

**AN ICONOGRAPHICAL STUDY AND
ICONOLOGICAL INTERPRETATION OF THE
JEWELLERY OF THREE ANCIENT EGYPTIAN
ROYAL WOMEN OF THE 12TH DYNASTY**

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**An Iconographical Study and Iconological
Interpretation of the Jewellery of Three Ancient
Egyptian Royal Women of the 12th Dynasty**

by

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Submitted in partial fulfilment of the requirements for the degree

MASTER OF ARTS

in the subject

ANCIENT LANGUAGES AND CULTURES STUDIES

in the Department of Ancient and Modern Languages and Cultures

FACULTY OF HUMANITIES

UNIVERSITY OF PRETORIA

SUPERVISOR: Dr J. Schäder

August 2021

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Summary

This study aimed to identify unique aspects present in the jewellery collections of three royal women, namely Princesses Khnumet, Sit-Hathor, and Mereret. This was done by using the four phase methodology of Van Straten (1994:4), which was applied to the three jewellery collections excavated at Dahshur, dating to the 12th Dynasty. The first phase was discussed in Chapter 2, which identified the materials, colours, and techniques that were present in each jewellery piece under discussion. The second phase (Chapter 3) dealt with the symbolic significance of the colours and symbols identified at first glance to be present on the jewellery pieces. In Chapter 4, the third phase was discussed with the use of iconographical themes, that were created based on semantic domains, in order to identify an iconographical theme that represented a jewellery piece in its entirety. In Chapter 5, the fourth phase made use of the historical, cultural, and social background of the 12th Dynasty, to determine the possible influences that could have affected the design of a jewellery piece. Lastly, in Chapter 6, the discussion incorporated the individual jewellery pieces as a collection, and identified how certain aspects were recurrently present in multiple jewellery pieces. It was also possible to determine if some aspects of a woman could be regarded as a unique occurrence in relation to the other women under discussion. In conclusion, one can therefore deduce from this study how each woman might have been inclined towards certain aspects when building her collection of jewellery pieces.

Keywords: jewellery, iconography, iconology, symbols, Khnumet, Sit-Hathor, Mereret, Egypt, 12th Dynasty

Acknowledgements

I would like to thank the following people for the help and support during the writing of this MA dissertation:

Dr. J. Schäder for all her help, guidance, and suggestions during the course of this study.

Prof. I. Cornelius and Mr. N.J. van Blerk for their help with sources regarding Egyptian symbols when libraries were closed due to Covid-19.

Ms. N.L. Meyer for proofreading this study.

My family, boyfriend, and friends for helping me cope in the tough times when writing this study.

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List of Abbreviations

BCE	Before the Common Era
CE	Common Era
AGS	The Ancient Gods Speak: A Guide to Egyptian Religion; edited by D. B. Redford (2002).
DOS	Dictionary of Symbols; by J. E. Cirlot (1971).
EB	Encyclopaedia Britannica; an online resource edited by “The Editors of Encyclopaedia Britannica” (2021). Available at: https://www.britannica.com/
EHD1	An Egyptian Hieroglyphic Dictionary Volume 1; by E. A. W. Budge (1920).
EHD2	An Egyptian Hieroglyphic Dictionary Volume 2; by E. A. W. Budge (1920).
GEM	Global Egyptian Museum.
IDS	Illustrated Dictionary of Symbols in Eastern and Western Art; by J. Hall (1996).
OED	Oxford English Dictionary; an online resource. Available at: https://www-oed-com.uplib.idm.oclc.org/
SS	Signs & Symbols: an illustrated guide to their origins and meanings; by M. Bruce-Mitford (2019).
WHE	World History Encyclopedia; an online resource edited by Jan van der Crabben (2021). Available at: https://www.worldhistory.org/

Map of Ancient Egypt

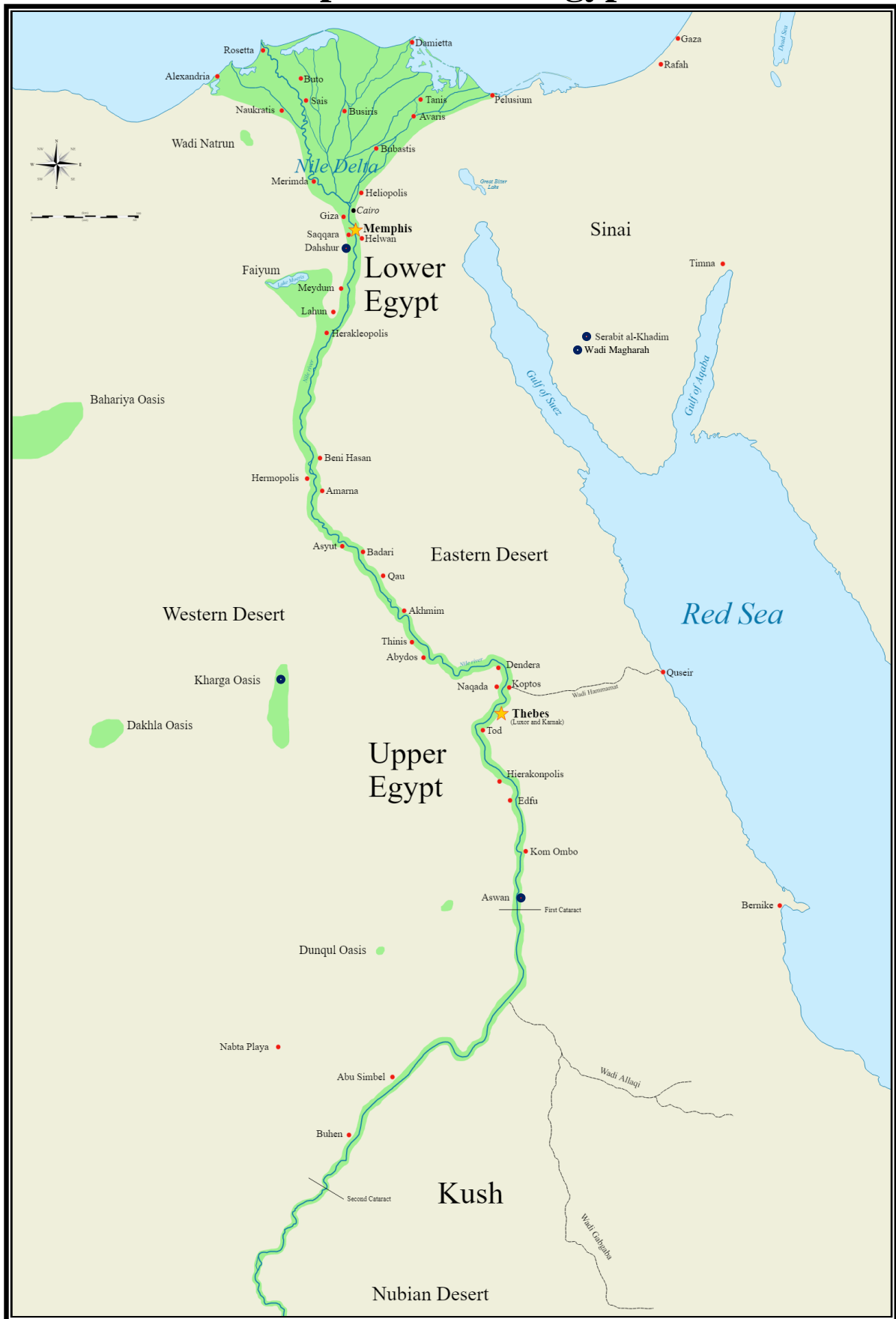


Figure 1: Map of Ancient Egypt. Blue dots indicate the locations relevant to this study. [Source: Upload.wikimedia.org]

Chronological Table¹

Predynastic Period	5000–3150 BCE
Early Dynastic Period	3150–2584 BCE
Old Kingdom	2584–2117 BCE
First Intermediate Period	2117–2160 BCE
Middle Kingdom	2160–1650 BCE
Including: 12 th Dynasty	1994–1781 BCE
Amenemhet I	1994–1964 BCE
Senwosret I	1974–1929 BCE
Amenemhet II	1932–1896 BCE
Senwosret II	1900–1880 BCE
Senwosret III	1881–1840 BCE
Amenemhet III	1842–1794 BCE
Amenemhet IV	1798–1785 BCE
Queen Sobekneferu	1785–1781 BCE
Second Intermediate Period	1650–1550 BCE
New Kingdom	1550–1069 BCE
Third Intermediate Period	1069–664 BCE
Late Period	664–332 BCE
Ptolemaic Period	332–30 BCE
Roman Period	30 BCE–395 CE

¹ Based on a combination of Dodson & Hilton (2010:287–294) and Shaw (2002:481–489). All dates are approximate. Special emphasis is placed on the rulers of the 12th Dynasty BCE as this is the focus of this study.

CHAPTER 1: INTRODUCTION

1. INTRODUCTION/MOTIVATION

Jewellery was crafted in ancient Egypt for many different reasons. It was believed to have magical properties for the protection of the wearer, or to indicate the wearer's social status in society (Harris, 2016:254). Diadems are an excellent example of both. They were said to protect the wearer's head with magical powers, but also aided in showing that royalty was present or higher than those around them, due to the head being the "uppermost part of the human body" (Harris, 2016:254–255). This amuletic nature of Egyptian jewellery meant that it was crafted with this specific purpose in mind and one can see this through the different techniques, colours, and materials used in the crafting. Jewellery in ancient Egypt played an important role in identifying genders, social status, occupation, and in religious ceremonies.

Jewellery making techniques were quite advanced in ancient Egypt. The royal elites of ancient Egypt usually had their personal artisans connected to the royal family in order to make all the jewellery for the royal household. These privileged artisans worked in the royal workshops connected to the palace (Aldred, 1971:47). The selected artisans would change as kingship shifted, which would cause the change in techniques in the production of jewellery across generations. This would lead one to expect consistency in the form of jewellery pieces under the same ruler; however, this was not necessarily the case.

One can see how jewellery pieces look different even if they were possibly made in the same royal workshop (see for example in Chapter 4: A3.1 in section 2.1, compared to C3.1 in section 4.1)². Which leads one to the question: Why is it different? Jewellery was found in specific tombs of royalty and that made it easy to identify the owner of the pieces. This study is focussed on the stylistic elements that jewellery pieces offer when one compares the elements of one person to another. The style of jewellery pieces changed over time as trends and religion changed, but if one were to focus on jewellery pieces of only one dynasty, one would expect very similar pieces, as religion and society did not have enough time to

² A3.1 (Star pendant necklace w/ cockle-shells) was made with gold detailing, while C3.1 (Gold-framed bead necklace) has pendants consisting of semi-precious stones suspended in a gold cage. These two items are from different collections of jewellery pieces. These differences in design are relevant to note, as they were most probably produced in the same royal workshop with the same set of craftsmen. *Images of these pieces are provided in Chapter 4.*

change drastically (Scott, 1964:224). However, I have observed how there are significant differences in colours, stylistic elements, symbolic preferences, and preferred techniques within the jewellery pieces within one dynasty. This study will focus on how these similar elements can create jewellery sets that often look quite similar, and put them into a specific stylistic category.

This analysis based on colours, stylistic elements, symbols, and techniques within jewellery pieces is called iconography. It is defined as the study of the theme of an artwork (Van Straten, 1994:3). An iconographical study is an analysis of the individual elements within a piece (be it an artwork or jewellery) and uses these elements to interpret the theme of it (Van Straten, 1994:4). This study will use a systematic method in the iconographical analysis of the materials, techniques, colours, and symbols present in a jewellery piece based on the three stages as set out in Van Straten (1994:4). However, the addition of a fourth stage, an iconological interpretation³, could provide information regarding an iconographical analysis (Van Straten, 1994:4). This iconological interpretation might illustrate why these elements might differ between royal women's jewellery of the same dynasty. This leads one to a comparative analysis between royal women found at the same site from the same dynasty. This method will be used, as it will involve all the different aspects that one woman might deem important, or reveal a tendency to one specific style of jewellery, which could help one to understand how these women might have had a voice in this male-dominated society.

This study is focussed on the jewellery pieces excavated at Dahshur in the pyramid complexes of Amenemhet II⁴ and Senwosret III⁵. They were both rulers from the 12th Dynasty. In order to understand all the factors that played a role in the 12th Dynasty, one first needs to be introduced to the history that led up to it. The history of Egypt is divided into nine time periods, namely the Early Dynastic, Old Kingdom, First Intermediate, Middle Kingdom, Second Intermediate, New Kingdom, Third Intermediate, Late, and the Ptolemaic Periods. All these time periods will lead up to the setting in which these jewellery pieces were created.

³ An iconological interpretation adds additional information regarding the historical background of an artwork (Van Straten, 1994:4).

⁴ Amenemhet II (ca. 1932–1896 B.C.E.) was the successor of Senwosret I (ca. 1974–1929 B.C.E.) (Dodson & Hilton, 2010:289; Grajetzki, 2014:196).

⁵ Senwosret III (ca. 1881–1840 B.C.E.) was the successor of Senwosret II (ca. 1900–1880 B.C.E.), who was the son of Amenemhet II (Dodson & Hilton, 2010:289; Grajetzki, 2014:196).

A brief overview will therefore be given on each of these time periods that led up to the 12th Dynasty in ancient Egypt.

Egypt's history started with the divided kingdoms of the Red Land (in the north), and the White Land (in the south), which was ruled by two different kings (David, 2003[1998]:62). The Early Dynastic Period (1st and 2nd Dynasty) introduced king Menes who unified the two kingdoms under his sole rulership (David, 2003[1998]:62; Bancroft-Hunt, 2009:12). The Old Kingdom (3rd–6th Dynasty) initiated the building of colossal pyramids (David, 2003[1998]:63, 64; Bancroft-Hunt, 2009:12). The First Intermediate Period (7th–10th Dynasty⁶) was characterised by political and social chaos, which divided the country back into two kingdoms (David, 2003[1998]:64; Bancroft-Hunt, 2009:12). The Middle Kingdom (11th and 12th Dynasty) started with the reunification of the divided kingdoms under the rule of Mentuhotep II (David, 2003[1998]:64; Bancroft-Hunt, 2009:13; Willems, 2010:87).

The 12th Dynasty thus began after the assassination of the third ruler of the 11th Dynasty. Amenemhet I then rose to power and reorganised the country for a period of political and foreign trade policies that characterised the 12th Dynasty (David, 2003[1998]:126).

The jewellery pieces⁷ selected for this study belonged to three royal women who lived in the 12th Dynasty BCE. Their jewellery collections included a variety of different pieces, such as crowns, necklaces, rings, pectorals, and bracelets. This study will focus on the crowns/circlets, necklaces, collars, and pendants of these three women. This selection was made to ensure that a wide variety of pieces were included in the analysis in order to create an iconographical theme for each woman that would accurately represent her jewellery pieces.

The three women whose jewellery will be analysed, are Princesses Khnumet, Sit-Hathor, and Mereret. Their relationship to the pharaohs Amenemhet II and Senwosret III is still uncertain, but it is clear that they were regarded as part of the royal family, be it as queens or princesses. Most often they were referred to with the title of “king’s daughter” (*s’³t*

⁶ Some would also place the 11th Dynasty under the First Intermediate Period (David, 2003[1998]:64). However, due to the reunification of Egypt by Mentuhotep II, one would rather argue that it introduced a new form of stability in Egypt (David, 2003[1998]:64). Even though the dynasty was cut short with the assassination of the third ruler, Mentuhotep IV (David, 2003[1998]:64; Willems, 2010:89). Some also resolved this issue by placing just the first half of the 11th Dynasty in the First Intermediate Period (Dodson & Hilton, 2010:288, 289; Willems, 2010:82).

