rams: **207-209**; crowns: **283-286**.

the fact that the Ptolemaic Amun temple is on the central landmass. Figures 2.16-19 below show the distribution of each of these deities, including associated fragments. The Nefertem distribution is provided in Volume 2, Catalogue Map 7. The significance of these patterns is discussed further in Chapter 5 ('Egyptian Dedication Patterns').

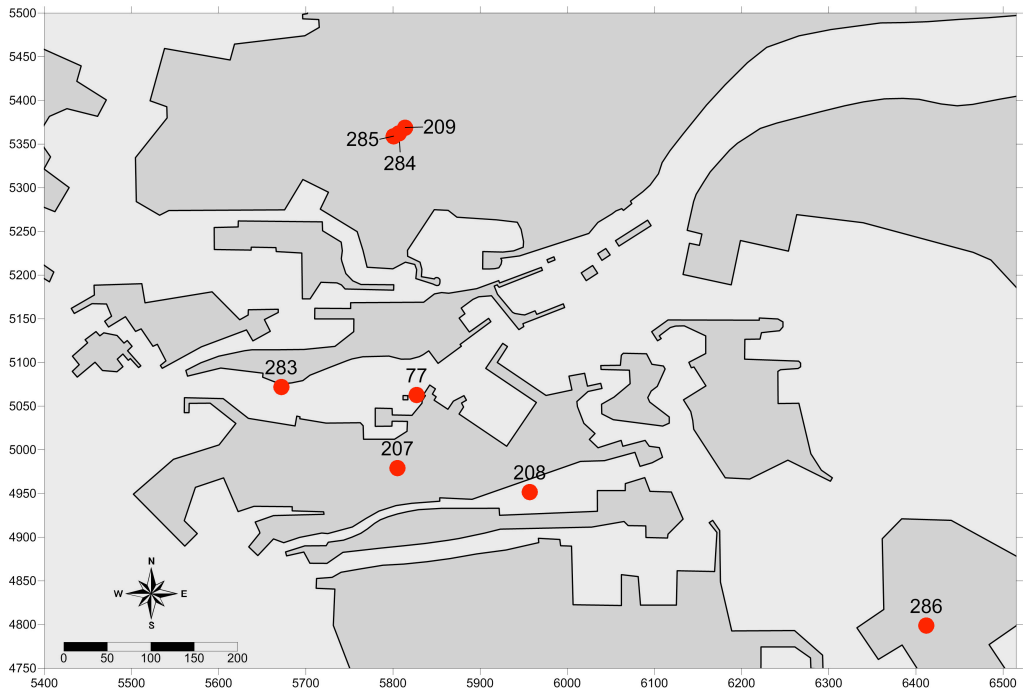



Figure 2.16. Distribution of statuettes and fragments associated with Amun.

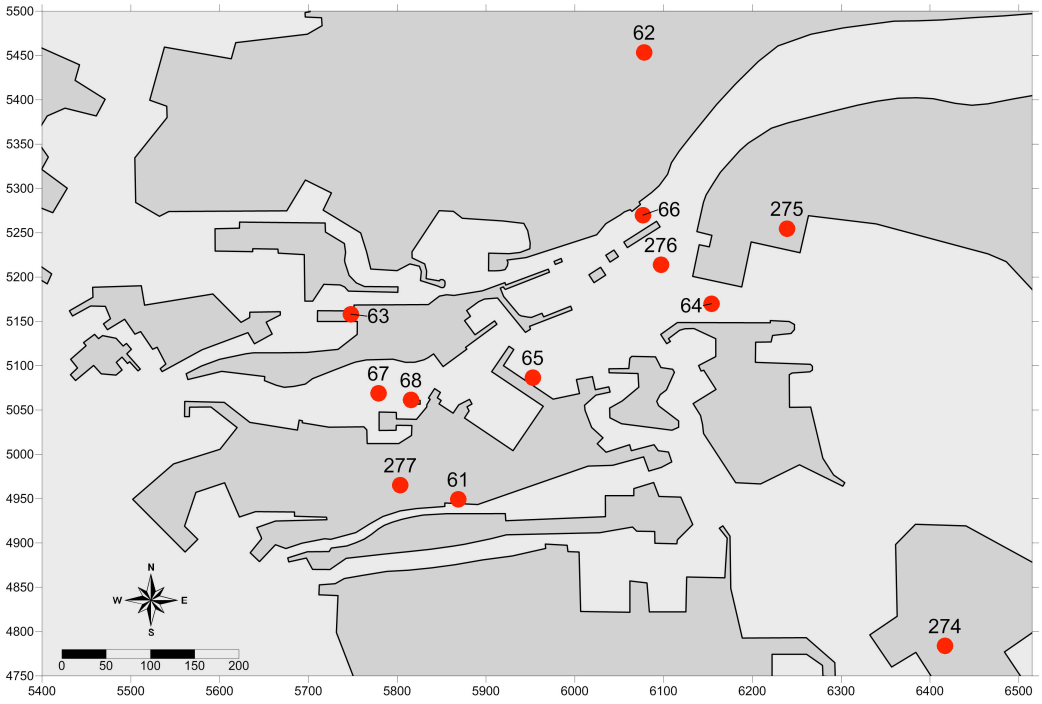



Figure 2.17. Distribution of statuettes and attachments associated with Isis.

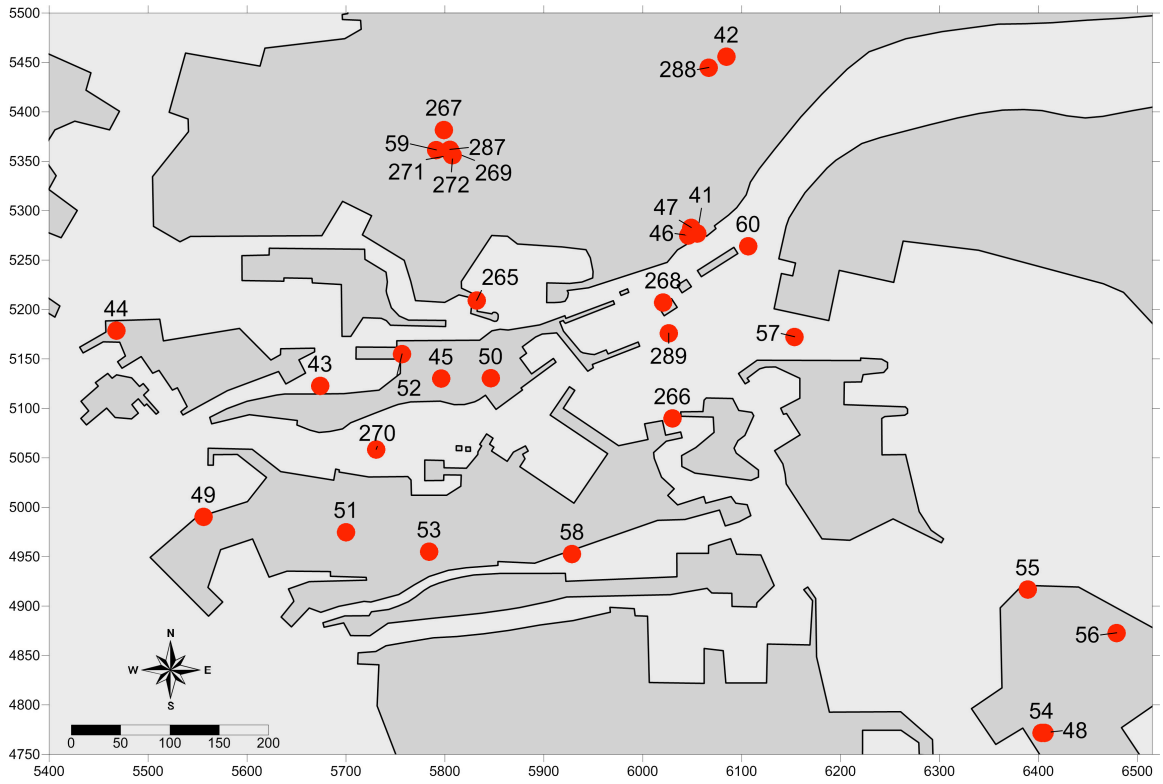



Figure 2.18. Distribution of statuettes and attachments associated with Osiris.

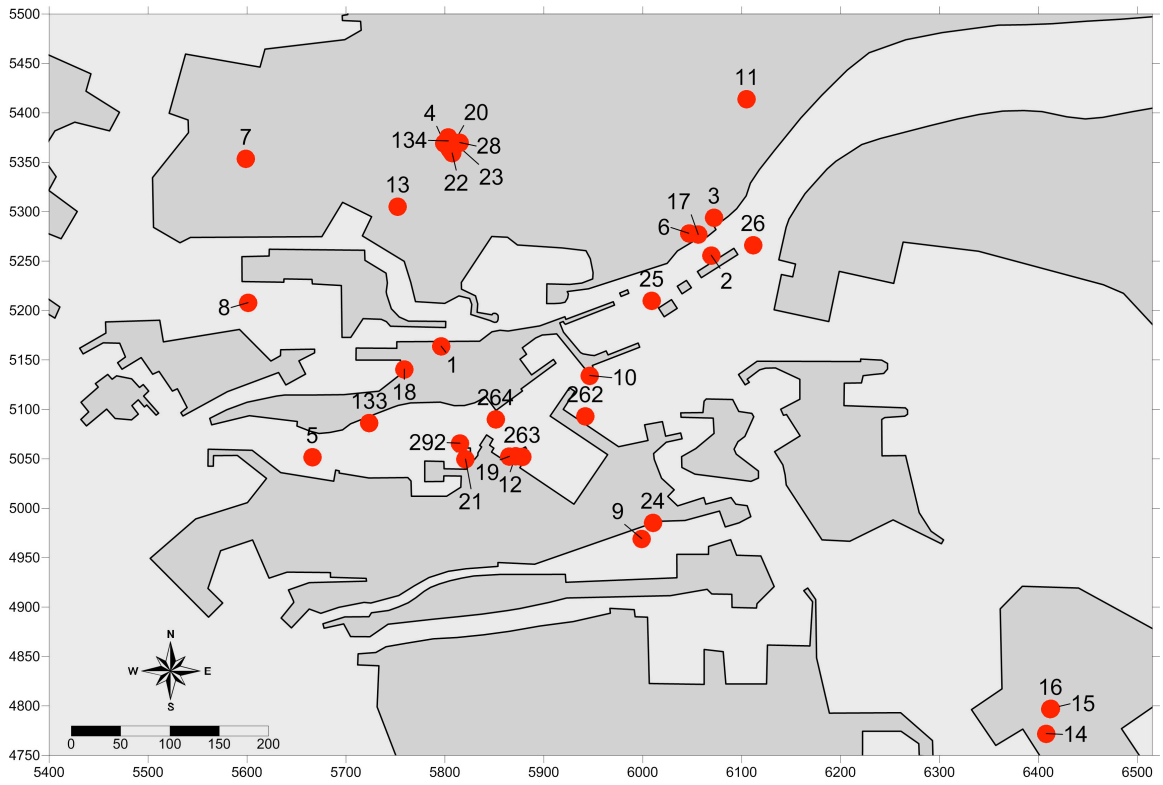



Figure 2.19. Distribution of statuettes and attachments associated with Pharaonic-style child deities.

As Weitz suggests, it is possible that there was a fertility cult, as may be suggested by the hybrid figures (**136-138**) together with the seated cats (**195-200**) and the Bastet base (**294**). The motherly qualities of Bastet and her association with Isis also associate her with child deities.[386] The city hosted several deities associated with fertility, such as the Ptolemaic infant child deities with large phalli (**29-33, 38**) or the phallic cult servant and model phalli (**110-113**). Bes may have been part of the phallic cult as well, because he was closely associated with child deities. The most direct association known is the Bes Chamber at Saqqara, a room with mudbrick representations of Bes in which numerous phallic statuettes were dedicated, including some with a sidelock.[387] They are also frequently shown jointly on apotropaic healing plaques called Horus cippi, although none are known from this site.[388] Moreover, although large-scale statuary from Thonis-Heracleion includes only two divine figures, a colossal Hapy and a stone falcon, Emma Libonati argues that the statuary in the wider Canopic region, particularly East Canopus, shows a strong penchant for fertility cults.[389]

Nefertem is closely associated with Sekhmet and has an iconographic connection with Bastet. Moreover, some statuette groups from other sites show a child deity with a double crown, probably Horus the Child, alongside Nefertem; presumably the child deity and Nefertem were linked as solar deities, as both gods were associated with the lotus flower and hence with rebirth and renewal.[390]

The cult of birds must also be considered. An inscribed draped male statue in the Peabody Museum gives the titles of an important official of several cults in the Canopic region, including the cult of Amun-Gereb, which associates him with Thonis-Heracleion. Ivan Guermeur provides a translation of part of the inscription:

> Le prophète des Dieux Éuergètes dans la Maison du Roi, le prohète de Khonosou-Osiris, de Khonsou l'enfant, d'Amon-*Gereb*, le hiérogrammate du temple du Domaine d'Amon-Gereb, le scribe d'Osiris dans le temple de Canope, le prohète d'Horus-qui-préside-aux-marais-du-Nord, le seigneur de la Mer.[391]

All the cults mentioned, except for the one specifically noted as at Canopus, either relate directly to Thonis-Heracleion (Amun-Gereb) or fit well with the profile of cults at

---

[386] Weitz 2012, 397.
[387] Quibell 1907, 12-14, 28-29. A direct visual link, for instance, can be seen in the iconographic terracotta type that shows Bes carrying an ithyphallic child deity cult statue (Török 1995, 67). See also a limestone child deity, whose phallus is supported by two Bes figures: Martin 1981, 29, no. 306, pl. 23.
[388] Horus cippi: Sternberg el-Hotabi 1999.
[389] Libonati 2010, 80-87.
[390] See, for example, Daressy 1905-1906, no. 39379, pl. lxiii.
[391] Guermeur 2005, 146, with full bibliography. Also, Yoyotte and Chuvin 1988, 175-176.

Thonis-Heracleion. It is possible, on the basis of this inscription, that some of the falcon figures represent Horus of the Marshes, in view of his designation as '*le seigneur de la Mer'* and in light of the harbour's liminal position between the Mediterranean and the Nile, as well as the marshy, brackish areas nearby.[392]

The falcon pendants do not constitute evidence for any kind of true falcon-deity cult, but the other representations of falcons may do so. Some are from standards, as is at least one ibis, but the numerous bronze leg fragments (**168-175**) demonstrate that either falcons, ibises, or both, were more common than the more complete material suggests. The ibises would have been dedicated in connection with Thoth or Khonsu-Thoth, as would the baboon statuettes (**163-167, 204-205**). The falcons, in turn, may be associated with solar cult, as Weitz suggested in connection with figure **135**, as well as the ichneumon, shrew, and lizard animal sarcophagi (**210-213**).[393] Animal cult is not attested in textual sources for Thonis-Heracleion, but new archaeological evidence suggests that Thonis-Heracleion may have supported an ibis or falcon necropolis (see Chapter 3, 'Animal Sarcophagi').[394]

Other zoomorphic figures form smaller and less coherent groups and are not easily associated with particular cults. The lions are primarily decorative elements or cult equipment. The Wepwawet figures represent standards rather than a cult of this deity (see Chapter 3, 'Standards'). The site also has a few Apis dedications, but Weitz notes that Apis is a common subject for festival dedication, so that the presence of an Apis bull statuette on the site does not equate to a cult of the Apis.[395]

Direct attestations of hellenised cult at Thonis-Heracleion are fewer than those for Egyptian cult. As noted previously, Herodotus referred to the 'Herakles' temple on his visit; in addition, the inscription on a stippled gold foundation plaque mentions a gymnasium dedicated to Herakles.[396] In general, however, the two Greek deities most strongly associated with Thonis-Heracleion (Herakles and Dionysus), are not preeminent. Although Ursula Höckmann argues for the strong influence of Herakles in

---

[392] As also noted by Thiers 2009, 14, note 14d, although other cults must be considered.
[393] Animal sarcophagi like the shrew, ichneumon, and eels are not always linked directly with particular deities, such as Atum, but can be dedicated together in a broader context, generally in relation to solar cult (Weitz 2012, 279).
[394] Weitz 2012, 395 (no cult attested in texts), although the Grand Stela from Thonis-Heracleion does attest to a cult of the dead gods (Thiers 2009, 15). This may indicate some sort of necropolis (Baines, personal communication). Nearby animal cults include Canopus (Kessler 1989, 28) and Abukir (Muhammed 1987).
[395] Weitz 2012, 397.
[396] Yoyotte and Clauss 2008, 140-143.

the region, as Yoyotte did for Dionysus, there is not much evidence for their worship in their native Greek form in the city.[397] Dionysus may have been invoked when votive phalli or phallic figures were dedicated, but nothing links him directly to them. The elephant statuettes could also evoke Dionysus, in view of his mythical forays to the East, but such a connection is not made explicit in the iconography; they appear to have a much more immediate connection with child deities. Dionysiac presence is much stronger at Athribis, where multiple representations of Dionysus are attested, as well as images of Aphrodite, satyrs, and a number of cult followers with grape leaves and elaborate wreathed headdresses common to Dionysiac cult.[398]

Hellenised cult at the site was very focused instead on child deities. Ptolemaic-style deities ('Harpokrates') are the most common subjects among terracottas in many places in Egypt.[399] Closely linked with Ptolemaic-style child deities at Thonis-Heracleion are the lead statuettes of elephants and horses (for the find contexts, see Chapter 5, 'Individual Deposits').

Parallels in the Graeco-Roman Museum in Alexandria and the British Museum in London show that these figures belonged to a wider practice of lead dedications in the Canopic region.[400] Many of the British Museum figures acquired from R.J.P. Alexander for the Greek and Roman Department in 1964 had been found as a single lot about fifty years earlier. The find reportedly included over 150 lead artefacts, of which the British Museum bought a portion; this find testifies to the scale of production for these figures.[401] As Boussac and Seif el-Din suggest, the reported find place of 'Menouthis' must be treated cautiously as the location of that city is still debated.[402] In addition to these figures, the British Museum has a number of lead objects in its Ancient Egypt and Sudan department with exactly the same or similar motifs that were donated by Reverend Greville John Chester in 1880, most with a stated Alexandrian provenance.[403]

The British Museum (London) and Graeco-Roman Museum (Alexandria) examples show the diverse range of subjects produced in lead (miniature vessels,

---

[397] Höckmann 2010; Yoyotte 2010. This could in part be due to a lack general lack of non-metallic material. See Chapter 3 and Chapter 5.
[398] Myśliwiec 1999, esp. 55-62, although still fewer actual representations of Dionysus than expected considering the Dionysiac themes (Szymańska 2005, 106).
[399] For example, Nachtergael 1985, 227-230.
[400] Boussac and Seif el-Din 2009.
[401] http://www.britishmuseum.org/research/collection_online/search.aspx?searchText=R+J+P+Alexander&people=97639&material=18403
[402] Boussac and Seif el-Din 2009, 217.
[403] http://www.britishmuseum.org/research/collection_online/search.aspx?people=101269&material=18403

deities, horses, elephants, camels, shrine models, and more). A few unpublished examples from the IEASM excavations at East Canopus have close connections to these figures and to the ones at Thonis-Heracleion.[404] The Thonis-Heracleion examples can refine the dating of some of the museum material, which has hitherto been given a wide Ptolemaic to Roman chronological range. The new material establishes a solid Ptolemaic date, possibly even 4th-3rd century BC, for several lead types (horse, elephant, vessels).[405] Scholars have related some Ptolemaic-style terracottas to site-specific festivals, such as the Festival of the Inundation at Delos.[406] The cult, or cults, for which these lead figures were used is still unknown, however.[407]

Other figures that may have a loose cultic association with the Ptolemaic-style child deities are the 'Baubo' statuettes, the pigs, and the rooster. In terracotta, 'Baubo' is occasionally shown with the lotus buds of Harpokrates, like those on child deities.[408] At Thonis-Heracleion, Baubo **106** was found in a deposit together with an elephant statuette (see Chapter 5, 'Individual Deposits'). Roosters, meanwhile, may be seen on the double-sided elephant statuette discovered at Athribis ('Elephants' above). On one side of the elephant (near its legs) are two nude phallic dancers and on the other side two roosters flank a small Bes.[409] One pig (**252**) and one rooster (**250**), meanwhile, were found at Thonis-Heracleion in the same excavation zone, together with a theatre mask (**125**).[410] Child deity **40** was also found in zone M3, but during an extension of the zone, and was about 25m east.

A second or third century AD cubic mould for small metal plaques in the Musées Royaux, Brussels documents these connections as well, although at a later period. This mould belongs to a series, several of which have representations of Baubo. They clearly relate to cultic contexts because the alternate faces frequently show sacrificial animals including bulls, gazelles, (one) pig, hens, geese, roosters, and fish. Altars are also occasionally represented.[411] The Brussels mould shows Baubo on one face, two scenes

---

[404] The statuettes from IEASM excavations at Alexandria and East Canopus are the subjects of planned future study by the author.
[405] The horses were dated to the Roman Period (Boussac and Seif el-Din 2009, 220-221).
[406] Delos: Barrett 2011, 119-261.
[407] I plan to conduct a full study of the British Museum material as I publish the IEASM Canopus finds, in the hopes of discerning some of the cult or festival connections behind these motifs.
[408] Török, 131-132, nos 85, 90.
[409] Myśliwiec 1997, 132-133 suggests the roosters have a homoerotic interpretation. While this is possible, they may just represent a feasting/festival context including sacrifice. Detailed drawings of the terracotta are on 130-131, figs 3 and 4. See also Myśliwiec 2004, fig. 51.
[410] See the provenance information for figure **125** in Volume 2.
[411] Nachtergael 1998, 160-161.

with sacrificial bulls, one pig, an altar, and 'Harpokrates' on a horse wearing the double crown.[412] Moulds of these types would have created figures on a scale similar to the lead statuettes at Thonis-Heracleion, although at a later date.[413]

The cults of Thonis-Heracleion are rich and varied in the Egyptian-style material that probably relates to them as well as in the Greek and Ptolemaic-style material. Both sets of material emphasise fertility and prosperity, and the Egyptian-style material shows further concerns with the power of kingship with the central importance of royal child deities (Horus the Child and Khonsu), Osiris, Isis, and to a lesser extent Amun. But above all, the number and variety of cults at the site attest to the vast resources devoted to religious activities and to the central role that religion played in the lives of the harbour's inhabitants.

[412] Nachtergael 1998, 161-169.
[413] Cubic moulds are also found at Thonis-Heracleion, although not, thus far, for the manufacture of figurines. One mould, H3084, was probably used to make lead slingshot (see Chapter 5, 'Production'), while another was not a mould perse, but acted as a coin die: Meadows 2011.

# Chapter 3: Form, Function, and Material

## 3.1. Form and Function

The majority of objects in this selection of material are votives as evident from their appearance (mostly deities) and their find locations. The definition of a votive is variable but in its most basic form it is an object that is given to a deity.[1] Arguably, this could be anything from the food supplied to a deity as part of the daily offerings, to the temple in which the deity lived.[2] Votives can be repurposed objects or objects crafted specifically for use in a temple or cultic setting.[3] As noted in the introduction, this work focuses on figured objects that were deliberately fashioned for use in a cultic setting.

The term votive, however, encompasses a wide range of objects with different specific functions and forms (see Chapter 1, 'Character of the Assemblage' and Chapter 5 for more on votives and votive practice). Below I describe the main categories of objects from the assemblage and how they functioned. See Appendix 12 for a specific breakdown of the assemblage according to the categories listed below. In the latter half of the chapter, I then outline the materials used to make these objects. I discuss how the form and function of these figures in part determined the materials that were used for their design (and vice versa), particularly how craftsmen utilised lead and bronze.

### *Statuettes*

Statuettes and their constituent elements, including bases and crown fragments, dominate the assemblage (around 65%). The majority of Egyptian-style figures are statuettes as are all of the Greek and Ptolemaic-style figures. To reiterate, statuettes are images that were supported by a base or were free-standing, usually between 5-50cm in height. Many of the Greek and Ptolemaic-style figures were smaller, free-standing, or were modelled together with a base or plinth; Pharaonic-style figures were usually attached to a separately-made base or throne (Figure 3.1).

---

[1] On the terminology, Osborne 2004, 5. For bronze statuettes: Weitz 2012, 463.
[2] Weitz 2012, 463.
[3] Repurposed votives speak to the lives and occupations of dedicants. The disturbed stratigraphy at Thonis-Heracleion makes the identification of such dedications difficult. Some items in the H1 temple, such as metal vessels, lead weights, and pottery may have been repurposed.

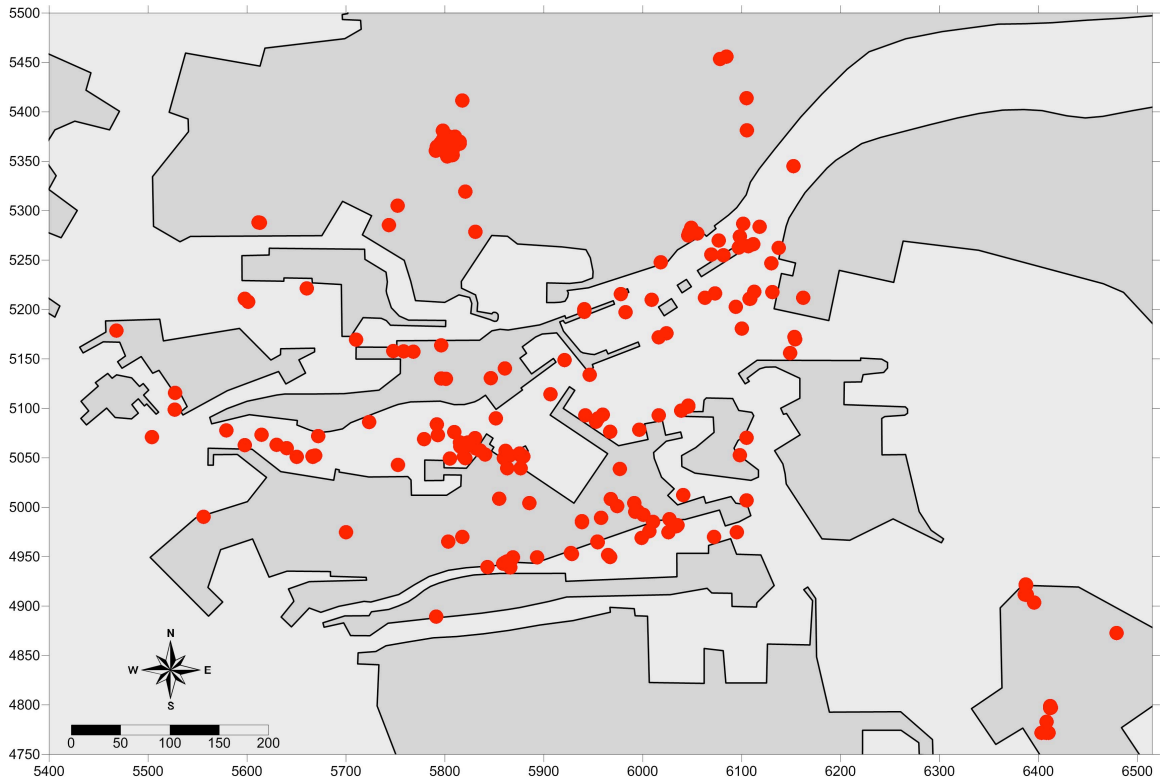



Figure 3.1. Distribution of statuettes (red dots).

Of the statuettes, the only 'questionable' votives are the Greek and Ptolemaic-style horses and elephants. They could have been fittings for furniture in view of their open, rectangular edges and hollow interiors, or they could have acted as toys. Determining whether a figure is a votive or toy is a common difficulty especially for terracottas, with which these particular lead figures have their best parallels.[4] Terracottas, commonly, are also hollow and have large rectangular openings on the underside with figures posed on raised plinths (for example, boar **252**).[5] The lead figures may be close imitations of the terracottas; therefore the shape, the plinth, and the presence of the opening may be skeuomorphs rather than indications of the object's primary function. The iconography of these figures, however, speaks to a votive function, particularly their association with child deities (elephants, **215-228**).

For the Egyptian-style votive statuettes, Weitz identifies three different functional categories: personal votives that acted as thank or request offerings, such as personal items or fertility-promoting beings (for example, **108-109**); special votives

[4] The links between toys and votives of Dionysos cult show how difficult it is to distinguish the two (Levaniouk 2007).
[5] For similar openings and platforms for terracottas of child deities riding animals, see, for example, Fischer 1994, nos 616-17, 623-27, pls 64-67.

granted by the king which were incorporated into the daily rituals of the temples and which could act as intermediaries; and more generalised votives that could be offered to strengthen the bond between dedicant and deity.[6] Animal bronzes and anthropomorphic bronzes both fall under the third category, but Weitz further distinguishes the role of these figures, noting that animal bronzes had a special position in animal necropoleis, while anthropomorphic and hybrid figures usually were closely bound to temple cults.[7]

The latter type of votive statuette, the 'general' type, is equivalent to the main body of the Thonis-Heracleion bronzes. These have formulaic inscriptions that highlight symbolic concepts like life and prosperity rather than specific requests, similar to the ones on bases described in Chapter 2 and detailed in Appendix 11.[8] Weitz suggests that the generic nature of these inscriptions shows that they were offered out of personal piety to attest to a connection with a particular deity, probably on occasions such as festivals; they were not offered out of personal motivations like thank offerings or appeals.[9] According to Weitz, inscriptions referring to the New Year's festival on some dedications may indicate the context in which they were offered.[10]

The two types of votives that Weitz describes as 'personal' and 'general' are different, as she says. Phallic figures (like **110**), for instance, occupy a wider range of contexts than bronzes and emphasise other ideals through their iconography (Chapter 2, 'Phallic and Vulvate Figures'). These phallic statuettes have been found in specialised cult centres but they also have a greater presence in public areas than bronzes.[11] The question of the motivations behind such dedications, however, is difficult to assess.

Weitz argues against personal motivations for the 'general' dedications as a way of refuting the idea that animal cults were somehow more associated with popular belief than other forms of Egyptian cult.[12] Like Sue Davies and Harry Smith (Saqqara), Weitz does not concur with Dieter Kessler that only royalty and cult officials would have been involved in the dedication of statuettes and animal mummies to animal cults.[13] In Weitz's view, however, the 'pilgrim' model that Smith supports, wherein people

---

[6] Weitz 2012, 464.
[7] Weitz 2012, 468-481. See Chapter 5, 'Dedication Practices', for how Thonis-Heracleion material relates to the patterns she describes.
[8] De Meulenaere 1990; Weitz 2012, 482-486.
[9] Weitz 2012, 463, 478-479.
[10] Weitz 2012, 470, 472, 474, 480-481, 513, a view originally put forward by Kessler (1989).
[11] Quibell 1907, 12-14, 28-29, pls xxvi-xxix (Bes Chambers, cult space); Myśliwiec 1997 (Athribis, public space).
[12] Weitz 2012, 475-476. Animal cults and popular belief: Davies and Smith 1997, 122-124.
[13] Weitz 2012, 471; Davies and Smith 1997, 121-124; Kessler 1989, 253-290.

dedicated statuettes where and when they wanted, is also unlikely; instead dedications were restricted to certain locations and occasions, such as festivals.[14]

Weitz emphasises that the area in which a statuette could be dedicated was restricted and controlled by temple personnel, and that animal cults were highly institutionalised, like temple cults.[15] The idea, however, that bronze statuettes were dedicated only during festivals as a way of expressing a relationship with a deity is not supported by the inscriptions. First, inscriptions naming the New Year's festival are very rare when the scope of surviving bronzes is considered; they show that festivals offer an opportunity for dedication but they cannot be used to argue that all statuettes were dedicated in this manner.[16] Second, since these statuettes are temple or animal necropoleis dedications, the inscriptions may be constrained by rules of decorum, tradition, or even manufacture.[17] Temple craftsmen may have used formulaic inscriptions to conform to traditional norms and to produce figures quickly, and thus the inscriptions may not reflect the full reasons behind the dedication.

This is not to say that these statuettes definitely were dedicated as thank offerings or requests. Davies and Smith conflate the motivations for the dedication of phallic figures (mostly limestone and terracotta) and those of bronzes related to animal necropoleis and temples, which may not be appropriate either, since they are used and dedicated in different contexts.[18] The motivations behind the dedication of the 'popular' and 'general' votives are ambiguous and cannot be as starkly defined as Weitz suggests, nor can votives be easily categorised as one or the other.[19]

Motivations aside, once the statuettes were dedicated, whether it was on an individual basis or in a festival context, how were they actually used? How were they able to enact their function of providing a connection between dedicant and deity? For the Pharaonic-style figures, as Hill notes, we have little opportunity to examine their original display context because so many are found in secondary caches, although we know they have a close relationship with temples.[20] The only site where it seems that

---

[14] Weitz 2012, 480; For an imaginative reconstruction of a pilgrim-type situation based on documents from Saqqara, see Smith 1974, 64-82, esp. 69-70.
[15] Weitz 2012, 470-471, 475-476.
[16] Weitz (2012, 472) lists seven, of which three are faience.
[17] Decorum: Baines 1990, 17-23; Baines 2007, 14-30.
[18] Davies and Smith 1997, 123.
[19] Some figures that are considered 'popular', such as nude female terracottas like **108** and **109**, actually belong to a type that was ocassionally found in, and perhaps distributed by, state-sponsored temples (Waraksa 2009, 80-89), which blurs the lines between Weitz's 'popular' and 'generalised' votive designations.
[20] Hill 2001, 203 (secondary contexts).

the statuettes were *in situ* in a primary context is at 'Ayn Manawir, and these figures await full publication.[21]

Claude Traunecker outlines the ways in which images of deities were employed in Egyptian temple decoration and temple cult.[22] Images that can host the *ba* of a particular deity are labelled as 'action images'. He then further divides this category into those that express manifest or latent cult. Manifest cult images include cult statues and some specialised images, like the processional bark, which are the focus of cult. Latent cult images are secondary images that are not the focus of cult, but which do enhance and strengthen the presence of the deity in the temple.[23]

Hill applies Traunecker's analysis to bronze statuettes, noting that they do not fulfil the role of cult statues, but they are active images that express latent cult; in doing so, Hill emphasises the agency of votive statuettes in a ritual context.[24] She argues that the statuettes formed a 'reservoir of power' within the temple; this effect, where the number of statuettes enhance or strengthen the deity's presence, may explain why even small, poorly-executed statuettes, particularly the multitude of small Osiris bronzes, were produced for dedication.[25] Hill uses the find situation of statuettes to support this argument. She suggests that statuettes (particularly royal examples) are disassembled from group displays and from their bases because this represented a way of breaking their ritual power before burial.[26] Similarly she notes that the linen wrappings found on some figures are akin to mummy wrappings.[27] Linked with this approach is the perception that priests cached damaged statuettes because even fragmented pieces retained power and had to be carefully disposed of as sacred remains.[28]

Some of these individual proposals are contestable. John Baines, for instance, notes that if the disassembly of groups broke their ritual power, what is the need for burial?[29] Is there another process that requires the groups to be disassembled? Elizabeth Waraksa clearly demonstrates that some Egyptian-style nude terracotta female figures,

---

[21] Wuttmann *et al.* 1996, 393-402 (temple and associated buildings), 431-435 (bronzes); 1998, 445 (metal); 2007. See also 'Ayn Manawir, Chapter 5 below. As noted in Chapter 1, some finds at Thonis-Heracleion could be in a display context in the main temple area, but the archaeological findings are not conclusive.
[22] Traunecker 1991.
[23] Traunecker 1991, 85-86.
[24] Hill 2007, 156-157.
[25] Hill 2007, 156.
[26] Hill 2004, 130-131, 136; 2007, 157.
[27] Hill 2007, 158, and 159, fn. 13. See also Davies 2007, 180, fig. 77 for a wrapped Isis; Weitz 2012, 466.
[28] The idea that statuettes had to be carefully stowed after use, rather than destroyed, is widely accepted because of the large number of surviving statuettes from caches. See, for example, Smith 1974, 45.
[29] John Baines, personal communication.

similar to **108** and **109**, may have been used in magical rituals and were deliberately broken.[30] These, however, were not carefully disposed but were dumped in midden heaps.[31] Perhaps the process is different for bronzes because most were designed and dedicated with a particular deity in mind, while Waraksa's figures were more generic.[32] Or perhaps disassembly limits or alters the latent power of statuettes, but does not eliminate it as in more destructive rituals. Davies notes that these figures may have been considered dangerous unless taken apart, but still retained some power and were considered prophylactic after disassembly.[33] Further questions regarding deposition, disassembly, and damage are addressed in Chapter 5.

As to the second argument, the linen wrappings may have been used for a more mundane purpose, such as for protection from damage, much as we would carefully package valuable items today.[34] Although frequently cited in scholarly literature, this practice of wrapping the statuettes does not appear to be standard, and the most oft cited example is from the deposit near Gate D at Saqqara, which contained a group of intact and apparently 'newly minted' statuettes.[35] At the same time it is unlikely that the mummified appearance was lost on the servitors of the temple. Overall, Hill's essential argument that the statuettes were viewed as active figures and functioned as loci for the god's presence is well founded. The role of the statuettes was not fulfilled upon dedication, but had only just begun.[36]

Some statuettes in Egyptian temples may have been mobile, particularly those associated with the sacred bark. They would have traveled with the bark outside of the temple as it made its way through the city during processions.[37] Pharaoh **81**, for instance, could be just such a figure.[38] The lead barks (**305-316**) are models of temple sacred barks but these models probably were not taken out during each procession. The barks and their lost statuettes would be too small to be seen effectively in processions.

A few statuettes may have functioned not as votives, but as active agents in spells. As noted previously, figures **108** and **109** are similar to the terracotta statuettes

---

[30] Waraksa 2009. For breakage patterns: 19-20, 67-72, 169.
[31] Waraksa 2009, 16-18, 20-21, 72-76, 169.
[32] Waraksa 2009, 188.
[33] Davies 2007, 185.
[34] Davies 2007, 179 states that it is ambiguous whether the wrappings provided protection or acted as mummy wrappings.
[35] Smith 1974, 50; Davies 2007, 179, fig. 76.
[36] Hill 2007, 153-159.
[37] Processions and festivals in Egypt: Coppens 2009, with bibliography.
[38] See 'Standards' below for a discussion of statuettes as part of installations. For royal statuettes and sacred barks, see Hill 2004, 134-135.

that Waraksa argues were utilised in magical healing rituals.[39] Like many of the examples Waraksa documents, figure **109** is broken across the waist. Figure **108** is broken at the neck, which could be the result of intentional action or accidental damage. Among the Greek-style figures, it is possible that the seated goddess was ritually broken (**117**). As noted in Chapter 2, thousands of such figures were imported to or were produced at the temple of Demeter and Kore at Cyrene. Approximately 85% were broken at the neck like **117** from a ritual act.[40]

***Large Statuettes and Statuary***

Several separately-cast attachments indicate that Thonis-Heracleion had a number of large statuettes or full-size statues that would have been between 50-200cm high (bronze or composite statuary). Libonati also documents two attachments for full-scale statuary.[41] While it is possible that some came from bronze statuary, the majority probably belong to mixed media statuary, a technique in Egypt where a statue or statuette was made of a combination of materials, usually wood and bronze.[42] In Egypt, wood could be a prestigious material. Inscriptions from Dendara that describe and picture cult statues place ebony and other forms of expensive, hard woods alongside precious metals such as black gold, gold, and silver.[43] The excavators have proposed that *hemhem* attachment **263** belonged to a cult statue of Khonsu.[44] In view of its size and detail, as well as its proximity to a naos and a faience foundation deposit that includes a child deity (**12**), it is possible that it was a cult statue, although we cannot be sure, especially as the naos is not inscribed.[45]

A close examination of these attachments yields some surprising results. The finds of horns, *atef*, and *hemhem* crown attachments (**263-273**) are consistent with the greater number of Osiris and child deities figures discovered at the site. Notably,

---

[39] Waraksa 2009, esp. 116-175.
[40] Uhlenbrock 1992, 17.
[41] Goddio and Fabre 2008, 78, 94, 323, nos 207, 210 (initial publication); Libonati 2010, 36-37, 106-107, nos 3, 27.
[42] See the comparanda for **195** (seated cat) and **166** (ibis) in Volume 2 for examples of bronze cat heads that probably attached to hollow wooden bodies and for examples of mixed-media ibises.
[43] Cauville 1987.
[44] Fabre 2008a, 73.
[45] For provenance information for **263,** see **103** (left arm) in Volume 2. Naos: Goddio and Fabre 2008, 76, 309, no. 114. Foundation deposit: Chapter 5, 'Individual Deposits' and the catalogue entry for child deity **12**. The crown was approximately 6m east of the foundation deposit. For a similar but larger (27cm) and more elaborate parallel, see the gilded silver *hemhem* crown from the Tukh el-Qaramus hoard (Pfrommer 1987, 147, 271, pl. 28a.), dated to the second quarter of the third century BC. Pfrommer (147) attributes this crown to a king rather than a deity because it had a uraeus, but child deities also wear the *hemhem* with a uraeus (see child deity **6**), and at Thonis-Heracleion an association with Khonsu is still probable.

however, some statuette types that are not common among the intact bronze figures are represented in greater numbers among attachments. For example, four attachments represent the Amun crown (**283-286**), a number disproportionate to the evidence for Amun among the rest of the material. The statuettes that wore these crowns may not have reached 50cm, but they would have been significantly larger than the majority of extant Thonis-Heracleion statuettes. In addition to these, Libonati catalogued a cap crown, probably an Amun crown, that belonged to a full-size statue.[46] Meanwhile, extant 'statuettes' related to Amun include one bronze head and three ram head attachments. The ram heads, however, probably belonged to subsidiary cult equipment and may not even directly represent Amun. The Hathor crown elements are also more numerous than expected, in light of the fact that the number of Isis figures is relatively small compared with child deities or Osiris (**274-277**). These attachments highlight the importance of considering even fragmentary pieces when establishing the full range of figures that were dedicated at a site and their significance.

For instance, is it significant that Amun was not a common small-scale bronze, but was more present as a larger, mixed media figure? Studies of Egyptian bronzes frequently incorporate fragments and attachments, but usually as tallies to indicate the total number of representations of a particular deity at one site, similar to the way I used these attachments in Chapter 2 ('Cults'). The more representations, fragmented or otherwise, the more popular and important the deity is assumed to be. The Amun crown attachments, however, indicate that a level of hierarchy may be important among the statuettes, and that determinations of significance and cult presence may not be as straightforward as counting statuettes and fragments.

Some subjects like Osiris may be so popular that they are represented as small, low quality figures as well as high quality, large-scale figures, while other subjects may have been more common in the high-end scale only, depending on their significance in local cult. While the Amun attachments do not dramatically alter the picture of cults as discussed in Chapter 2, it is possible that in numerically larger statuette assemblages, there may be significant differences in the subject types represented by the bronze figures and the larger bronze attachments (mixed media statuary). For that reason, a complete study of votive statuettes should, where possible, include not just intact bronzes but also the other materials (or mixed materials) dedicated alongside them.

---

[46] Libonati 2010, 36-37, no. 3.

### *Amulets*

The most common Egyptian amulets are those described by Flinders Petrie, George Reisner, and Carol Andrews.[47] Generally these are small, portable objects that could be carried or worn. Many have suspension loops. The best documented contexts for amulets are funerary.[48] It is likely, however, that they were used frequently in daily life as protective devices or to impart the amulet's qualities or abilities to the wearer.[49] For instance, they were used extensively in domestic contexts in Amarna, usually as part of jewellery.[50] Furthermore, the finds at Thonis-Heracleion demonstrate that a third context, the temple, was appropriate for such amulets. Figure 3.2 below shows the distribution of amulets against the statuettes described above.

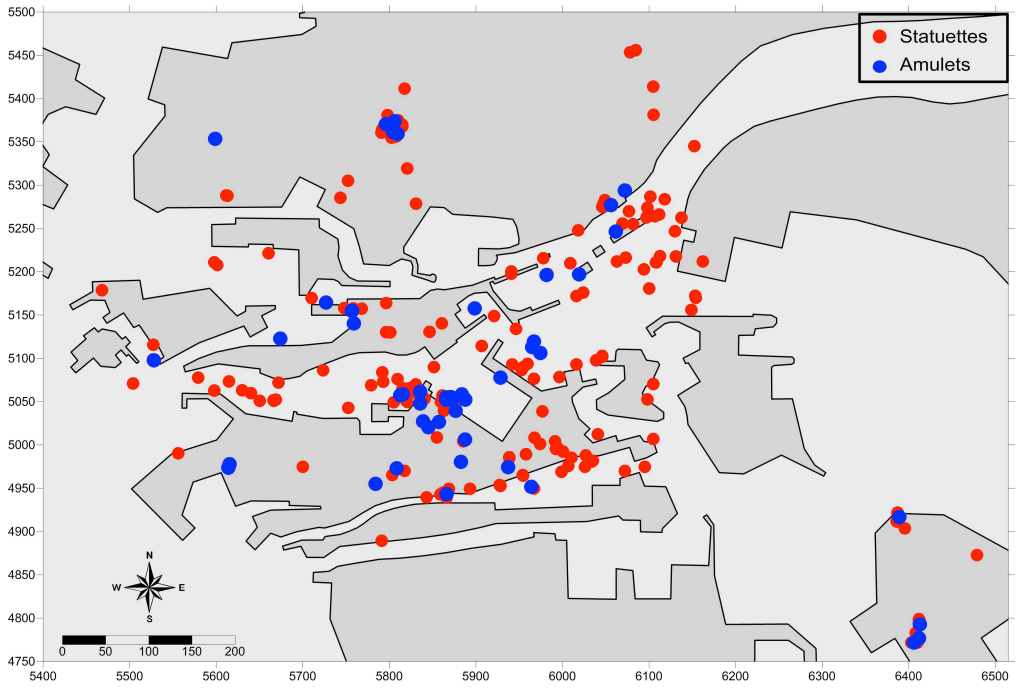



Figure 3.2. Distribution of amulets (blue dots) against statuettes (red dots).

[47] Reisner 1907; Petrie 1914; Andrews 1994.
[48] Andrews 1994, 6-8. See, for example, Petrie's illustrations of amulet placement on mummies: Petrie 1914, pls l-liii.
[49] Andrews 1994, 6.
[50] György 1998; Stevens 2006, 29-77.

The amulets encompass six main categories: Nefertem (**69-76**), falcon pendants (**139-156**), faience vegetal and inanimate amulets from the foundation deposit in H1 (**323-326**), faience uraei (**182-185**), miniature offering tables (**320-321**), and a small number of other deities including child deities (**3, 7, 12, 17-18, 27**), Osiris (**43, 48, 52-53, 55**), Bes (**128**), and a falcon-headed god (**132**). Most are characterised by a suspension loop and all are Pharaonic-style. As Map 3.2 demonstrates, their distribution overlaps completely with the zones where Pharaonic-style statuettes are concentrated, including sacred areas. This type of intermixture occurs elsewhere as well. Saqqara has thousands of faience amulets and statuettes. Most are unpublished but it has been reported that these were frequently cached together with bronzes in temple zones.

If these objects were votives for temples, can they be considered amulets? Andrews defines an amulet as a "personal ornament which, because of its shape, the material from which it is made, or even just its colour, is believed to endow its wearer by magical means with certain powers or capabilities".[51] Under this definition, perhaps not. Throughout this text, I have used the term amulet loosely, more by size convention and by association with suspension loops. It is necessary, however, to highlight the fact that some may not be amulets, but rather statuettes with suspension loops for purposes other than personal adornment or protection.

Olivier Perdu documents several deity statuettes that have suspension loops as well as dedicatory inscriptions, including two that are similar to the Thonis-Heracleion Nefertem amulets (**69-76**).[52] He argues that the inscriptions on these items demonstrate that they were designed from the beginning as votives, not as amulets for personal adornment.[53] He suggests that the loops were used to hang the votives in temples.[54]

Jennifer Thum, who catalogued bronze animal sarcophagi in the British Museum, London, provides an overview of recent scholarship concerning the various interpretations for votive bronzes with suspension loops.[55] She favours the idea that these votives were hung in the temples for display, particularly animal sarcophagi ('votive boxes') with loops.[56] Of the comparable animal sarcophagi at Thonis-Heracleion, none have suspension loops except for ichneumon **210**, which would have

[51] Andrews 1994, 6.
[52] Perdu 2003, 155-156, figs 1-2.
[53] Perdu 2003, 165-166.
[54] Perdu 2003, 165.
[55] Thum 2012, 56-65.
[56] Thum 2012, 59-60, 64-65.

stood on a similar box and which has traces of a suspension loop on its back.[57] Other 'amulets', however, could have acted as hanging votives, such as some of the deities mentioned above and the miniature offering tables (**320-321**). Like Thum's animal sarcophagi, these kinds of offering tables often have loops near the table's spout (although these particular examples do not).[58]

As Thum notes, however, the idea that suspension loops on statuettes and boxes have some amuletic meaning or function cannot be dismissed completely.[59] Hill documents a number of images that show priests and deities wearing large pendants or statuettes. Thus it is possible, even if these 'amulets' were not intended for daily personal adornment, they may have been meant for a deity or were worn by priests on special occasions.[60] The Thonis-Heracleion deities with suspension loops do not exceed 10cm. Some are around 9cm which makes them slightly bulky, but they could have been worn in the manner that Hill describes.

Hill also addresses the question of non-functional loops. Do some of these loops have more symbolic meanings on metal statuettes, in the same way that back pillars do not have a straightforward or literal meaning?[61] Certain deities are more frequently shown with pendant loops; these types include Osiris, child deities, Nefertem.[62] Within those typological categories, some figures have suspension loops and others do not, even if they do not differ in size or iconography. This selectivity suggests that the suspension loops were not just used to save space by hanging any votive that would normally be a statuette; otherwise a wider range of deities would consistently have suspension loops (Amun, Isis, Bastet). The loops were either used for a particular display context or had symbolic meanings.

