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The American University in Cairo

School of Humanities and Social Sciences

AMETHYST, APOTROPAIA, AND THE EYE OF RE

A Thesis Submitted to
The Department of Sociology, Anthropology, Psychology, and Egyptology

In partial fulfillment of the requirements for

The degree of Master of Arts

By Laurel Darcy Hackley

Under the Supervision of Dr. Salima Ikram July 2014

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ABSTRACT

This thesis, Amethyst, Apotropaia, and the Eye of Re, was submitted to the American University in Cairo by Laurel Darcy Hackley, under the supervision of Dr. Salima Ikram.

Two specific aspects of Middle Kingdom Egyptian apotropaia, amethyst amulets and inscribed ivory wands, are connected by their religious, magical, and mythological connotations. The shared significance of these objects is made clear by iconographic similarities and textual references. The wands in particular are shown to represent a particular mythological moment, the return of the Solar Eye of Re to Egypt. Both amethyst objects and ivory wands reference this important mythological event in ways that illustrate the multi-level importance of the myth in the cultural landscape of the Middle Kingdom Egyptians.

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INTRODUCTION

This thesis explores the connections between two aspects of ancient Egyptian material culture: objects made of amethyst, and inscribed ivory "magic wands," a form of apotropaia, or magical prophylactic, typical of the Middle Kingdom. These two classes of artifact are connected chiefly through their iconography and symbolic connotations, which in many respects can be traced to the Predynastic period of Egypt's history. Their popularity in the Middle Kingdom can be explained by the expansion of the Egyptian empire, by a renewed concern with social issues current in the Predynastic, and by an increase in personal piety that fostered the development of amulets and apotropaic rituals.

Amethyst is mentioned with relative frequency in Egyptological literature, generally in reference to jewelry, but is rarely discussed as a topic in its own right. Considering that Egypt's Eastern Desert is one of the primary sources of the material for of the ancient Mediterranean, this is an oversight. The present study looks at Egyptian amethyst objects from the Predynastic examples through the end of the New Kingdom. The first cultural uses of amethyst date to the Predynastic period, and its appearance, mostly in jewelry, is attested infrequently but steadily throughout the Early Dynastic Period and the Old Kingdom. Beginning in the First Intermediate Period there is a dramatic spike in the popularity of amethyst and by the Middle Kingdom, the once uncommon gemstone is suddenly ubiquitous. It is at this time that industrial-scale mining infrastructure appears around amethyst deposits in the Eastern Desert, and large expeditions are mounted to exploit these mines.

Middle Kingdom amethysts appear as beads and scarabs but most importantly as a corpus of amuletic figures that are related to one another by their association with amethyst's place of origin, the southeastern desert, and by certain mythological connections, most particularly with the Myth of the Wandering Goddess, also called the

Myth of the Solar Eye of Re.¹ Through these connections, it is possible to draw conclusions about the symbolic value of amethyst to the ancient Egyptians.

After the Middle Kingdom the immense popularity of amethyst wanes but the material remains in use in amulets and, particularly, in scarabs. Small Egyptian objects in amethyst are found throughout imperial Egypt's wide sphere of influence, most notably in Northern Syria and in Cyprus. Amethyst almost entirely disappears from the material record at the end of the New Kingdom, and does not become popular again until Ptolemaic times.

The pattern in the popularity and use of amethyst is interesting in terms of the economic and symbolic significance of the stone both in Egypt and in the wider region. Beyond the simple perceived value of amethyst are questions of foreign influence, linguistics, fashion and aesthetics, magic, infrastructure and development. However, this paper will focus particularly on the significance of amethyst in the Middle Kingdom and the factors influencing its popularity. This will be achieved through comparison of amethyst items to another class of objects which appears suddenly at the beginning of the Middle Kingdom and disappears just as abruptly at the end of the Thirteenth Dynasty: ivory apotropaic wands.

These are a distinct group of objects, held in museum collections all over the world and easily recognized by their shape and decoration. They are generally formed from curving sections of hippopotamus tusk, planed flat, and inscribed with processions of knife-wielding demons and deities. A great deal has already been written about these objects and it is widely accepted that they served as amulets for mothers and small children.² Although this is almost certainly correct, their exact significance has not been satisfactorily explained. This may be sought in an analysis of the iconography of the wands, which is very similar to that of amethyst amulets. This paper proposes that the processions of animals and demi-gods on the wands depict a very specific mythological moment, the return of the Eye Goddess from her sojourn in the southeastern desert. The implications of this explanation will be discussed in detail below.

¹ F. de Cenival, Le Myth de l'Oeil du Soleil (Gisela Zauzich Verlag, 1988).

² See: G. Steindorff, 'The Magical Knives of Ancient Egypt.' *The Journal of the Walters Art Gallery* 9 (1946), 41-51.

The appearance of magic wands in the Eleventh Dynasty (2125-1985 BC)³ is part of a larger trend toward personal religion and domestic cult activity. Following the political breakdown of the First Intermediate Period (2160-2025 BC), religion was no longer solely a state affair. Private individuals were beginning to negotiate their own relationships with divinities, as evidenced by the increase in amulets and ritual paraphernalia in private contexts. Personal names of the period also incorporate the names of divinities with a new frequency, indicating a tendency to identify oneself, in a very personal and intimate way, with a particular god.

For both object classes, amethyst and apotropaic wands, it is important to remember another aspect of the cultural context of the early Middle Kingdom: the return of social concerns of the Predynastic period. The Old Kingdom had been characterized by a tightly centralized administration with few interests outside the Nile Valley. As the state re-consolidated at the end of the First Intermediate Period, it was with a greater awareness of Egypt's neighbors, most notably the Nubians to the south but also the nomads of the eastern and western deserts and the peoples of the Levant. The Egyptian interest in these groups is evidenced by the careful contemporary depictions of their colorful costumes and their exotic goods. 4 However, the entrance of strangers would have inspired a certain amount of anxiety in a culture comfortably contained by the Nile Valley. According to the metaphors of the time, foreign influences were potential agents of chaos, destruction, and upheaval, threatening to the laws of *maat*, or cosmic balance. Foreign animals and people had long been used as iconographic shorthand for menacing forces the king of Egypt needed to subdue and control. When the Egyptian empire began to expand, actively seeking contact with outside influences, the conceptual relationship with the foreign needed to be renegotiated. One solution for integrating the desirable aspects of foreign cultures was the concept of pacification or, in this case, Egyptianization: a process whereby potentially dangerous influences from outside the Nile Valley could be rendered benign and incorporated into the Egyptian system. This concept is pivotal to Pharaonic religion, the conception of the cosmos, and imperial

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³ I. Shaw, Ed., *The Oxford History of Ancient Egypt.* (Oxford: Oxford University Press, 2000). 480. For the full chronology used in this thesis, see Chapter 1 below.

⁴ J. Kamrin, *The Cosmos of Khnumhotep II at Beni Hassan*. (Kegan Paul International, 1999).

strategy. In many ways, the following paper is a study of the manifestation of this need in material and visual culture.

Amethyst and Apotropaia in Egyptological Literature

This thesis synthesizes research from a variety of subject areas in order to present a new perspective on amethyst and apotropaia in Middle Kingdom Egypt. The publications discussed below represent the relevant foundational literature on Egyptian amethyst, jewelry, language, and iconography, as well as mythology and religion. Only by using this very broad range of sources has it been possible to form a complete picture of the significance of these objects in the Second Millennium cultural imagination.

The bulk of the Egyptological literature on amethyst treats it as a material that is mined, almost as an afterthought, from sites where gold is also extracted. The entries in Lucas, *Materials and Industries* (1926) and Nicholson and Shaw, *Materials and Technology* (2000) merely give a brief description of the material as a pale to deep purple quartz used in Middle Kingdom jewelry and list sites where it was extracted.

The site most exploited for amethyst, Wadi el Hudi in the Eastern Desert, was first surveyed in 1926 by geologist Labib Nassim (1926). Archaeological work was undertaken in 1939 by G.W. Murray and Ibrahim Abdel 'Al. Epigraphic studies of the numerous inscriptions and stelae at the site, mostly dating to the Middle Kingdom and the Roman period, were published by A.E. Rowe (1939), A. Fakhry (1946), and A. Sadek (1985). The archaeological remains have been most thoroughly discussed by I. Shaw (1993, 2000, 2002, 2007), who conducted a survey in 1992. Shaw identifies all of the mines at the site as exploited amethyst deposits and dates at least three of the twelve installations to the Middle Kingdom on the strength of inscriptions, pottery, and architecture. However, his primary concern is the comparison of the extant structures to fortresses of the same period. A new survey of Wadi el-Hudi is being conducted by Kate Liszka of Princeton University, although results have yet to be published. Brief discussions of other amethyst mines in the eastern desert can be found in L. Bradbury, 'God's Land' (1988), and J. Harrell and S. Sidebotham, 'Wadi Abu Diyeiba: an amethyst quarry in Egypt's Eastern Desert' (2004).

Throughout this body of work little attention is given to the material itself or why such extensive and permanent infrastructure was created to obtain it. The value of amethyst as a commodity is implied but not explored in papers that use the appearance of Egyptian amethyst elsewhere in the Bronze Age world as evidence for trade relations and cultural exchange. Both C. Lilyquist (1993) and G. Scandone-Matthiae (1997) use amethyst scarabs found at Ebla to support their arguments for exchange between Egypt and northern Syria. J.D.S. Pendlebury (1930) mentions amethyst and carnelian beads found at Pyrgos, on Crete, in his methodical catalog of the material connections between Crete and Egypt. Further Aegean connections are made with amethyst objects by R.S. Merrillees and J. Winter (1972), and J. Phillips (2009). No discussion is offered on whether the amethyst beads and scarabs in question traveled because of their aesthetic appeal, their distinctive Egyptian-ness, or their intrinsic material value.

Works on jewelry cannot avoid mentioning amethyst because of its pervasive use in the impressive pieces that survive from the Middle Kingdom, but they only remark that amethyst appears in this period due to a caprice of fashion. The standard works on the subject, C. Aldred, *Jewels of the Pharaohs: Egyptian Jewelry of the Dynastic Period* (1978), A. Wilkinson, *Ancient Egyptian Jewellery* (1971) and C. Andrews, *Ancient Egyptian Jewelry* (1991), acknowledge amethyst as a gemstone and remark upon its special popularity in the Middle Kingdom. However, none attempts an explanation of this phenomenon. Several sources, including *The Encyclopedia of the Archaeology of Ancient Egypt* (1999), explain the gem's relative scarcity in other periods by suggesting that its purple color was in disharmony with the preferred Egyptian palette of red, blue, and gold. This explanation makes an assumption about Egyptian taste and ignores the fact that although rare, amethyst jewelry appears throughout dynastic history.

Literature on the significance of the material in the Pharaonic period, or even the significance of its distinctive purple color, does not appear to exist. More is written about the color's apparent exclusion from the Egyptian palette, as in J. Baines' article 'Color Terminology' (1985), in which he points out that there is no word for this shade.

Nevertheless, it seems clear that either the material or the color had some meaning, for its use in amulets is consistent and recorded in both W.F. Petrie, *Amulets* (1914), and Carol Andrews, *Amulets* (1994). Again, in these works there is no discussion of the

significance of the material itself although other materials are discussed in these terms. Perhaps the most relevant piece on the subject is a short article by Henry Fischer (1966), who notes in parallel the rise and fall of amulets shaped like the ambiguously regarded turtle, and the fact that turtle amulets are often made in amethyst.

The lack of literature on the significance of amethyst makes it necessary to look farther afield for a possible explanation of what amulets in this material might mean. Shared iconographic themes suggested it would be profitable to conduct a survey of ivory apotropaic wands, which, like amethyst, appear at the beginning of the Middle Kingdom and enjoy the zenith of their popularity during this period. These wands, due to their arcane appearance and relative ubiquity, have been the subject of a number of papers and have also inspired some larger works. The most comprehensive of these is H. Altenmuller's dissertation Die Apotropaia und die Gotter Mittelagytens (1965), which catalogs a large number of wands and fragments and discusses in detail the motifs found on them. W.F. Petrie published a number of wands from the Cairo Museum in his volume Objects of Daily Use (1927). G. Steindorff's article 'The Magical Knives of Ancient Egypt' (1946) treats the subject more briefly, providing a selected catalog and a basic review of the theories concerning their use. More particular analyses of the wands, their use, and their motifs are given in a number of other papers. The most useful for the purposes of this study are J. Roberson, 'The Early History of 'New Kingdom' Netherworld Iconography: A Late Middle Kingdom Apotropaic Wand Reconsidered' (2009) and E. Liptay, 'From Middle Kingdom Apotropaia to Netherworld Books' (2011). These newer articles take a closer look at the individual characters depicted on the wands, which are of special relevance to this paper. However, the analysis of the wands' iconography and meaning that will be offered here draws on a particular text that the previous papers mention in passing but do not discuss in detail: the Myth of the Solar Eye of Re, also called the Myth of the Wandering Goddess.

The myth is most completely published by F. de Cenival as *Le Myth de l'Oeil Soleil* (1988). The themes of the story and the rituals related to it are best treated in two articles by J. Darnell, 'Hathor Returns to Medamud' (1995) and 'The Apotropaic Goddess in the Eye' (1997). An excellent article by B. Richter, 'On the Heels of the Wandering Goddess' (2010), makes case studies of three sites where the Wandering

Goddess was celebrated and provides very useful commentary. J. Quack offers a good discussion of the animals in the myth and the distinctions between versions of the story in his article 'The Animals of the Desert and the Return of the Goddess' (2009). However, none of these works attempt to identify cultural or material manifestations of the myth, or to investigate the influence the myth may have had on the thought and religious behavior of individuals who were familiar with it. This is the issue that this thesis undertakes to explore, using the texts listed above as a point of departure.

This thesis is organized into eight chapters. Chapter One is an introduction to the questions that will be pursued and a brief discussion of the methodology and some of the problems encountered during research. Chapter Two concerns the significance of the color purple, and will provide a background for the subsequent discussion. Chapters Three and Four discuss amethyst: the properties of the material, infrastructure for extracting it, and the types of amulets made in amethyst in different periods. Chapters Five and Six concern apotropaic wands and their iconography, especially in light of their connection to the Myth of the Eye of Re, which will also be discussed in detail. Chapter Seven is a detailed figural catalog of motifs found in both amethyst amulets and apotropaic wands, with a full discussion of each. Chapter Eight discusses the connection of the goddess Hathor to both genres of apotropaia. This is followed by the Conclusions and the Catalog.

CHAPTER I. RESEARCH QUESTIONS AND METHODOLOGY

Due to the paucity of work carried out on amethyst, the subject offers numerous avenues of inquiry, not all of which can be addressed in one paper. There is evidence that amethyst can be used as a marker in tracing foreign trade and the international transmission of fashion and thought. There is also much work to be done on the questions of infrastructure and economy related to the material, and on its value as a raw commodity. These questions will have to be left for another study. This paper seeks to examine a particular phenomenon: the relationship of amethyst and apotropaia in the Middle Kingdom imagination, and the significance of that connection.

Given the richness of amethyst deposits in Egypt, there are several questions with regard to its use and extraction. These include why it was only popular in some periods, as opposed to other mineral resources, which were exploited throughout Egyptian history? Was amethyst, with its unusual purple color, ever valued for solely aesthetic reasons, or did the material always have an amuletic significance? What associations formed the popular attitude toward the material? Finally, what do the answers to these questions tell us about the Egyptian view of the political, natural, and supernatural worlds, and Egypt's place in them?

This thesis utilizes a primarily object-based approach, using catalogs to create individual data sets for amethyst amulets and apotropaic wands, both classes of objects that peaked in popularity in the Middle Kingdom. These catalogs are used to identify trends within each set, and to compare the two sets to one another. The amethyst catalog includes objects from all periods and is also used to identify chronological trends. As ivory wands are confined to the Middle Kingdom, it was not deemed necessary to divide the wand catalog thus.

Where they exist, texts that refer to the amulets and wands, and to the iconography of both categories, will be reviewed. These textual references will give valuable insights into the cultural value of amethyst, magic wands, and the significance of their shared iconography. Historical, religious, and magical texts will be employed for this purpose.

The three main subjects of the study-- amethyst, magical wands, and religious texts-- are described below.

Amethyst

A collection of amethyst artifacts was compiled from excavation reports and print and online museum catalogs. These include the catalogs of the Metropolitan Museum of Art, the Museum of Fine Arts Boston, the British Museum, the Cairo Museum, and the Petrie Museum.⁵ Because of time, cost of travel, and other practical constraints, the identification of the pieces as amethyst will be taken on good faith from the publications in which they appear. This is problematic, because amethysts are usually visually identified by their distinct color. It should be noted, however, that this color is not at all stable and can fade or disappear completely with heat, exposure to light, or time.⁶ Fluorite, another mineral that can be purple, is also found in Egypt, and may have been mistaken for amethyst in some cases. Additionally, there is a high level of subjectivity in the identification of secondary colors, and the majority of pieces are photographed without color regulation. As it was not possible to personally verify the identification of the material of every piece, the identifications provided by the publications will have to be accepted.

As discussed above, Petrie published a catalog of amulets in 1914. Although in many cases he counted higher instances of specific amulet types than it has been possible to locate for this study, his methodology prevents any of the pieces being incorporated into the present catalog: because he lists his amulets without collection information or accession numbers, it is impossible to know whether a given amulet from his discussion is already included in this catalog. Nevertheless, his distribution is given below (Fig. 1.1.) and is not considerably different from the distribution identified in the present study.

Figure 1.1. Distribution of Amethyst Amulets after Petrie.⁷

⁵ Pieces from other large Egyptian collections, such as those of the Berlin Museum and the Louvre, were included where information was available in print. However, these collections may be underrepresented as these institutions do not make full catalogs available online.

⁶ R. Webster, Gems: Their Sources, Descriptions, and Indentification. (London: Butterworth & Co. 1983).

W. Petrie, *Amulets*. (London: Constable and Co. Limited, 1914).

Figure	Count	Percentage
Hawk	31	34
Baboon	27	30
Hippo	13	14
Udjat	6	7
Sphinx	6	7
Heart	2	2
Turtle	2	2
Frog	1	1
Serekh	1	1
Lion	1	1
Fish	1	1
Total	91	100

Pieces were included in the present catalog if they incorporated any amethyst elements, and if they were dated between the Predynastic and the end of the New Kingdom (see Fig. 1.2.). It was at this point in history that amethyst almost entirely disappears from the material record. It regained popularity in the Ptolemaic period, but the long interval and the strong Hellenistic influence of the time complicate the picture for the associations of amethyst in earlier periods.

Figure 1.2. Chronology⁸

Predynastic	c. 5300- 3000 BC
Early Dynastic	c. 3000-2686 BC
Old Kingdom	2686- 2160 BC
First Intermediate Period	2160- 2025 BC
Middle Kingdom	2025- 1650 BC
Second Intermediate Period	1650- 1550 BC
New Kingdom	1550- 1059 BC

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⁸ Shaw, The Oxford History of Ancient Egypt. 480.

In the catalog, individual pieces were given designations based on form: loose beads were identified as such, and a distinction was made between those with geometric form and those with a figural subject. A figure not pierced for suspension was defined as a figurine. Beads that were excavated as discreet units are given the excavator's identification, that is, 'necklace,' 'anklet,' and so forth. In most of these cases the beads were found on a body. Where it has been possible to restore loose beads from one context in a consistent or symmetrical pattern, the identification of a discreet piece of jewelry has been accepted. Where this is not possible mixed beads from one context have been identified as a 'string of beads.'

A significant quantity of the cataloged objects (47%) were non-figural beads. When figural pieces in amethyst are being quantified for comparison, these are excluded from the total. Percentages are designated in the text as '% of cataloged objects,' (including beads) or '% of figural pieces' (excluding beads).