⁷ Images of these pieces are provided in Chapter 4.

nsw) (see also Chapter 4 – section 2 on Khnumet, section 3 on Sit-Hathor, and section 4 on Mereret) (Grajetzki, 2014:60, 83, 92).

These royal women were chosen, because all three of their tombs are situated at Dahshur. The Dahshur site was in use during the 12th Dynasty (ca. 1994–1781 B.C.E.), and was excavated by Jacques de Morgan in 1894–1895 (Fakhry, 1969:216, 220, 253; Dodson & Hilton, 2010:289). Dahshur is located west of the Nile, south of Saqqara. It is a necropolis⁸ containing different pyramid structures. The pyramid relevant to Khnumet is the one of Amenemhet II, and the pyramid relevant to Sit-Hathor and Mereret is the one of Senwosret III (Arnold, 2002:69; Harris, 2016:263).

Amenemhet II's pyramid was found southeast of the Northern Pyramid of Sneferu⁹, which is one of the main attractions at Dahshur (Fakhry, 1969:216). This pyramid, called the White Pyramid, is now in ruins and it is unclear what its dimensions were, but we do know that it was built of limestone (Watson, 1987:52). The royal tombs that lie on the west side of the pyramid within the temenos wall¹⁰ were the final resting place for several princesses and a queen; this included princess Khnumet (Edwards, 1947:183; Fakhry, 1969:216–217).

The pyramid of Senwosret III was built of mudbricks and is situated north of Amenemhet II's pyramid (Fakhry, 1969:221). Although the pyramid is also now in ruins, on the north side of the pyramid the royal family's tombs were excavated, including those of Sit-Hathor and Mereret (Edwards, 1947:185).

After extensive reading, there is relatively little that has been written on the iconographical study and iconological interpretation of ancient Egyptian jewellery. I am of the opinion that this method can be of excellent help in order to understand how the royal women of the 12th Dynasty were inclined towards certain types of jewellery.

There has been some research done on individual pieces by studying the symbolic value of the piece and identifying its characteristics: Harris (2016) focused on princess Khnumet's floral circlet; and Newberry (1938) wrote a brief article on the Medallion of Dahshur. One can also find studies focussing on one specific symbolic or stylistic element in

⁸ A large cemetery with multiple burials and structures, such as pyramids or tombs (*OED* s.v. *necropolis*). *OED* will from here on refer to the "Oxford English Dictionary"; an online resource available at: <https://www-oed-com.uplib.idm.oclc.org/>

⁹ He is regarded as the founder of the 4th Dynasty and was the first to build his pyramid at Dahshur (Fakhry, 1969:71).

¹⁰ The wall that surrounds the pyramid and related tomb structures (*OED* s.v. *temenos*).

a wide variety of jewellery pieces: Frost (1937) wrote about the insect motif in art across cultures from different time periods; Lilyquist (1993) proposed a possible chronology of how cultural contact could introduce glassmaking and granulation techniques; Liu (2001) discussed the symbolic significance of the cicadas, beetles (including scarabs), butterflies, dragonflies, and flies in different cultures; and Manzo (2011) looked at different maritime symbols in art from the 12th Dynasty. However, only a few authors have decided to focus on one time period or archaeological site: Curtis (1915) looked at granulated jewellery in the 7th century BCE and earlier; and Grajetzki (2014) wrote about female burials from the late Middle Kingdom in Egypt and all the types of jewellery found in the tombs.

It can clearly be seen from these sources, as well as those in the bibliography, that there is a lack of recent sources. This indicates how some of these studies can be quite outdated and in need of being analysed with a new methodology. There is a gap in research done on the jewellery pieces of royal women in the 12th Dynasty and this study hopes to fill at least part of it.

Therefore, this study proposes that an iconographical study in combination with an iconological interpretation, that focusses on a single time period, as well as a geographical area, could bring important information to light with regard to the jewellery pieces of these three royal women who lived in the 12th Dynasty.

2. RESEARCH PROBLEM

The use of an iconographical study and iconological interpretation in regard to jewellery pieces have not been explored enough, and I believe that such a study could provide important information regarding jewellery pieces in ancient Egypt. Therefore, by the help of a systematic analysis of Van Straten's (1994:4) approach, valuable information can be gathered on these three women from the 12th Dynasty in ancient Egypt. Van Straten's (1994:4) method was chosen, because he allocated three stages to an iconographical analysis, but also included a fourth stage of an iconological interpretation. This gives the perfect method that includes the different factors one needs to take into consideration when analysing jewellery pieces.¹¹

¹¹ See section 3 of this chapter for a further discussion on the methodology and the iconographical approach of others.

The following questions will be asked:

- With the application of the three stages of an iconographical study to the jewellery of three royal women, as set out by Van Straten (1994:4), can one identify stylistic elements of jewellery pieces for each royal woman?
- Do these stylistic elements create an iconographical theme that can be used to describe multiple jewellery pieces?
- Are certain iconographical themes unique to each royal woman in question in this study?
- Will an iconographical study provide the necessary information to aid in an iconological interpretation?
- Did the royal women in the 12th Dynasty in ancient Egypt have a personal stylistic preference to the jewellery pieces that are regarded as theirs (through modern excavations)?
- Can these iconographical themes provide an observation on the personal preference the royal women might have been inclined towards?

Ultimately, the overarching research question is: By using an iconographical study and iconological interpretation, what aspects in a jewellery collection can be identified that is unique to the individual royal woman as compared to that of another royal woman?

3. METHODOLOGY

This study will be focussing on the jewellery pieces already identified to belong to three royal women that lived during the 12th Dynasty in ancient Egypt. The royal women, whose jewellery pieces are relevant to this study, will be Khnumet, Sit-Hathor, and Mereret. These women were chosen due to the fact that they were all buried in the pyramid complex at Dahshur, and that their jewellery collections contain multiple different types of jewellery, such as, necklaces, headdresses, anklets, girdles, etc. (see Table A). The chosen jewellery pieces were selected from the plates of Aldred (1971:173–245). Table A is a full inventory of all the jewellery pieces of Khnumet, Sit-Hathor, and Mereret displayed on the plates in Aldred (1971:173–245). From this table the jewellery pieces that will be discussed in this study will be the crowns, circlets, necklaces, collars, and pendants (see table B in section 6 of

this chapter for the abbreviated form of table A). The last column indicates where the piece is located on the plate as multiple pieces are often present on a single plate.¹²

Table A: The jewellery piece collections found in the burials of the three royal women as laid out in Aldred (1971).

	Jewellery Type	Tomb Owner	Plate in Aldred (1971)	
Head	Wig Ornaments	Khnumet	29 sides	
	Diadem	Khnumet	27	
	Circlet	Khnumet	28	
Neck	Collar	Khnumet (falcon)	11 top 30	
		Sit-Hathor	33 middle	
	Pectoral	Mereret	41 42 (76 reverse side)	
		Necklace	Khnumet	12 bottom 29 second row 29 bottom
			Mereret	44 centre (outer)
Arms	Bracelet	Sit-Hathor	34 top	
		Khnumet	12 top	
		Mereret	44 sides	
	Rings	Mereret (3 scarab rings)	46 centre (top)	
Waist	Girdle	Sit-Hathor	33 outer	
		Khnumet (uncertain)	31 bottom	
		Mereret	45 outer	
Legs	Anklets	Khnumet (claw)	12 middle	
Other	Clasps	Sit-Hathor (3x clasps)	34 centre (outer, top, bottom)	
		Khnumet (motto-clasps)	31 top	
		Mereret (5 motto-clasps)	44 centre (inner)	
	Slides	Mereret	46 sides (inner)	
	Pendant	Khnumet (butterfly)	29 third row	
		Khnumet (drop beads)	11 bottom	
		Khnumet (Medallion of Dahshur)	29 top	
		Mereret (falcon)	44 top	
		Mereret (pearl shell)	45 inner (top)	
		Mereret (part of)	45 inner (middle)	
		Mereret (bivalve shell)	45 inner (bottom)	
	Casket	Mereret (2x cylindrical)	46 sides (outer left, outer right)	
Mereret (inlay beads)		46 centre (bottom)		

¹² Some plates have for example an outer jewellery piece that surrounds multiple inner pieces, therefore the position of the piece within the inner section would then be stated in brackets.

The methodology applied in this study uses a hybrid methodology combining iconography and semiotics¹³. This study will start by making use of an iconographical approach as set out by Van Straten (1994:4). Iconography is a methodology originally created for use in Art History. The interpretation of artworks in relation to their themes was originally developed by Aby Warburg (1866–1929); however, the ideas behind such a methodology came from the writers of German philosophical aesthetics¹⁴ (Podro, 1982:xv; Van Straten, 1994:20; McEwan, 2006:243). One of Warburg’s students, Erwin Panofsky (1972:xv, 14), expanded on the methodology of an iconographical and iconological analysis into three stages: a *pre-iconographical description*, an *iconographical analysis*, and an *iconographical interpretation*. Roelof van Straten (1994:4, 18) further divided Panofsky’s last stage into two separate phases, totalling four stages: an *iconographical interpretation*, and an *iconological interpretation*. This division was to simplify the approach of Panofsky, as it is often difficult to understand.

Iconography is defined by Van Straten (1994:3) as the study of the theme of an artwork, as well as analysing “the representation both as a whole and a collection of details”. Müller (2015:78) further explains that an iconographical analysis is the process of using the contents of a picture to help identify, classify, and interpret the theme of it. This is opposed to iconology which mainly uses the cultural, historical, and social background to interpret the theme of the art piece (Müller, 2015:78).

Van Straten (1994:4) applied this method to artworks; however, this approach was selected for this study as it entails all the aspects important to consider when analysing jewellery. Müller (2015:79) added a few extra steps when she described the iconographical analysis method, such as identifying the scenes and defining its relative position, which does not simply apply to jewellery pieces. Cornelius (1994:328) described the method he used as a comparison between written text and iconography, which cannot be applied here, as there is no substantial textual source to aid in such a study. According to Tiemeyer (2010:474), De Hulster established a method for Iconographic Exegesis by the use of pictorial material to help interpret a biblical text. A purely iconographical and iconological analysis has not yet been identified in relation to jewellery pieces.

¹³ Semiotics is defined as the “general study of signs of all kinds and in all their aspects” (Føllesdal, 1997). Semantics, syntax, and pragmatics are sub-branches of semiotics, of which semantics will be used in this study (Føllesdal, 1997).

¹⁴ Such as: Alois Riegl, Heinrich Wölfflin, Adolf Göller, Gottfried Semper, and Anton Springer (Podro, 1982:152; Rampley, 1997:41).

This study will divide Van Straten's four phases into two sections. Firstly, an iconographical study, followed by an iconological interpretation. This division will be employed, based on the fact that the first section will consider the jewellery piece based on the artistic values (art-historical), while the iconological interpretation will mainly consider the jewellery piece for its cultural influences (cultural-historical).

The first division, the *iconographical study*, is based on the question, "What secondary or deeper meaning did the artist intend?" (Van Straten, 1994:18). The iconographical study division has three stages as outlined by Van Straten (1994:4). These are a *pre-iconographical description*, an *iconographical description*, and an *iconographical interpretation*.

A pre-iconographical description is the identification of all the physical elements of a jewellery piece. This is, for example, the materials it is made of, such as types of metals or semi-precious stones, as well as the colours visible on the object, for example red, blue, and gold. Van Straten (1994:5) put special emphasis on only getting a "rough enumeration" of all the "objects" and situations in the picture, without placing them in any relation to one another or interpreting them. So therefore, this stage will only identify these physical elements within each jewellery piece. Mention will also be made of the provenance in which certain jewellery pieces were excavated in, as well as how some jewellery pieces were reconstructed for museum displays.

An iconographical description is the identification of the individual symbolic elements and understanding of what the general use of these elements were in the 12th Dynasty. Van Straten (1994:6) stated that the purpose of the second stage was to identify the subject of the artwork. As with artworks, jewellery pieces could be made up of multiple elements, which will introduce different themes and subjects to the jewellery piece (Van Straten, 1994:7). This study will therefore identify the colours and symbols used on a jewellery piece at first glance and discuss how it was generally believed to have been used symbolically in the 12th Dynasty.

The iconographical interpretation involves the deeper meaning of the jewellery piece, therefore the symbolic representations, such as rebirth, or life. Van Straten (1994:10) stated that the purpose of this phase is to ask the question: "Does the work have a deeper, or secondary, meaning that could lie within the artist's intention?" This means that one can find an underlying meaning that cannot be determined at first glance (Van Straten, 1994:10). This phase builds onto the iconographical description, as it would only be possible to find this

meaning if one has a good grasp of the individual elements that make up the work (Van Straten, 1994:10).

The conclusion of this first division in the iconographical study will be drawn with the use of the terminology acquired in the iconographical analysis with relation to the materials, colours, manufacturing techniques, and symbolic decorations. This brings one to the other half of this hybrid methodology, semiotics. From the terminology acquired, groups will be formed based on semantic domains¹⁵ which is a sub-branch of semiotics. These groups will be called iconographical themes and will be used to simplify the iconographical interpretation phase, as it will be important to notice how certain sets of symbolic themes were more prominently represented within a jewellery piece.

These three stages of an iconographical study will be used to develop an *iconological interpretation*. This second division was based on the question, “Why has a certain work of art arisen in a particular way; how can it be explained in the context of its cultural, social, and historical backgrounds; and how can the possible hidden meanings that were not explicitly intended by the artist be brought to light?” (Van Straten, 1994:18). This stage will aid in the understanding of why the jewellery pieces were created. It is important to take this into account when trying to understand if women had a certain tendency towards the jewellery they kept in their collections.

From these four stages one would have gathered all the required information to identify whether a particular woman had certain tendencies towards the jewellery she kept in her collections. In this discussion stage, one will identify corresponding or opposing materials, techniques, and iconographical themes within the selected jewellery pieces of each woman under discussion. This will give one the tools to identify whether certain sets of jewellery pieces with similar iconographical value and designs were present within the collections of these three royal women.

These stages in this iconographical study with an iconological interpretation will be applied to the three women’s crowns, circlets, necklaces, collars, and pendants. These were chosen to represent an array of different types of jewellery, as well as to include a variety within each type. This selection also tried to eliminate the possible influence of ceremonial dress, as pectorals, for example, were mainly worn in religious ceremonies. The following is

¹⁵ A semantic domain is simply defined as an “area of meaning” (Moe, 2003:219). It refers to a single concept that is paired with words related to it through lexical relations (Moe, 2003:215, 219). See Chapter 4, section 1 for a full description of how these iconographical themes were termed.

a list of all the elements found in the jewellery pieces that will be discussed in the study in order to create the iconographical themes:

- In the *pre-iconographical description*, the individual elements that make up the jewellery pieces, which will be discussed in terms of the general knowledge of ancient Egypt and identified at first glance to be present within each jewellery piece, are:
 - a) Materials
 - Gold; Lapis Lazuli; Turquoise; Carnelian; Faience beads – green and blue; Garnets; Felspar; and Blue frit.
 - b) Techniques
 - Sheet metal; Gilding; Wire; Casting; Joining and soldering; Engraving; Filigree; Granulation; Inlay and Cloisonné; Repoussé and Chasing; and Lapidary techniques.
 - c) Colours (identify in piece)
 - Gold; Red; Green; Blue; White; Black; and Brown.