At Thonis-Heracleion, some Osiris statuettes (or amulets) have a suspension loop and a tenon (**52-53**); two have two suspension loops, one at the back and one at the feet, in addition to a tenon (**43, 48**); one has just two suspension loops and no tenon (**55)**.[63] Similarly, Thum documents some animal sarcophagi, topped by eels or reptiles,

---

[57] Thum (2012, 56) noted only reptile and eel coffin boxes with pendant loops, but this figure as well as an animal sarcophagus recorded by Roeder (1956, §513, fig. 552, pl. 54f) have a pendant loop also (but on the figure's back).
[58] Teeter 1994, 255-256 for comparanda with loops.
[59] Thum 2012, 60.
[60] Hill 2007, 87.
[61] Hill 2007, 88.
[62] Patch in Hill 2007, 145. Also eels and reptiles on sarcophagi, according to Thum (2012, 56).
[63] See Osiris **43** in Volume 2 for comparanda for two-loop figures.

that have tenons in addition to loops, which seems to make the loops extraneous.[64] In these cases, were the loops used? Davies suggests that extra loops on Saqqara figures may have served to anchor them to other statuettes or to sacred barks.[65] Alternatively, the figures could have been suspended, but with small wooden bases. They could also be products of mass production — a two-for-one statuette that could be anchored or suspended, or a suspended figure with a tenon that the craftsman did not deem necessary to cut and file. But again, contra the latter explanations (with the exception of Davies' which accounts for a specialised context), one would expect a wider range of iconographic types with pendant loops if the loops were purely functional and used for suspension anywhere in the temple.

Some scholars have documented pendant statuettes that are far larger than the Thonis-Heracleion examples, such as a Nefertem figure from the Metropolitan Museum of Art, New York, which is a heavy silver statuette over 26cm high.[66] How can we explain figures like this, where it is very unlikely that the loop could have been functional? And how does the role of these larger figures relate to smaller-scale examples? Diana Craig Patch suggests that outsized suspension loops could be found on statuettes whenever the deity was first represented as an amulet, and as representations grew and became more popular, the vestigial loop was retained; in this way, the presence of a loop is tied to the iconographic subject, rather than to a specific function.[67]

Weitz adopts a contextual approach, and suggests that if a figure with a suspension loop is found in an assemblage of amulets with wider faience products then it is probably an amulet; if it is a bronze statuette with a suspension loop and it was found in a cachette with votives, it is a votive and not an amulet.[68] This method is preferable to naming figures as amulets only because they have suspension loops, but it does not allow for the possibilities suggested by Hill and Patch — that the piece can function as votive *and* amulet by being offered to a temple but for adornment for the deity or priest, or it had more symbolic values.

The context of the Thonis-Heracleion material sheds little light on the way these were displayed, as many of them derive from secondary contexts. Patch ends her

---

[64] Thum 2012, 63.
[65] Davies 2007, 185.
[66] Patch in Hill 2007, 143-146, 210, no. 51. See also the gold Amun figure described by Hill (2007, 84-89, 205, no. 19).
[67] Patch in Hill 2007, 145.
[68] Weitz 2012, 463, fn. 2.

discussion of suspension loops by noting that one explanation cannot really encompass all of the reasons why a votive object may have a suspension loop, which is probably the best conclusion for the material at this site.[69] For now, I use the term 'amulet' to distinguish these figures from the statuettes above as something special and noteworthy, but this term encompasses a range of figures that do not have suspension loops at all and others that may have had suspension loops for substantially different (and possibly non-amuletic) purposes. Most, however, were offered as votives and that is, in this context, their most important functional aspect. Studies of uncontextualised 'amulets' in the future should consider the full range of possible contexts for these figures, even for smaller items that look like typical amulets (falcons, Nefertem, uraei). Meanwhile, future contextualised studies with more 'amulets' than Thonis-Heracleion (like Saqqara) can aggregate data and start discerning which subjects are primarily items for personal adornment in domestic or public contexts, which were usually votives in temples contexts, and which could act as both.

### *Animal Sarcophagi*

Animal cults formed an important, central part of Egyptian cult in the Late and Ptolemaic Periods.[70] There were two primary forms of animal cult. In one, a single animal, such as the Apis bull, was worshipped as deity in his own right. When the Apis bull died, he was mummified and was given full state honours. Under the second practice, which is more widely attested archaeologically, animals associated with particular deities or theological concepts, such as cats for Bastet, ibises for Thoth, or shrew mice for solar cults, were deliberately sacrificed and mummified to be offered as votives.[71] These sacred animal mummies, like the statuettes above, acted as latent cult images.[72] Sometimes hollow bronzes were used as casings for mummies (sarcophagi), and other times bronze statuettes were dedicated alongside the mummies.[73]

---

[69] Patch in Hill 2007, 146.
[70] Animal cults: Kessler 1989; Fitzenreiter 2005; Ikram 2005a; Dodson 2009. Further readings on specific cults: Otto 1938 (bull cults); Bosseneck *et al.* 1987 (ibis); Delvaux and Warmenbol 1991 (cats); Malek 1993, 73-111 (cats); Kessler and Nur el-Din 2005 (ibis); Spencer 2007 (cats). See note below for Saqqara animal cults.
[71] Dodson 2009, 1.
[72] Traunecker 1991, 85-86.
[73] The relationship between animal cult and animal bronzes: Weitz 2012, 468-481. Bronzes from sites with intense participation in animal cults: Smith 1974, 49-56; Hastings 1997 (sculpture, more generally); Davies and Smith 2005 (object catalogue); Davies 2007; Kessler 2008; Nasr el-Dine 2010; Weitz 2012, 385-390 (Bubastis), 406-439 (Memphis/Saqqara).

The administrative systems for these cults were complex, as best exemplified by the elaborate series of animal necropoleis in place at Saqqara.[74] Under this system, thousands of animals were bred for sacrifice as votive gifts to the gods; they were then mummified and buried in animal necropoleis.[75] Frequently these animals were artfully wrapped or they were placed in ceramic or limestone containers.[76] Alternatively, they were placed in hollow bronze statuettes or hollow bronze boxes. These types of containers have alternately been named 'relics', 'reliquaries','charm boxes', 'sarcophagi', and 'coffin boxes'.[77] Thum rejects any terms related to the word 'relic' because of the word's Christian connotations as well as the use of the word in Egyptology as it related to the body parts of Osiris. Instead, she uses the term 'votive coffins', in order to emphasise the votive aspect of these figures.[78] Here, I use animal sarcophagi in order to emphasise their zoomorphic contents, as some 'votive coffins' could also contain non-zoomorphic figures that are not directly related to animal cult, such as corn-mummies.[79]

Textually, there is no evidence that Thonis-Heracleion housed animal cults but six statuettes — two hollow cats (**195, 197**) and parts of four coffin boxes (**210-213**) — would have held the remains of sacrificial animals.[80] Figure 3.3 shows their distribution, which is widespread and provides no clear central location for an animal cult. New finds, however, provide some evidence for an animal necropolis at the site. In 2011, the excavators uncovered what appears to be another sacred area in sector M8. M8 is on the far eastern end of the landmass north of the Grand Canal. The excavators discovered a number of finely-made rectangular limestone boxes with flat lids around 40-50cm long, surrounded by well-worked architectural blocks (Figure 3.4).[81] Comparable boxes (sarcophagi) are known from Tuna el-Gebel and Saqqara for ibis and falcon mummies,

---

[74] Administration of animal cults: Smelik 1979; Kessler 1989, 253-290 (posits a strong connection with royal cult, much debated), 2005; Davies and Smith 1997, 120-121 (institutional but linked to popular belief); Feder 2005; Quack 2005b. Animal cults at Saqqara: Smith 1974, 21-92; Martin 1981; Jeffreys and Smith 1988; Davies and Smith 1997; Nicholson 2005b; Davies 2006; Davies and Smith 2005, 2006; Davies 2006.
[75] Manufacturing mummies: Ikram 2005c (scale of production).
[76] Wrappings: Spencer 2007, 35, fig. 20; Ikram 2012, 46-47.
[77] Thum 2012, 67-72.
[78] Thum 2012, 73-74.
[79] Coffins for corn-mummies, see, for example, Raven 1982, pls 2-4.
[80] Weitz 2012, 396. Kessler (1989, 17-43) and Ikram (2005b, xvii-xviii) provide lists and maps of known animal cults and their locations.
[81] Fabre, Supreme Council of Antiquities report 2011, 8-9, 11 (unpublished). Francois Leclère suggests that these could be sarcophagi for the production of the Khoiak Osiris mummies (personal communication). It is possible since the Khoiak festival reputedly took place on site, although the boxes do not have drainage and they are very similar to the sarcophagi for the falcon cult at Saqqara (below).

although at Tuna el-Gebel, pottery jars were the most common form of storage for the ibises.[82] The limestone coffins at Tuna el-Gebel were used for the most elaborately wrapped ibises, possibly ones that were high status.[83] Statuettes in the area include **162** (a falcon standard), **79** (Neith), and **281** (sun disc), as well as the bronze Khonsu-Thoth inscription (see Chapter 2, 'Cults'). Faunal remains were collected but await analysis.[84]

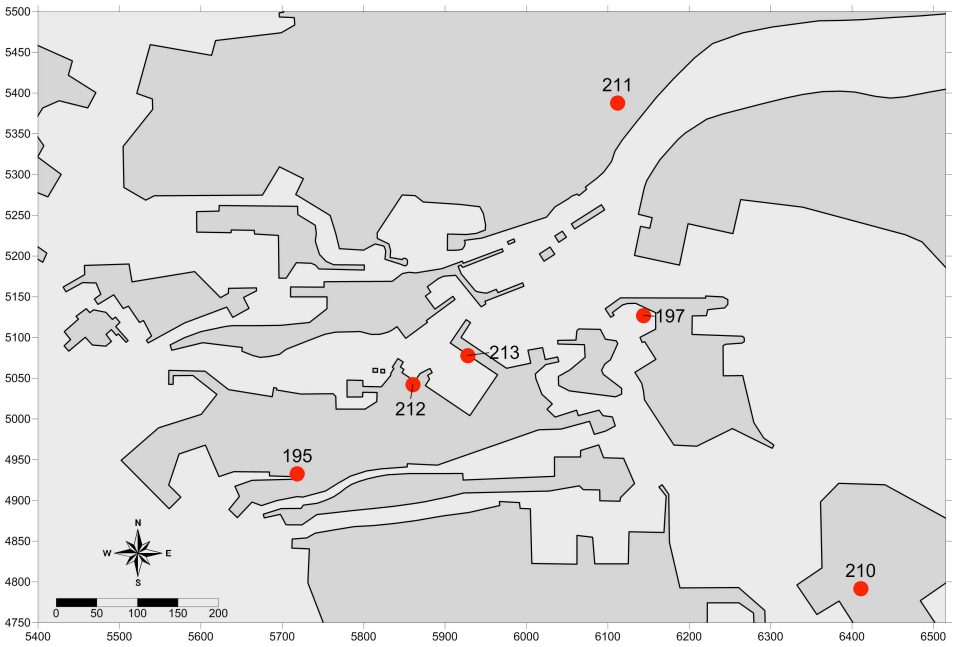


Figure 3.3. Distribution of animal sarcophagi.

3.4. Limestone box from M8 excavations in 2011 (H12635, H12608). Maritime Museum, Alexandria.

[82] Tuna el-Gebel: von den Driesch *et al.* 2005, 208-210, especially 209, fig. 7 (MQ2) for the coffin. Saqqara: Davies and Smith 2005, 48 (list), FCO-245-255 (esp. 252-255), figs 11-20, pl. xlviib-c.
[83] von den Driesch *et al.* 2005, 208.
[84] Fabre, Supreme Council of Antiquities report 2011, 9, unpublished.

***Standards***

Standards are objects that were carried at the front of a procession. They have long, straight shafts and are surmounted by a deity or other cult image. Some symbolised the different nomes of Egypt.[85] Probable standards are listed in Appendix 12. Fabre and Goddio (and subsequently Weitz) name some items standards that may not be. For instance, they described falcon **157** and bull **201** as standards.[86] While their tenons and plinths allow them to be standards, they also could have been inserted into rectangular bases or hollow sarcophagi. Some bases with bulls or falcons attached show the seam between figure's narrow supporting platform and the base itself (for example, Figure 3.5).[87] For these reasons, I have not included these figures, or figures like them, on the 'Standards' list. All of the Wepwawet figures, on the other hand, are standards as Goddio and Fabre say.[88] Although some are not attached to a staff of any kind (**188, 191**), parallels demonstrate that Wepwawet usually served as a processional standard in accordance with his role as 'Opener of the Ways', and thus all of the canine figures are included in this category.[89] The standards, like the animal sarcophagi, are widespread in multiple sacred contexts (Figure 3.6).

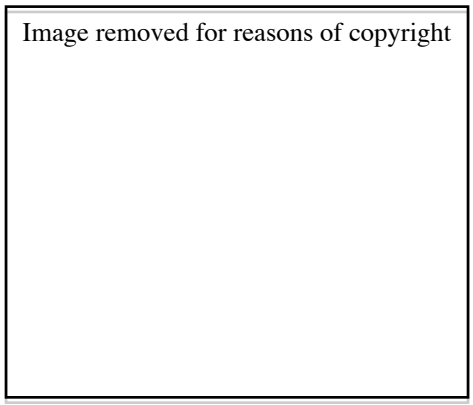



Figure 3.5. Bronze bull with thin platform attached to base. Museo Egizio, Turin, no. 832.

[85] Roeder 1956, §607-625, figs 659-700, pls 55m,o, 61f-g,k-l, 62a-e, 87a,c, 88, 89a-c, 90a (standards); Graham 2001.
[86] Goddio and Fabre 2008, 151, 321, no. 197 (falcon); Goddio and Fabre 2008, 186, 321, no. 199 (bull). Weitz 2012, 327.
[87] For example, Roeder 1956, §534c, pl. 85b (falcon); Kater-Sibbes, Vermaseren 1975a, 17, no. 55, pl. xli (Apis); Davies and Smith 2005, FCO-426, pl. lix(a).
[88] For example, **191**: Goddio and Fabre 2008, 189, 321, no. 195.
[89] See comparanda for canine **188** in Volume 2. In particular, for **189** and **191**, see Roeder 1956, §619b-c, pl. 61l, 62e.

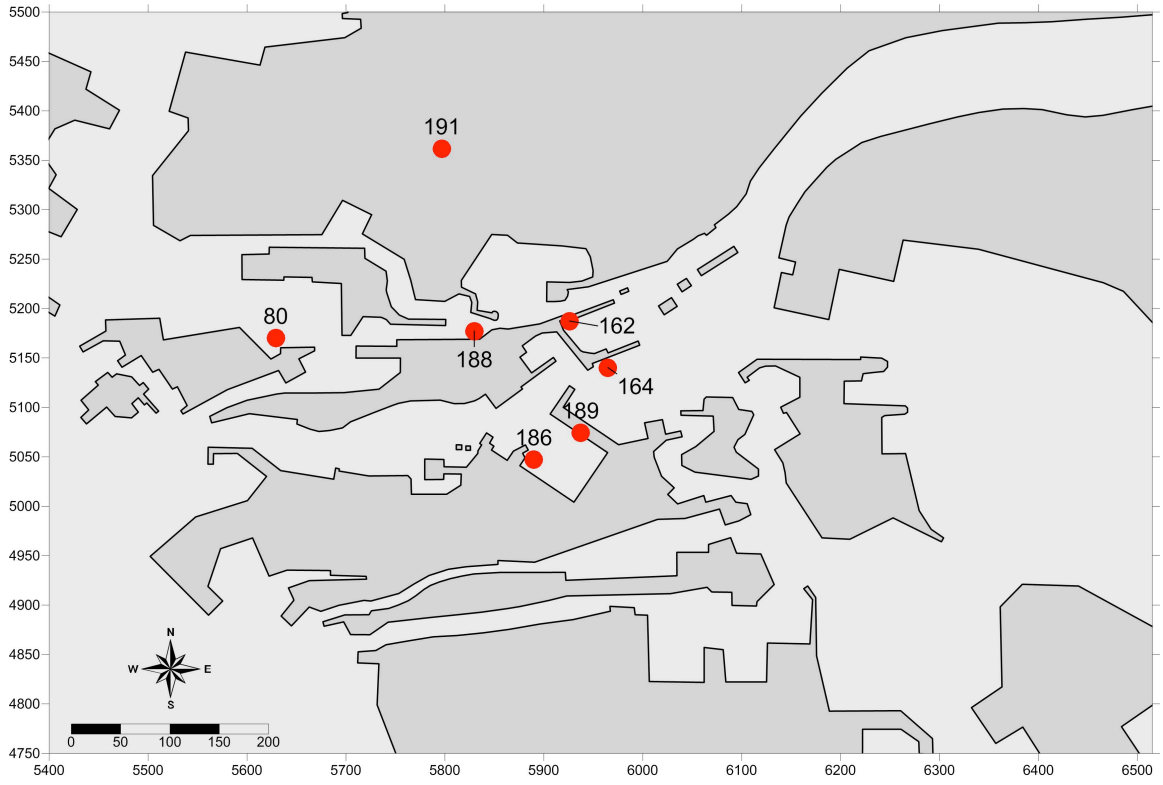



Figure 3.6. Distribution of standards.

The variety of their quality and size is striking. Many are very small and would not have been easily visible during a procession (in particular **186, 190-191, 193**). The only ones that appear large enough are canine **188** and possibly canine **189**, falcon **162**, and ibis **164**. Although standards such as these have long been acknowledged as cult equipment, there is little to no discussion about the size of these objects. For many, 'model' or 'miniature' standard is a more appropriate term. If they could not be seen well in real processions, how they were used? Were they dedicated in response or in remembrance of processions, or did they function in some other way?

Some may have been accoutrements for real bark installations or model barks. The bark of Amun, for example, incorporated standing sphinxes, falcons, and kings in addition to the central naos for the deity.[90] Hill argues that royal figures and other cult equipment depicted had real-world equivalents. Statuettes, like this site's pharaoh **81** and the standards, may have been used on real sacred barks. This would explain the function of some of her royal bronzes, and by association, the smaller standards here.[91] Bronze bark standards show a similar array of figures including royal statuettes and

[90] Karlshausen 2009, 183-195.

[91] Hill 2004, 135-136. As evidence, she cites a find where excavators discovered royal statuettes with much gold surrounded by decayed gilded wood, which they suggest was a sacred bark. She also refers to surviving royal sphinx standards, other bark components, and the famous bronze statue of Karomama, which may have been associated with a sacred bark. See also Hill and Schorsch 1997, 11, 16, fn. 31.

deities (see Chapter 2, Figure 2.15). Model barks, or bark standards like those, might account for tiny figures like canine **192**, although the lead barks at Thonis-Heracleion reveal no attachment points except where the throne sits for the central deity.

Nor would these statuettes be limited to barks. They could have been used as part of several different display installations in temple settings.[92] Reliefs and stelae show the Osiris fetish with a complement of statuettes and standards.[93] See, for instance, the reliefs of the fetish from the Temple of Seti I at Abydos (Figure 3.7), around and in front of which are a variety of standards.[94] Supporting figures include ram standards, Wepwawet standards, royal statuary, and falcons. The fetish was an important component of the Khoiak festival, which has significance for this city.[95] Katherine Eaton notes that the fetish was shown with increasing frequency on private stelae from the New Kingdom onwards, perhaps because of a change in decorum which made the representation of this image, and other divine images, appropriate where it was not before;[96] Along with this image, over time the standards associated with it would have become more familiar in that context as well.

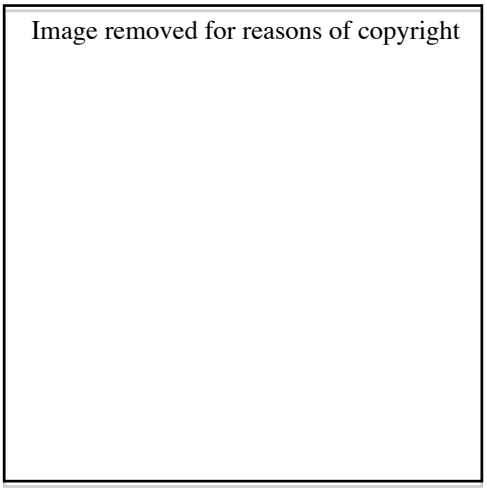



Figure 3.7. Illustrations of standards and the Osiris fetish on the reliefs in the bark chapel of the Seti Temple at Abydos.

[92] Many thanks to John Baines for this suggestion. See, for instance, Eaton 2004, for the role and meaning of processional equipment on reliefs, particularly in relation to the Khoiak festival and the reliefs of the temple of Seti I at Abydos.
[93] As also noted by Hill 2004, 126-127, 139. See Winlock 1921, 15-26.
[94] Eaton 2006, 85, fig. 5.
[95] Eaton 2004, 416-425; 2006, 84-95.
[96] Eaton 2006, 88-89, especially fn. 61.

***Miscellaneous***

In addition to the main functional categories described above, I have also included a few other figured objects, mostly to record miscellaneous figured cult-related items to the fullest extent possible. Some of these are objects perhaps better suited to Zoe Robinson's catalogue, but I included them here either because there is a chance that they are related to statuettes or because they were discovered after the completion of her dissertation.[97] Many of these objects, such as the three ram heads (**207-209**), the lion head (**241**), and the bird bell (**247**), probably belong with cult equipment. Other finds may have been part of temple furniture or cult vessels, such as the lion leg (**245**) or the semi-circular lead bird (**248**). The medallions of Athena (**114-116**) and the Dionysus appliqué (**120**) may have attached to metal vessels or furniture. The lion head plaque (**242**), lion head (**243**), and the shell 'amulet' (**261**) may have acted as weights.[98]

## 3.2. Materials

A range of materials were used to manufacture the statuettes and amulets of Thonis-Heracleion. As noted in Chapter 1, metal objects are dominant in part because much escaped systematic looting and also because of current retrieval practices. Other materials that were used for multiple figures were terracotta, faience, and limestone. For some objects, the type of metal used is indeterminate and must be scientifically tested. Appendix 4 provides a list of the statuettes and amulets divided by material. This section highlights the disparities between materials, as caused by site formation processes and excavation patterns, and it draws distinctions between the use and function of bronze and lead, the two dominant materials in this assemblage. Figure 3.8 below shows the distribution of bronze, lead, and other materials.

---

[97] Robinson 2008.

[98] Hendin 2007, records zoomorphic (including lions) and shell weights, although not direct parallels for these forms. Ascalone and Peyronel mention a lion head weight (2001, 5, fn. 13), but from a much earlier period.

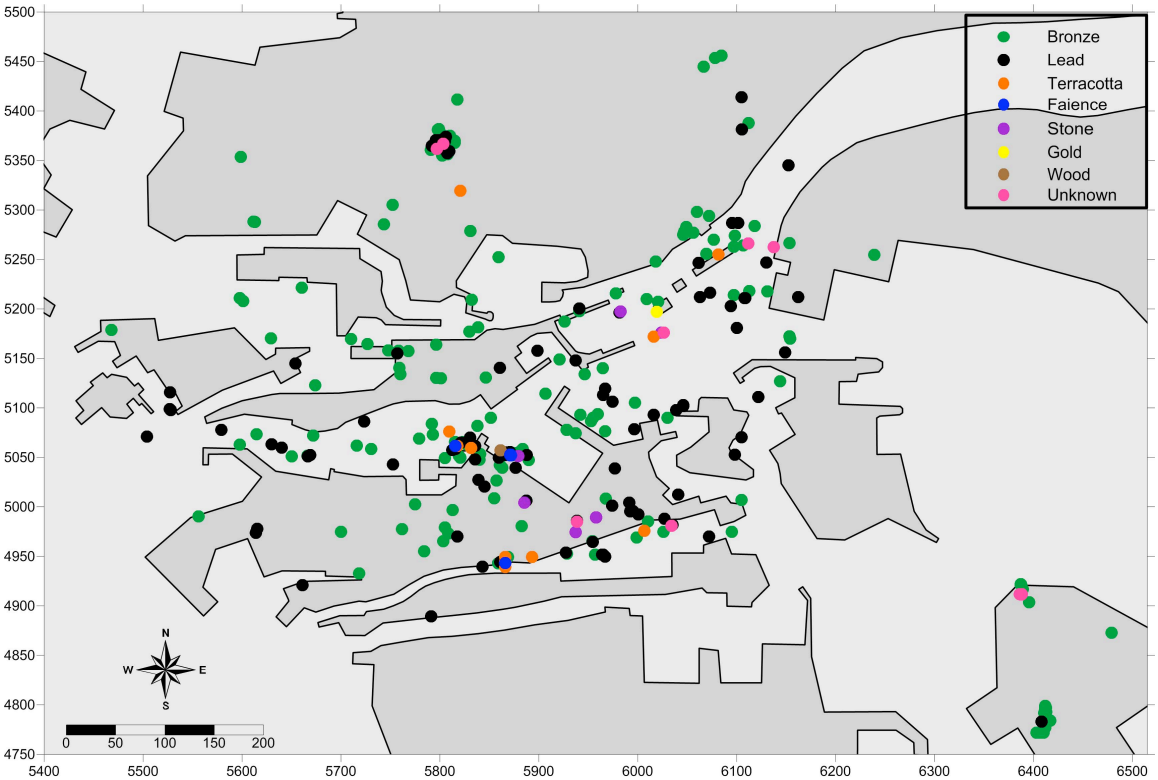



Figure 3.8. Distribution of the various materials used to manufacture the statuettes and amulets.

### *Bronze*

As noted in the introduction, bronze dominates the assemblage at 54.5%. Bronze was used for every major functional category described above. Most of the bronze figures were found in sacred contexts, possibly *favissae*, but some were also scattered across the city, on land and in the canals. The bronzes represent primarily Egyptian deities, zoomorphic or anthropomorphic, in traditional Egyptian style; only three bronzes, all representing Athena, were executed in Greek style. As noted in Chapter 1, these types of Egyptian-style bronzes are well attested throughout Egypt. The bronze statuettes range from 5 cm to 40 cm in height, with the majority around 10-15 cm. Most have tenons that were inserted into bases in the form of thrones or plinths, a feature that indicates that most were intended for permanent display. Some have pendant loops, but as mentioned previously, many of those also have tenons.

### *Lead*[99]

The lead figures comprise 33.5% of the material. Unlike the bronzes, they do not encompass every functional category described above. Most are either amulets or small-

[99] Much of this section, as well as the comparisons between bronze and lead below, may be found also in Heinz 2011 (as attached in Appendix 13).

scale statuettes, usually 7cm or less in height, with the exception of the votive barks (**305-315**) and uraeus **178**. The lead amulets have suspension loops, while the statuettes are flat-backed or self-supporting (without tenons). Most are easily moved and are even suitable to be carried in a pouch. Lead was used in targeted ways in relation to the function of particular figures as well as their iconographic types; the majority can be divided into seven different categories: Nefertem amulets (**70-74**), falcon pendants (**139-156**), votive barks (**305-315**), vulvate and phallic figures (**106-107, 111, 113**), horses (**229-236**), elephants (**215-228**), and child deities (**29-39**).

The Nefertem amulets, falcon pendants, and votive barks are Pharaonic-style. The horses, elephants, child deities, and Baubo figures are Greek and Ptolemaic-style. Figure 3.9 shows a similar distribution as the one above, but with just the lead and bronze to clarify the patterns. As Figure 3.9 demonstrates, lead statuettes and amulets could be found in every context where bronze was used — in Egyptian cult areas, public areas, and canals.

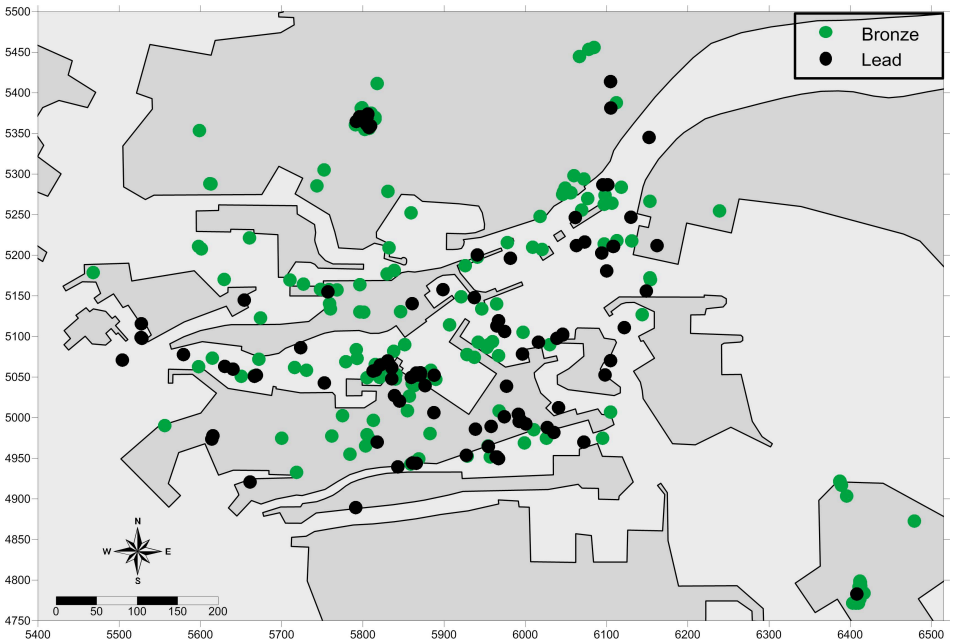



Figure 3.9. Distribution of lead and bronze statuettes and amulets.

In some areas there are greater concentrations of lead statuettes than bronze, in particular on the south-east end of the central landmass and in the Central Port. This distribution marks a concentration of Greek and Ptolemaic-style figures (elephants, horses, and child deities) executed in lead. Distinctions between the distribution of Pharaonic and foreign-style figures are discussed in more detail in Chapter 5. For now,

suffice it to say that the lead figures reflect a wider cultural spectrum than the bronzes; thus, the context of some of the lead figures is partially determined by the distribution of foreign-style figures, with a greater concentration in public and/or domestic zones. At the same time, it is clear that lead cannot be considered solely a 'Greek' material, despite the fact that it is not well represented elsewhere in Egypt.

The reasons for the vast discrepancy between the amount of lead at Thonis-Heracleion in contrast to other sites in Egypt are enigmatic. It is very difficult to determine whether Thonis-Heracleion was exceptional in the way it used lead, or if the material is just better preserved. Lead was probably imported as supplementary cargo or ballast, perhaps in concert with the grain trade, where Egyptians traded grain to Athens in exchange for silver (and its by-product, lead).[100] The lead ingots that have been found at the site show how at least some of this lead would have been transported.[101] With this trade pattern in mind, it is possible that lead was used opportunistically at the harbour, but was not much valued elsewhere. To some extent, the lead elephant and horse comparanda from the Graeco-Roman Museum in Alexandria and the British Museum in London support this supposition.[102] As noted in Chapter 2 ('Elephants' and 'Horses' respectively), these parallels were found primarily in and around Alexandria, as were most of the lead items in the Graeco-Roman Museum that Boussac and Seif el-Din published.[103] Such a pattern may indicate that lead use was a regional phenomenon, confined to cities at the boundary between Egypt and the Mediterranean.

The assumption that Thonis-Heracleion was exceptional in its lead use, however, is fraught with difficulties, especially when other factors that may contribute to lead's scarcity elsewhere are taken into account. First, lead has a tendency to degrade on land and in museum storage (especially impure lead).[104] Lead preserves exceptionally well underwater, but on land it has a tendency to crumble and turn to powder.[105] At sites with a high water table, which includes much of the Delta region, repeated wet and dry cycles would accelerate that process.[106] Lead is also at greater risk of looting and reuse on land sites, especially since it does not appear to have been as frequently buried in cult contexts as bronze was. As Van der Wilt demonstrates, much of the lead in

[100] Van der Wilt 2010, 158. Saleable ballast: McGrail 1989.
[101] Van der Wilt 2010, 161-163.
[102] See the lead comparanda for elephant **215** and horse **229** in Volume 2.
[103] Boussac and Seif el Din 2009, 217-218.
[104] Lead degradation: Mattias *et al.* 1984.
[105] Similar to the degradation on elephant **226**.
[106] Many thanks to Penelope Wilson for discussion on this issue.

Thonis-Heracleion was used in public zones, especially in canals and waterways.[107] The lack of well-excavated settlements and harbours, particularly in the Delta, therefore contributes to the problem.[108] Scholarly disinterest in lead, now and in the early 20th century, may also have contributed to a consequent lack of lead publications.

The widespread and pervasive use of lead at Thonis-Heracleion makes it difficult to believe that at least some was not traded downstream. It was not just an occasional trade item at Thonis-Heracleion, but was used in bulk amounts for anchor stocks, commercial weights, vessels, fishing weights, tokens, and much more.[109] Lead is so common at the site that hundreds of small, fragmented, amorphous lumps are densely scattered throughout the canals.[110] Van der Wilt discusses this issue in greater depth in her thesis, particularly in the section 'Lead in Egypt'.[111]

***Terracotta, Limestone, Faience, and Other Materials***

Most of the remaining figures are terracotta, limestone, or faience. Each of these materials have far fewer specimens than would be expected from an equivalent land site. The lack of terracottas is particularly surprising, as pottery is otherwise well attested.[112] One could argue that terracottas are not common because they are Greek and Ptolemaic-style, and perhaps Greeks did not form a substantial part of the population.[113] One hint, however, that the statuettes do not present an accurate or comprehensive cultural profile is that there are also far fewer Egyptian-style terracotta, limestone, and faience figures than might be expected. Saqqara, for instance, has more than 1,800 Egyptian-style bronzes, about 75% of which were found in statuette caches related to temple complexes; these caches frequently included wood, faience, and stone alongside the bronzes.[114] This general lack of non-metallic material, whether Greek or

---

[107] Van der Wilt, in preparation. In that sense, the total distribution of lead finds differs somewhat from the lead statuettes, which are more evenly split between land and water.
[108] Preservation issues in the Delta: Baines and Malek 2000, 5. Most of Thonis-Heracleion's lead was found in the canals and ports, as opposed to the bronze, which is more evenly distributed between land and water, and between cultic and profane areas. See van der Wilt, in preparation, for the distributions of lead objects on site.
[109] Van der Wilt, in preparation. See also Goddio and Fabre 2008, 340-344, nos 336-368, for an idea of the range of lead products other than statuettes.
[110] Personal communication, Franck Goddio.
[111] Van der Wilt, in preparation.
[112] Grataloup 2008, 2010, 2011.
[113] For further discussion on the cultural communities at the site, see Chapter 5.
[114] Davies 2007, 178.

Egyptian-style, suggests that other factors may be affecting the material profile, not just of the foreign-style figures at Thonis-Heracleion but of the Pharaonic-style figures.

Excavation retrieval practices contribute to distortions in the material. As noted in Chapter 1 ('Site Formation'), a metal detector was used on prospection and the majority of the statuettes and amulets were found on prospection. As an illustration, of the eight lead horses, fourteen elephants, and nine lead child deities discussed above, twenty-eight were found on prospection, five during excavation (Appendix 6). Almost all the terracottas, in contrast, were in excavations, usually in areas bordering canals or around the main temple on the central landmass where the most comprehensive excavations have taken place. The only terracotta found on prospection was the fragment of horse and rider **237**, which was about 50m south of G1.

Excavation patterns also play a role. The excavators at Thonis-Heracleion have focused on Egyptian sacred areas.[115] Additionally, the interrelationship between the landmasses and canals at the site is so complex that these riparian boundaries have necessarily been a large focus of excavation, to some extent at the expense of other public or domestic areas.[116] Domestic areas, however, are where Greek and Ptolemaic-style terracottas are most frequently found.[117] Egyptian-style terracottas are common in domestic or public areas, as well as in specialised cult places.[118] In 2009 and 2010, excavators established an excavation (M3) that ran along the outside of the southern wall of the main temple, next to the canal. Excavators found four terracottas in one small area, essentially increasing the number of terracottas found by more than 50%.[119] It seems likely that as alternative zones like M3 are investigated, the number of terracottas will continue to increase (Figure 3.10).

Figure 3.10. Distribution of terracotta finds.

[115] Goddio 2007, 75-102.
[116] Goddio 2007, 100-117.
[117] Bailey 2008, 1-2.
[118] Consider, for example, the contexts of phallic figures such as **110** (which has terracotta parallels), discussed in Chapter 2 ('Phallic and vulvate figures'). See also the context of nude female terracottas, like **108** and **109**: midden heaps (Waraksa 2009, 16-18, 20-21, 72-76, 169).
[119] See the provenance information for figures **40, 135,** and **185** and in Volume 2.

Finally, underwater conditions are especially destructive to non-metallic materials. Wood, for instance, is only preserved when it was sealed in a clay layer that protects it from invasive marine organisms.[120] Faience, meanwhile, contains water-soluble salts, which might explain why so little survives in this environment.[121] The excavators have recovered only eleven faience amulets and nine of those were found in the same deposit, which was sealed in a clay layer.[122] Similarly, any terracottas made from unfired Nile silt would have disintegrated underwater.[123] Of the stone material, limestone is a soft stone, easily abraded by sand and gnawed by marine organisms. If some limestone figures were in looser, mobile, sandy strata, they may be worn beyond recognition. While the limestone Cypriot head (**121**) and phallic cult servant (**110**) are exceptionally well preserved, the statuette of an owl (**246**) is telling; its features are eroded and holes cover the body where marine organisms bored into it.

### 3.3. Material Choice: Lead and Bronze

Too few of the terracotta, limestone, and faience statuettes survive to make a valuable comparison between the types of objects, nor do the limited examples from Thonis-Heracleion alter the picture of what has been found elsewhere. The bronze and lead, however, provide ample material for study and offer great insight into how and when lead was used. This is a comparison for which the material at Thonis-Heracleion is uniquely suited because of the abundance of lead at the site. Altogether, the form, iconographic type, and function of an object are closely related to the type of material used for its manufacture just as much for lead objects as for other materials.

The idea that small, inexpensive, and mundane votive objects reflect a particular economic class has long prevailed in the field of Egyptology,[124] so that it is often assumed that inexpensive votives reflect the poor, bronzes the wealthy.[125] This preconception derives from Battiscombe Gunn's suggestion, in 1916, that the rise of personal piety in Egypt was a movement driven by the poor.[126] Barry Kemp, commenting on discussions relating to the modest votives of earlier periods, says, "A

---

[120] Some of the preserved wood at the site includes, but is not limited to, naos **304**, the hulls of shipwrecks (Fabre 2011, 17-29; Fabre and Belov 2011, 111-114; Belov, in preparation), and a wooden construction in H1 (Goddio 2007, 83).
[121] Nicholson 1993, 9, 11.
[122] See provenance information for child deity **12** in Volume 2.
[123] Keith Swift, personal communication.
[124] Luiselli 2008, 2.
[125] See Kemp 1995, 36–38 for prestige dedication motivated by self-interest among the elite.
[126] Gunn 1916.

puritan criterion is at work here that takes the modesty of provision as a guarantee of sincerity".[127] In other words, people assume that an inexpensive dedication represented true, pious religious sentiment while more expensive dedications were transparent attempts by wealthy elites to compete for prestige.[128]

The low cost of lead tempts us (like Gunn) to imagine that lead statuettes are dedications of the poor. As I demonstrate, however, lead is not 'the poor man's bronze' at Thonis-Heracleion. The lead artefacts at Thonis-Heracleion do not slavishly imitate bronze types; they appear in different contexts, they represent other subjects, and people dedicated them for a variety of reasons beyond their modest cost (see Chapter 4, 'Lead Casting' for other large-scale finds of lead statuettes in the Mediterranean).

The lead and bronze statuettes and amulets differ in significant and telling ways with respect to their subjects and function. Some subjects appear in one material and not in the other. The best diagnostic subject types are child deities and Osiris because they are among the most numerous figures at the site. The twenty Osiris statuettes are represented in traditional Egyptian style and are bronze only, even the smaller figures that are no larger or better designed than similarly proportioned lead subjects. Some figures in wood can be assumed, based on the ram-horn and *atef*-crown attachments, but no lead. As noted previously, there is a sharp divide among the child deity figurines, with the majority of the Pharaonic-style figures in bronze and the Ptolemaic-style in lead (see Appendix 4). Representative subject types that only appear in lead are the horses, elephants, and barks. These material groupings relate to specific types but they exemplify a general trend at the site: the lead figures have a wider range of motifs, still focused on deities but with divergent styles.

The low cost of lead is a factor that must be considered. Precise ratios for its value are difficult to determine, but material remains show that it was relatively inexpensive.[129] Frequently metalworkers used lead as an additive to bronze to increase its viscosity for casting and to decrease the amount of copper used.[130] People also used it to repair pottery, which shows that the metal for the repair was less expensive than a replacement vessel.[131]

---

[127] Kemp 1995, 29.
[128] For more nuanced approaches to personal piety: Pinch 1993; Baines and Frood 2011.
[129] Treister 1996, 341 for price ratios in Classical Greece.
[130] Ogden 2000, 154-155.
[131] Lead ceramic repairs at Thonis-Heracleion: van der Wilt, in preparation. For an example, see Goddio and Fabre 2008, 344, no. 368.

Many other factors, however, may have determined the choice of lead for particular subject types and functional objects. Practical considerations include lead's durability as well as some of its physical properties. The fact that lead is durable makes it eminently suitable for small, portable objects in domestic and public spaces, where they may be frequently moved or carried. These types of objects include figures like the small Greek and Ptolemaic-style statuettes, and possibly even the Nefertem and falcon amulets (if they were worn). The fact that lead was suitable for portable figures then determines the contexts of lead finds (temples and public areas) as well as their form and function (small statuettes and amulets).

Votive barks in museum collections demonstrate that bronze was a legitimate material choice for bark standards (Chapter 2, Figure 2.15), but the consistency with which the barks are made of lead at Thonis-Heracleion suggests that this choice was significant. All barks and bark fragments from this site are lead (**305-317**). It is possible that craftsmen used lead in this case because it acted as a good base material for gilding. None retain traces of gilding,[132] but many sacred barks in reliefs, drawings, and texts are shown or described as gilded, and in general, bronze statuettes in Egypt were frequently gilded.[133] This suggestion, however, begs the question why lead was not used more frequently instead of bronze, if it functioned solely as a cheap base metal. Bronze was gilded regularly, despite the added cost, and thus the low cost of lead does not adequately explain why that material was so consistently used for the barks. At this point it is useful to consider not only the reasons why lead was used for some objects, beyond cost, but also why bronze or wood or stone were preferred for others.

For larger and more elaborate Egyptian-style statuettes (large statuettes, statuary, standards, animal sarcophagi), practical concerns may have limited the use of lead. For instance, larger lead figures may have been too heavy to be desirable, even if they were hollow cast. The barks, while they are large compared to other figures from the site, are thin, especially when compared to extant bronze bark standards; their slim design reduced their weight in a way that would be more difficult to do for anthropomorphic or zoomorphic figures, even hollow cast. Lead is also a softer material, with the result that incised detail does not remain as sharp or clear as it does in bronze. Its malleability

---

[132] IEASM conservator, Olivier Berger, personal communication.
[133] Jones 1995, 20–21 for gilded barks. See also Chapter 4, 'Post-Production Techniques', for gilding of bronze statuettes.

makes it more susceptible to deformation, especially under hot conditions.[134] Lead is also susceptible to a condition called 'creep' where, over time and under the effects of gravity, the lead gradually begins to 'creep' down to the bottom of the figure, which would cause deformation.[135] All these factors may have contributed to artists' preference for bronze or wood or stone in certain cases, even when the figure was gilded and the material beneath was not apparent.

Nonetheless, lead's modest cost and ease of use are not entirely adequate explanations for the ways in which it was used. Much of the depth that this material offers is lost if we focus only on economic and practical considerations. Some figures are cheaply made and preserve their mould lines, but others have surprising detail, including the meatus of phallus **111** and the inlay design on 'Baubo' **106**. Connotative concerns may have determined patterns of use for lead and bronze, as much as or more than the cost of lead. Faience, for instance, is a silicate material that costs little to manufacture, but Craig Patch argues against the idea that it was a substitute material for the poor; all socioeconomic classes used faience in their tombs, and its modest cost had little relation to its use.[136] At Thonis-Heracleion, the faience deposit in the main temple would have been one of the most important deposits at the site and yet all the objects were made not of gold or silver or bronze but finely-crafted faience.[137] The temple deposit supports Patch's reasoning that the low material cost of faience did not diminish or devalue its symbolic power.[138] Similar arguments have been made for other inexpensive materials such as wax, clay, and lead in Egypt.[139]

Lead had a strong connection with magic for Egyptians. Maarten Raven notes that it was used for a wide range of things including love charms, rituals against enemies, and as a source of protection.[140] Lead falcon pectorals, in particular, lent protection to the dead.[141] That amuletic quality was also applied to foundation deposits, where lead plaques have been found.[142] It was also thought to have chthonic

---

[134] Guruswamy 2000, 57.
[135] Guruswamy 2000, 123-168.
[136] See Nicholson 1993, 39-41, for faience production in the Late Period and later; Patch 1998, for patterns of use; and Bianchi 1998, for the symbols and meanings associated with faience.
[137] Goddio and Fabre 2008, 138–39.
[138] Patch 2007, 145-146, esp. fn. 15.
[139] Raven 1983, 1988; Waraksa 2009, 90-94.
[140] Raven 1988, 241.
[141] Raven 1988, 241. See, for example, a lead falcon pectoral at the Cleveland Art Museum, Cleveland (Berman and Bohač 1999, 387, no. 293).
[142] Nriagu 1983, 246. Similar to gold or faience foundation plaques, like plaque **326** (faience) and Yoyotte and Clauss 2008 (gold).

associations and was sometimes added to medicines, relating it to healing processes.[143] Raven attributes part of lead's appeal to its easy fusibility in comparison to other metals and to the "mysterious heaviness of the metal, suggesting some supernatural potency".[144] Such a magical association may explain the use of lead for small amulets like the falcons and Nefertem figures as it may have increased their potency and efficacy as protective symbols.

Lead's light hue, likewise, may have determined its use. In Egypt, artisans used colour to communicate the powers of certain amulets and deities.[145] Nefertem figures are more frequently made of silver than other subjects, implying that silver may express a particular aspect of the god's role and nature.[146] At Thonis-Heracleion, the majority of Nefertem amulets are lead, a proportion that remains constant even if some of the 'unidentified deities' are indeed Nefertem. Lead's light colour, like silver, may have expressed qualities particular to Nefertem, causing artists to prefer it for that type of amulet. The idea that lead's colour, or some aspect of its material, was desirable for connotative reasons is made clear by the fact that lead or a highly leaded alloy was added occasionally as sheathing to statuettes and other images, over more expensive bronze or wood.[147] The material itself, therefore, did have some value for display.

Bronze, however, may have been preferred generally for deity statuettes because artists could alter its patina, allowing for a wider range of tonal and chromatic possibilities than lead.[148] On a symbolic level, the deeper tone of some bronzes may have been more appropriate in some cases. In painted relief, for instance, Osiris often has black or green skin, highlighting his reproductive and regenerative powers.[149] Symbolic considerations such as these may explain why all the Thonis-Heracleion Osiris figures are bronze, even small pendant Osiris figures under 10cm. The Osiris figures are among the most numerous statuettes at the site and, again, as with Nefertem,

---

[143] Chthonic: Nriagu 1983, 253. Medicines/healing: Pulsifer 1888, 174.
[144] Raven 1988, 241.
[145] Amulets, statuettes, and relief — material and colour symbolism: for example, Petrie 1914, 52; Andrews 1994, 100–106; Waraksa 2009, 102-116; Baines 2001; Pinch 2001.
[146] Raven 1988, 238.
[147] Young 1959; Josephson 1997, 31-39; Hill 2007, 170-164, 212, no. 61.
[148] La Niece and Craddock 1993; Hill and Schorsch 1997, 13–14; La Niece *et al.* 2002; Delange 2007.
[149] Kees 1943, 418-422; Pinch 2001, 183.

the consistent choice of metal appears deliberate.[150] Wood or particular stones may also have served as appropriate materials with their own symbolic connotations, but these materials are not well preserved at Thonis-Heracleion.[151]

Another reason that craftsmen may have used bronze for some of the larger deity statuettes is that it has a shiny surface. For the Egyptians, the luminosity and brilliance of certain materials were critical in expressing divine, solar character. The Egyptians described their gods as having skin of gold and bones of silver.[152] Katja Goebs discusses the quality of 'luminosity' in detail, particularly how it relates to divinities, the pharaohs, and the deceased, and how it is expressed in solar barks and in crowns in funerary literature.[153] She mentions how cult statues were thought to be clothed in light in the Ptolemaic Period,[154] and she argues that "luminosity is one of the most prominent outer characteristics of the gods, giving expression to the their cosmic nature. It is at least partly inherent in their dress and crowns, which can be bestowed on the king…"[155]

It is possible that this literary device translates to some extent to the iconographic realm through material choice. Geraldine Pinch notes that faience was described frequently with a term (*wadj*) that related as much, or more, to its shiny texture than its colour,[156] and Robert Bianchi proposes that the lustre and shine of faience explains much of its popularity as an amuletic material in Egypt.[157] Some types of wood and stone, categories of material that are not well represented by the statuettes and amulets of Thonis-Heracleion, may have also held a similar attraction.[158] Goebs suggests that "the use of shining metals and precious stones is particularly effective with crowns, evoking luminosity, especially that of the sun"; such shining materials probably had a similar effectiveness for the statuettes themselves, not just the crowns.[159]

In contrast to these materials, lead has a shiny surface when buffed but it quickly oxidises and becomes dull. It is possible that this symbolic consideration of luminosity

---

[150] A few lead Osiris figures are known from Egypt but not from this site, despite excellent lead preservation. Small lead Osiris and Anubis figurines: Nriagu 1983, 254 after Maspero 1902, 338-339 (no images or museum numbers provided). Daressy catalogued two fragmented lead Osiris and Isis statuettes (1905-1906, nos 38346 and 30334, respectively). Also three lead Osiris figures are known from the Karnak cachette — CK 902-904, Cairo JE 37059(a-c): Coulon and Jambon 2013, http://www.ifao.egnet.net/bases/cachette/. On the Karnak cachette, see Chapter 5, 'Karnak'.
[151] Stone: Baines 2007, 263-280.
[152] Raven 1988, 238.
[153] Goebs 1998a, 1998b, 2008. In Goebs 2008, see especially 98-104.
[154] Goebs 2008, 458.
[155] Goebs 2008, 459.
[156] Pinch 2001, 183.
[157] Bianchi 1998, 24.
[158] For stone, see Baines 2001, 271.
[159] Goebs 2008, 208, 101.

may explain some of the aesthetic restraint in using lead for Egyptian deity statuettes that were not gilded or were only partially gilded. A connection between lead and luminosity is not entirely implausible — the concept was especially associated with solar barks and the consistent use of lead for barks at this site may mean that there is some connection between lead and this concept.[160] Thus an association with luminosity cannot be ruled out for lead, but the sheen of bronze and precious metals may have had a greater visual impact.