The catalog includes a brief description of each piece, where applicable noting the other materials and motifs that occur with the amethyst. When available, the date, provenance, image, and bibliography are also included. The goal was to arrange this data in such a way as to make it possible to identify patterns in use and motif, both in the corpus overall, and, where possible, in individual pieces that incorporate more than one amulet. These patterns will be analyzed below.

Apotropaic Wands

To aid this analysis, it is necessary to compare the distribution and iconography of amethyst with other objects that occur in the same physical or conceptual contexts. Based on the distribution of figural motifs in amethyst, it was decided to create a parallel catalog of ivory 'magic wands.' These wands form a distinct class of objects particular to the Middle Kingdom that rises and falls in frequency parallel to amethyst amulets. The distribution of figural motifs on the wands bears striking similarities to the distribution of figures in amethyst amulets. This suggests that a comparison of the two might yield

valuable insights into the significance of both classes of object, and into the culture of their time.

To this end, a selection of wands was cataloged in much the same way as the amethyst objects. The catalog was drawn from collections at the British Museum, the Metropolitan Museum of Art, the Walters Art Museum, the University of Pennsylvania Museum of Archaeology and Anthropology, the Petrie Museum, the Cairo Museum, and the Cinquantenaire Museum of the Royal Museums for Art and History. The figures appearing on each wand were cataloged individually in a spreadsheet. When available, the date, provenance, image, and bibliography are included. The goal was to organize the data to highlight overall frequencies in the corpus as well as relationships between the figures on each wand. Although very fragmentary examples were excluded from the catalog, many of the wands are broken. This biases the distribution data for certain motifs, especially those that most often occur at the fragile terminals of the wands. All the same, it was possible to identify meaningful trends that point to a new interpretation of the scenes on the wands.

Texts

Although it is clear from the object study that amethyst and the ivory wands of the Middle Kingdom are thematically related, the incorporation of textual material supports these findings, in some cases providing very explicit evidence of conceptual connections. Some of the most relevant Egyptian texts cited here are the Coffin Texts¹⁰ and the slightly later (Sixteenth Century) Papyrus Berlin 3027.¹¹ The text that inspired this thesis is the Graeco-Roman Hymn to Hathor at Medamud, which describes the physical celebration of a certain mythological episode, the return of the Wandering Goddess to Egypt.¹² Sadly, the best-preserved available texts date to the Ptolemaic period, some thirteen centuries after the period of focus for this paper. Extrapolating backwards so far

⁹ As in the case of the amethyst amulets, cataloged objects were drawn from collection catalogs published online or in print. Several major collections do not make this information readily available.

¹⁰ R. Faulkner, *Ancient Egyptian Coffin Texts*. (Warminster: Aris and Phillips. 1973).

¹¹ A. Erman, Zauberspruche fur Mutter und Kind: Aus dem Papyrus 3027 des Berliner Museums. (Berlin, 1901).

¹² J. Darnell, 'Hathor Returns to Medamud.' Studien zur Altagyptischen Kultur 22 (1995). 47-94.

is fraught with obvious pitfalls. However, the Demotic literature often states in a complete way what is hinted at in much earlier documents.

Through the catalog of the amethysts themselves; the comparison of the amethysts to a contemporary, related group of artifacts, the apotropaic wands; and the synthesis of conclusions drawn from the material evidence with textual support, it should be possible to build a new picture of the significance of amethyst to the Middle Kingdom Egyptian. This applies not only in the realm of material culture, but also provides insights into religion, magic, and, to a certain extent, the cultural and political framework of the period.

CHAPTER II: THE COLOR "PURPLE"

Color was the most important physical property of any material in ancient Egypt. This is indicated by the specification of materials for magical or amuletic objects, and the frequent substitution of those materials with ones of similar hue. For instance, Chapters 159 and 160 of *The Book of Going Forth by Day* indicate how to make a *w3d* amulet out of green feldspar. *W3d* amulets in feldspar are common, but proliferate in a variety of other green materials. Chapter 156 of the *Book of the Dead* gives directions for making a *tyt* amulet from red jasper, and explicitly connects the color of the material to the power of the amulet: as the amulet is made, the maker should say, 'You have your blood, O Isis. You have your power.' *Tyt* amulets occur frequently in red jasper, and even more frequently in a number of reddish materials.

Unfortunately, no analogous references survive for purple. However, given these examples, it seems likely that purple and purple materials also had a specific place in the universe of Egyptian color symbolism. What follows is a brief discussion of Egyptian color terminology and the possible place of the color purple in the Egyptian imagination.

The Color of Amethyst

As the color purple does not appear in painting of the Pharaonic period, we are forced to conclude that purple as a hue was either considered, conceptually, as a shade of another color, or simply did not exist in the environment of the ancient Egyptians. It is true that purple is rare in nature, occurring in a few flowers and, sometimes, in the sunrise and sunset. It is, to be sure, a difficult color to synthesize. Murex dye was known, but was expensive and rare.¹⁶ That being said, other intermediate colors were being

¹³ Of the *w3<u>d</u>* amulets cataloged by Petrie, 16 are of genuine feldspar whereas 100 are made of other green materials. Petrie, *Amulets*. 12.

¹⁴ G. Robins, 'Color Sybolism.' In Redford, D. ed. *The Oxford Encyclopedia of Ancient Egypt.* (Cairo: The American University in Cairo Press, 2001). 291-292.

¹⁵ Petrie, *Amulets*.

¹⁶ R. Hall, Egyptian Textiles. (Aylesbury: Shire Publications, 1986). 10-11.

intentionally mixed for relief painting as early as the Fifth Dynasty (2494-2345).¹⁷ Artists of that time could easily have mixed red and blue, if there had been a reason to do so. Threads of purple wool have been excavated at Amarna, double-dyed with indigotin and madder.¹⁸ A few New Kingdom faience objects from Amarna were cataloged by Petrie as 'violet.'¹⁹ These are the exceptions that prove the rule, however, highlighting the scarcity of purple in the material record. Amethyst objects, then, should present the most significant evidence for the place of the color in the ancient Egyptian imagination.

Color Terminology in the Egyptian Language

A lively discussion centers on color terminology in the ancient Egyptian language. The point of departure is most often Berlin and Kay's *Basic Color Terms: Their universality and evolution.*²⁰ This was a study that sought to judge the development of a language based on the number of abstract terms for colors, and to identify the sequence in which these terms appear. According to Berlin and Kay, the most developed languages in the world have eleven basic color terms: white, black, red, green, yellow, blue, brown, pink, purple, orange, and brown.²¹ The criteria for a basic color term, or 'BCT,' in this model are that it must be abstract and must be the word most commonly used to refer to the particular color. Terms that meet this rubric in Egyptian are $h\underline{d}$, white, km, black, dsr, red, and $w3\underline{d}$, green. This amounts to a paltry four of eleven BCTs.²²

Color terms in Egyptian often take a verbal form- for instance, *dsr* 'to be red.'²³ Color is also designated by an adjectival (*nisby*) construction- that is, 'of red.'²⁴ It is this latter construction that also admits the description of things by comparison to certain materials, most frequently lapis lazuli. Whether this is intended to be literal, metaphorical, or abstract is a matter of debate. David Warburton argues convincingly

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¹⁷ L. Lee and S. Quirke. 'Painting Materials' in Nicolson and Shaw, Eds. *Ancient Egyptian Materials and Technology*. (Cambridge: Cambridge University Press, 2000). 113.

¹⁸ Hall, Egyptian Textiles. 10-11.

¹⁹ Petrie, *Amulets*.

²⁰ B. Berlin, and P. Kay, *Basic color terms: Their universality and evolution.* (Stanford: CSLI Publications, 1969, 1999).

²¹ Berlin, Basic color terms: Their universality and evolution.

²² W. Schenkel, 'Color terms in ancient Egyptian and Coptic.' In R. MacLaury, G. Paramei, and D. Dedrick, Eds. *Anthropology of color: interdisciplinary multilevel modeling*, 211-228. (Amsterdam; Philadelphia: John Benjamins, 2007). 211.

²³ Schenkel, 'Color terms in ancient Egyptian and Coptic,' 211.

²⁴ Schenkel, 'Color terms in ancient Egyptian and Coptic,' 214.

that all color terms are derived from the names of valued materials, and that we should include adjectival descriptors as BCTs in Egyptian.²⁵ In addition to the ubiquitous lapis lazuli and carnelian, he cites an interesting description of a celestial bird with 'wings of green stone.'²⁶ It may be that wings of stone are simply meant to underscore the creature's otherworldliness, but it seems equally likely that 'green stone' is to be understood as describing the *color* of wings made of a more bird-like substance. Although his idea that Egyptian color terms are derived from the names of colored minerals is not universally accepted, the fact remains that an Egyptian's experience of color was inextricably linked with the colored materials available to him.²⁷

David Warburton sites ample evidence for color words being tied to precious substances, and also identifies amethyst as one of the Egyptians' 'six most precious stones.' However, there is no identified instance of *Instant*, the word for amethyst, being used to mean the color purple in Egyptian. The ancient Egyptian language has no abstract word for purple at all, and it does not seem that any attempt was made to describe the color with adjectival phrases. Warburton ventures that this is because the material was introduced later than the others and therefore did not make it into the third millennium vocabulary. However, amethyst was known to the Egyptians at least as early as gold and lapis lazuli, the other materials on which Warburton bases his argument, and so an explanation of its exclusion from the palette must be sought elsewhere.

The word itself, *hsmn*, can mean a number of things, including natron, bronze, menstruation, and a type of food.³¹ It was securely identified as a term for amethyst by

²⁵ D. Warburton, 'The Theoretical Implications of Ancient Egyptian Colour Vocabulary for Anthropological and Cognitive Theory,' *LingAeg* 16 (2008). 254.

²⁶ Warburton, 'The Theoretical Implications of Ancient Egyptian Colour Vocabulary for Anthropological and Cognitive Theory,' 254.

²⁷ Warburton, 'The Theoretical Implications of Ancient Egyptian Colour Vocabulary for Anthropological and Cognitive Theory,' 213-259.

²⁸ Warburton, 'The Theoretical Implications of Ancient Egyptian Colour Vocabulary for Anthropological and Cognitive Theory.' 218.

²⁹ Warburton, 'The Theoretical Implications of Ancient Egyptian Colour Vocabulary for Anthropological and Cognitive Theory.' 223.

³⁰ Warburton, 'The Theoretical Implications of Ancient Egyptian Colour Vocabulary for Anthropological and Cognitive Theory.' 243. Warburton goes on to identify *hasmanum* as a color word in 2nd millennium Akkadian.

³¹ R. Hannig, *Die Sprache der Pharaonen: Großes Handwörterbuch Deutsch-Ägyptisch*. (Mainz: Philipp von Zabern, 2000).

J.R. Harris in his 1961 publication on minerals.³² Although it is not used as a color signifier in Egyptian, a similar word, <code>hasmanu</code>, appears in Akkadian as the name of a stone and can also be used in an adjectival form, <code>hasmanum</code>, to describe a color.³³ The same term, <code>hasmanu</code>, when used as a color signifier, is connected to a mineral called <code>saggilmud</code>.³⁴ Attested in the early Second Millennium, the Akkadian term <code>saggilmud</code> is derived from the Sumerian <code>sag-gir-mud</code>, which is probably the original Mesopotamian term for amethyst.³⁵ <code>Hasmanu</code>, then, is almost definitely a loan word from Egyptian, as both Warburton and Black assert.³⁶ The Egyptian term is first securely attested in the Middle Kingdom, somewhat earlier than the Akkadian term, which appears in the first half of the Second Millennium.³⁷ It would seem that the Egyptian word was adopted in the Near East when amethyst began to be imported from Egypt.

All of the Mesopotamian terms are associated with the color blue. The color designation is derived from a text that defines <code>hasmanu</code> colored wool as being of a color similar to lapis lazuli. It is not, however, actually lapis lazuli colored, as different vocabulary exists for that material and color, and the <code>hasmanu</code>-colored wool is listed as an item distinct from actual lapis-colored wool. Warburton suggests that the shade called <code>hasmanu</code> was a blue that was lighter than the blue of lapis lazuli. Because Egyptian was already using the adjective 'turquoise-colored'(<code>mfkst</code>) to describe this shade, there was no need to adopt a term derived from <code>hsmn</code>. It would seem that 'purple' as we understand it was not acknowledged as a discreet hue anywhere in the region. The color of amethyst, then, may have been conceived of as a shade of blue, separate in color and meaning from the blue of lapis lazuli. The paler blue of turquoise was strongly

³² J. Harris, *Lexographical studies in ancient Egyptian minerals*, (Akademie Verlag, 1961).

³³ M. Roth, Ed. *Chicago Assyrian Dictionary* Vol. 6, H. (Chicago: University of Chicago Press, 1956). 142. ³⁴ J. Black, A. George, and N. Postgate Eds., *A Concise Dictionary of Akkadian*. (Wiesbaden: Harrassowitz, 2000)

³⁵ J. Black, 'Amethysts.' *Iraq* 63 (2001). 183-186. 185.

³⁶ Warburton, 'The Theoretical Implications of Ancient Egyptian Colour Vocabulary for Anthropological and Cognitive Theory.' 247.

³⁷ Roth, *Chicago Assyrian Dictionary* Vol. 6, H. 142.; Black, 'Amethysts.' 184.; W. Horowitz, *Mesopotamian Cosmic Geography*. (Eisenbrauns, 1998). 4.

³⁸ Roth, *Chicago Assyrian Dictionary* Vol. 6, H. 142.

³⁹ D. Warburton, 'Basic Color Term Evolution in Light of Ancient Evidence from the Near East.' In R. MacLaury, Ed., *Anthropology of Color: Interdisciplinary Multilevel Modeling.* (Amsterdam: Benjamins, 2007). 229-246. 241.

⁴⁰ To a native speaker of English, it is very natural to refer to amethyst as 'purple.' However, this identification is highly subjective and may not apply even when speaking with those for whom English is a

associated with Hathor, with the daytime sky, and with the young sun god. In later periods, Amun-Re and Re-Horakhty are often painted blue. ⁴¹ Blue is symbolic of the heavens, the primeval flood, life, rebirth, the Nile, and fertility. Fecundity figures are sometimes painted blue. ⁴² These associations are not far removed from those of amethyst, although amethyst's odd property of being simultaneously blue and red may have leant the material a more specific place among the other shades of blue.

Hsmn, hašmanu, and saggilmud

There is always the possibility that the terms <code>hasmanu</code> and <code>saggilmud</code> were adopted to describe a mineral that was similar to, but not actually, amethyst. However, several references from Near Eastern texts make a positive identification quite probable. For instance, an etymological connection exists between the word <code>hasmanu</code> and the word <code>hasu</code>, the Assyrian name for a mountain in Saudi Arabia. This mountain is attested in the seventh century BC as the 'mountain of <code>saggilmud</code> stone.' In the thirteenth century AD, Mt. Hazu, near Medina, is mentioned by Arab geologists as a source of amethyst. \(^{44}

Saggilmud (Sumerian Saĝ-gir-mud) is also referenced in a Sumerian text as a material from which seals are made. Amethyst was especially popular for seals and scarabs in Egypt, particularly in the New Kingdom, and the majority of Egyptian amethyst objects found outside of Egypt are in this category (British Museum EA 58096, Brooklyn Museum 65.46). Cylinder seals in the Sumerian style are also made in amethyst. Although it is difficult to say where the raw material came from, given the

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second tongue. At the time I was writing this thesis, I saw an attractive amethyst necklace displayed by a jeweler in Cairo's upscale Zamalek neighborhood. When I asked the attendant to remove it from the case, I referred to the necklace as 'purple.' He clarified: 'The blue one?' The only other necklaces in the case were red and green. 'No, the purple,' I insisted. We then repeated the exchange in Arabic, using the terms ' الزرق' and 'الزرق'.' In both languages, my insistence that the necklace was purple fell on entirely deaf ears.

⁴¹ Robins, 'Color Sybolism.' 124.

⁴² R. Wilkinson, *Symbol and Magic in Egyptian Art.* (London: Thames and Hudson, 1994). 107-108.

⁴³ I. Eph'al, *The Ancient Arabs: Nomads on the Borders of the Fertile Crescent 9th-5th Centuries BC.* (Brill, 1982). 133.; C. Johns, *Ancient Assyria*. (Cambridge University Press, 2012). 138.

⁴⁴ S. Abul Huda, *Arab Roots of Gemology: Ahmad ibn Yusuf Al Tifaschi's Best Thoughts on the Best of Stones.* (London: The Scarecrow Press, 1998). 160.

⁴⁵ Materials for the Study of the Sumerian Language 10 60: 174ff 'na4kisib.sag.gir.mud' A forerunner to the Sumerian lexical series HAR-ra=hubullu. Kisib means seal, and when combined with the logogram sag.gir.mud describes a material from which seals, such as scarabs, are made.

⁴⁶ S. Bertman, *Handbook to Life in Ancient Mesopotamia*. (Oxford: Oxford University Press, 2005). 233.

presence of Egyptian amethyst objects in the ancient Near East it is reasonable that the amethyst for the Sumerian seals may have come from Egypt as well.

An interesting reference to *saggilmud* is found in KAR 307, a short religious text that describes the structure of the heavens. The date of the tablet on which the text is inscribed is first millennium, but the text itself may be as early as the Kassite Period (1530-1155 BC).⁴⁷ The relevant section reads:

'...(30.) The upper heavens are *luludanitu* stone. They belong to Anu. He settled the 300 Igigi inside. (31.) The middle heavens are *saggilmud* stone. They belong to the Igigi. Bel sat on the high dais inside, (32.) in the lapis lazuli sanctuary. He made a lamp of electrum shine inside. (33.) The lower heavens are of jasper. They belong to the stars. He drew the constellations of the gods on them.'⁴⁸

This text has been much discussed in terms of the identification and significance of the three sorts of stone, but commentary on the middle heavens being constructed of *saggilmud* mostly accepts the definition of a 'bluish stone.' This is convenient because of the obvious connection between the sky and the color blue, and because of the biblical description of heaven resting on a vault of lapis lazuli or sapphire. However, KAR 307 makes a point of dividing the sky into three separate regions of different material. The times when the sky appears thus divided are dawn and dusk, when refraction of sunlight creates horizontal bands of color above the horizon. Often, one of these colors is a purplish-blue not unlike the color of amethyst. Given the strong connection between *saggilmud*, the material of the 'middle heavens,' and amethyst, this association ought to be considered.

In summary, there is no abstract term in Egyptian for the color purple, and the Egyptians made no attempt to describe the shade adjectivally with the word for amethyst, *Insum.* As this was virtually the only purple material available to the Egyptians, it seems that the possibilities for a salient color term are exhausted. The color of amethyst, then, was not 'purple' as we understand it. Based on ancient Near Eastern languages that use cognates of *Insum* to describe a shade in the blue color family, it would seem that

⁴⁷ Horowitz, Mesopotamian Cosmic Geography. 4.

⁴⁸ KAR 307: 30-33. English translation in Horowitz, *Mesopotamian Cosmic Geography*. 4.

⁴⁹ J. Wright, *The Early History of Heaven*. (Oxford: Oxford University Press, 1999). 35. Horowitz, *Mesopotamian Cosmic Geography*. 13-15.

⁵⁰ Exodus 24:10.

amethyst was most likely considered to be a particular shade of blue. This identification has implications for its apotropaic significance, which will be discussed below.