- In the *iconographical description*, the symbolic value of the individual elements that was at first glance identified to be present within each jewellery piece, that will be discussed in terms of the general knowledge of ancient Egypt, is:
 - a) Colours (symbolic significance)
 - Gold; Red; Green; Blue; White; Black; and Brown.
 - b) Symbolic decorations
 - Botanical motifs (Lotus, Papyrus, Rosettes); Animals (Falcons, Vultures, Shells, Flies, Butterflies, Cattle); Cosmic elements (Stars, Deities); and Hieroglyphic symbols (Ankh, Djed-pillar, Was-sceptre, Shen-ring); Decorative elements (Pate Cross, Knot, Drop-beads, Caged beads, Chevrons).

Therefore, the methodological approach of the iconographical study that will be employed will be broken down into three stages (Chapters 2–4), and the iconological interpretation will be focussed on in Chapter 5. The jewellery piece collection of each woman will be discussed as a whole in Chapter 6. At the end of each chapter, the use of analytical tables will aid in understanding the flow of information and how one phase introduces a new set of information that was complemented by the previous phase.¹⁶

¹⁶ See also Chapter 6 for a full summary of these analytical tables combined into one table, under section 2.1 for Khnumet, 3.1 for Sit-Hathor, and 4.1 for Mereret.

4. AIMS AND OBJECTIVES

This study aims to provide a better understanding of how the jewellery pieces of princesses Khnumet, Sit-Hathor, and Mereret relevant to this study were designed for each individual and to point out that they were not created as generic pieces. By comparing jewellery pieces from the same dynasty (i.e., created close to each other in relation to time), as well as them being found at the same burial site, the study will attempt to uncover how certain stylistic categories differ from one person's jewellery to another. In this study this will be done in the order as laid out in the following subsequent 'steps' based on the methodology by Van Straten (1994:4).

Firstly, an iconographical study of each piece will be done. This is broken down into three phases, in order to identify the design and symbolic elements unique to each jewellery piece:

- The pre-iconographical description phase will identify all the elements of a jewellery piece, i.e., materials, colours, and techniques, in order to gain a better understanding of the basic design of the piece.
- The iconographical description phase will identify the theme or subject of the jewellery piece, i.e., the symbolic significance of the colours and symbols, in order to gain insight into what a symbol would most commonly be associated with in the ancient Egyptian culture.
- The iconographical interpretation phase will identify the deeper meaning of the jewellery piece, i.e., the symbolic representations and iconographical theme. This will be done by looking at the previous two phases and understanding how all the individual elements could have complemented each other to create an iconographical theme that would be used to describe the jewellery piece as a whole.

Secondly, an iconological interpretation will be done, in order to identify the uses and possible influences in the design. This is due to the fact that the human element in the Egyptian culture could have influenced certain aspects of a jewellery piece.

Thirdly, each woman's jewellery pieces will be discussed as a whole, in order to identify common characteristics within her collection. This will aid in understanding how

each woman's jewellery pieces complemented each other and gaining insight into the type of jewellery each woman was inclined towards.

This study will ultimately aim to bring to light how an iconographical analysis and iconological interpretation can be of assistance to better understand the use, function, and meaning of the jewellery of royal women in ancient Egypt, by focussing on one dynasty and pieces found at the same burial site. This approach could provide valuable insight into the jewellery pieces of these three royal women, through a careful analysis that will include multiple different aspects in order to understand the iconography of jewellery in the 12th Dynasty.

5. HYPOTHESIS

Through the subsequent 'steps' based on the methodology by Van Straten (1994:4), this study will provide valuable information regarding the iconography of the jewellery pieces of these three women from the 12th Dynasty. Consequently, an iconographical analysis and iconological interpretation will assist in better understanding the use, function, and meaning of the jewellery of royal women in ancient Egypt, by focussing on one dynasty and pieces found at the same burial site.

6. PRIMARY SOURCES

Jacques de Morgan excavated the Dahshur site in 1894–1895. He published his findings in two French reports, one in 1895 and another in 1903 (De Morgan, 1895; 1903). De Morgan gave a very detailed analysis of the excavation findings, and this will be regarded as one of my main sources on the jewellery uncovered in the excavation process. With the help of my sister who speaks fluent French and aided by Google Translate (2021), the language barrier of De Morgan's reports was overcome to the best of my abilities.

The jewellery pieces to be studied are now all housed in the Cairo Museum. Due to the Cairo Museum's online catalogue that is currently unavailable for public viewing, Aldred (1971) (see Table A) will be employed as sources of images, materials, techniques,

descriptions, and catalogue numbers to aid in the analysis of this study. Other online sources, such as museum websites and blog posts will provide images and information regarding some jewellery pieces and examples of artefacts and reliefs.

The selection of jewellery pieces was made based on the type of jewellery: crowns, circlets, necklaces, collars, and pendants. These were chosen to represent an array of different types of jewellery, as well as to include a variety within each type. This selection also attempted to eliminate the possible influence of ceremonial dress, such as pectorals, for example, that were mainly worn in religious ceremonies.

Table B lists the selection of jewellery pieces relevant to this study as identified in the plates found in Aldred (1971:173–245) (see Table A from section 3 of this chapter for the whole collections). This study will focus on the following pieces of the three ancient Egyptian royal women of the 12th Dynasty¹⁷:

- The diadem of Princess Khnumet, as well as her circlet, two falcon collars, and the three intact necklaces. The three necklaces include: The star pendant necklace with cockle-shells, the *ankh* necklace, and the “fly” pendant necklace. However, she also has pendants that reflect an interesting time-period, so her medallion, butterfly pendant, and drop beads will also be included in this study. Thus, ten pieces of Princess Khnumet’s jewellery will be studied.
- The pieces relevant to this study of Princess Sit-Hathor’s treasure are quite limited, as it only contains a necklace with an inlaid papyrus clasp, a motto clasp, and a papyrus gold knot clasp. Thus, three pieces of Princess Sit-Hathor’s jewellery will be studied.
- Applicable to this study are also some interesting pendants from Princess Mereret’s treasure, namely three shell pendants, as well as a falcon pendant and two cylindrical pendants. One necklace of gold-framed beads has also been discovered in her tomb. Thus, seven pieces of Princess Mereret’s jewellery will be studied.

¹⁷ Images of these pieces are provided in Chapter 4.

Table B: The jewellery pieces relevant to this study of the three royal women.

	Jewellery Type	Tomb Owner	Plate in Aldred (1971)
Head	Diadem	Khnumet	27
	Circlet	Khnumet	28
Neck	Collar	Khnumet (falcon)	11 top 30
	Necklace	Khnumet	12 bottom 29 second row 29 bottom
		Mereret	44 centre (outer)
Other	Clasps	Sit-Hathor (3x clasps)	34 centre (outer, top, bottom)
	Pendant	Khnumet (butterfly)	29 third row
		Khnumet (drop beads)	11 bottom
		Khnumet (Medallion of Dahshur)	29 top
		Mereret (falcon)	44 top
		Mereret (pearl shell)	45 inner (top)
		Mereret (part of)	45 inner (middle)
		Mereret (bivalve shell)	45 inner (bottom)
Mereret (2x cylindrical)	46 sides (outer – left, right)		

It can therefore be seen that the selected jewellery pieces will hopefully provide enough variety to gain a full insight in this iconographical study.

7. SECONDARY SOURCES

Although most studies focussed on the male elites of ancient Egypt,¹⁸ there is a growing popularity in the analysis of female jewellery and the role of women in ancient Egypt.¹⁹ Some sources require specific mention for their contribution to understanding women's jewellery and how they were used in the male-dominated culture of ancient Egypt.

It can clearly be seen from these sources, as well as those in the bibliography, that there is a lack of recent sources. This indicates how some of these studies can be quite outdated and in need of being analysed with this methodology. There is a gap in research

¹⁸ See for example: the plethora of studies done on Tutankhamun's tomb treasures (Reeves, 1990; Murdoch, 1998; Malek, 2006; Hawass, 2008; Hepper, 2009); Dodson (1995) on the monarchs of Egypt; Ogden (1992) wrote on jewellery pieces across history.

¹⁹ See for example: Harris (2018; 2016) on the iconography of diadems of ancient Egyptian women; Grajetzki (2014) on objects found within female burials of the Late Middle Kingdom; Tyldesley (1994; 1996; 2005; 2006; 2008) wrote on the queens of Egypt, as well various books focussing on specific individuals; Cooney (2018) wrote on six queens of Egypt.

done on the jewellery pieces of royal women in the 12th Dynasty and this study hopes to fill at least part of it.

Grajetzki wrote *Tomb Treasures of the Late Middle Kingdom: The Archaeology of Female Burials* (2014), which is a comprehensive book on all of the female burials during the 12th and 13th Dynasties. He examines and describes the objects found within each tomb and illustrates the context of how these objects help identify the owner's status, daily life, and funerary customs from this period. The book aims to discuss a tomb as a whole in order to understand the "social identity" of the owner (Grajetzki, 2014:1). This is of importance to this study, as it helps one to understand how all burial goods should be seen as equally important in establishing an identity of the women in question.

Harris published the article "From river weeds to regal fabulous: Iconography and symbolism of a 12th Dynasty Egyptian diadem" (2016) in the *Journal for Semitics*. She uses a systematic approach when analysing the floral circlet of Princess Khnumet. This topic was expanded on in her dissertation *Decoding Ancient Egyptian Diadems: Symbolism and Iconography as a Means of Interpreting Feminine Identity* (2018). Here Harris highlights the importance of symbolism and iconography in giving identity to the women in ancient Egypt.

For a basic outline on the uses of jewellery in ancient Egypt, Aldred's *Jewels of the Pharaohs* (1971) will be used. It will aid as a guide on the different jewellery pieces relevant to this study with their catalogue numbers, descriptions, and excavation locations.

Andrews also wrote a comprehensive book regarding jewellery pieces titled *Ancient Egyptian Jewellery* (1996). This book differs from that of Aldred (1971) as it is divided by types of jewellery, such as the chapter *Diadem to choker: ornaments for the head and neck* which will give a good overview of such jewellery pieces.

Petrie (1914) and Andrews (1994) both wrote books on amulets and how they were used in ancient Egypt. This will be useful to evaluate the use of certain jewellery pieces. In order to create a better understanding of ancient Egyptian history, Edwards (1947), Fakhry (1969), Rice (1991), and Tyldesley (2006) will be of immense help in defining the eras relevant to this study and understanding the socio-historical context.

To identify a substantial chronology two resources will be used. Dodson & Hilton's *The Complete Royal Families of Ancient Egypt* (2010), as well as Shaw's chapter on

chronology in *The Oxford History of Ancient Egypt* (2002), will both provide approximate dates to determine a proper chronological table.

It is interesting to note that most studies and specialist books often focussed on one particular type of jewellery or on a basic outline of all jewellery with no specific mention of each time period. This study will aim to bring to light how an iconographical analysis can be of assistance to better understand the use, function, and meaning of the jewellery of royal women in ancient Egypt, by focussing on one dynasty and pieces found at the same burial site.

When trying to understand the methodology of an iconographical analysis, one source was of special importance. Van Straten wrote the book *An Introduction to Iconography* (1994), which is a basic introduction into what iconography is. It gives one the theoretical knowledge, as well as the practical uses of his theory. It forms part of a three volume series, *Documenting the Image*, edited by H. E. Roberts. Van Straten presents a basic three-step method into using an iconographical analysis, but also adds on a fourth step by bringing in an iconological interpretation. This method is quite universal and does not only relate to artworks, such as the practical uses in Van Straten. This method is quite unique, as it not only focusses on the visual aspects of a piece, but also on the historical and social context necessary for a proper interpretation.

Hartwig's *A Companion to Ancient Egyptian Art* (2015) contains a chapter written by Maya Müller titled, "Iconography and Symbolism", which gives one a good overview of what iconography, iconology and symbolism have in common, specifically pertaining to ancient Egyptian art.

A source that will provide substantial information regarding materials and techniques is Lucas & Harris' *Ancient Egyptian Materials and Industries* (1962). This is a revised edition of Lucas' *Ancient Egyptian Materials* (1926). This resource will be of immense help in the pre-iconographical description phase.

In the iconographical description phase, one will first need to understand how the Egyptian culture was influenced by its religion. Resources that could provide helpful explanations on the religion and gods of ancient Egypt will be the encyclopaedia of Redford, *The Ancient Gods Speak: A Guide to Egyptian Religion* (2002), as well as the book of Wilkinson, *The Complete Gods and Goddesses of Ancient Egypt* (2003).

Some encyclopaedia style books will provide information on specific symbols and signs, such as Cirlot's *A Dictionary of Symbols* (1971), Hall's *Illustrated Dictionary of Symbols in Eastern and Western Art* (1996), and Owusu's *Symbole Ägyptens* (1998)²⁰. Wilkinson's *Symbol & Magic in Egyptian Art* (1994) will give valuable insight into how symbols can be interpreted in ancient Egyptian culture. These resources will be of use in the iconographical description phase of this study.

Another aspect that should be understood in the iconographical description phase is the role hieroglyphs played in symbolism. In order to gain better insight into the Egyptian language and writing system, one will find the use of Allen's *Middle Egyptian: An Introduction to the Language and Culture of Hieroglyphs* (2010), and Gardiner's *Egyptian Grammar: Being an Introduction to the Study of Hieroglyphs* (2001) to be the most helpful in this regard.

8. CHAPTER SYNOPSES

This section illustrates what will be discussed in each chapter, in order to gain an understanding of how this study will follow a systematic flow of ideas.

CHAPTER 1: INTRODUCTION

This chapter introduced one to the research problem at hand and how the methodology will be implemented within this study on the selected jewellery pieces. The aims and objectives are also discussed to give an overview of what will be done in this study. The primary sources, as well as useful secondary sources are discussed, which will be of use later on in the study.

CHAPTER 2: PRE-ICONOGRAPHICAL DESCRIPTION

This chapter will be used to identify all the physical elements within a jewellery piece. The material elements identified at first glance to be present in the jewellery pieces will be researched based on their appearance and how it was often used in jewellery pieces. This

²⁰ Translated from my own knowledge of German, as well as help from my father, who speaks fluent German.

chapter will also discuss the different techniques used when working with the material elements identified at first glance to be present in the jewellery pieces under discussion. Mention will also be made of the provenance in which certain jewellery pieces were excavated in, as well as how some jewellery pieces were reconstructed for museum displays. This chapter will be concluded with analytical tables in which the materials, techniques, colours, and relevant provenance will be summarised as identified at first glance to be present in the jewellery pieces under discussion.

CHAPTER 3: ICONOGRAPHICAL DESCRIPTION

This chapter will discuss the symbolic significance of the colours and symbols identified at first glance to be present in the jewellery pieces under discussion. Through the analysis of how these colours and symbols were generally interpreted to be used symbolically in the 12th Dynasty, one can begin to identify certain symbolic themes present in the jewellery pieces under discussion. These findings will also be summarised within analytical tables demonstrating the materials, colours and symbols as identified at first glance to be present in the jewellery pieces under discussion.