In the end, the sharp interpretive dichotomy suggested by the generalisation that inexpensive lead votives reflect the poor, while larger bronzes reflect the wealthy, obfuscates other potential patterns of use. As I have demonstrated for Thonis-Heracleion, the lead and bronze subjects and their functions differ for a variety of potential contextual, connotative, and cultural reasons that can be explored in order to understand the choices made in the adoption of one metal or the other. None of the evidence from Thonis-Heracleion suggests that inexpensive materials were primarily used by the poor. If anything, the material contradicts this idea. Lead was commonly used for Greek-style votives. The Greeks formed a powerful, elite class in the Ptolemaic Period and at Thonis-Heracleion they appear to have had a large role in trade; there is no reason to think that objects in Greek style would represent only a poor sector of society.[161] At Thonis-Heracleion, a figure's subject, size, function, setting, as well as norms associated with genres of material, determined what material was used as much as any economic considerations.

Overall, the lead figures have much to add to our understanding of small votives and their role in dedicatory practices. If people used lead out of choice instead of necessity, as they did faience, then its modest cost is no more indicative of piety than the expense of gleaming bronzes. This does not mean that these votives do not reflect piety, but such patterns of usage at Thonis-Heracleion call for a revision of how piety is defined and how we may observe it in the material evidence. By looking beyond the seemingly obvious reasons for small or inexpensive dedications, and by looking at their specific patterns of use, we may better understand larger issues, such as personal piety, not only in Egypt but also in the wider ancient world.

---

[160] Goebs 1998b.
[161] Bowman 1986, 121–164.

# Chapter 4: Production Methods

A full study of the small-scale figured material encompasses not only the artistic and functional aspects of these objects, but also their manufacture. Like artistic style and ritual function, production technique is grounded in a social context; thus, an understanding of the manufacturing process is integral to the creation of an accurate historical picture of the cultural milieu at the time. This chapter focuses on the metallic statuettes and amulets, first because they constitute approximately 85% of the material, and second because the remaining objects (stone, terracotta, faience) present little new information regarding their manufacture. Information concerning the manufacture of these objects is available in larger, more comprehensive publications relevant to each type of material.[1]

As noted previously, there is a high level of metal preservation at Thonis-Heracleion; in addition to the statuettes and amulets, around 1,000 lead objects have been recovered as well as hundreds of bronze vessels and implements and thousands of coins.[2] Here I evaluate the statuettes and amulets systematically for evidence of manufacturing techniques, but wherever possible I include information from other lead and bronze categories. I discuss all the ways in which the bronze and lead statuettes can inform us about their manufacture, including evidence for casting techniques, post-production finishing techniques, and the possibility of a production centre at Thonis-Heracleion. I then place these technologies in the wider cultural context.

[1] Faience and glass: Nicholson 1993; Friedman and Borromeo 1998; Nicholson and Peltenberg 2000. For the most recent work on Greco-Egyptian terracottas including bibliography, see Bailey 2008.
[2] Van der Wilt, in preparation; Meadows, in preparation; Cox 2008; Robinson 2008, 2010.

### 4.1. The Casting Process[3]

Before evaluating the casting methods used, it is important to first give an overview of the casting processes in antiquity and the various choices that artisans had for creating statuettes. In ancient Egypt, there were three common ways to make a metal statuette.[4] The first was to hammer sheets of metal around a wooden core. Statuettes thus created are known to Classical archaeologists as *sphyrelata*, but these are not common in Egypt and are not present at Thonis-Heracleion.[5] The remaining methods are the refractory mould method and the lost wax method. In refractory mould casting, metal is directly cast into a mould capable of withstanding high temperatures.[6]

The lost wax technique, or *cire perdue* casting, is the third method and is a technique still used in foundries.[7] It was the most common technique for bronze statuettes and is the most complex method of the three available. Lost wax casting may have begun in Egypt as early as the Old Kingdom. Eventually it displaced hammering for many purposes, and hollow-cast examples arose in the Middle Kingdom.[8] This technique is called the lost wax technique because a wax model is melted or 'lost' in the process, leaving a perfectly moulded cavity into which molten metal is poured. Two lost wax methods exist: the direct and indirect methods. With both, the sculptor can create hollow or solid-cast statuary.

---

[3] The following discussion is a summary of sources for the lost wax technique and Egyptian metalworking practices: see Scheel 1989 and Ogden 2000 for Egyptian metals, including ore sources and manufacture; outdated but still comprehensive: Garland and Bannister 1927. Copper alloy casting: Garland and Bannister 1927, 34-84; Brown 1976; Mattusch 1988, 10-30; Scheel 1989, 40-43; Penny 1993; Ogden 2000, 155-161. Secondarily: Hill 2001, 202-204; Hill 2004, 2; Mendoza 2008, 9-14. Haynes 1992 provides a detailed analysis with an emphasis on Greek casting, including production and post-production techniques; see Lahusen and Formigli 2001 for large Roman bronzes. See Cavanagh 1990 and Jackson 1979 for casting in general, with modern working parallels; Hunt 1980 for a comparative study spanning 5,000 years of history and several continents; Goldmann 1985 for prehistoric central Europe. For ancient sources for bronze casting, see Zimmer 1985; Haynes 1992, in relation to the development of piece moulding; Lahusen and Formigli 2001, 13-16.

[4] For a time, sand box casting was considered an option, at least for Greek bronzes, but the idea has been largely discredited. Mattusch 1988, 22-30 provides a summary of the debate. See also Lahusen and Formigli 2001, 449-451.

[5] For Greek *sphyrelata*, evidence and technique, see Haynes 1992, 11-23. Early Egyptian statues made of hammered sheet metal: Hill 2007, 8.

[6] Ogden 2000, 157. Denys Haynes (1992, 30), with reference to Greek techniques, uses the term refractory to designate specifically loam or sand/clay mixtures; here I use the term to refer to any type of durable mould material including clay, stone, plaster, or even metal.

[7] Foundry debris is rare; without physical examples, it is difficult to imagine what the mould and the bronzes looked like as this process progressed. Cavanagh (1990) provides useful photos of the modern process, as does Jackson 1979; see also Mattusch 1988, 15-22. Several online videos show the process in modern foundries; for example, for the first 3 minutes, 30 seconds: AP Casting. 'How to Make Bronze Sculptures — Lost Wax Bronze Casting'. Theapgallery. http://www.youtube.com/watch?v=gVe3VeQfyzw&feature=related (uploaded October 13, 2008); multiple videos highlighting each stage: Expert Village http://www.youtube.com/watch?v=-ScNxwqXkxY (related links to the other videos on the right side). All of these videos treat the indirect method.

[8] Ogden 2000, 158. For a basic timeline: Ziegler 1996, 29-30, with specific pieces listed; Hill 2001, 204-207.

The simplest lost wax method is the direct method which in its most basic form consists of five steps (Figure 4.1): (1) the artist makes a wax model; (2) he coats the wax figure in clay; (3) he fires the figure, whereby the clay hardens into a solid mould, and the wax melts out; (4) he pours molten metal into the mould's cavity and allows the metal to cool; (5) and he then removes the mould and cleans and polishes the bronze.[9] The most important aspect of the direct method, for this discussion, is that when casting is complete, the metal worker breaks the mould to retrieve the bronze within. The result is that each cast is unique. This method is also called the investment method, because this ceramic layer is lost, or invested, in the making of the piece.[10] The original wax model and the clay mould are destroyed, thus leaving no way to replicate the piece.

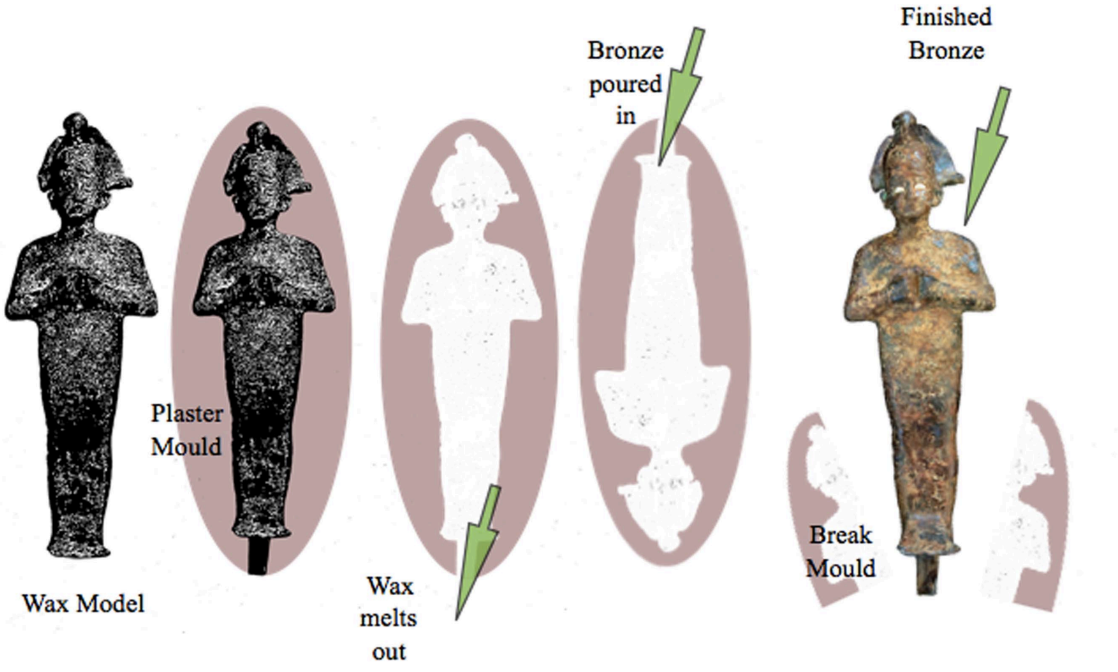



Figure 4.1. Direct lost wax casting method,
steps 1-5, illustrated with Osiris **46.**

The indirect method, in contrast, allows for the production of a series of more or less identical casts, solid or hollow. The primary difference between the direct and indirect methods is one extra step at the beginning of the process in which the artist creates an extra mould. After fashioning the wax model, the artist moulds clay around it. He then removes the mould without breaking it, usually by fashioning it in two or more pieces, and fires the mould. He can then pour heated wax into that mould to create more

[9] For an illustration with a hollow-cast Egyptian bronze, see Spencer 2007, 42.
[10] For the term 'investment' see Cavanagh 1990, 150-151.

identical waxes. From there, each wax form is cast according to the direct method as described and shown above. In principle the difference between the two processes is basic but important: with the indirect method, both the original mould and the original model are preserved, allowing for replication, or at least preserving the original model in case there are any problems with the final cast.

For refractory and indirect lost wax techniques, there are three types of moulds: open moulds, bivalve moulds, and piece moulds.[11] The simplest mould is the open mould. In open mould casting, the metal is poured into a one-sided mould; the molten metal settles, leaving the metal at the top of the mould (the back of the figure) flat.[12] Figure 4.2 shows figure **124** from Thonis-Heracleion, which was created with an open mould. The second type of mould is a bivalve mould, essentially a two-part symmetrical mould that joins together in the middle. Most of the Thonis-Heracleion statuettes and amulets have simple forms and would have been made with open or bivalve moulds.

Figure 4.2. Anthropomorphic figure **124**, lead, offering bearer, back view (left) and side view (right).

The piece mould, or section mould, is the final type of mould. The piece mould comprises several parts that fit together almost like a jigsaw puzzle, usually because the model is complex, with several protruding limbs or attributes, or undercut features.[13] Once the whole model is covered with mould pieces, the individual pieces are removed from the model and then are fitted back together to form the mould. A plain, encompassing 'mother mould' may support the pieces so they do not buckle and fall

[11] Open mould: Ogden 2000, 157. Piece mould: Haynes 1992, 42-53 (fig. 3 for an illustration).
[12] Ogden 2000, 157.
[13] Haynes 1992, 42-53 (fig. 3 for an illustration).

apart. Then the wax model is created using the piece mould and from there the metal is cast. Alternatively, the individual parts of the figure can be cast independently and then mechanically joined or fused.[14] Open moulds produce solid casts. Bivalve and piece moulds produce solid or hollow casts.

### 4.2. Bronze Casting at Thonis-Heracleion[15]

#### *Framing the Wider Debate*

Although thousands of bronze statuettes and figurines like those at Thonis-Heracleion stand on display in museums across the world, there is still debate over the methods by which they were produced. The material from Thonis-Heracleion, however, provides new information in this regard. In particular, the material points to the practice of replicable production — in other words, methods that allow for the production of identical figures, an idea that scholars have alternately accepted and rejected with respect to Egyptian bronze casting.

The earliest comprehensive works on Egyptian bronzes are Günther Roeder's publications from 1937 and 1956. Large portions of these, as well as earlier articles by Roeder, were dedicated to the technical processes used to make bronzes. He proposed that Egyptian bronzes were mass-produced through the indirect method, using moulds to produce wax replicas for casting.[16] He took this even further, stating that many waxes were assembled from pre-moulded parts. Under this theory, the original wax model would be cut in pieces. Each piece was then used to create a removable mould. Those moulds could then produce a large number of identical wax body parts. Separate moulds existed for multiple portions of the statuette (the head, the crown, the upper body, the lower body, the arms, and the legs).[17] Using moulded parts on hand, figures were assembled in wax according to the subject desired and then cast. The benefit of this method is that one mould could produce a wax body part that could be used to create different figures. So, a 'female torso' could be used for Isis, Bastet, Sekhmet or a

---

[14] Mechanical joins are known, for example, between the arms and torso: Kent Hill 1982; Ogden 2000, 158-159.

[15] In technical studies, the term copper alloy is frequently used instead of bronze, as bronze refers to a specific combination of copper and tin (see, for example, Craddock 1977; Ogden 2000). Again, throughout this work, the term bronze is retained in part for its familiarity, and in part because the majority of Egyptian cast statuettes contemporary with those from Thonis-Heracleion, when tested, prove to be leaded bronzes (Riederer 1981, with bibliography).

[16] Roeder 1933a; 1933b; 1937, 187-251; 1956, 515-549. Here he builds on theories established by C.C. Edgar (1903).

[17] Roeder 1933a; 1933b, 228-238; 1937, 144-187; 1956, 520-525.

number of other female subjects. In his discussions on the topic, Roeder detailed the different ways in which he surmised that various types of figures would have been divided into wax parts. He outlined this process for male and female figures as well as some zoomorphic subjects.[18] Figure 4.3, for instance, shows how he envisioned the assembly of wax pieces for an Apis bull statuette. This method takes mass production and assembly to the extreme.

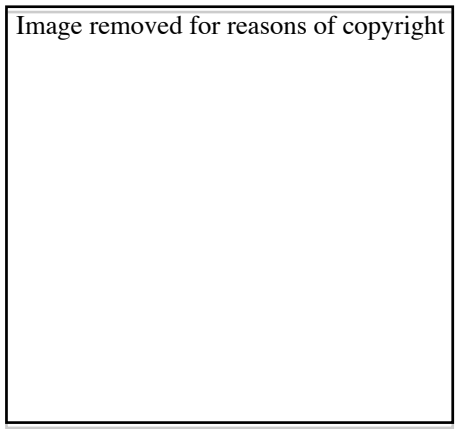



Figure 4.3. Roeder's proposed assembly of wax parts for an Apis bull.

Maarten Raven published preliminary results for his study of 700 figured Egyptian bronzes in the Rijksmuseum, Leiden. He supports Roeder's opinions, but without providing visual confirmation through pictures or drawings, presumably because these were to be included in the final publication of the Leiden collection.[19] Roeder's assembly process appears evident to Raven because many of the Leiden figures have "protruding or lopsided joins between the original model parts, attributes or limbs of the wrong dimensions, protrusions resulting from superfluous wax, or casting-ducts removed incompletely or not at all".[20] According to Raven, these were all signs of "shoddy workmanship and mass production".[21] Similarly, Carol Andrews and Jacobus van Dijk point to one item in their catalogue, a falcon-headed deity, with legs that are overly long in proportion to the body, and they ascribe this discrepancy to the use of incorrect, pre-moulded wax parts.[22] Michel Wuttmann, in preliminary articles about several hundred bronze Osiris statuettes from 'Ayn Manawir, suggested that most (full figures) were made in either mono or bivalve moulds; in this case, the indirect method is still key in production, but the process is not broken down as much as Roeder's proposed wax piece method, but Wuttmann did not provide further explanation or visual proofs.[23]

Other scholars have expressed opposition to Roeder's views. Deborah Schorsch has conducted detailed technical examinations of numerous Egyptian statuettes, often to

[18] Roeder 1937, §475-580.
[19] Raven 1992.
[20] Raven 1992, 531.
[21] Raven 1992, 531.
[22] Andrews and van Dijk 2006, 196-197, no. 3.17.
[23] Wuttmann *et al.* 1996, 433; Wuttmann *et al.* 2007, 168.

determine their authenticity for museums.[24] In her 1988 article, she states that there are no ancient identical statuettes from Egypt because the direct lost wax method used to cast these bronzes does not allow for duplicates or copies to be made. She even notes that in cases where a piece was already considered a modern fake, the fact that a duplicate existed was considered the definitive evidence.[25]

In her 2007 article, Schorsch states that mould lines on a figure would prove that the indirect method was used, but that the mould lines described by Roeder were often different features that he confused with mould lines.[26] She draws attention to the fact that Roeder contradicts himself regarding these features, referring to them in some cases as mould lines and at other times (on the same statuette) as incised areas used to anchor gold leaf for gilding.[27] The best example of this occurs on a statuette of Reshep. Photos in Roeder's 1933(a) article show the statuette, and it does appear to have deep incised lines along the arms, torso, and legs.[28] Those lines would not be mould lines, but would have been made for gilding purposes.[29] Roeder does specifically mention raised lines on some statuettes, but visual confirmation of these mould lines is not provided.[30] Schorsch mostly rejects Roeder's evidence but does allow that replicas were perhaps created in the Ptolemaic Period and that this may reflect a change in foundry practices.[31]

In 1998, John Taylor, Paul Craddock, and Fleur Shearman wrote about the production of hollow-cast bronzes from Karnak at the beginning of the first millennium BC.[32] Based upon their examinations, they also concluded that the Egyptians never used the indirect method and that all Egyptian statuettes are essentially unique.[33] They examined six bronzes at the British Museum, London: three female figures, two Osiris figures, and one male figure.[34] Both Schorsch's study and Taylor, Craddock, and Shearman's study rule out the use of refractory moulds as well as the indirect lost wax method for bronze production, as both methods are capable of producing identical

---

[24] Schorsch 1988; Schorsch and Frantz 1998.
[25] Schorsch 1988, 42.
[26] Schorsch 2007, 192.
[27] Schorsch 2007, 192; Roeder 1937, §588a.
[28] Roeder 1933a, pl. viie.
[29] Oddy *et al.* 1988, 35 where they describe how gold leaf would be folded and crimped on for one type of gilding technique.
[30] Roeder 1937, §588a.
[31] Schorsch 2007, 192, referring to four Ptolemaic statuettes, two identical figures of a king and two identical figures of a queen (nos 52-55, figs 82-85).
[32] Taylor *et al.* 1998.
[33] Taylor *et al.* 1998, 12.
[34] Taylor *et al.* 1998, 9.

statuettes. Other scholars either accept Roeder's or Schorsch's positions, or hesitate to commit to either without more definitive proof.[35]

### *The Bronze Statuettes and Amulets*

Production Methods

Pinpointing a location for lead and bronze production at Thonis-Heracleion is difficult, and no clearly-defined centralised workshop has yet been found (see below). Nevertheless, the statuettes themselves provide useful information about production techniques, whether that production occurred in Thonis-Heracleion or in a nearby city.

Thus far, the excavators have not discovered any bronze statuettes that are identical. Nonetheless, it does seem that the indirect lost wax method was in use at the site and some objects were replicated. The most compelling evidence for this hypothesis is a casting mould that was discovered in 2004 (Figures 4.4-5). The mould is a flat, oblong piece of lead, 1.3cm thick and 11.9cm wide (**329**). It was found near the entrance of the North Canal, east of the rectangular island in the East Passage. The stratigraphy near the island is complex and the excavation director has proposed that the general area may reflect erosional activity from the island. This area has potential as a production centre; the mould was not far from a bronze cubic coin die, which also may have originated from the island, although few other signs of production are apparent. This particular archaeological context is pictured and discussed in an article about the coin die and its significance.[36] Ceramic finds in the zone place the coin die and the lead mould in the 5th-4th centuries BC, although finds from more recent excavations suggest that the area may have supported a less dominant Ptolemaic phase as well.[37]

Several indentations are on the front and back. Impressions were taken and were recorded in sketches and photographs (Figures 4.6-9). Five indentations are on the front, one of which is easily identifiable; three are on the back, two of which are identifiable. The three identifiable shapes represent spiral ram horns that would have decorated the lower portion of an *atef* or *hemhem* crown. Although the front horn is somewhat obscured by marine matter, all three preserve diagonal striations comparable to other

[35] Ogden makes little mention of the idea of assembling figures from several wax pieces, but he does lend credence to the overall idea of indirect casting (2000, 157). Weitz (2012, 15) cites Schorsch's arguments. Hill (2001, 204) and Mendoza (2007, 12) reserve judgment.
[36] Meadows 2011, 97-99.
[37] Goddio in Meadows 2011, 98, fn. 5. Grataloup 2010, area C, 153-154, for the ceramic dating of the East Passage. About a possible Ptolemaic phase, personal communication, Franck Goddio.

cast spiral ram horns. Similar, but not identical, bronzes have been found at Thonis-Heracleion (**271, 272** — Figure 4.10).[38]

Figure 4.4**.** Lead, mould, **329**, front (left), back (right).

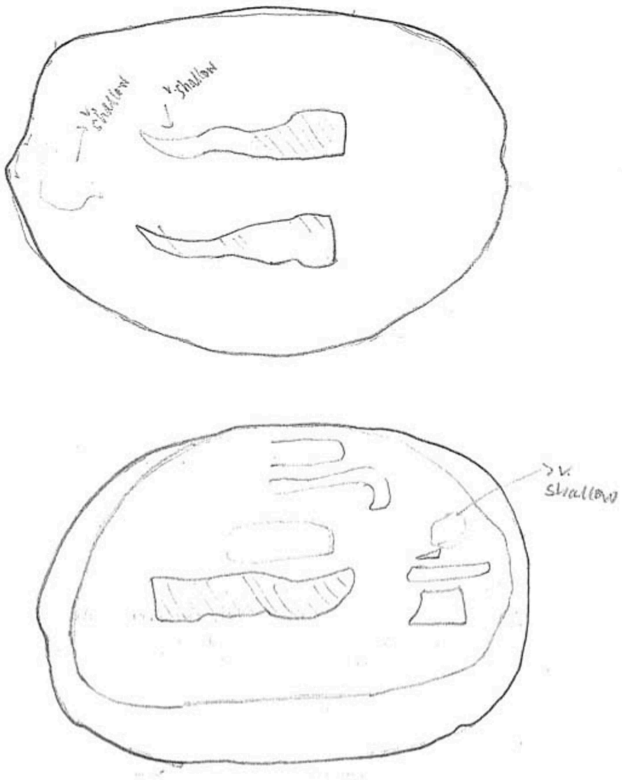


Figure 4.5**.** Sketch, lead mould, **329**, front (bottom), back (top).


Figure 4.6**.** Impressions 1-5, lead mould, **329**, front.

[38] Published examples include Goddio and Fabre 2008, 322, nos 202, 204, 205 for an individually cast example and examples on crown attachments. Ram head **272**, Figure 4.10, is the most appropriate comparison in terms of size and casting method.


Figure 4.7**.** Impressions 1-3, lead mould, **329**, back.

Figure 4.8**.** Impression 1 detail, lead mould, **329**, front.

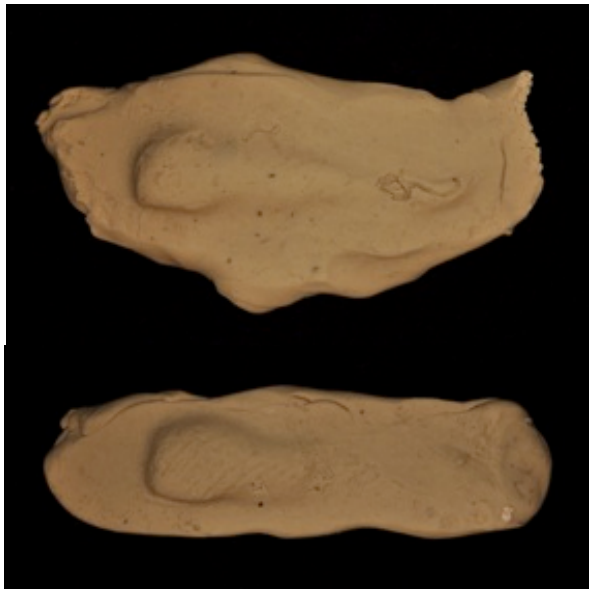


Figure 4.9**.** Impressions 1 and 2 detail, lead mould, **329**, back.


Figure 4.10**.** Ram horn **272**, bronze.

The designs on the mould are particularly important for understanding its function. The ram horns are typical attachments for crowns of bronze deities, particularly Osiris with the *atef* crown, or child deities when they wear *hemhem* crowns.[39] Since the mould is a lead mould, however, the pieces could not have been cast using the refractory method; if bronze were poured directly on the mould, the molten bronze, with its higher melting point, would melt and destroy the lead mould. The most probable scenario is that the mould produced wax ram horns. These wax horns could be replicated and attached to the main figure before casting, as Roeder suggests.

[39] *Atef*: Weitz 2012, types 85-86, 175-177. *Hemhem*: Weitz 2012, types 57-60, 145-148.

Alternatively, they could be replicated, cast individually, and then attached mechanically after casting. In either case, the mould produced replicable wax models intended for bronze lost wax casting according to the indirect method. The mould has no casting channels where, on stone moulds, bronze or wax would flow into a double-sided mould. The lack of channels suggests that this mould may have stood alone and acted as a one-sided, open mould that produced flat-backed waxes (similar to **272**, Figure 4.10 above).

Even if this lead mould could be used to cast lead attachments instead of waxes, as some bronze moulds may have casted bronze items, these horns do not match the iconographic types for which lead was used at Thonis-Heracleion. No lead examples of spiral ram horns are known, while bronze examples are abundant. None of the Osiris figures from the site are made of lead and none of the lead child deities represent a type that wears a Pharaonic-style *hemhem* crown.[40] The horns are also large for the lead finds at Thonis-Heracleion, which are mostly small-scale, portable, and are cast in one piece without attachments. For similar reasons (incorrect size and iconographic type), the impressions on the mould would not be used for faience manufacture. The most viable conclusion is that the mould produced waxes for bronzes.

Other expressions of the indirect lost wax method can be found among the bronze Osiris statuettes. After child deities, Osiris is the most popular iconographic type at Thonis-Heracleion with twenty examples, not including crown fragments. Several Osiris statuettes group around a similar height range, between 7.5-9.5cm (Figure 4.11). Wuttmann noted a similar size range in a sample of the bronze Osiris statuettes at ‘Ayn Manawir; those ranged between 7-9cm, with the smallest at 6cm.[41]

Carol Mattusch cites examples of Greek statuettes and statuary that were created by utilising a combination of the indirect and direct methods. She hypothesizes that the indirect lost wax method could be used to create basic wax models for statues, statuettes, fittings, and other bronze items. From there the artisan could carve and individualise as needed.[42] The indirect method, if used in this manner, might explain why Osiris statuettes at Thonis-Heracleion, and elsewhere in Egypt, are so frequently similar in size but are not uniform in appearance.

---

[40] Heinz 2011.
[41] Wuttmann *et al.* 1996, 431.
[42] Mattusch 1990.

Figure 4.11. Small-scale Osiris bronzes from Thonis-Heracleion (left to right): **53, 57, 54, 48, 49, 44, 43, 45.**

The Cleveland Art Museum has a mould, which the curators date to the Greco-Roman Period, that may have been used for this kind of production where generic figures were first produced and then individualised (Figure 4.12).[43] This mould comprises two, flat, rectangular limestone slabs that fit together to form a double-sided mould. The first impression on each slab is an oblong shape with an incised design representing the forepart of a bird. The second impression is a plain mummiform figure with no incised detail.

Image removed for reasons of copyright

Figure 4.12. Limestone mould with impressions for a bird and mummiform figure, Cleveland Museum of Art, Cleveland, no. 1914.660.

[43] Berman and Bohač 1999, 536, no. 457.

This mould could have produced faience shabtis; the size and shape of the second figure is similar in appearance to an undecorated faience shabti. But some features are better explained in the context of metal or wax production. First, it is a double-sided mould and many faience shabtis were made by pressing the faience into one-sided clay moulds. Secondly, the channel cut into the mummiform figure on one limestone slab suggests that viscous material was poured into the mould, either hot wax or molten metal. Such channels are common on stone moulds for metal jewellery.[44]

Stone moulds could be used for refractory casting, but if bronze were directly cast into this mould, it would produce a plain mummiform figure unlike any preserved. It is much more likely that the figure was moulded in wax and then individualised. Some caveats to this theory are that the similarities between the plain mummiform figure and faience shabtis are strong and that there is no channel to the bird impression; the lack of a channel would be unusual for metal or waxes in a double-sided mould. Nevertheless, even if this mould did produce faience figures, it could be easily adapted, or created, to produce plain waxes; the method of using pre-formed, blank models was already practised, even if it was for faience production.

This mould and the Thonis-Heracleion mould demonstrate that the technology necessary to produce replicated waxes for the indirect lost wax method was in place in Egypt at least by the Ptolemaic Period. This capability should be viewed in conjunction with the large number of small-scale Osiris bronzes throughout Egypt from the Late and Ptolemaic Periods. This method would produce statuettes that represent a balance between Roeder's and Schorsch's views – ones that were created efficiently from pre-formed models, but which were still individually crafted and are not identical.

Other moulds pertinent to the discussion of wax replication are plaster moulds discovered in Memphis, which date to the Greco-Roman Period. Many of these were used to create Greek or Ptolemaic-style figures, and they were originally published by C.C. Edgar.[45] Several also represent traditional Egyptian subjects, while others were used to create elements that attached to cult equipment.[46] Memphis produced around 1,700 plaster casts and moulds.[47] A selection of these have recently been published in greater detail with better photographic documentation by Britta Rabe, who argues, like

[44] Edgar 1903, v.
[45] Edgar 1903.
[46] See, for example, Rabe 2011, nos 40 (Ptah), 43 (lion-headed goddess), 45 (Min).
[47] Rabe 2010, 49. See also the Gayer-Anderson moulds: Seif el-Din 1988.

Edgar, that many would have been used for the production of waxes for bronze-casting, not just for terracotta production.[48]

The Memphis moulds have received too little attention in the discussions surrounding Pharaonic Egyptian bronze casting. Roeder dismissed them, saying they were not indicative of Pharaonic casting, partly because of their later date but also because the moulds contradicted his own theory of how wax models were assembled.[49] Schorsch also does not address these moulds in detail, presumably because of their later date and the Greek and Ptolemaic style of much of the subject matter.

Most of the published Egyptian-style figures at Memphis were made from bivalve or simple piece moulds. The Ptolemaic and Greek-style moulds generally have more pieces, presumably because they exhibit greater torsion and more undercut features.[50] These bivalve and piece moulds would have created whole wax figures, rather than wax figures assembled from many separately-moulded parts. Some extremities were separately cast in wax, at times with two or four arms or legs on one mould, but most of the published examples relate to Ptolemaic or Greek-style figures. And as Roeder himself noted, there is no sign that body parts were replicated and broken down at Memphis to the level that he theorised for Pharaonic casting. But if we take a critical approach to Roeder's theory, which actually provides little direct evidence for such extensive assembly, then it is possible that the fabrication techniques at Memphis derive from older practices as part of a more continuous tradition. We know too little about foundry practices to assume a dramatic change in the Ptolemaic Period.

At the very least, it is clear that the same exact type of moulding that took place at Memphis also occurred at Thonis-Heracleion in the Ptolemaic Period, if not earlier. The Memphis moulds include not only gods and goddesses, but also animal legs and hooves that acted as supports for bronze bowls and censers. These hooves and animal legs have direct parallels at Thonis-Heracleion.[51] Some of the attachments derive from the main temple area and at least one comes from G1, a pre-Ptolemaic context. The censer below is an example of one such vessel with bovid legs (Figure 4.13). The

[48] Edgar 1903; Rabe 2010, 2011.
[49] Roeder 1933b, 230.
[50] See, for example, multiple leg and arm moulds for Greek-style figures (Rabe 2011, nos 141-142, 225).
[51] A selection of moulds from Memphis that parallel Thonis-Heracleion finds: Rabe 2011, nos 257, 260, 265, 299, 331, 332. Hooves for vessels at Thonis-Heracleion: H4116, H11536, H11421, H11383, H8895, H9117, H8558, H9457, H8166, H8271.

moulds and plaster casts below are Memphis moulds, alongside completed bronze parallels from Thonis-Heracleion (Figures 4.14-19). The remarkable similarity between the Memphis moulds and the Thonis-Heracleion bronze casts belies any claim that bronze items such as these were individually crafted with the direct lost wax method.


Figure 4.13. Bronze censer with bovid supports from Thonis-Heracleion (H3073). Maritime Museum, Alexandria.

Image removed for reasons of copyright

Figure 4.14. Memphis mould of a bovine leg together with a plaster cast. August Kestner Museum, Hanover, no. 2007.314a-b.

Figure 4.15. Bronze bovine leg for a vessel from Thonis-Heracleion (H9117). Maritime Museum, Alexandria.

Image removed for reasons of copyright

Figure 4.16. Serial mould from Memphis and plaster casts for four bovid legs. August Kestner Museum, Hanover, no. 2007.286.

Figure 4.17. A smaller bronze bovine leg for a vessel from Thonis-Heracleion (H8166). Maritime Museum, Alexandria.

Image removed for reasons of copyright

Figure 4.18. Mould and plaster cast from Memphis for a zoomorphic(?) bronze vessel leg support. August Kestner Museum, Hanover, no. 5398.


Figure 4.19. A zoomorphic(?) bronze vessel leg support from Thonis-Heracleion (H8558). Maritime Museum, Alexandria.

Two final pieces of evidence from the bronze material point conclusively to the use of the indirect method. The first is a mould line on one Isis statuette (**64**). This is the only mould line on a bronze statuette at Thonis-Heracleion (Figure 4.20). It is on the back of the Isis, just below the small tenon, and runs from the buttocks to the knees on an area that would not have been visible when the figure sat on a throne. The seam probably comes from a bivalve mould, where the mould halves represented the left and right sides, rather than a back/front bivalve mould. This type of right/left mould was used for a hybrid figure of Anubis at Memphis.[52] The second piece of evidence is the appearance of the walls of broken, hollow-cast figures such as **102-104, 188,** and **190**. The walls are thin and even, something that is difficult to achieve with direct lost wax casting, but that is much more common with the indirect method.[53]

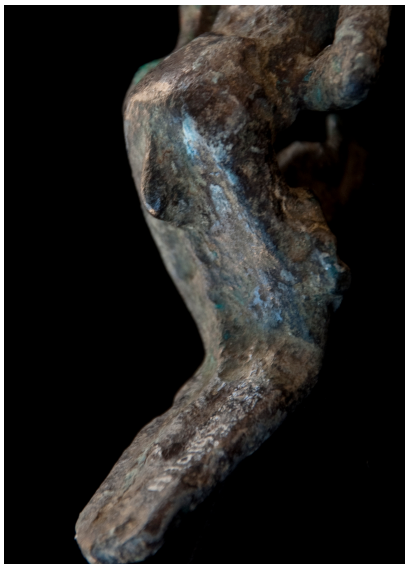


Figure 4.20. The lower back section of Isis **64**, with a vertical mould line running from the buttocks to mid-calf.

Thus, the Thonis-Heracleion material requires that we at least consider the possibility that the indirect method was used for bronze casting not just at Thonis-Heracleion or Memphis but throughout Egypt. But if it was used with any frequency to create identical pieces, why are duplicates so rare in museum settings, as Schorsch and others have noted? First, signs of duplication, such as mould lines, were

[52] Rabe 2011, no. 44.
[53] See, for example, Brown 1976, 28.

probably rare even in antiquity, as these signs could be easily erased in wax models. Past museum purchasing patterns may also be partly to blame. Dealers regularly split statuette groups to sell the constituent parts separately for increased profit. Few votive groups survive intact, even though many statuettes were designed as part of groups rather than as single entities.[54] For example, in Karnak in 1902-1903 an enormous cache of 17,000 bronzes was uncovered in the great court near the seventh pylon.[55] The Egyptian Museum in Cairo, because of the glut of material, sold the 'duplicates'.[56] Whether these were actual duplicates or just objects of the same iconographic type, or both, is unclear but the situation illustrates the general principle.

The subject matter of more recent major studies also reduces the chances that duplicate objects will be recognised and studied. For example, Marsha Hill and Barbara Mendoza examined statuettes of pharaohs and priests, respectively.[57] While both of these studies included generic representations of kings and priests, these are categories that represent prestigious members of society and the statuettes are often of exceptionally high quality. Taylor, Craddock, and Shearman examined six bronzes and although these figures may be from one site (Karnak), they are a minute fraction of the finds from Karnak.[58] They are also some of the largest and earliest extant hollow-cast pieces and they represent very prestigious members of society. Other studies have focused on the Third Intermediate Period, which represents the peak of quality for bronze statuettes, when figures were inlaid with costly materials and were even specially patinated.[59] Even if replication was regularly practised when these items were crafted, the subjects of these studies are some of the statuettes least likely to be mass-produced or replicated.

Some resistance to the idea of replication may also derive from modern-day biases that associate replication with mass-produced, cheap, industrial work of low quality. It is almost as if by denying the possibility of replication, we defend the art of the Late Period against criticism. Haynes noted such an attitude among some Classical

---

[54] Groups: Roeder 1956, 487-515, §659-690; Hill 2004, 113. Many groups were probably dismantled in antiquity for ritual reasons as Hill suggests (2004, 130-131), as few intact groups have been found even in excavated settings, but some may also have been separated after they were discovered for profit.
[55] For an account of the find: Legrain 1906, 12. See Chapter 5, 'Karnak' for further bibliography.
[56] Young 1967, 275.
[57] Hill 2004; Mendoza 2008.
[58] Taylor *et al.* 1998.
[59] Ziegler 1987; Vassilika 1997; Bianchi 1990.

scholars with regard to Greek bronzes. As he stated, the resistance to positing the use of the indirect method did not stem from any technological considerations:

> Only this process [the direct method], it seemed to many scholars, was worthy of the 'best period' of Greek art, since it alone necessitated the destruction of the original model, a heroic act on the part of the bronze-caster and at the same time a guarantee of the unique originality of the final product. But this belief, as we can now see, was no more than a romantic prejudice unsupported by any evidence.[60]

The use of moulds does not automatically result in shoddy work or assembly line production. As Haynes argued, using technological evidence, the indirect method was used to make some of the finest large-scale Greek bronze statues.[61] Replication may also help to explain the large numbers of small-scale statuettes so common in the Late Period. I do not think, as Mendoza tentatively suggests, that replication was necessarily the catalyst for the growth in the number of statuettes, but it may have been a response to growing demand prompted by changes in religious practice.[62]

The best potential sources for replication are large, well-provenanced, excavated collections, like those at Saqqara and 'Ayn Manawir, where the assemblages include dozens or hundreds of similar iconographic types (far more than Thonis-Heracleion may claim).[63] Within those collections, the objects most likely to have mould lines or otherwise display signs of indirect casting would be the more generic, cheaper, smaller finds where artists were not as careful to remove the signs of casting – precisely those that generally hold less interest for museums and scholars.

We also have to consider statuettes that are very similar, but not exact duplicates, as potential products of replicative processes. Hill catalogues three sets of paired pharaoh statuettes that are not exact duplicates but are all surprisingly similar in appearance, with only minor differences.[64] If each pair was created in the same mould, but details in the wax were altered, re-worked, or added (as per the discussion above about Osiris statuettes), this would explain their remarkable similarities. Such a method would have allowed artisans a way of creating significant pairs, where similarity was

---

[60] Haynes 1992, 34.
[61] Haynes 1992, 34.
[62] Mendoza 2008, 12.
[63] Davies 2007 (Saqqara); Wuttmann *et al.* 2007 ('Ayn Manawir).
[64] Hill 2004, 112-113, 174-175, 194-195, 202-203, 232, nos LPPt-9 (no. 123) and LPPt-10 (no. 124), LPPt-32 (no. 153) and LPPt-33 (no. 268), nos 54 and 55, pls 57, 77. Possibly also no. 67 was part of such a pair: 113, 179-180.

valued or desired for reasons of ritual or symmetry, but in such a way that they did not have to painstakingly copy a statuette from scratch.[65]

The question still remains, however, how much the indirect lost wax method was used and to what extent that method contributed to mass production. It is not possible quantify how many statuettes were created with the indirect method because no external signs are visible if mould lines are carefully removed. We may, however, attempt to form a general theory of the extent to which it was utilised in the creation of wax models. The practice of piecing is an integral part of this discussion. Piecing is where different parts of the body, or attributes, are joined to the main body of the statuette. Piecing does not necessarily presuppose indirect casting and replication. Original carved models (of the body and crown, for instance) can also be pieced together in wax, casted on, or added mechanically after casting. Roeder combined the two concepts (piecing and indirect casting) by suggesting different parts of statuettes were replicated in wax and then combined in an assembly line fashion.

Several of the statuettes from Thonis-Heracleion have been pieced together from multiple components. Such piecing is an important aspect of the mass production model that Roeder envisioned. At Thonis-Heracleion, however, the piecing does not appear as extensive as Roeder proposed and mass production of these elements was not done so quickly or in such a rote manner that it promoted sloppy workmanship, as Raven suggests for the Rijksmuseum collection in Leiden.

The piecing instead appears most common between two major components, for instance between a figure and its base or between a primary figure (like Isis) and a secondary figure (Harpakhered). On two Isis *lactans* (**64-65**), the join between Isis' lap and the child deity is clearly visible. In both cases, Harpakhered is not mechanically joined post-casting with a tenon but is sealed into place. On a statuette of a striding ibis on a standard (**164**), the ovular plinth that supports the ibis was slotted into the top of the standard. The plinth and standard are now completely fused. It is probable that when the ovular support for the ibis was still a wax model, it was slotted into the wax standard. The two constituent parts fused during casting (Figure 4.21).

[65] See Mattusch 1990, for reasons to duplicate bronze pieces other than simple mass manufacture.

Figure 4.21. Bronze ibis standard, **164**, multiple views from left to right: back edge (top left), top view (bottom left), and full view from the right side (right).

An alternative possibility is that the constituent parts of the Isis *lactans* and the ibis were 'casted on' rather than joined in wax.[66] In this method, the Isis would be cast in bronze first, then a wax Harpakhered would be attached to Isis, and the area would then be invested with clay and cast, thus fusing the metal of both figures. Another possible variation is that Harpakhered could have been cast together with Isis' left arm. Then the arm and child deity were cast onto Isis' body. There is no clear evidence with these figures, however, how the upper components joined if the child deity was 'casted on'. In general, it is very difficult to determine on appearance alone whether something was casted on or whether two components were joined in wax, but it is an alternative possibility.[67] For at least one figure at Thonis-Heracleion, however, it seems more likely that its body and base were joined in wax and were not casted on. A seated cat (**198**, Figure 4.22) has a buffering layer of metal between the paws and the base. If the cat and base were cast separately and then joined, the cat would sit directly on the base, attached by a tenon below its rump.[68] The buffering layer makes more sense if the base and cat were joined first in wax. To attach the wax cat to the wax base, an intermediate layer of heated or roughened wax would help

Figure 4.22. A seated cat, **198,** with the underlying 'wax' layer indicated by the arrow.

[66] 'Casting on' for Egyptian statuettes: Ogden 2000, 159. See also Brown 1976, 31 for casting on, but in the context of Greek and Roman casting.
[67] Ogden 2000, 159.
[68] Cat **199** is an example of a seated cat that would have sat directly upon the base, attached by tenons.

the two pieces stick together, much as the surface of a bronze is roughened before it is gilded so that the gypsum and gold are better retained.[69]

Other items that commonly were modelled separately were bronze crown attachments; many were also cast separately and were mechanically attached to the statuette post-casting, rather than being added in wax before casting.[70] For instance, Isis **65** had a separately cast crown; the crown is not extant, but the hole at the top of the modius shows where it would have been inserted. Numerous crown fragments with tenons have also survived; these would have attached either to bronze statuettes or wood-and-bronze composites (**262-289**).

It does not seem that the process at Thonis-Heracleion was broken down as minutely as Roeder described — that for every statuette, the head, torso, arms, crowns, and legs were all initially moulded as separate pieces.[71] One arm fragment (**101,** Figure 4.23) has a tenon at the shoulder joint, which shows that it was mechanically added to a statuette post-casting, but at this site, added features are generally crown elements, bases, and secondary figures.[72] Moulds, if bronzes were regularly cast using the indirect method, probably would have represented the figure's full form, or something close to full form, with secondary moulds for common attachments (like mould **329**). In other words, there might have been a Sekhmet mould, an Osiris mould, a child deity mould, and so on, rather than, for example, a head mould, a female torso mould, a male *shendyt* kilt mould, a leg mould, and an arm mould.[73] See, for example, the Min mould from Memphis, which represents the god in his full form (Figure 4.24).

Figure 4.23. Separately cast bronze arm (**101**) with a join at the shoulder for attachment.

[69] Intermediary wax layers: Ogden 2000, 159. Roughening the surface for gilding: Oddy *et al.* 1990, 103-104.
[70] Mechanical joins for Egyptian statuettes: Ogden 2000, 158-159.
[71] Roeder 1933a; 1933b, 228-238; 1937, 144-187; 1956, 520-525.
[72] Arm piecing for Classical statuettes: Kent Hill 1982.
[73] See, for example, moulds from Memphis from the Ptolemaic and Roman Periods: Edgar 1903; Roeder 1933b, 230; Roeder 1937, pls 43-44. Dating: Roeder 1933b, 230; Edgar 1903, vii-viii. Again, Roeder dismisses these as unrepresentative of the Pharaonic Period, because they date to the Ptolemaic and Roman Periods, and because they do not show evidence for extensive piecing. Neither are reasons to exclude them here, if we can posit a more fluid transition between the Late and Ptolemaic Periods.

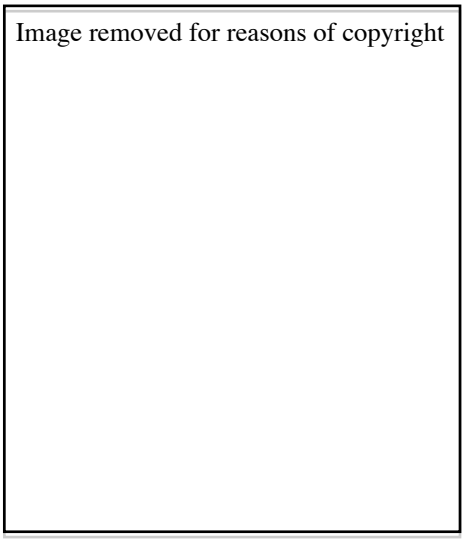



Figure 4.24. A mould and cast of Min from Memphis, wherein the mould is bivalve. August Kestner Museum, Hanover, 2007.288.

Quality is a difficult issue to assess at Thonis-Heracleion because so many of the statuettes are heavily corroded.[74] What can be said is that the Thonis-Heracleion figures are not of the same quality as some Third Intermediate bronzes.[75] While some at Thonis-Heracleion do retain signs of inlay and gilding, these enhancements do not characterise the group. At the same time, unlike the Leiden pieces, the Thonis-Heracleion figures are not characterised by lopsided joins or mis-proportioned limbs. Some casting mistakes are notable on the lead from the site,[76] but there are few mistakes on the bronzes that could be attributed to sloppy craftsmanship as a result of intensive mass manufacture and replication.

Overall, the evidence mediates between Roeder's intensive mass-manufacture model and Schorsch's more reductionist model where each figure is a unique product. The lead mould demonstrates that the indirect lost wax method was used in Egypt for at least secondary attachments, possibly as early as the fourth or fifth centuries BC. The Osiris figures, the Isis mould line (**64**), and the consistently thin walls of hollow-cast bronzes, all suggest that the indirect method was used for more than just secondary elements. The extent to which this method was used is unknown and unbounded. The practice of piecing broke down the casting process into multiple steps that could make

[74] On the state of the figures and their conservation: Berger *et al.* 2008. Compare also the condition of medallion **115** to **116**, even though they are probably a pair that belonged to the same object.
[75] Inlay on Third Intermediate bronzes: Taylor *et al.* 1998, 10; Hill 2007. Patination: Haynes 1992, 114-116; La Niece and Craddock 1993; Hill and Schorsch 1997, 13-14; Ogden 2000, 160; La Niece *et al.* 2002; Delange 2008.
[76] See 'Production' below, particularly the falcons with chipped wings.

mass manufacture easier, but not to the extent Roeder proposed and not, at this site, to the extent that craftsmanship generally became sloppy and unreliable.