CHAPTER III. THE MATERIAL: PROPERTIES, ACQUISITION, AND INDUSTRY

Physical Properties

Amethyst is a form of quartz, a crystalline mineral that makes up about twelve percent of the earth's crust.⁵¹ Distinguished primarily by its purple color, amethyst is the quartz most sought after by modern jewelers. The formation of the crystal is hexagonal and the specific gravity of the material is 2.65.⁵² Amethyst has a hardness of 7 on the Mohs Scale, a measure of mineral hardness where 1 is the softest (talc) and 10 is the hardest (diamond). This is comparable to other quartzes and only slightly softer than hardened steel.⁵³

Amethyst is generally found in granites, rhyolites, and gneisses, which are rich in quartz, silica, and radioactive elements such as potassium, uranium, and thorium.⁵⁴ Like other quartzes amethyst most often forms in vugs, hollow cavities that occur in stone for various reasons. The open space in the vug allows crystal formation, usually in a dense covering referred to as a 'drusy mass.' When space is not a limiting factor, the length of the individual crystal is determined by the temperature of the formation environment. Because it is the cooling process that precipitates quartz, the cooler the formation temperature, the shorter the crystal.⁵⁵

The color of amethyst can vary from a deep, almost opaque violet to a pale pink, but the specimens prized as gems are normally a rich, translucent purple. The cause of this coloration was for some time a matter of debate. Textbooks published before the 1980s attribute the color to the presence of manganese, but research of the last decades has proven that it is in fact due to radiation-induced color centers forming around iron

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⁵¹ D. Kile, 'An Overview of the Mineralogy and Curious Optical Propoerties of Amethyst.' In Gilg et. al., eds., *Amethyst: Uncommon Vintage*. (Denver: Lithographie, 2012). 14.

M. Holden, *The Encyclopedia of Gemstones and Minerals*. (New York: Michael Friedman, 1991). 213.
 Hardened steel has a Mohs value of between 7.5 and 8, depending on the method by which it was worked

⁵⁴ A. Gilg, 'In the Beginning: The Origins of Amethyst.' In Gilg et. al., eds., *Amethyst: Uncommon Vintage*. (Denver: Lithographie, 2012). 12.

⁵⁵ Gilg, 'In the Beginning: The Origins of Amethyst.' 10.

impurities in the crystal.⁵⁶ Trivalent iron (Fe³⁺) takes the place of silicon (Si⁴⁺) during crystal formation, creating a charge imbalance. Gamma radiation after the crystal has formed results in unpaired oxygen electrons; the activity of the single electrons causes the purple color.⁵⁷ Amethyst only forms when aluminum content in the crystal is low, otherwise the color will be the syrup-brown of smoky quartz.⁵⁸ It is common for individual crystals to be most intensely colored at the tip, fading to colorless at the base. Thus even in one deposit a wide range of colors may be found.⁵⁹ The purple color of amethyst, because it is expressed by radiation, is not at all stable and can change dramatically when exposed to light or heat. Specimens can even fade in the sun.⁶⁰ A violet amethyst will respond to temperatures of between 400 and 500 degrees Celsius by changing to yellow, brown, or red, or in rare cases green. At higher temperatures the stone will become completely colorless.⁶¹

Amethyst in the Region

There are several identified sources of amethyst in Egypt, including remains of the earliest known amethyst mines in the world. These are listed below. Only two, or possibly three, of Egypt's deposits were worked in antiquity. However, amethyst often weathers out of the softer stone that surrounds it and can be collected directly from the desert surface. Therefore, an absence of mining installation does not mean that a source was not being exploited.

As mentioned above, the most important of the amethyst sources in Egypt, and the best documented, is Wadi el Hudi, 35 kilometers southeast of Aswan. Although it was exhausted by exploitation in antiquity, it is nevertheless identified as a source of amethyst by the Arab Republic of Egypt Ministry of Industry and Material Wealth survey. The same survey identifies Hourat el Greigab, north of Hurghada and east of Assiut, and the

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⁵⁶ G. Lehmann, 'Color Center in Amethyst Quartz.' *Science*. New Series Vol. 152, N. 3725 (1966). 1061-1062.

⁵⁷ Kile, 'An Overview of the Mineralogy and Curious Optical Properties of Amethyst.' 16.

⁵⁸ Gilg, 'In the Beginning: The Origins of Amethyst.' 10.

⁵⁹ Webster, Gems: Their Sources, Descriptions, and Indentification. 208.

⁶⁰ Webster, Gems: Their Sources, Descriptions, and Indentification. 209.

⁶¹ Webster, Gems: Their Sources, Descriptions, and Indentification. 209.

Kephren granite quarries in the western desert south of Aswan. ⁶² In the *Geology of Egypt*, W.F. Hume states that amethyst has been collected from Wadi Bahan in Lower Nubia, as well as the Kephren quarries mentioned above, and that it is found in cavities of drusy red granite at the phosphate mines of Wassif and Um Hueitat. ⁶³ He also names Abu Diyeiba, as do a number of other sources. This site, about 25 km south of the port of Safaga, is the only other amethyst source in Egypt with the archaeological remains of ancient mining installations. ⁶⁴ Amethyst is present at Stela Ridge (Gebel el Asr, Toshka), a site more commonly understood as a source of diorite and carnelian. ⁶⁵

The presence of these eight sources within Egyptian borders strongly indicates that there would have had no need to import amethyst from abroad. However, there are sources of amethyst in regions from which the Egyptians imported other commodities. The stone is found at Maquar, in the modern Ghazni Province of Afghanistan. ⁶⁶ Although remote from Egypt, other minerals, such as lapis lazuli, were being imported from Afghanistan as early as the Protodynastic Period. ⁶⁷ There are also modern sources in Greece, Turkey, and Iran, which could plausibly have been exploited in ancient times. By the thirteenth century AD, another amethyst source is known in Saudi Arabia, near Medina. ⁶⁸ This can very possibly be identified with the Mt. Hazu of the Assyrians, a place from which a 'blue' or 'lightning-colored' stone was known to come. ⁶⁹ Theoretically, it should be possible to source amethysts with X-ray fluorescence

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⁶² Egyptian Geological Survey, *Mineral Map of Egypt*. Cairo: ARE Ministry of Industry and Mineral Wealth (1979).

⁶³ W. Hume, *Geology of Egypt.* (Cairo: Government Press, 1937). Kephren quarries: Vol II. Pt. I, pg. 300. Other attestations: Vol. II. Pt. 3.

⁶⁴ A. Gilg, 'Ancient Gems: Egyptian amethyst.' In Gilg et. al., eds., *Amethyst: Uncommon Vintage*. (Denver: Lithographie, 2012). 23.

⁶⁵ Gilg, 'Ancient Gems: Egyptian amethyst.' 23.; R. Engelbach, 'The quarries of the Western Nubian Desert and the ancient road to Tushka (survey expedition; February 1930, under the direction of Mr G. W. Murray, Director of the Topographical Survey).' *ASAE* 38 (1938). 370.; Mindat.org. http://www.mindat.org/loc-245025.html February 18 2014.; The site was exploited in the Old and Middle Kingdoms as well as in the Roman period. I. Shaw, 'Life on the edge: gemstones, politics and stress in the deserts of Egypt and Nubia', in R. Friedman, Ed., *Egypt and Nubia: Gifts of the Desert.* (London: The British Museum Press, 2002). 247-8.

⁶⁶ Gemdat.org http://www.gemdat.org/gem-198.html February 18 2014.

⁶⁷ C. Andrews, *Amulets of Ancient Egypt.* (London: British Museum Press, 1994). 102.

⁶⁸ Abul Huda, Arab Roots of Gemology: Ahmad ibn Yusuf Al Tifaschi's Best Thoughts on the Best of Stones. 160.

⁶⁹ Johns, *Ancient Assyria*. 138. For more on this subject, and for a discussion of color terminology in ancient texts, see below.

spectroscopy, but as far as the author is aware such investigations have not been carried out.⁷⁰

Mining Infrastructure

The infrastructure for removing amethysts from Egypt's southern deserts appears to have been well-developed. Exploitation of Egyptian amethyst sources by mining is first attested in the Old Kingdom at Toskha, but this early example is not well documented. The most extensive workings are at Wadi el-Hudi, exploited in the Middle Kingdom and the Roman Period, and Wadi Abu Dibeya, where the workings appear to be mostly Ptolemaic. In the case of Wadi el-Hudi, which was being worked at least as early as the Eleventh Dynasty, there are extensive constructions on site to house miners and administrators as well as to process and warehouse the material itself. Buildings and mines were connected to one another by solidly constructed roads and the complex as a whole gives the impression of having been built to last. Inscriptional evidence indicates that the site was being consistently worked from Year 1 of Mentuhotep IV until Year 29 of Senwosret I-- in other words, for almost the entirety of the Middle Kingdom. Much of the complex shows signs of multi-phase building, indicating prolonged use.

The focus of the Middle Kingdom construction is a Twelfth Dynasty fortress located directly adjacent to the main mine, which probably functioned as an administrative center and as storage space for sorted and graded amethysts.⁷⁷ It is built on the same model as the monumental border fortresses of the same period, well fortified, with narrow, guarded entrances and defensive positions at the tops of corner bastions.⁷⁸ However, its position is on flat, low ground rather than on any nearby defensible hills.

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⁷⁰ Personal correspondence: Jeffery Geyer, Lithics Analyst.

⁷¹ Engelbach, 'The quarries of the Western Nubian Desert and the ancient road to Tushka (survey expedition; February 1930, under the direction of Mr G. W. Murray, Director of the Topographical Survey).' 370.

⁷² J. Harrell, Wadi Abu Diyeiba: an amethyst quarry in Egypt's Eastern Desert. *Minerva* 15:6 (2004). 13.

⁷³ I. Shaw, 'Amethyst Mining at Wadi el-Hudi.' *JEA* 79 (1993). 84.

⁷⁴ Shaw, 'Amethyst Mining at Wadi el-Hudi.' 86.

⁷⁵ Shaw, 'Amethyst Mining at Wadi el-Hudi.' 95.

⁷⁶ Shaw, 'Amethyst Mining at Wadi el-Hudi.' 91.

⁷⁷ Shaw, 'Amethyst Mining at Wadi el-Hudi.' 90.

⁷⁸ Shaw, 'Amethyst Mining at Wadi el-Hudi.' 88.

The construction of the fortress at Wadi el-Hudi is rather flimsy.⁷⁹ The walls are short and thin, only a meter thick at the base, and support defensive positions only at the corners rather than around the perimeter.⁸⁰

This suggests that defense was not the primary function of the building; clearly the difficulty of moving the mining produce uphill to warehouse outweighed the benefits of situating the building in the most defensible position. Given the relative isolation of the mines and the large numbers of men established there to work them, it is difficult to imagine the site was under constant threat, unless it was from the miners themselves. The fortress is also situated to face the approach from the Nile valley. Positioned at the end of the formal road to the site, it would have served as a sort of interface or gateway between the mining operation and convoys arriving from the Nile Valley.

Thus the fortress façade would have served several functions. It would have given the impression of a fortified stronghold to discourage and intimidate would-be marauders, and it would have enforced the authority of the mine administrators by highlighting their control over the material. This can be seen as analogous to the imposing or quasi-military appearance of many modern banks: the goal is to imply the physical security of the building itself as well as the commitment of the state to protect the institution, whether or not this commitment actually exists.⁸²

Through its similarity to the contemporary border fortresses, the façade of the fortress at Wadi el-Hudi makes a visual allusion to the operation's place in the economic and military system of the time. Mining of amethyst and other commodities was undertaken by large state-sponsored expeditions, under the control of officials directly appointed by the king. ⁸³ In addition to adding wealth to the national coffers, these expeditions would have served to display and reinforce the king's economic and political control over these relatively remote regions. ⁸⁴ Inscriptions from Wadi el-Hudi suggest that large numbers of the miners may have been Egyptianized Nubians; they certainly

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⁷⁹ Shaw, 'Amethyst Mining at Wadi el-Hudi.' 93.

⁸⁰ Shaw, 'Amethyst Mining at Wadi el-Hudi.' 88.

⁸¹ Shaw, 'Amethyst Mining at Wadi el-Hudi.' 92.

⁸² Many thanks to K.M. Bryson for this excellent insight.

⁸³ S. Sidebotham, *The Red Land: The Illustrated History of Egypt's Eastern Desert.* (Cairo: The American University in Cairo Press, 2008). 279.

⁸⁴ Sidebotham, The Red Land: The Illustrated History of Egypt's Eastern Desert. 279.

would have registered the similarity between this fortress and the constructions at the Second Cataract.⁸⁵

The second cataract fortresses may well have been the amethysts' next destination, being the nearest secure establishments in the Nile Valley. It seems reasonable to propose that the raw material was being transported overland from the eastern desert to the nearest protected points on the Nile, whence it was shipped downstream, perhaps to workshops at Lahun or Lisht but more likely to the royal treasuries. See Sadly the road from Wadi el-Hudi, which departs the fortress in a northwesterly direction, is quickly lost in the desert. The nearest centers to Wadi el-Hudi are Aswan, about thirty-five kilometers to the northwest, and the fortresses of Ikkur and Qubban, only slightly further away to the southwest. Qubban sat at the mouth of the Wadi Allaqi and was certainly an Egyptian portal for gold coming from mines in the Nubian Desert. Trays of raw amethyst have been excavated from other Nubian fortresses, such as Buhen, sathough this fortress is considerably south of Wadi el-Hudi. This could be an indication of amethyst sources further south or, conversely, evidence that amethyst was being traded southward into Nubia.

Whether the amethyst shipped to Egypt was delivered directly to the artisans who would work with it or to the royal treasury is a matter of debate, although given the state-run nature of the mining expeditions the latter seems more likely. Ultimately, the material reached professional jewelers who shaped the raw material into beads, amulets, and scarabs, often set with gold and combined with other precious materials. As mentioned above, amethyst is a relatively hard stone. Because there were few harder materials available before the Roman period, the Egyptian artisan would have been limited to shaping amethyst blanks with materials of the same Moh's hardness. The most likely method for working amethyst and other materials of the same hardness, such as

⁸⁵A. Sadek, *The Amethyst Mining Inscriptions of Wadi el-Hudi*. Vol. I. (Warminster: Aris and Phillips, 1985). 10.; J. Darnell, 'A Bureaucratic Challenge? Archaeology and Administration in a Desert Environment (Second Millenium BC).' In Garcia, J., Ed. *Ancient Egyptian Administration*. (Brill, 2013). 800

⁸⁶ Sidebotham, The Red Land: The Illustrated History of Egypt's Eastern Desert. 279.

⁸⁷ Shaw, 'Amethyst Mining at Wadi el-Hudi.' 92.

⁸⁸ Darnell, 'A Bureaucratic Challenge? Archaeology and Administration in a Desert Environment (Second Millenium BC).' 800.

⁸⁹ W. Emery, *Kush* 8-11 (1960-63).

carnelian, would have been to apply friction by rubbing or drilling, using finely ground quartz sand as an abrasive. 90 A 1993 paper by Gwinnet and Gorelick proves not only the efficacy of this method, but also that by the proto-dynastic period flat-tipped flint drills were replaced by considerably more sophisticated tubular drills of copper. 91 These were turned by hand or, by the New Kingdom, with a bow. 92 Either way, shaping and drilling amethyst would have been time-consuming work and finished objects thus produced would have had a relatively high value.

⁹⁰ J. Gwinnet, 'Beads, Scarabs, and Amulets: Methods of Manufacture in Ancient Egypt.' *Journal of the* American Research Center in Egypt. Vol. 30 (1993). 126.

91 Gwinnet, 'Beads, Scarabs, and Amulets: Methods of Manufacture in Ancient Egypt.' 125-132.

⁹² J. Harrell, 'Gemstones.' In Wendrich, Willeke, ed., *UCLA Encyclopedia of Egyptology*. (Los Angeles, 2012). http://digital2.library.ucla.edu/viewItem.do?ark=21198/zz002czx1r. 16.

CHAPTER IV: CHRONOLOGICAL TRENDS IN AMETHYST OBJECTS

The overwhelming majority of the four hundred and thirty-one amethyst artifacts cataloged for this study were excavated from sites in Upper Egypt. Almost all come from funerary contexts. Although a long chronological range is represented, more than three-quarters of the objects date to the Middle Kingdom and Second Intermediate Period. What follows is a brief summary of relevant information in the catalog (Appendix A), arranged into chronological sections.

Predynastic and Early Dynastic (c. 5300-2868 BC)

Amethyst objects first appear in the Egyptian material record in the Predynastic period. The majority of these are round beads that appear in mixed-material strings in funeral contexts. Figural works executed in amethyst or with amethyst elements do exist, most notably an object identified as a bull's head (Cat. 1). A miniature vase rimmed in gold foil also dates to this period.⁹³ By the First Dynasty, amethyst is being incorporated into complex and technically masterful pieces of jewelry such as the famous bracelets of King Djer housed at the Cairo museum (Cat. 2.).

Figure 4.1. Other Materials Used With Amethyst in the Pre- and Early Dynastic Periods

Material	Percentage
Carnelian	60
Garnet	20
Gold	20
Turqouise	30
Limestone	20
Serpentine	10
Hematite	10

⁹³ J. Payne, 'An Early Amethyst Vase.' *The Journal of Egyptian Archaeology*. 60 (1974). 79-81.

33

Copper	10
Glazed Composition	10
Shell	10
Steatite	10

Old Kingdom and First Intermediate Period (2686-2055 BC)

Only two amethyst objects in the catalog have been dated to the Old Kingdom: a necklace of round beads from a Fourth Dynasty non-royal funerary context at El Kab (Cat. 3), and a piece of raw amethyst from a group of tools and debitage found at Hierkonpolis (Petrie Museum UC14877). The necklace incorporates amethyst with carnelian and garnet beads and a small carnelian scarab.

By the First Intermediate Period the popularity of amethyst is beginning to increase and the first instances of figural amethyst beads appear in funeral contexts in Upper Egypt. The most popular subject is the baboon or ape (Cat. 4), setting a pattern that will persist for some time. Hawks and hippos also appear (Cat. 4, 5), and these too mark the beginning of a sustained popularity. These amethysts are often strung with other amulets in a variety of materials. Of the amulets, some of the most common are hawks, turtles, 'ba' amulets, lions, hands, and hippos. Of the materials, carnelian is by far the most popular, followed by faience and feldspar.

Figure 4.2. Figural Distributions in Amethyst in the 1st Intermediate Period

Figure	Percentage
Round Bead	65
Baboon	21
Raptor	7
Нірро	7

Figure 4.3. Amulets in other Materials Strung With Amethyst in the 1st Intermediate Period

Figure Percentage

Hand 29 Ba 21 Turtle 14 Lion 14 Hornet 14 Leg 14 Face 14 Udjat 14 Shell 14 Crocodile 7	Raptor	36
Ba 21 Turtle 14 Lion 14 Hornet 14 Leg 14 Face 14 Udjat 14 Shell 14 Crocodile 7	Hippo	29
Turtle 14 Lion 14 Hornet 14 Leg 14 Face 14 Udjat 14 Shell 14 Crocodile 7	Hand	29
Lion 14 Hornet 14 Leg 14 Face 14 Udjat 14 Shell 14 Crocodile 7	Ba	21
Hornet 14 Leg 14 Face 14 Udjat 14 Shell 14 Crocodile 7	Turtle	14
Leg 14 Face 14 Udjat 14 Shell 14 Crocodile 7	Lion	14
Face 14 Udjat 14 Shell 14 Crocodile 7	Hornet	14
Udjat 14 Shell 14 Crocodile 7	Leg	14
Shell 14 Crocodile 7	Face	14
Crocodile 7	Udjat	14
	Shell	14
Heart 7	Crocodile	7
Ticart	Heart	7
Fly 7	Fly	7
Fruit 7	Fruit	7
Scarab 7	Scarab	7

Figure 4.4. Other materials used with Amethyst in the 1st Intermediate Period

Material	Percentage
Carnelian	57
Faience	43
Ivory	21
Feldspar	21
Amazonite	14
Jasper	14
Steatite	14
Crystal	7
Copper	7
Garnet	7

The Middle Kingdom and Second Intermediate Period (2055-1550 BC)

Amethyst enjoys its greatest popularity in the Middle Kingdom. Of the objects in the catalog, 74% date to this period. The vast majority of these are round beads and scarabs, although a significant number are figural amulets, mostly pierced for suspension and strung with beads and figures in other materials; some figurines also number amongst the objects dating from this era. Of the amulets, the hawk is by far the most common, followed by baboons, hippos, and *wadjet* eyes. These are also the most common amulets in other materials that are found with amethyst beads, although the amulets themselves may be made in other materials. The relationship between these amuletic forms and amethyst is key to understanding the significance of both in this period and will be discussed in detail in the following chapters.