CHAPTER 4: ICONOGRAPHICAL INTERPRETATION

This chapter will make use of the information gathered from Chapter 2 and 3 to compile iconographical themes. Each jewellery piece will be described based on the materials and techniques used to manufacture the item. An enumeration will be given of all the symbolic elements present, as well as the general interpretation of their symbolic significance. From the knowledge gathered on semantic domains, iconographical themes will be identified for each piece to summarise the symbolic trends that are visible from an analysis on the materials, techniques, colours, and symbols found in each jewellery piece under discussion. Analytical tables will also be used to demonstrate the materials, colours, symbols, themes, and iconographical themes identified at first glance to be present in the jewellery pieces under discussion. The function of these tables will be to give an overview of how the information flows from one stage in the first division of this iconographical study to the next.

CHAPTER 5: ICONOLOGICAL INTERPRETATION

This chapter discussed the iconological interpretation. This will be started with an overview of the historical background and the setting in which this study is based. There will also be context given to the different types of jewellery pieces that can be found in ancient Egypt. The iconological interpretation also needs to consider what factors can possibly influence the design of a jewellery piece. Reference will be made to the craftsmen, trade, and the use of the jewellery piece.

CHAPTER 6: DISCUSSION

This chapter will look at each royal woman's collection of jewellery pieces selected for this study. The discussion on each woman will use the knowledge gathered in the four stages to understand how the different aspects of this iconographical study could lead to the final conclusion of the iconographical themes each woman had the most inclination towards.

CHAPTER 7: CONCLUSION

This chapter summarises the process and findings from each stage in this iconographical study with iconological interpretation. It will also give the final conclusion to the research problem at hand.

CHAPTER 2: PRE-ICONOGRAPHICAL DESCRIPTION

1. INTRODUCTION

Van Straten (1994:4) started his section on the first phase by making a valid point: people will automatically make a “mental tally” of everything present within a picture when looking at it for the first time. This observation people make when looking at an item for the first time gives the viewer valuable knowledge important to consider for an iconographical study on an item (Van Straten, 1994:4). This “mental tally” of all the physical elements present in an item is the first phase in this iconographical study. It is called the pre-iconographical description (Van Straten, 1994:4). This phase will be applied to the jewellery pieces under discussion by identifying all the materials and colours used within a jewellery piece, for example, red carnelian, blue lapis lazuli, and gold, as well as the manufacturing techniques in working with the materials discussed.

Van Straten (1994:5) put special emphasis on only getting a “rough enumeration” of all the “objects” and situations in the picture, without placing them in any relation to one another or interpreting them. Through the identification of all these physical elements determined at first glance to be present in the jewellery pieces under discussion, one will begin to notice how certain elements were commonly present within a collection of jewellery pieces of each woman.

The first physical element that will be looked at will be the materials. These were mined and traded by the ancient Egyptians, as well as various expeditions were held to acquire different raw materials (García, 2017:115). Consequently, in this phase a general understanding will be sought of the use of certain materials, how they were mined or gathered, but also the first introduction of the material in the Egyptian culture. The materials determined at first glance to be present in the jewellery pieces under discussion will be gold, lapis lazuli, turquoise, carnelian, faience, garnets, felspar, and blue frit. These materials will be discussed in such a way that one is given an understanding of how the Egyptians would have come into contact with these materials and how their workshops would have been geared into using these materials.

When looking at these materials, one is presented with different materials but of the same colour. It is important to note how the Egyptians might have used certain materials based not on their value, but rather the significance of their colour (Wilkinson, 1994:88). Therefore, the colours and their symbolic significance will only be discussed in Chapter 3 (see section 2), while this chapter only mentions what colours can be identified at first glance in each jewellery piece within an analytical table (see section 6 of this chapter) to clearly show all the aspects important in each jewellery piece.

These materials were also accompanied by the different techniques used to manufacture certain designs in jewellery pieces. The second physical element which will be discussed are therefore the techniques used in the manufacturing of jewellery identified at first glance to be present in the jewellery pieces under discussion. The techniques relevant to the jewellery pieces will namely be, sheet metal, gilding, wire, casting, joining and soldering, engraving, filigree, granulation, inlay and cloisonné, repoussé and chasing, and lapidary techniques.

Two sections will follow the discussions on the physical elements. One will discuss the craftsmen and how they worked in workshops. This is to take note of the limitations the design of a jewellery piece might have had. The other will briefly take note of the influence provenance might have on the “mental tally” a person might make when looking at a jewellery piece for the first time. This is due to the fact that the jewellery piece is often reconstructed from elements found scattered throughout an excavation site and might not be the original design.

Within this chapter there will hence be a section discussing the materials, followed by the techniques used to work with these materials. There will also be a discussion on the craftsmen and how workshops were organised. Mention will also be made of the provenance in which one can find jewellery pieces being excavated in, as well as how excavated artefacts are reconstructed for museum displays. This chapter will conclude with analytical tables to summarise the elements identified at first glance to be present in the jewellery pieces under discussion. This will be followed by a summary of the findings.

In this chapter one is expected to understand how the jewellery pieces could be perceived at first glance based on their physical attributes. This is done through the use of the pre-iconographical description by taking record of all the materials, colours, and techniques identified at first glance to be present in the jewellery pieces under discussion.

2. MATERIALS

The first physical element that will be looked at in the pre-iconographical description will be the materials. Materials used in ancient Egyptian jewellery are quite extensive; however, during the 12th Dynasty, one will notice the repeated use of certain materials. This section will discuss each material used in the jewellery relevant to this study, namely gold, lapis lazuli, turquoise, carnelian, faience, garnets, felspar, and blue frit. The material, its appearance, and how it was used in jewellery pieces will be discussed.

2.1. Gold

Gold should be seen as more than just a prominent metal used in jewellery production. Its use in fine, delicate work shows how the ancient Egyptians already had the technology required to work with this metal as early as the Predynastic times (ca. 5000–3200 BCE) (Lucas & Harris, 1962:224). Egypt had large deposits of gold within its borders which created lots of work for miners (Aldred, 1971:29). Gold could be found either in veins in quartz rock, or as rock debris in alluvial sands and gravels after it was broken down and washed away with water (Lucas & Harris, 1962:224). Harris (2018:65) mentioned that the mining regions were mainly located in the eastern desert and south towards Sudan, while Lucas & Harris (1962:225) divided the mining regions into three groups: northern, eastern and the southern group. These goldfields were fully exploited, and presently none have been found that were overlooked (Lucas & Harris, 1962:225; Aldred, 1971:29). Gold was also used as currency for the annual taxation on Nubia and Lower Sudan (Aldred, 1971:29).²¹ Egyptian gold contained small amounts of impurities, especially silver, copper, iron, and platinum (Lucas & Harris, 1962:224; Aldred, 1971:31).

According to written records, gold was imported from as far as Coptos and Nubia during the 12th Dynasty (Lucas & Harris, 1962:227).²² Gold was worked in various ways, namely hammering²³, casting, engraving, embossing²⁴, granulation, sheet coverings, plating,

²¹ This tax was only introduced in the New Kingdom, when it was proposed that most of the local mines were exhausted of the more accessible supplies and the Egyptians needed more gold (Aldred, 1971:29).

²² See “Inscription of Amenemhet” lines 520–521 in *Ancient Records of Egypt Volume 1* by J. H. Breasted (1906:251–252).

²³ A method used to make sheet metal.

²⁴ Called the repoussé and chasing process (Aldred, 1971:72).

gold foiling, wiring, soldering, and burnishing²⁵ (Lucas & Harris, 1962:230–231). Only some of these techniques are relevant to this study and will be discussed in section 3 of this chapter.



*Figure 2: Khnumet's Star pendant necklace with cockle-shell pendants (A3.1).
[Source: GEM]*

All the jewellery pieces were determined at first glance to contain gold as a material used in the manufacturing of it. See for example one of the necklaces that will be discussed in this study in figure 2 (above).

2.2. Lapis Lazuli

Lapis lazuli, with its dark blue colour, is the only semi-precious stone that cannot be found in Egypt. According to Lucas (1926:166) it was mainly imported from Persia, but also possibly Afghanistan, while on the other hand it is stated in the revised edition by Lucas & Harris



Figure 3: Lapis Lazuli beads. [Source: Crystalage.com]

²⁵ The final stage in jewellery making that polishes the surface for a smooth finish (Aldred, 1971:72).

(1962:399) that there is no confirmation of the fact that lapis lazuli was mined in Persia and was rather just traded there. Lucas & Harris (1962:399), therefore, suggest that it was mainly sourced from Badakshan (northeast Afghanistan). It can first be seen to be used in Predynastic times. This suggests that there was already an extensive trade link with Western Asia by the time of the 12th Dynasty.

Lapis lazuli is a silicate²⁶ of aluminium, sodium, and sodium sulphide (Lucas & Harris, 1962:398). It often contains white impurities of calcite (as spots or veins), or yellow specks of gold or iron pyrites (see Figure 3, pg. 39, for an example of how this material looks in a worked form) (Lucas & Harris, 1962:398). It was mainly used as beads and inlays in jewellery, but also as amulets and scarabs (Lucas & Harris, 1962:399). It is a soft stone²⁷, which makes it quite suitable for the cloisonné-inlay technique (see section 3.8 of this chapter) (Black, 1974:368).

The jewellery pieces determined at first glance to contain lapis lazuli, as a material used in the manufacturing of it, were namely Khnumet's circlet (A1.1), diadem (A1.2), falcon collar 1 (A2.1), falcon collar 2 (A2.2), and *ankh* necklace (A3.2); Sit-Hathor's lotus inlaid clasp (B5.1), and motto clasp (B5.2); and Mereret's gold-framed bead necklace (C3.1), inlaid shell pendant (C4.1), and blue cylinder pendant (C4.5).

2.3. Turquoise

Turquoise is a "hydrated phosphate of aluminium" (Lucas & Harris, 1962:404). Its colour is determined by the amount of copper in the base composition, which gives it a sky-blue (see Figure 4, pg. 41, for an example of how the material looks as polished raw stones), or green-blue, or all the way to a full green colour (Lucas & Harris, 1962:404). In its purest form the stone should be vivid blue and fully opaque (Black, 1974:363). Turquoise was mainly mined in the Sinai Region, at Wadi Magharah and Serabit el Khadim, from the sandstone rock (Lucas & Harris, 1962:404). It was mainly used as inlays in jewellery from the 12th Dynasty, but sometimes glass was used to mimic this semi-precious stone, as value was only placed on the colour and not the material itself (Lucas & Harris, 1962:404).

²⁶ A combination of silica with a metal oxide to form a rock mineral (*OED* s.v. *silicate*).

²⁷ On the Mohs scale a number 5. The Mohs scale rates the hardness of minerals, with diamonds being the hardest (10). This scale is used for lapidary purposes, i.e., cutting, and polishing of gemstones (Black, 1974:382).



Figure 4: Raw turquoise stones. [Source: Thehealingchest.com]

The jewellery pieces determined at first glance to contain turquoise as a material used in the manufacturing of it were namely Khnumet's circlet (A1.1), diadem (A1.2), falcon collar 1 (A2.1), falcon collar 2 (A2.2), and *ankh* necklace (A3.2); Sit-Hathor's lotus inlaid clasp (B5.1); and Mereret's gold-framed bead necklace (C3.1), inlaid shell pendant (C4.1), and blue cylinder pendant (C4.5).

2.4. Carnelian

Carnelian is another material that was used. It is a red chalcedony²⁸, where the colour red comes from the iron oxide that is present (see Figure 5 pg. 42, for an example of how this material looks when polished) (Lucas, 1926:162). It is usually found as translucent pebbles in the eastern desert of Egypt (Lucas & Harris, 1962:391). It was first seen used as beads or amulets in the Predynastic Period (ca. 5000–3200 B.C.E.), but later also as inlays in jewellery (Lucas & Harris, 1962:391).

Carnelian sard refers to the darker varieties of carnelian (some even almost black), but this is not seen in the jewellery relevant to this study (Lucas & Harris, 1962:392).

²⁸ Chalcedony is a silica compound with a translucent and waxy appearance (Lucas & Harris, 1962:392). In its purest form it is white or has a blueish tint, but with the presence of impurities, such as iron oxide, it can form many different colour variations (Lucas & Harris, 1962:392).



Figure 5: Polished carnelian stones. [Source: Thesecretsofthetarot.com]

The jewellery pieces determined at first glance to contain carnelian as a material used in the manufacturing of it were, namely Khnumet's circlet (A1.1), diadem (A1.2), falcon collar 1 (A2.1), falcon collar 2 (A2.2), and *ankh* necklace (A3.2); Sit-Hathor's lotus inlaid clasp (B5.1), motto clasp (B5.2), and papyrus gold knot clasp (B5.3); and Mereret's gold-framed bead necklace (C3.1), inlaid shell pendant (C4.1), and falcon pendant (C4.4).

2.5. Faience

Although there is some dispute as to the correct terminology regarding Egyptian faience, this study will be referring to it as just faience, rather than the full name, Egyptian faience.²⁹ Faience is made up of a body material, usually powdered quartz that can be tinted, and a glasslike, alkaline glaze (Lucas & Harris, 1962:157) (see Figure 6, pg.43, for an example of how this material can be used in a jewellery piece). The quartz powder was made into a paste and pressed into moulds for objects like beads, pendants, and rings (Lucas & Harris, 1962:158). It was left to dry in the mould and then removed (Lucas & Harris, 1962:159).

²⁹ Faience is a word used to describe "tin-glazed earthenwares", for example, delftware (Lucas & Harris 1962:156). Egyptian faience is the term used to describe the "glazed quartz frit" found in the jewellery relevant to this study (Lucas & Harris 1962:156). Lucas & Harris (1962:156) discussed the dispute of the correct use of the term faience and puts especial emphasis on terms used incorrectly to describe Egyptian faience, such as, porcelain, glazed pottery, glazed siliceous ware, and glaze.



Figure 6: Necklace of faience beads with coloured amulets. Excavated at Tell-El-Amarna, dating to 18th Dynasty. [Source: Global Egyptian Museum (GEM)]

Before the firing process, glaze was applied to the object through one of three methods (see Figure 7, pg. 44, for the accompanied illustration depicting these methods):

- A – Efflorescence: This method involved mixing the soluble salts for glazing with the quartz powder and as the object dried the salts migrated to the surface (Kozloff, 2015:303). When the object was fired, the salts melted and fused to become a glaze (Kozloff, 2015:303).
- B – Cementation: This method was popular in the Middle Kingdom according to Harris (2018:77). The object was fired in a vessel filled with the glazing powder, which then fused to the surface of the object (Kozloff, 2015:303).
- C – Applied glazing: This method involved the glaze to be made into a paste and applied to the object surface before firing (Kozloff, 2015:303).

Faience was coloured by mixing the pigment into the body material, but often a lighter shade of this colour was also mixed into the glaze (Lucas & Harris, 1962:163).