Hollow Bronzes, Core, and Casting Pins

Close examination of bronzes can provide other types of useful technical information beyond the choice of casting technique, including whether or not the piece is solid or hollow. Hollow cast bronzes have a thin bronze shell cast over a sand/clay core. A significant advantage of hollow casting is that it costs less both in bronze and wax;[77] larger creations could be manufactured with the same amount of bronze that would otherwise be used for one solid figure. The most commonly used wax was beeswax, an expensive material in its own right that would have been used economically.[78] The core could be removed from hollow figures, but for Egyptian bronze statuettes it was often left intact.[79] Three partially broken statuettes show the core: **104** (a bronze hand), **190** (Wepwawet standard), and **188** (a canine figure). See Figure 4.25. The core is dark and grainy, as described by Herbert Garland and Charles Olden Bannister.[80] The base of one figure, cat **198**, has a calcareous or plaster core, which is unusual but there are parallels elsewhere (see Figure 2.10).[81]

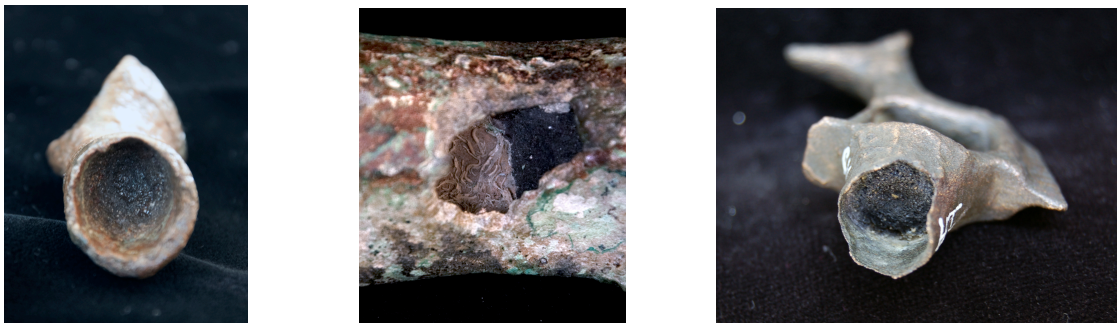


Figure 4.25. Core material visible in broken statuettes: **104** (left), **188** (middle), and **190** (right)**.**

A core can be heavy and compact, and although it is lighter than solid bronze, it can be difficult to make a confident assertion whether a statuette is hollow or solid on feel alone, or even according to recorded weights. Some scientific techniques and surface features can establish whether a piece is solid or hollow. Schorsch has made

[77] Hollow cast bronzes as cost effective: Scheel 1989, 42; Ogden 2000, 158.
[78] Serpico and White 2000, 409-411. For the magical properties of wax and uses beyond casting, see Raven 1983.
[79] Schorsch 1988, 46-47; Hill 2001, 203.
[80] Garland and Bannister 1927, 46. Blackens when fired: Ogden 2000, 158.
[81] See the comparanda for cat **198** in Volume 2.

valuable advances in the study of bronze casting by examining pieces by using X-radiography, to render visible features that would otherwise be difficult to detect, as well as to determine whether a piece has a core.[82] Many statuettes that had been thought to be solid were shown to be hollow with the core material in place.[83]

Another feature that the X-rays reveal are traces of casting pins. Casting pins, inserted through the wax, were used to hold the core in place for hollow bronzes. The number of casting pins depends on the complexity of the model and the size of the core.[84] These show up as small rectangular, square, or lentoid shapes on the X-rays. Sometimes they are visible on the surface as small, recessed squares.[85] As Eleni Vassilika notes concerning a bronze Min statuette, the recesses look as if they should be mortises used for attaching attributes. X-rays, however, show that they correspond to holes that pass through the bronze and core — presumably the remnants of the removed or corroded core supports.[86]

These small recesses are important for the Thonis-Heracleion material since they are detectable on the surface. X-radiography is not currently available for examination of these objects. Three figures have small, rectangular recesses that may mark the position of casting pins, thereby indicating that they are hollow cast;[87] Osiris **47** has a small, square patch on the back lower leg; Osiris **41** has a lentoid depression on the chest; and hollow canine figure **188** has a tiny rectangular recess on the torso and another on the front of the neck. In the future if we are able to take X-rays of the statuettes, we may find that several listed in the catalogue as solid are in fact hollow, but they retain their core, and do not preserve surface traces of core supports.

The method of crafting hollow cast figures also differs in a few ways between the direct and indirect lost wax techniques.[88] In the direct method, the artist has two options for making a hollow figure: he could roughly shape the core, coat it in wax, and then carve details onto the wax, or he could create a wax model and hollow it out in order to insert core material. The pieces are then cast according to the usual direct method.

---

[82] Schorsch 1988; Schorsch in Becker *et al.* 1994; Schorsch and Frantz 1998; Schorsch 2008.
[83] Schorsch 1988, 47; Hill 2004, 203; Schorsch 2008, 198.
[84] See, for example, Penny 1993, 222.
[85] Schorsch 1988, 44.
[86] Vassilika 1997, 294.
[87] Like those Vassilika describes on a Min figure (1997, 294).
[88] Hollow casting: see bibliography on casting provided in fn. 3, this chapter; here I provide a summary from those sources, similar to my explanation of direct and indirect casting.

Four options are available for the indirect process. As with the direct method, the craftsman could hollow out a solid wax. Under the second option, the artist could line a mould with wax, either by brushing it on or by applying pre-formed wax slabs (or both). A third option involves suspending a core inside the mould and then pouring wax inside. The fourth option is the slush technique. With the slush technique, the artist fills a mould with wax and then 'slushes' the wax around to make sure it coats all parts of the mould. As the wax cools, the wax in direct contact with the mould solidifies first and builds up. Before all of the wax cools, the artists up-ends the mould and pours out the molten wax.

On certain pieces of large-scale Greek statuary where the inner surface is visible, the seams of the wax slabs, the brush marks from wax application, or even the drip marks from the slush technique are sometimes evident.[89] When bronze replaces the wax in the lost wax process, on the interior it preserves even small details of the wax model, including clues related to the application of the wax. Large-scale bronze statuary from Egypt, however, is comparatively rare and presents correspondingly fewer opportunities to examine the interiors of bronze statuary. With options two and four, the application of the wax and the wax's thickness can be easily controlled; these methods can produce very thin, fine, even walls, which is why the walls of a fragmented hollow cast figure can be used to help determine if a statuette was made with the direct or indirect method.

Post-Production Techniques

Figure 4.26. Casting patches on cat **196**, to the left o f the tail.

After a bronze cast is made, the work is not complete. The figure must be chased and polished. Any areas that blistered during casting or any holes that formed from trapped air must be repaired. These areas were repaired by cutting square bronze patches and applying them to the surface. Figures 4.26-27 show patches from statuettes at Thonis Heracleion. Once damage is fixed, further decoration can also be applied post-production. Some statuettes were cold-worked to sharpen or add details. During cold-working, the craftsman used sharp tools to engrave the surface of the bronze with text or decoration. Inlay and gilding were also

Figure 4.27. Casting patches on the torso of canine **188**.

[89] Haynes 1995, 35-37, with images from large-scale Greek statuary.

particularly popular.[90] Gilding was usually accomplished by first applying gesso to the figure, and then overlaying thin gold sheet. Many examples of fully-gilded figures are known where all the bronze surface is obscured.[91]

Inlays, by contrast, were inserted into recessed areas, and served to vary the colour and appearance of the bronze statuettes. Inlays could have symbolic meaning; elaborate statuettes had inlaid figures of amulets, other deities, pectorals, or even full ritual scenes on their bodies.[92] Another way to vary the colours on the surface of a bronze was to alter the patination.[93] This technique was not a post-production technique. It involved altering the actual composition of the metal alloy before casting, but it was frequently used in combination with the techniques above. Black bronze, which had a deep, dark patina, was famous in the ancient world and highly valued. The height of artistry for Egyptian bronze statuettes was the Third Intermediate Period when these techniques were used in combination with great care.[94]

In general, the Thonis-Heracleion figures reflect their Late Period and Ptolemaic dates, in terms of the extent (or lack thereof) of extra surface decoration from patination or post production techniques. Extensive corrosion from their marine environment also makes it difficult to identify surface details, especially cold-working. Most of the details on the statuettes were moulded. A few figures retain traces of gilding: **46**, **210**. Others were inlaid: **98, 106, 181, 265, 319**. The uraei pair (**181**) retains some red and blue coloration from the original inlay, presumably glass paste. Inlay at Thonis-Heracleion seems confined mostly to secondary, decorative elements (thrones, uraei for crowns) and was not used on the body of the main figures (with the exception of Baubo **106**). The statuettes and amulets add to the list of known examples with gilding and inlay, but they supply no new information about those techniques and they represent a small percentage of the total corpus. From sight alone, none of the Thonis-Heracleion statuettes appear to be specially patinated, although they have not been tested chemically.

---

[90] For the techniques of post-production embellishment: Ogden 2000, 160; Mendoza 2008, 12-14; Weitz 2012, 17. Inscribed surface decoration: Taylor 2007. Coloration/Inlay: Schorsch 2001. For Greek and Roman statues: Haynes 1992, 106-120; Brown 1976; Penny 1993; Lahusen and Formigli 2001, 460-465.
[91] Gilding: Oddy *et al.* 1988; Oddy *et al.* 1990. For an example of a fully gilded bronze Osiris, see Hill 2007, 128-127, 208, no. 39.
[92] Taylor 2007.
[93] Patination: Haynes 1992, 114-116; La Niece and Craddock 1993; Hill and Schorsch 1997, 13-14; Ogden 2000, 160; La Niece *et al.* 2002; Delange 2008.
[94] Hill 2007, 51-63.

### 4.3. Lead Casting at Thonis-Heracleion

***The Lead Statuettes and Amulets***

Unlike the bronzes, the lead statuettes and amulets have few parallels. Lead finds from Egypt are rare, or are not published or displayed; for that reason, lead casting processes are not discussed.[95] Before 2011, only one article, by Marie-Françoise Boussac and Merwatte Seif el-Din, records and discusses Egyptian lead figurines from Egypt in detail; the article presents the lead figurines from the Graeco-Roman Museum in Alexandria and it is the main source of parallels for several of the lead elephants and horses discussed below.[96] Concise surveys of the use of lead are available, but the greatest amount of literature regarding lead casting in antiquity, aside from the separate issue of lead isotope analysis, revolves around artefacts from the Roman Period, and most of it concentrates on more utilitarian items such as piping or ingots.[97] Thonis-Heracleion, however, has over 1,000 lead objects and 33.5% of the statuettes and amulets are lead. Thus this material presents the opportunity to open a new discussion on lead casting in Egypt in the Late and Ptolemaic Periods.

Signs of casting processes are more readily identifiable for lead figures than bronze. Replication, for instance, is common and two types of evidence confirm the use of replication processes: mould lines and identical mould siblings.[98] Several different lead iconographic types have mould lines and mould siblings: falcon pendants, elephant figurines, horse figurines, and Ptolemaic-style child deities. The elephants, horses, and child deities all date to the early Ptolemaic Period, while the falcon amulets derive from 5th-2nd century zones, with at least one in a 6th-4th century context.[99] The mould lines are raised lines that bisect the figures, running up the chest, over the crest of the head, and down the spine. The position of the mould lines on these figures shows clearly that

---

[95] Recent work has been done by van der Wilt for the lead objects from Thonis-Heracleion, with the exception of the figurines: van der Wilt 2010, and in preparation. See van der Wilt in preparation for an in-depth discussion on lead finds in Egypt and possible reasons for their scarcity outside of Thonis-Heracleion. For the scarcity of lead ore in Egypt, see Ogden 2000, 168-169. For a succint compilation of known lead artefacts from Egypt, see Lucas and Harris 1962, 244.

[96] Boussac and Seif el-Din 2009.

[97] For example, Tylecote 1962; 2002, 72-73; Boulakia 1972. Nriagu 1983, 200-205, has a section on the production of lead, but does not discuss casting, only the process of extracting and refining the metal.

[98] See Schorsch 2007, 192 for the significance of mould lines, as noted above in 'Framing the Wider Debate'.

[99] Many of the falcons derive from the main temple area and one particular area in the Grand Canal; see Grataloup 2010, areas D-F, 154-156, for ceramic dating for the temple and Grand Canal. The last falcon comes from a sanctuary zone in the north of the site (G1). The child deities, elephants, and horses are concentrated on the central landmass to the east of the main temple, and also in parts of the Central Port. For the chronology of the zone east of the temple, see Grataloup 2010, area G, 156.

bivalve moulds were used for those particular figurines. The use of bivalve moulds was also attested by Boussac and Seif el-Din for the parallel material in the Graeco-Roman Museum in Alexandria.[100]

Eight of the eighteen falcons have mould lines, and in the group there are three sets of identical figures, with three examples for one set and two examples for two sets (Figure 4.28).[101] The horses, elephants, and child deities are also small-scale, ranging in height from 2.8 to 4.2cm. They are hollow-cast with a rectangular open bottom edge. Three of the fourteen elephants have mould lines, as do three of the eight leaping horses and one child deity.[102] Some other figurines from the site that do not belong to these particular groups also have mould lines: a lead figure of Bes with raised lines running vertically down its sides (**128**) and several lead miniature vessels.[103]

Figure 4.28. Lead falcon pendants, one set of mould siblings (Series One), from left to right: **140, 141, 139**.

At least two horses have enough detail preserved to show that they are mould siblings, although the state of preservation varies (**229-230**). The remaining horses with riders are also remarkably similar, but are more worn and damaged. At least two of the best-preserved elephants exhibit identical detail down to the design of the saddle blanket (**215-216**).[104] One other has traces of this detail but is less well preserved (**218**). Of the nine lead child deities, four are probably mould siblings (**30-33**). See figure 4.29.

Figure 4.29. Lead horse mould siblings, **229** and **230** (top); lead elephant mould siblings **215** and **216** (bottom).

---

[100] Boussac and Seif el-Din 2009, 216.
[101] Falcons with mould lines: **139, 140-142, 150-152, 156**. Identical falcons: **139-141** (series 1), **142-143 (**series 2), **148-149** (series 3).
[102] Elephants with mould lines: **217, 223-224**; horses with mould lines: **222, 229, 231**. Child deity with mould line: **36**. Further examples have faint lines that may be mould lines; only those that are secure are provided.
[103] For the miniature vessels, see van der Wilt in preparation.
[104] A similar blanket detail is described on three of the Graeco-Roman Museum pieces, but whether the blanket is identical is not possible to determine from the photos: Boussac and Seif el-Din 2009, 226, nos 20-22; 251, figs 19-21. Nearly the entire left side of **216**, and most of the solid rider, are missing, which account for the weight difference between it and **215**.

These lead votives were probably cast using refractory moulds. Lost wax casting would have been cost-prohibitive as the beeswax was relatively expensive, and with lead's lower melting point refractory methods were sufficient for small figures such as these. Edgar, in his study of the Greek moulds from Memphis, noted that the plaster moulds might not have withstood the heat of bronze casting over multiple uses and suggested that they would have been used to produce waxes.[105] Because the melting point of lead is lower than bronze, 327°C versus 960-1,083°C, a refractory bivalve mould would have lasted longer with lead than with bronze.[106] Haynes noted that one of the main differences between pieces cast with refractory methods and those cast in the indirect lost wax method is that metals cast directly into moulds without the intermediary wax step would be more likely to have mould lines.[107] On wax, mould lines are easily removed. The use of the refractory method therefore explains why so many of the lead falcons, elephants, and horses retain mould lines. The number of identical figures from the site, as well as the lack of care for the removal of mould lines suggests that they were mass produced.

Although the Thonis-Heracleion lead finds have few parallels in Egypt, two regions in the Mediterranean, Laconia and Anatolia, have produced large, pre-Roman assemblages of lead figurines. These assemblages are iconographically different from the Thonis-Heracleion corpus, but provide valuable comparisons for the use of lead and for casting techniques. The Laconian figurines are best known from the Sanctuary of Artemis Orthia and from the Menelaion in Sparta.[108] Several thousand have been found and range in date from the 7th-6th centuries BC. The Anatolian material is older, from last quarter of the second millennium, and is best known from Alishar and Kultepe.[109]

In both regions, many of the figures were cast in one-sided moulds that were clamped with a plain slab, which made the figures' backs flat.[110] At Thonis-Heracleion , several figures were cast in open moulds, which resulted in a similar flat-backed appearance. Figures cast in open moulds include, for example, a lead offering bearer

---

[105] Edgar 1903, viii. The Memphis moulds also retain no traces of metal.
[106] Melting points: Mattusch 1988, 13-14.
[107] Haynes 1992, 55.
[108] See, for example, Dawkins 1929; Cavanagh and Laxton 1984; Boss 2000; Gill and Vickers 2001.
[109] See, for example, Emre 1971; Mitchell 1983; Marchetti 2003; and Moorey 1994, with a summary and further bibliography.
[110] Discussions on manufacture, moulds, and seriation: Dawkins 1929, 252-253; Cavanagh and Laxton 1984; Boss 2000, 16-25.

(**124**, above) and one unidentified lead anthropomorphic figure (**95**). Three lead ingots also retain layered lines on their side that show the metal was poured into an open mould (H5944, H9137, and H10000).[111]

The majority of the Thonis-Heracleion casts, however, were moulded in a bivalve mould, as noted previously. The falcons are solid cast and the lead would have been poured directly into the mould to cool and set. The horses, elephants, and child deities are slightly more complex. I propose that these figurines were made according to the 'slush' technique described under 'Hollow Bronzes' above, but with lead as opposed to wax. Lead was poured into a prefabricated mould, it was allowed to cool until the desired amount of metal solidified around the edges, and then the remaining lead was thrown out of the mould. This was a relatively easy method of casting lead statuettes, one that was common among amateur lead casters in the early twentieth century and that is still in use today.[112]

Overall, evidence from Thonis-Heracleion suggests that the lead figures were made in refractory moulds; both open and bivalve moulds were used, but bivalve moulds were preferred. The hollow figures were cast using the lead slush technique in a bivalve refractory mould. Replication was frequent and was not limited to one stylistic or cultural type; Egyptian, Greek, and Ptolemaic-style figures alike were serially produced. The dates for these figures, according to archaeological context and artistic style, range between the 6th and 2nd centuries BC.

### 4.4. Production at Thonis-Heracleion

Several factors encourage the assumption that there was a metal workshop at Thonis-Heracleion: the sheer amount of metal preserved at the site, the number of identical mould siblings, and the widespread belief among scholars that many temples had their own workshops that produced votive offerings.[113] The large amount of metal alone is not a strong enough reason to claim that a foundry existed. Metalware was far more common in daily use than the archaeological record indicates because there has

---

[111] Ingots and layered lines: Whittick 1961. For ingots at Thonis-Heracleion, see van der Wilt 2010, 161-163.
[112] For modern lead production of small figurines: Rhead 1948; Horton 1976. More generally, modern lead casting: Guruswamy 2000, 316-329.
[113] Hill 2004, 111 for the importance of temple workshops. See also Davies 2007, 182, and Schorsch 2007, 189 with the emphasis on 'workshops of the temple'.

been so much ancient and modern melting down and reuse;[114] Thonis-Heracleion is submerged, which puts much of the material out of reach for the average looter. An argument could be made that lead items, at least, were manufactured there, in light of the extreme dearth of lead elsewhere in Egypt. As I argue in Chapter 3 (subtitle 'Lead'), however, there are reasons to believe that Thonis-Heracleion was not entirely exceptional in its use of lead, as at first it seems.

With those cautions in mind, we should not overestimate the amount of metal production at the site based on the large amount of metal preserved, be it bronze or lead. That being said, particular finds do indicate that craftsmen engaged in some metal production. The strongest pieces of evidence for a production centre are the moulds (**329** and H3084) and the coin die (H9712) in the Maritime Museum, Alexandria. Mould **329** was discussed above, and coin die H9712 were briefly mentioned. The coin die is a late fourth century BC cubic coin die, with impressions for Athenian obverses on three sides. As noted previously, the area where the coin die and mould **329** were discovered is the zone around the long rectangular island in the East Passage. This zone, because of these two finds, marks the best potential area for manufacture, but definitive evidence for a foundry is elusive. Another mould, H3084, was found in an entirely different sector, just north of H1 near **302**.[115] It is a cubic bronze mould that made lead sling bullets.

Slag from a variety of materials has also been found and recorded, as have ingots, but both categories of finds are distributed widely, with no clearly significant distribution or production centre (Figure 4.30, slag/residue distribution).[116] While the slag is a positive sign that some production occurred, the surviving ingots could have been intended for use on site, or they may have been in transit like any other commodity. In one case, there is an interesting overlap between the few silver ingots and the lion statuettes on the south-east landmass.[117] The lions appear to be made of silver, and are the only statuettes made from silver to be found thus far. They are not immediately adjacent to the ingots, but are within 10m, a close distance relative to the size of the site and the rarity of silver materials (other than coins).

---

[114] Treister 1996, 367-370.
[115] See the provenance information for **302**.
[116] For ingot distributions, see van der Wilt, in preparation.
[117] Many thanks to Elsbeth van der Wilt for drawing my attention to the location of these silver ingots as a possible production area, and for discussing ideas about production zones in relation to the ingots.

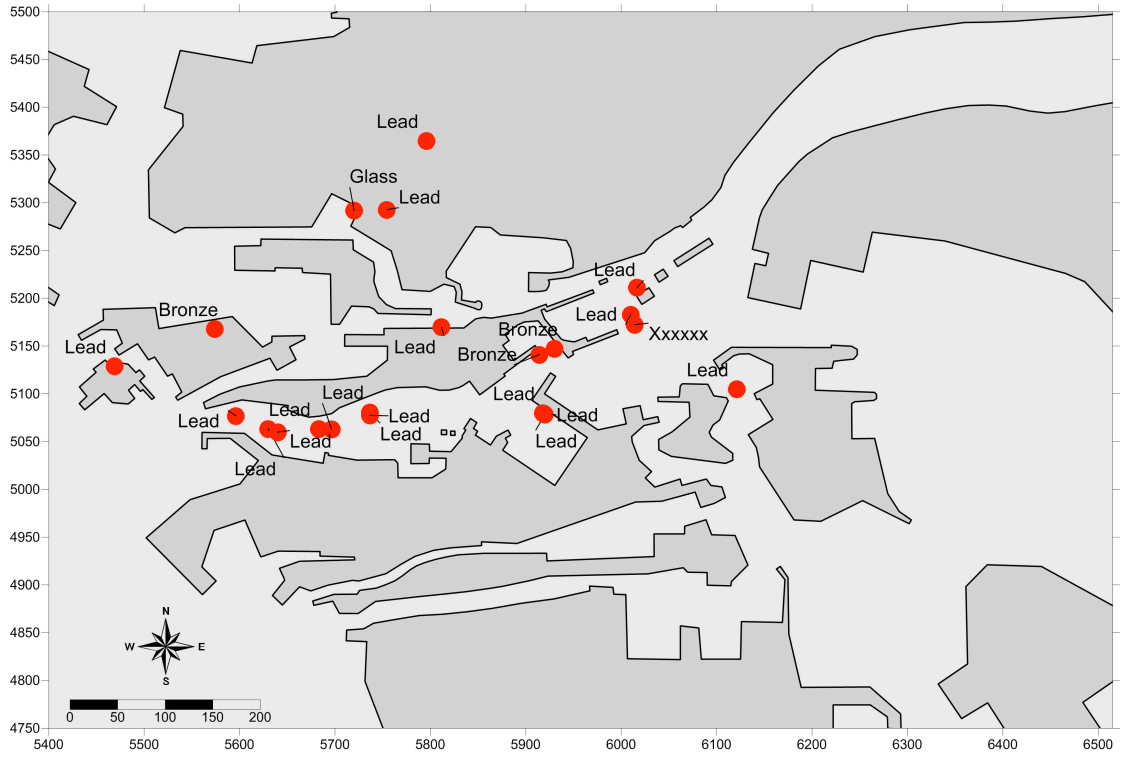



Figure 4.30. Distribution of possible production waste/slag for lead, bronze, glass, and undetermined materials.

The presence of identical mould siblings is frequently used as an indicator that production took place on site, under the assumption that if the figures were produced for export, siblings would be split apart and the chances of finding them together would dramatically decrease. Types from Thonis-Heracleion that include mould siblings are the horses, elephants, falcons, and lead child deities. The horses and elephants have close parallels from Canopus, Alexandria, and in the British Museum, London. Those finds raise the question of where the original workshop was, and whether there was only one workshop.[118] Were these figures mass-produced but had a narrow distribution zone, narrow enough that mould siblings could be found at a non-production site? Or were moulds passed between production centres and some production took place at Thonis-Heracleion? The lead falcon pendants, meanwhile, have only been attested here, to my knowledge. It seems very likely that these were produced on site. Many also have a common flaw, which probably would have limited their circulation (see below).

[118] As noted in Chapter 2, many of the comparable lead British Museum finds were either from Alexandria or from 'Menouthis'; the exact location of the latter city is unknown even today (although it was close to Thonis-Heracleion and Canopus according to ancient sources). It is unclear how the British Museum finds came to be attributed to it, or from what location they actually derive.

Casting wasters are important remnants of production practices, and items that have minor casting mistakes also tend to have a more limited circulation and indicate probable local production. Bronze objects that could be wasters (of those I have seen) are two arms and one standing canine. One arm (**103**) has a deformed piece of bronze attached at the top of the shoulder and the other arm (**101**) has a pitted, spongy surface consistent with examples of miscast items elsewhere (Figure 4.31).[119] Canine **191**, which is either lead or heavily leaded bronze, has a join between the feet and plinth that is very bumpy and uneven; no attempt was made to smooth or disguise it. The figure also has a pocked surface with deep indentations. This could be the result of corrosion, or it could be that air bubbles were trapped in the mould and burst during casting, if the mould was not properly aerated. The damage is similar to the type of damage on a child deity in the Bibel + Orient Collection at the University of Fribourg (Figure 4.32). The figure's surface is pocked on the face, the chest, and the legs — damage that Madeleine Page Gasser attributes to air bubbles.[120] Indentations on the legs of child deity **23** are similar, although less severe than on canine **191**.

Figure 4.31. Human arm **103**, bronze, shoulder detail. Waster?

Image removed for reasons of copyright

Figure 4.32. Deep pock marks on the surface of a bronze child deity, possibly from trapped air bubbles. Bibel + Orient Collection, University of Friburg, ÄFig 2001.9.

Wasters and casting damage are somewhat more frequent with the lead material. Items that are probably casting wasters include a falcon-headed hybrid statuette (**134**) and two unidentified deities (**86**, **88**), although the composition of the material for **86** is unknown. Among other cult items, Robinson suggests that H3758 is a miscast duck finial for a ladle.[121] An instance of imprecise, or 'sloppy', work is a small lead phallus (**111**) where the join between the testicles and the shaft is rough, although the general

[119] Page Gasser 2001, 13 for pitted, spongy surfaces as a result of casting flaws.
[120] Page Gasser 2001, 13.
[121] Robinson 2008, 86, no. 51.

appearance and detail of the piece is of decent quality. Phallus **113**, if it is a phallus, is crudely made, as is arm **105**.

Another characteristic that may indicate quick or cheaply produced work can be seen on the lead falcon figures: eight out of the eighteen figures have a small chip or hole in one wing, usually at the top of the wing where it joins the body (see Figure 4.33, red circle). There are some other signs of damage, but the regularity with which this one fault appears suggests something related to casting, especially since the chips, or holes, occur in an area that is not prone to breakage; the wings protrude but not enough to be particularly vulnerable.

Figure 4.33. Lead falcon pendant **140**, chip/hole circled in red.

Initially it seemed that the lead falcons may have been created from the same mould and thus shared the same flaw. The hole, however, does not occur just on one set of mould siblings, and it is not always on the same wing. Even among mould siblings, some have a hole and some do not. On five pieces, the chip is on the left wing (**143, 144, 145, 147, 148**); the remaining three have it on the right (**140, 141, 152**). This feature is still very enigmatic, but a possible explanation, as for **191** and **23**, is that air bubbles became trapped in the moulds. If air bubbles are the cause, then the consistent damage on the falcon wings may suggest something about the angle at which these figures were cast. Usually bronzes were cast upside down, but perhaps since these figures are so small, the process differed slightly and they rested on their sides. These figures appear to have been used, or sold, despite the damage.

It is interesting that a number of these miscast and flawed pieces come from G1 (**23, 86, 88, 111, 134, 191**). It is unlikely that G1 was a casting area, as it has all of the features of a regular *favissa*, but it is interesting that casting wasters were kept (at least in a few instances) and that they were dedicated with a mix of intact and broken pieces.

In all, finds such as the moulds, slag, mould siblings, casting wasters, and flawed figures attest to metal production at the site, even though the scope and location of production is unknown. Metallurgical studies may help to more firmly establish the nature of this workshop(s), and when it existed. Some studies of the composition of Egyptian metal statuettes have been used to establish chronological changes in the

composition of copper alloys;[122] others have shown that it is possible to group museum material into theoretical workshops on the basis of metallurgical composition.[123]

For now, samples cannot be taken from our material, which limits our ability to perform more scientific analyses. A portable X-ray fluorescence (XRF) device is available, but this can only read the surface composition. Few of the finds have clean surfaces, and surface enrichment poses a large problem.[124] Surface enrichment is where certain metals rise to the surface of a piece over time, sometimes as a result of corrosion. Portable XRF readings would only reflect the surface composition and would give misleading, inaccurate, and incomparable readings.[125]

In addition, bronze is problematic for XRF because it is not homogeneous.[126] Lead can form puddles in the copper alloy.[127] If the scan happens to encounter a lead puddle, the result is a distorted impression of the percentage of lead present in the figure. Most metallurgical studies of Egyptian bronzes demonstrate that as the time went on, metalworkers added more and more lead to the bronze, varying amounts up to 30.5% in the Ptolemaic Period.[128] In view of the dates of the Thonis-Heracleion finds, it is very likely that they contain large amounts of lead and the chance of data distortion is even higher. For the aforementioned reasons, metallurgical analysis of the bronzes with the goal of determining alloy composition is not feasible at present, but it is a potential avenue for research in the future, if samples are approved or if the capabilities of portable methods expand.

We do intend to use the XRF to determine the basic composition of figures made of unknown materials (Appendix 4) and our conservator also plans to use it to study surface corrosion composition of the bronzes. Other non-invasive scientific techniques can be used to determine corrosion patterns, and can even be used to determine whether an item was burned or not, which may be useful for figures such as child deity **26**. Other techniques that we hope to utilise include X-rays and 3D scanning. The X-rays will

---

[122] Riederer 1981, with references to earlier studies.
[123] Meyers 1990, 245-246.
[124] Special thanks to Dr. Bruker, the inventor of the portable XRF purchased by Oxford. He kindly discussed in detail the limitations and capabilities of the machine with regard to bronze materials, and the the fact that it is most reliable for homogeneous materials. For the possible uses of XRF: Karydas 2007; for surface corrosion and enrichment problems, 428.
[125] Karydas was able to use the portable XRF for bronze evaluation because he had a sample clean surface, which was obtained destructively. These results were used to control whether or not a test spot was ‘clean’ on other pieces (Karydas 2007, 428).
[126] For the importance of a homogeneous sample: Karydas 2007, 420.
[127] Lead puddles visible on X-Rays: Schorsch 1988, 45-46.
[128] Craddock 1977, 107-108.

reveal lead puddles in the bronzes, as well as whether the figures are solid or hollow, the presence of casting pins, and they may also show seams where parts have been casted on or joined in wax before casting, which will nuance the discussion about the amount of piecing involved in statuette production.

### 4.5. Casting and Cultural Connections

The description and evaluation of production techniques above are important, not just to know what the techniques were for the sake of knowing, but also because these details help us see how connected the Egyptians were within their own craft centres and with other cultures. Production techniques contribute to a wider narrative.

Mould **329**, the uniformity in size of the Osiris bronzes, the Isis mould line, and the thin appearance of hollow-cast statuette walls suggest that the indirect lost wax method was in use in Egypt some time between the 7th-2nd centuries BC; if the contextual dates of the figures discussed above are considered, replication among the lead and bronze figures was somewhere between the 5th-2nd centuries BC. Schorsch contends that if replication in bronze occurred, it was only in the Ptolemaic Period. If, however, Greek contact is seen as the necessary factor in initiating the creation of Egyptian-style replication, this technology could have been introduced much earlier.

Comparisons with Greece are particularly instructive because of the close connections between Greece and Egypt and the vast amount of scholarship concerning Greek bronzes.[129] There is, however, little crossover in the scholarship when it comes to bronze production.[130] Scholars of Greek bronze production assert that statuettes were generally produced using the indirect lost wax method from the Archaic Period onwards. Although Mattusch points towards a mixture of techniques (direct and indirect), the idea of replicable methods is fully accepted and necessary to her view of the importance of repetition and duplication.[131] Duplicates among Greek statuettes are also known, dating as early as the Archaic Period.[132]

A direct connection between Egypt and Greece is evident in the seventh century BC at Samos, where a large number of Egyptian and Egyptian-style statuettes have been

[129] For comprehensive reviews with bibliography, see Mattusch 1988; Haynes 1992.
[130] In one of his articles, Roeder attempted to reconcile the stylistic effects of his assembly method with the perceived differences between the style of Greek and Egyptian bronzes (Roeder 1933b, 226-227, 243-245, 262-263).
[131] Mattusch 1990.
[132] Mattusch 1990, 132. Five identical seventh-century statuettes from Delphi: Haynes 1992, 43.

found. Samos has often been pointed out as a key meeting point between Greek and Egyptian cultures.[133] Coincidentally, this is also the location of the earliest bronze figure from Greece that shows clear evidence of refractory mould use. A bronze griffin protome that was a waster has three clearly delineated mould lines along the back of its neck.[134] Taylor, Craddock, and Shearman also cite the story reported by Pausanias that the first large-scale bronze casters, Rhoikos and Theodoros, were Samians who learned their craft in Egypt.[135] This literary passage does not refer to casting methods specifically, but it does suggest strongly that technological exchange with respect to bronze production occurred between Greece and Egypt as early as the Archaic Period.[136] And Samos was not the only point of contact, but rather a leading representative of a wider phenomenon.[137]

Nor is Greece the only possible source for this type of production. Early use of the indirect lost wax method is also attributed to Mesopotamia, although scholars have not debated the issue there as much as they have for Greek material.[138] One particularly complex bronze mould from Mesopotamia allows for the simultaneous casting of three arrowheads and dates to around 700 BC.[139] Early on, casting methods of other geographic regions and cultures, and mould technology in particular, were advanced. Moulds were used to create copper objects as early as the fourth millennium, although these were mostly for weapons and tools.[140] Whether craftsmen poured metal directly into these moulds or used them to produce waxes is a matter of debate, and possibly dependent on each mould, but the result (that items were replicated) is the same in either case.[141] The Eastern Mediterranean in general is a great potential source for mould and casting technologies. Thonis-Heracleion, the port of entry to Egypt, had intensive and wide-ranging contacts in the Eastern Mediterranean throughout its history,

---

[133] For Samos: Jantzen 1972; Bianchi 1990. Egyptian statuettes abroad: Weitz 2012, 493-511. See Leahy 1988, 302-304 for the distribution of Egyptian bronzes outside Egypt, including but not restricted to Samos.
[134] Haynes 1992, 44, pl. 5.
[135] Taylor *et al.* 1998, 9: Pausanias 10.38.6.
[136] Such an exchange is often discussed in relation to other crafts and art forms, particularly Archaic Greek *kouroi*: (in the context of bronzes) Mattusch 1988, 45.
[137] Winter 1971, 154-155.
[138] For Mesopotamian bronze casting, with bibliography, see Moorey 1994, 269-273; for lead in Mesopotamia, Moorey 1994, 292, 297.
[139] Coghlan 1952; Moorey 1994, 270.
[140] Bivalve casting: Hunt 1980, 72-73 (moulds and waxes in general); Garland and Bannister 1927, 55, figure 2; Ogden 2000, 157 (for Egypt); Moorey 1994, 269-270 (Mesopotamia); Garland and Bannister 1927, 55, figure 3 (Assyria); Scheel 1989, 40 (Sumerians); Hunt 1980, 70 (Iran).
[141] Ogden 2000, 157.

even from its earliest periods.[142] As noted previously, one of the best parallels for the lead statuettes, in terms of manufacture and quantity, were the finds from Anatolia, which were made as early as the late second millennium BC.

It is even possible that Egypt itself was the origin of the technique. Recently, Benoit Mille has investigated the techniques used to make large South Arabian bronzes, and he has determined that the indirect method of casting was used in South Arabia as early as 600 BC. This date is somewhat earlier, or at least contemporary with the introduction of indirect casting for large bronze sculpture in Greece. He suggests that the casting technologies in both regions benefited from a common source — Egypt.[143]

We must also look at other craft technologies in Egypt itself for signs of replicable production.[144] In parallel technologies such as faience manufacture, moulds were used to replicate small faience items as early as the Old Kingdom, and by the New Kingdom clay moulds were commonly used for faience manufacture, especially at Amarna where many such moulds were found and where some of that manufacturing took place adjacent to metalworking.[145] by the Late Period, small faience items were mass-produced using this mould technology.[146]

It would be a mistake to see different craft technologies in Egypt as entirely separate. The evidence at Thonis-Heracleion, for instance, demonstrates irrefutably that refractory moulds were used for lead casting and duplicates were common, even among Egyptian-style figures like the falcon amulets. While the elephants, horses, and child deities are firmly Ptolemaic in date, the falcons have a wider potential date range that extends into the Late Period. Egyptian-style lead amulets were frequently in the same context as many bronzes, and it is probable that the same people who made the bronzes made the Egyptian-style lead amulets. While the methods of manufacture were not the same (lost wax and refractory), the same ability that allowed artisans to create moulds for lead casting would have been used to create open, bivalve, and piece moulds for indirect lost wax casting for bronze.

---

[142] For in-depth articles on early interactions between Thonis-Heracleion and the Eastern Mediterranean, see Grataloup 2012 and Fabre and Goddio 2012.
[143] Mille 2011; 2012, 239.
[144] Something that Roeder also argued: Roeder 1937, §586.
[145] Nicholson 1993, 19-38.
[146] Nicholson 1993, 39-41.

In all, the evidence from Thonis-Heracleion demonstrates that replicative processes were common for lead and at least minimally used for bronze as early as the Late Period. Egypt also had sustained, dynamic contact with other cultures that exhibited advanced mould technology. With these considerations in mind, we must at least accept the possibility that the indirect method was used in Egypt for bronze casting. From there, with larger excavated collections, we may investigate further the frequency of the technique, and the specifics regarding its origin and its mode of transfer between cultures.

# Chapter 5: Cultural and Cultic Interactions

> Archaeological analysis of ritual deposits both enables a description of a particular votive choice and votive practice that is very much richer than any participant observer would think it appropriate to give, and enables analysis of variation between deposits which situates the particular deposition into the context of general practice.[1]

The quotation above is from Robin Osborne's article on the importance of identifying votives in archaeological contexts, in which he describes many of the reasons why votives have social significance.[2] One of the challenges in analysing this material lies in determining how far the site is representative of cities in Egypt in the Late and Hellenistic Periods — to place the port in 'the context of general practice' as the quotation above describes. In previous chapters, I focused on the characteristics of individual pieces and small groups. This chapter takes a wider perspective and compares the statuettes and amulets to other finds from the site and from select sites throughout Egypt. The resulting analysis highlights two distinct but related aspects of life at Thonis-Heracleion, the cultural and cultic experiences of its residents.

The first section contrasts dedication patterns of Pharaonic and foreign-style figures to determine the ways they interrelate. From there, I look at the significance of the foreign-style distributions with regard to how cultural affiliations are, or are not, expressed among the material. The last section examines cult practices as they relate to practices all over Egypt, primarily for the Egyptian bronze statuettes. There I concentrate on the recipients of cult action (the subject deities) and the ways in which objects are dedicated, and less on cultural affiliations of the dedicators.

## 5.1 Egyptian and Foreign-Style Figures: Distribution

Any traders wishing to traverse the Canopic branch travelled among the temples, canals, and people of Thonis-Heracleion. The city's position at the mouth of the Nile drew contacts and trade from all over the Mediterranean, which is clear from the vast number of imported goods that were discovered at the site.[3] The multicultural character of the city is well attested, but the mechanisms of exchange between people there are

[1] Osborne 2004, 6.
[2] Osborne 2004.
[3] Fabre 2008b.

not as well understood. The most direct method of investigating cultural communities through the statuettes and amulets is to examine the styles and subjects expressed.

The purpose of this study is not to pinpoint precisely how many Greeks and how many Egyptians lived at Thonis-Heracleion. It is too simplistic to say that only Greek people utilised statuettes in Greek style and only Egyptians utilised Pharaonic-style representations.[4] As recent studies have emphasised, foreign styles do not equate to ethnicity, which is itself a fluid, socially-constructed concept; foreign-style objects could have belonged to local Egyptians, to foreigners, or to people of mixed lineage who identified with Persian, Greek, and/or Egyptian cultures in the Late and Ptolemaic Periods.[5] The categorisation of foreign styles, however, remains useful for two main reasons. First, foreign styles indicate a certain degree of foreign contact in the wider context, whatever the ethnicity of individual consumers. Second, foreign styles (and iconography) were used in conscious ways in ancient Egypt, so that by mapping patterns of their use we can learn more about their role in cultic life and about the ways foreign-style objects were perceived by members of multicultural communities.[6]

Only two statuettes from this corpus show signs of foreign styles that are not rooted in traditional Greek styles, despite the fact that Thonis-Heracleion was an active port during periods of Persian occupation (Cypriot head **122** and horse **237**). The Cypriot head belongs to a marine context; it was found near a cluster of ceramics and several anchors (see **122**). As Fabre and Goddio suggest, the statue had probably been dedicated in a sanctuary or stood outside of one.[7] The head may have tumbled into the canal during the submergence of the landscape, or it was spoliated, with the head broken and lost while the body was taken for reuse. The precise formation processes that led to the head's find location remain conjectural. The terracotta horse was found about forty metres south of G1 and is distinct from the G1 accumulation. It stood alone with at least 20 metres between it and any other recorded finds. The area where it was found is covered in sand dunes that limit the possibilities of comprehensive excavation.[8]

---

[4] Dunand and Zivie-Coche 2004, 301; Versluys 2010, 22.
[5] For example, Goudriaan 1988; Bilde 1992; Clarysse 1992; Johnson 1999; Vittmann 2003, 2006; Riggs and Baines 2013 with bibliography.
[6] See, for example, Baines 1996, 2004; Smith 1996; Venit 2002, 10-11, 68-95; Versluys 2010; Wilson 2011.
[7] Fabre leaves open the type of sanctuary, citing Egyptian tolerance for foreign religions (Fabre and Goddio 2012, 95-96). Egyptians were tolerant in that they allowed foreigners to establish cults and to participate in Egyptian cult. For reasons highlighted below, however, the statuette was probably associated with a Greek-style shrine, although the location of such a place is unknown.
[8] Goddio 2010, 126, on the dense sediment that covers the areas north of the Grand Canal.

The majority of non-Pharaonic-style figures from Thonis-Heracleion are Greek and Ptolemaic (see Appendix 5).[9] All the Greek and Ptolemaic-style examples are statuettes and most are lead; only eight are terracottas, four are bronze, and three are stone.[10] Three main types dominate the material: elephants with riders (**215-228**), horses (**229-236**), and child deities (**29-40**). All three types are represented in lead, except for one child deity in terracotta (**40**). The rest of the Greek and Ptolemaic-style material exhibits substantially fewer repeated types: there are three bronze representations of Athena (**114-116**), three pigs (**252-254,** one lead, two terracotta), and two lead 'Baubos' (**106-107**). The remaining statuettes are diverse typologically, with no more than one example of each: Dionysus, Herakles, a seated goddess, a goddess with a *polos*, a Tanagra-type standing female, an offering bearer, an owl, two different male heads, and a rooster.

The statuettes and amulets have significant distribution patterns, as do the ceramics, coinage, and ladles. The Cypriot head and the 'Persian rider' figures are from the northern part of the site, which accords with their stylistic dates (see Chapter 2). The East Passage (including the area around **122)** also has a concentration of ceramic bowls and jars that imitate Neo-Assyrian 'Palace Ware' and Achaemenid metal bowls.[11] Objects of these types are found only in two distinct areas: the East Passage and the northern part of the H1 temple.[12] Some were found in the same stratum as **122**.[13] This suggests that the East Passage is significant for material with broader iconographic origins in the Eastern Mediterranean, but there are too few non-Greek foreign-style statuettes for a discussion of wider patterns of use or to do more than highlight the area's significance. The number of Greek and Ptolemaic-style subjects, in contrast, is larger and their distribution patterns more widespread, reliable, and distinct. Figure 5.1 shows a distribution of Pharaonic-style statuettes and amulets (red, mostly bronze) against Greek and Ptolemaic-style statuettes (blue, mostly lead and terracotta). The following patterns are the most noteworthy:

---

[9] See Chapter One 'Character of the Assemblage' for my use of these terms.
[10] Terracottas: **40, 117-118, 125, 127, 250, 252-253.** Bronze: **114-116, 126**. Stone: **122, 246**, and possibly a third depending on the origin of **123**.
[11] Grataloup 2012.
[12] Grataloup 2012, 167-168, 188, fig. 2.
[13] Fabre and Goddio 2012, 86-87, 90-91.

1. The Pharaonic-style figures populate the northern and southern sections of the site.
2. The majority of the Greek and Ptolemaic-style figures cluster to the east of the main temple area, also appearing in the Central Port in the direction of the East Passage.
3. A few Greek and Ptolemaic-style figures are scattered on the landmass north of the Grand Canal, but they are thinly spread in comparison to those east of the main temple.
4. The landmasses to the far north are populated only with Pharaonic-style figures, with the exception of **114** (Greek-style), **218** (Ptolemaic-style), and **237** (other foreign style).
5. The southeastern landmass hosts only Pharaonic-style figures.
6. In the main temple area on the central landmass, the Greek and Ptolemaic-style statuettes and amulets cluster around the edges of the sanctuary and on the eastern end of the landmass. A few appear on the mole and platforms immediately west of the temple area, but not in the temple itself.
7. Only Pharaonic-style figures populate the main temple area on the central landmass.[14]

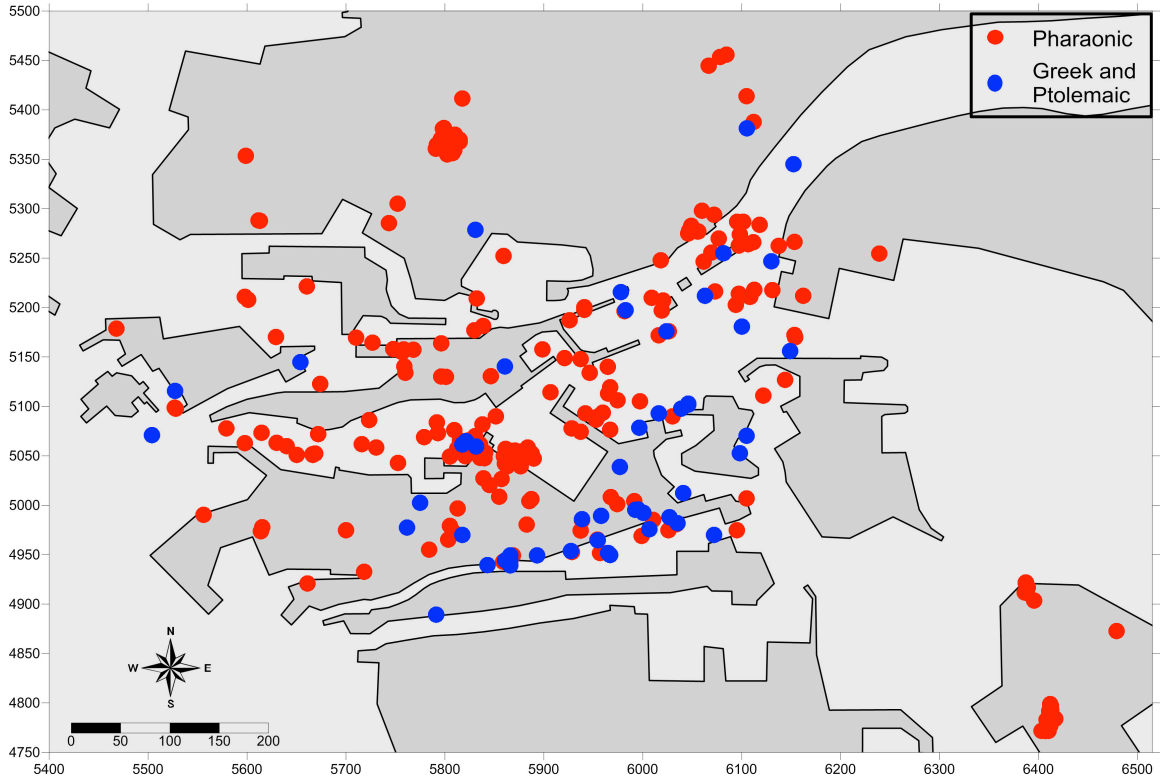



Figure 5.1. Distribution of Pharaonic-style material (red) against Greek and Ptolemaic-style material (blue).

What significant information may be gleaned from these distributions? First and most obvious, the artefacts reflect chronological patterns. Most of the Greek and Ptolemaic-style objects are chronologically Ptolemaic, and are more heavily concentrated in the southern zone. Several Ptolemaic figures, however, extend into the East Passage near the North Canal, which suggests that the area had a later Ptolemaic

[14] Some figures look as if they are inside the temple at this scale of the map, but they are in fact along the outer edges, in the Grand Canal, as is noted in their individual catalogue entries.

phase, as has been confirmed in recent excavations and studies.[15] The Pharaonic-style figures were produced throughout the Late and Ptolemaic Periods and thus have a wider distribution, both in the north and south.

Second, the patterns show that foreign styles are not utilised in Egyptian cult areas. The lack of Greek and Ptolemaic-style statuettes in G1 and in the southeastern corner of the site may be explained in part by chronology, in the sense that interactions with Greeks may have been more intense and sustained in later periods at Thonis-Heracleion, and thus that more intermixture occurs in the southern section of the site than the northern section. The earliest ceramics on site, however, are in the western section of the northern port and date back to the seventh century BC and, indeed, this early material comprises mostly imports from eastern Greece rather than local wares.[16] Therefore, the early date of the location does not necessarily explain the absence of Greek-style votives in these areas. There is some overlap between Egyptian and foreign-style figures in the distributions, but always outside of identified Egyptian cult areas. In general, the distinction between Egyptian and foreign-style figures is visible also on the small scale in individual deposits, which I describe below.

***Pharaonic and Foreign-Style Objects: Individual Deposits***

The immediate challenge is to determine precisely what constitutes a deposit. How can we recognise that objects were deliberately placed rather than randomly accumulated, especially when there is potential for local movement and displacement by wave action? This question of how to identify votive deposits plagues the analysis of all excavations.[17] Osborne notes several factors that may indicate whether a group of artefacts acted as a votive deposit: the quality of the material, the iconography of some of the objects, the architectural setting, and the association of multiple non-functional items.[18] I limit my scope to 'non-functional items' by looking only at deposits with statuettes or amulets. From there, the architectural settings, the iconography, and the material of certain objects help to identify some small-scale deposits near and among the larger accumulations.