Figure 4.5. Breakdown of Amethyst Objects in the Middle Kingdom

Classification	Count	Percentage %
Non-Figural Bead	139	44
Scarab	105	33
Figural	74	23
Total	318	100

Figure 4.6. Subject Frequencies in Amethyst: Middle Kingdom

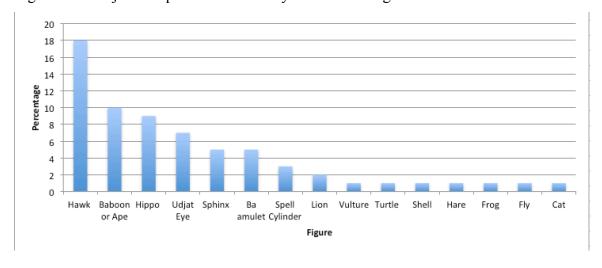


Figure 4.7. Ten Most Popular Materials Strung With Amethyst in the Middle Kingdom

Material	Percentage
Carnelian	29
Faience	23
Garnet	9
Feldspar	7
Gold	7
Steatite	4
Shell	4
Lapis	3
Crystal	3
Silver	3

Figure 4.8. Ten Most Popular Amulets in Other Materials Strung With Amethyst in the Middle Kingdom

Figure	Percentage
Hawk	6
Udjat	3
Lion	3
Baboon	3
Scarab	3
Ba	2
Hippo	2
Claw	2
Shell	2
Fly	1

The New Kingdom (1550-1059 BC)

The popularity of amethyst wanes considerably in the New Kingdom, with a mere 7% of objects cataloged here dating from after the Seventeenth Dynasty. Of these, 17% are plain round beads, and only four percent are scarabs. The amulets are very few, and the amuletic forms from earlier periods do not appear. New Kingdom amulets cataloged (one instance each) take the forms of a fruit, a snake, an unidentified vase, an ib jar, and a tyt knot. The only amulets in other materials that occur more than once are the scarab (6%), the lotus (6%), the hawk (6%), and the udjat eye (12%). Carnelian and faience remain the most popular material to be combined with amethyst (Fig. 4.10.).

Figure 4.9. Breakdown of Amethyst Objects in the New Kingdom

Classification	Count	Percentage
Non-Figural Bead	17	55
Scarab	4	13
Figural	10	32
Total	31	100

Figure 4.10. Other Materials Strung With Amethyst in the New Kingdom

Material	Percentage
Carnelian	48
Faience	35
Glass	19
Lapis	10
Garnet	6
Silver	6
Gold	6

Even from this brief summary one thing is clear: although far from invisible in other periods of Egyptian history, amethyst enjoys a sudden and wide popularity beginning in the First Intermediate Period and continuing through the end of the Thirteenth Dynasty. This can be partly explained by the widespread availability of the material in this period, a direct result of the increased state exploitation of mineral resources. Still, it does not explain why amethyst is suddenly popular, but not, for instance, the emeralds available in the same region. To reach a completely satisfying explanation of amethyst's popularity and significance one must consider other developments in Egyptian culture and thought at the time of the birth of the Middle Kingdom.

The time of the First Intermediate Period and early Middle Kingdom was characterized by greater independence and local control than had been possible in the tightly centralized state of the Old Kingdom. The breakdown of central control during the First Intermediate Period allowed the regional elite, particularly of Middle Egypt, to establish greater autonomy and power over their holdings, as well as over their interactions with groups from outside the Nile Valley. Many prominent provincial families were able to retain these powers into the height of the Middle Kingdom. As a result the regional governors, or nomarchs, developed into relatively independent princelings who had no compunction about adopting formerly royal prerogatives. This can be seen in their tombs: in the iconography, including choice of scenes, poses, as well as the regalia adopted by the tomb-owner, and in the texts that accompanied them into the afterlife. It is during this period that the Coffin Texts develop. Derived from the royal funerary texts of the later Old Kingdom, these collections of spells and instructions for the deceased are found in several elite tombs of Middle Egypt. This marks an interesting departure from the earlier reservation of religious texts for the royal family and is

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⁹⁴ G. Callender, 'The Middle Kingdom Rennaissance.' In Shaw, I., Ed. *The Oxford History of Ancient Egypt.* (Oxford: Oxford University Press, 2006). 137-171. 148.

Shaw, 'Life on the edge: gemstones, politics and stress in the deserts of Egypt and Nubia.' 249.
 S. Seidlmayer, 'The First Intermediate Period.' In Shaw, I., Ed. *The Oxford History of Ancient Egypt.* (Oxford: Oxford University Press, 2006). 108-136. 112.

⁹⁷ Callender, 'The Middle Kingdom Rennaissance.' 163.

⁹⁸ Seidlmayer, 'The First Intermediate Period.' 111.; Callender, 'The Middle Kingdom Rennaissance.' 163.; S. Ikram, 'Hunting Hyenas in the Middle Kingdom: the Appropriation of a Royal Image?', in N Grimal, A. Kamel, and C. May-Sheikholeslami, Eds., *Hommages à Fayza Haikal*. (Cairo: IFAO, 2003). 141-48.

emblematic of social change that was occurring on a number of fronts at this time. ⁹⁹ The new availability of religious knowledge to the commoners, albeit to the elite, provoked a new approach to cult. ¹⁰⁰ Not only did temple ritual begin to focus more on spectacle and the participation of the populace, but also there is greater evidence for domestic cults, personal piety, and an increased accessibility to an afterlife. ¹⁰¹

As the Middle Kingdom neared its apogee, the state pursued a policy of expansion and control. This included the reconquest of Nubia and the construction of a line of fortifications establishing a militarized border between Egypt and Nubia. Another aspect of this policy was the mounting of large-scale mining and trading expeditions accompanied by armed men. These well-attested campaigns, documented in numerous stelae, were run in military style and were probably as much concerned with a show of dominion as with commodities. The fact that many of the miners themselves may have been conscripted Nubians is a further indication of the dual role of the mining expeditions in the southern deserts. This was also a time when Egyptianized or conscripted Nubians were entering Egypt in record numbers, as migrants, mercenaries, and even as royal wives. Surely they brought with them not only a new aesthetic but also their own gods and cult practices, which may easily have been absorbed into the Egyptian culture they joined.

This is the context in which amethyst becomes popular. However, amethyst amulets are not the only class of object that appear at this time. Another category of artifact makes an appearance early in the Middle Kingdom, roughly concurrent with the rise in amethyst amulets: the 'magic' or 'apotropaic' wand.

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⁹⁹ Seidlmayer, 'The First Intermediate Period.' 115.

¹⁰⁰ Callender, 'The Middle Kingdom Rennaissance.' 168.

¹⁰¹ Callender, 'The Middle Kingdom Rennaissance.' 169.

¹⁰² Callender, 'The Middle Kingdom Rennaissance,' 140.

¹⁰³ L. Torok, *Between Two Worlds: the frontier region between ancient Nubia and Egypt, 3700 BC-AD 500.* (Brill, 2009). 84.

¹⁰⁴ Sadek, The Amethyst Mining Inscriptions of Wadi el-Hudi.

¹⁰⁵ Torok, *Between Two Worlds: the frontier region between ancient Nubia and Egypt, 3700 BC- AD 500.* 83.

CHAPTER V. APOTROPAIC WANDS

Apotropaic wands are a distinct class of object, mostly from the Twelfth and Thirteenth Dynasties, commonly referred to as 'magic wands' or 'magic knives.' The latter designation we may reject from the very beginning, as these objects have no cutting edge, practical or vestigial, and actually bear no resemblance at all to Egyptian knives. Even Predynastic flint knives tend to be lunate, with a curved edge opposite a straight one. These are similar in shape to the knives held by the figures illustrated on the wands, but not to the wands themselves. ¹⁰⁶

Rather than knives, the Middle Kingdom wands are most similar to the curved musical clappers of the same period, and to the boomerang shaped throw-sticks used for hunting waterfowl. However, clappers always come in pairs and are pierced at the base, whereas wands, like throwsticks, are always found, and were therefore probably used, singly. Wands are also attested before clappers in the archaeological record. Rherefore, it is the wands' similarity to throwsticks that is probably most meaningful. Model throw-sticks commonly appear in tombs for use against hostile powers. Throwsticks were associated with the ritual control of chaos, which was represented by flocks of birds. As such the throwstick, or the throwsitck-shaped wand, represented the power to overcome chaotic forces and assured the owner's safety. Spell 62 of the Coffin Texts states, 'Waterfowl will come to you in the thousands...when you have cast your throwstick at them, a thousand are felled by the sound of its flight.'

There are hundreds of ivory apotropaic wands in museum collections around the world, easily recognizable due to their distinctive shape and decoration. The analysis for this paper is based on a set of thirty-nine wands from various museum collections. Very few have good provenance, but there is enough evidence to show that wands of this type

¹⁰⁶ See, for example, the flint knife of King Djer, now in Toronto, discussed in: W. Needler, 'A Flint Knife of King Djer.' *The Journal of Egyptian Archaeology.* 42 (1965). 41-44.

¹⁰⁷ H. Winlock, *The Treasure of el Lahun*. (New York: Metropolitan Museum of Art, 1934). 43.

¹⁰⁹ G. Pinch, *Magic in Ancient Egypt*. (London: British Museum Press, 1994). 40, 78.

¹¹⁰ J. Assmann, *Death and Salvation in Ancient Egypt.* (Ithaca: Cornell University Press, 2005). 271.

have been found as far south as Kerma, to the north at Lisht, and perhaps even as far north as Borg el-Arab on the Mediterranean coast. Due to lack of provenance, most are dated stylistically. The quality of the carving can vary from very fine to hasty and schematic. 112

The wands are made from curving longitudinal sections of hippopotamus tusk, usually between 25 and 35cm long, that have been planed to provide a relatively flat surface for decoration. The earliest examples, dating to about 2800 BC, are plain or carved with an animal head at one end. From about 2000 BC on, one or both surfaces are decorated. The carving is in sunk relief, and except in one case, appears not to have been colored. The decorated wands invariably present a procession of monsters and deities in their most frightening aspects. The processions may march in either direction along the wand, or toward the center from either end. Generally the inner curve of the piece serves as the ground line, although occasionally it is the outer. The figures brandish knives and snakes and often carry the *sa* sign, symbol of protection, or the *ankh*, symbolic of life. They also, in many cases, appear to be consuming snakes. The vast majority of these objects are uninscribed; the wands that are inscribed are dedicated to women or children. These hieroglyphic inscriptions are generally horizontally carved on the reverse of the wand, as in the case of MMA 26.7.1288 (Cat. 8), which reads:

'Words spoken by the multitude of amuletic figures: we have come to protect the Lady, Merisenb.' 117

This, combined with the frequent appearance of the midwife goddess Tawaret, has led scholars to conclude that the wands had a function in childbirth or were amulets for

¹¹⁴ Pinch, Magic in Ancient Egypt. 40.

¹¹¹ G. Steindorff, 'The Magical Knives of Ancient Egypt.' *The Journal of the Walters Art Gallery*. 9:43.

¹¹² Contrast EA 18175 (Cat. 6) with EA 58794 (Cat. 7).

¹¹³ Pinch, Magic in Ancient Egypt. 40.

One example from the Petrie Museum (UC16386) appears to have blue or green pigment in some of its recesses.

¹¹⁶ J. Roberson, "The Early History of 'New Kingdom' Netherworld Iconography: A Late Middle Kingdom Apotropaic Wand Reconsidered." In Silverman, D. Ed., *Archaism and Innovation: Defining the Cultural Expression of Egypt's Middle Kingdom*. (New Haven: Yale, 2009). 427-445.

¹¹⁷ MMA 26.7.1288. Steindorff 1946. 46., A. Shorter, 'A Magical Ivory.' *JEA* 18 (1932), 1-2.

young children and new mothers.¹¹⁸ Much of the imagery from the wands is also found on birth bricks and magic rods, making this connection seem very likely.¹¹⁹

Wear on the narrower of the terminal edges suggests that the wands were used for drawing lines, perhaps protective circles. ¹²⁰ Often they are worn in the center, where they were presumably gripped. ¹²¹ It has also been suggested that frequent rubbing with oil might be responsible for the wear in the center, although this seems unlikely. ¹²² Many were carefully mended in antiquity, for example British Museum EA 58794 (Cat. 7) or EA 24426. ¹²³ Although the exact function and use of these objects is of great interest, the focus of this paper will be on the processions of animals and deities carved on the wands. The commonly held opinion that these are a selection of protective spirits amassed to defend a vulnerable mother and child is certainly correct. However, closer analysis is required to establish the logic of their appearance on the wands and their relationship to one another.

Animals in rows are seen on prestige goods starting in the Predynastic.¹²⁴ The most common classes of artifacts on which they appear are ritual weapons, such as maces and knives, and cosmetic items, such as combs and spoons.¹²⁵ The ivory handles of elaborate flint Predynastic knives are most evocative of our Middle Kingdom examples (Cat. 9).¹²⁶ Ordered rows of desert animals also appear on Predynastic pottery. In many cases they are arrayed with human 'hunter' figures, and motifs reminiscent of both desert landscape and Nile Valley architecture. This implies that these scenes represent the

¹¹⁸ Steindorff, 'The Magical Knives of Ancient Egypt.' 50.

¹¹⁹ For a good discussion of birth bricks and their connection to four-piece rods, see J. Wegner, 'A Decorated Birth-Brick from South Abydos: New Evidence on Childbirth and Birth Magic in the Middle Kingdom.' In Silverman, D. Ed. *Archaism and Innovation: Defining the Cultural Expression of Egypt's Middle Kingdom.* (New Haven: Yale, 2009). 447-496.

¹²⁰ Wegner, 'A Decorated Birth-Brick from South Abydos: New Evidence on Childbirth and Birth Magic in the Middle Kingdom.' 78.

¹²¹ Wegner, 'A Decorated Birth-Brick from South Abydos: New Evidence on Childbirth and Birth Magic in the Middle Kingdom.' 78.

¹²² Shorter, 'A Magical Ivory.' 1-2.

¹²³ Pinch, *Magic in Ancient Egypt*. 78.

¹²⁴ F. Raffaele, 'Animal Rows and Ceremonial Processions in Late Predynastic Egypt.' In Raffaele, M. Nuzzolo and I. Incordino, Eds., *Recent Discoveries and Latest Researches in Egyptology. Proceedings of the First Neapolitan Congress of Egyptology, Naples, June 18th-20th 2008*. (Wiesbaden: Harrassowitz Verlag, 2010), 245.

¹²⁵ Raffaele, 'Animal Rows and Ceremonial Processions in Late Predynastic Egypt.' 247.

¹²⁶ For examples of knife handles with animal rows, see: Raffaele, 'Animal Rows and Ceremonial Processions in Late Predynastic Egypt.'

presentation of live captive desert animals at palaces or temples in the Nile Valley. 127

The famous palettes of the Fourth and Third millennia BC also incorporate both real and mythological animals, again in interaction with human figures who control them. All of these scenes have a common theme: the control of chaotic, wild elements by the imposition of order and organization. 128

The hippopotamus tusk also makes an early appearance in the material culture of Egypt. Petrie comments that the most common objects found in Prehistoric graves are hippopotamus tusks, either entire or planed flat in the manner of the wands. ¹²⁹ He identified the tusk as an amulet for protection. ¹³⁰ This protective or apotropaic function is maintained in the Middle Kingdom wands. Roberson states, "the typical apotropaion contains a fairly straightforward, linear progression of figures only loosely associated with each other under the general rubric of 'protective beings,'" but the repetition of the same figures, particularly lions, hippopotami, and griffins, over and over again indicates that the procession has a greater significance (see Fig. 5.1.). ¹³¹

It is worth noting at this point that the Middle Kingdom witnessed greater access to magical and religious knowledge than previously. The appearance of religious texts, such as the Coffin Texts, in the private realm indicates that canonical religion was no longer a royal prerogative. Some of the creatures found on the apotropaic wands are represented for the first time in the Book of Two Ways, another underworld text that appears at the beginning of the Middle Kingdom. However, the particular gathering of creatures and gods found on the wands bears an even greater similarity to the cast of another story, the myth of the Solar Eye of Re. This myth is a key piece of evidence in

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¹²⁷G. Graff, 'Architectural elements on decorated pottery and the ritual presentation of desert animals' in Friedman, R. Ed. *Egypt at its origins 3: proceedings of the third international conference "Origin of the state: predynastic and early dynastic Egypt", London, 27th July-1st August 2008.* (Leuven: Peeters, 2011). 437-466.

¹²⁸ Pinch, Magic in Ancient Egypt. 41.

¹²⁹ For example, objects UC5200 and UC5366 housed in the Petrie Museum. Both are carved sections of hippopotamus ivory dating to the Nagada Period, and represent an enormous corpus of similar objects. ¹³⁰ W. Petrie, *Objects of Daily Use*. (London: British School of Archaeology in Egypt, 1927), 39.

Roberson, "The Early History of 'New Kingdom' Netherworld Iconography: A Late Middle Kingdom Apotropaic Wand Reconsidered." 441.

¹³² Callender, 'The Middle Kingdom Rennaissance.' 169.

¹³³ Pinch, Magic in Ancient Egypt. 42.

¹³⁴ Compare the various knife-wielding demons (cat, baboon, donkey, composite hippo, etc.) in Sections III and IV of the Book of Two Ways (E. Hermsen, Zwei Wege des Jenseits [1991], pp. 135–37 and ff.), with similar figures in H. Altenmueller, Apotropaia, vol. 2, p. 114 ff.

interpreting these wands.

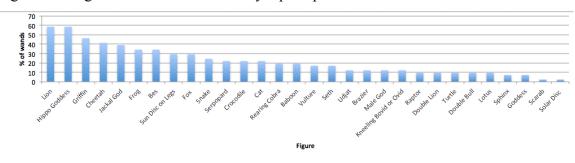


Figure 5.1. Figural Distributions on Ivory Apotropaic Wands

CHAPTER VI. THE MYTH OF THE SOLAR EYE OF RE

The myth of the Solar Eye, also called the myth of the Distant or Wandering Goddess, describes the estrangement of the god Re from his daughter, the Eye, and the circumstances of their reconciliation. The most complete version of the myth is found in Papyrus Leiden I 384, a Demotic text that dates to the Second Century AD. This was originally published by W. Spiegelberg in 1917, but this thesis uses F. de Cenival's 1988 republication in French. Sections of the text are also preserved in Papyrus Tebtunis Tait 8 and a fragment in Lille that is not numbered, and in a Third Century Greek translation. The most complete version of the Eye, and the Eye,

It is from these late texts that we know the myth in its complete form, but there are suggestions that the narrative could be as early as the Old Kingdom in origin. References to the myth appear in the Pyramid Texts, the Coffin Texts, and the Book of the Dead, as well as in hymns preserved on temple walls. An Eleventh Dynasty royal

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¹³⁵ The text was originally published in: W. Spiegelberg. *Der agyptische Mythus vom Sonnenauge: Nach dem Leidener demotischen Papyrus I 384.* (Hildesheim, 1917).; S. West, 'The Greek Version of the Legend of Tefnut.' *Journal of Egyptian Archaeology* 55 (1969). 161-183.