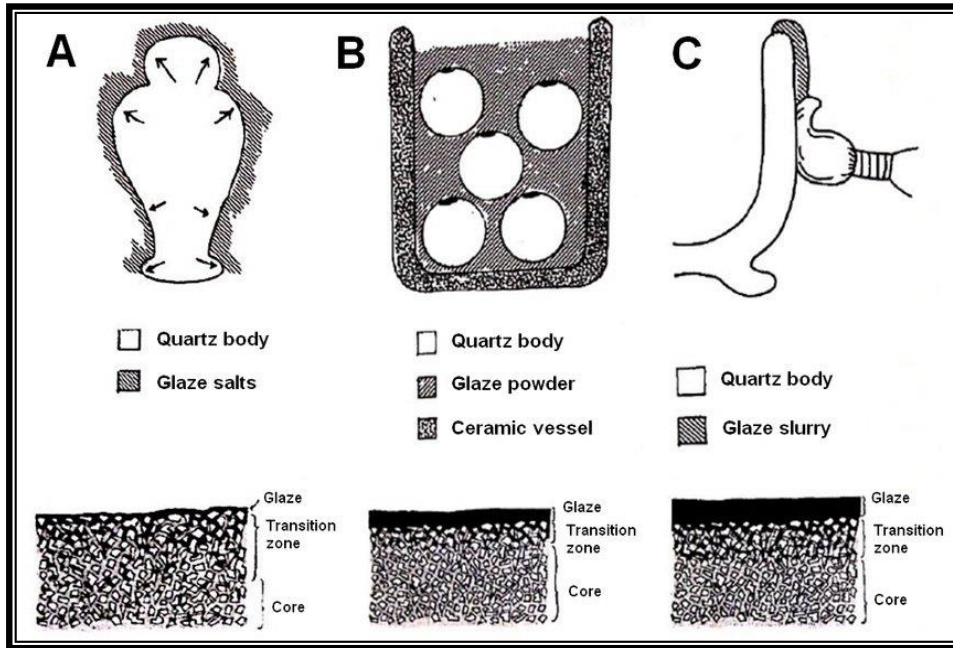


Figure 7: Methods for glazing faience: A – Efflorescence, B – Cementation, C – Applied glazing. (De Regt, et al., 2019:184)

Faience can be seen being used as blue and green inlays in one of the jewellery pieces under discussion, namely Mereret’s falcon pendant (C4.4).

2.6. Garnets

The word garnet is a title for a family of silicate minerals (Black, 1974:363). When referring to a garnet gemstone, one is referring to the “blood red pyrope garnet” (see Figure 8 below,



Figure 8: Blood red pyrope garnet gemstone [Source: Minerals.net].

for an example of how this material looks when cut as a gemstone) (Black, 1974:363). The name garnet is derived from the Latin word for pomegranate, *granatum* (Black, 1974:363). Garnets fall under the category of semi-precious stones. It is a translucent stone with a dark red to reddish brown colour, as found in the jewellery relevant to this study. However, other varieties can be purple, green, yellow, orange, and black (Black, 1974:363). It was sourced in Egypt in the eastern desert, and in Sinai, but also at Aswan, and Kharga Oasis (Lucas & Harris, 1962:394). They were already being used as beads in the Predynastic Period, but by the 12th Dynasty they were also used in inlays (Lucas & Harris, 1962:395).

The jewellery piece determined at first glance to contain garnets as a material used in the manufacturing of it was namely Khnumet's falcon collar 1 (A2.1).

2.7. Felspar

Felspar is a group consisting of many varieties of stone, but only two types fall under the term gemstones, moonstones, and amazonite (Black, 1974:368). The felspar found in the jewellery in this study is a “double silicate of aluminium and potassium”, sometimes also referred to as amazonite stone (Lucas & Harris, 1962:393). It is an opaque green stone (sometimes with a bluish tint) (see Figure 9 below, for an example of how this material looks as polished stones) and is often wrongly identified as emerald or seen as a variety of emerald (Lucas & Harris, 1962:394).



Figure 9: Polished amazonite stones. [Source: Crystalage.com]

They were mainly used as beads in the 12th Dynasty, but in the New Kingdom one sees examples of it as amulets and inlays (Lucas & Harris, 1962:394).

The jewellery piece determined at first glance to contain felspar as a material used in the manufacturing of it was namely Khnumet's falcon collar 1 (A2.1).

2.8. Blue frit

Blue frit is a crystalline compound made up of silica, copper, and calcium (see Figure 10 below, as an example of this material being used as an inlay) (Lucas & Harris, 1962:340). It is regarded as the earliest known synthetic pigment (Kozloff, 2015:506). Frit is a glass-like material used to substitute coloured stones in jewellery (Black, 1974:380). In Egypt, it was made from sand (found in Egypt already as a mixture of quartz and calcium carbonate), copper filings, and natron (Lucas & Harris, 1962:341). The fine powder was then mixed with water and moulded into shapes (Lucas & Harris, 1962:343). It was left to dry and then fired (Lucas & Harris, 1962:343).



*Figure 10: Medallion of Dahshur found in the tomb of Princess Khnumet with a blue frit inlay.
[Source: Egypt-museum.com]*

Blue frit was very often used for beads, but have also been found as cylinder seals or used as inlays (see Figure 10 above) (Lucas & Harris, 1962:343). The jewellery piece determined at first glance to contain blue frit as an inlay used in the manufacturing of it was namely Khnumet's Medallion of Dahshur (A4.1).

This section dealt with the types of materials the jewellery pieces under discussion were made of, namely gold, lapis lazuli, turquoise, carnelian, faience, garnets, felspar, and blue frit.

This discussion was to gather information on the material, its appearance, and how it was used commonly in jewellery pieces. This introduced the first physical element that was important to identify in the pre-iconographical description phase of this iconographical study.

3. TECHNIQUES

The second physical element which will be discussed in the pre-iconographical description is therefore the techniques used in the manufacturing of jewellery identified at first glance to be present in the jewellery pieces under discussion. Ancient Egyptian jewellery crafting was an intricate skill and certain methods were employed in working with raw materials. This section covers the different methods used when working with metals and gemstones relevant to this study, namely sheet metal, gilding, wire, casting, joining and soldering, engraving, filigree, granulation, inlay and cloisonné, repoussé and chasing, and lapidary techniques.

3.1. Sheet metal

Sheet metal was formed by melting together the dust and ingots of a metal (usually gold, silver, or electrum³⁰), pouring it onto a flat surface and then continuously hammering the layer of the metal until the desired thickness was acquired (Aldred, 1971:71). Harris (2018:86) explained that the sheet metal could further be cut and shaped to be used with moulds, or stamps to be decorated with “punching, repoussé, chasing, engraving or granulation” (see Figure 11 below, for an example of shapes cut from gold sheet to represent “flies”).



Figure 11: Khnumet's "fly" pendant necklace (A3.3). [Source: Judithweingarten.blogspot.com]

³⁰ An alloy of gold and silver found naturally in ancient Egypt, but is presently produced artificially (Lucas & Harris, 1962:234).

Sheet metal was also used to create small gold beads (Harris, 2018:86; Aldred, 1971:72). The sheet metal was simply bent, so that the ends met to form a hollow bead (Harris, 2018:86). The edges were then trimmed and soldered together (Aldred, 1971:85). Sometimes the bead was filled with “a fine compact clay” before it was soldered together, to create a solid bead (Aldred, 1971:85).

Gold foil is simply a piece of sheet metal that has been hammered even thinner. Sheet metal usually ranges between 0.17 mm to 0.54 mm thick, while gold foil varies between 0.01 mm to 0.09 mm thick (Lucas & Harris, 1962:231).

The jewellery pieces determined at first glance to contain gold sheet as a stylistic element of it were, namely Khnumet’s diadem (A1.2), “fly” pendant necklace (A3.3), and butterfly pendant (A4.2); and Mereret’s gold-framed bead necklace (C3.1), inlaid shell pendant (C4.1), and gold shell pendant (C4.3).

The jewellery pieces determined at first glance to contain gold foil as a stylistic element of it were, namely Khnumet’s diadem (A1.2), falcon collar 1 (A2.1), and star pendant necklace w/ cockle-shells (A3.1); and Mereret’s gold-framed bead necklace (C3.1), inlaid shell pendant (C4.1), and gold shell pendant (C4.3).

3.2. Gilding

Gilding is a technique used to decorate objects by placing gold sheet or gold leaf around the object and hammering it into shape (Harris, 2018:86). Usually, the core of the object to be gilded was made up of wood or metal (James, 1972:41). The foil is usually attached to the object with an adhesive, usually plaster or according to some literary sources, egg whites and *leucophoron*³¹ (Harris, 2018:87). However, no samples of an adhesive have been discovered to provide archaeological evidence for the nature of the adhesive (James, 1972:41). The advancement of the gilding technique was very useful for times when gold resources were scarce and one had to work economically with the amounts available (Aldred, 1971:29).

³¹ Harris (2018:87) quotes Pliny the Elder in his *Historia Naturalis* (XXXIII:20), “Half a pound of Pontic sinopsis, ten pounds of bright sil, and two pounds of Greek melium, well mixed and triturated together for twelve successive days, produce *leucophoron*, a cement used for applying gold-leaf to wood”.



Figure 12: The Golden Rhinoceros of Mapungubwe. [Source: Ancient-origins.net]

The Golden Rhinoceros of Mapungubwe is an excellent example of gilding with a wooden core (see Figure 12 above, illustrating this artefact). The core was carved from a piece of wood and then thin sheets of gold were hammered around it. Details were then added afterwards.

The jewellery piece determined at first glance to contain gilding as a stylistic element of it was, namely Khnumet's star pendant necklace w/ cockle-shells (A3.1).

3.3. Wire

Wires were mostly made by hammering a metal sheet and then folding it to create a hollow metal tube (Harris, 2018:89). However, other methods could also have included taking a single strand and twisting it into a spiral, to form a solid wire (Aldred, 1971:86; Harris, 2018:89). Aldred (1971:88) also suggested that wires could be made by soldering granules together and rolling them between two flat surfaces to straighten them. Wires were mainly used to form chains, by taking a short length of wire and wrapping it to make a circular ring (Harris, 2018:89). These rings were then interlinked, and the ends soldered together to form a chain (Harris, 2018:89). However, wires could also be used as a stylistic element, as seen in Figure 13 (pg. 50, for an example of how this technique was used in an artefact).

The jewellery pieces determined at first glance to contain wires as a stylistic element of it were, namely Khnumet's circlet (A1.1), star pendant necklace w/ cockle-shells (A3.1), "fly" pendant necklace (A3.3), and butterfly pendant (A4.2).



Figure 13: Khnumet's floral circlet (A1.1) with intricate use of wires. [Source: Brown.edu]

The jewellery pieces determined at first glance to contain chains to construct the item were, namely Khnumet's star pendant necklace w/ cockle-shells (A3.1), "fly" pendant necklace (A3.3), Medallion of Dahshur (A4.1), and butterfly pendant (A4.2).

3.4. Casting

One of the casting techniques is the process of moulding an object from beeswax, covering it with clay, and then firing it, which would cause the wax to melt leaving a mould that could be filled with molten metal (see Figure 14 below, illustrating the three stages in which a mould

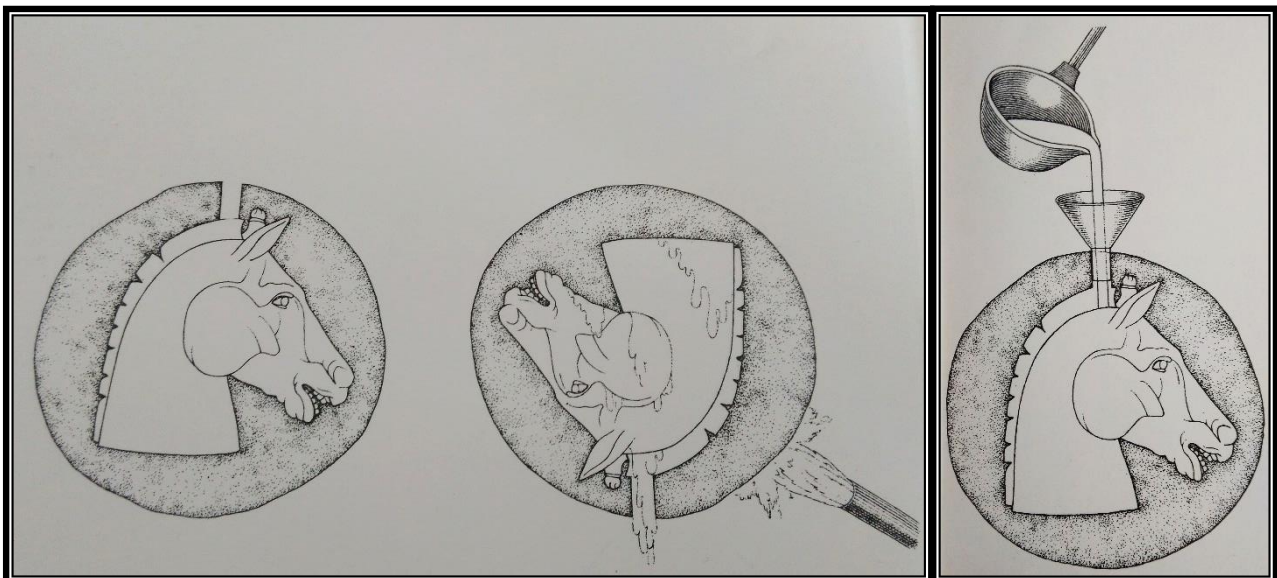


Figure 14: An illustration of the three simplified stages of the lost-wax method. (Black, 1974:31)

could be made)³² (Aldred, 1971:114). The metal was left to harden, and the mould then broken to remove the object (Harris, 2018:90). This method is called *cire perdue* (lost-wax method) and would create a solid metal object, which was not a very economic option for precious resources (Aldred, 1971:114). Therefore, one could also employ a technique to produce hollow casts, by either using an open or closed mould and rinsing the molten metal around the cavity, then draining the extra metal before it became solid (Aldred, 1971:114–115).

The jewellery pieces determined at first glance to contain casting to construct the item were, namely Khnumet's diadem (A1.2), and falcon collar 1 (A2.1); and Sit-Hathor's papyrus gold knot clasp (B5.3).

3.5. Joining and soldering

Soldering was an intricate technique that the Egyptians were able to master over time as a very important method for jewellery making. Soldering is when two pieces of metal are joined together by melting another metal in between the two metal pieces (Harris, 2018:91). The solder material is usually a mix of metals to produce a lower melting point, called hard solder (Harris, 2018:91). It is, however, unclear what material was used to solder gold pieces together as the join is sometimes undetectable, but other metals have been found with a solder made of a mix of copper, lead, tin or silver (Harris, 2018:91; Aldred, 1971:98).³³ What made soldering such an interesting technique, was the fact that the object had to be covered with another substance to prevent it from oxidising over the fire as the solder was melting (Harris, 2018:91). This was mainly done with a flux material to lower the melting point of the joining edges (Aldred, 1971:98).³⁴

As all the jewellery pieces were determined at first glance to contain gold as a material used in the manufacturing of them, this would entail the use of joining and soldering

³² The first part of the image illustrated a wax model covered in plaster, but leaving a small hole (Black, 1974:31). The second part illustrated the mould being heated and the molten wax then poured out which leaves a hollow cavity (Black, 1974:31). Lastly the cavity was filled with molten metal, illustrated in the last image (Black, 1974:31).

³³ According to a study done on the jewellery pieces found in Tomb 124 (a 12th Dynasty tomb in Riqqa, Egypt), the preferred hard-soldering material was an addition of copper to a gold alloy base (Troalen, et al., 2019:594). This gives one a clue into what soldering materials were used in the period, as no extensive study has been done, to my knowledge, on the jewellery pieces relevant to this study.

³⁴ It is undetermined what material the flux could have been made of, but natron, a mixture of sodium carbonate and bi-carbonate, has been suggested (Aldred, 1971:98).

techniques in all of them. However, the use of soldering as a stylistic element was especially present on Mereret’s shell pendant string (C4.2).

3.6. Filigree

Filigree makes use of thin gold wire that was soldered onto a background in different shapes and patterns (see Figure 15 below, for an example of how this technique was used on an artefact) (Harris, 2018:93). Harris (2018:93) noted that it was mainly used to form “circles, spirals or straight lines”.