---

[15] Meadows, in preparation, on coin distributions; Goddio, personal communication.
[16] Grataloup 2010, 151-153.
[17] See Osborne 2004, for his discussion on how to recognise votive deposits and how the difficulties involved have contributed to the lack of studies as related to the Greek world.
[18] Osborne 2004, 4.

The most important deposit at the site consists of a group of finely-made faience amulets (Figure 5.2). The deposit was in the northeastern corner of the H1 temple.[19] Basic details regarding the position and composition of the find are noted in the catalogue entry for figure **12** (see also Chapter 2 for individual amulets). The placement of the items, their quality, and their manufacture clearly link them as a deposit. Faience is rare at the site, and so to find so much in one area, all with similar coloration, is a clear sign that they belong together. The faience now has a golden-brown tone but originally the amulets would have had a greenish glaze, some of which is still visible on plaque **326**. Coins in the immediate vicinity date to the beginning of the Ptolemaic Period (late fourth century BC).[20] All amulets in the deposit are Pharaonic-style.

Figure 5.2. Faience deposit from the north-east corner of the H1 temple zone, as displayed in the exhibition (left to right): **184, 326, 324, 304, 12, 323, 325, 182**.

The deposit included anthropomorphic and zoomorphic subjects, as well as inanimate amulets. The amulets shown above were displayed in the *Egypt's Sunken Treasures* exhibition.[21] Other objects that are associated with the deposit but were not included are a faience representation of the god Shu (**78**), an additional faience uraeus, fragments of one or more faience uraei, and a fragment of what may be a turtle shell.[22] All, except for the wooden naos, were discovered in the same location. The naos was

[19] See the provenance information for child deity **12**, Volume 2.
[20] Personal communication, Andrew Meadows, project numismatist. See also Meadows, in preparation.
[21] Fabre 2008a, 138-139.
[22] I do not include the turtle shell, H3148, or the uraei fragments, H3098, in the catalogue because I have not been able to see the objects themselves or acquire pictures of them.

also near the northern part of the temple area but about 11m from the main deposit. While it is possible that the naos belongs to **12**, the practice of housing statuettes in naoi upon deposition is well attested; several examples are known from Saqqara.[23] Because it was not together with the faience finds (which were tightly grouped), I hesitate to associate it with the faience deposit;[24] it could have belonged to another statuette of wood, bronze, or faience that is not extant.

Fabre proposes that these amulets formed a foundation deposit for the temple.[25] The high quality of the deposit, the coherence of the group, and its position in the corner of the temple structure support this idea.[26] The deposit is richer than many foundation deposits elsewhere, and it has a different composition. In the Ptolemaic Period, foundation deposits for Egyptian temples were fairly limited in the types of items included, usually following earlier patterns of Egyptian deposits or consisting of plaques of different materials including gold, silver, and faience.[27] This deposit, even though it does not suit the general profile of foundation deposits (because it includes deities), includes a faience plaque (**326**), which makes it more likely that it is indeed a foundation deposit. Fabre cites parallels at Tanis where a bronze child deity and a few other objects were buried beneath the wall of the temple of Amun.[28] At Saqqara, some groups of statuettes were not strictly foundation deposits in the corners of temples, but were probably used to consecrate sacred areas.[29]

One of the figures in the deposit is the child deity shown above (**12**). No inscription identifies it. As noted in Chapter 2, however, it is likely, as Fabre suggests, that the figure represents Khonsu, assimilated with Harpakhered.[30] The prominence and quality of the deposit speak to the figure's cultic importance; it was found near an uninscribed stone naos that the excavators have suggested belonged to Khonsu.[31] The large bronze *hemhem* crown was also nearby, only 6m east of the faience deposit (**263**) (Chapter 3, 'Large Statuettes and Statuary'). The naos, together with the large crown, suggest that a cult statue may have been near this deposit; the most likely statue with

---

[23] Smith 1974, 50.
[24] *Contra* Fabre 2008a, 138. See Volume 2 for further information under the provenance for naos **304**.
[25] Fabre 2008a, 138.
[26] This deposit was found in the H1 temple, specifically in the H4 excavation, which was a long, narrow trench that ran north-south and transected the Grand Canal and the landmass above it, overlapping on the southern end with the northern part of the H1 zone.
[27] Weinstein 1973, 351-398.
[28] Fabre 2008a, 138.
[29] Smith 1974, 55.
[30] Fabre 2008a, 138.
[31] Goddio and Fabre 2008, 76, 309, no. 114.

this crown, positioned near or in the Temple of Amun, would be that of Khonsu.[32] Moreover, connections existed between Khonsu and Shu (Chapter 2, 'Cults'), both of whom had roles as solar deities in some contexts, and thus the presence of a Shu amulet (**78**) in this deposit (the only other anthropoid figure) suggests that this figure could represent Khonsu.

The remaining zoomorphic and inanimate faience amulets enhance the deposit's ritual power. All are symbols of protection, renewed life, or prosperity, ideas that resonate strongly with the meanings associated with child deities.[33] The double *hes* amulet served as a perpetual liquid offering to the deities.[34] Actual and symbolic offerings of food or drink were common elements in foundation deposits and were thought to bless and bring prosperity to the building, while providing offerings for the deities within in perpetuity.[35] The significance of the tortoise shell is less clear. Turtle amulets were common in Egypt. The animal was seen as a malignant force, but amulets in its form protected against such malignant powers.[36] Perhaps the shell offered a similar level of protection over the deposit and building. Also among the deposit were grape pits, the preserved remains of another food offering.

The total number of uraei that belonged to this deposit is unknown, perhaps between four and six. Figure **184** is the same colour and type as those in this deposit, but it was found on the outside of the south wall of the temple precinct in M3, far from the faience deposit. Three interpretations of this figure's position are possible: it may have been a lone amulet, unrelated to the deposit; it may represent a second foundation deposit, perhaps related to the first; or it was part of the first deposit but somehow became separated from the main group. The area where the figure was found appears to have been struck by a landslide.[37] If this was so, it will be hard to know where the figure was originally deposited. It seems likely, however, that it comes from a second deposit somewhere along the south wall.

The faience fragments discovered with the deposit probably come from at least one more uraeus amulet. If we exclude **184**, the total number of of faience uraei in this

---

[32] Fabre 2008a, 73. The naos has a hole through the right side; the excavators suggest that it may have been repurposed as a watering trough. The possibility of such re-use raises doubts about its location and whether it is *in situ* (Goddio and Fabre 2008, 76, 309, no. 114).
[33] See Chapter 2 for the concepts related to child deities.
[34] Andrews 1994, 95.
[35] Weinstein 1973.
[36] Fischer 1966; Andrews 1994, 36.
[37] Fabre, Supreme Council of Antiquities Report 2010, 11, unpublished.

deposit comes to four. Four is a significant magical number in Egyptian symbolism.[38] Amulets representing uraei sometimes show up to four together in a basket. With this kind of figure multiplicity is particularly important, something that is difficult to observe when amulets or statuettes are out of context. Magical spells also advise placing four clay cobras in a room, one in each corner, to prevent nightmares.[39] The cobras are associated with the four cardinal directions and act as room guardians; they may be identified as the 'four noble ladies' who were also protective entities.[40] In this location, that protection extends over the temple complex and over Khonsu in particular.

The conformity of these statuettes and amulets to known and popular types is one of the most significant aspects of the deposit. Even in a deposit as important and well-placed as this one, the objects are not 'unique'. They are well made and detailed, but their importance does not lie in their individual impact or in the craftsmanship of the artists, but in the synergy between and relevance of the objects to each other. According to Andrews, two main types of uraeus amulets dominated through the Late and Ptolemaic Periods; one of these is represented in this deposit, a front-facing cobra with the hood spread, decoration down the body, the coils upright behind, and a pendant loop on top.[41] Meanwhile, the *wadjet* eye is one of the most popular amulets of ancient Egypt after the scarab.[42] The papyrus sceptre, the child deity type, and the Shu amulet are also prominent in these specific forms, particularly in the Late and Ptolemaic Periods.[43]

In addition to those objects that the excavators explicitly associated, there were a number of other finds in and around the cluster, including a large amount of bronze coins (H3110-H3114, H3116-H3122), a bronze uraeus (**179)**, a lead earring (H3108), a gold earring (H3093), two small lumps of silver (H3104), an indeterminate piece of lead (H3106), lead weights (H3101, H3109), and a silver weight (H3107). Coins H3110, H3117-H3118, and H3120 are Kition coinage and coin H3121 is Ptolemaic2.[44] Also nearby, although slightly further to the west, was a falcon (**148**). Another somewhat looser, although still dense, cluster of material was slightly east of the first cluster containing the faience amulets. The second cluster again comprised a number of bronze

[38] Sethe 1916, 31-33.
[39] Ritner 1990, 34-39.
[40] Ritner 1990, 36.
[41] Andrews 1994, 76.
[42] Andrews 1994, 43-44.
[43] See the close similarties, for instance, between child deity **12** and Andrews 1994, 16, figs 10a,b as well as between Shu and Andrews 1994, 17, 19, fig. 11c.
[44] See the catalogue introduction, Volume 2, for the breakdown of Ptolemaic coinage and for information about the Kition coinage.

coins (H3129-H3136, H3138-H3141), two pieces of lead wire (H3142, H3144), and one lead weight (H3143), as well as an indeterminate piece of lead discovered in 2001 (H2479). Coins H3139 and H3132 are Ptolemaic2; coins H3140_1,3,5 and H3135 are Ptolemaic2-3 (see Volume 2, Table 1 for the chronology of the coins). This surrounding material exemplifies the wealth and diversity of finds in this corner of the temple zone. The stratigraphic relationship of the falcon amulet and the bronze uraeus to the faience deposit is unknown.

The second identifiable deposit includes objects in Ptolemaic and Greek style (Figure 5.3):[45] child deity **30** and owl **246**, as well as two small lead vessels. The lead vessels are a shallow dish (H8812) and a miniature kylix (H8810).[46] As noted in the catalogue entry for figure **30** (Volume 2), these items were found on a hard clay layer under 20cm of sediment. The identity of figure **246** is unclear.[47] If it represents Bes, then the association is not surprising as Bes is one of the few Pharaonic subjects that is consistently paired with child deities, even ones in Ptolemaic style.[48] If it is an owl, the Greek origins of the subject suit the style of the child deity and the associated kylix. Of all Greek deities, Athena is represented most frequently at the site and in the finest manner (**113-115**), so a representation of an owl would suit her (albeit minor) presence. Alternatively, as noted previously in Chapter 2 'Birds', the owl is also occasionally connected with child deities in terracotta.

Figure 5.3. Deposit containing owl **246**, child deity **30**, a miniature kylix (H8810), and a small lead dish (H8812). Maritime Museum, Alexandria.

[45] Goddio and Fabre 2006, 175-176.
[46] Dish H8812: Goddio and Fabre 2008, 341, no. 348. Kylix H8810: Goddio and Fabre 2008, 342, no. 353. See also van der Wilt, in preparation, for both.
[47] See the 'Birds' category under the section heading 'Non-Sacred Animals' in Chapter 2.
[48] See Chapter 2, 'Cults' for links between Bes and child deities.

The association of these objects, particularly the child deity and the lead vessels, is important. At Athribis, many of the terracottas were found in a bath complex together with small ceramic basins that the excavators propose had more symbolic and religious purposes than hygienic ones.[49] There is no evidence for a bath complex at Thonis-Heracleion. Nevertheless, the association between child deities of this style and vessels for liquid or food is noteworthy, particularly considering the deity's common attribute of a small pot (**29-36**).[50] Whether these food and/or liquid presentations were simply offerings to a deity for sustenance (either Horus the Child or another deity), or whether they relate to something more complex, such as a healing rituals, a festival, or to a Greek-style symposium, is unclear.[51] The miniature vessels at Thonis-Heracleion include this kylix, a form usually associated with Greek symposia, as well as amphorae and pitchers. The miniature vessels are being studied by Elsbeth van der Wilt, in conjunction with the full-scale lead vessels.[52] Forms similar to those at Thonis-Heracleion are also in the Graeco-Roman Museum in Alexandria and the British Museum in London.[53]

This deposit ties together a number of finds that would otherwise be difficult to definitively characterise as deposits. As discussed previously, the lead child deities, elephants, and horses are linked by their manufacture, as well as by their iconography, if the riders are related to child deities. The excavators noted over the years, however, that all three iconographic types also share certain dedication patterns. For instance, several of the lead elephants, horses, and child deities were found either with each other (for example, a horse with an elephant), or with lead miniature vessels, bronze coins, or a combination of these.[54]

Examples of such groupings are: elephant (**216**) was found with a Baubo statuette (**107**), a lead miniature vessel, and bronze coins; child deity **35** was found with a lead miniature amphora and bronze coins; elephant **217** was next to a lead miniature vessel, a small lead cup, and a lead plaque; elephant **225** was near a lead miniature vessel; and elephant **227** was found with horse **235**, the lid of a small lead vessel, and

---

[49] Myśliwiec 1999, 50-51.
[50] See also a bronze drawn by Perdrizet (1921, 45), of Bes carrying a bowl or dish similar to H8812 (from the owl deposit).
[51] For possible symposium scenes in limestone (a typically Egyptian medium), see Wilson 2011, 165-167 for Sais.
[52] Van der Wilt, in preparation.
[53] Boussac and Seif el-Din 2009, 233-236, 258-262, nos 50-68, figs 48-65, with comparanda, including ones in the British Museum, London.
[54] Franck Goddio, Oliver Berger, personal communication.

bronze coins.[55] The horses have a slightly different distribution from those of the child deities or elephants, but they nonetheless overlap with the range of both. Unlike the elephants and child deities, the horses have not been found with miniature vessels (except for the small lid, H9689, for horse **235**), but one has been found with an elephant (**227,** as noted above) and near bronze coins (**229**). All of these are Greek or Ptolemaic style and appear to be related to a specific ritual context, which is as yet little understood.

Another deposit, unconnected with the horse, elephant, and child deities, included fragment **118** (a female terracotta head), which was discovered among a number of miniature terracotta and stone vessels near the East Passage.[56] The large number of small terracotta vessels, which do not occur with frequency or in such numbers elsewhere on the site, set this material (and the terracotta head) apart as a deposit. The ceramic head and miniature vessels were gathered together in a ceramic basin that was covered by lumps of limestone. One of the ceramic vessels contained grape pits, like those found in the faience deposit. The vessels represent a mixture of local and imported forms; these are being studied by Catherine Grataloup.[57] The last figure, a seated cat (**196**), was discovered in a large bronze vessel in the northwest corner of the H1 temple. These two items were probably combined for storage as part of the wider accumulation in that corner of the temple.[58]

Beyond these deposits, a number of statuettes and amulets have been discovered in small, closely associated groups that cannot be proven to be deliberate deposits in the absence of further archaeological information. For the most part, the deposits and groupings follow the pattern that Pharaonic and Ptolemaic/Greek-style figures do not occur together in small-scale deposits. Some are clearly associated, either because they join to form one piece (bark **309** and throne **316**), or because they are unusual pieces and are closely linked iconographically, such as **91-94** (unusual headdress), **238-240** (lions), and even perhaps the falcon pendants (**139-156**). For others, the situation is less clear: **2** (child deity) and **295** (base); **5** (child deity) and **131** (Bes); **15** (child deity) and **16** (child deity); **17** (child deity) and **41** (Osiris); **19** (child deity), **82** (pharaoh), and **148**

[55] For the excavation numbers of the associated artefacts, see the relevant catalogue entries; these also include any available stratigraphic information.
[56] A brief description of this find was given in Fabre, Supreme Council of Antiquities Report, 2007, 12-13, unpublished.
[57] See below for the distinction between the use of Greek goods and Greek-style statuettes in Egyptian sacred contexts.
[58] Franck Goddio, personal communication. See the catalogue entry for **195** in Volume 2.

(falcon); **27** (child deity) and **315** (bark fragment); **52** (Osiris) and **258** (animal); **75** (Nefertem) and **213** (lizard); **96** (female) and **146** (falcon); **103** (arm), **112** (phallus), and **263** (*hemhem*); and **157** (falcon) and **202** (bull). Too little is known about the stratigraphy or architectural setting surrounding these figures to determine whether they were deliberately deposited together.

Infrequent groups or pairs include a mixture of Pharaonic and Ptolemaic styles not just in the same general area, but in the same location: **33** (child deity), **249** (bird), and **173** (bird leg); **38** (child deity) and **128** (Bes); **114** (Athena) and **159** (falcon); **223** (elephant) and **256** (hippopotamus). And to the south of the temple, along the south wall in M3, was the largest mixed accumulation (see Appendix 7).[59]

Some of these styles are almost certainly mixed because the area is disturbed. The objects in M3, for instance, probably came together during the landslide and south wall collapse, jumbling together objects inside or abutting the temple precinct with those outside of it.[60] For the others, too little is known to determine whether their juxtaposition was deliberate or accidental, although the former possibility must be considered. Deliberate intermixture, however rare, is something that should be investigated as more cities and temples are excavated with modern techniques.

***Separation of Styles***

The find locations of bronzes and terracottas are fairly well established in Egypt, with bronzes in or near temples and terracottas in domestic or grave contexts.[61] The distributions present no surprises in this regard, except in demonstrating the close proximity of private to institutional practices. But the question of why these Egyptian and foreign styles are so strictly separated has not been discussed much, in part because the materials are almost always evaluated separately in publications.

Françoise Dunand touches indirectly on this question by suggesting that, while private and institutional practices were intimately connected, Ptolemaic-style terracottas were mostly used in the countryside, and thus reflect different concerns than institutional representations. These concerns were more closely associated with fertility

---

[59] Appendix 7, 'M3'.

[60] In M3 (including nearby prospection), Pharaonic-style: **61, 81, 185, 282, 313**; Greek and Ptolemaic style: **40, 125, 229, 250, 252**. See Chapter 1, 'Artefact Context' for M3.

[61] Compare, for instance, Bailey 2008, 1-2 (terracottas) and Weitz 2012, 465 (bronzes), although I later qualify the find locations of bronzes in 'Distributions and Dedication Practices' below for scattered, single bronzes. See also Hill 2004, 136-137, fn. 1.

and prosperity.[62] Dunand illustrates this interpretation by contrasting the use of child deities in terracottas and temple relief. As Dunand notes, child deities ('Harpokrates') are the most popular type among terracottas. In the realm of the temple, however, Dunand sees child deities as being of secondary importance, generally confined to interior reliefs and the mammisi.[63]

There are several problems with this suggestion. First, as the finds from Athribis show, these types of terracottas are not confined to the *chora*, but were also produced in cities like Athribis, which was a nome capital.[64] Thonis-Heracleion also was not part of the *chora*, but was, as far as we can discern, a city that centred on trade.[65] At Thonis-Heracleion, the institutional cult and private practices were located extremely close to each other, with the majority of the Greek and Ptolemaic-style statuettes immediately east of the main temple (Figure 5.1). The close proximity of these practices cannot be fully appreciated unless the various materials are studied together.

Second, Dunand's evaluation of the Egyptian images of child deities is flawed. While child deities were secondary figures in that they formed relationships with other deities and their power lay in those connections, they are not of secondary importance. As Sandri and Budde, among others, have shown, child deities played significant roles in the temple and became increasingly popular throughout the Late and Ptolemaic Periods.[66] Moreover, instead of evaluating the popularity of child deities in temple reliefs, we should look to the bronze votive statuettes, which are much more appropriate for comparison with terracottas. In bronze, child deities are extremely popular, second only to Osiris.[67] At Thonis-Heracleion, they are indeed the most popular type.

Third, Dunand's hypothesis does not adequately explain why the styles differ between institutional and private cult; it explains why subjects may differ, but not styles, especially when we know that Greeks participated in both private and institutional practices.[68] Dunand discusses how terracottas drew inspiration from institutional cult.

---

[62] 'Popular' concerns related to the countryside: Dunand 1979, 107-118. More recently, Dunand urges the use of 'private religious practices' rather than the term 'popular': Dunand and Zivie-Coche 2004, 299-300.
[63] Dunand 1979, 134-135.
[64] Syzmańska 2005, 62.
[65] Fabre 2008b.
[66] See the discussion under 'Pharaonic-style Child Deities' in Chapter 2.
[67] For the range and variety of these figures: Roeder 1937, §57-88, pls 6-9; Roeder 1956, §149-176, pls 15-22; Weitz 2012, 126-157, types 41-69, pls 11-19.
[68] Weitz 2012: the dedication of Egyptian bronzes abroad (493-511, 957-960 with bibliography), and bronzes in Egypt with Greek inscriptions (511-515, 960-966).

She highlights terracotta figures that show the child deity on a lotus, a theme well attested in bronze (**8**) that draws on Egyptian theological concepts.[69] And yet, when private and institutional practices are in as close proximity as they are at Thonis-Heracleion, why do we not see more crossover, particularly when the basic religious concepts behind some figures are so similar? Even if some terracottas or bronzes were made for special occasions, such as festivals, we might expect some crossover where types were complementary.

Georges Nachtergael lists some instances in which terracottas were discovered in cult locations in Egypt.[70] While some of his examples are of Egyptian-style terracottas, he notes a find at Ras el-Soda that has particular relevance for this discussion.[71] Adriani, the excavator at Ras el-Soda, found hundreds of votive objects that were in a sandy fill over a 50m² area.[72] Adriani dated the pieces to the late Ptolemaic Period and suggested that the finds were part of a temple *favissa*.[73] He pointed to the localised nature of the deposit and the presence of a large number of animal bones, perhaps from sacrifices, in support of his argument.[74] In this find, terracottas were discovered in conjunction with a range of other materials including faience, bone, limestone, ceramics, and some bronze. Many of the terracottas were Greek and Ptolemaic-style, while the faience and limestone were mostly Egyptian-style and there were also three bronze Egyptian-style representations of Nefertem.[75] Adriani describes the whole find as a "curieux mélange d'éléments purement grecs..., d'éléments purement égyptiens..., et, encore d'éléments égypto-grecs..."[76]

Nachtergael uses the Ras el-Soda example and others, placing terracottas in line with Egyptian cult practices and stating how, in earlier times, cheaper materials including terracotta were dedicated in Egyptian sanctuaries, as at Hathor temples in the New Kingdom.[77] While Egyptian-style terracottas were indeed associated with temples in the New Kingdom as well as with certain cult areas in the Late Period, if all

---

[69] Dunand 1979, 111; Dunand and Zivie-Coche 2004, 302-303.
[70] Nachtergael 1995, 261-263.
[71] Nachtergael 1995, 261.
[72] Adriani 1952, 28.
[73] Adriani 1952, 28.
[74] Adriani 1952, 44-45.
[75] Adriani 1952, 30-31.
[76] Adriani 1952, 44.
[77] Nachtergael 1995, 261-263. In this overview, Nachtergael cites instances where terracottas were found in or near Egyptian sacred areas, but he fails to distinguish between styles, and many of the examples he cites refer to Egyptian-style terracottas, which is significant.

terracottas, including Greek and Ptolemaic-style figures, transition so seamlessly from earlier tradition, why are they not more prominent in temple settings? Why do we not have more assemblages that look like the one at Ras el-Soda?

The answer probably lies with institutional practices and controls, rather than with private practice and terracottas. It is possible that Greek and Ptolemaic-style terracottas were not considered appropriate or effective in a traditional Egyptian temple cult setting on account of their style. David Frankfurter, in a discussion of Christian destruction of Egyptian art, suggests that Christians destroyed Egyptian images so thoroughly and carefully because they were vital, in the sense of having a life force.[78] In Frankfurter's words, "indeed, this very cultural disjunction between the Egyptian divine image as perfect embodiment of the god and a more Hellenistic notion of *agalmata* (statues) is the subject of much discussion in Late Antiquity".[79]

To some extent, Frankfurter may underestimate the degree to which vitality was ascribed to Greek statues. They were thought to speak, interact, and live.[80] Much more work needs to be done in determining in what ways the Egyptian and Greek approaches to statuary, and the conceptualisation of their vitality, coincide or differ. Nonetheless, Frankfurter's point that there may be differences in how Greek images and Egyptian images were perceived, may contribute to explaining the reluctance to use Greek or Ptolemaic styles in temple settings, particularly for deities. If Greek-style statuettes were not considered effective hosts for the divine spirit, then that belief would have had real consequences for votive practice.

While assimilation between Greek and Egyptian deities is commonly assumed, such as the link between Khonsu and Herakles, images were not so easily transferable. In Ptolemaic times, the Rosetta stone calls for the statues of Ptolemy V to be erected in the temples and that they be 'fashioned in the Egyptian manner', an indicator that Egyptian clergy were well aware of stylistic differences and ascribed different values to them in statuary.[81] Modes of representation were magically significant. In Greco-Roman magical papyri, for instance, the Greek language was the preferred choice for spells and was considered more powerful.[82] In temple statuary, the opposite appears to be true, and Egyptian forms may have been considered more effective. Could Egyptian priests

[78] Frankfurter 2008.
[79] Frankfurter 2008, 664. As cited by Versluys 2010, 20-21.
[80] See, for example, Poulsen 1945.
[81] Stanwick 2002, 7 and chapter 2 for decrees and statuary more generally.
[82] Dieleman 2005, 123-126.

activate a statuette that did not have a traditional and 'perfect' form?[83] Would a cult official consider a Greek-style figure an effective form for an Egyptian deity?[84]

This pattern must also be seen as part of the wider trend in which Pharaonic institutions only rarely incorporated objects or architectural features that featured Greek stylistic elements.[85] As Baines states, rules of decorum influenced the selection of temple decoration.[86] Traditional forms preserved order; failure to preserve proper forms could result in destruction.[87] Foreign styles were occasionally used in temples or in statuary, but usually in subtle ways and only overt in relation to the Ptolemies, who belonged to both the Greek and Egyptian realms.[88] As Tom Hardwick notes, as a result of manufacturing processes, "votive bronzes viewed *en masse* often have a deadly sameness to them, and are difficult to date" because so many were produced in the Late and Ptolemaic Periods and they maintain such consistent iconographies.[89] For the modern observer, it may be difficult to grasp why people continued to dedicate so many of these bronzes that, to some of us, may superficially all look the same. What value did these have for the deity honoured? In antiquity, however, these figures were so special in part because of that sameness; their value lay in their adherence to traditional forms.

Another consideration behind the separation of styles may be economic. As several scholars have argued, the temples probably controlled the production of bronze statuettes for dedication, producing the figures and selling them to temple visitors.[90] If the temples prohibited statuettes produced by outside ateliers (like terracottas), the revenue from dedications would go solely to the temples. It is unlikely that such an explanation outranked concerns about the appearance and efficacy of foreign-style statuettes, but it may have contributed to an established system.

For those few cases where styles are mixed in caches, such as at Ras al-Soda, it seems likely that the statuettes derive from a Greek-style or hybrid temple, as Adriani himself suggested.[91] Finds of Egyptian-style statuettes are well attested in Greek

---

[83] Weitz highlights the importance of the 'activation' of the statuette by priests, a practice that does not have a direct equivalent in Greek cult practice (2012, 499).
[84] Baines, for instance, notes inscriptions that appear to describe the 'proper form' of an Osiris statue (2007, 195).
[85] Bianchi 1988, 55-80; Baines 2004, 36-41.
[86] Baines 2004, 41.
[87] Baines 1997, 228-235; 2004, 41.
[88] Baines 2004 for elite expression temples; Smith 1996, for royal statuary.
[89] Hardwick 2008, 265.
[90] Edwards 1971; Smith 1974; Weitz 2012, 474-475, 481, 491.
[91] Adriani 1952, 45: a 'sanctuaire alexandrin'.

sanctuaries around the Mediterranean, the most famous being the statuettes from the Temple of Hera at Samos.[92] Greek-style sanctuaries in Egypt, however, do not survive well, and we do not have many mixed assemblages like this one.[93]

How far rules of decorum restricted the types of dedications received in Egyptian temples is unknown. As Baines notes, exceptions may have been made for costly items.[94] Greek food items and vessels may have been acceptable, as several forms of imported Greek bronze and ceramics have been found in the H1 temple.[95] Imported ceramics were discovered in the Egyptian temple in Tell Dafana among Egyptian finds including locally-produced ceramics, seals, and foundation deposits among other things.[96] Grataloup highlights the placement of Persian-style drinking vessels at Thonis-Heracleion, which occur only in the East Passage and in the H1 temple.[97] Other foreign utilitarian items were in the H1 temple, such as Greek lead weights.[98] Presumably since these items would not have served as receptacles for a divine presence, their style would not have been as important, and some Greek-style objects could have been desirable if they contained expensive imported goods or delicacies.

The Thonis-Heracleion corpus does not prove the hypotheses presented above, and it is unlikely that any single assemblage of statuettes could do so. The distributions within the assemblage, however, do reveal the close proximity of institutional and private practice. This direct juxtaposition highlights the fact that Egyptian and foreign styles were kept distinct in Egyptian cult centres, but not necessarily outside of them. Further contextualised studies of all types of votives, from statuary to statuettes to ceramics, will be necessary for a broader discussion of the interactions between Greek and Egyptian styles in institutional and private cult practice in Egypt.

## 5.2. The Multicultural Community

### *The Dedicants of Foreign-Style Statuettes*

If Greek and Ptolemaic figures were not dedicated in Egyptian temples, what can their distribution tell us about life outside the temples? Who dedicated these

---

[92] Winter 1971; Jantzen 1972; Weitz 2012, 493-511.
[93] Naerebout (2007, 524-529), argues that Classical style temples would have been much more prevalent than they currently seem and he provides a list of attested examples (2007, 526-527).
[94] Baines 2004, 41.
[95] Grataloup 2010, area F, 155-156, although these imports are in the minority.
[96] Leclère 2007, 15-16.
[97] Grataloup 2012, 188, fig. 2.
[98] Van der Wilt, in preparation for the weights.

statuettes and what can they say about the cultural community? Figure 5.4 shows the distribution of the Greek and Ptolemaic-style statuettes without the Pharaonic-style figures. This distribution provides a focal point for investigations on the hellenised community at Thonis-Heracleion.

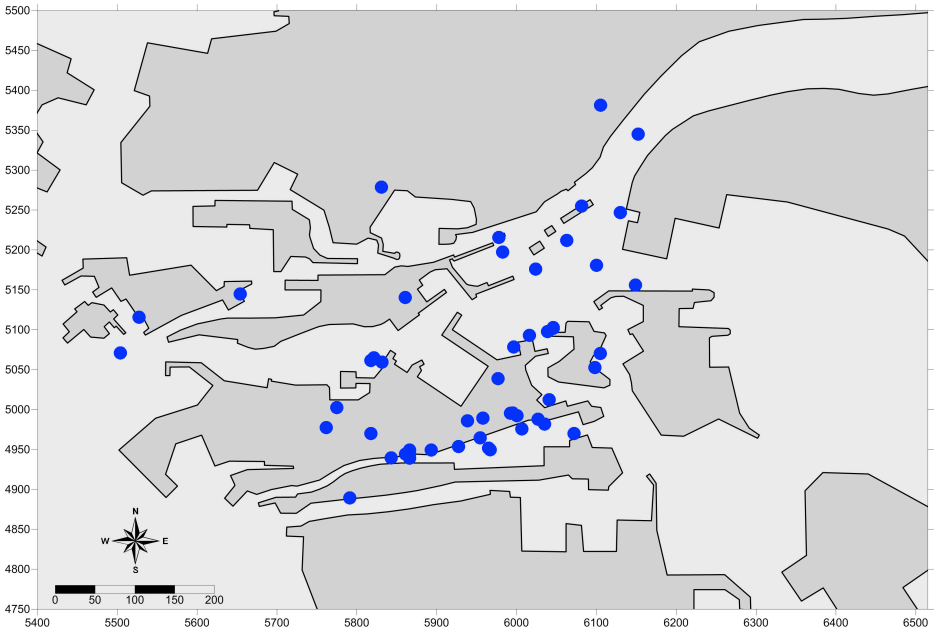



Figure 5.4. Distribution of Greek and Ptolemaic-style statuettes.

Much of the focus of excavation at the site has been on the 'sacred topography', namely the Egyptian temples, as these were constructed in limestone and are more visible than other structures with current survey techniques.[99] The limestone platforms in the Grand Canal next to the temple, for instance, are preserved up to nine courses.[100] Most of these sacred areas were discussed in Chapter One, 'Artefact Context', for significant find locations for bronze and lead statuettes. Domestic quarters, which would have been constructed of less durable materials, are not easily identifiable. For now, some of the best clues for the location of a residential or public zone are the Greek and Ptolemaic-style statuettes. Many are made from terracotta or are lead statuettes that imitate terracotta types; and as noted earlier, Greek and Ptolemaic-style terracottas in Egypt generally derive from domestic or tomb contexts, not Egyptian temple contexts.[101] Thus, the concentration of such figures east of the main temple probably marks a residential or public zone where Greeks and/or Egyptians lived or congregated.

[99] Goddio 2007, 10-17; Goddio and Fabre 2008, 33-37.
[100] Goddio 2007, 96.
[101] Bailey 2008, 1-2.

Little may be said with certainty about the ethnic origins of any makers or owners of the Greek and Ptolemaic-style statuettes. The only statuette that is easily traced stylistically to a particular geographic region is the 5th century Cypriot limestone head (**122**). Even in this case, the possible allusions to Persian iconography with its cap, as well as the frequent Egyptianising tendencies in Cypriot sculpture throughout the first millennium both in Cyprus and abroad, complicate the issue of identity.[102]

The foreign-style statuettes instead provide more information about their owners' status and activities than about their origins or ethnic background. The Cypriot-style head, for instance, says something about the social makeup of the community at Thonis-Heracleion by its very nature as a depiction of a private male votary. Although its features are idealised, the full-size figure was created as an image of a specific person and would have been inscribed with a name.[103] The lost body type also would have helped inform the narrative of the overall portrait.[104] These types of votive offerings lent prestige to their owners in a community where other people understood their family connections and standing in society.[105]

The size and quality of the head's carving speak to the status of the subject. Many Cypriot-style statuettes found outside of Cyprus were under 20cm, in part because they were made for export.[106] This head is 12.9cm, and the figure was probably 50cm or larger when complete, depending on the body type. Thus this one stone fragment implies the presence of a deeper and more grounded multicultural elite presence at Thonis-Heracleion in the fifth century than is otherwise suggested by the the site's corpus of large and small statuary. Other private male statues from the site, without exception, were executed in Pharaonic style.[107]

The most revealing information, however, comes from some of the Greek and Ptolemaic-style statuettes in the 'residential' zone east of the temple. Aspects of these statuettes indicate that soldiers may have resided at Thonis-Heracleion in the Ptolemaic Period. As noted previously, three iconographic types (child deities, horses, and elephants) dominate the Greek and Ptolemaic-style figures. These were the figures

---

[102] Hermary 2001; Faegersten 2003; Höckmann 2004; Counts 2008.
[103] Connelly 1989, 215-216.
[104] Dillon 2006, 76-77.
[105] Dillon 2006, 105-106; Ma 2013, 228-233.
[106] Jenkins 2001, 167; Kourou *et al.* 2002, 4.
[107] Libonati 2010, 178-207.

concentrated in the zone east of the main temple, and they also provide the best circumstantial evidence for soldiers in the city.

These three types should be considered as a unit for discussion. Their distribution zones are closely connected (Fig. 5.5),[108] and, as noted above, all three share certain dedication patterns. Their manufacture is also significant; all are hollow cast lead with an open bottom edge, usually rectangular.[109] These statuettes were cast in bivalve moulds with the lead slush technique. Most of the other lead items from the site were cast in open moulds or were solid cast in bivalve moulds.[110]

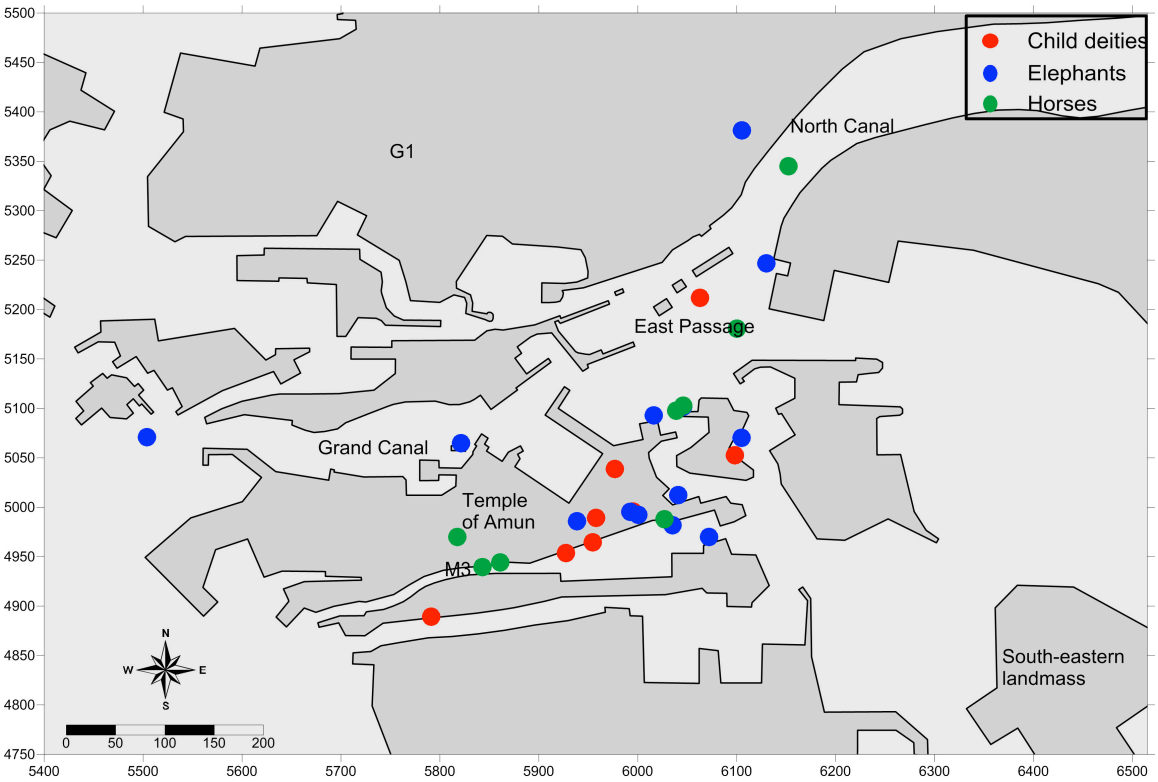



Figure 5.5. Distribution of lead horses (**229-236** - green**)**, elephants (**215-228** - blue), and Ptolemaic-style child deities (**29-39** - red).

As noted in Chapter 2, the horses and elephants in particular have a martial iconography. These votives may reflect the concerns of their owners and may have belonged to members of the Ptolemaic army. Some of these people may have been Macedonian, although the statuette types may simply convey an image of the ideal soldier, because Macedonian cavalrymen were considered an elite fighting force.[111] Macedonians formed an important part of early Ptolemaic forces, but the army was

[108] Figures **34** (child deity) and **226** (elephant) have no available coordinates and are not represented on the map.
[109] The exception is child deity **35**, which appears to be hollow but its underside is enclosed.
[110] See Chapter 4, 'Lead Casting'.
[111] Brunt 1963; Heckel 2006.

mixed and included mercenaries from all over the Mediterranean as well as Egyptians.[112] All soldiers, however, would have understood the imagery of the elephant and horse statuettes. The seated child deities do not display overt militaristic themes, but the connections between them and the elephant riders, who may also be child deities, may in part explain their appeal for soldiers.

The militaristic iconography of the horses and elephants is not sufficient basis for a claim that the city hosted a military outpost and that soldiers used these figures. They could have had a protective or apotropaic function, similar to armed images of Bes.[113] The archaeological context, however, supports suggestions not only that soldiers were at Thonis-Heracleion, but specifically that they may have occupied the area where the statuettes were concentrated.

According to the excavators, the structure that juts into the water to the southeast of the temple was fortified with large stone blocks and was easily defensible (Figure 5.6, circled). The siting of a fortification in this area enabled soldiers to guard the wealth that the temple would have held in its storerooms.[114] This area also is where a large bronze helmet crest was discovered (Fig. 5.6, blue dot), an impressive piece that belonged to an over life-size Greek-style bronze statue, either of the goddess Athena or of a hero or ruler in military dress.[115] Such subjects would fit well in a military context as an object of display and public honours, although if the statue was erected there, the zone is probably a public or Hellenic sacred space rather than a domestic area.[116]

Other finds from across the site that also indicate that soldiers lived or at least served at the city are shown in Figure 5.6. These artefacts include numerous examples of arms and armour such as arrows, spears, and fragments of helmets, the majority of which are unpublished.[117] These finds are more broadly distributed than the horses and elephants, extending into and north of the Grand Canal. There is nevertheless overlap in the north canal and in the zone east of the main temple. Lead shot is also widespread,

---

[112] Winnicki 1985; Clarysse 1985; Fischer-Bovet 2013.
[113] Dasen 1993, 59, 68-9, 76-7; Andrews 1994, 40; Bailey 2008, 18-19.
[114] Goddio 2011, 127.
[115] Kiss 2008, 226-227, 337, no. 308; Libonati 2010, 35-36, 79, no. 2.
[116] Kiss (2008, 226) dates the helmet crest to the 4th century B.C., but does allow for the possibility that it is a detailed later copy. Libonati provides a wider chronological range of 'Late Classical-Ptolemaic' (2010, 35). On public honours: Smith 1991, 9-10. His overview contextualises Hellenistic sculpture, but the same considerations apply with either date range provided for the crest.
[117] Goddio and Fabre 2008, 221-223, 336-337, nos 306-315. This distribution is preliminary; a final distribution cannot be presented until the weaponry corpus is studied in detail.

but more concentrated in the North Canal.[118] A marble epitaph with a Greek inscription, discovered just past the western end of the Grand Canal, offers eloquent testimony to the use of these weapons (Fig. 5.6, green dot); its inscription praises a Greek soldier named Lykios from Priene who died in battle.[119] Willy Clarysse and Marc Huys date the epitaph to the early or middle Ptolemaic Period, contemporary with the statuettes discussed above.[120]

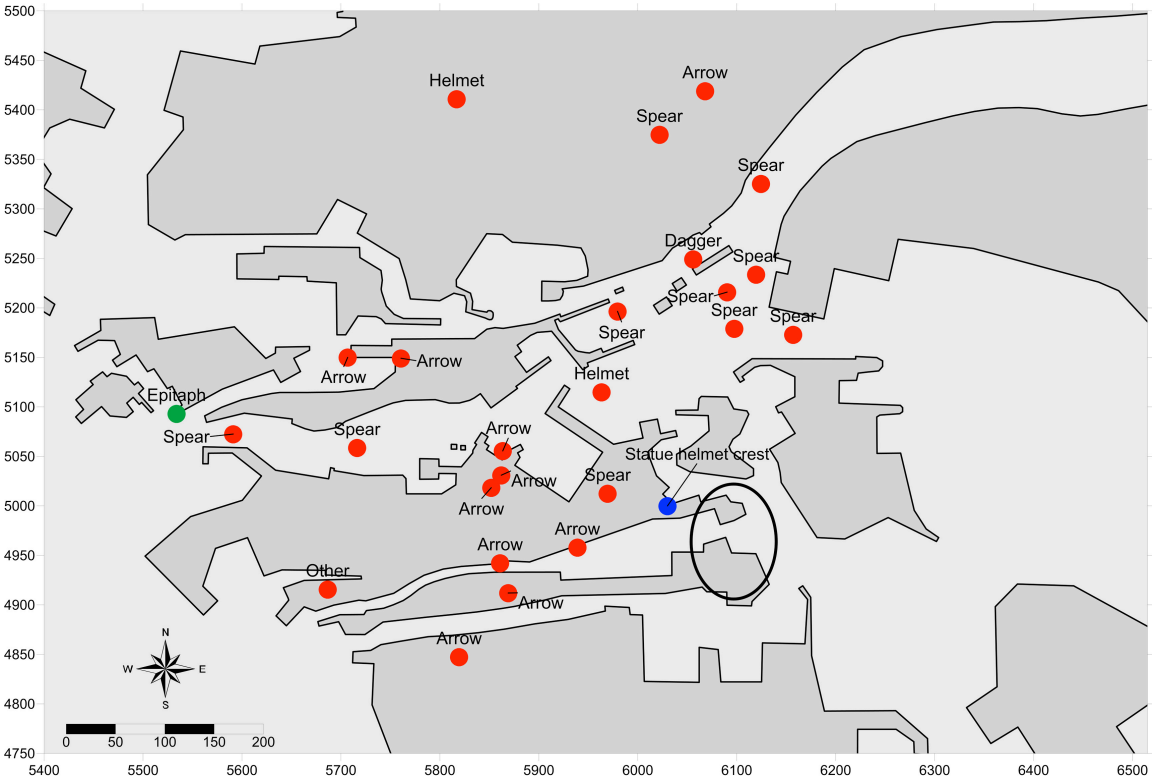



Figure 5.6. Distribution of Thonis-Heracelion arms and armour (red), and the locations of the fortified port (black), statue helmet crest (blue), and epitaph (green).

How long were soldiers stationed in the port, if they did live there? To answer this question, we must consider the role of the community on Nelson's Island, and how people there interacted with the community at Thonis-Heracleion. The University of Turin excavated for over ten years at Nelson's Island, about 6km north-west of Thonis-Heracleion, discovering a Ptolemaic Greek settlement with a complex water system, private houses, a Doric-style building, and a large fortified wall, in addition to a Late Period cemetery.[121] Paolo Gallo interprets the site as a settlement intended to guard and defend the mouth of the Nile and Thonis-Heracleion because the site preserves

[118] Sling bullets: Goddio and Fabre 2008, 223, 342, no. 356; see van der Wilt in preparation, for sling bullet distribution.
[119] Bernand 2002, 97-98; Clarysse and Huys 2003; Goddio and Fabre 2008, 261, 312, no. 131.
[120] Clarysse and Huys 2003, 147.
[121] Gallo 2011, with bibliography.

large fortifications.[122] Finds, including pottery and coins, suggest that the settlement came to an end around the first quarter of the third century BC, perhaps 270 BC.[123] Gallo suggests that the abandonment of the site may have been due in part to the gradual rise of Alexandria and the corresponding decline of Thonis-Heracleion.[124]

Research at Thonis-Heracleion, however, shows that the city probably ceased to function around the mid-second century BC.[125] One of the latest large-scale artefacts is the stele of Ptolemy VIII, which is thought to date between either 141/140-131 or 124-116 BC.[126] The difference in chronology between the two sites raises the question of how the settlements interacted. Two interpretations are possible: Thonis-Heracleion had a concurrent military settlement that lasted longer than the one on Nelson's Island, working together when both were active, or the military contingent on Nelson's Island moved to Thonis-Heracleion towards the end of its lifespan for reasons as yet unknown. The dates of the finds from Thonis-Heracleion that indicate a military presence — the statuettes and the epitaph — range from the late 4th-2nd century BC, as stated above. Future studies of the weaponry may further refine the chronology and may indicate whether soldiers were also stationed there in the Late Period, when the port's role as a control point for trade was even more important.

***The Cultural Community: Comparisons***

Thonis-Heracleion was part of a network of cities in the North-Western Delta. Comparisons with the statuettes from the other IEASM excavations at Alexandria and East Canopus, however, provide little information. Statuette finds from Alexandria are too few to provide a comparison, numbering around fourteen in 2010. Most are fragmentary. Five are recognisable, including three nude males (A4767, A4444, A4466), one male deity, possibly Zeus or Poseidon (A4955), and a scale weight in the form of a bust of Isis (A1915).[127] Significantly all, including the fragments, are bronzes executed in Greek style, similar to the Athena statuette (**114**). These finds, however, speak only to their harbour context, not for trends throughout Alexandria.

---

[122] Gallo 2011, 133-134.
[123] Gallo 2011, 133.
[124] Gallo 2004, 139; Goddio and Fabre 2008, 27-28; Goddio 2011, 129.
[125] Grataloup 2008, 251; 2010, 155-156, areas F and G, and at the latest by the first century BC (Goddio 2011, 129).
[126] Thiers 2008, 2009.
[127] All of the Alexandria statuettes are housed in the Maritime Museum, Alexandria.

The East Canopus finds offer closer parallels but are also limited, with around ten examples. Exact parallels for the lead horse and riders (C3387, C3710), the elephants (C3246), and a bird head (C3706) were discovered, and these should be seen as part of the wider Alexandrian practice of dedicating lead statuettes.[128] The site has also produced several lead miniature vessels similar to those found with the lead child deities and elephants and comparable with examples in the Graeco-Roman Museum, Alexandria and the British Museum, London.[129] East Canopus has a few Egyptian-style pieces, including an Anubis amulet (C3244), a baboon (C3768), and a Hathor crown (C3492). The statuettes and amulets from both sites are unpublished but I will be conducting a full study in the near future.

A much more fruitful comparison can be made with Thonis-Heracleion's 'sister city' Naukratis. Naukratis is best known as the first Greek settlement in Egypt and for its important role as a port of trade.[130] It was founded in the Saite Period but was continuously occupied throughout the Late, Ptolemaic, and Roman Periods, gradually dying out by the 7th century AD.[131] In many ways, Naukratis was not a typical settlement of the Late and Ptolemaic Periods because of its large, diverse Greek population and considerable wealth, but it nevertheless offers an excellent comparison because of the close trading connections between the two.