¹³⁶ British Museum Papyrus 274. See: H. Reitzenstein, 'Die griechische Tefnutlegende: pBM 274.' *Sitzungsberichte der Heidelberger Akademie der Wissenschaften.* (Hiedelberg, 1923).

¹³⁷ B. Richter, 'On the Heels of the Wandering Goddess: The Myth and the Festival at the Temples of Wadi el-Hallel and Dendera.' *Proceedings of the 8. Ägyptologische Tempeltagun*. (Wiesbaden: Harrassowitz, 2010). 157.

stela with a hymn to Re states: 'My protection is the (angry) red glow of your Eye.' References to the festival celebrations of the myth are found in Ptolemaic temples at Philae, Edfu, El Kab, Dendara, and Medamud. The Hymn to Hathor at Medamud incorporates a detailed description of the festival procession that accompanies the Wandering Goddess' return. 140

In the story, the Eye of Ra, a detachable and autonomous facet of the personality of Ra-Atum, is a powerful female entity with a volatile temper. The Eye becomes angry with her 'father' and departs Egypt in high dudgeon. She travels to the southeastern desert, where she rages violently in the form of a lioness. Meanwhile Egypt suffers the lack of her powerful protection, and Ra misses his daughter. Several emissaries are sent, but the fearsome might of the goddess prevents any from being successful in reasoning with her. Finally Thoth is able to flatter and cajole the Eye into returning to Egypt. She travels northward in a procession of joyful people and animals celebrating her return. Upon reaching the Nile, the goddess is escorted to a temple where she is reunited with her father and couples with either him or Horus, depending on the version, thus becoming pregnant with the young sun-god. ¹⁴¹

This is the most frequently related version of the myth, although, as with all Egyptian tales, several versions exist. The reasons for the dispute between Ra and his Eye are speculative at best, and the god who is eventually successful in retrieving her varies. ¹⁴² A similar myth concerns a wild goddess of Ethiopia who is tamed and brought back to Egypt by a hunter god. Like the Eye, she is a fearsome, raging lioness in her native desert, but upon reaching the Nile Valley she is transformed into a beautiful and benevolent woman. ¹⁴³ This may originally have been a separate tale, but seems to have been absorbed by the myth of the Solar Eye relatively early.

Regardless of the version of the story, the elements are consistent. First there is the raging behavior of the angry Eye: she becomes so furious and dangerous that the

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¹³⁸ J. Darnell, 'The Apotropaic Goddess in the Eye.' Studien zur Altagyptischen Kultur 24 (1997). 42.

¹³⁹ See: Richter, 'On the Heels of the Wandering Goddess: The Myth and the Festival at the Temples of Wadi el-Hallel and Dendera.' *Proceedings of the 8. Ägyptologische Tempeltagun.* 155-186. ¹⁴⁰ Darnell, 'Hathor Returns to Medamud.' 47-94.

¹⁴¹ Pinch, Handbook of Egyptian Mythology. 130.

¹⁴² C. Bleeker, *Hathor and Thoth: two key figures of the ancient Egyptian religion*. Studies in the History of Religions; Supplements to *Numen* 26. Leiden: E. J. (Brill, 1973). 129.

¹⁴³ Bleeker, *Hathor and Thoth: two key figures of the ancient Egyptian religion*. 129.

other gods are afraid to approach her. Then there is her retrieval or capture from the desert by a male god, and her journey to Egypt in a joyful procession of animals and mythological creatures from the environments through which she travels. Upon crossing the liminal borderland of the marshes, she is transformed into a benevolent consort and subsequently a divine mother.

Who is the Eye?

The Solar Eye is a somewhat amorphous goddess, identified mostly by her power and changeable nature. As such, she is more frequently associated with other important goddesses in the pantheon than named as a goddess in her own right. The story itself has been called the 'first feminine myth,' as it sets the precedent for other stories of powerful goddesses.¹⁴⁴

The Eye can stand alone as the goddess Rat-tawy, who is attested by the Fifth Dynasty Pyramid Texts as Re's consort. Rat-tawy can be shown as an enthroned woman wearing a Hathor headdress, a falcon with a human head, or a woman with a cow head. She is later the consort of Min or Montu. She is attested at Medamud in 50 BC as the consort of Montu, and their offspring is Horus the Child.

The goddess can be conflated with Tefnut, a daughter of Re, and with Nekhbet. The Middle Kingdom Coffin Texts allude to connections between the Eye and the siblings Shu and Tefnut, who are involved in different ways in different versions of the later myth. Mut can also be the wandering goddess, and her return was celebrated at

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¹⁴⁴ B. Lesko, *The Great Goddesses of Egypt*. (University of Oklahoma Press, 1999). 154.

¹⁴⁵ Wilkinson, Complete Gods and Goddesses of Ancient Egypt. 164.

¹⁴⁶ H. Kockelmann, 'A Roman period Demotic manual of hymns to Rattawy and other deities (P. Ashm. 1984.76).' *Journal of Egyptian Archaeology* 89 (2003). 223.

¹⁴⁷ Pinch, *Handbook of Egyptian Mythology*. 165-66.

¹⁴⁸ R. Ritner, 'An Eternal Curse Upon the Reader of These Lines.' Kousoulis, P. Ed. *Ancient Egyptian Demonology:* Orientalia Lovaniensia Analecta 175. (Leuven: Peeters, 2011); Pinch, *Handbook of Egyptian Mythology.* 147.; Kockelmann, A Roman period Demotic manual of hymns to Rattawy and other deities (P. Ashm. 1984.76). 217-229.

¹⁴⁹ For a full discussion of the syncretism of Nekhbet and the Eye see: R. Preys, 'Nekhbet, L'Oeil Droit du Dieu Solaire.' *Revue d'Egyptologie* 61. (Paris: Peeters, 2010). 159-177.

¹⁵⁰ Spell 76 in R. Faulkner, *Ancient Egyptian Coffin Texts*, Vol. I. (Warminster: Aris and Phillips, 1973). 78. Richter, 'On the Heels of the Wandering Goddess.' 158.

her temples. An important part of the ritual was pacifying the angry goddess at the kidney-shaped *isheru* lake, a necessary component of any Mut complex. ¹⁵¹

Temple, Festival, and Magic Wands

The best description of a festival of the returning Eye of Re is inscribed on the wall of the Graeco-Roman temple of Montu at Medamud. The foundation of Montu at the site, however, dates to the Eleventh Dynasty. The festival of the returning Eye at Medamud might be as old as the Thirteenth Dynasty, and might also play a part in the festival of Montu that is mentioned in Boulag Papyrus 18. 153

This may not be the only Festival of the Eye in this period, as the Coffin Texts make a connection between the wandering Eye and a festival of 'Red Linen in the Early Morning.' Dawn and the color red are both connected to the Eye, but particularly the Eye as the terrifying lion goddess Sekhmet, who is associated with blood and fire. The New Kingdom story of the Heavenly Cow describes a different episode in the myth of Sekhmet as the Eye of Re but, significantly, concludes that an important step in pacifying of this goddess is to lead her to an *isheru*, or sacred lake. Is In the universe of the Egyptian temple, the *isheru* is easily distinguished by its odd kidney shape. An Old Kingdom *isheru* for Sekhmet is attested at Memphis. Is Isheru lakes dedicated to Hathor, Nekhbet, and local lion goddesses existed at Bubastis, Karnak, Esna, Buto, Philae, and Dendara, as well as at a series of desert chapels at El Kab. The decoration and presence of barque shrines in these chapels strongly indicates that the return of the goddess was understood, and perhaps reenacted, in geographical terms. Indeed, Barbara Richter

¹⁵⁸ Richter, 'On the Heels of the Wandering Goddess.' 163-165.

¹⁵¹ Pinch, Handbook of Egyptian Mythology. 169.

¹⁵² C. Robichon, Description Sommaire du Temple Primitif de Medamoud. Recerches 11. (Cairo: IFAO, 1940). 13.

¹⁵³ Darnell, 'Hathor Returns to Medamud.'47.; E. Drioton, 'Rapport sur les fouilles de Medamoud, 1926, les inscriptions.' *FIFAO* 4 (1927). 12-15.

Spell 890 in Faulkner, *Coffin Texts*. Richter, 'On the Heels of the Wandering Goddess.' 158.

¹⁵⁵ E. Hornung, 'The Book of the Heavenly Cow.' *Orbis Biblicus et Orientalis* 46 (Freiburg: Academic Press, 1982). 74-87.: Richter, 'On the Heels of the Wandering Goddess.' 159.

¹⁵⁶ B. Gessler-Löhr, 'Die heiligen Seen ägyptischer Tempel: Ein Beitrag zur Deutung sakraler Baukunst im alten Agypten.' *Hildesheimer Ägyptologische Beiträge* 21 (Hildesheim, 1983). 412.

¹⁵⁷ Gessler-Löhr, Die heiligen Seen ägyptischer Tempel: Ein Beitrag zur Deutung sakraler Baukunst im alten Agypten. 412.; Richter, 'On the Heels of the Wandering Goddess.' 159.

makes a very convincing case for the Eighteenth Dynasty temples at El Kab being closely connected with the returning Eye. 159

The Festival of the Eye would have taken place at the beginning of the New Year, with the rising of Sothis and the start of the inundation. The time of year, at the transition from the hot, pestilential summer to the wet and rejuvenating flood season, has natural consonance with the transformation of the angry Eye into the beautiful mother of the young god.

The inscriptions at Medamud describe the festival in some detail. It would have begun at twilight, or 'the time of lighting the torches.' Torches are associated with hippopotamus goddesses, who also appear in the scene. The festival is lead by 'magicians' (*rh-ih.t*) who manipulate magic tools as a complement to the spoken ritual of the lector priests. These may well have included the wands, which are connected with the festival in other ways, discussed below.

A ritual procession of dancers, musicians, and celebrants approached the temple and settled in for an evening of music and drinking. At Medamud, the musicians in the ritual procession are given the label 'those who placate the malevolent one,' referring to the ritual of 'Pacifying Sekhmet.' This has been shown to be a nocturnal festival celebrated for Hathor. The festival relied heavily on the participation of foreign dancers and musicians, especially from Nubia and the south. The festival relied heavily on the participation of foreign dancers and musicians, especially from Nubia and the south.

These foreigners are shown dancing with throwsticks, which are the same size and shape as the wands. The foreigners wear the crossed-band costume of Libyan dancers. Some of the hunting lions on the wands, not to mention their human prey, also wear these crossed bands. The throw-sticks, which in Egypt were used for hunting waterfowl, are used to this day in Sudan for hunting desert animals. Perhaps, then, the dance is meant to re-enact the discovery or capture of the goddess in the southeastern

¹⁵⁹ Richter, 'On the Heels of the Wandering Goddess.' 163-165.

¹⁶⁰ Darnell, 'Hathor Returns to Medamud.' 49.

¹⁶¹ Darnell, 'Hathor Returns to Medamud.' 52.

¹⁶² Darnell, 'Hathor Returns to Medamud.'131.

¹⁶³ Darnell, 'Hathor Returns to Medamud.' 48.

¹⁶⁴ Darnell, 'Hathor Returns to Medamud.' 48.

¹⁶⁵ Darnell, 'Hathor Returns to Medamud.' 67.

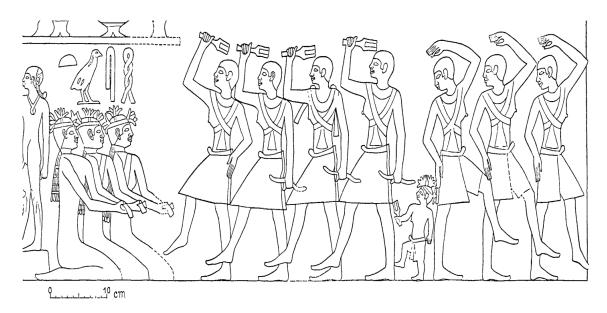
¹⁶⁶ Darnell, 'Hathor Returns to Medamud.' 69-70.

¹⁶⁷ Personal communication: Ahmed AlFadni.

desert by Nubian hunters. This would be more in keeping with the alternate tale of the foreign goddess who is captured by the hunter god Onuris, tamed, and brought to Egypt, but the two stories bear so many similarities it would not be surprising if they had been combined by the Graeco-Roman period.

A similar dance, in which women perform with throw-sticks, is presented to Hathor in the Sixth Dynasty mastaba of Nunetjer at Giza. 168

Figure 6.1. Women dancing for Hathor, tomb of Nunetjer at Giza. 6th Dynasty. After Junker. 169



The idea of Nubians, especially women, as appropriate performers for Hathor is well-attested. Nubians are pictured as members of the *khener* troupes who perform both in funerals and in Hathoric rites.¹⁷⁰ These performers have strong Hathoric associations, as argued convincingly by Ellen Morris in her discussion of paddle dolls, tattoos, and

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¹⁶⁸ Mastaba of Nunetjer. unnumbered mastaba SW of Mastaba III, excavated by Junker. See Giza archives project: http://www.gizapyramids.org/view/sites/asitem/PhotoTombs@60113/0?t:state:flow=46b0044f-a134-4362-aa28-863640259670

B. Porter and R. Moss. *Topographical Bibliography of Ancient Egyptian Hieroglyphic Texts, Reliefs, and Paintings* 3: Memphis (Abû Rawâsh to Dahshûr), (Oxford: The Clarendon Press, 1931). 2nd edition 1974. 3: Memphis, Part 1 (Abû Rawâsh to Abûsîr), revised and augmented by Jaromír Málek. Oxford: The Clarendon Press. 217, plan 19.; Darnell, 'Hathor Returns to Medamud.' 72.

¹⁶⁹ H. Junker, *Gîza X. Der Friedhof südlich der Cheopspyramide. Westteil.* (Vienna: Rudolf M. Rohrer, 1951). 134.

¹⁷⁰ E. Morris, 'Paddle Dolls and Performance.' *Journal of the American Research Center in Egypt* 47 (2001). 81.

professional dancers. Interestingly, both the paddle dolls and the mummies of Middle Kingdom Priestesses of Hathor are decorated with motifs also found on the wands: lions and hippopotamus goddess.¹⁷¹

The myth of the Solar Eye asks: 'Have you not caused that groups of women and men toss their hair?' Dancing women in the Hathoric rites pictured in the Eighteenth Dynasty tomb of Kheruef (TT192) bend over to toss their loose hair. These women also wear crossed bands, in exactly the same style as the Sixth Dynasty dancers in the tomb of Nunetjer. The posture of the dance itself is reminiscent of the 'pigeon dance' performed at Sudanese weddings to the present day.¹⁷²

Figure 6.2. Women dancing for Hathor, Tomb of Kheruef at Thebes, (TT192). 18th Dynasty.



The Wands and the Procession from the Desert

http://www.youtube.com/watch?v=0UV64fRqWhQ. The dance as it is traditionally performed at north Sudanese weddings involves the woman flinging her long hair in the direction of a man dancing near her. The woman in the video clip has a sylish updo, but her head motions, for example at 1:20 and 1:30, are intended to evoke hair-tossing.

¹⁷¹ Morris, 'Paddle Dolls and Performance.' 82.

¹⁷² YouTube link to a filmed performance of this dance:

These texts and scenes paint a vivid picture of both the mythological moment of the return and pacification of the Eye and the historical festival that celebrated it. An analysis of the elements of the myth and festival, and a comparison of these to the motifs on the wands, make it clear that the two are intrinsically linked. A breakdown of the motifs can be seen in Figure 5.1.

The wands can be understood as showing the procession of the returning Eye of Re. The texts consistently allude to her sojourn in a wild land to the southeast of Egypt: the hymn at Medamud, addressed to Hathor as the returning Eye of the sun, is full of imagery of the far southeast, the land of the dawn. The is described as dwelling in Keneset, a land far to the southeast in the direction of Punt and the 'land of the eastern souls.' The presence of southern animals and foreigners from southern lands in the texts and rituals confirm this region as the origin of her homeward procession. The griffin, fox, and hippopotamus represent the three regions the Eye traverses on her way back to Egypt: the deep southern desert, the inland Egyptian desert, and the Nile marshes. The

The lionesses and hippo goddesses show the two aspects of the goddess as she moves from south to north and becomes pacified. Most of the other animals on the wands are either mentioned by name in texts related to the myth, or can easily be understood in the context of the journey north. Animals from the south must have come north to Egypt with the flood every year. The northward procession is associated with the northward spread of the flood and with the greening and rejuvenation of the land, and perhaps even refers to an ancient migration pattern of animals. The procession concludes not only in the conception and birth of the young god, but in the taming and 'Egyptianizing' of wild and chaotic forces from outside the Nile Valley. Both the goddess and the animals she brings with her are tamed and transformed as part of the

¹⁷³ Darnell, 'Hathor Returns to Medamud.' 47.

Darnell, 'Hathor Returns to Medamud.' 48. On the souls of the east, see Assmann, Sonnenpriester, 50-51; for Aethiopia as the area of the dawn, see J. Diggle, *Euripedes' Phaethon, Cambridge Classical Texts and Commentaries 12* (1970), 78-79.

¹⁷⁵ A wand housed at the Petrie Museum UC16386 (Cat. 10) hints tantalizingly at the idea of the procession moving between environments: interspersed between the figures are sprigs of vegetation as well as triangular 'hill' motifs evocative of the desert. Sadly, this is the only example the author is aware of, and this particular piece must be treated with caution due to other stylistic peculiarities.

joyous procession and festival. They unite in nocturnal merrymaking to keep evil forces at bay and protect the child who stands for the balance and harmony their passivity has made possible. The wands showing this procession associate the human mother and child with the divine pair and perpetuate the apotropaic power of the annual festival year-round.

CHAPTER VII. MOTIFS, MEANINGS, AND COMPARISON

This chapter will undertake a more detailed examination of the motifs that appear on the wands and as amethyst amulets. A study of frequencies of creatures in both categories and a comparison of the two groups highlights both their thematic connections and disparities. In general, the iconography of the wands seems to be concerned with the mythological episode of the sojourn of the Eye and her subsequent return, whereas the amethyst objects refer, to a greater extent, to the conclusion of the story: the pacification of the angry goddess and the birth of her child.

Figure 7.1. Breakdown in Cataloged Amethyst Objects

Classification	Number	Percent
Non-Figural Bead	212	49
Scarab	117	27
Figural Piece	94	22
Other	8	2
TOTAL	431	100

Non-Figural Beads

Of the amethyst objects cataloged, non-figural beads were by far the most frequent (49% of cataloged objects). Not much discussion of these beads is possible as they are for the most part simple spheres, but their quantity merits attention. It is also such plain, non-figural amethyst beads that are mentioned in perhaps the only extant textual reference to amethyst in an amuletic context. This text is an excerpt from Papyrus Berlin 3027, a collection of spells and prescriptions for young children, which dates to about 1600 BC.¹⁷⁶

'The little child is safe as long as the mother and the nurse are near it. But at night, when its guards

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¹⁷⁶ C. Leake, *The Old Egyptian Medical Papyri*. (Lawrence, Kansas: University of Kansas Press, 1952). 15.

sleep, or during the day when they move away from home, the child is threatened by dangers. Then is spoken over him this spell:

"The saying of knots for a child who is still small. Are you warm (in the) nest? Are you hot in the bushes? Your mother is not with you, no
Sister is there to fan (you), no nurse is there
to provide protection. Give me a ball, bring gold
and rings of amethyst, a seal, a crocodile and a
hand, to fell and drive away these desert dwellers,
to warm the body, to fell this foe and this
Enemy from the dead. This is the way to be protected!