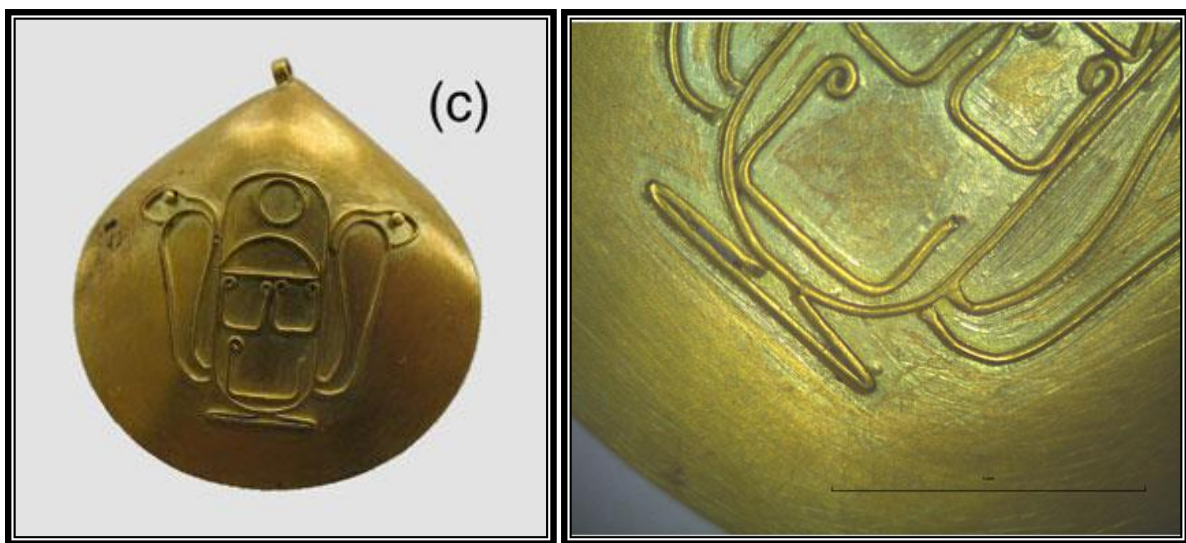


Figure 15: An example of filigree on a shell pendant from Tomb 124 in Riqqa, Egypt. (Troalen, et al., 2019:587,598)

The jewellery piece determined at first glance to contain filigree as a stylistic element of it was, namely Khnumet’s butterfly pendant (A4.2).

3.7. Granulation

Granulation entails the use of small gold spheres to form lines or patterns on another surface (see Figure 16, pg. 53, for an example of how this technique was used on an artefact) (Ogden, 2000:165). The introduction of this technique into Egypt was said to have been from the Etruscans or from the Crete-Anatolian area (Curtis, 1915:66; Lilyquist, 1993:37). It became popular in the Middle Kingdom, but is usually seen as a “foreign” technique as jewellery was mainly imported when it contained this method (Ogden, 2000:165). There is no certainty of what method was used to achieve the gold spheres that were always uniform in size, but

Aldred (1971:113) mentions that after the spheres were made they were sifted through mesh to obtain granules of a similar size. The basis of the method was by cutting pieces of wire or sheet metal and heating them to form spheres, but the finer detail of the technique is still debated (Aldred, 1971:100).³⁵



Figure 16: Khnumet's butterfly pendant (A4.2) with the body and wings outlined in gold wire and filled with gold granules. (Aldred, 1971:Plate 29)

The jewellery pieces determined at first glance to contain granulation as a stylistic element of it were, namely Khnumet's star pendant necklace w/ cockle-shells (A3.1), Medallion of Dahshur (A4.1), and butterfly pendant (A4.2); and Mereret's gold cylinder pendant (C4.6).

3.8. Inlay and Cloisonné

Inlay in its simplest form was making an incision into a surface and placing a gold strip in the groove (Harris, 2018:95). Cloisonné involved bending metal strips and soldering them into shapes to form “cells or cloisons³⁶” (see Figure 17, pg. 54, for a diagram of how this technique of filling the cloisons with enamel was used in theory on an artefact) (Aldred, 1971:113). In the 12th Dynasty gemstones were mainly cut to fit the shape of the cloisons.

³⁵ For further discussions speculating the method in which granules could be manufactured see Aldred (1971:100), James (1972:42), Higgins (1980:20), James (1989:25), Ogden (2000:165), Harris (2018:94).

³⁶ A French word meaning “partition” – the state of dividing or being divided into parts (*OED s.v. partition*).

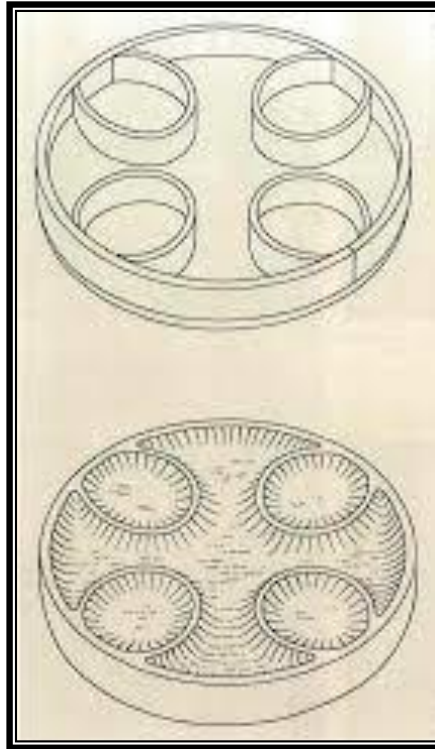


Figure 17: Diagram showing how cloisons are made with metal strips and then filled with enamel. [Drawing by David Goodger] (Buckton, 1982:108)

These areas were therefore used to cement precious and semi-precious stones, but also faience and glass imitations (Aldred, 1971:113). This left a gold border around the inlay which could either be polished flat to the top of the metal strip or left bulging out over the strip (Buckton, 1982:108; Harris, 2018:95).

The jewellery pieces determined at first glance to contain cloisonné as a stylistic element of it were, namely Khnumet's circlet (A1.1), diadem (A1.2), falcon collar 1 (A2.1), falcon collar 2 (A2.2), Medallion of Dahshur (A4.1), and drop-bead pendants (A4.3); Sit-Hathor's lotus inlaid clasp (B5.1), motto clasp (B5.2), and papyrus gold knot clasp (B5.3); and Mereret's inlaid shell pendant (C4.1), falcon pendant (C4.4) and blue cylinder pendant (C4.5).

3.9. Repoussé and Chasing

The method of engraving an object entails the use of a sharp tool, called a burin, to carve out a design onto a surface (Harris, 2018:92). The burin could be made of chert, obsidian, or hard stones, which was then chipped to form a sharp point (Aldred, 1971:72). Engraving was done on metal surfaces, but designs could also be engraved onto gemstones (Harris, 2018:92). Due

to the fact that engraving weakened the metal, it was not a technique often used on thin sheet metal, which is the main form of metal found in the jewellery pieces under discussion (Maryon, 1949:117; Aldred, 1971:72).

Therefore, the use of repoussé and chasing was rather used in the jewellery pieces under discussion. These two techniques are complementary processes that might seem like a form of engraving, but is not. Chasing can be achieved by pressing a design into a metal surface to get an indentation on the front of the object (Harris, 2018:92). Repoussé is the opposite, as it involved pressing a design on the back of the metal to create a raised relief on the front of the object (Harris, 2018:92). These processes were done by hammering a metal, hard wood or bone punch into the metal surface (Aldred, 1971:72). The metal was laid on top of a soft surface, usually beeswax or resin, in order to give way when hammered, so as not to damage the metal sheet and keep it as one continuous surface (Aldred, 1971:71; Harris, 2018:95). The punch could also have been incised when a repetitive design was used (James, 1989:20).

The jewellery pieces determined at first glance to contain chasing as a stylistic element of it were, namely Khnumet's diadem (A1.2), falcon collar 2 (A2.2), and star pendant necklace w/ cockle-shells (A3.1).

3.10. Lapidary techniques

Lapidary is the art of drilling, cutting and engraving gemstones (Black, 1974:381). It is regarded as one of the earliest forms of jewellery making (Black, 1974:13). It can be seen in Egypt from as early as the Neolithic period (Black, 1974:32). Beads were manufactured according to the following steps: rough shaping by chipping³⁷, subsequent shaping by abrasion³⁸, final shaping by faceting³⁹, drilling, and lastly polishing (Gwinnett & Gorelick, 1993:130). Drilling was done with a tubular drill in the Middle Kingdom, with some examples possibly made of copper (Gwinnett & Gorelick, 1993:131). Drills were driven with a bow or by hand as seen in Figure 18 (pg. 56, for an illustration of a painting depicting the process of drilling with a bow) (Lucas & Harris, 1962:43).

³⁷ Struck with a flint (Gwinnett & Gorelick, 1993:130).

³⁸ Possibly on sandstone or quartzite blocks (Gwinnett & Gorelick, 1993:130).

³⁹ Faceting is the process of giving a stone the distinctive multiple facets of a cut gemstone, such as straight sides to form a rectangular shape and then cutting the corners to give a more rounded shape (*OED s.v. facet*).

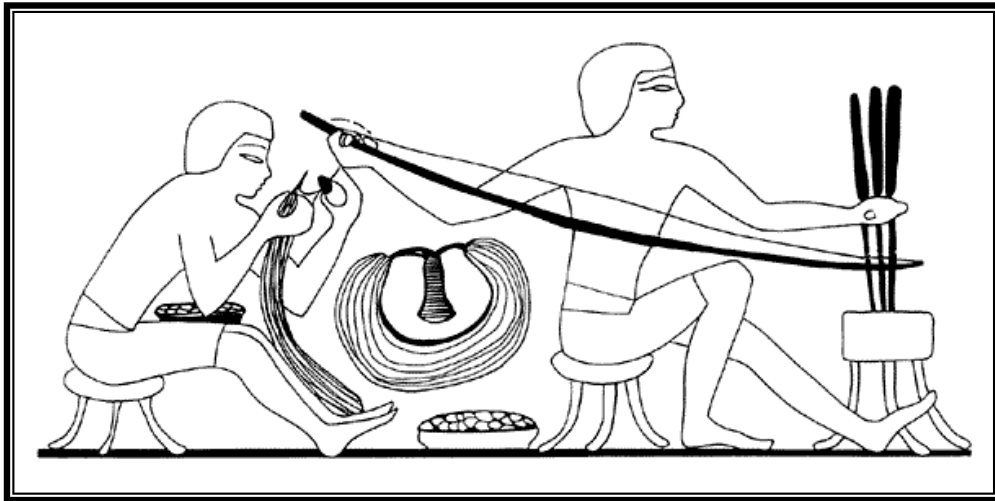


Figure 18: Painting in the Tomb of Rekhmire illustrating how beads were drilled using a bow drill (right) and strung (left) [Source: Historymuseum.ca]

Lapidary techniques had to be employed in the manufacturing of all the jewellery pieces under discussion that was determined at first glance to contain semi-precious stones in their design, namely Khnumet's circlet (A1.1), diadem (A1.2), falcon collar 1 (A2.1), falcon collar 2 (A2.2), and *ankh* necklace (A3.2); Sit-Hathor's lotus inlaid clasp (B5.1), motto clasp (B5.2), and papyrus gold knot clasp (B5.3); and Mereret's gold-framed bead necklace (C3.1), inlaid shell pendant (C4.1), falcon pendant (C4.4), and blue cylinder pendant (C4.5).

Specific mention should be made of the *ankh* necklace (A3.2) of Khnumet that used a drilling method on the semi-precious stones, as well as the making of the spherical beads present in the gold-framed bead necklace (C3.1) of Mereret.

This section dealt with the different manufacturing techniques identified at first glance to be present in the jewellery pieces under discussion. These were, namely sheet metal, gilding, wire, casting, joining and soldering, filigree, granulation, inlay and cloisonné, repoussé and chasing, and lapidary techniques. This discussion was to gather information on how certain materials were worked to achieve a specific design for a jewellery piece. This introduced the second physical element that was important to identify in the pre-iconographical description phase of this iconographical study. However, this section also made mention of the craftsmen that applied these techniques to jewellery pieces, so therefore the next section will go into further detail as to how these workshops were organised in ancient Egypt.

4. CRAFTSMEN

The techniques identified at first glance to be present in the jewellery pieces under discussion were quite intricate. Craftsmen in ancient Egypt were taught how to apply these techniques and use them in the manufacture of jewellery (Aldred, 1971:47). These techniques were handed down from fathers to their sons who worked in the workshops of ancient Egypt. The royal elites of ancient Egypt usually had their own group of craftsmen who were connected to the royal family in order to make all the jewellery for the royal household. These privileged craftsmen worked in the royal workshops connected to the palace (Aldred, 1971:47). The selected artisans would change as kingship changed, which would cause the change in techniques in the production of jewellery across generations. This is due to the fact that jewellery making was a “closely guarded mystique” and only a select few families had the knowledge to produce the jewellery pieces of ancient Egypt we know today (Aldred, 1971:47).

The 12th Dynasty (ca. 1994–1781 BCE) is also known for its expansion in trade (Dodson & Hilton, 2010:90). Many expeditions were aimed at trading and acquiring raw materials. This introduced some new materials into the design of jewellery in Egypt, such as lapis lazuli that was mined in Persia and Afghanistan (Lucas & Harris, 1962:399). These new materials required new techniques to be used in the manufacture or production of jewellery pieces.

The role craftsmen play in the design of a jewellery piece will also be important to take into account in the iconological interpretation phase. A section will therefore also be present under 5.1 of Chapter 5, regarding the possible influence they might have on the jewellery pieces under discussion. In conclusion, the role craftsmen played in the pre-iconographical description is important to take note of, as the expertise these craftsmen had will determine what materials and techniques were possible to incorporate in jewellery pieces. However, in the next section the role of provenance will also be debated in relation to the jewellery pieces under discussion, as it might affect the first impression a viewer might have of a jewellery piece.

5. PROVENANCE

The jewellery found in the tombs of the three royal women relevant to this study were all found in a funerary context. When looking at artefacts one needs to pay special attention to where it was found and in what context relative to the burial. This section will discuss the different types of terminology one will come across when trying to understand the archaeological context of the jewellery pieces of this study. This is important to consider in the pre-iconographical description phase, as some factors might cause a viewer to make certain observations based on first impressions, which might not have been intended in the original design of ancient Egypt.

5.1. Archaeological provenance

Provenance is defined by Kelly and Thomas (2013:76) as the location of an artefact relative to the spatial data of an archaeological site. This means that from where an artefact is excavated in an archaeological site, could provide one with extra information to determine in what context the object was used. This is of special importance to jewellery, particularly when they were buried with a person in their tomb. Jewellery could be found adorning a mummy in its final resting place, or formed part of the grave goods. Here they are divided into two further categories: objects of the funerary industry, and objects of daily life (Grajetzki, 2014:6). In Egypt grave goods were meant to aid the deceased in the afterlife (Grajetzki, 2014:6). This meant that anything placed in the tomb was believed to be used by the deceased in the afterlife, for example: food, bowls, figurines, amulets, instructions on what to expect in the afterlife, and ritual jewellery (Grajetzki, 2014:7–13). Objects of daily life were also often found buried in the tomb (Grajetzki, 2014:11). These would have been personal objects belonging to the deceased and used in everyday life. These are the items that the owner had a special tie with, or was even received as a gift or heirloom during their lifetime (Grajetzki, 2014:11).