Both cities were situated on the Canopic branch of the Nile; Thonis-Heracleion sat at the mouth while Naukratis was about 65km upstream. To reach Naukratis, traders and their goods went through Thonis-Heracleion.[132] The most explicit links between the two ports are the Naukratis and Thonis-Heracleion stelae, also known as the Decree of Sais. These stelae date to the reign of Nectanebo I and decreed that taxes from transit trade had to be given to the Temple of Neith at Sais. The texts are identical except that the Naukratis example states that Naukratis must furnish taxes, while the second stela names Thonis-Heracleion.[133] Stefan Pfeiffer hypothesizes on the basis of the stelae that after Amasis' reign, the cities worked in a complementary manner, with taxes on imported goods taken at Thonis-Heracleion and domestic goods at Naukratis.[134]

---

[128] See Chapter 2, 'Cults'. All of the Canopus parallels are housed in the Maritime Museum, Alexandria.
[129] Boussac and Seif el-Din 2009, 233-236.
[130] See, for example, Bresson 2000; Möller 2000; Pfeiffer 2010.
[131] Recent overviews: Villing and Schlotzhauer 2006; Villing 2013; Villing *et al.* 2013.
[132] Villing and Schlotzhauer 2006, 5; Fabre 2008b; Pfeiffer 2010.
[133] Naukratis: Leonard 1997, 13 on the find situation. Thonis-Heracleion: Yoyotte 2001, 30-32 and 2008a; Fabre 2008b, 232-234; von Bomhard 2012.
[134] Pfeiffer 2010.

Thus Naukratis and Thonis-Heracleion were closely connected in trade, but how do the cultural characters of the two cities compare for the present discussion in relation to the statuettes? In reviewing the material from both sites, one is tempted to contrast the two cities and to create a narrative in which Thonis-Heracleion represented the 'Egyptian face' of international trade through the Canopic branch, while Naukratis represented the 'Greek face'. Although I argue that the foreign-style statuettes at Thonis-Heracleion are informative, at about 17% they comprise a relatively small portion of the corpus. Furthermore, the vast majority of the Greek and Ptolemaic-style statuettes are lead, a material that is not well represented at other sites in Egypt.[135] Aside from lead, so far the site has produced only eleven terracottas and five stone figures of any style – Greek, Ptolemaic, and Pharaonic.

This small number does not compare well with the over 1,500 terracotta and limestone figurines from Naukratis.[136] Moreover, almost all the published archaeological material from Naukratis is Greek, with a heavy concentration on the 7th and 6th centuries BC, the period for which we have the least information from Thonis-Heracleion.[137] In studies that consider Naukratis' role in Egypt and the Mediterranean, scholars frequently emphasise the port's identity as a Greek city.[138] Material that is more comparable to the main body of the statuette corpus, such as the Pharaonic-style bronzes,[139] has been largely ignored except in catalogues devoted specifically to that type of material.[140]

Most studies of Naukratis, however, have been based on the publications of the early and limited excavations by Flinders Petrie, Ernest Gardiner, and David Hogarth.[141] These publications and the excavations were not comprehensive. In order to complement and document those excavations, the British Museum research project, 'Naukratis: Greeks in Egypt', seeks to catalogue all the artefacts excavated at Naukratis,

---

[135] Lucas and Harris 1962, 244; van der Wilt in preparation.
[136] Ross Thomas, personal communication.
[137] Möller 2000, 89-181; select articles in Höckmann and Kreikenbom 2001; Villing and Schlotzhauer 2006; Nick 2006; Höckmann and Königs 2007; Schlotzhauer and Weber 2012.
[138] Bresson 2000; Möller 2000; Demetriou 2012, 105-152.
[139] Petrie 1886, 41-42.
[140] Weitz 2012, 442-446; Thum 2012.
[141] Petrie 1886; Gardiner 1888; Hogarth *et al.* 1898-1899; Hogarth *et al.* 1905.

which are today spread across at least 60 museum collections.[142] The team has also begun surveys of Naukratis with the intention of excavating in the future.[143]

The team's findings have both established how large the numbers of excavated artefacts from Naukratis are — over 17,000 extant of hundreds of thousands originally excavated, many unpublished[144]— and highlighted the ways in which the archaeological material is biased towards early Greek finds, in part because of what the excavators chose to keep or discard, and in part because of what subsequent scholars have chosen to publish.[145] Another result is an increased awareness of the Egyptian finds from the early excavations. These findings advance the work of earlier studies that put a heavier emphasis on Naukratis' Egyptian population.[146] Recent studies have reaffirmed the existence of the Egyptian Great Temenos as well as countering arguments that the temple was founded only in the Ptolemaic Period,[147] arguing instead that it was probably a focal point of worship even from the earliest stages of Naukratis' existence.[148]

Many Egyptian finds were never mentioned in publications by Petrie and his successors. All the known Egyptian finds from Naukratis are being documented by Aurélia Masson-Berghoff from the British Museum Naukratis project. Preliminary investigations show that the number of Egyptian-style bronze statuettes ascribed to Naukratis is much larger than was reported by Petrie,[149] and closer to the number at Thonis-Heracleion.[150] The terracotta and limestone figurines from the site, which are being recorded and analysed by Ross Thomas, also have a much more significant Egyptian profile than previously thought.[151] Thus, the face of Naukratis is changing through these new investigations and the view of it as an almost purely Greek settlement is being modified to incorporate the Egyptian population.

These new studies bring out the congruencies between the Greek, Ptolemaic, and Egyptian-style materials at both sites – congruencies which show that both had active,

---

[142] Villing *et al.* 2013, '4. Reconstructing a 19th-century excavation': http://www.britishmuseum.org/research/online_research_catalogues/ng/naukratis_greeks_in_egypt/introduction/reconstructing_an_excavation.aspx
[143] Thomas and Villing 2012.
[144] Villing *et al.* 2013, '4. Reconstructing a 19th-century excavation'. See fn. 141.
[145] Schlotzhauer and Villing 2006, 53, 56; Villing *et al.* 2013, '4. Reconstructing a 19th-century excavation'. See above.
[146] Edgar 1922; Yoyotte 1982-1983, 1991-1992; Muhs 1994.
[147] Muhs 1994; Möller 2000, 108-113.
[148] Leclère 2008, 113-157, esp. 117, 120; Spencer 2011, 96-101; Thomas and Villing 2012.
[149] Petrie 1886, 41-42.
[150] Aurélia Masson-Berghoff, personal communication.
[151] Ross Thomas, personal communication.

multicultural Greek and Egyptian communities, or at least communities with a degree of hellenisation. The late 5th century Cypriot head, the earliest datable foreign-style statuette at Thonis-Heracleion, demonstrates that people at the port engaged in the same type of elite trade as Naukratites who acquired Cypriot-style *kouroi*, although the Thonis-Heracleion example is later than comparable material from Naukratis.[152] At both sites soldiers may have dedicated foreign-style objects, at least in the 7th-6th centuries in Naukratis, and in the Ptolemaic Period for Thonis-Heracleion.[153]

Each site has produced several hundred Egyptian-style bronzes, as many or more from 'Greek' Naukratis as from 'Egyptian' Thonis-Heracleion. The cults appear to have had different emphases, with a greater focus on solar cult at Naukratis through representations of lizard, shrew, and ichneumon sarcophagi.[154] Among the terracotta and limestone material, many of the same iconographic types are present, whether executed in Egyptian, Greek, or Ptolemaic styles; these include phallic figures, cavalrymen, 'Baubo', Tanagra-type women, child deities, nude female plaque figurines, theatre masks, and terracotta pigs or boars.[155]

Such parallels are not surprising in view of the amount and range of the material at Naukratis. They may reflect broad patterns of votive practice in the Delta rather than a system of cultic exchange between these two particular ports.[156] One statuette (**108**), however, indicates that there was a direct link between the manufacturing centres. As noted in Chapter 2, its mould sibling, more complete and better preserved, is from Naukratis.[157] Plaque **108** was probably purchased at Naukratis and then taken back downstream. It is unlikely that the mould travelled as we have no evidence that

---

[152] Fourrier 2001, 41; Nick 2006, 19-22; Höckmann and Königs 2007, 37-43.
[153] Wilson 2010, 246; Williams and Villing 2006; Villing *et al.* 2013, '2. Naukratis: A city and trading port in Egypt' http://www.britishmuseum.org/research/online_research_catalogues/ng/naukratis_greeks_in_egypt/introduction/naukratis_a_city_and_port.aspx
[154] Weitz 2012, 442-446; Thum 2012. See Thum (2012, 54-56) for arguments for these bronzes belonging at Naukratis, not being destined for Sais as Weitz suggests (2012, 446).
[155] Naukratis, see all in Villing *et al.* 2013, with bibliography: Phallic figures (British Museum, London, 1973,0501.28), cavalrymen (Gutch 1898/1899, 95, nos 281-282; Museum of Classical Archaeology, Cambridge NA499 and NA500), 'Baubo' (Gutch 1898/1899, 72(i.g); British Museum, London, 1973,0501.55), Tanagra-type women (Gutch 1898/1899, 69-70; Bolton Museum, Manchester, 1886.31.30), child deities (Gutch 1898/1899, 72(ii.b), 85-97; British Museum, London, 1973,0501.65), nude female plaque figurines (Gutch 1898/1899, 82, nos 57-58; Museum of Classical Archaeology, Cambridge, NA589), theatre masks (British Museum, London, 1886,0401.1439), and terracotta pigs or boars (Museum of Classical Archaeology, Cambridge, NA429, NA443, and NA446). These are sample comparisons most closely related to Thonis-Heracleion material from Villing *et al.* 2013, the Naukratis catalogue; the main body of the terracotta material from Naukratis is in process of online publication.
[156] See Syzmańska 2005 for Athribis.
[157] Museum of Classical Archaeology, Cambridge, NA589 in Villing *et al.* 2013. Many thanks to Ross Thomas for sharing this information about the mould sibling and other aspects of his current research on the Naukratis terracotta and limestone figurines.

terracotta figurines were produced at Thonis-Heracleion. Naukratis, however, was an important centre of terracotta production.[158] These two pieces have a broader significance: the fact that a mould sibling of a Naukratis piece has been found among only eleven terracottas at Thonis-Heracleion, suggests that this was no random connection between the two cities. For this exchange to show in such a limited sample, such exchanges must have been frequent. It also speaks to Naukratis' large scale of distribution, probably to many nearby cities.

Moreover, just as Naukratis was more 'Egyptian' than many scholars have accepted, it is possible that Thonis-Heracleion could have been more 'Greek' than it first appears from the evidence of the statuary. One clue that the statuettes may under-represent the scale of Greek presence, or at least participation in hellenised cult rituals, is that other categories of artefacts show a higher Greek proportion than the 17% in the small-scale statuary. The pottery includes significant amounts of imports from Greece and the Eastern Mediterranean from as early as the Saite Period.[159] The Cypriot limestone head, for instance, was found in the context of 5th and 4th-century imported pottery.[160] Fabre and Goddio demonstrate that this find, which is anomalous in relation to the other statuettes, fits smoothly into the trade patterns exhibited both by the pottery at Thonis-Heracleion and throughout Egypt.[161] The site has also yielded over one hundred commercial weights, of which the majority are Greek rather than Egyptian.[162]

For non-metallic materials, retrieval practices play a role, and excavation patterns further affect the typological profile of the statuettes. As noted previously, much of the excavation has revolved around Egyptian temples and canal systems, rather than domestic areas.[163] Physical remains of Greek sanctuaries have not been identified, which account for the biggest difference between the Thonis-Heracleion and Naukratis cultic material.[164] There is, however, some evidence that Greek structures existed. A stippled gold plaque commemorates the foundation of a gymnasium for Herakles by Ptolemy III.[165] The plaque was not *in situ*, and remains of this gymnasium have not been identified, but the plaque exemplifies that there is still much more to discover at

---

[158] Gutch 1898/1899, 68; Edgar 1905, 132-133; Thomas and Villing 2012, 96.
[159] Grataloup 2008, 246; Grataloup 2010, 151-153.
[160] Fabre and Goddio 2012, 85-91.
[161] Fabre and Goddio 2012.
[162] Van der Wilt 2010, 159-161; forthcoming.
[163] See, especially, Chapter 3, 'Terracotta, Limestone, Faience, and Other Materials.'
[164] Möller 2000, 94-108 for a concise summary.
[165] Yoyotte and Clauss 2008, 140-143.

Thonis-Heracleion. The extent of the site, particularly to the north, is unknown. Greek sanctuaries may have also been outside Thonis-Heracleion, but still nearby, such as the contemporary Doric-style structure at Nelson's Island.[166] Nelson's Island also had Greek-style houses and a bath complex.[167] And as noted previously, the community at Nelson's Island and the one at Thonis-Heracleion probably cooperated closely.

The north-western part of the site is the most promising in terms of uncovering unknown buildings or domestic areas. Much of the northwest has only been preliminarily surveyed because it is covered by dense sand dunes that make excavation difficult.[168] The zone northwest of the Grand Canal, along the Western Lake, has a larger concentration of domestic pottery than other zones; on this basis, Catherine Grataloup pinpointed it as the most likely area for a domestic quarter.[169] The northern zone also produced the epitaph, the Herakles foundation plaque, and the only Greek-style bronze statuette, an Athena (**114**) — see Figure 5.6 above. The lack of excavations in the north-west may also help to explain the chronological imbalance between Naukratis and Thonis-Heracleion. What early material Thonis-Heracleion does have comes from the north,[170] and the excavators have hypothesized that as excavations advance, more material from the 7th-5th centuries will be recovered.[171]

For all these reasons, the visibility of terracotta and limestone statuettes may be obscured, and along with them some of the Greek and Ptolemaic-style material. The scale of the material at Naukratis shows that Thonis-Heracleion cannot have rivalled Naukratis as 'the main foothold and residential base for Greek traders',[172] but these archaeological considerations, together with the increasing amount of Egyptian evidence identified at Naukratis, show that the contrast between 'Greek Naukratis' and 'Egyptian Thonis-Heracleion' is too stark and should be qualified.

Thonis-Heracleion has produced a small, but significant amount of evidence for foreign-style statuettes, which suggests that the town hosted a multicultural community. If soldiers were involved, as I suggest, then the dedicants could have been Greeks, like Lykios, who came from different parts of the Mediterranean, or Egyptians who fought

---

[166] Gallo 2010, 152-153; 2011, 141-142.
[167] Gallo 2010,
[168] Goddio 2010, 126.
[169] Grataloup 2008, 246.
[170] Grataloup 2008, 246-247; Grataloup 2010, 151-154, 158.
[171] Franck Goddio, personal communication.
[172] Villing *et al.* 2013, '2. Naukratis: A city and trading port in Egypt'. See above.

alongside those Greeks, or men with a mixed background who may have identified strongly with both cultures. The profile of the cultic material at both Naukratis and Thonis-Heracleion is incomplete because it is determined by retrieval practices and by the nature of the buildings excavated. As excavations and research continue at both sites, we may see more examples of economic, cultural, and cultic exchange between the two sites – systems of exchange that belie static and opposing designations as 'Greek' or 'Egyptian'.

## 5.3. Egyptian Dedication Patterns

### *How Representative is Thonis-Heracleion?*

In the previous sections, I worked from the Pharaonic-style and Greek and Ptolemaic-style distributions outlined at the start of this chapter, discussing the relationship between Greek-style and Egyptian-style statuettes, and using the distributions to suggest what the foreign-style material may say about cultural communities in Thonis-Heracleion. An important, final topic is how the Egyptian-style statuettes conform to or differ from votive practice elsewhere in Egypt. I review this question on the basis of the distribution of Pharaonic-style figures and the composition of the accumulations outlined in Chapter 1.

Below I describe select Egyptian sites, and the distribution of their bronze votives, chosen for how their material represents the range and variety of practices related to votive statuettes. The deposits vary greatly in the amount of material discovered, in the security of their provenance, and in the accuracy and depth of their publication, but all of them help to establish how far the finds at Thonis-Heracleion are representative of the period.[173]

[173] For comprehensive lists and discussion on provenanced finds of bronze statuettes, see Katja Weitz's volume on votive anthropomorphic and animal bronzes of the Delta (Weitz 2012, esp. 381-462). No equivalent overview is available for finds outside of the Delta.

Athribis (Late Period)

Two main deposits of the Late Period were discovered at Athribis, a site in the central Delta.[174] The first is a cache of over 55 bronze pieces, discovered in 1963.[175] Even though this is a relatively small deposit, it is extremely homogeneous: of this group, 41 pieces (75%) represent child deities. This cache was discovered in the magazines of a temple at Athribis, which Pascal Vernus assumes to be a temple of Harpakhered because of the homogeneous nature of the material (or a temple with a chapel dedicated to Harpakhered).[176] The only others represented are six statuettes of Isis (two alone, four with a child deity), one of Khonsu, an ichneumon, a serpent deity, and two aegis amulets. One of the registered 55 items denotes nine statuette bases, seven of which Vernus believes to belong to child deities.[177]

The second group of objects was in two jars found not in the temple, but near the necropolis.[178] Most of the objects were silver amulets and are thought to be a silversmith's hoard.[179] Again, there were many representations of child deities, but in this case the child amulets do not predominate over other types, such Amon-Re and lion-headed goddesses. These two deposits demonstrate that even at the same site in the same period, but in different archaeological contexts, both homogeneous and heterogeneous deposits of figures may be found. The material in the second deposit, however, is equally as homogeneous as the first – silver in one, bronze in the other – and silver was an even more expensive and prestigious material.

Saqqara (Late Period-Ptolemaic Period)

Some of the largest and best contextualised deposits of statuettes come from Saqqara, a location for both temples and catacombs of animal burials.[180] Between 1964 and 1976, excavations at this site produced more than 1,800 statuettes, many from

---

[174] Kamel 1968, 4 gives a Ptolemaic date based on the fact that the Harpokrates has his finger in his mouth, but this is a motif apparent before the Ptolemaic Period. Vernus 1978, 113 places the find in the Late Period but without explanation. Weitz 2012, 381-385 provides a comprehensive overview of the material including some small amounts of finds from other excavations, and provides a list of the known statuettes, with commentary on the cults represented.
[175] Composition of the find: Kamel 1968, 65-7; Vernus 1978, 113-114.
[176] Discovery at the temple: Kamel 1968, 70; Harpokrates temple/chapel hypothesis: Vernus 1978, 114.
[177] Vernus 1978, 113.
[178] Cemetery location: Vernus 1978, 116. Composition of the hoard: Engelbach 1924, 181-185; Vernus 1978, 116.
[179] Engelbach 1924, 181.
[180] Smith 1974, 21-92; Martin 1981; Green 1987; Jeffreys and Smith 1988; Davies and Smith 1997; Hastings 1997; Nicholson 2004, 2005a, 2005b; Davies 2006; Davies and Smith 2005, 2006; Davies 2006. For earlier unpublished excavations at the nearby Serapeum *dromos* by Mariette in 1851, see Ziegler 1987, 1996.

where they were deposited in caches in antiquity.[181] The vast majority of the material remains unpublished, but a useful summary has been produced, and limited sections of the material published.[182] Katja Weitz provides the fullest and most coherent overview of the published bronze statuettes from the site.[183]

Most of the deposits come from Phases II and III of the buildings associated with the cults of the Mother of Apis cow, baboons, and falcons; these phases are assigned to the first half of the fourth century BC and the Ptolemaic Period respectively.[184] In addition to bronze artefacts, votives of other materials were found, but there is no published statement of the proportion of metal objects to other materials. Of the 1800 bronze artefacts 874 (49%) represent anthropomorphic and animal-headed deities, 267 (15%) are zoomorphic, and the rest consists mainly of portions of statuettes and ritual equipment. Of the anthropomorphic and animal-headed deities, Osiris bronzes and Osirian groups account for 57% of the assemblage, with Isis and Harpakhered groups a distant second with 18%. Bovids, shrews, and falcons dominate among the zoomorphic category.[185]

Saqqara provides the best information regarding the position and variety of votive caches. In general, the caches derive from low levels, near foundation levels of temples. Caches could be small or large, holding a range from five to two hundred objects.[186] They were usually deposited around the outside of precincts, and more rarely in temples. One of the caches most frequently cited was deposited in a specially dug pit east of Gate D; this cache had over 100 statuettes, most of them bronze, with many stored carefully in wood *naoi* and wrapped in linen.[187] This cache is frequently cited because it illustrates the form of a cache neatly, the abundance of wrappings was novel, and the statuettes were in excellent condition.

Most caches at Saqqara — and elsewhere — were not like the one just described. Harry Smith breaks down the caches from the site into three types:[188] (1) aged, damaged, and broken statuettes that could no longer be displayed; (2) statuettes in

---

[181] Smith 1974, 49-57; Davies 2007, 178-179. This tally does not include a cache of around 600 objects, almost all bronze situlae, discovered in 1995: Nicholson 2004, 2005a.
[182] Davies 2007; for bibliography, see note 8. See Smith 1974, 49-57 for an overview of the deposits.
[183] Weitz 2012, 406-440.
[184] Davies 2007, 174-177.
[185] Davies 2007, 178.
[186] Davies 2007, 178.
[187] Davies 2007, 179; Smith 1974, 50 provides Emery's description of the find. See Chapter 3, 'Statuettes' above for discussion about the wrappings.
[188] Smith 1974, 55-57.

good, even mint, condition purposefully deposited as part of a foundation ceremony; and (3) statuettes in good or fair condition that were cleared from the temples for lack of space.[189] Smith relates the caches of damaged statuettes to possible pillage and sacking from Persian invasions; the second category may include finds like the cache near Gate D, which Smith suggests was made specifically for deposition; and to the final category, Smith assigns most of the smaller deposits.[190]

Weitz, in her volume on Delta bronzes, distinguishes between sacred animal bronzes and anthropomorphic bronzes. She finds that animal bronzes were generally dedicated in animal necropoleis, while anthropomorphic bronzes and hybrids were more common in temple complexes. Some anthropomorphic subjects, such as kings, Osiris, and the family of Osiris, occupied both zones, but animal bronzes, particularly animal sarcophagi, were nearly always confined to the necropoleis.[191] While this distinction between sacred animal bronzes and anthropomorphic bronzes is a trend that is found at sites such as Bubastis, Weitz's analysis largely drew from the patterns visible at Saqqara. Most of the animal bronzes listed by Davies, particularly the shrews and the falcons, were found in the Falcon Necropolis.[192]

Naukratis (Late and Ptolemaic Periods)

In Naukratis, one large cache of Egyptian-style votives was found in a location that Petrie described as a house in the southern portion of the town.[193] Petrie, however, considered the possibility that it was a sacred context; he wondered "whether this was a place to throw in votive bronzes, or whether these were all placed in at once to sanctify the substratum of a building above".[194] Thum, preferring a sacred context, questions the identification of this chamber as a house and proposes that it was a storage chamber in some way related to the Great Temenos.[195] Weitz suggests that the context may have been commercial, with the bronzes intended to be sent to Sais or elsewhere, because the

[189] Smith 1974, 55-56.
[190] Smith 1974, 56-57.
[191] Weitz 2012, 468-481.
[192] Falcon necropolis: Davies and Smith 2005.
[193] Petrie 1886, 41. Weitz (2012, 49-56) provides a list and overview of the finds, taken from her own studies of the material. Aurélia Masson-Berghoff, who is studying the Egyptian finds from Naukratis (see 'The Cultural Community: Comparisons' above), has found records for other statuettes beyond those mentioned by Petrie in his publication. Ross Thomas and Aurélia Masson-Berghoff, 'Naukratis, 'Mistress of ships', in context', Conference, University of Oxford, *Heracleion in Context*, March 16, 2013.
[194] Petrie 1886, 41.
[195] Thum 2012, 49-50.

deities represented better reflect known cults at Sais than at Naukratis.[196] As Thum argues, however, the description of the chamber does not fit a commercial context, and the deposit looks like a votive cache; the cult to which the statuettes belonged may be otherwise unattested.[197]

A large portion of the find was stolen shortly after the discovery, but Petrie listed the votives that remained — about 155 objects:[198] of those, more than two-thirds (110) are zoomorphic figures, another 32 are anthropomorphic deities, 8 (5%) are hybrid deities, and the remaining 5% or so comprise miscellaneous objects. About 93% are bronze, the remainder faience or other materials. Petrie dated the find by two pieces of Greek pottery, which he assigned to the early Ptolemaic Period, but this date is not secure.[199] He noted that about one-third of the statuettes were burnt or broken.[200]

Dendara (Greco-Roman Period)

Dendara is the site of one of the most important Greco-Roman temples in Egypt and its votives reflect its stature. The votive deposits fall into two main groups from the First Intermediate Period and from the Greco-Roman Period.[201] Most were uncovered at the end of the 19th century when the Antiquities Service cleared the *sebakh* from around the temple and the area between the temple and the temenos. Though the finds were scattered, without a precise context, their association with the temple is clear.[202] A.F. Shore published an article on silver vessels and two inscribed bronze tablets.[203] While the silver vessels may offer a good parallel in another material for the bronze vessels discovered at Thonis-Heracleion, better parallels for the statuettes come from a later publication by Aly Abdalla.[204]

From the initial clearing of the *sebakh* in the 19th century, we have records of thirty small-scale objects.[205] About half of the deposit comprised bronze 'cobra snakes', a third were miscellaneous objects, and the remainder were anthropomorphic and

---

[196] Weitz 2012, 445-446.
[197] Thum 2012, 49-56. Masson-Berghoff also doubts Weitz's hypothesis that the Naukratis statuettes were intended for Sais, for similar reasons to those outlined by Thum (conference paper, *op cit.*).
[198] Petrie 1886, 41-42.
[199] Masson-Berghoff has re-examined the pottery fragments and suggests a Late Period date for them (conference paper, *op cit.*). Thum also suggests a Late Period date for the cache (2012, 49), but without detailed argument.
[200] Petrie 1886, 41.
[201] Abdalla 1995, 28.
[202] Abdalla 1995, 19.
[203] Shore 1979: silver vessels, 138-139; tablets, 139-518.
[204] Abdalla 1995.
[205] Abdalla 1995, 20-21; Cairo JE 45712-45736, 45737-45740.

mixed-form deities. Bronze objects constituted 90% of the assemblage. In 1918, a further 48 votives were discovered in a deposit near the sacred lake.[206] In this case, zoomorphic subjects, though present, do not dominate the assemblage, comprising only about 23%, compared with anthropomorphic deities at 17%, objects of personal adornment 12.5%, ritual equipment 30.5%, and miscellaneous objects 17%. The primary material of this assemblage is different as well: silver, or gilded silver, makes up almost all the deposit. Two further caches discovered in 1915 and 1919 consisted mostly of silver vessels, not figured objects, and many were quickly dispersed on the art market. Finally, another hoard, recovered in 1914 from clandestine excavations, 'included jewellery, vessels and other items'.[207]

In all of these deposits, the range of votives is extremely varied; no single figure dominates in terms of numbers, except perhaps the uraei in the first deposit. Even though the temple was dedicated to Hathor, representations of Hathor are not common. The items relating to personal adornment in the second cache (12.5%) and in the last (from 1914), however, may relate to Hathor. Sistra too, are relevant to Hathor. Several dedications of jewellery are recorded in Pinch's study of votives to Hathor from the New Kingdom and their presence at Dendara may demonstrate a continuation of votive practices from earlier periods, in subjects represented if not in material.[208] The high quantity, however, of bronze in the first cache (90%) and silver in the second (96%) demonstrates a marked change in practice from the dedication of low-cost votives in the New Kingdom; the two main deposits are heterogeneous in subject, but homogeneous in material. A further point that Abdalla highlights is that many votives from the second cache (1918) form pairs or complement one another in some way.[209]

'Ayn Manawir (Late Period)

The site of 'Ayn Manawir produced a large deposit of over 400 statuettes, a small secondary deposit of eight statuettes, and several Osiris statuettes were scattered throughout the site. Most of the statuettes were found under a collapsed building, which has been identified as a temple of Osiris from the finds and some inscriptions.[210] 'Ayn Manawir is located in the southern part of the Kharga Oasis. The site flourished between

[206] Abdalla 1995, 22-25; Cairo JE 46351-46396, 46400-46401.
[207] Abdalla 1995: 1915 and 1919 hoards, 26-27; 1914 hoard, 27.
[208] Pinch 1993: jewellery, 265-281.
[209] Abdalla 1995, 25-6.
[210] Wuttmann *et al.* 2007, 171.

470 BC and 370 BC, and the deposits date to this period.[211] Like those at Saqqara, the deposits at ‘Ayn Manawir have a high percentage of Osiris statuettes; the main deposit has 370 statuettes of Osiris, 10 of other deities or attributes, as well as some isolated or unidentifiable fragments, so that about 97% of this deposit consists of figures of Osiris. The second deposit of eight statuettes includes seven statuettes of Osiris and one of Isis.[212]

The site is unique because many of the statuettes were *in situ* – not in secondary caches as at Saqqara and other sites, but where they were placed on display in the temple. Most of them were grouped around the naos or around the walls of the rooms in which they were discovered. Wuttmann suggested that the statuettes were not deposited at one time (for example at a festival) but accumulated gradually since there appears to have been heavy traffic through the rooms and no way of sealing off the deposit.[213] In Wuttmann’s view, despite ‘Ayn Manawir’s unique state of preservation, it was representative of a temple in a self-sufficient community of its time.[214]

Karnak (Late Period-Ptolemaic Period)

During excavations in the courtyard of the seventh pylon of the temple of Amun-Re at Karnak in 1903, Georges Legrain discovered a deposit of over 17,000 bronze statuettes and small objects, as well as over 800 statues and statuettes in stone and numerous stelae. The find is generally called the ‘Karnak cachette’ and the date of deposition was around 200 BC, although many of the statues were older and accumulated in the temple over time, probably over a 300-400 year period.[215] The discovery was never fully published. Very little information was given about the composition of the statuettes other than the fact that they were bronze and Osiris comprised a large component.[216] A recent project by the Institut français d'archéologie orientale (IFAO) catalogues and researches as much of the Karnak finds as possible. The majority of the information gathered concerns the large statuary. The online database provides a bibliography not only of Legrain’s reports but also all publications that include information about, or objects from, the Karnak cachette, and the database also

---

[211] Wuttmann *et al.* 1996, 1998, 2007.
[212] Composition: Wuttmann *et al.* 2007, 167-168.
[213] Wuttmann *et al.* 2007, 171.
[214] Wuttmann *et al.* 2007, 173.
[215] Legrain 1904, 1906; Young 1967, 275; Azim and Réveillac 2004; Jambon 2009; Coulon *et al.* 2011.
[216] Description of the finds from the second campaign: Legrain 1906, 12. At that point, the bronzes totalled about 16,000: Legrain 1906, 1.

includes as much photographic evidence of the finds as possible.[217] Most of the statuettes, however, are impossible to trace as they were not registered with the Egyptian Museum in Cairo. Many were sold and are dispersed in collections around the world; some may have been stolen.[218]

The finds doubled the collection of statuettes at the Egyptian Museum, Cairo.[219] The massive amount of material alone qualifies this discovery for discussion even though little detail is available. Karnak was the largest single temple complex in ancient Egypt, and a smaller institution probably could not have yielded such a large find, but it does provide useful information by demonstrating how large a deposit could be.

### *Distributions and Dedication Practices*

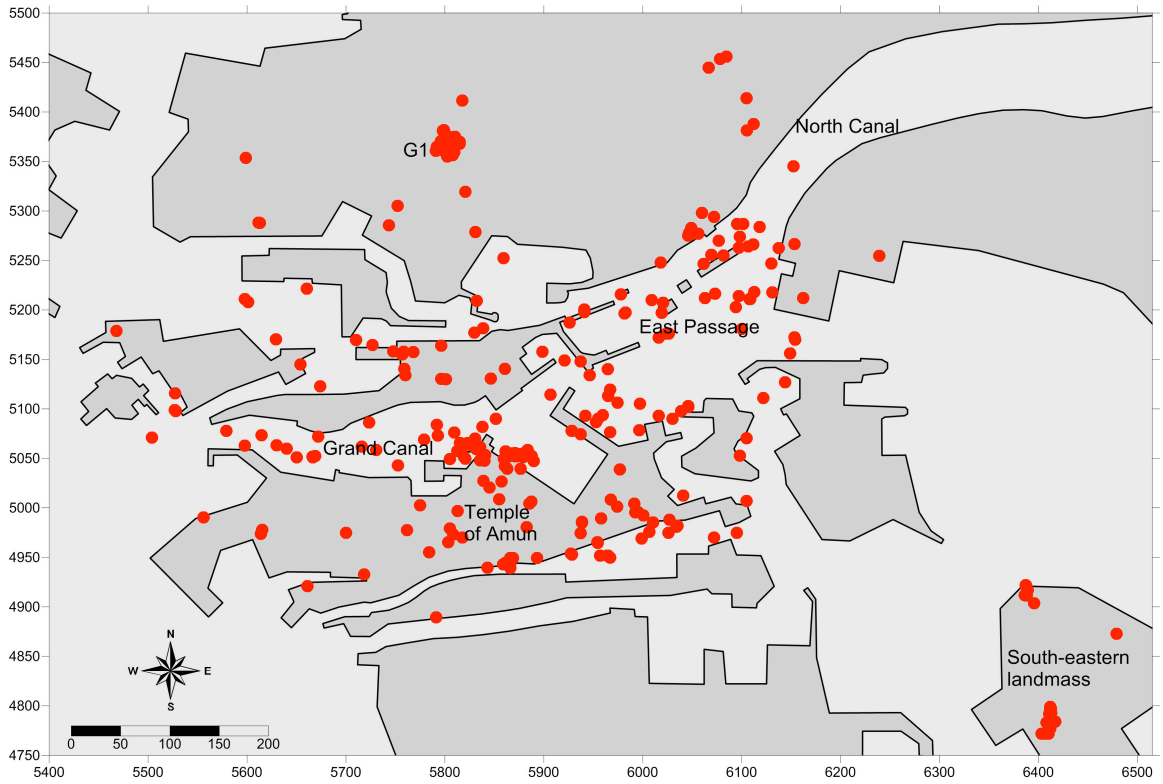



Figure 5.7. Distribution of all statuettes and amulets.

[217] Coulon and Jambon 2013: http://www.ifao.egnet.net/bases/cachette/about.
[218] Jambon 2009, 271-275. Daressy's Cairo volume (1905-1906) records statuettes from Karnak but many of these came to the museum earlier.
[219] Young 1967, 275.

In comparison with the finds at the sites described above, Thonis-Heracleion has produced a modest amount of statuettes and amulets, 279 apart from foreign-style figures. See Figure 5.7 above for the total distribution of the 329 statuettes and amulets. Even the largest clearly-defined accumulation (G1) consists of only 41 statuettes and amulets. Compare this with one deposit of statuettes at Saqqara which had 200 and another, mostly of temple equipment, that produced 600 items.[220] It seems that while the city's residents participated in wider Egyptian cult practice, their activity was not on the scale of larger regional and political cult centres such as Memphis or Thebes. The scale of dedication was far more modest and probably in keeping with the average city in the Late and Ptolemaic Periods. The votives might even be fewer than the average if a single temple at 'Ayn Manawir had over 400 statuettes. This difference, however, could be explained if the Thonis-Heracleion statuettes were separated and stored in multiple locations in smaller accumulations or in scattered single deposits, whereas the 'Ayn Manawir statuettes were on display.

The material from which the Thonis-Heracleion figures are made is also modest compared with finds like those at Dendara and in the second cache at Athribis. The finds from Dendara show the level of investment that these types of statuettes could involve and they show the vast amount of resources that were devoted to votives, as does the sheer number of dedications at Karnak. Precious metal statuettes are not known from Thonis-Heracleion, with the possible exception of **238-240**, which may be solid silver, and amulet **322,** which is sheet gold. This does not, however, mean that Athribis or Dendara were more attractive sites for dedication. As Zoe Robinson surmises, Dendara shows that there are gaps in Thonis-Heracleion's evidence, perhaps in part because the site was partially looted in antiquity.[221] Dendara is indeed unusual for the fact that so many precious metal objects were deposited. The finds at Saqqara, for instance, include many high quality pieces, but the majority are smaller, more or less mass-produced bronzes, as are those at Thonis-Heracleion.[222]

The accumulations at Thonis-Heracleion are heterogeneous, with no large, distinct groups of any one major type. This heterogeneity is discernible in the dispersed distributions for each type shown in the catalogue maps, as well as in the distributions

[220] Davies 2007, 178; Nicholson 2004, 2005a.
[221] Robinson 2008, 32; Cox 2008, 264.
[222] Davies 2007, 185.

presented in Chapter 2, under 'Cults'. In this respect, the Thonis-Heracleion finds are very different from those at Athribis and 'Ayn Manawir, but they have parallels at other sites. Smith notes a similar heterogeneity among caches at Saqqara.[223] Of the three types of deposits he described (those with damaged figures, those with newly-minted figures, and those with figures that were cleared for space in the temple), the Thonis-Heracleion accumulations are most like types one and three. The cover photo of this thesis shows a staged photo of some of the statuettes, but in reality the Thonis-Heracleion deposits were frequently mixed, jumbled, and loosely associated rather than neatly packed and organised. The only Egyptian-style deposit that could qualify as a type 2 deposit (carefully prepared) is the faience foundation deposit described under the 'Individual Deposits' subtitle above.

As at many other sites, Osiris and child deities form the largest components of the dedications. Weitz argues that most bronzes reflect local cults, although not in the simple sense that a single statuette of a deity equals a cult of that deity.[224] Most at Thonis-Heracleion can be linked with attested cults at the site, including the Osiris and child deity figures, as Weitz hypothesizes.[225] Smith, however, observes that many of the deities in caches at Saqqara did not correspond with the local temple cults; he suggests that these may have been from earlier cults, arguing that many of the statuettes were buried after being damaged during Persian invasions.[226] Baines, meanwhile, offers an alternative reason why Saqqara has so many Osiris bronzes without an official Osiris cult; he suggests that they reflect Osiris' popularity as a national deity and the growing proliferation of his cults across the country.[227]

Weitz, however, argues still for a local interpretation, noting that the animals in the necropoleis were assimilated with Osiris in death, while both Isis and Osiris would have been appropriate dedications for the Mother of Apis, who was associated with Isis.[228] Her explanation can account for Osiris in the animal necropoleis, and the link between Osiris and animal cults may go a long way toward explaining the large number of Osiris bronzes at multiple sites that hosted animal cults. I do not think it works as a

---

[223] Smith 1974, 151-152.
[224] Weitz 2012, 460.
[225] See Chapter 2, 'Cults'.
[226] Smith 1974, 56.
[227] Baines 2000, 43-46, with reference to the Saqqara finds on 44, fn. 75.
[228] Smith makes a similar point, noting that Osiris was associated with Apis and Isis with the Mother of Apis, one of the most important cults at Saqqara (1974, 54-55). Mother of Apis: Davies 2006.

full explanation, however, as the overwhelming number of Osiris figures in the temple areas at Saqqara (far more than representations of local cult deities) would still lack an explanation.[229] Instead, the popularity of Osiris bronzes, at Thonis-Heracleion and elsewhere, is more likely to fit with both Baines' and Weitz's suggestions; these votives would have addressed local cults as well as deities with nationwide appeal.[230]

Overall, the Thonis-Heracleion material fits well with the kind of cult practices exemplified by the sites described above. The site has a modest amount of votives, some of which were found in accumulations that look as if they may have been heterogeneous, mixed caches. This is especially true for G1, the (disturbed) area around the rectangular island in the East Passage, the accumulations on the south-eastern landmass, and those in the northern corners of the H1 temple.

The context, however, makes it possible to move beyond just fitting Thonis-Heracleion into a pre-established picture. The distributions illuminate several trends that are not visible at other sites, that contradict available data, or that have been largely ignored. The first and most striking aspect of the distribution of Egyptian-style statuettes and amulets is that a large number were found outside of the accumulations highlighted in Chapter 1, 'Artefact Context'. In all major discussions of votive bronzes, the find locations discussed almost always refer to votive caches, in part because larger finds attract more attention.[231] At Thonis-Heracleion, however, the picture is not as tidy as finds in much of the literature. There are several reasons why this may be so:

1. Wave action and catastrophic events may have redistributed some objects at the site, but these factors are probably not enough to account for the large number of single figures and pairs. The areas around the rectangular island in the East Passage and around M3 illustrate the dispersal of statuettes as a likely result of landslides.

2. Some may have been deliberately deposited in the canal systems. As noted in Chapter 1, Zoe Robinson shows that many of the ladles clustered in the canals and waterways and had probably been deposited in those locations (Figure 1.4).[232] The excavators also ascribe ritual significance to the Grand Canal. Goddio states:

> Libation ladles (*simpula*), vases, basins and bronze cups of various types were found all along the waterway, most often near to the banks on both sides...These cult instruments were frequently associated with some animal bones and

[229] At 'Ayn Manawir, the local cult was a cult of Osiris (Wuttmann *et al*. 2007), and thus the homogeneous nature of that deposit is appropriate to the local deity.
[230] In light of the link between Osiris and animal cults, animal cults themselves may have proliferated as they did in part because of the growth of Osiris cults.
[231] Weitz 2012, 465, on the find context of bronzes.
[232] Robinson 2008, 46.

sometimes with pottery and *ex-voto* objects. They seem to constitute cult offerings along the entire length of the Grand Canal. In addition, this area contained a great quantity of very fine pottery, to the exclusion of the coarser wares destined for domestic use.[233]

Although I know of no archaeological evidence outside of Thonis-Heracleion that attests to such a practice in Egypt, there is some textual evidence. The 'Book of the Temple', under reconstruction by Joachim Friedrich Quack, outlines the ideal structure and decoration of temples and also presents priestly duties.[234] Some aspects address Osiris cult in particular.[235] The text states that the Osiris statuettes created for the Khoiak festival were renewed every year and the old statuettes could be buried or thrown into the sacred lake or river.[236] Similar allusions are found on the Dendara reliefs, and Quack notes several examples in magical texts where objects were thrown into the Nile, because the water was considered sacred or powerful.[237] In the Dendara reliefs, Koptos and Sais in particular are tied to this type of deposition, where Osiris figures could be thrown into the water.[238] It seems likely that Thonis-Heracleion shared this practice, and probably for more *ex-votos* than just Osiris. The Osiris figures mentioned in the texts are the clay figures made for Khoiak festivals, but it is possible that bronzes of different iconographic types, Osiris included, were treated similarly. The lead barks ( **305-315**, Volume 2, Catalogue Map 30), for instance, are concentrated on the western end of the Grand Canal and at the eastern entrance of the Central Port.[239] The topography of the city, with its many quays and canals, may have influenced the choice and use of these votives. The idea that deposition in water was a practice associated with only particular sites may also explain why these types of votive barks are not more commonly found elsewhere. More likely, however, the simple fact that no other city has had its waterways excavated can account for the fact that this practice has not been identified archaeologically outside of Thonis-Heracleion.

3. Worshippers may have utilised some statuettes outside of the temple area, perhaps in their homes or in public spaces (very rarely), contrary to the linear narrative that bronze dedications were manufactured, dedicated in an Egyptian temple, displayed, and cached. Egyptian-style statuettes and amulets are known outside of Egypt in sanctuaries around the Mediterranean. From these artefacts, we know that some statuettes were purchased (or gifted?) and were taken away before they could be dedicated to an Egyptian sanctuary. But who was using them? Weitz argues that Egyptian statuettes in Greek sanctuaries were dedicated by Greeks, because such deposition is at odds with Egyptian practice, in which worshippers were not allowed in the temple and relied on priests as intermediaries.[240] The priests displayed their statuettes and probably 'activated' them with spells like the 'Opening of the Mouth' which rendered the statuette capable of hosting the deity's life force.[241] I

---

[233] Goddio 2007, 111. See also Fabre 2008a.
[234] Select articles: Quack 2000, 2005a, 2005b, 2007.
[235] Quack 2010.
[236] Quack 2010, 26.
[237] Quack 2000/2001.
[238] Quack 2000/2001, 6-7.
[239] Some caution is necessary, however. Figure **305** (see Volume 2) was found under limestone blocks, which seems more like a land context than a marine one. And, as stated in Chapter One, the boundaries of the landmasses and canals are changing constantly as excavations progress.
[240] Weitz 2012, 498-511 for differences in Egyptian and Greek approaches to votive practice.
[241] Weitz 2012, 499.

would not make such a sharp cultural divide between Greeks and Egyptians. Some Egyptians or people of mixed lineage may have adopted hellenised attitudes towards statuary through acculturation. Her general point, however, is useful — that the dedication of Pharaonic-style statuettes outside Egyptian temples stood in contrast to Egyptian practice, and derives from another tradition. With that in mind, it is important to consider the few instances where Greek/Ptolemaic and Egyptian-style statuettes were found together at Thonis-Heracleion, outside of temple zones.[242] These statuettes are few, but worth noting. How did they come together, how were they being used, and why were they not dedicated in a traditional manner and location? It is possible that some were purchased and used by Greeks, or by Egyptians participating in hellenised cult practice. If so, it would be beneficial to compare distributions of individual statuettes from Thonis-Heracleion with a similar distribution from another site, perhaps one further inland with fewer foreign contacts. As noted previously, Egyptian cult practices at Thonis-Heracleion appear very similar to those at sites throughout Egypt, despite the fact that the city was a port with a wide mix of people coming and going from many different cultures. The presence of some Egyptian-style statuettes outside of temples zones may be one of the few signs of how foreigners coming through the port subtly adapted local practices. And if some were used outside of temples as part of hellenised cult practices, were some even occasionally discarded? In general, our knowledge of how statuettes were used outside of Egyptian temples, even if these practices were infrequent, needs to be developed, preferably from material at a site with clearer stratigraphic information than Thonis-Heracleion offers.

4. Scholarly discussions focus on documenting caches, which are coherent and more likely to be published than single finds from older excavations. Individual statuettes may have been buried frequently in meaningful ways near temple precincts. At the Serapeum in Saqqara, small deposits of statuettes lined the *dromos,* or sacred way.[243] Such meaningful distributions of individual statuettes are difficult to distinguish, however, when the find locations of individual statuettes are not recorded or mapped. Weitz's compilation of statuettes from the Delta uses existing publications of excavations, and all of the material from the sites she treats is only partially published.[244] At Saqqara, where the best overview of the total material and the context for figures is available (although much is unpublished), 75% were found in caches, which means that 25% were not, a pattern comparable with that at Thonis-Heracleion.[245] The distribution of the 25%, and what properties those figures exhibit, is unknown.[246]

In general, 'object scatter' and single finds are not much discussed in bronze studies. The distribution at Thonis-Heracleion, however, demonstrates that a large proportion of statuettes could be found outside of temples and caches. A linear narrative has developed around bronze statuettes, that all were carefully preserved and deposited

[242] See this chapter, 'Individual Deposits'.
[243] Ziegler 1996, 34-36.
[244] Weitz 2012.
[245] Davies 2007, 178.
[246] Smith 1974, 57 also notes that many finds were in loose town debris.

in caches in or around temples when temples were too full (or in necropoleis). None were melted down or cast away. The Thonis-Heracleion distributions nuance that picture slightly, broadening the possible range of uses and deposition scenarios. The distributions provide few definitive answers, but they highlight the importance of carefully documenting and analysing such object scatter in addition to cache material as new sites are excavated in the future.

The second unusual aspect of the distribution of Egyptian-style figures appears when sacred animal statuettes and animal sarcophagi are mapped (Figure 5.8, and see Figure 3.3). The distribution has no clear centre that would indicate the position of an animal cult. The map includes cats, some falcons, most of the ibises, the falcon/ibis leg fragments, the ichneumons, the shrew, and the lizard — representations of sacred animals that were suitable dedications for animal cult. It excludes falcon pendants, uraei (amulets and crown decoration), Apis bronzes, Wepwawet, and any other animal statuettes that may have acted as standards.

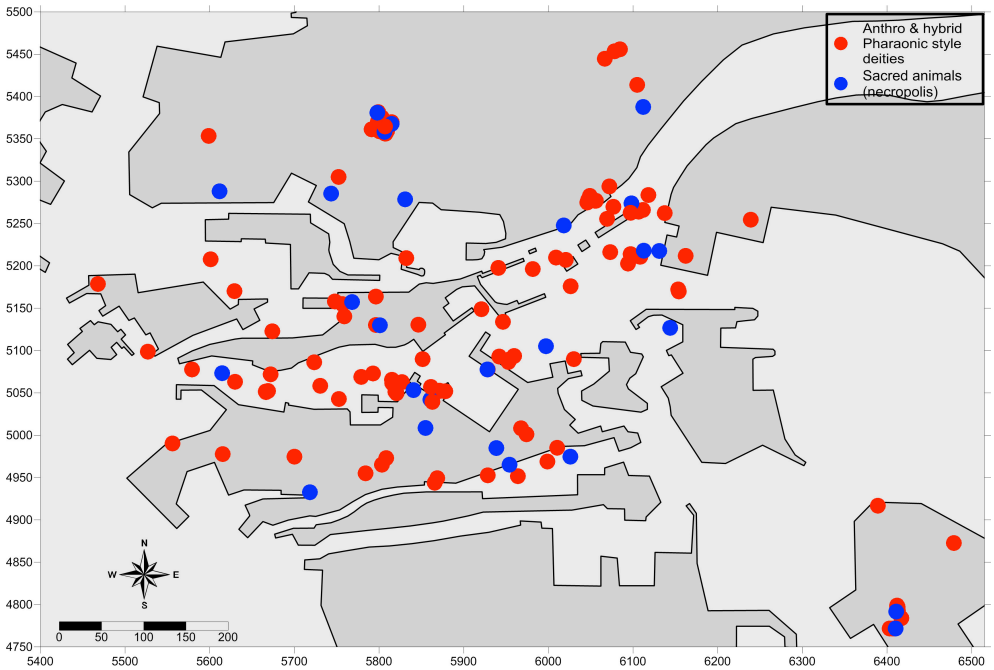


Figure 5.8. Distribution of anthropomorphic and hybrid statuettes (red) against the distribution of sacred animal statuettes (blue) that could be related to animal cults.

Few are near M8, the area with the best independent evidence for animal cult.[247] In many cases, the animal statuettes are in accumulations with anthropomorphic subjects and are related to temple areas. This distribution does not fit Weitz's conclusion that animal statuettes were dedicated in animal necropoleis only and were largely

[247] See Chapter 2, 'Cults'.

separate from temple-based caches. The general spread of Weitz's evidence bears out her idea, but perhaps such dedications were offered to the main temples in places where animal cults were not as extensive.

Finally, many of the statuettes are heavily damaged or fragmented, particularly those in G1 (see Appendix 7). As noted in Chapter 4, some in G1 may be wasters. Statuette attachments also make up a large proportion of the G1 find. Whether they were deposited as parts of mixed-media figures or originally as fragments is unknown. Even in accumulations where some of the finest figures were found, such as Osiris **41** and **46-47** in the East Passage, they were near heavily damaged statuettes such as child deity **26**. Many are broken at the feet, and there are several examples of bases with feet but without the main figure.