They say this spell over balls of gold and rings of amethyst, a seal, a crocodile and a hand. Mount them on finely woven linen thread and make a wD3.w amulet. It is placed at the neck of the child.

The charm it describes, or others similar to it, must have been used in reality, for 6% of the non-figural beads in the catalog were found with a hand or a crocodile amulet.

Plain amethyst beads are commonly strung with a variety of amulets and other materials. Figure 7.2 lists percentages for some of the most common. As we shall see, the distribution bears many similarities to the distribution of amulets made in amethyst.

Figure 7.2. Amulets Commonly Found with Amethyst Beads

¹⁷⁷ Erman, Zaubersprikhe fur Mutter und Kind: Aus dem Papyrus 3027 des Berliner Museums. 39.

Amulet	Percentage
Raptor	5
Scarab	4
Udjat	4
Lion	3
Flower	2
Claw	2
Cowrie	2
Crocodile	2
Fly	1
Ва	1
Fish	1
Нірро	1
Hand	1

Scarabs

Scarabs are by far the most common objects made in amethyst, after beads: 27% of cataloged objects are scarabs. Scarabs in a variety of materials are ubiquitous in the Middle and New Kingdoms, probably because their round, flat shape lent itself easily to seals and other stamps. The hardness of amethyst would have been an advantage if the scarab were actually used. However, the consonance of amethyst's associations with the young sun may have made it a particularly appropriate material for the manufacture of these objects: the beetle Khepri is strongly associated with the sun-child or the young sun

god.¹⁷⁸ Certainly many scarabs not intended for use as seals were made in amethyst: take the famous bracelet found in the burial of Tutankhamun (Cat. 11). The focus of the piece is a large amethyst scarab, set in a gold disc and flanked by uraei. These details underscore the association of the scarab with the young, renewed sun disc, closely protected by the uraeus, the Eye of Re. The choice of amethyst for this piece, in a period when its use was rather unusual, only highlights the strong connection of amethyst with Khepri, the young sun.

The scarab appears on only one of the wands surveyed for this paper (British Museum EA 24425). Given the solar nature of the ritual, the absence of scarabs may be explained by the fact that the role of young god was to be played by the child the wand was made to protect. Therefore, there was no need to depict him, in scarab or any other form, on the wands. The presence on a wand would simply serve to emphasize the solar associations of the scarab beetle, but would not be crucial to the efficacy of the wand.

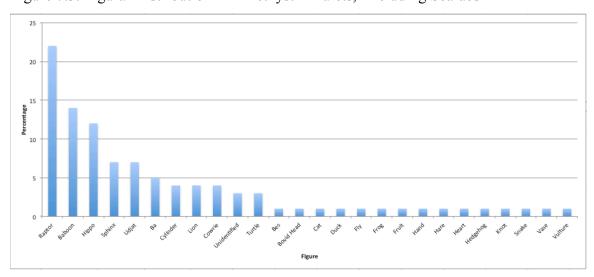


Figure 7.3. Figural Distribution in Amethyst Amulets, Excluding Scarabs

Figure 7.4. Distribution of Figures on Ivory Wands

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¹⁷⁸ Wilkinson, The Complete Gods and Goddesses of Ancient Egypt. 230.

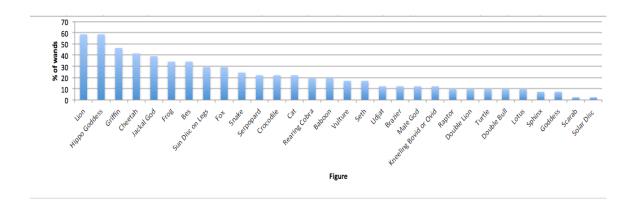
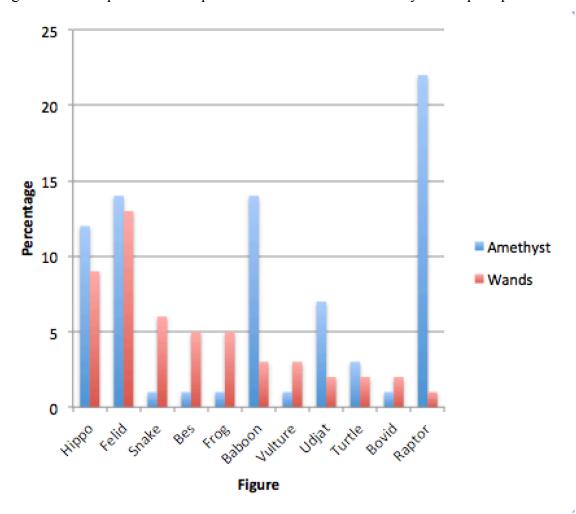


Figure 7.5. Comparison of Frequencies: Shared motifs in amethyst and apotropaic wands



Lionesses

The leonine figures appearing on 59% of the wands have straightforward significance as personifications of the angry Eye of Re, who is consistently referred to in texts as a lioness. All of the above-mentioned goddesses conflated with the Eye can be shown in lionesses in a variety of contexts.

The lioness (with the hippo goddess) is the most frequent figure on the wands. Lioness goddesses abound in Egyptian religion, united by their fierce personalities. They can be invincible protectors, but also the bringers of plague, pestilence, and war. They are huntresses, associated with the desert boundaries, especially watering holes and wadis. The association with gateways and water may be why drain-spouts of Ptolemaic temples are generally in the form of lions who protect this informal entrance to the sacred space from malevolent spirits. Lioness goddesses generally need to be pacified, and rituals to achieve this center around an *isheru*, a kidney-shaped lake meant to resemble a natural desert watering hole.

Lioness goddesses associated with the Eye of Re, such as Sekhmet and Mut, were ambiguously regarded: powerful, dangerous, and unpredictable, they nevertheless possessed such protective powers that worshipping them was seen as beneficial. These goddesses additionally possessed the potential, once pacified, to become divine mothers who would employ all their native ferocity in the protection of their offspring.

Felids make up 13% of amethyst amulets. Those securely identified as lionesses make up 4%, but due to the small size and lack of detail it can often be difficult to distinguish between lions, lionesses, cats, and sphinxes. The distinction between lion and lioness is particularly troubled because lioness goddesses are often shown with a short mane or ruff.¹⁸¹ In any case felids as a category are the second most common amulet in amethyst, echoing their prevalence on the wands.

Composite Hippopotamus Goddesses

Hippo goddesses appear on 59% of the wands and hippos make up 12% of the figural amethyst pieces. In both categories, they are one of the most popular motifs.

¹⁷⁹ Wilkinson, The Complete Gods and Goddesses of Ancient Egypt. 181.

¹⁸⁰ Wilkinson, The Complete Gods and Goddesses of Ancient Egypt. 180.

¹⁸¹ Pinch, Handbook of Egyptian Mythology. 133.

The figure on the wands is normally identified as Tawaret, the ubiquitous protective goddess of midwifery, but could be any one of several hippo goddesses with crocodilian and leonine attributes. Tawaret is associated with the hippo goddesses Ipet and Reret, and all three are associated with Hathor Mehet-Weret, the Hathor of the waters of *nun*, who supports the newborn solar disc. ¹⁸² In the temple of Ipet at Karnak, a hippopotamus goddess gives birth to a solar Osiris who becomes a new or renewed Amun-Ra. ¹⁸³ In the Pyramid Texts, the reborn king is nourished by a nursing hippo. ¹⁸⁴ The Eye of Re transforms into a hippopotamus goddess when she returns to the marshy Nile Valley. ¹⁸⁵ This is her final transformation before she becomes pacified as the beautiful mother of the sun child. Her retention of leonine aspects, such as paws, may be a reminder of the angry goddess she recently was or many even represent the moment of transition from raging lioness to protective hippo.

A group of Reret goddesses are with the Distant Goddess when she returns from the desert, explicitly mentioned in the Medamud hymn among the celebrants who worship the Eye: 'The Reret-goddesses praise you, their mouths open, their forearms in adoration before you.' ¹⁸⁶

Figurines of hippos decorated with marsh plants are popular in the Middle Kingdom, and are often placed in funeral contexts, highlighting the connection of the hippopotamus with rebirth and protection. The hippopotamus goddess is found as a woman's tattoo, and there are several instances of paddle dolls decorated with Tawaret-like figures. Composite hippopotamus goddesses are common household amulets and are found on all manner of domestic goods, including paddle dolls, baby clothes, and milk jars. They are also, in company with the god Bes, frequently rendered on beds and headrests. This indicates the goddess' mandate to protect not only children, but also sleepers made vulnerable by passage between daytime and nighttime worlds.

¹⁸² Wilkinson, The Complete Gods and Goddesses of Ancient Egypt. 184.

¹⁸³ Pinch, Handbook of Egyptian Mythology. 142.

Wilkinson, The Complete Gods and Goddesses of Ancient Egypt. 184.

¹⁸⁵ Pinch, Handbook of Egyptian Mythology. 142.

¹⁸⁶ Darnell, 'Hathor Returns to Medamud.' 81.

¹⁸⁷ Morris, 'Paddle Dolls and Performance.' 71-103.

¹⁸⁸ Wilkinson, The Complete Gods and Goddesses of Ancient Egypt. 186.

¹⁸⁹ Wilkinson, The Complete Gods and Goddesses of Ancient Egypt. 186.

Baboons

Baboons appear on 20% of the wands, and, at 14% of the corpus, are the third most popular amulet in amethyst.

Baboons have a strong lunar association and are associated with the god Thoth and with the lunar eye of Re. However, given the solar context in which the other figures on the wands are presented, it seems likely that the baboon here is a solar animal. Baboons are often shown greeting the sun as it rises. The Eight Baboons of the Horizon, who appear in the Book of the Dead, worship the sun at dawn and their association with the southeastern regions gives greater weight to the solar identification of the baboons on the wands. Solar baboons are commonly seen at the bases of obelisks, such as the obelisk before the pylon at Luxor Temple, with their paws raised in solar adoration. Thoth in the form of a baboon is responsible for reasoning with the furious solar Eye and convincing her to return to Egypt. Images of baboons bearing the eye include the caption: 'I, the carrier of the sacred eye, have come in order to protect [X].' Several of the wands include baboons, many of whom carry a *wadjet* eye before them. The determinative for the raging Eye of Re can be an angry baboon.

Wadjet Eyes

Wadjet eyes are one of the most popular amulets in amethyst, making up 8% of the total of figural pieces. Twelve percent of the wands show *wadjet* eyes, either alone or carried by a baboon or occasionally a hippo goddess. This can be identified as the Eye of Re itself. The solar Eye of Re was associated with the right eye of that god, whereas his left was associated with the Eye of Horus or the Lunar Eye. However, the Eye of Re and the Eye of Horus are almost interchangeable in many contexts. In the Coffin Texts, Hathor herself states: 'I am that Eye of Horus.'

¹⁹⁰ Wilkinson, The Complete Gods and Goddesses of Ancient Egypt. 215-217.

¹⁹¹ Steindorff, 'Magical Knives.' 50.

¹⁹² Petrie, Objects of Daily Use. 40.

¹⁹³ Darnell, 'Hathor Returns to Medamud.' 79.

¹⁹⁴ Darnell, 'The Apotropaic Goddess in the Eye.' 35.

¹⁹⁵ Darnell, 'The Apotropaic Goddess in the Eye.' 36.

¹⁹⁶ Spell 331. Faulkner, The Ancient Egyptian Coffin Texts.

Wadjet and human eyes were given as votive offerings to Hathor, in a direct allusion to her identification as the Eye of Re. ¹⁹⁷ The choice to show the eye being carried by a baboon, in particular, confirms that this is the Eye of Re and not an Eye of Horus, as it was Thoth in his guise as a baboon who carried the Eye back to Egypt after convincing her to return. ¹⁹⁸

Vultures

Vultures are found on 17% of the wands, but account for only 1% of amethyst amulets. The vulture is probably meant to represent the Eye in her manifestation as Nekhbet. This might even represent an intermediary stage of transformation between lioness and hippopotamus, as the vulture is native to the lower deserts that border the Nile Valley. Like the other goddesses depicted, she is strongly associated with queenship, birth, and motherhood. Description of the wands, but account for only 1% of amethyst amulets. The vulture is probably meant to represent the Eye in her manifestation as

Cats

Cats appear on 22% of the wands. These cats, who often wield knives, might be the 'Great Cat of Re,' who slays Apophis, or Bastet, another form of the pacified Eye. Bastet can also be associated with the Great Cat of Re, and this fierce and protective aspect of her personality is probably key to her depiction on the wands. Several votive figurines in the shape of cats have been excavated from the desert temples of Hathor. The cat resembles a wild serval cat rather than a domesticated cat, emphasizing the connection between Hathor in the guise of cat and the southern desert areas to which the serval cat is native. Bastet is sometimes referred to as the 'Nubian Cat' in the context of her association with the Eye of Re. 203

¹⁹⁷ G. Pinch, 'Offerings to Hathor.' *Folklore*. 93:2 (1982). 144.

¹⁹⁸ Pinch, Handbook of Egyptian Mythology. 130.

¹⁹⁹ For a full discussion of the syncretism of Nekhbet and the Eye see: Preys, 'Nekhbet, L'Oeil Droit du Dieu Solaire.' 159-177.

²⁰⁰ Wilkinson, The Complete Gods and Goddesses of Ancient Egypt. 214.

²⁰¹ Wilkinson, The Complete Gods and Goddesses of Ancient Egypt. 178.

²⁰² Pinch, 'Offerings to Hathor,' 143.

²⁰³ Pinch, *Handbook of Egyptian Mythology*. 116.

The cat appears very rarely in amethyst (less than 1% of figural pieces), although given the small size and relatively crude detail of many of the amulets, the cats may have been lost in the larger category of lions and sphinxes (5% of figural pieces).

Griffins and Serpopards

Griffins and serpopards, combined, appear on 67% of the wands but do not appear at all among amethyst amulets. These mythological animals, although apparently native to Mesopotamia, arrive in Egypt quite early. They appear on Predynastic palettes and other objects. ²⁰⁴ They disappear from the artistic imagination in the Old Kingdom, but rear their heads again at the beginning of the Eleventh Dynasty. Griffins and serpopards are understood to come from the deep desert. As the Nile Valley re-opens to Levantive and desert-dwelling people in the 11th and 12th Dynasties, however, these figures are reintroduced.²⁰⁵ They notably appear in the scenes of desert hunting in the tombs at Beni Hassan, where they stand on a pebbled red desert groundline. ²⁰⁶ In some cases they wear collars and appear to be tame hunting animals.²⁰⁷ Although Eastern influence seems the likely cause for the reappearance of these creatures, it is clear that the forms from earlier Egyptian periods, when griffins appeared on palettes and knives, are well remembered.

It is certain that the griffins come to Egypt with the returning goddess, for the hymn at Medamud states it explicitly: 'The griffins cover themselves for you with their wings.'208 The reference to covering themselves is probably meant to imply that the griffins, like the goddess, are masking their fiercer natures and entering Egypt as docile, tame beasts. ²⁰⁹ In the myth itself the raging Eye is said to stand on a griffin. ²¹⁰ Griffins (like baboons) are considered able to travel between worlds, so are appropriate animals to escort the goddess through the changing terrain of her journey. 211 The griffin

²⁰⁴ N. Wyatt, 'Grasping the Griffin: Identifying and Characterizing the Griffin in Egyptian and West Semitic Tradition.' Journal of Ancient Egyptian Interconnections. 1:1. (2009). 29–39

²⁰⁵ N. Kanawati, Beni Hassan: Art and Daily Life in an Egyptian Province. (Cairo: Supreme Council of Antiquities, 2010). 79.

²⁰⁶ Kanawati, Beni Hassan: Art and Daily Life in an Egyptian Province. 79.

²⁰⁷ Kamrin, The Cosmos of Khnumhotep II at Beni Hassan. 85.

²⁰⁸ Darnell, 'Hathor Returns to Medamud.' 80.

²⁰⁹ Darnell, 'Hathor Returns to Medamud.' 86.

²¹⁰ Darnell, 'Hathor Returns to Medamud.' 86.

²¹¹ Darnell, 'Hathor Returns to Medamud.' 79.

can also be a manifestation of Horus, a symbol of the god Montu, or a manifestation of Seth.²¹²

Jackal Gods

A curious jackal-like creature is present on 39% of the wands, but like the griffins and serpopards, does not appear in amethyst. It is depicted in a number of ways, generally a jackal head or head and wig on a single vertical support, either a standard or a single paw. This strange spirit appears again in the Late Period: we see him on a 21^{st} Dynasty coffin with a goddess from the Twelfth Hour of the Amduat. He is called $i\underline{t}$ $\underline{t}3w$ (he who takes possession of winds/breath). The scene is suggestive of the moment of the slaying of Apophis and the rising of the sun, placing the action near the eastern horizon.²¹³

He also appears in a Late Period magical papyrus protecting a mother and son, in which the child has the title 'The great god who resides in the *Hwt-Mskt* and emerges from the Nun.' This is the title of Re-Atum, and the *Mskt* is a cosmic area in front of the gates of the netherworld, on the eastern horizon.²¹⁴

It is possible that he is a *h3tyw* demon, one of a class of beings who wander between worlds armed with knives. These demons also assist the sun god in defeating Apophis.²¹⁵ The actions of slaying Apophis, giving breath, and protecting mothers and children, combined with his activity at the horizon, make him a good fit with the other deities even if his origins are not well understood.

Fox-Head Terminals

The animal head found on the narrow end of 30% of the wands is normally identified as a jackal. However, based on the text at Medamud, it should perhaps be identified as a desert, or fennec, fox. In the context of describing the animals celebrating the goddess, the hymn states: 'The foxes (wsr(t)) raise up their heads for you.' This explicit inclusion of the fox among the other animals provides a good identification for a

²¹² Pinch, Magic in Ancient Egypt. 42.; Pinch, Handbook of Egyptian Mythology. 120.

²¹³ E. Liptay, 'From Middle Kingdom Apotropaia to Netherworld Books.' E. Bechtold, Ed., *From Illahun to Djeme*. BAR International Series 2311. (Oxford: Archaeopress, 2011). 150.

²¹⁴ Liptay, 'From Middle Kingdom Apotropaia to Netherworld Books.' 151.

²¹⁵ Liptay, 'From Middle Kingdom Apotropaia to Netherworld Books.' 152.

²¹⁶ Liptay, 'From Middle Kingdom Apotropaia to Netherworld Books.' 80, 87.

motif that, depending on the individual wand, resembles a jackal, a cat, a fox, or a hare. On some wands the fox-head has a lotus inscribed directly above it; on others it is replaced on the terminal by a lotus blossom. ²¹⁷ The similarity of form between the two allows them both to fit comfortably on the tapering end of the wand, but there may also be a symbolic consonance between the two of which we are not aware. The large eyes and foreshortened features of the fennec give its face a perpetually youthful appearance; this may perhaps have helped to associate it with the young, renewed sun. It is worth noting that in the Middle Kingdom, the *ms*, or 'birth' sign is often shown as being made of three fox hides. ²¹⁸ This emphasizes the birth motif inherent in these wands. ²¹⁹ Foxes do not appear in amethyst.

Cheetahs and Cheetah-Head Terminals

This animal appears on 41% of the wands, usually as a head on the round or butt terminal of the piece, but occasionally in a stalking pose among the other figures. The significance of the cheetahs is uncertain. They may simply be included as another powerful animal of the middle desert regions through which the Eye travels. Cheetahs are often conflated with leopards, although whether this is an ancient relationship or an error of modern Egyptology is a matter for debate. Male leopards are symbolic of the rage of Seth, but females played a protective role.²²⁰

Double Lions

The double lion that appears on 10% of the wands might be Aker, the being who protects the entrance to the underworld.²²¹ It might also be Ruty, who is identified with Shu and Tefnut, whom the Solar eye is sent to find in another myth.²²² Ruty can also be

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²¹⁷ Petrie, *Objects of Daily Use.* 40.