The archaeological provenance of a jewellery piece can often tell the story of an item. Meaning if it was an object specifically prepared for the burial chamber, or if it was a personal object used during daily life. This can be seen from the placement within the tomb (Grajetzki, 2014:12). Personal objects were usually found in separate jewellery boxes or containers, while funerary items were found within the coffin of the deceased (Grajetzki,

2014:12). The provenance of some items was not described in detail; however, some items do have brief mentions within the excavation report of De Morgan (1895; 1903), as well as the descriptions provided by Aldred (1971). These mentions are presented in section 5.3 of this chapter and the analytical tables in section 6 of this chapter, as well as discussed in full in sections 2 (Khnumet’s jewellery), 3 (Sit-Hathor’s jewellery), and 4 (Mereret’s jewellery) of Chapter 4 when each piece will be analysed. However, most items were excavated as individual artefacts scattered throughout the tomb. These individual artefacts were assembled for museum displays and thus called reconstructed jewellery pieces.

5.2. Reconstruction of jewellery

Jewellery pieces are sometimes reconstructed from pieces found in the archaeological record. This is due to the fact that organic materials do not preserve well, which would mean the string that held the beads together, for example, would decompose and only leave a muddle of beads in a cluster. This leads archaeologist to “arbitrarily assemble” certain types of finds

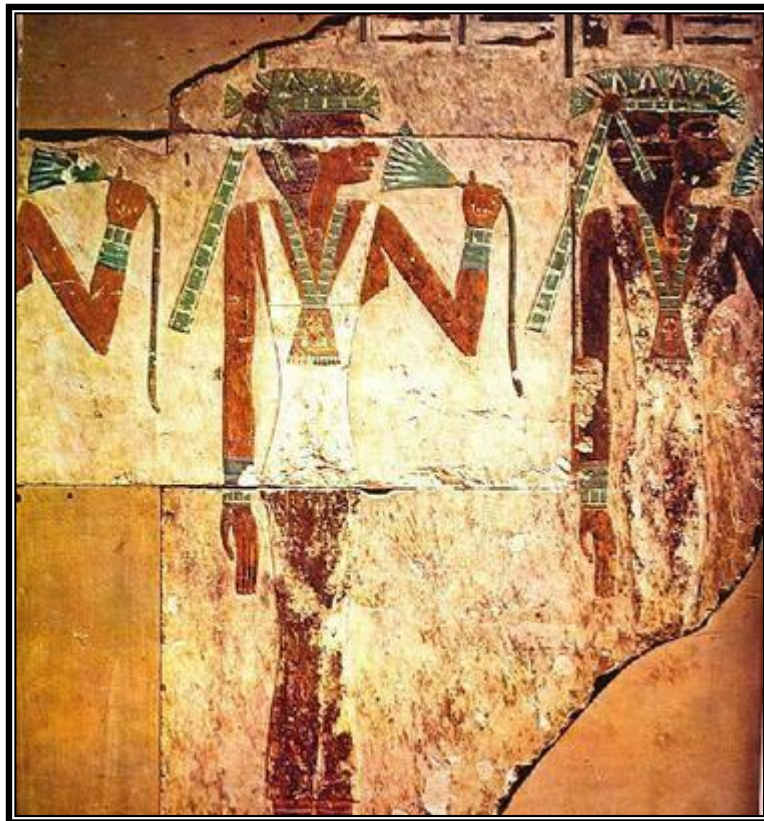


Figure 19: A tomb painting of Djehuti-hotpe’s daughter, adorned with boatman’s circlets, pectorals, bracelets, and anklets (not visible in this photo). [Source: Pinterest.com]

within an archaeological site (Kelly & Thomas, 2013:163), and means that the beads that looked similar and could have been from the same necklace were, thus for display purposes in a museum, restrung based on the archaeologist's own conception of how the necklace might have looked.

Tomb paintings and hieroglyphics provide information that helps in the understanding of the uses and designs of jewellery pieces. This aids us in accurately reconstructing jewellery pieces that were found dismantled or damaged (Black, 1974:46). Figure 19 (pg. 59) illustrates how the boatman's circlet was constructed, as well as demonstrating the use of pectorals, bracelets, and anklets in the 12th Dynasty. These illustrations are extremely valuable to determine how certain items would have been used in daily life and were not just seen as objects for the burial.

Due to the fact that most items selected for this study were reconstructed for display purposes in the Cairo Museum, it is therefore important to mention which items were reconstructed, as well as where they were excavated within the tomb. This will be discussed in the following section.

5.3. Provenance of the jewellery pieces under discussion

Even though the excavation report of De Morgan (1895; 1903) often lacks exact descriptions of where certain items were excavated, there is some mention that can give context into the provenance of the jewellery pieces. Grajetzki (2014:55, 56) gave a proper discussion on what items were excavated within the sarcophagus chamber adorning the mummy of princess Khnumet, this being the falcon collar 1 (A2.1 – reconstructed), falcon collar 2 (A2.2 – reconstructed), as well as five bracelets (not applicable to this study). The jewellery pieces relevant to this study excavated in the chamber adjacent to the sarcophagus chamber was the circlet (A1.1), diadem (A1.2), star pendant necklace with cockle-shells (A3.1), *ankh* necklace (A3.2 – reconstructed), “fly” pendant necklace (A3.3), the Medallion of Dahshur (A4.1), a butterfly pendant (A4.2), and drop-bead pendants (A4.3 – reconstructed) (Grajetzki, 2014:56–58).

In comparison to some items found adorning the mummy of Khnumet, the jewellery pieces selected for this study of Sit-Hathor were excavated from a jewellery box found in the

pyramid complex of Senwosret III. De Morgan (1895:57) stated that the box was excavated from a hole in the floor in front of a sarcophagus; however, no such hole was found in recent excavations (Arnold, 2002:70; Grajetzki, 2014:83). The jewellery pieces said to have been excavated from this box is: the lotus inlaid clasp (B5.1), the motto clasp (B5.2), and the papyrus gold knot clasp (B5.3) (none were reconstructed).

Mereret's jewellery introduces the first piece in which the reconstruction for museum purposes should be mentioned. The gold-framed caged bead necklace (C3.1) was described by Aldred (1971:195) as being reconstructed from "*random* elements found in the tomb".⁴⁰ This paired with the fact that there were multiple clasps also excavated in the tomb (not relevant to this study), one should be weary of attempting to group these individual elements together within this iconographical analysis. Therefore, only the caged beads will be analysed in this study. Including the gold-framed caged bead necklace (C3.1), other items also found within the tomb were the inlaid shell pendant (C4.1), shell pendant string (C4.2), gold shell pendant (C4.3), falcon pendant (C4.4), blue cylinder pendant (C4.5), and gold cylinder pendant (C4.6).

This discussion on the provenance, as well the reconstruction of the jewellery pieces relevant to this study helped one to understand how certain factors can influence the analysis on jewellery pieces. This is specifically of importance in the pre-iconographical description phase, as the reconstruction of elements found not with the same provenance could influence the first impression a viewer would have on a jewellery piece. This collection of information is summarised within the following analytical tables to better understand all the elements applicable to the pre-iconographical description phase.

⁴⁰ Italics added here for emphasis.

6. ANALYTICAL TABLES

These following tables list all the relevant information regarding the pre-iconographical description. They are divided into the three princesses relevant to this study, i.e., Khnumet (see Table A), Sit-Hathor (see Table B), and Mereret (see Table C). Each table lists the jewellery pieces that will be analysed in this study. Each piece is given an item code to refer to it further in this study. The letter A refers to Khnumet, B to Sit-Hathor, and C to Mereret. The first number indicates the type of jewellery: 1 for head pieces, 2 for falcon collars, 3 for complete necklaces, 4 for pendants, and 5 for clasps. The second number indicates its number in that category, for example, A1.2 will refer to Khnumet's (A) head piece (1), the second head piece (2).

Listed in these tables were the type of materials used to manufacture each jewellery piece. Different materials can be the same colour; therefore, a separate column listed the colours determined to be present in the jewellery pieces at first glance. The techniques listed were based on the effect they have as design elements of the jewellery piece. As all the jewellery pieces contain gold and semi-precious stones and will entail the basic methods in working with these materials, the following techniques will only be mentioned when it was done for a specific stylistic element: soldering, lapidary-work. The provenance column listed the archaeological provenance, as well as those items excavated on the mummy, while those not specified in the column was excavated in the burial chamber. Due to the lack of detailed excavation reports, some archaeological provenance is missing.

The use of the following analytical tables therefore summarises all the information gathered within the pre-iconographical description phase. This will give this study the necessary tools to interpret all the physical elements determined at first glance to be present in each jewellery piece. One can also use these tables to identify specific patterns that might arise based on the type of material and techniques used in the collection of jewellery pieces of each woman, which will be discussed in Chapter 6.

6.1. Khnumet's Jewellery

Table A illustrates all the relevant information regarding Khnumet's jewellery pieces regarding the pre-iconographical description.

Table A: *Khnumet's jewellery pieces regarding the pre-iconographical description.*

Item Code	Khnumet's Pieces (10)	Materials	Colours	Techniques	Provenance
A1.1	Circlet	Gold, carnelian, lapis lazuli, turquoise	Gold, red, blue	Cloisonné, wire	None
A1.2	Diadem	Gold, carnelian, lapis lazuli, turquoise	Gold, red, blue	Cloisonné, casting, chasing, gold foil, gold sheet	None
A2.1	Falcon collar 1	Gold, lapis lazuli, turquoise, carnelian, garnets, green felspar	Gold, red, blue, green	Cloisonné, beads, gold foil, plaster-filled casting	Reconstructed
A2.2	Falcon collar 2	Gold, carnelian, lapis lazuli, turquoise	Gold, red, blue	Cloisonné, chasing, beads	Reconstructed, arbitrary, found on the mummy
A3.1	Star pendant necklace w/ cockle-shells	Gold	Gold	Chain, gold foil, chasing, clay filled gilding, wire, granulation	None
A3.2	<i>Ankh</i> necklace	Gold, carnelian, lapis lazuli, turquoise	Gold, red, blue	Drilling	Reconstructed
A3.3	"Fly" pendant necklace	Gold	Gold	Chain, wire, gold sheet	None

Item Code	Khnumet's Pieces (10)	Materials	Colours	Techniques	Provenance
A4.1	Medallion of Dahshur	Gold, blue frit	Gold, blue, black, brown, white	Cloisonné, granulation, chain	None
A4.2	Butterfly pendant	Gold	Gold	Gold sheet, wire, chain granulation, filigree	None
A4.3	Drop-bead pendants	Gold, blue inlay?	Gold, blue	Cloisonné, beads	Arbitrarily assembled

6.2. Sit-Hathor's Jewellery

Table B illustrates all the relevant information regarding Sit-Hathor's jewellery pieces regarding the pre-iconographical description.

Table B: Sit-Hathor's jewellery pieces regarding the pre-iconographical description.

Item Code	Sit-Hathor's Pieces (3)	Materials	Colours	Techniques	Provenance
B5.1	Lotus inlaid clasp	Gold, carnelian, lapis lazuli, turquoise	Gold, red, blue	Cloisonné	None
B5.2	Motto clasp	Gold, carnelian, lapis lazuli	Gold, red, blue	Cloisonné	None
B5.3	Papyrus gold knot clasp	Gold, carnelian	Gold, red	Cloisonné, casting	None

6.3. Mereret's Jewellery

Table C illustrates all the relevant information regarding Mereret's jewellery pieces regarding the pre-iconographical description.

Table C: Mereret's jewellery pieces regarding the pre-iconographical description.

Item Code	Mereret's Pieces (7)	Materials	Colours	Techniques	Provenance
C3.1	Gold-framed bead necklace	Gold, carnelian, lapis lazuli, turquoise	Gold, red, blue	Gold foil, beads, gold sheet	Reconstructed
C4.1	Inlaid shell pendant	Gold, carnelian, lapis lazuli, turquoise	Gold, red, blue	Cloisonné, gold sheet	None
C4.2	Shell pendant string (part of collar?)	Gold	Gold	Soldering, beads	None
C4.3	Gold shell pendant	Gold	Gold	Gold sheet	None
C4.4	Falcon pendant	Gold, carnelian, blue and green faience	Gold, red, blue, green	Cloisonné	None
C4.5	Blue cylinder pendant	Gold, lapis lazuli, turquoise	Gold, blue	Cloisonné	None
C4.6	Gold cylinder pendant	Gold	Gold	Granulation	None

7. SUMMARY

In this chapter it was possible to understand how the jewellery pieces could be perceived at first glance based on their physical attributes. This was done through the use of the pre-iconographical description by recording all the materials, techniques, and colours identified at first glance to be present in the jewellery pieces under discussion. The materials discussed were, namely gold, lapis lazuli, turquoise, carnelian, faience, garnets, felspar, and blue frit. These materials were discussed to gain a general understanding of how they were used, and mined or gathered, but also the first introduction of the material in the Egyptian culture. The techniques discussed were, namely sheet metal, gilding, wire, casting, joining and soldering, engraving, filigree, granulation, inlay and cloisonné, repoussé and chasing, and lapidary techniques. These techniques were discussed to help in understanding how intricate some methods were and how the ancient Egyptians were introduced to some methods. These discussions gave one the basic terminology in order to understand what the Egyptians were capable of in the 12th Dynasty.

This chapter also made mention of certain aspects that could have influenced the perception of the viewer at first glance, namely the craftsmen, provenance, and also the reconstruction of jewellery pieces for museum purposes. As seen in the analytical tables, all the materials, colours, techniques, and provenance of the jewellery pieces relevant to this study were identified in order to conclude the pre-iconographical description phase. This phase was necessary in this iconographical analysis, to identify specific patterns that might arise based on the type of material, colours, and techniques used in the jewellery collection of each woman.

CHAPTER 3: ICONOGRAPHICAL DESCRIPTION

1. INTRODUCTION

In Chapter 2 the pre-iconographical description, the first phase of this iconographical study was dealt with. In that chapter it was possible to understand how the jewellery pieces could be perceived at first glance based on their physical attributes. This was done through the use of the pre-iconographical description by recording all the materials, techniques, and colours identified at first glance to be present in the jewellery pieces under discussion. This was due to the fact that Van Straten (1994:5) emphasised that one should only get a “rough enumeration” of all the “objects” and situations in the picture without placing them in any relation to one another or interpreting them, as he explained his theory with the use of a painting. The provenance of the jewellery pieces relevant to this study was also identified, in order to conclude the pre-iconographical description phase. This phase was necessary in this iconographical analysis to identify specific patterns that might arise based on the type of material, colours, and techniques used in the jewellery collection of each woman. By taking note of how a jewellery piece was manufactured, one could next understand how the design included individual symbolic elements.

The second phase in this iconographical study is the iconographical description. Van Straten (1994:6) stated that the purpose of the second phase is to identify the subject of the artwork. As with artworks, jewellery pieces could be made up of multiple elements, which can introduce different themes and subjects to the jewellery piece and give it multiple layers of symbolism (Van Straten, 1994:7). In order to apply Van Straten’s theory to jewellery pieces, this study will interpret the identification of subjects in an artwork as the individual symbolic elements one can identify at first glance to be present within each jewellery piece under discussion.