Damaged and fragmented statuettes are not rare and have been remarked upon before. As noted in Chapter 3 (subtitle 'Statuettes'), Hill suggests that statuette groups were disassembled and statuettes were removed from their bases in order to break their ritual power before burial.[248] The existence of such a practice would explain the number of figures that are broken at the feet and separated from their bases. A number of pieces, however, are not just worn and broken from age but were subject to deliberate disfiguring damage. Smith remarks the many of the statuettes in type 1 deposits at Saqqara were damaged and burned.[249] Petrie likewise described one-third of the Naukratis deposit as burned.[250] Smith attributes the damage at Saqqara to invasions and damage committed at the hands of an enemy.[251]

Damage by invaders is possible at Thonis-Heracleion. The excavators have stated that the limestone sarcophagi in M8 were *in situ* but were tumbled and broken, with the lids separated from the boxes in many cases. Whether this disarray was caused by looters in antiquity, invaders, or natural catastrophes cannot be said for certain.[252] Andrew Meadows has recorded a coin hoard from Thonis-Heracleion that may be related to the invasion of Egypt by Antiochus IV Epiphanes in 170-168 BC.[253] The amount of weaponry at the site, including sling bullets, and the Greek epitaph also attest to potential battles in the area.[254]

---

[248] Hill 2004, 130-131.
[249] Smith 1974, 55.
[250] Petrie 1914, 41-42.
[251] Smith 1974, 56.
[252] For M8, see Chapter 1 'Artefact Context'. Personal communication, Franck Goddio and David Fabre.
[253] Meadows, in preparation.
[254] See 'The Cultural Community: Comparisons' above.

Some statuettes, however, were carefully and purposefully damaged. For instance cat **136** and lions **238-240** are solid, hefty statuettes that would not break easily even if they were dropped or thrown to the ground. Canine **188**, meanwhile, has had the head and feet very carefully removed with neat, even cuts (Figure 5.9). It is worth considering the possibility that at least some of this damage may have been done by priests as part of a ritual, as may some of the burning reported at other sites. Robinson also identifies a number of ladles at Thonis-Heracleion that have bent handles, and she proposes that this was done as part of a destructive ritual upon deposition.[255] Why some statuettes received more thorough destructive treatment than others, however, is unclear.

Figure 5.9. Even cut on the neck of canine figure **188**.

Overall, the Thonis-Heracleion figures are examples of standard votive dedications of the Late and Ptolemaic Periods. They conform in type and material to those known from several sites across Egypt. Our understanding of Egyptian votive practice, however, evolves with each new report and new find. The distribution and condition of Egyptian-style votives at Thonis-Heracleion illustrate that there is still much to learn about how and why statuettes were placed in caches — and in which caches — and how figures that remained outside of caches were utilised and discarded.

### 5.4. Summary

Each major section of this chapter centres on the information provided by the distributions of the Thonis-Heracleion statuettes and amulets. The inclusion of all figured votives in the corpus, not just Egyptian-style material, allows for fruitful comparison between the patterns of use of Egyptian and foreign-style materials. Different styles were used in very close proximity, but foreign-style figures (including Ptolemaic-style ones) seem to have been excluded from Egyptian cult centres. This exclusion is visible on the large scale, in caches or accumulations, and usually on the small scale as well, in individual small deposits. Whereas previous discussions on this

[255] Robinson 2008, 264.

topic have centred on terracottas and their role in private cult, I argue that much of the division derives from the practices of Egyptian temples. These temples accepted only Egyptian style in their main cult areas, including statuettes, because those forms were considered more effective in supporting the life force of a deity, and therefore maintaining the universal order and balance represented by the temples.

The foreign-style material on its own helps to distinguish areas that may have hosted a foreign or hellenised community or associated activities, particularly the eastern portion of the central landmass where many lead Greek and Ptolemaic-style figures were concentrated. Soldiers may have dedicated many of these votives, a conclusion grounded in their iconography, the topography of the area which includes a fortified structure, and the distribution of other military-related finds at the site. While the foreign-style material constitutes only a small percentage of the corpus, it is significant for understanding the multicultural community at Thonis-Heracleion and how that community relate to other mixed communities, such as that of Naukratis.

Finally, the distribution and appearance of Egyptian-style figures demonstrate that while cult practice at Thonis-Heracleion fits the general scheme of Egyptian votive practice, many aspects of Egyptian dedication practice remain little understood. This distribution, in particular, highlights the many statuettes that were found outside of major accumulations and caches, and therefore do not fit the typical explanation for how Egyptian votives were utilised. The heterogeneous nature of the Thonis-Heracleion deposits, the deposition in water of some finds, and the deliberate nature of the damage that many figures sustained, are also significant for a wider understanding of offering practices. In each case, the context of the Thonis-Heracleion statuettes and amulets opens the way for deeper discussion and analysis of modes and patterns of dedication.

# Chapter 6: Conclusions

Egyptian statues delivered oracles, listened, ate, and breathed. Above all, they lived. The Greeks too believed that their statues could speak and held a life force.[1] The conception of statuary in antiquity and how it functioned in society was radically different from our experience of statuary today. For that reason, little about its use in Egyptian and Greek societies can be taken for granted, and thus continued and intensified study of its use illuminates not only the values and ideals of people in antiquity, but also our own values and assumptions today.

On the local level, the statuettes and amulets flesh out aspects of cult practice in Thonis-Heracleion and establish a framework for discussing cult in a way that no other class of material from the site can. The compilation and analysis of types in Chapter 2 detailed the frequency and identity of major deities and what cults may have been present, including cults of Amun, child deities, Osiris, falcon deities, and Bastet. Some cults, like the cults of Amun and Khonsu, were already known from inscribed sources, but others such as cults for falcon deities or Bastet were not. Ptolemaic-style figures, meanwhile, are fewer but attest to a hellenised cult associated with child deities, one that may have been patronised by soldiers (Chapters 2, 5).

The material, however, speaks to more than the presence or absence of certain cults. It also touches on subjects such as cultural interactions between Greeks and Egyptians in the cultic realm, the significance of different materials in manufacturing cult images, technology transfer between cultures, and the processes of votive dedication in Egypt. The material can effectively speak to these subjects only because it is inclusive (with votives of many materials) and it has a context, unlike the majority of past votive studies for the Late and Ptolemaic Periods. Each figure has been geo-referenced and the precise find location is recorded, even if the stratigraphic position of each object is not always known.

The context allowed for comparisons between the use of lead and bronze material, in particular. Lead is little known as a creative medium in ancient Egypt, and is only briefly mentioned elsewhere in relation to statuettes and the cultic realm,[2] and thus this corpus provides the first real opportunity to see how this material was used on

---

[1] See the discussion in Chapter 5, ‘Separation of Styles’.
[2] Lucas and Harris 1962, 243-244; Nriagu 1983, 253-256 with the exception of Boussac and Seif-el Din 2009, who provide a much more in-depth, focused article.

a large scale in a specific context. The comparison of lead and bronze demonstrated that materials cannot simply be divided into cheap and expensive, poor and prestigious categories (Chapter 3). Clear preferences existed at the site, ones that had as much to do with the function of the objects and with potential connotations as with cost. Lead's durability was an important quality, and for that reason it was used primarily for amulets and small-scale statuettes. In some cases lead imitated terracotta types, but at other times it was probably chosen for its connotations, especially for the Nefertem amulets and votive barks, much as other types such as Osiris tended towards bronze.

Another aspect of the material that benefited from a more contextual approach was the discussion of manufacturing practices (Chapter 4). The corpus included wasters and mould siblings, which are not as interesting for museum display but which provide a lot of information on casting practices. The most evidence for manufacturing was related to lead and bronze casting. Finds such as mould **329** and Isis **64** (mould line), and indicators such as the minor size differentials between small Osiris figures and bronze vessel parts similar to those produced by moulds from Memphis, indicate that the indirect method of bronze casting was used at Thonis-Heracleion, probably as early as the Late Period. The material also gives new insight into lead casting during this period, which used mostly refractory mono or bivalve moulds and was solid cast or hollow cast with the lead slush method (Chapter 4, 'Lead Casting). These techniques for lead and bronze allowed for serial manufacture and duplication and allude to cultural interactions between Greeks and Egyptians in the cultic realm, where some technology transfer may have taken place.

Cultural interactions are also visible in the differing distribution of Egyptian and foreign-style materials. Distributions demonstrate that these styles were kept distinct, with only Egyptian-style votive material in sacred areas such as temple H1 or accumulation G1, even when concentrations of foreign-style and Egyptian-style material were in close proximity. The amount of foreign-style material is small when compared, for example, to that of Naukratis, but it does attest to a hellenised community, one that may be more extensive than current evidence indicates. Much of the lead foreign-style material clusters to the east of the main temple, and the iconography of certain figures (especially the horses and elephants) suggests that some of the dedicants were soldiers that may have lived or worked in that area.

Archaeological evidence also attests to military activity in this particular location and across the site.

Issues of cult practice raised by the Thonis-Heracleion material are translatable to other sites because the corpus is, with the exception of the lead barks and some of the lead statuettes, typical in its iconographic profile and size. The fact that it is typical is notable in itself, as Thonis-Heracleion was a port town that undoubtedly hosted a variety of people of many foreign lands, and yet the cult material is entirely in step with contemporary practices throughout Egypt. Accumulations of material are highly heterogeneous and of modest scale. A large number of statuettes were also found outside of accumulations, probably as single or paired dedications, a practice that is known elsewhere but is not well documented. The finds also shed light on cult practices little known in Egypt such as votive deposition in bodies of water, as well as what appears to be deliberate ritual destruction (not just disassembly) of votives before deposition.

Egyptian votive studies is a burgeoning field with an ever-growing number of contributions. Many gaps, however, remain in our knowledge concerning the continuity and variety of votive practice throughout Egyptian history. Some scholars place Late Period votives seamlessly in line with earlier practices;[3] others see them as largely discontinuous with early tradition.[4] Changes in cult practice in the Late Period are attributed to a variety of factors. Some argue for a growing nationalistic feeling in combination with personal piety, which was expressed through support of Egyptian deities and local temples with votive dedications.[5] Others see the rise of metal votives as corresponding with the increased intensity of maritime trade in raw materials,[6] or with changes in production technology.[7] Close studies of *in situ* material, such as this one, contribute to the wider picture by helping to determine not only how the type of material relates to that of earlier periods, but also what type of cult practices develop or change, like water deposition and ritual destruction, in conjunction with or in opposition to interactions with other cultures.

[3] Nachtergael 1985, 262.
[4] Kemp 1995, 35.
[5] Davies and Smith 1997, 122.
[6] Weitz 2012, 488, 490.
[7] Mendoza 2008, 12.

# Appendices

## *Appendix 1: Concordance by Catalogue Numbers*

| Catalogue Number | 'H' Excavation Number | SCA Number |
|---|---|---|
| 1 | 8132 | 1008 |
| 2 | 8874 | 1059 |
| 3 | 10228 | |
| 4 | 8223 | |
| 5 | 6147 | 1145 |
| 6 | 10242 | |
| 7 | 12210 | |
| 8 | 8018 | |
| 9 | 11715 | |
| 10 | 4275 | 415 |
| 11 | 9554 | |
| 12 | 3146 | 562 |
| 13 | 8000 | 995 |
| 14 | 9964 | |
| 15 | 9919 | |
| 16 | 9918 | |
| 17 | 10243 | |
| 18 | 8540 | |
| 19 | 3061 | 423 |
| 20 | 6805 | 1155 |
| 21 | 2290 | HI.046 |
| 22 | 6855 | |
| 23 | 8239 | 1022 |
| 24 | 11721 | |
| 25 | 9053 | |
| 26 | 9014 | |
| 27 | 11212 | |
| 28 | 10817 | |
| 29 | 9725 | |
| 30 | 8811 | 1052 |
| 31 | 6945 | |
| 32 | 9440 | |
| 33 | 9481 | |
| 34 | 10808 | |
| 35 | 10177 | |
| 36 | 6302 | 925 |
| 37 | 6171 | 917 |
| 38 | 9642 | |
| 39 | 9641 | |
| 40 | 11706 | |
| 41 | 10240 | |
| 42 | 9068 | 1081 |
| 43 | 11055 | |
| 44 | 6617 | 952 |
| 45 | 8091 | 1004 |

| | | |
|---|---|---|
| 46 | 10241 | |
| 47 | 10215 | |
| 48 | 9955 | |
| 49 | 8164 | 1013 |
| 50 | 6925 | 982 |
| 51 | 2700 | 411 |
| 52 | 8520 | 1031 |
| 53 | 6791 | 966 |
| 54 | 9957 | |
| 55 | 9936 | |
| 56 | 9937 | |
| 57 | 10102 | |
| 58 | 6303 | 926 |
| 59 | 6831 | 1146 |
| 60 | 9404 | |
| 61 | 11348 | |
| 62 | 9188 | 1093 |
| 63 | 6842 | 972 |
| 64 | 10145 | |
| 65 | 6901 | 978 |
| 66 | 11233 | |
| 67 | 8247 | |
| 68 | 2794 | 522 |
| 69 | 11776 | |
| 70 | 6864 | 974 |
| 71 | 8224 | |
| 72 | 4512 | 426 |
| 73 | 6854 | 1154 |
| 74 | 11056 | |
| 75 | 10769 | |
| 76 | 10278 | |
| 77 | 8206 | 1019 |
| 78 | 3097 | 553 |
| 79 | 11632 | |
| 80 | 8090 | 1003 |
| 81 | 11347 | |
| 82 | 3064 | 420 |
| 83 | 6836 | |
| 84 | 3677 | 417 |
| 85 | 8088 | |
| 86 | 6806 | |
| 87 | 9052 | |
| 88 | 8167 | |
| 89 | 6827 | |
| 90 | 8115 | |
| 91 | 9969 | |
| 92 | 9948 | |
| 93 | 9967 | |
| 94 | 9981 | |
| 95 | 9976 | |
| 96 | 3686 | 517 |
| 97 | 8545 | |
| 98 | 9530 | |

| | | |
|---|---|---|
| 99 | 10823 | |
| 100 | 8260 | |
| 101 | 1417 | HI.049 |
| 102 | 3446 | |
| 103 | 3172 | |
| 104 | 8133 | |
| 105 | 6703 | |
| 106 | 8534 | 1033 |
| 107 | 11789 | |
| 108 | 697 | 524 |
| 109 | 11248 | |
| 110 | 5570 | 383 |
| 111 | 8226 | 1020 |
| 112 | 3170 | 528 |
| 113 | 6098 | |
| 114 | 8001 | 996 |
| 115 | 12071 | |
| 116 | 12066 | |
| 117 | 696 | 525 |
| 118 | 10786 | |
| 119 | 12169 | |
| 120 | 8168 | |
| 121 | 8098 | |
| 122 | 11031 | |
| 123 | 11493 | |
| 124 | 3043 | 518 |
| 125 | 11783 | |
| 126 | 11298 | |
| 127 | 2795 | |
| 128 | 9646 | |
| 129 | 9193 | |
| 130 | 11714 | |
| 131 | 6146 | |
| 132 | 9932 | |
| 133 | 8262 | |
| 134 | 8187 | |
| 135 | 2267 | 387 |
| 136 | 6808 | 968 |
| 137 | 8570 | 1041 |
| 138 | 6903 | |
| 139 | 10734 | |
| 140 | 5578 | |
| 141 | 10718 | |
| 142 | 1465 | 419 |
| 143 | 3545 | |
| 144 | 1493 | HI.120 |
| 145 | 3470 | |
| 146 | 3689 | |
| 147 | 2703 | HI.118 |
| 148 | 3062 | 424 |
| 149 | 3080 | 561 |
| 150 | 12132 | |
| 151 | 4587 | |

| | | |
|---|---|---|
| 152 | 2776 | HI.116 |
| 153 | 2767 | 418 |
| 154 | 3546 | |
| 155 | 10822 | |
| 156 | 12212 | |
| 157 | 8009 | 997 |
| 158 | 8023 | |
| 159 | 8002 | |
| 160 | 10238 | |
| 161 | 11452 | |
| 162 | 11321 | |
| 163 | 9125 | 1087 |
| 164 | 8557 | 1037 |
| 165 | 10815 | |
| 166 | 9968 | |
| 167 | 9431 | |
| 168 | 11293 | |
| 169 | 8116 | |
| 170 | 9116 | |
| 171 | 8093 | |
| 172 | 9643 | |
| 173 | 9475 | |
| 174 | 9026 | |
| 175 | 6888 | |
| 176 | 9189 | |
| 177 | 5949 | 895 |
| 178 | 7053 | 990 |
| 179 | 11385 | |
| 180 | 3100 | 519 |
| 181 | 8100 | 1006 |
| 182 | 3094 | 552 |
| 183 | 3095 | |
| 184 | 3096 | 557 |
| 185 | 11697 | |
| 186 | 11688 | |
| 187 | 8127 | |
| 188 | 6893 | 975 |
| 189 | 6924 | 981 |
| 190 | 1416 | 410 |
| 191 | 6848 | 973 |
| 192 | 4525 | |
| 193 | 2296 | |
| 194 | 9961 | |
| 195 | 6370 | 930 |
| 196 | 1476 | 474 |
| 197 | 9578 | |
| 198 | 11026 | |
| 199 | 9726 | |
| 200 | 3323 | |
| 201 | 8086 | 1001 |
| 202 | 8012 | |
| 203 | 8507 | |
| 204 | 8559 | 1038 |

| | | |
|---|---|---|
| 205 | 8228 | 1021 |
| 206 | 9448 | 1098 |
| 207 | 11735 | |
| 208 | 9471 | 1100 |
| 209 | 10820 | |
| 210 | 9933 | |
| 211 | 9514 | |
| 212 | 3641 | 404 |
| 213 | 10771 | |
| 214 | 2775 | 523 |
| 215 | 8578 | 1046 |
| 216 | 11788 | |
| 217 | 11726 | |
| 218 | 11231 | |
| 219 | 5605 | 505 |
| 220 | 6122 | |
| 221 | 8510 | |
| 222 | 9696 | |
| 223 | 9602 | |
| 224 | 9630 | |
| 225 | 11449 | |
| 226 | 9622 | |
| 227 | 9692 | |
| 228 | 4571 | 526 |
| 229 | 11402 | |
| 230 | 11485 | |
| 231 | 11644 | |
| 232 | 9600 | |
| 233 | 9660 | |
| 234 | 11219 | |
| 235 | 9690 | |
| 236 | 10715 | |
| 237 | 7011 | 871 |
| 238 | 9940 | |
| 239 | 9939 | |
| 240 | 9938 | |
| 241 | 6834 | 1141 |
| 242 | 6895 | |
| 243 | 6858 | |
| 244 | 6890 | |
| 245 | 2239 | HI.050 |
| 246 | 8809 | 1050 |
| 247 | 6928 | 983 |
| 248 | 4046 | |
| 249 | 9452 | |
| 250 | 11713 | |
| 251 | 8896 | |
| 252 | 11781 | |
| 253 | 4076 | |
| 254 | 10195 | |
| 255 | 6754 | |
| 256 | 9601 | |

| | | |
|---|---|---|
| 257 | No excavation number | |
| 258 | 8519 | |
| 259 | 8258 | |
| 260 | 9594 | |
| 261 | 9100 | |
| 262 | 4136 | |
| 263 | 3175 | 401 |
| 264 | 11566 | |
| 265 | 8087 | 1002 |
| 266 | 10722 | |
| 267 | 8021 | |
| 268 | 9038 | 1074 |
| 269 | 6833 | 970 |
| 270 | 6328 | 927 |
| 271 | 8126 | |
| 272 | 8128 | |
| 273 | 9762 | |
| 274 | 9921 | |
| 275 | 11223 | |
| 276 | 9704 | |
| 277 | 3168 | |
| 278 | 8213 | |
| 279 | 10217 | |
| 280 | 8074 | |
| 281 | 11628 | |
| 282 | 11409 | |
| 283 | 6346 | 929 |
| 284 | 6807 | |
| 285 | 6828 | 969 |
| 286 | 9917 | |
| 287 | 6825 | |
| 288 | 9060 | 1079 |
| 289 | 11327 | |
| 290 | 6913 | 979 |
| 291 | 3538 | |
| 292 | 2268 | 213 |
| 293 | 2269 | HI.025 |
| 294 | 6741 | 962 |
| 295 | 8861 | |
| 296 | 11640 | |
| 297 | 7074 | 994 |
| 298 | 9783 | |
| 299 | 6835 | |
| 300 | 6845 | |
| 301 | 6849 | |
| 302 | 3083 | 516 |
| 303 | 6832 | |
| 304 | 3068 | 583 |
| 305 | 8566 | 1039 |
| 306 | 9033 | 1072 |
| 307 | 8196 | 1017 |
| 308 | 5584 | 405 |

| | | |
|---|---|---|
| 309 | 9034 | |
| 310 | 6480 | |
| 311 | 6351 | |
| 312 | 6902 | |
| 313 | 11712 | |
| 314 | 6710 | |
| 315 | 11212 | |
| 316 | 9031 | |
| 317 | 10285 | |
| 318 | 6741 | |
| 319 | 6015 | 905 |
| 320 | 9920 | |
| 321 | 8171 | |
| 322 | 9451 | 1123 |
| 323 | 3099 | 558 |
| 324 | 3147 | 559 |
| 325 | 3102 | 565 |
| 326 | 3103 | 560 |
| 327 | 4168 | |
| 328 | 10169 | |
| 329 | 9099 | |

## *Appendix 2: Concordance by 'H' Excavation Numbers*

| 'H' Excavation Number | Catalogue Number | SCA Number |
|---|---|---|
| 696 | 117 | 525 |
| 697 | 108 | 524 |
| 1416 | 190 | 410 |
| 1417 | 101 | HI.049 |
| 1465 | 142 | 419 |
| 1476 | 196 | 474 |
| 1493 | 144 | HI.120 |
| 2239 | 245 | HI.050 |
| 2267 | 135 | 387 |
| 2268 | 292 | 213 |
| 2269 | 293 | HI.025 |
| 2290 | 21 | HI.046 |
| 2296 | 193 | |
| 2700 | 51 | 411 |
| 2703 | 147 | HI.118 |
| 2767 | 153 | 418 |
| 2775 | 214 | 523 |
| 2776 | 152 | HI.116 |
| 2794 | 68 | 522 |
| 2795 | 127 | |
| 3043 | 124 | 518 |
| 3061 | 19 | 423 |
| 3062 | 148 | 424 |
| 3064 | 82 | 420 |
| 3068 | 304 | 583 |
| 3080 | 149 | 561 |
| 3083 | 302 | 516 |
| 3094 | 182 | 552 |
| 3095 | 183 | |
| 3096 | 184 | 557 |
| 3097 | 78 | 553 |
| 3099 | 323 | 558 |
| 3100 | 180 | 519 |
| 3102 | 325 | 565 |
| 3103 | 326 | 560 |
| 3146 | 12 | 562 |
| 3147 | 324 | 559 |
| 3168 | 277 | |
| 3170 | 112 | 528 |
| 3172 | 103 | |
| 3175 | 263 | 401 |
| 3323 | 200 | |
| 3446 | 102 | |
| 3470 | 145 | |
| 3538 | 291 | |
| 3545 | 143 | |
| 3546 | 154 | |
| 3641 | 212 | 404 |

| | | |
|---|---|---|
| 3677 | 84 | 417 |
| 3686 | 96 | 517 |
| 3689 | 146 | |
| 4046 | 248 | |
| 4076 | 253 | |
| 4136 | 262 | |
| 4168 | 327 | |
| 4275 | 10 | 415 |
| 4512 | 72 | 426 |
| 4525 | 192 | |
| 4571 | 228 | 526 |
| 4587 | 151 | |
| 5570 | 110 | 383 |
| 5578 | 140 | |
| 5584 | 308 | 405 |
| 5605 | 219 | 505 |
| 5949 | 177 | 895 |
| 6015 | 319 | 905 |
| 6098 | 113 | |
| 6122 | 220 | |
| 6146 | 131 | |
| 6147 | 5 | 1145 |
| 6171 | 37 | 917 |
| 6302 | 36 | 925 |
| 6303 | 58 | 926 |
| 6328 | 270 | 927 |
| 6346 | 283 | 929 |
| 6351 | 311 | |
| 6370 | 195 | 930 |
| 6480 | 310 | |
| 6617 | 44 | 952 |
| 6703 | 105 | |
| 6710 | 314 | |
| 6741 | 294 | 962 |
| 6741 | 318 | |
| 6754 | 255 | |
| 6791 | 53 | 966 |
| 6805 | 20 | 1155 |
| 6806 | 86 | |
| 6807 | 284 | |
| 6808 | 136 | 968 |
| 6825 | 287 | |
| 6827 | 89 | |
| 6828 | 285 | 969 |
| 6831 | 59 | 1146 |
| 6832 | 303 | |
| 6833 | 269 | 970 |
| 6834 | 241 | 1141 |
| 6835 | 299 | |
| 6836 | 83 | |
| 6842 | 63 | 972 |
| 6845 | 300 | |
| 6848 | 191 | 973 |

| | | |
|---|---|---|
| 6849 | 301 | |
| 6854 | 73 | 1154 |
| 6855 | 22 | |
| 6858 | 243 | |
| 6864 | 70 | 974 |
| 6888 | 175 | |
| 6890 | 244 | |
| 6893 | 188 | 975 |
| 6895 | 242 | |
| 6901 | 65 | 978 |
| 6902 | 312 | |
| 6903 | 138 | |
| 6913 | 290 | 979 |
| 6924 | 189 | 981 |
| 6925 | 50 | 982 |
| 6928 | 247 | 983 |
| 6945 | 31 | |
| 7011 | 237 | 871 |
| 7053 | 178 | 990 |
| 7074 | 297 | 994 |
| 8000 | 13 | 995 |
| 8001 | 114 | 996 |
| 8002 | 159 | |
| 8009 | 157 | 997 |
| 8012 | 202 | |
| 8018 | 8 | |
| 8021 | 267 | |
| 8023 | 158 | |
| 8074 | 280 | |
| 8086 | 201 | 1001 |
| 8087 | 265 | 1002 |
| 8088 | 85 | |
| 8090 | 80 | 1003 |
| 8091 | 45 | 1004 |
| 8093 | 171 | |
| 8098 | 121 | |
| 8100 | 181 | 1006 |
| 8115 | 90 | |
| 8116 | 169 | |
| 8126 | 271 | |
| 8127 | 187 | |
| 8128 | 272 | |
| 8132 | 1 | 1008 |
| 8133 | 104 | |
| 8164 | 49 | 1013 |
| 8167 | 88 | |
| 8168 | 120 | |
| 8171 | 321 | |
| 8187 | 134 | |
| 8196 | 307 | 1017 |
| 8206 | 77 | 1019 |
| 8213 | 278 | |
| 8223 | 4 | |

| | | |
|---|---|---|
| 8224 | 71 | |
| 8226 | 111 | 1020 |
| 8228 | 205 | 1021 |
| 8239 | 23 | 1022 |
| 8247 | 67 | |
| 8258 | 259 | |
| 8260 | 100 | |
| 8262 | 133 | |
| 8507 | 203 | |
| 8510 | 221 | |
| 8519 | 258 | |
| 8520 | 52 | 1031 |
| 8534 | 106 | 1033 |
| 8540 | 18 | |
| 8545 | 97 | |
| 8557 | 164 | 1037 |
| 8559 | 204 | 1038 |
| 8566 | 305 | 1039 |
| 8570 | 137 | 1041 |
| 8578 | 215 | 1046 |
| 8809 | 246 | 1050 |
| 8811 | 30 | 1052 |
| 8861 | 295 | |
| 8874 | 2 | 1059 |
| 8896 | 251 | |
| 9014 | 26 | |
| 9026 | 174 | |
| 9031 | 316 | |
| 9033 | 306 | 1072 |
| 9034 | 309 | |
| 9038 | 268 | 1074 |
| 9052 | 87 | |
| 9053 | 25 | |
| 9060 | 288 | 1079 |
| 9068 | 42 | 1081 |
| 9099 | 329 | |
| 9100 | 261 | |
| 9116 | 170 | |
| 9125 | 163 | 1087 |
| 9188 | 62 | 1093 |
| 9189 | 176 | |
| 9193 | 129 | |
| 9404 | 60 | |
| 9431 | 167 | |
| 9440 | 32 | |
| 9448 | 206 | 1098 |
| 9451 | 322 | 1123 |
| 9452 | 249 | |
| 9471 | 208 | 1100 |
| 9475 | 173 | |
| 9481 | 33 | |
| 9514 | 211 | |
| 9530 | 98 | |

| | | |
|---|---|---|
| 9554 | 11 | |
| 9578 | 197 | |
| 9594 | 260 | |
| 9600 | 232 | |
| 9601 | 256 | |
| 9602 | 223 | |
| 9622 | 226 | |
| 9630 | 224 | |
| 9641 | 39 | |
| 9642 | 38 | |
| 9643 | 172 | |
| 9646 | 128 | |
| 9660 | 233 | |
| 9690 | 235 | |
| 9692 | 227 | |
| 9696 | 222 | |
| 9704 | 276 | |
| 9725 | 29 | |
| 9726 | 199 | |
| 9762 | 273 | |
| 9783 | 298 | |
| 9917 | 286 | |
| 9918 | 16 | |
| 9919 | 15 | |
| 9920 | 320 | |
| 9921 | 274 | |
| 9932 | 132 | |
| 9933 | 210 | |
| 9936 | 55 | |
| 9937 | 56 | |
| 9938 | 240 | |
| 9939 | 239 | |
| 9940 | 238 | |
| 9948 | 92 | |
| 9955 | 48 | |
| 9957 | 54 | |
| 9961 | 194 | |
| 9964 | 14 | |
| 9967 | 93 | |
| 9968 | 166 | |
| 9969 | 91 | |
| 9976 | 95 | |
| 9981 | 94 | |
| 10102 | 57 | |
| 10145 | 64 | |
| 10169 | 328 | |
| 10177 | 35 | |
| 10195 | 254 | |
| 10215 | 47 | |
| 10217 | 279 | |
| 10228 | 3 | |
| 10238 | 160 | |
| 10240 | 41 | |

| | | |
|---|---|---|
| 10241 | 46 | |
| 10242 | 6 | |
| 10243 | 17 | |
| 10278 | 76 | |
| 10285 | 317 | |
| 10715 | 236 | |
| 10718 | 141 | |
| 10722 | 266 | |
| 10734 | 139 | |
| 10769 | 75 | |
| 10771 | 213 | |
| 10786 | 118 | |
| 10808 | 34 | |
| 10815 | 165 | |
| 10817 | 28 | |
| 10820 | 209 | |
| 10822 | 155 | |
| 10823 | 99 | |
| 11026 | 198 | |
| 11031 | 122 | |
| 11055 | 43 | |
| 11056 | 74 | |
| 11212 | 27 | |
| 11212 | 315 | |
| 11219 | 234 | |
| 11223 | 275 | |
| 11231 | 218 | |
| 11233 | 66 | |
| 11248 | 109 | |
| 11293 | 168 | |
| 11298 | 126 | |
| 11321 | 162 | |
| 11327 | 289 | |
| 11347 | 81 | |
| 11348 | 61 | |
| 11385 | 179 | |
| 11402 | 229 | |
| 11409 | 282 | |
| 11449 | 225 | |
| 11452 | 161 | |
| 11485 | 230 | |
| 11493 | 123 | |
| 11566 | 264 | |
| 11628 | 281 | |
| 11632 | 79 | |
| 11640 | 296 | |
| 11644 | 231 | |
| 11688 | 186 | |
| 11697 | 185 | |
| 11706 | 40 | |
| 11712 | 313 | |
| 11713 | 250 | |
| 11714 | 130 | |

| | | |
|---|---|---|
| 11715 | 9 | |
| 11721 | 24 | |
| 11726 | 217 | |
| 11735 | 207 | |
| 11776 | 69 | |
| 11781 | 252 | |
| 11783 | 125 | |
| 11788 | 216 | |
| 11789 | 107 | |
| 12066 | 116 | |
| 12071 | 115 | |
| 12132 | 150 | |
| 12169 | 119 | |
| 12210 | 7 | |
| 12212 | 156 | |
| No excavation number | 257 | |

## *Appendix 3: Concordance by SCA Numbers*

| SCA Number | 'H' Excavation Number | Catalogue Number |
|---|---|---|
| 213 | 2268 | 292 |
| 383 | 5570 | 110 |
| 387 | 2267 | 135 |
| 401 | 3175 | 263 |
| 404 | 3641 | 212 |
| 405 | 5584 | 308 |
| 410 | 1416 | 190 |
| 411 | 2700 | 51 |
| 415 | 4275 | 10 |
| 417 | 3677 | 84 |
| 418 | 2767 | 153 |
| 419 | 1465 | 142 |
| 420 | 3064 | 82 |
| 423 | 3061 | 19 |
| 424 | 3062 | 148 |
| 426 | 4512 | 72 |
| 474 | 1476 | 196 |
| 505 | 5605 | 219 |
| 516 | 3083 | 302 |
| 517 | 3686 | 96 |
| 518 | 3043 | 124 |
| 519 | 3100 | 180 |
| 522 | 2794 | 68 |
| 523 | 2775 | 214 |
| 524 | 697 | 108 |
| 525 | 696 | 117 |
| 526 | 4571 | 228 |
| 528 | 3170 | 112 |
| 552 | 3094 | 182 |
| 553 | 3097 | 78 |
| 557 | 3096 | 184 |
| 558 | 3099 | 323 |
| 559 | 3147 | 324 |
| 560 | 3103 | 326 |
| 561 | 3080 | 149 |
| 562 | 3146 | 12 |
| 565 | 3102 | 325 |
| 583 | 3068 | 304 |
| 871 | 7011 | 237 |

| | | |
|---|---|---|
| 895 | 5949 | 177 |
| 905 | 6015 | 319 |
| 917 | 6171 | 37 |
| 925 | 6302 | 36 |
| 926 | 6303 | 58 |
| 927 | 6328 | 270 |
| 929 | 6346 | 283 |
| 930 | 6370 | 195 |
| 952 | 6617 | 44 |
| 962 | 6741 | 294 |
| 966 | 6791 | 53 |
| 968 | 6808 | 136 |
| 969 | 6828 | 285 |
| 970 | 6833 | 269 |
| 972 | 6842 | 63 |
| 973 | 6848 | 191 |
| 974 | 6864 | 70 |
| 975 | 6893 | 188 |
| 978 | 6901 | 65 |
| 979 | 6913 | 290 |
| 981 | 6924 | 189 |
| 982 | 6925 | 50 |
| 983 | 6928 | 247 |
| 990 | 7053 | 178 |
| 994 | 7074 | 297 |
| 995 | 8000 | 13 |
| 996 | 8001 | 114 |
| 997 | 8009 | 157 |
| 1001 | 8086 | 201 |
| 1002 | 8087 | 265 |
| 1003 | 8090 | 80 |
| 1004 | 8091 | 45 |
| 1006 | 8100 | 181 |
| 1008 | 8132 | 1 |
| 1013 | 8164 | 49 |
| 1017 | 8196 | 307 |
| 1019 | 8206 | 77 |
| 1020 | 8226 | 111 |
| 1021 | 8228 | 205 |
| 1022 | 8239 | 23 |
| 1031 | 8520 | 52 |
| 1033 | 8534 | 106 |
| 1037 | 8557 | 164 |

| | | |
|---|---|---|
| 1038 | 8559 | 204 |
| 1039 | 8566 | 305 |
| 1041 | 8570 | 137 |
| 1046 | 8578 | 215 |
| 1050 | 8809 | 246 |
| 1052 | 8811 | 30 |
| 1059 | 8874 | 2 |
| 1072 | 9033 | 306 |
| 1074 | 9038 | 268 |
| 1079 | 9060 | 288 |
| 1081 | 9068 | 42 |
| 1087 | 9125 | 163 |
| 1093 | 9188 | 62 |
| 1098 | 9448 | 206 |
| 1100 | 9471 | 208 |
| 1123 | 9451 | 322 |
| 1141 | 6834 | 241 |
| 1145 | 6147 | 5 |
| 1146 | 6831 | 59 |
| 1154 | 6854 | 73 |
| 1155 | 6805 | 20 |
| HI.025 | 2269 | 293 |
| HI.046 | 2290 | 21 |
| HI.049 | 1417 | 101 |
| HI.050 | 2239 | 245 |
| HI.116 | 2776 | 152 |
| HI.118 | 2703 | 147 |
| HI.120 | 1493 | 144 |

## *Appendix 4: Materials*

**Bronze (54.5%)**

**1-10** (Ph. style child deities)
**13-18** (Ph. style child deities)
**21-25** (Ph. style child deities)
**28** (Ph. style child deity)
**41-60** (Osiris)
**61-67** (Isis)
**69** (Nefertem)
**75-76** (Nefertem)
**77** (Amun)
**79** (Neith)
**80** (Maat)
**81** (Pharaoh)
**83** (Pharaoh)
**84** (Priest)
**85** (Unidentified deity)
**89-90** (Unidentified deities)
**91-94** (Unidentified anthro/fragments)
**97-104** (Unidentified anthro/fragments)
**114-116** (Athena)
**126** (Head, anthro)
**132** (Falcon-headed deity)
**135** (Falcon-headed deity)
**136-138** (Feline-headed deities)
**157-160** (Falcons)
**162** (Falcon? on lotus)
**163-167** (Ibis)
**168-176** (Bird legs)
**177** (Vulture head)
**179-181** (Uraei)
**186** (Uraeus)
**188-190** (Wepwawet)
**192** (Wepwawet)
**193-194** (Canine fragments)
**195-200** (Cats)
**201-203** (Bulls)
**204** (Baboon)
**207-209** (Rams)
**210-211** (Ichneumon)
**212** (Shrew)
**213** (Lizard)
**241-245** (Lions)
**247** (Bird bell)
**249** (Bird)
**255** (Hedgehog)
**262-280** (Crown attachments)
**282-286** (Crown attachments)
**287-288** (Beards)
**290** (Wing)
**291** (Pendant loop fragment)
**292-299** (Bases)
**301** (Standard)
**303** (Lotus support)
**319** (Throne)
**320** (Offering table)
**327** (Sun disc on lotus)
**328** (Naos amulet?)

**Lead (33.5%)**

**11** (Ph. style child deity)
**19-20** (Ph. style child deities)
**27** (Ph. style child deity)
**29-39** (Pt. style child deities)
**70-74** (Nefertem)
**82** (Pharaoh)
**87-88** (Unidentified deities)
**95-96** (Unidentified anthro/fragments)
**105** (Unidentified anthro/fragment)
**106-107** ('Baubo')
**111** (Phallus)
**113** (Phallus)
**119** (Tanagra figure)
**120** (Dionysus)
**121** (Herakles)
**124** (Offering bearer)
**128** (Bes)
**130-131** (Bes)
**133-134** (Falcon-headed deity)
**139-156** (Falcon pendants)
**178** (Uraeus)
**187** (Snake or eel?)
**205** (Baboon)
**206** (Monkey)
**215-228** (Elephants)
**229-236** (Horses)
**248** (Bird)
**251** (Bird)
**254** (Pig)

**257** (Dolphin)
**258-260** (Unidentified animals)
**261** (Shell)
**281** (Sun disc)
**300** (Base)
**302** (Fork?)
**305-315** (Barks and bark fragments)
**316-318** (Bark thrones)
**321** (Offering table)
**329** (Mould)

**Other (12%)**

*Terracotta (3.3%)*

**40** (Pt. style child deity)
**108-109** (Nude females)
**117** (Seated goddess)
**118** (Goddess with polos)
**125** (Theatre mask)
**127** (Base)
**237** (Horse)
**250** (Rooster)
**252-253** (Pigs)

*Faience (3.3%)*

**12** (Ph. style child deity)
**68** (Isis)
**78** (Shu)
**182-185** (Uraei)
**323** (*Wadjet* Eye)
**324** (Double *Hes*)
**325** (Papyrus sceptre)
**326** (Plaque)

*Stone (1.8%)*

**110** (Phallic cult servant, limestone)
**112** (Phallus, limestone)
**122** (Male head, limestone)
**123** (Male head, sandstone)
**214** (Scarab, green stone)
**246** (Owl?, limestone)

*Gold (0.3%)*

**322** (*Wadjet* eye)

*Wood (0.3%)*

**304** (Naos)

*Unknown (3%)*

**26** (Ph. style child deity)
**86** (Unidentified deity)
**129** (Bes)
**161** (Falcon)
**191** (Wepwawet)
**238-240** (Lions)
**256** (Hippopotamus)
**289** (Beard)

## *Appendix 5: Styles*

**Pharaonic (83%)**

**1-28** (Child deities)
**41-60** (Osiris)
**61-68** (Isis)
**70-76** (Nefertem)
**77-80** (Misc. deities)
**81-84** (Pharaohs, cult servant)
**85-90** (Unidentified deities)
**91-105** (Unidentified/fragments)
**108-113** (Vulvate/phallic)
**128-138** (Hybrid)
**139-162** (Falcons)
**163-167** (Ibises)
**168-177** (Falcon, ibis, vulture fragments)
**178-187** (Uraeus)
**188-194** (Canine figures)
**195-200** (Cats)
**201-214** (Misc. sacred animals)
**238-245** (Lions)
**247-249** (Misc. Birds)
**251** (Bird)
**255-261** (Misc. non-sacred animals)
**262-291** (Crowns, personal adornments)
**292-304** (Bases, supports)
**305-315** (Barks, bark fragments)
**316-319** (Thrones)
**320-328** (Inanimate amulets)
**329** (Mould)

**Greek and Ptolemaic (16.7%)**

**29-40** (Child deities)
**106-107** ('Baubo')
**114-127** (Deities and others, anthro)
**215-228** (Elephants)
**229-236** (Horses)
**246** (Owl?)
**250** (Rooster)
**252-254** (Pigs)

**Other Foreign Styles (0.6%)**

**122** (Male, cap, Cypriot style)
**237** (Horse and rider)

## *Appendix 6: Excavation and Prospection*

### (a) Excavation

E2

**37** E2: A, 22 (Pt. style child deity)

E3

**36** E3: B, 11 (Pt. style child deity)
**58** E3: C, 10 (Osiris)

E7

**53** E7: A, 4 (Osiris)

E9

**18** E9: G, -23 (Ph. style child deity)
**52** E9: E, -8 (Osiris)
**63** E9 (Isis)
**203** E9: F, -5 (Bull)
**255** E9 (Hedgehog)
**258** E9: E, -8 (Animal)

G1

**4** G1: -K, 14 (Ph. style child deity)
**22** G1: -C, 4 (Ph. style child deity)
**23** G1: -G, 20 (Ph. style child deity)
**70** G1: -F, 6 (Nefertem)
**71** G1: -L, 15 (Nefertem)
**73** G1: A, 4 (Nefertem)
**88** G1: -G, 9 (Unidentified deity)
**90** G1: -H, 0 (Unidentified deity)
**111** G1: -E, 14 (Phallus)
**134** G1: -G, 16 (Falcon-headed deity)
**175** G1: -D, 3 (Ibis? foot)
**187** G1: -C, 2 (Snake or eel)
**205** G1: -I, 14 (Baboon)
**244** G1: -F, 3 (Lion)
**259** G1: -N, 15 (Rabbit/gazelle)
**271** G1: -C, 1 (Horn)
**272** G1: -B, 1 (Horn)
**278** G1: -H, 16 (Crescent moon?)