As in the temples of Senwosret III at Dashur, S. Ikram, personal communication.

²¹⁹ I am grateful to Dr. Salima Ikram for providing this information and for fruitful discussions with regard to the iconography of the fox with regard to the wands.

²²⁰ Pinch, Handbook of Egyptian Mythology. 133.

²²¹ Wilkinson, The Complete Gods and Goddesses of Ancient Egypt. 176.

²²² J. Ogdon "Some Notes on the Name and Iconography of the God Akr" *Varia Aegyptiaca* (San Antonio, 1986) 130-31.

construed as an archaic form of the sun god.²²³ A double lion is identified both with Atum and as a gatekeeper in the Papyrus Ani.²²⁴ Petrie sees the double lion, which can be read as 'yesterday and tomorrow,' as symbolic of the division of the New Year from the old.²²⁵ This is consistent with the calendar time of the festival of the Eye, and also in keeping with the theme of crossing boundaries between realms. Double lions do not occur in amethyst.

Bes/Aha

The dwarf usually identified as Bes appears on 34% of the wands, but only makes up 1% of the amethyst amulets. He may actually be Aha, a god similar to Bes with an additional hunter aspect. Aha is distinct from Bes by the lack of a mane and feathered headdress. Aha, also called 'the fighter' fits well with the aggressive and protective traits of the other figures on the wands. However, the hymn at Medamud is inscribed next to a figure that can definitely be identified as Bes; this god's associations with childbirth and with Hathor and Tawaret are well known. Papyrus Leiden, in identifying the laboring mother with Hathor, also sends a 'good dwarf' to assist in the delivery. A child or dwarf can be shown inside the pupil of the Eye of Ra, representing the sun that will be born in the red sky of dawn.

Brazier

Twelve percent of the wands show the 'fire' or 'brazier' hieroglyph between the figures, although this form does not occur in amethyst.

Steindorff says: "... the frequently occurring braziers have no significance. They represent the actual furnishings, which by means of their smoke were expected to expel from the house snakes and other pests." However, in the context of the festival of the returning Eye, a nocturnal celebration that explicitly begins at 'the lighting of the lamps,' the fires seem more relevant. Torches are associated with drunken nocturnal festivals and

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²²³ Ogdon, "Some Notes on the Name and Iconography of the God Akr." 130.

²²⁴ Wilkinson, The Complete Gods and Goddesses of Ancient Egypt. 176.

²²⁵ Petrie, *Objects of Daily Use.* 41.

²²⁶ Steindorff, 'Magical Knives.' 48.

²²⁷ Pinch, *Magic in Ancient Egypt.* 129.

²²⁸ Pinch, *Handbook of Egyptian Mythology*. 129.

²²⁹ Steindorff, 'Magical Knives.' 50.

the return of the eye of the sun, as well as with hippopotamus goddesses.²³⁰ Additionally, Nubians carry silver braziers in a festival for Mut at Karnak.²³¹ If Nubian people carry braziers in this festival, it is possible that Nubian animals might carry them in others, hinting at an association of apotropaic braziers or torches with processions from the south. This association of braziers with nocturnal festivals for pacified goddesses provides a much more compelling explanation of the presence of braziers on the wands.

Seth Animals

Seth animals appear on 17% the wands, but have not been noted in amethyst. It seems most likely that they are included for their connection to desert realms and their power as protectors of the sun and tramplers of enemies. There is also a Sethian connection with hippopotami, as Seth is sometimes understood as the consort of Tawaret, and the bones of hippos can be referred to as the 'bones of Seth.' 232

Sphinxes

Sphinxes appear on 7% of the wands and account for 8% of amethyst amulets. They are solar creatures who are associated with the desert regions and the protection of the king, as well as manifestations of the king in a solar form.

Cobras

Rearing cobras appear frequently on the wands (20%) but do not appear in amethyst. Cobras can be directly connected to the Eye of Re in her manifestations as Uraeus, Wadjet, Renenet, and Weret Hekau (great of magic), foster-mother of divine kings. ²³³ The cobra is also known to spit fiery venom at its enemies, making it a powerful protective symbol. ²³⁴

Falcons

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²³⁰ Darnell, 'Hathor Returns to Medamud.' 52.

²³¹ Darnell, 'Hathor Returns to Medamud.' 51.

²³² B. Lang, "Job XL 18 and the 'Bones of Seth." Vetus Testamentum 30.3 (1980). 360.

²³³ Pinch, *Handbook of Egyptian Mythology*. 186.

²³⁴ Pinch, Magic in Ancient Egypt. 11.

Falcons appear on the wands in two aspects: as the birds themselves, and as standing, anthropoid, raptor-headed male figures. Combined, they appear on 10% of the wands. The most apparent connection between the wands and the falcon is that of the young Horus, the child who results from the pacification of the Goddess. However, the standing, adult, falcon-headed gods seem not to fit this association. Falcon-headed Min is the consort of Rat-Tawy.²³⁵ Where a standing anthropoid god with a falcon head appears on the wands, he may be identifiable with this god.

The young Horus may be intended when falcons appear on the wands, although this is fairly rare. Perhaps the role of the young Horus would have been filled by the human child the wand was intended to protect. However, falcons are by far the most frequent amulet in amethyst (23% of cataloged figural pieces). The prevalence of hawk amulets in amethyst and in blue materials such as turquoise and faience underscores the importance of blue as a solar color, especially in relation to the young, renewed sun god.

Sun Disc on Legs

A peculiar disk on striding legs appears on 29% of the wands, but does not appear in amethyst. Perhaps it is a reference to the wandering aspect of the Eye, or an early depiction of the Aten. The Aten disc is referred to in relation to the Eye as early as the Twelfth Dynasty: "to him (Senwosret I) belongs that which the sun-disc encircles daily, to him is brought 'the Eye' in the form of that which is in her, the Mistress of Being, in the form of what she creates." An adjectival form of the name Aten is used in the Coffin Texts to describe the Eye of Re: "the disced one of Re, his uraeus - lo! she is on his brow!" Thus the Eye, the uraeus, and the sun disc are closely inter-identified. 238

The legs may be a reference to the twin uraei that often flank the sun disc: examples of this association exist on the sarcophagus of Merenptah, where Neith declares: 'I set the two sisters (the uraei) to be the tops of your two legs,' and in a passage from the Papyrus Brooklyn: 'your two feet being uraei, your two arms being two eyes.' 239

²³⁵ Pinch, *Handbook of Egyptian Mythology*. 165-66.

²³⁶ D. Redford, 'The Sun-Disc in Akhenaten's Program: Its Worship and Antecedents, I.' *Journal of the American Research Center in Egypt* 13 (1976). 49.

²³⁷ Redford, 'The Sun-Disc in Akhenaten's Program: Its Worship and Antecedents, I.' 49.

²³⁸ Redford, 'The Sun-Disc in Akhenaten's Program: Its Worship and Antecedents, I.' 49.

²³⁹ Darnell, 'The Apotropaic Goddess in the Eye.'

Frog

The frog is associated with fertility and the flood. As the goddess Heket, who shapes the child in the womb, the frog is a divine midwife who delivers kings and a follower of the inundation.²⁴⁰ In some instances she even gives birth to the sun god.²⁴¹ Frogs appear on 34% of the wands, but make up only 1% of amethyst amulets.

Crocodiles and Turtles

The significance of these animals is uncertain. They may simply be symbols of the riverine environment and the inundation. Crocodiles, although feared, were associated with the rejuvenation of the flood. 242 They appear on 22% of the wands but do not appear in amethyst. Turtles appear on 10% of the wands, but make up only 1% of the figural amethyst corpus.

Kneeling Bovids

These bovids appear on 10% of cataloged wands. Generally they kneel on a basket or standard, and a flail rises from the back of the animal. Many appear to be mummified. These are most readily identified with Mehet-Weret, a cow-headed goddess associated with Hathor, the Eye of Re, divine birth, and the rebirth of the king. It is she who gives birth to the sun-child and carries him between her horns.²⁴³ As early as the Middle Kingdom, kings were showing themselves suckling from a divine cow in an effort to associate themselves with Horus as the reborn sun, and to emphasize their divine nature. 244 Mehet-Weret is generally shown just as the bovids on the wands, kneeling, with a scepter over the back.²⁴⁵ She is sometimes covered by a decorated blanket, which may be the element easily confused with mummy wrappings in this instance.

Pinch, Handbook of Egyptian Mythology. 140.
 Pinch, Handbook of Egyptian Mythology. 140.

²⁴² Pinch, Handbook of Egyptian Mythology. 126.

²⁴³ Pinch, *Handbook of Egyptian Mythology*. 125.

²⁴⁴ Pinch, *Handbook of Egyptian Mythology*. 125.

²⁴⁵ Wilkinson, The Complete Gods and Goddesses of Ancient Egypt. 174.

Double-headed Bulls

The significance of these motifs, which appear on 10% of the wands but never in amethyst, is entirely uncertain. They do not appear consistently in any other contexts. The bull itself can be Mnevis, the physical manifestation of Re.²⁴⁶ The bull can also symbolize the inundation, which represents a return of virility and fertility.²⁴⁷ However, the double-headed kneeling bull seems likely to have a different significance, which will require further study. Similar double-headed animals, possibly gazelles or antelopes, appear in the tombs of Beni Hassan, but there too their significance is uncertain.²⁴⁸

Ba

Five percent of the corpus of amethyst amulets were identified by Petrie as 'Ba' amulets.²⁴⁹ However, they are so small and lacking in detail that they could just as easily be falcons or any other kind of bird. The bird-bodied, human headed Ba, which embodies part of the human soul, does not appear on the wands. Its connection to the other motifs, if any, is unclear.

Cowrie

Cowrie shells make up 3% of the figural amulets cataloged. They do not appear on the wands. Because of their resemblance to female genitalia, cowries have a strong association with female sexuality and, therefore, with fertility. They are often found strung into womens' girdles.²⁵⁰

Miscellany

The remainder of the amethyst amulets appear in a frequency of equal to or less than 1%, and do not appear on the wands. They are: duck, fly, fruit, hand, hare, heart,

²⁴⁶ I. Shaw, *The British Museum Dictionary of Ancient Egypt*. (Cairo: The American University in Cairo Press, 1995). 44

²⁴⁷ Shaw, The British Museum Dictionary of Ancient Egypt. 57.

²⁴⁸ P. Newberry, *Beni Hassan II*. (London: Egyptian Exploration Fund, 1893). pl. IV.

²⁴⁹ Petrie, *Amulets*.

²⁵⁰ Andrews, Amulets of Ancient Egypt. 42.

hedgehog, knot, and vase.²⁵¹ None of these pieces has good provenance. The knot, heart, vase, and fruit are dated to the New Kingdom by the museums in which they are held. Given their murky origins and their lack of relationship to the other amulets in the corpus, there seems to be little benefit in attempting to analyze their significance in this context.

Patterns

The vast majority of figural motifs in both amethyst amulets and ivory apotropaic wands relate tidily to the Myth of the Returning Eye of Re, from the moment of her decision to return to Egypt to the birth of her child, the young sun god. The apotropaic wands depict in fairly precise detail the participants in the procession that returns the Eye to the Nile Valley. These include protective demigods, mythological creatures and gatekeepers from the far southeast, animals from the desert borders who escort the goddess to the fertile Nile Valley, and the aquatic creatures who accompany her as she brings the flood up from the south. The amethysts, on the other hand, paraphrase the entire story: a feline, the Eye, is placated by a baboon and returned to Egypt as a maternal hippopotamus, who gives birth to the young sun, a falcon or scarab. These six motifs are the most popular in the distribution of amethyst amulets and provide a compelling explanation of their meaning.

CHAPTER VIII: HATHOR: LADY OF AMETHYST, MISTRESS OF BIRTH, AND EYE OF RE

As the preceding chapters show, amethyst amulets and apotropaic wands were intrinsically associated with the story of the pacification of the Eye and the birth of the young sun. The story of pacification, fertility, and rebirth is a fundamental myth that has ramifications for every aspect of Egyptian religious culture. In their ubiquity, these three themes create a pattern that motivates the devotional cycles of the country for most of its history. This over-arching narrative is inseparably connected with the cult of the goddess

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²⁵¹ The heart and vase amulets are part of one group held by the British Museum (EA30345). They are not photographed, but as the curator has made a distinction between 'heart' and 'vase' I have assumed that the vase is a type other than the ib.

Hathor, who absorbs the properties and mythologies of all of the other goddesses associated with the Solar Eye of Re.

Hathor has a definite solar aspect from very early times—her worship in the sun temple is mentioned on the Palermo Stone. The Coffin Texts explicitly refer to Hathor as the Eye of Ra. The queen's uraeus wears a Hathor headdress in direct identification with Hathor the Eye of Re, who is the mother of the young sun god. This excerpt from Chapter 17 of the Book of the Dead simultaneously identifies the Eye as Hathor and as the uraeus:

'I lifted up the hair from the Sacred Eye of Re at its time of wrath. What does it mean? It means the right Eye of Re when it raged against him after he had sent it out. It was Thoth who lifted up the hair from it when he fetch it in god condition without its having suffered any harm. Otherwise said: It means that his Eye was sick when it wept a second time, and then Thoth spat on it. I have seen this sungod who was born yesterday from the buttocks of the celestial cow; if he be well then I will be well, and vice-versa. What does it mean? It means these waters of the sky. Otherwise said: It is the image of the Eye of Re on the morning of its daily birth. As for the celestial cow, she is the sacred Eye of Re...As for those who put terror into the doers of wrong, who are in the suite of her who makes content and protects, they are Sobek and those who are in the waters. As for her who makes content and protects, she is the Eye of Re...as to Wadjet, Lady of the Devouring Flame, she is Re.²⁵⁵

Several other references connect the Hathor the Eye with Renenutet, the cobra goddess who nourishes the divine child, controls the harvest, and is identified with the uraeus. The uraeus connection is significant as, in myth, Re places his Eye on his brow as the uraeus. Pyramid Text 405 identifies the deceased with '...that eye of [Ra's], which is on the horns of Hathor...' and draws the connection not only between the Eye and the uraeus, but also between the Eye and the inundation. 257

The New Year, and the flood, were heralded by the rising of Sothis. The Eye of Re becomes associated with this star, not surprisingly given the time of its rising and the fact that the rising Sothis appears just above the rising sun, like the uraeus over the head

²⁵³ Darnell, 'The Apotropaic Goddess in the Eye.' 35.

²⁵² Bleeker, *Hathor and Thoth*. 65.

²⁵⁴ R. Preys, 'L'Uraeus 'Hathorique' de la Reine. Eyre, C.J. Ed. Proceedings of the Seventh International Congress of Egyptologists, Cambridge 3-9 September, Leuven: *Orientalia Lovaniensia Analecta* 82 (1998). 917.

²⁵⁵ R. Faulkner, *The Egyptian Book of the Dead.* (Cairo: American University in Cairo Press, 1998). Plates 8-10

²⁵⁶ Pinch, Handbook of Egyptian Mythology. 186.

²⁵⁷ Richter, 'On the Heels of the Wandering Goddess.' 157.

of Re. 258 This connection with the inundation is probably why the Eve is associated with moisture in her placated form. ²⁵⁹ In her role as Sothis, the Eve is identified with Hathor-Isis. 260 Hathor is also associated with the inundation and is said to 'flood the land with turquoise.' This is a reference to the so-called 'green Nile' at the beginning of the flood. when the water has a greenish tinge. ²⁶¹ Hippopotamus goddesses are connected to the flood and to the Eye of Re, and the angry lioness manifestation of the Eye is said to transform into a hippo when she reaches the marshlands of the Nile Valley. 262 Statues of hippo goddesses not only retain the leonine mane and teeth of the angry Eye, but often bear eyes in front of their chests.²⁶³ The hippopotamus midwife Tawaret is often connected to Hathor, probably because of the role of the hippopotamus goddess in the Eye of Re myth, and because both goddesses are fierce protectors of young children²⁶⁴

Aside from their power, the trait most of these goddesses hold in common is their ability to take on Hathor's role of protective mother of the young god, 'Because she is the flame, Renenet in the mansion of nursing. '265 Among Hathor's epithets is 'The Mistress of Birth, The One Who Saves Pregnant Women. '266 Papyrus Leiden personally identifies the laboring mother with Hathor by suggesting that the midwife recite aloud, 'It is Hathor, Lady of Dendara, who is giving birth.' ²⁶⁷ Papyrus Berlin 3027 (*Mutter und Kind*) calls the mother the 'Red Woman.' Because her child is in danger, this epithet has been taken as a reference to her sorrow and anxiety over the fate of the baby: red can be associated with pestilence and negative emotions. ²⁶⁹ However, a recent article suggests that this is, 'on the contrary, a solar qualification, linked to the identification of the child, through his designation as *kheperu*, to the sun god child. Following this logic, the

²⁵⁸ Darnell, 'The Apotropaic Goddess in the Eye.' 46.

²⁵⁹ Darnell, 'The Apotropaic Goddess in the Eye.'.44. ²⁶⁰ Darnell, 'The Apotropaic Goddess in the Eye.' 45.

²⁶¹ A. Roberts, *Hathor rising: the serpent power of ancient Egypt.* (Totnes: Northgate, 1995). 15.

²⁶² Pinch, G. Handbook of Egyptian Mythology. 142.

²⁶³ Darnell, 'The Apotropaic Goddess in the Eye.' 47.

²⁶⁴ Wilkinson, The Complete Gods and Goddesses of Ancient Egypt. 184.

²⁶⁵ Darnell, 'Hathor Returns to Medamud.' 48.

²⁶⁶ Pinch, 'Offerings to Hathor.' 147.

²⁶⁷ J. Borghouts, The Magical Texts of Papyrus Leiden One. (Leiden, 1971). 153.; Pinch, Magic in Ancient

²⁶⁸ Erman, Zaubersprikhe fur Mutter und Kind: Aus dem Papyrus 3027 des Berliner Museums.

²⁶⁹ Brunner-Traut, 'Farben.' 123.

²⁷⁰ S. Donnat, 'L'enfant chétif d'une femme séthienne, ou le nouveau-né solaire d'une mère divine?' *Revue* d'Egyptologie 63 (2012). 83.

designation of the mother as 'red' can easily be understood as identifying her directly with the divine mother in her angry, powerful, protective form.

The association of the human mother with Hathor through iconography evoking the Eye of Re myth is not confined to the wands. Several other accouterments of birth and early childhood make use of the same iconographic repertoire to identify the laboring mother with the goddess, and, by extension, to solicit the protection of the spirits who were present at the moment of the divine birth. Among these is a painted brick of the 13th Dynasty excavated at Abydos, which has been identified as a 'birth brick.' The creatures found on the wands, such as baboons, lions rampant seizing snakes, and rearing cobras, march around the narrow edges of the brick. On the preserved broad face, a seated woman cradles a baby, flanked by a pair of attendants. The scene is bordered by two wooden posts, each topped by a Hathor head. The presence of Hathor here, as well as her animal entourage, is clear. The animals from the wands also appear on magic rods. Joseph Wegner convincingly argues that these square rods, which split into four pieces, are actually sets of model birth bricks.²⁷² An infant's faience feeding cup in the Metropolitan Museum of Art 44.4.4 (Cat. 12) is decorated with lions, a serpopard, a snake, and a turtle. Even though Hathor is not depicted on these objects, her presence is implied by the presence of her entourage just as it is on the wands.