H1

**21** H1: -CX, 120 (Ph. style child deity)
**51** H1: A, 0 (Osiris)
**68** H1: -DJ, 115 (Isis)
**110** H1: -BE, 185 (Phallic cult servant)
**127** H1: -DJ, 117 (Base)
**135** H1: -CZ, 119 (Falcon-headed deity)
**135** H1: -CZ, 119 (Falcon-headed deity)
**140** H1: -BG, 187 (Falcon pendant)
**144** H1: -CW, 135 (Falcon pendant)
**147** H1: -DG, 115 (Falcon pendant)
**152** H1: -DJ, 135 (Falcon pendant)
**153** H1: -DF, 112 (Falcon pendant)
**193** H1: -CX, 105 (Canine head)
**196** H1: -DB, 140 (Cat)
**214** H1: A, 237 (Scarab)
**245** H1: -CV, 140 (Lion leg)
**292** H1: -DN, 115 (Base)
**293** H1: -DN, 123 (Base)
**328** H1: -G, 182 (Naos)

H2

**108** H2: -C, -1 (Female head)
**228** H2: H, 13 (Elephant)

H3

**139** H3 (Falcon pendant)
**141** H3 (Falcon pendant)
**142** H3: Z, 0 (Falcon pendant)
**160** H3 (Falcon)

H4

**12** H4: 11, -CL (Ph. style child deity)
**19** H4: 5, -CL (Ph. style child deity)
**78** H4: 11, -CL (Nefertem)
**82** H4: 5, -CL (Pharaoh, red crown)
**84** H4: -25, -CG (Cult servant)
**96** H4: 16, -CY (Unidentified anthro)
**102** H4: 15, -CJ (Right arm)
**103** H4: 16, -CL (Left arm)

**112** H4: 19, -CM (Phallus)
**124** H4: 0, Z (Offering bearer)
**143** H4: 5, -CI (Falcon pendant)
**145** H4: 10, -CI (Falcon pendant)
**146** H4: 16, - CY (Falcon pendant)
**148** H4: 5, -CL (Falcon pendant)
**149** H4: 10, -CL (Falcon pendant)
**154** H4: 27, -CL (Falcon pendant)
**180** H4: 11, -CL (Uraeus)
**182** H4: 11, -CL (Uraeus)
**183** H4: 11, -CL (Uraeus)
**184** H4: 11, -CL (Uraeus)
**192** H4: 22, -CK (Canine figure)
**212** H4: 0, -CV (Shrew)
**253** H4: -29, -CE (Pig)
**263** H4: 16, -CL (*Hemhem* crown)
**291** H4: 23, -CF (Suspension loop)
**302** H4: -1, -CO (Miniature fork?)
**304** H4: 1, -CG (Naos)
**323** H4: 11, -CL (*Wadjet* eye)
**324** H4: 11, -CL (Double *hes*)
**325** H4: 11, -CL (Papyrus sceptre)
**326** H4: 11, -CL (Plaque)

H6

**219** H6 (Elephant)

H7

**248** H7 (Duck)

H9

**72** H9: E, 5 (Nefertem)
**151** H9: I, 9 (Falcon pendant)

J1

**106** J1: -D, -2 (‘Baubo’)

J2

**251** J2: -B, 5 (Bird head?)

J5

**87** J5: J, 1 (Unidentified deity)

K7

**74** K7: -H, 2 (Nefertem)
**122** K7: -G, 3 (Male head, pointed cap)

L1

**109** L1: 14, -A (Nude female)
**123** L1: 23, B (Male head)
**289** L1: 14, -A (Beard)

M3

**40** M3: 46, F (Pt. style child deity)
**125** M3: 19, F (Theatre mask)
**185** M3: 19, -B (Uraeus)
**229** M3: 14, A (Horse)
**250** M3: 19, A (Rooster)
**252** M3: 19, -F (Boar)
**282** M3: 16, B (Solar disc)
**313** M3: 19, A (Bark fragment)

M6

**150** M6: -1, -D (Falcon pendant)
**156** M6: -7, E (Falcon pendant)

## (b) Prospection

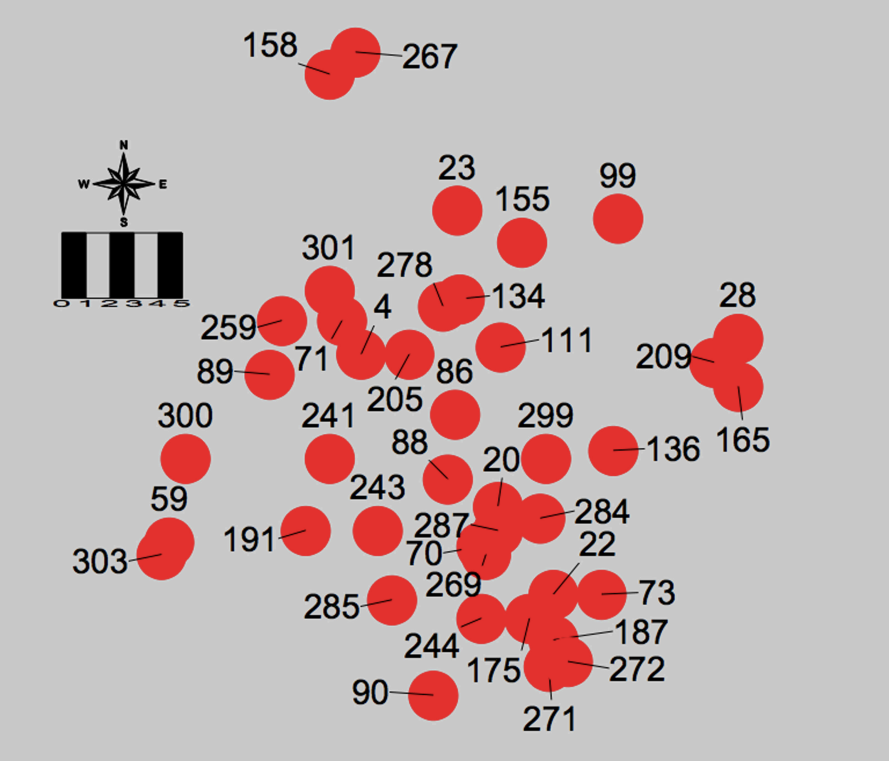
**1-3** (Ph. style child deities)
**5-11** (Ph. style child deities)
**13-17** (Ph. style child deities)
**20** (Ph. style child deity)
**24-28** (Ph. style child deities)
**29-35** (Pt. style child deities)
**38-39** (Pt. style child deities)
**41-50** (Osiris)
**54-57** (Osiris)
**59-60** (Osiris)
**61-62** (Isis)
**64-67** (Isis)
**69** (Nefertem)
**75-76** (Nefertem)
**77** (Amun)
**79** (Neith)
**80** (Maat)
**81** (Pharaoh, blue crown)
**83** (Pharaoh)
**85-86** (Unidentified deities)
**89** (Unidentified deity)
**91-95** (Unidentified anthro)
**97-101** (Anthro fragments/attachments)
**104-105** (Anthro fragments/attachments)
**107** ('Baubo')
**113** (Phallus)
**114-121** (Anthro, Grk. and Pt. style)
**126** (Anthro, Grk. style, head)
**128-131** (Bes)
**132-133** (Falcon-headed deities)
**136-138** (Feline-headed deities)
**155** (Falcon pendant)
**157-159** (Falcons)
**161-162** (Falcons)
**163-167** (Ibises)
**168-174** (Ibis or falcon feet)
**176** (Bird foot with *shen*)
**177** (Vulture head)
**178-179** (Uraei)
**181** (Uraeus)
**186** (Uraeus)
**188-191** (Canine figures)
**194** (Canine ear)
**195** (Cat)
**197-199** (Cats)
**201-202** (Bulls)
**204** (Baboon)
**206** (Baboon)
**207-209** (Ram heads)
**210-211** (Ichneumons)
**213** (Lizard)
**215-218** (Elephants)
**220-227** (Elephants)
**230-237** (Horses)
**238-243** (Lions)
**246-247** (Birds)
**249** (Bird)
**254** (Pig)
**256** (Hippopotamus)
**260** (Animal)
**261** (Shell)
**262** (Sidelock)
**264-270** (Crown attachments)
**273-277** (Crown attachments)
**279-281** (Crown attachments)
**283-286** (Crown attachments)
**287-288** (Beards)
**290** (Wing)
**294-300** (Bases)
**301** (Standard?)
**303** (Papyrus support)
**305-311** (Barks and bark fragments)
**314-315** (Bark fragments)
**316-317** (Thrones)
**319** (Throne)
**320-321** (Offering tables)
**322** (*Wadjet* eye)
**327** (Sun disc on lotus)
**329** (Mould)

## (c) Unknown

**200** (Cat head)
**257** (Dolphin)
**312** (Bark fragment)
**318** (Throne)

*Appendix 7: Accumulations and Significant Object Scatters*
(Excavated and Prospected Objects)

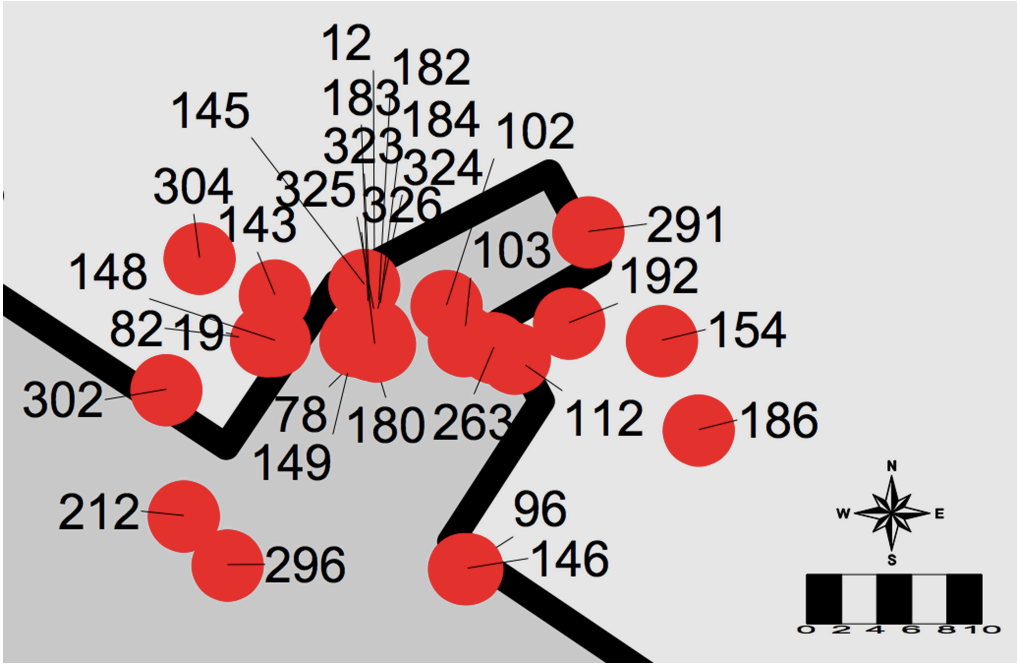
**(a) G1**




Appendix Map 1. G1 accumulation (41 statuettes and amulets)

**158** (Falcon)
**267** (*Atef* attachment)
**23** G1: -G, 20 (Ph. style child deity)
**155** (Falcon pendant)
**99** (Lower body and arm)
**28** (Ph. style child deity)
**209** (Ram head)
**165** (Ibis)
**134** G1: -G, 16 (Falcon-headed deity)
**278** G1: -H, 16 (Crescent moon?)
**111** G1: -E, 14 (Phallus)
**205** G1: -I, 14 (Baboon)
**4** G1: -K, 14 (Ph. style child deity)
**71** G1: -L, 15 (Nefertem)
**301** (Standard?)
**259** G1: -N, 15 (Rabbit/gazelle)
**89** (Unidentified deity)
**300** (Base)
**59** (Osiris)
**303** (Papyrus support)
**191** (Canine figure)
**241** (Lion)
**243** (Lion)
**86** (Unidentified deity)
**88** G1: -G, 9 (Unidentified deity)
**299** (Base)
**136** (Cat-headed goddess)
**20** (Ph. style child deity)
**284** (Amun crown)
**287** (Beard)
**70** G1: -F, 6 (Nefertem)
**269** (Horn)
**285** (Amun crown)
**90** G1: -H, 0 (Unidentified deity)
**244** G1: -F, 3 (Lion)
**175** G1: -D, 3 (Ibis? foot)
**22** G1: -C, 4 (Ph. style child deity)
**73** G1: A, 4 (Nefertem)
**187** G1: -C, 2 (Snake or eel)
**272** G1: -B, 1 (Horn)
**271** G1: -C, 1 (Horn)

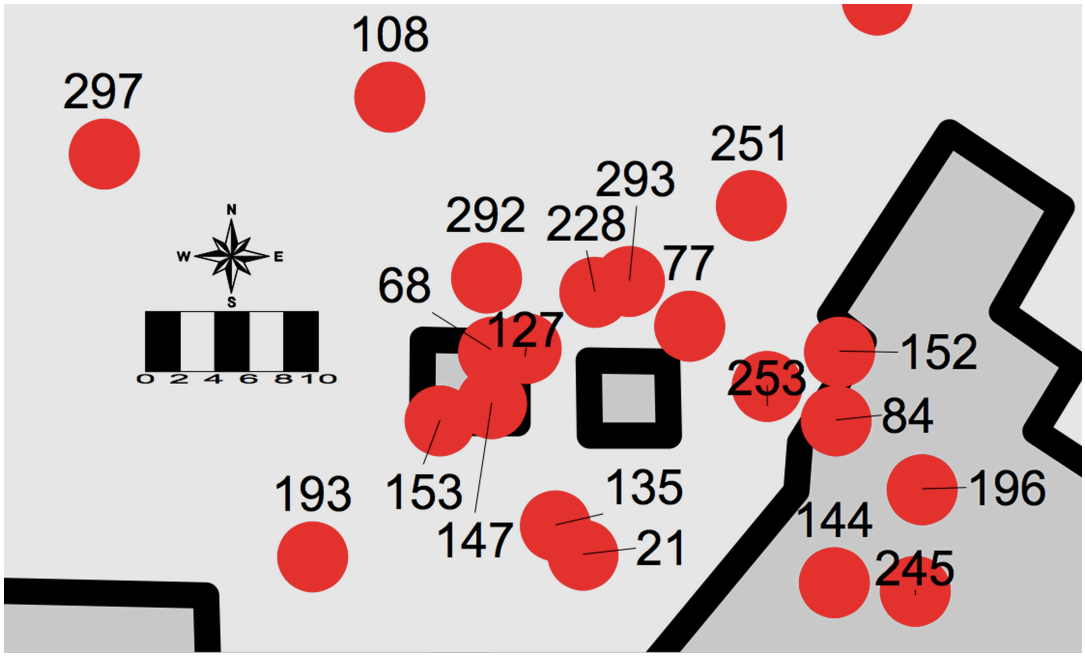
## (b) North-East Corner, Temple Zone




Appendix Map 2. North-east corner, temple zone accumulation
(30 statuettes and amulets)

| | |
|---|---|
| **296** | (Base) |
| **212** | H4: 0, -CV (Shrew) |
| **302** | H4: -1, -CO (Miniature fork?) |
| **19** | H4: 5, -CL (Ph. style child deity) |
| **82** | H4: 5, -CL (Pharaoh, red crown) |
| **148** | H4: 5, -CL (Falcon pendant) |
| **143** | H4: 5, -CI (Falcon pendant) |
| **304** | H4: 1, -CG (Naos) |
| **149** | H4: 10, -CL (Falcon pendant) |
| **180** | H4: 11, -CL (Uraeus) |
| **145** | H4: 10, -CI (Falcon pendant) |
| **78** | H4: 11, -CL (Nefertem) |
| **12** | H4: 11, -CL (Ph. style child deity) |
| **182** | H4: 11, -CL (Uraeus) |
| **183** | H4: 11, -CL (Uraeus) |
| **184** | H4: 11, -CL (Uraeus) |
| **323** | H4: 11, -CL (*Wadjet* eye) |
| **324** | H4: 11, -CL (Double *hes*) |
| **325** | H4: 11, -CL (Papyrus sceptre) |
| **326** | H4: 11, -CL (Plaque) |
| **102** | H4: 15, -CJ (Right arm) |
| **103** | H4: 16, -CL (Left arm) |
| **263** | H4: 16, -CL (*Hemhem* crown) |
| **112** | H4: 19, -CM (Phallus) |
| **192** | H4: 22, -CK (Canine figure) |
| **291** | H4: 23, -CF (Suspension loop) |
| **154** | H4: 27, -CL (Falcon pendant) |
| **186** | (Uraeus) |
| **96** | H4: 16, -CY (Unidentified anthro) |
| **146** | H4: 16, - CY (Falcon pendant) |

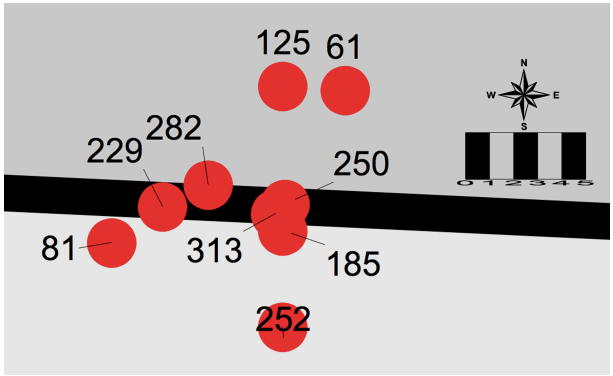
## (c) North-West Corner/Platforms, Temple Zone




Appendix Map 3. North-west corner/platforms, temple zone accumulation
(19 statuettes and amulets)

**21** H1: -CX, 120 (Ph. style child deity)
**135** H1: -CZ, 119 (Falcon-headed deity)
**193** H1: -CX, 105 (Canine head)
**153** H1: -DF, 112 (Falcon pendant)
**147** H1: -DG, 115 (Falcon pendant)
**68** H1: -DJ, 115 (Isis)
**127** H1: -DJ, 117 (Base)
**292** H1: -DN, 115 (Base)
**108** H2: -C, -1 (Female head)
**228** H2: H, 13 (Elephant)
**293** H1: -DN, 123 (Base)
**77** (Amun)
**251** J2: -B, 5 (Bird head?)
**253** H4: -29, -CE (Pig)
**152** H1: -DJ, 135 (Falcon pendant)
**84** H4: -25, -CG (Cult servant)
**196** H1: -DB, 140 (Cat)
**144** H1: -CW, 135 (Falcon pendant)
**245** H1: -CV, 140 (Lion leg)

## (d) M3

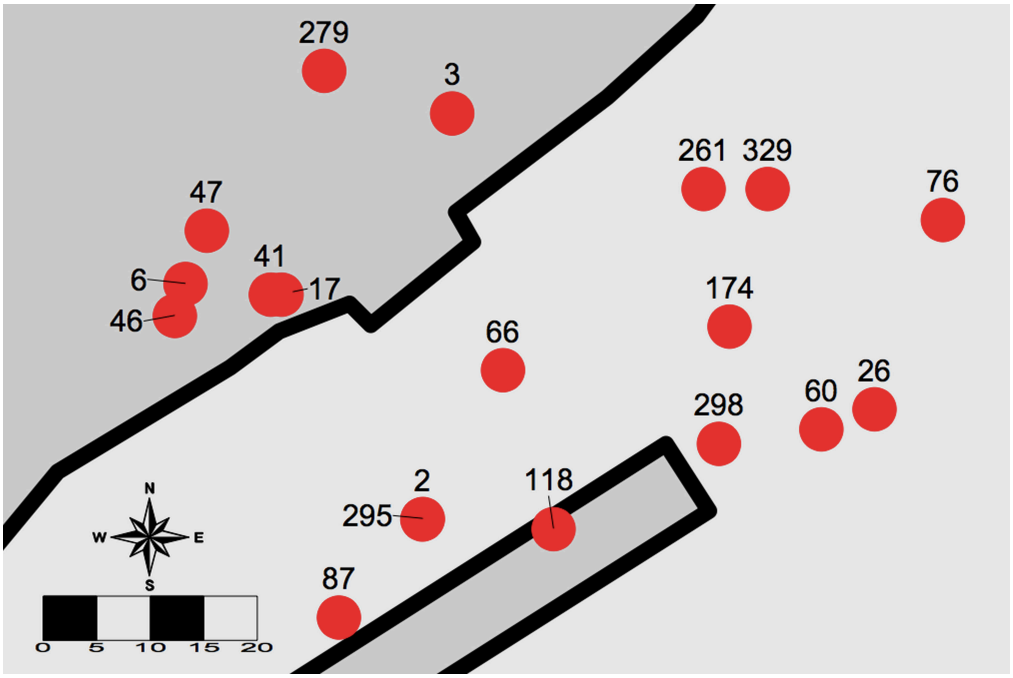



Appendix Map 4. M3 zone accumulation
(9 statuettes and amulets)

**125** M3: 19, F (Theatre mask)
**61** (Isis)
**250** M3: 19, A (Rooster)
**185** M3: 19, -B (Uraeus)
**313** M3: 19, A (Bark fragment)
**252** M3: 19, -F (Boar)
**282** M3: 16, B (Solar disc)
**229** M3: 14, A (Horse)
**81** (Pharaoh)

See also catalogue information for:
**40** M3: 46, F (Pt. style child deity)

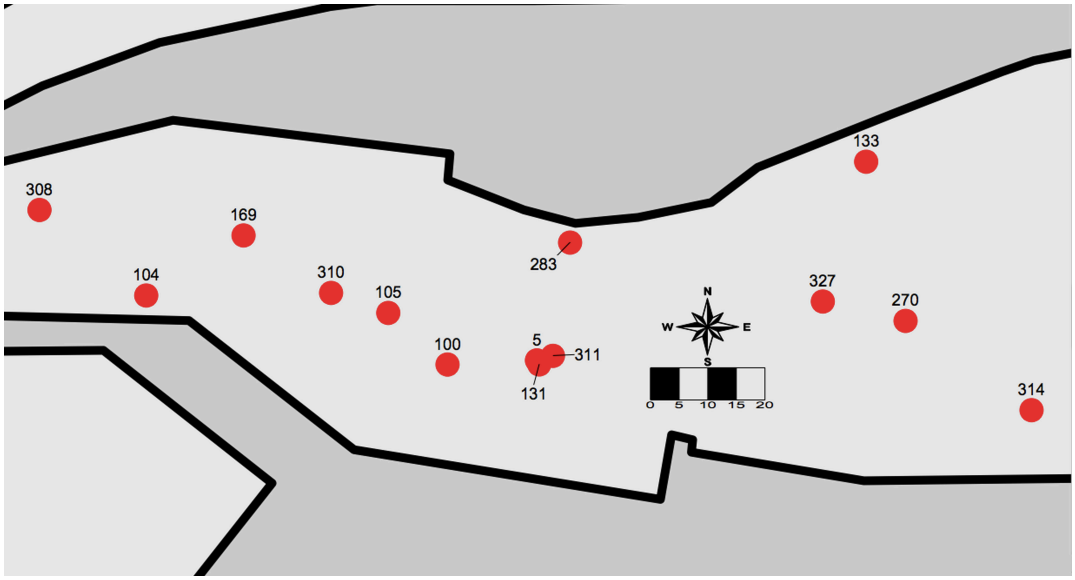
## (e) Rectangular Island, East Passage




Appendix Map 5. Rectangular platform and northern landmass, scatter (19 statuettes and amulets)

**87** J5: J, 1 (Unidentified deity)
**295** (Base)
**2** (Ph. style child deity)
**118** (Goddess with *polos*)
**66** (Isis)
**46** (Osiris)
**6** (Ph. style child deity)
**47** (Osiris)
**41** (Osiris)
**17** (Ph. style child deity)
**279** (Solar disc)
**3** (Ph. style child deity)
**261** (Shell)
**329** (Mould)
**76** (Nefertem)
**174** (Ibis or falcon foot)
**298** (Base)
**60** (Osiris?)
**26** (Ph. style child deity)

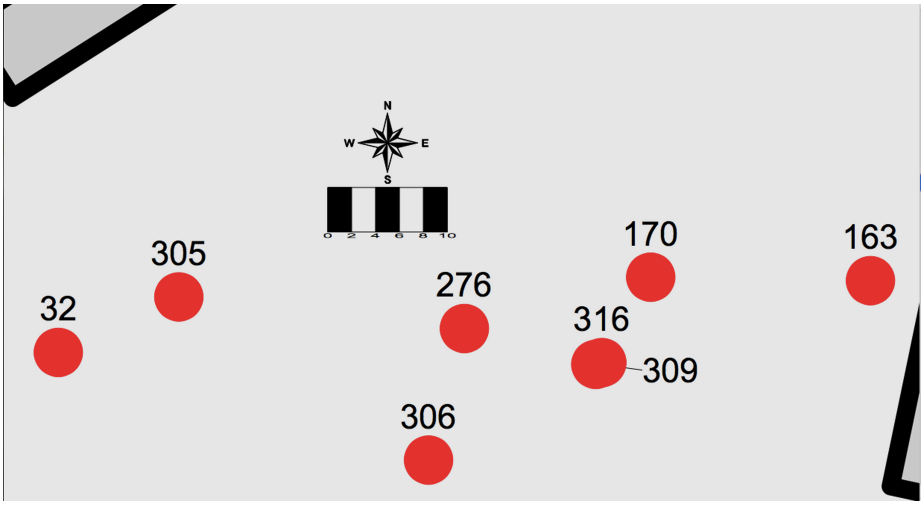
## (f) Grand Canal




Appendix Map 6. Grand Canal, scatter (14 statuettes and amulets)

| | | | | | |
|---|---|---|---|---|---|
| **308** | (Bark) | **100** | (Lower body) | **311** | (Bark fragment) |
| **104** | (Right hand) | **283** | (Amun crown) | **133** | (Falcon-head deity) |
| **169** | (Falcon or ibis foot) | **5** | (Ph. style child deity) | **327** | (Sun disc on lotus) |
| **310** | (Bark fragment) | | | **270** | (Horn) |
| **105** | (Arm) | **131** | (Bes) | **314** | (Bark fragment) |

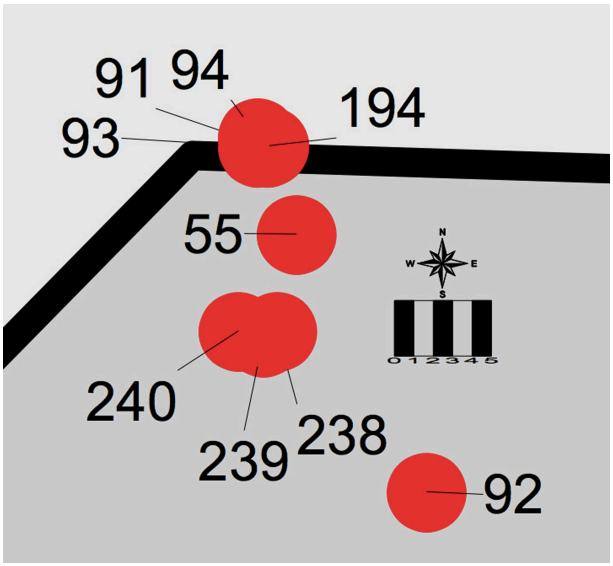
## (g) Central Port




Appendix Map 7. Central Port, south of the East Passage island, scatter (8 statuettes and amulets)

| | | | |
|---|---|---|---|
| **32** | (Ph. style child deity) | **309** | (Bark) |
| **305** | (Bark) | **316** | (Bark throne) |
| **306** | (Bark) | **170** | (Falcon or ibis foot) |
| **276** | (Hathor crown fragment) | **163** | (Ibis) |

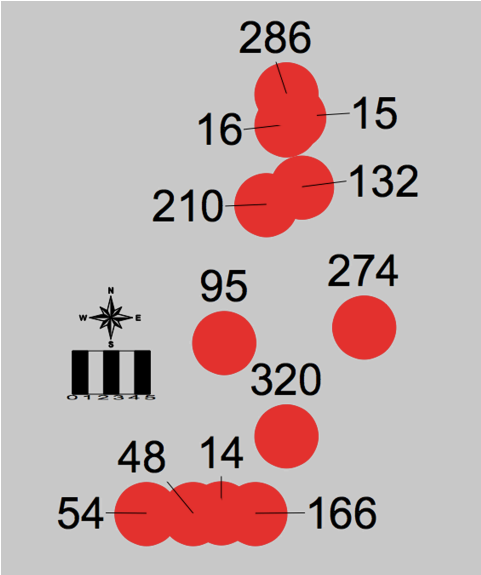
## (h) Southeastern Landmass —1




Appendix Map 8. Southeastern landmass, northern accumulations/scatter
(9 statuettes and amulets)

**91** (Unidentified male)
**93** (Male head)
**94** (Male torso)
**194** (Canine ear)
**55** (Osiris)
**230-240** (Lions)
**92** (Male head)

## (i) Southeastern Landmass —2




**286** (Amun crown)
**15** (Ph. style child deity)
**16** (Ph. style child deity)
**210** (Ichneumon)
**132** (Falcon-headed deity)
**95** (Unidentified anthro)
**274** (Hathor crown)
**320** (Miniature offering table)
**166** (Ibis)
**14** (Ph. style child deity)
**48** (Osiris)
**54** (Osiris)

Appendix Map 9. Southeastern landmass,
southern accumulations/scatter
(12 statuettes and amulets)

## *Appendix 8: Typological Categories*

**Anthropomorphic Figures (1-127)**

• Pharaonic style child deities (**1-28**)

- •Double crown, seated, hands at sides (1**)**
- •Double crown, seated, hand to mouth (2-3)
- •Double crown, striding (4)
- •Double crown, fragment (5)

- •*Hemhem* crown, seated, hand to mouth (6)
- •*Hemhem* crown, seated, hands at sides (7)
- •*Hemhem* crown(?), crouched, hands to mouth (8)

- •Blue crown, seated, hand to mouth (9)

- •Red crown, striding, hand to mouth (10)

- •Double feather crown?, striding, hand to mouth (11)

- •Cap with uraeus, striding, hand to mouth (12)

- •No crown (cap?), seated, hands at sides (13-15)
- •No crown (cap?), seated, hand to mouth (16-20)
- •No crown (cap?), seated, fragmented (21)
- •Unidentified crown, seated, fragmented (22)

- •Fragmented, seated, hand to mouth (23)
- •Fragmented, seated, hands at sides (24-25)
- •Fragmented, seated or striding?, hand to mouth (26)
- •Fragmented, striding (27-28)

•Ptolemaic style child deities (**29-40**)

- •Sidelock, hand to mouth, holding pot, seated, large phallus (29-33)
- •Sidelock, hand to mouth, holding pot, seated, phallus unidentifiable (34-35)
- •Sidelock, lotus buds, hand to mouth, holding pot, seated (36)
- •Lotus buds, hand to mouth, pot unidentifiable, seated (37)

- •Double crown, sidelock?, hand to mouth, large phallus, enthroned (38)
- •Fragmented, sidelock, wreath, lotus buds, double crown (39)
- •Fragmented, elaborate wreath, lotus buds (40)

•Osiris (**41-60**)

- •Mummiform, standing, *atef* crown, asymmetrical hand position (41-45)
- •Mummiform, standing, *atef* crown, symmetrical hand position (46-56)
- •Mummiform, standing, white crown, symmetrical hand position (57)

- •Fragmented, *atef* crown (58)
- •Fragmented, white crown (59)
- •Fragmented, lower body, mummiform (60)

•Isis (**61-68**)
- •Hathor crown, seated, holding child deity (61-67)
- •Fragmented, throne emblem (68)

•Nefertem (**69-76**)
- •Lotus crown with feathers and *menats*, hands at sides, striding (69-74)
- •Fragmented, lotus crown? (75-76)

•Misc. deities (**77-80**)
- •Amun, fragmented (77)
- •Shu, fragmented, kneeling, holding sun disc (78)
- •Neith, fragmented (79)
- •Maat, crouched (80)

•Pharaohs (**81-83**)
- •Blue crown, right arm bent forward, left arm at side, striding (81)
- •Red crown, hands at sides, striding (82)
- •Fragmented, striding/kneeling? (83)

•Cult servant (**84**)
- •Shaven, right arm forward, left arm at side, kneeling, left leg raised (84)

•Unidentified pharaohs or deities (**85-90**)
- •Seated, kilted (85)
- •Striding, kilted, arms at sides (86-90)

•Unidentified figures and fragments (**91-105**)
- •Long, symmetrical headdress, male (91-94)
- •Striding male (95)
- •Striding figure (96)
- •Body fragments (97-105)

•Vulvate and phallic figures (**106-113**)
- •'Baubo', long hair, nude, hands at knees, seated, legs spread (106-107)
- •Female, flat cap, thick hair, nude, holding tambourine (108-109)

- •Male, shaven head, nude, phallic, holding phallic child deity on shoulders (110)
- •Phallus (111-113)

•Foreign style figures (**114-127**)
- •Athena (114-116)
  - •Corinthian helmet, standing, chiton and himation, upper left arm at side (114)
  - •Bust, triple-crested Corinthian helmet (115-116)

•Enthroned goddess, chiton and himation, holding phiale? (117)
•Goddess with polos and wreath (118)
•Young girl, melon coiffure, peplos, left arm with object, right hand holds drapery (119)
•Dionysus bust?, short (eye-level) hair, full beard (120)
•Herakles, striding, nude except for lion skin? (121)
•Fragmented, male, pointed cap with round protrusions, bow at front, snail-shell curls (122)
•Fragmented, male, short-cropped hair (123)

•Standing figure, holding offering (124)
•Theatre mask (125)
•Unidentified figure, male?, pointed cap (126)
•Unidentified figure, feet (127)

**Hybrid Figures (128-138)**

- Bes, crowned, standing, hands at knees (**128-131)**

- Falcon-headed deities (**132-135**)
  - Double crown, tripartite wig, striding, kilted, hands at sides (132)
  - Double crown, seated, nude (133)
  - Double crown, nude?, arms held forward (134)

  - Sun disc, tripartite wig, striding, kilted, right arm at chest, left arm held forward (135)

- Feline-headed deities (**136-138**)
  - Cat-headed, female, striding, left arm at chest holding aegis, right arm held forward (136)
  - Lion-headed, female, tripartite wig, striding (137)
  - Lion-headed, female?, tripartite wig (138)

**Zoomorphic Figures** (**139-261**)

Sacred Animals (**139-214**)

- Falcons (**139-162**)
  - Falcon, double crown, platform (139-160)
  - Falcon, crown?, platform (161)
  - Fragmented, falcon, lotus standard (162)

- Ibises (**163-167**)
  - Striding (163-165)
  - Seated (166-167)

- Bird fragments or attachments (**168-177**)
  - Bird feet, falcon or ibis (168-175)
  - Bird foot, falcon or vulture, holding the *shen* amulet (176)

- Vulture head (177)

- Uraei (**178-187**)
  - Cobra, sun disc, truncated at tail (178)
  - Cobra, truncated at tail (179-180)
  - Two cobras joined, sun discs, truncated at tail (181)
  - Cobra with upright, stacked coils (182-185)
  - Cobra, white crown, two flanking figures (186)
  - Snake or eel? (187)

- Canine figures (**188-194**)
  - Canine, standing (188-192)
  - Fragmented, canine head (193)
  - Fragmented, canine ear (194)

- Cats (**195-200**)
  - Cat, seated (195-199)
  - Fragmented, cat head (200)

- Misc. sacred animals (**201-214**)
  - Bull, striding, sun disc (201-203)
  - Baboon, seated, lunar disc (204-205)
  - Monkey, arms at chest, phallic (206)
  - Ram heads (207-209)
    - Double ram heads (207)
    - Single ram head (208-209)
  - Ichneumon (210-211)
  - Shrew (212)
  - Lizard (213)
  - Scarab (214)

Non-Sacred Animals (**215-261**)
- Elephants (**215-228**)
  - Elephant, rider in military dress (215-227)
  - Elephant, fighting platform, battle gear (228)

- Horses (**229-237**)
  - Rearing horse, fallen enemy, cuirass, shield (229-234)
  - Rearing horse, rider in military dress (235-236)
  - Fragmented, horse and rider (237)

- Lions (**238-245**)
  - Lion, striding (238-240)
  - Lion, seated, half body (241)
  - Lion, head (242-244)
  - Lion, leg (245)

- Misc. birds (**246-251**)
  - Owl? (246)
  - Bird, large beak, bell (247)
  - Bird (248)
  - Flying bird (249)
  - Rooster (250)
  - Bird, head and neck (251)

- Misc. Non-Sacred Animals (**252-261**)
  - Pig (252-254)
  - Hedgehog (255)
  - Hippopotamus (256)
  - Dolphin (257)
  - Unidentified animals (258-260)
  - Shell (261)

**Inanimate Attachments, Supports, and Amulets (262-329)**

- Crowns and other adornments (**262-291**)
  - Sidelock (262)
  - *Hemhem* crown, 3 *hems*, sun discs, feathers, ram horns (263-264)
  - *Atef* crown attachments (265-268)
    - Feather, uraeus, ram horn, hanging uraei pair (265-267)
    - Feather attachment (268)
  - Curved ram horns. some probably from *atef* crown (269-273)
  - Hathor crown, horns, with and without sun disc (274-277)
  - Lunar crescent (278)
  - Solar disc (279-282)
  - Double feather crown, sun disc (283-286)
  - Beard (287-289)
  - Wing fragment (290)
  - Pendant loop (291)

- Bases and other supports (**292-304**)
  - Bases (292-300)
  - Standard with feet? (301)
  - Fork? (302)
  - Papyrus support (303)
  - Naos (304)

- Barks (**305-315**)
  - Barks (305-309)
  - Fragmented, barks (310-315)

- Thrones (**316-319**)
  - Bark throne (316-318)
  - Throne and base (319)

- Misc. inanimate amulets and mould (**320-329**)
  - Offering tables (320-321)
  - *Wadjet* eye (322-323)
  - Double *hes* (324)
  - Papyrus column (325)
  - Plaque (326)
  - Sun disc on papyrus (327)
  - Naos amulet? (328)
  - Mould (329)

## *Appendix 9: Child Deity Characteristics*

## (a) Pharaonic Style

| Cat. No. | Sidelock | Hand to mouth | Hands at sides | Crown | Seated | Striding/ Standing | Crouched | Pedestal | Loop/ Hole |
|---|---|---|---|---|---|---|---|---|---|
| 1 | ✓ | x | ✓ | ✓ | ✓ | x | x | ✓ | x |
| 2 | ✓ | ✓ | x | ✓ | ✓ | x | x | | x |
| 3 | ✓ | ✓ | x | ✓ | ✓ | x | x | | ✓ |
| 4 | ✓ | | | ✓ | x | ✓ | x | | x |
| 5 | ✓ | | | ✓ | | | | | |
| 6 | ✓ | ✓ | x | ✓ | ✓ | x | x | ✓ | x |
| 7 | ✓ | x | ✓ | ✓ | ✓ | x | x | x | ✓ |
| 8 | | ✓ | x | ✓ | x | x | ✓ | ✓ | x |
| 9 | | ✓ | x | ✓ | ✓ | x | x | ✓ | x |
| 10 | ✓ | ✓ | x | ✓ | x | ✓ | x | | x |
| 11 | ✓ | ✓ | x | ✓ | x | ✓ | x | | x |
| 12 | ✓ | ✓ | x | x | x | ✓ | x | ✓ | ✓ |
| 13 | ✓ | x | ✓ | x | ✓ | x | x | ✓ | x |
| 14 | ✓ | x | ✓ | x | ✓ | x | x | ✓ | x |
| 15 | ✓ | x | ✓ | x | ✓ | x | x | | x |
| 16 | ✓ | ✓ | x | x | ✓ | x | x | ✓ | x |
| 17 | ✓ | ✓ | x | x | ✓ | x | x | ✓ | ✓ |
| 18 | ✓ | ✓ | x | x | ✓ | x | x | ✓ | ✓ |
| 19 | ✓ | ✓ | x | x | ✓ | x | x | x | x |
| 20 | ✓ | ✓ | x | x | ✓ | x | x | x | x |
| 21 | ✓ | | | x | ✓ | x | x | | x |
| 22 | ✓ | | | ✓ | ✓ | x | x | | x |
| 23 | ✓ | ✓ | x | | ✓ | x | x | | x |
| 24 | | x | ✓ | | ✓ | x | x | x | x |
| 25 | | x | ✓ | | ✓ | x | x | x | x |
| 26 | ✓ | ✓ | x | | | | | | x |

| Cat. No. | Sidelock | Hand to mouth | Hands at sides | Crown | Seated | Striding/ Standing | Crouched | Pedestal | Loop/ Hole |
|---|---|---|---|---|---|---|---|---|---|
| 27 | | | | | x | ✓ | x | | ✓ |
| 28 | | | | | x | ✓ | x | x | x |
| Total | 22 | 15 | 7 | 12 | 19 | 6 | 1 | 10 | 6 |

## (b) Ptolemaic Style

| Cat. No. | Pot | Phallus | Sidelock | Lotus buds | Wreath | Double crown |
|---|---|---|---|---|---|---|
| 29 | ✓ | ✓ | ✓ | x | x | x |
| 30 | ✓ | ✓ | ✓ | x | x | x |
| 31 | ✓ | ✓ | ✓ | x | x | x |
| 32 | ✓ | ✓ | ✓ | x | x | x |
| 33 | ✓ | ✓ | ✓ | x | x | x |
| 34 | ✓ | x | ✓ | x | x | x |
| 35 | ✓ | x | ✓ | x | x | x |
| 36 | ✓ | x | ✓ | ✓ | x | x |
| 37 | | x | x | ✓ | x | x |
| 38 | x | ✓ | ✓ | x | x | ✓ |
| 39 | | | ✓ | ✓ | ✓ | ✓ |
| 40 | | | x | ✓ | ✓ | |
| Total | 8 | 6 | 10 | 4 | 2 | 2 |

## *Appendix 10: Osiris Characteristics*

### (a) Body features

| Cat. No. | Arms Crossed | Right Fist Over Left (Asym) | Fists Even (Sym) | Ridged Shroud | Back Pillar | Two Parallel Ends | One Long End | No Ends | Loop | Tenon | Beard |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 41 | x | ✓ | x | ✓ | x | x | ✓ | x | x | ✓ | Strut |
| 42 | x | ✓ | x | ✓ | x | x | ✓ | x | x | ✓ | Attached |
| 43 | x | ✓ | x | x | ✓ | x | ✓ | x | ✓ (2) | ✓ | Attached |
| 44 | x | ✓ | x |  | x | ✓ | x | x | x | ✓ | Attached |
| 45 | x | ✓ | x | x | x | x | ✓ | x | x | x | Attached |
| 46 | x | x | ✓ | x | x |  |  |  | x | ✓ | Separate |
| 47 | x | x | ✓ | ✓ | x | ✓ | x | x | x | ✓ | Attached |
| 48 | x | x | ✓ | x | x | x | x | ✓ | ✓ (2) | ✓ | Attached |
| 49 | x | x | ✓ | x | ✓ | x | x | ✓ |  | x | Attached |
| 50 | x | x | ✓ | x | x | ✓ | x | x | x |  | Attached |
| 51 | x | x | ✓ | x | x | ✓ | x | x | x | ✓ | Attached |
| 52 | x | x | ✓ | x | x | x | x | ✓ | ✓ | ✓ | Attached |
| 53 | x | x | ✓ | x | ✓ | ✓ | x | x | ✓ | ✓ | Attached |
| 54 | x | x | ✓ | x | x | ✓ | x | x | x |  | Attached |
| 55 | x | x | ✓ | x | x | x | x | ✓ | ✓ (2) | x | Attached |
| 56 | x | x | ✓ | x | x | ✓ | x | x | x | ✓ | Attached |
| 57 | x | x | ✓ | ✓ |  | ✓ | x | x | x | ✓ | Attached |
| 58 |  |  |  |  |  |  |  |  |  |  |  |
| 59 |  |  |  |  |  |  |  |  |  |  | Attached or Strut |
| 60 |  |  |  |  |  |  |  |  |  | ✓ |  |
| Total | 0 | 5 | 12 | 4 | 3 | 8 | 4 | 4 | 5 | 13 | 1 (Strut) 1 (Sep) 15 (Att.) |

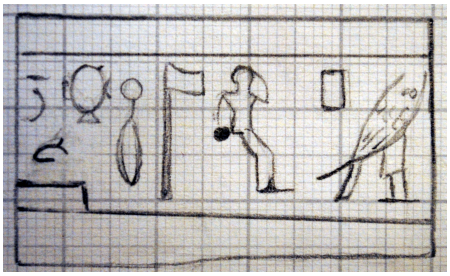
## (b) Crown features

| Cat. No. | *Atef* | Horns | Sun disc | White Crown |
|---|---|---|---|---|
| 41 | ✓ | x | x | x |
| 42 | ✓ | x | x | x |
| 43 | ✓ | x | x | x |
| 44 | ✓ | x | x | x |
| 45 | ✓ | x | x | x |
| 46 | ✓ | ✓ | x | x |
| 47 | ✓ | ✓ | x | x |
| 48 | ✓ | x | x | x |
| 49 | ✓ | | | x |
| 50 | ✓ | | x | x |
| 51 | ✓ | | x | x |
| 52 | ✓ | x | x | x |
| 53 | ✓ | | x | x |
| 54 | ✓ | ✓ | x | x |
| 55 | ✓ | | x | x |
| 56 | ✓ | | ✓ | x |
| 57 | x | x | x | ✓ |
| 58 | ✓ | x | x | x |
| 59 | x | x | x | ✓ |
| Total | 17 | 3 | 1 | 2 |

## *Appendix 11: Inscriptions*

**(1) <u>Base 292</u>[1]**

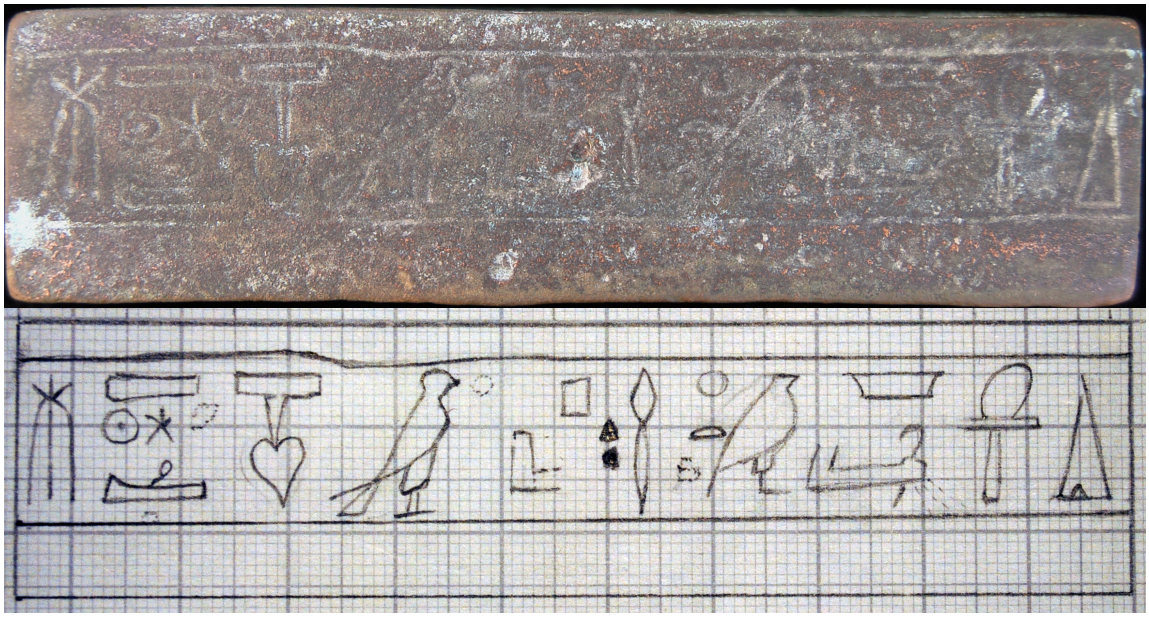
*Side 1:*



Hr-pA-Xrd nTr aA Hr.y-ib km-wr[2]

Harpokrates, great god, who is in Athribis

*Side 2:*



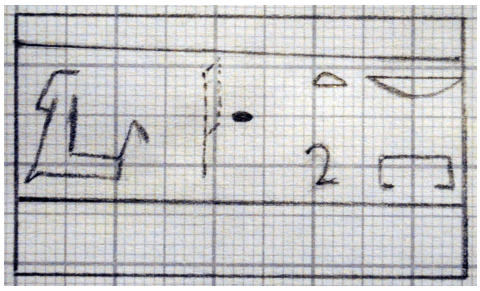
di anx ir(i)-aA[3] ... pA-di-Hr-smA-tAwy ms.n

Who gives life to the doorkeeper, ..., Padihorsematawy,[4] born of

---

[1] The translation, transliteration, and all notes for inscription 1 (base **292**) were provided by Elsbeth van der Wilt. Photos are by the author, and the drawing was done by Elsbeth van der Wilt.
[2] km-wr: Leitz 2002, 350, no. 11. See the Harpokrates bronze in the Walters Art Gallery, no. 54.549 (Steindorff 1946, no. 441), which is dated to 22nd Dynasty due to name of the father Takeloth.
[3] ir(i)-aA: *Wörterbuch der aegyptischen Sprache* I, 164.
[4] pA-di-Hr-smA-tAwy: Ranke 1935, 125, no. 15

*Side 3:*



nb.t-pr [tA ...i (?)]

the lady of the house NN

*Side 4:*

ir(i)-aA ... pA-di-Bast[5] ir(i).n (?) Dd-Ast-iwf-anx[6]

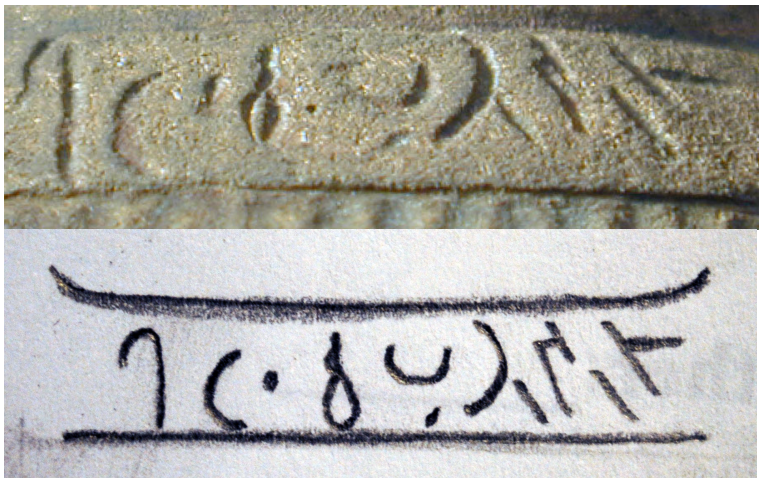
The doorkeeper ... Padibast, made by (=grandfather of owner) Djedisisiufankh

[5] pA-di-Bast: Ranke 1935, 123, no. 5
[6] Dd-Ast-iwf-anx: Ranke 1935, 409, no. 16

**(2) Osiris**

The base of this figure is inscribed on all sides but was not available for close examination.

**(3) Pharaoh 81**[7]



hkA Nfr-ib-re[8]?

Ruler/lord Neferibre

**(4) Base 294**

Bast di anx Ast

Bastet, who gives life to Isis

[7] Photo of pharaoh **81**'s inscription by Philippe Rousseau.
[8] Neferibre/Psamtik II: von Beckerath 1999, 216-217, T1.

**(5) <u>Base 295</u>**

*Side 1* *Side 2*



*Side 1:*
imn...
Amun...

*Side 2:*[9]
ms(.n) nb.t-pr t3-n.t-Hr...
born of the lady of the house, Tanethor[10] ('she of Horus')...

**(6) <u>Base 296</u>**

Front:
... di anx...
... gives life...

[9] The end of the inscription on side 2 is eroded and at this time Elsbeth van der Wilt and I cannot fully reconstruct the signs, although we may be able to determine them with further examination in the future. Fabre provides an alternate reading in the excavation database: "[...] *enfanté par la maîtresse de maison Titna, son père Amon* [...]" where 'Amun' is part of the patronymic, rather than the start of the inscription.
[10] Ranke 1935, 362, no. 10.

## *Appendix 12: Function*

### Statuettes

**1-2** (Ph. style child deities)
**4-6** (Ph. style child deities)
**8-11** (Ph. style child deities)
**13-16** (Ph. style child deities)
**19-26** (Ph. style child deities)
**28** (Ph. style child deity)
**29-40** (Pt. style child deities)
**41-42** (Osiris)
**44-47** (Osiris)
**49-51** (Osiris)
**54** (Osiris)
**56-60** (Osiris)
**61-68** (Isis)
**71** (Nefertem)
**76** (Nefertem)
**77** (Amun)
**79** (Neith)
**81-83** (Pharaohs)
**84** (Cult servant)
**85-86** (Unidentified deities)
**88-90** (Unidentified deities)
**91-97** (Unidentified anthro/fragments)
**99-105** (Unidentified anthro/fragments)
**106-107** ('Baubo')
**108-109** (Nude females)
**110** (Phallic cult servant, limestone)
**111-113** (Phalli)
**114** (Athena)
**117** (Seated goddess)
**118** (Goddess with polos)
**119** (Tanagra figure)
**121** (Herakles)
**122** (Male head, pointed cap)
**123** (Male head, blockish)
**124** (Offering bearer)
**126** (Head, anthro)
**127** (Base)
**129-131** (Bes)
**133-135** (Falcon-headed deities)
**136-138** (Feline-headed deities)
**157-159** (Falcons)
**161** (Falcon)
**163** (Ibis)
**165-167** (Ibises)
**168-175** (Falcon/ibis leg attachments)
**187** (Snake or eel?)
**193-194** (Canine fragments)
**196** (Cat)
**198-200** (Cats)
**201-203** (Bulls)
**204-205** (Baboons)
**215-228** (Elephants)
**229-237** (Horses)
**238-240** (Lions)
**244** (Lion)
**246** (Owl)
**250** (Rooster)
**251** (Bird)
**252-254** (Pigs)
**256** (Hippopotamus)
**257** (Dolphin)
**262** (Sidelock)
**264** (*Hemhem*)
**271-273** (Ram horns)
**277** (Horn)
**278** (Lunar crescent)
**280-282** (Solar discs)
**283-286** (Amun crown)
**290** (Wing)
**292-304** (Bases and supports)
**305-315** (Barks and bark fragments)
**316-319** (Thrones)
**329** (Mould)

### Amulets

**3** (Ph. style child deity)
**7** (Ph. style child deity)
12 (Ph. style child deity)
**17-18** (Ph. style child deities)
**27** (Ph. style child deity)
**43** (Osiris)
**48** (Osiris)
**52-53** (Osiris)
**55** (Osiris)
**70** (Nefertem)
**72-75** (Nefertem)
**78** (Shu)

**87** (Unidentified deity)
**128** (Bes)
**132** (Falcon-headed deity)
**139-156** (Falcon pendants)
**176** (Falcon/vulture leg with *shen*)
**182-185** (Uraei)
**206** (Monkey)
**214** (Scarab)
**255** (Hedgehog)
**258-259** (Animals)
**290** (Suspension loop)
**320-321** (Offering tables)
**322-323** (*Wadjet* eyes)
**324** (Double *Hes*)
**325** (Papyrus sceptre)
**326** (Plaque)
**328** (Naos amulet?)

## Animal Sarcophagi

**195** (Cat)
**197** (Cat)
**210-211** (Ichneumons)
**212** (Shrew)
**213** (Lizard)

## Standards

**80** (Maat)
**162** (Bird on lotus)
**164** (Ibis)
**186** (Uraeus)
**188-191** (Wepwawet)

## Statuary

**98** (Eye inlay)
**177** (Vulture head)
**178-181** (Uraei)
**263** (*Hemhem*)
**265-268** (*Atef*)
**269-270** (Ram horns)
**274-276** (Hathor crown)
**279** (Solar disc)
**287-289** (Beards)

## Miscellaneous

### Egyptian Cult Equipment

**207-209** (Rams)
**241** (Lion)
**245** (Lion)
**247-248** (Birds)

### Other

**115-116** (Athena)
**120** (Dionysus)
**125** (Theatre mask)
**160** (Miniature falcon)
**192** (Miniature Wepwawet)
**242-243** (Lions)
**249** (Bird)
**260** (Animal)
**261** (Shell)
**327** (Sun disc on lotus)

## *Appendix 13: Articles, Heinz*

1. Heinz, S. 2011. The Lead Statuettes and Amulets of Heracleion-Thonis. In M. Bergeron and A. Smith (eds.). *The Gods of Small Things. Proceedings from the Conference Held in Reading, 21-22 September 2009*. Pallas: Revue d'études antiques. Toulouse, 211-232.

2. Heinz, S. In Review. Casting Technology at an Egyptian Harbour Town and the Cultural Implications. *Anatolica.*

3. Heinz, S. In Review. Heracleion-Thonis Statuettes and Cultural Communities. In A. Villing and R. Thomas (eds.). Seminar Proceedings, *Naukratis Workshop, December 2011*, British Museum, London.

Redaction notice: the articles listed above have been removed for copyright reasons.