Hathor's association with birth clearly derives from her role as a mother, but may also be connected to her control over the liminal regions of the cosmos. Birth on earth and rebirth in the afterworld were vulnerable moments, moments of passage between spheres of existence. Hathor's role as protectress and surrogate at both moments implies that she had power in the shadowy, dangerous spaces between worlds. Probably for this reason, she can sometimes act as a mediator between the living and the dead.²⁷³

The gateway between the worlds of the living and the dead, as discussed above, is located in the southeastern desert. Hathor's power over this area is alluded to by her epithet 'Lady of the Horizon,' *nbt nt 3ht*.²⁷⁴ She 'rises inside the horizon and she controls

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²⁷¹ Wegner, 'A Decorated Birth-Brick from South Abydos: New Evidence on Childbirth and Birth Magic in the Middle Kingdom.' 454.

²⁷² Wegner, 'A Decorated Birth-Brick from South Abydos: New Evidence on Childbirth and Birth Magic in the Middle Kingdom.' 454.

²⁷³ Pinch, 'Offerings to Hathor.' 139.

²⁷⁴ Spell 276. Faulkner, *The Ancient Egyptian Coffin Texts*, vol. I, 207–208.

the sky, she makes the two lands content while her entourage is about her.'²⁷⁵ Hathor's rising in the sky evokes the rising of the young sun god. The entourage referred to, then, is probably the same entourage of animals and spirits that is present when she gives birth to Khepri. Hathor's connection to the sky, especially the dawn sky, has interesting implications for the association of amethyst with this narrative. As discussed above, the Egyptians would have seen purple most frequently in the sky at sunset and sunrise. Because Hathor was associated with both the southeast and the purple dawn sky, it is not surprising that amethyst becomes linked to her story. As discussed above, it is clear that the association between amethyst and a region of the sky existed in Mesopotamia, making the possibility of a similar Egyptian connection seem all the more probable.

Spell 486 of the Coffin Texts explicitly connects Hathor's rising to her association with the mining regions of the southeast. It states, 'the mountain is broken, the stone is split, the caverns of Hathor are broken open; she ascends in turquoise and is covered with her royal wig-cover...' Although turquoise, rather than amethyst, is named here, the vivid imagery of Hathor essentially ascending from a mine to the sky is worth noting.

Perhaps more than any other Egyptian deity, Hathor was associated with foreign lands, the desert, and the mining regions, physical liminal zones that are analogous to the liminal spaces she controls in the spiritual world. Several of her epithets make this clear, as well as her association with the produce of these regions. She is called Mistress of the Desert, Mistress of Foreign Lands, Mistress of Turquoise, and Mistress of Amethyst.²⁷⁷ It is in this last manifestation that the stelae and other inscriptions at Wadi el-Hudi are dedicated to her. Aufrere suggests that Hathor embodies the precious 'fluids,' or minerals, concealed in the depth of the rocks, and that this is connected to her reproductive potential.²⁷⁸ This idea has been put forth by other scholars, who propose the idea that, symbolically, 'Ores grow inside the earth like a fetus in the womb.' ²⁷⁹

²⁷⁵ Spell 482. Faulkner, *The Ancient Egyptian Coffin Texts*, vol. II, 127.

Faulkner, *The Ancient Egyptian Coffin Texts*, vol. II, 130–31.

²⁷⁷ D. Doxey, *Egyptian Non-Royal Epithets in the Middle Kingdom: A Social and Historical Analysis.* (Brill, 1998).

²⁷⁸ S. Aufrere, 'The Egyptian temple, substitute for the mineral universe.' In Davies, ed. *Color and Painting in Ancient Egypt.* (London: British Museum Press, 2001). 159.

²⁷⁹ E. Wreschner, 'Red Ochre and Human Evolution: A case for discussion.' *Current Anthropology*. 21(1980). 5.

Aufrere also notes a New Year's Day procession dedicated to Hathor that brings together the produce of the mining regions. This is especially interesting in light of the fact that the celebration of Hathor as the Returning Eye of Re also takes place at New Year's and also involves a procession northward from the desert. As Egyptian patroness of both foreign places and their produce, Hathor was venerated at mining sites and foreign outposts, such as Serabit el-Khadim in Sinai and Timna in the Negev. One of the most common votive offerings left to Hathor at these sites is a model serval cat, or 'Nubian' cat. This would appear to be a reference to Hathor's identification with the Eye of Re. These models may well have been meant to remind Hathor to maintain her gentler cat form, even though she was being honored in the desert where she had previously raged as the angry, leonine Eye.

One further liminal state remains to be discussed, after birth, death, and travel outside Egypt. This is drunkenness, Hathor's favorite milleu. Often referred to as 'Mistress of Drunkenness,' Hathor was generally celebrated with festivals centered on unrestrained consumption of alcohol,²⁸² as is emphasized by the recently discovered 'Porch of Drunkenness' by Dr. Betsy Bryan at the Mut Temple, dating to the reign of Queen Hatshepsut.²⁸³ Offerings of wine are what ultimately complete the transformation of the angry Eye when she reaches the temple. Wine, the product of Egyptian civilization, smoothes the rough edges of the wild lioness and turns her into a gentle domestic cat.²⁸⁴ The Nile flood that she brings with her from Nubia is red in color, resembling wine, and it appeases the hot, dry land in much the same way as it appeases the acerbic and irritable goddess.²⁸⁵

A connection between wine and amethyst exists to this day. Most of the modern world refers to the stone by some variant of its Greek name, *amethustos*. The etymology of this term is slightly unclear: it translates to 'not drunken' and may reference the

²⁸⁰ S. Aufrere, *L'Univers minéral dans la pensée égyptienne*. (Cairo: IFAO, 1991).

²⁸¹ Pinch, 'Offerings to Hathor,' 143.

²⁸² M. Poo, Wine and Wine Offering in the Religion of Ancient Egypt. (Routledge, 2013). 155.

²⁸³ See: http://pages.jh.edu/~egypttoday/2007/pages/061707a.html; I am grateful to S. Ikram for bringing this reference to my attention.

²⁸⁴ Poo, Wine and Wine Offering in the Religion of Ancient Egypt. 157.

²⁸⁵ Poo, Wine and Wine Offering in the Religion of Ancient Egypt. 156.

Classical use of the stone as a talisman against drunkenness.²⁸⁶ However, a fourth century Greek work on gemstones states that the stone is named after a wine of the same color.²⁸⁷ In either case the Classical association with wine is clear, and, given that amethyst itself is an Egyptian import the connection may be Egyptian as well. Although at Hathoric festivals of drunkenness the celebrants were probably drinking beer, the connections between the goddess, amethyst, alcohol, and inebriated states are clear.

All of these Hathoric associations serve both to illustrate the connection of the goddess with amethyst and apotropaic wands, and to tie both of those types of objects to the myth of the Solar Eye of Re. The importance of Hathor in the Egyptian pantheon is undisputed, but the clear and numerous references to this particular mythological episode, represented by the apotropaic objects, indicate that she may have played a more vital part in everyday cult than scholars previously supposed.

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²⁸⁶ Webster, Gems: Their Sources, Descriptions, and Identification. 207.

²⁸⁷ Theophrastus, On Stones. See: Sidebotham, The Red Land: The Illustrated History of Egypt's Eastern Desert. 277.

CONCLUSION

The class of Middle Kingdom apotropaia to which ivory wands and amethyst amulets belong is closely connected to the myth of the Solar Eye, or Wandering Goddess. This narrative combines the themes of domestication of wild things from the desert margins, the harnessing of ambiguous powers for good, the safe traversal of dangerous liminal states, the establishment and maintenance of *Maat*, fertility, and the nurture of young children. These seemingly disparate themes were nevertheless of primary concern to the Middle Kingdom Egyptian, who lived in a world where the ordered, canonized rhythms of life in the Nile valley were negotiating a balance with the new social and political issues of an expanding empire. The Egyptian fixation on renewal and rebirth as a mechanism for maintaining cosmic harmony demanded a mother figure, in this case the Hathor/Sekhmet duality. The cyclical transition of this goddess from dangerous, raging lioness to benevolent, beautiful mother followed a predictable annual cycle and created a mythological framework that resonated on multiple levels.

A large part of the action of the myth takes place in the desert, a hostile expanse that completely surrounded Egypt and provided a sharp contrast to the fertile, pleasant land of the Nile valley. During the Middle Kingdom, as we have seen, the Egyptian state was mounting a strenuous effort to exploit the potential of the desert. This large-scale, expensive, and probably highly visible campaign was economic in nature, but also showcased the mandate of Egypt to harness and control regions previously thought to be entirely wild and dangerous, not to mention under the control of foreign powers. This, combined with increasingly frequent contact with foreigners, particularly Asiatics and Nubians, necessitated a new discourse on the nature of the desert and its peoples and produce.

This discourse was emerging at the same time that wands and amethyst were growing in popularity. Amethyst, as a newly available product of the desert regions, lent itself to use in contexts that addressed desert themes. The odd color of the material suggested a strange origin, between worlds. It was the color of nothing so much as dusk

and dawn, and amethyst came from the far southeast where the border between night and day was known to exist.²⁸⁸ The southeastern desert was also the region where the Eye of Re raged when she was angry with her father. This region was understood to be populated by genii, strange animals, and the gatekeepers of the portal between worlds. These are the spirits who appear on the wands that illustrate the myth. The connection between wands and foreigners is even more explicit on those examples that show a lion hunting a human figure wearing the crossed-band costume of a Nubian (Cat. 8, 13).

The geographical connection between the angry Eye and amethyst may be what initially linked the two, but other factors cemented the connection. The intermediate color of the stone, between red and blue, physically suggested the main theme of the story: the goddess' transition between dangerous (red) and benevolent (blue). If, as we have suggested above, the color of amethyst was understood as a particular shade of blue, then we have an explanation for why it was used mostly for amulets referencing the 'pacified' aspects of the story: baboons (Thoth), hippopotami (Reret goddesses), and raptors (the Sun Child).²⁸⁹ The lioness, symbolic of the angry goddess, is also represented in amethyst, suggesting that unlike the other characters from the desert scenes of the myth, the lioness remains an important figure in the second act: the return of the flood, the pacification of the goddess, and the birth of the Sun Child.

This is supported not just by the high incidence of feline amulets in amethyst, but by several pieces of amethyst jewelry of the Middle Kingdom. The Twelfth Dynasty princess Sithathoruniet owned a full suite of amethyst jewelry augmented by gold felines: bracelets with reclining lions, anklets with lions' claws, and a girdle with lions' heads (Cat. 14).²⁹⁰ The girdle is believed to have been a sexualized adornment; in any case the most common decoration for girdles was the cowrie, which had clear associations with fertility.²⁹¹ On Sithathoruniet's girdle, lions' heads take the place of the cowries. They have been made in such a way that two lion heads, ears-to-ears, form a biconical bead visually evocative of the expected cowrie. The consonance is almost certainly intentional and draws connections between reproductive potential and identification with the lioness.

²⁸⁸ Liptay, 'From Middle Kingdom Apotropaia to Netherworld Books.' 150.

The blueness of amethyst would also explain why it is so frequently strung with carnelian (red) beads. 290 L. Brunton, *Lahun I: The Treasure*. (London, 1920).

²⁹¹ C. Andrews, *Ancient Egyptian Jewelry*. (New York: H.N. Abrams, 1997). 142.

The identification of the new mother with the pacified goddess and her lioness form simultaneously seems even more plausible if we accept the rationale above for calling the anxious mother the 'red woman.'

The lioness made mother is the pivotal theme of the myth. The Eye's passage from arid, sterile desert to the fertile Nile Valley coincided with the end of the year and the beginning of the inundation. The last days of the year were associated with heat, drought, and pestilence, the hallmarks of Sekhmet in her angry form. The Eye's northward journey brings the gentler, maternal aspect of the goddess and also the lifegiving waters of the flood. This helps explain not only the Eye's transformation into a hippopotamus, but also the presence on the wands of crocodiles and turtles. Although generally regarded as dangerous, at this time of year these animals would have accompanied the flood north and heralded the renewal of the land. Their association with the relief of the rising floodwaters effectively neutralizes them. Perhaps, as part of the entourage of the goddess, they would have undergone a pacification parallel to hers.

The ultimate result of the return of the Eye from the southeastern desert is the birth of the Sun Child, symbolic of the renewal of the land, the reestablishment of *maat*, and a guarantee of prosperity in the coming year. On this level, the narrative serves as a fertility myth and an explanation for the changing seasons of the year. The connection of the characters with birth and the protection of young children is codified in the context of this myth and persists into Byzantine times.²⁹²

The protective powers of these characters, however, are not only applicable to neonates. As attested by the inscriptions on the wands, they also come to the aid of the new mother by identifying her directly with both aspects of the powerful goddess: protectress and nurturer. This is probably why the lioness and the hippopotamus are the most common motifs both in amethyst and on the wands. Birth and young childhood were dangerous, liminal times and to ensure protection for both mother and child, it was necessary to combine the characteristics of both faces of the goddess.

In fact, the protection of the characters from the myth was not restricted to only mothers and children. Any individual in a liminal or ambiguous state might benefit by

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²⁹² The creatures on the wands are found again on Graeco-Roman *cippi* statues, which evoke the protection enjoyed by the young Horus. R. Ritner, *The Mechanics of Magical Practice*. (Chicago: Oriental Institute, 1993). 106.

their aid, as evidenced by similar animals and protective formulae found on headrests and beds. Sleepers, travelling between waking and dream worlds, were vulnerable, as were the ill. The demigods of the wands, through their association with the pacification of the goddess, placated and thus neutralized any errant demons who might pose a threat. Interestingly, *sag.gil.mud* stone is identified as a charm against '*mimma lemnu*,' 'everything evil.' The medieval Arabs believed that amethyst, placed under the pillow, would protect the dreamer from nightmares. It is used to this day in new-age medicine to cure insomnia, clear the head, and prevent nightmares.

The idea that pacification can neutralize or make beneficial a hostile power is probably the best explanation for the popularity of amethyst and apotropaic wands in Middle Kingdom Egypt. The Eye's journey is a clearly analogous to the pacification, domestication, and Egyptianization of any influence or commodity entering the country from outside. On the wands, processions of southern animals and genii accompanying the Eye to Egypt served as a metaphor for the passage of people and products from this region. The references on the wands to the eventual festival, and the resulting birth of the Sun Child, were a reminder and an assurance that these forces could and would be pacified, to Egyptian benefit. The parades of threatening characters were neutralized through the plot of the myth and the function of the wands, which emphasized their connection to the goddess' eventual motherhood and the reestablishment of *maat*.

The emphasis on geographical itinerary in the Myth of the Wandering Goddess highlights a very immediate consciousness and fear of the southeastern desert as a source of magical substances, fantastic creatures, and foreigners: things that are valuable but need to be brought under control. This combination of desire and anxiety was reaching a peak during the Middle Kingdom, contemporary with a trend toward greater access to religious knowledge and a growth in the variety of religious practices. The result was the genre of apotropaia to which ivory magic wands and amethyst amulets both belong. Like all amulets, these objects were meant to provide basic protection from everyday harms.

²⁹³ K. Szpakowska, 'Nightmares and Other Nocturnal Enemies in Ancient Egypt.' In P. Kousoulis, Ed., *Ancient Egyptian Demonology.* (Leuven: Uitgeverij Peeters, 2011). 76.

²⁹⁴ M. Roth, *Chicago Assyrian Dictionary* Vol. 15, S. (Chicago: University of Chicago Press, 1984). 24. ²⁹⁵ Abul Huda, *Arab Roots of Gemology: Ahmad ibn Yusuf Al Tifaschi's Best Thoughts on the Best of Stones*. 238.

²⁹⁶ https://crystal-cure.com/amethyst.html

Through their connection with the Eye of Re myth, they also helped their owners feel secure in a world that was quickly expanding beyond the narrow confines of the Nile valley.

APPENDIX A: SELECTED CATALOG OF OBJECTS

What follows is a catalog of the objects mentioned in the preceding paper. All images are taken from museum catalogs and other publications that make their material freely available online.

1. Amulet in the form of a bull (?) head British Museum EA 57744 Nagada III Amethyst Length: 3.5cm



2. Bracelets from the tomb of King Djer Egyptian Museum, Cairo JE 35054 Early Dynastic, Dynasty 1 Abydos Amethyst, lapis lazuli, gold, turquoise. Average length: 18cm.



3. String of beads Museum of Fine Arts Boston 97.1027 Old Kingdom, Dynasty 4 El Kab Garnet, amethyst, carnelian Length: 72.5 cm



4. String of beads and amulets British Museum EA 30347 First Intermediate Period Steatite, jasper, ivory, faience, feldspar, carnelian, amethyst Length: 45.9cm



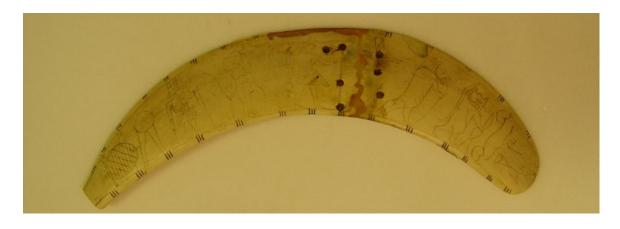
5. String of beads and amulets Museum of Fine Arts Boston 12.1442 First Intermediate Period, Dynasty 6-10 Mesheikh Amethyst, Faience, Amazonite Hawk: 1cm; Hippo: .75cm



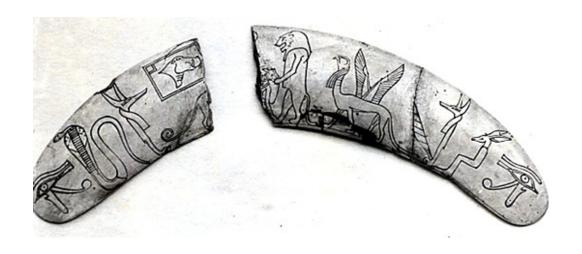
6. Apotropaic wand British Museum EA 18175 Middle Kingdom, Dynasty 12 Ivory



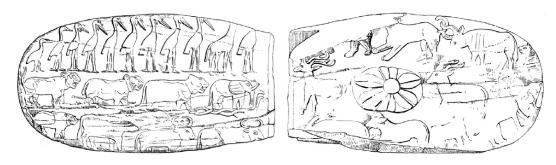
7. Apotropaic wand British Museum, EA58794 Middle Kingdom Ivory Length: 27cm.



8. Apotropaic wand Metropolitan Museum of Art 26.7.1288a, b Middle Kingdom Ivory



9. Knife handle Metropolitan Museum of Art 26.247.1 Predynastic Ivory



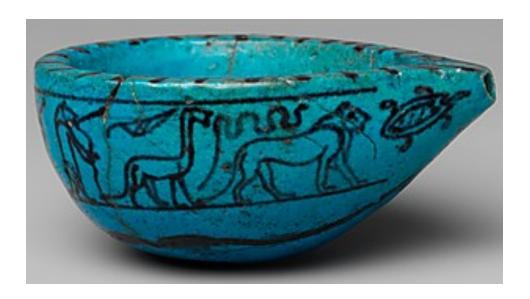
10. Apotropaic wand Petrie Museum, University College London UC16386 Middle Kingdom? Ivory Length: 24cm.



11. Bracelet Egyptian Museum, Cairo JE 62380 New Kingdom, Dynasty 18 Thebes, Tomb of Tutankhamun Amethyst, gold, carnelian, lapis lazuli, jasper



12. Feeding cup Metropolitan Museum of Art 44.4.4 Middle Kingdom, Dynasty 12-13 Lisht Faience Length: 8cm.



13. Apotropaic wand The Walters Art Museum 71.510 Middle Kingdom, Dynasty 12-13 Ivory

Length: 36.5cm



14. Girdle
Metropolitan Museum of Art 16.1.6
Middle Kingdom, Dynasty 12
Lahun
Amethyst, gold, diorite
Length: 81cm.



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