In this chapter, the iconographical description will entail the identification of these individual symbolic elements, as well as understanding what the general use of these elements were in the 12th Dynasty. Firstly, the symbolic significance will be determined of the colours identified at first glance to be present in the jewellery pieces under discussion

from the previous chapter. The colours that will therefore be discussed is gold, red, green, blue, white, black, and brown.

Next, the symbols identified at first glance to be present in the jewellery pieces will be discussed. These symbols will be grouped into five categories, namely botanical motifs, animal motifs, cosmic elements, hieroglyphic symbols, and decorative elements. Within the botanical motifs, further discussions will be held on specific types of botanical elements, namely the lotus, papyrus, and rosettes. The specific types of animal motifs that will be discussed, is namely the falcon, vulture, mollusc shells, the fly, butterfly, and cattle. Stars and deities with specific reference to the goddess Bat, will be discussed in the cosmic elements category. The specific hieroglyphic symbols identified at first glance to be present in the jewellery pieces under discussion, will be the *ankh*, *djed*-pillar, *was*-sceptre, and *shen*-ring. Lastly certain elements will be discussed under the category decorative elements, namely the Pate cross, knot, drop-beads, caged-beads, and chevrons.

Lastly, this chapter will also list the colours and symbols that were identified at first glance to be present in each jewellery piece selected for this study within an analytical table (see section 4 of this chapter). These tables will be used to indicate the materials identified at first glance to be present in each jewellery piece in relation to the pre-iconographical descriptions (see section 2 of Chapter 2), in order to also identify the iconographical description's use of colour as symbolic elements. The symbolic elements will also be listed in these tables that were identified at first glance to be present in each jewellery piece under discussion.

This iconographical description will therefore be used to better understand how the above-mentioned elements were commonly perceived as symbolic elements in the 12th Dynasty of ancient Egypt. In the next chapter, these individual elements will be grouped together and be discussed in relation to one another, as part of the iconographical interpretation. This will help in the next phase to identify the overall theme or subject of the jewellery piece, with the use of these grouped symbolic themes present in the symbolic elements identified at first glance to be present in the jewellery pieces under discussion. This chapter therefore starts with a discussion on the colours identified in the previous chapter, as this systematic method of first identifying the materials and then connecting the colours to them, leads to a flow of information which is important when trying to understand how a viewer might perceive a work of art within the first observation.

2. COLOURS

Colours play an important part in society due to certain connotations associated with them. A study from the Technical University of Liberec, Czech Republic, analysed the emotional reactions that certain colours could evoke (Vik et al., 2014:1). In their paper, Vik et al. (2014:1) noticed that people were inclined towards the connotation of the colour red with the word “warm”, as opposed to the colour blue with the word “cool”. This phenomena of the words and colour associations is attributed to the influence of culture (Vik et al., 2014:1). One can interpret the use of certain colours in ancient Egypt with a similar thought process, be it in painting, jewellery, or amulets. However, the use of colour in ancient Egypt is linked more with its symbolic value, rather than with specific words, in contrast to the paper of Vik et al. (2014:1).⁴¹

The use of colour as being symbolically significant is related to the natural world, as for example the use of the term *kmt* (“the Black Land”) refers to the fertile soil left behind by the inundation of the Nile River, which resulted in the association of the colour black with fertility and regeneration (AGS⁴² s.v. *Color Symbolism*). However, some colours cannot be attributed to the natural world, and therefore seen as “nonrealistic uses of colours”, such as the colour of the gods’ skin (AGS s.v. *Color Symbolism*). This section will discuss the following uses of colours based on their symbolic value, namely gold, red, green, blue, white, black, and brown.

2.1. Gold

Gold was considered to be a “divine and imperishable substance” (Wilkinson, 1994:83). This had a close association with its use as a symbol of eternal life. It is also interesting to note how the colour gold (or bright yellow) was used to represent the sun, linking it to its divine solar properties (Harris, 2018:64). This association with the sun connects it not only to the

⁴¹ Colour symbolism is also restricted to the culture’s vocabulary for colour terminology (Baines, 2007:245). A culture with a restricted vocabulary would not have as widespread symbolic connotations to different colours and rather group colours into fewer classifications (Baines, 2007:245). Therefore, no distinction was made between light and dark green, or even as far as red and orange.

⁴² AGS will from here on refer to “The Ancient Gods Speak: A Guide to Egyptian Religion” which was edited by D. B. Redford (2002).



*Figure 20: Two corn mummies representing the god Osiris with gold masks and foot covers, whose bodies were reconstructed for display purposes.
[Source: Metmuseum.org]*

god Ra, but also to the goddess Hathor (Wilkinson, 1994:83). She was perceived as a personification of gold, as she was very often associated with the afterlife and was meant to welcome the dead into the afterlife (Wilkinson, 1994:95). The ancient Egyptians believed that the gods' flesh and bones were made of pure gold, therefore the use of this metal was symbolic (AGS s.v. *Color Symbolism*; Singer, 2010:11). As such the sun and the colour gold were "imperishable, eternal and indestructible" (Singer, 2010:11). One can see this element being used symbolically in statues of gods or mummy masks of the pharaohs which were made of gold, as can be seen Figure 20 (above, for an example of statues with gold mummy masks) (Singer, 2010:11). Therefore, the symbolic significance of the colour gold was its connection to the eternal life.

All the jewellery pieces were determined at first glance to contain gold used as a colour.

2.2. Red

Red is a colour that has multiple levels of meaning. It starts with its connotation to fire and blood (Singer, 2010:6). Fire is seen as a destructive force by the ancient Egyptians, but blood⁴³ on the other hand is a symbol of life and regeneration (Wilkinson, 1994:106). This dual symbolic nature of red is also combined with its connotation to the “red, hostile, desert regions of Egypt” (Wilkinson, 1994:106). Seth⁴⁴ is often depicted with red hair and eyes which signify his connotation with chaos and the inhospitable desert (Singer, 2010:6). Seth’s red colouration would also, depending on the context, relate to evil or victory (Singer, 2010:7). Red is also used in paintings to represent the normal skin tone of Egyptian males (see Figure 21 below)⁴⁵ and Wilkinson (1994:107) is quick to add that it does not have any negative connotation in this context, but rather symbolises the “fierce nature of the radiant sun”.

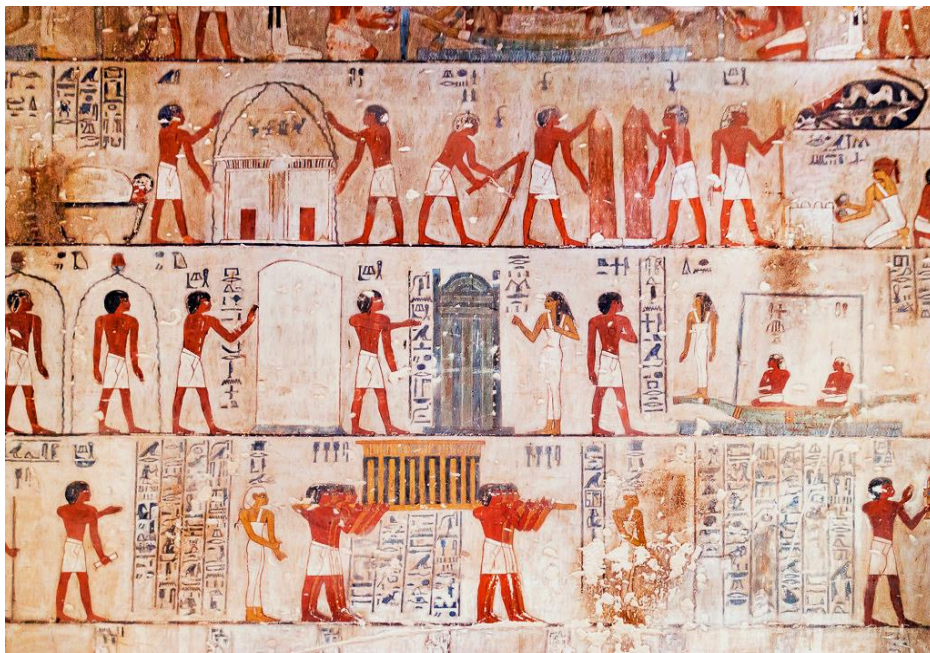


Figure 21: Painting in the Tomb of Rekhmire depicting the use of colour to represent skin tone. [Source: Flickr.com]

⁴³ In the Book of the Dead one also finds a spell for a red jasper knot-amulet which is enchanted by associating the red to the blood of Isis. This was done to gain protection from anyone who wished to do harm against the holder through the protection of Isis (*Spell 156* in Allen, 1974:155).

⁴⁴ Seth is a god part of the Heliopolitan Ennead (nine gods) identified as the “Evil One” (David, 2003[1998]:152, 204). He is also regarded as the god of chaos, which is associated with anger and violence (Wilkinson, 2003:197)

⁴⁵ In this figure 21 (above) one can also see the difference between the skin colour of men and women. Men were depicted with a reddish skin tone, while women have a lighter yellow/white skin tone (Wilkinson, 1994:122).

The colour red is also often used in amulets to represent the “Eye of Ra”, which was the fiery and protective nature of the sun god Ra⁴⁶ (Wilkinson, 1994:107). Red is thus used symbolically for its connotation with fire, destruction, chaos, as well as its connection to blood, life, and regeneration.

The jewellery pieces determined at first glance to contain red used as a colour were, namely Khnumet’s circlet (A1.1), diadem (A1.2), falcon collar 1 (A2.1), falcon collar 2 (A2.2), and *ankh* necklace (A3.2); Sit-Hathor’s lotus inlaid clasp (B5.1), motto clasp (B5.2), and papyrus gold knot clasp (B5.3); and Mereret’s gold-framed bead necklace (C3.1), inlaid shell pendant (C4.1), and falcon pendant (C4.4).

2.3. Green

The colour green is most often seen in Egyptian culture representing life, resurrection, and plants (Wilkinson, 1994:108). The god of the underworld, Osiris, was often depicted with green skin, referring back to the power of resurrection (Wilkinson, 1994:108). A green stone, called malachite (see Figure 22, pg. 73, for an illustration of how this material would look when polished), is often used to describe the “Land of the blessed dead”⁴⁷, which gives the impression of joy and regeneration in the underworld (Utterance 473)⁴⁸.

This connotation of green to new life is very prominent in the view of how the Egyptians had to orientate themselves around the annual flooding of the Nile River, which brought fertile black alluvium for their crops to grow (David, 2003[1998]:112). This symbolism in “green” plants that grow, after the barren months indicated how the colour green represents life and resurrection after death.

It is important to also note how the turquoise stone should be seen as a colour variant of green, as it was sometimes used interchangeably for green materials, even though

⁴⁶ Ra is the sun god of the ancient Egyptians, who is sometimes merged with other gods, for example, to become Ra-Horakhty or Amun-Ra (Budge, 1904:322). He is said to travel through the sky during the day and through the Underworld at night (Wilkinson, 2003:206). According to the Heliopolis creation myth, Ra was the sole god that rose from the primeval waters at the beginning of time and created every aspect of the world (Wilkinson, 2003:207).

⁴⁷ During the Middle Kingdom it was believed that all worthy people could gain entrance into the kingdom of Osiris after death, as opposed to only royalty or elite people during the Old Kingdom. The kingdom of Osiris is sometimes referred to as the “Land of the blessed dead” or the “Field of Reeds”. It is said to contain lush vegetation and had an abundance of crops so that no one ever had failed harvests or had to endure pain.

⁴⁸ Translation by Samuel A. B. Mercer (1952:169). Utterance 473 describes the path the deceased will take on the way to the afterlife and what awaits in the underworld to those who are deemed worthy.

turquoise sometimes has a blueish undertone (Wilkinson, 1994:112). In Egyptian, the word for turquoise is a synonym for “joy” and “delight” (Harris, 2018:73). Therefore, the symbolic significance of the colour green was its relation to life and resurrection.



Figure 22: Polished malachite stone. [Source: Geologyscience.com]

The jewellery pieces determined at first glance to contain green used as a colour were, namely Khnumet’s falcon collar 1 (A2.1), and Mereret’s falcon pendant (C4.4).

2.4. Blue

The colour blue was most often used symbolically for the sky and water (Singer, 2010:12). Later it was associated with the heavens and the primeval flood before creation, thus also associating it with the symbol of life and rebirth (Singer, 2010:12). Blue and green was sometimes used interchangeably.⁴⁹ This can be seen from the use of blue as the skin of the god Ptah⁵⁰ (see Figure 23, pg. 74, for an example of the use of blue skin), as well as Osiris

⁴⁹ Blue faience had been found to age to a green colour due to the manufacturing process (Pagès-Camagna, et al., 2006:144; Helmi & Abdel-Rehim, 2016:22). Due to the fact that the amount of faience in the jewellery pieces relevant to this study is so little, this is not something to worry about. The symbolic significance of blue and green both had to do with creation and life (both grouped under the term ‘afterlife’, see section 1 of Chapter 4), that even if it were a possible factor, the results would not have changed.

⁵⁰ Ptah is the chief deity of the capital of Memphis and the god of craftsmanship (Wilkinson, 2003:124). He is regarded as the sculptor of the earth in the Memphite cosmogony (or creation myth) (Wilkinson, 2003:124).

(Wilkinson, 1994:120). The god Thoth⁵¹ is often depicted as a blue sacred baboon, due to the fact that the other creature associated with him is the usually blue-coloured ibis bird (Wilkinson, 1994:107).



Figure 23: Pectoral from Tomb of Tutankhamun. The two gods on the sides are both represented with blue skin (Sekhmet, left, and Ptah, right) with Tutankhamun in the middle. [Source: Stripes.com]

The most prominently used blue stone in Egypt during the 12th Dynasty was lapis lazuli. Lapis, being a dark blue semi-precious stone, was associated with the symbolic representation of the heavens (Wilkinson, 1994:88). This is due to the fact that most lapis lazuli contain veins or spots of white calcite or iron pyrites, which could represent the stars in the blue sky (Lucas, 1926:166). Light blue was considered to represent life, combined with the water of the Nile that represented fertility (Wilkinson, 1994:107). Therefore, the symbolic significance of the colour blue was linked to the sky, heavens, and creation.

The jewellery pieces determined at first glance to contain blue used as a colour were, namely Khnumet's circlet (A1.1), diadem (A1.2), falcon collar 1 (A2.1), falcon collar 2 (A2.2), *ankh* necklace (A3.2), Medallion of Dahshur (A4.1), and drop-bead pendants (A4.3); Sit-Hathor's lotus inlaid clasp (B5.1), and motto clasp (B5.2); and Mereret's gold-framed bead necklace (C3.1), inlaid shell pendant (C4.1), falcon pendant (C4.4), and blue cylinder pendant (C4.5).

⁵¹ Thoth is the god of knowledge, writing, and is sacred to scribes and scholars (Wilkinson, 2003:125). He is also considered to have invented the art of writing (Wilkinson, 2003:126).

2.5. White

White was the colour used to represent purity, cleanliness, and the sacred (Dodd, et al., 2009:104; Reiblein, 2011:34). It was the colour used to depict the linen clothing worn by the Egyptians (see Figure 24 below, for an example of linen cloth being worn during a ritual) (Wilkinson, 1994:109).



Figure 24: A page from the Book of the Dead of Hunefer illustrating priests and mourners in white linen cloth. [Source: Khanacademy.org]

Priests also wore white sandals for ritual purity, as mentioned in “The Teaching for King Merikare” (line 64)⁵². Sacred animals are also usually depicted as white. An example is the Medallion of Dahshur (A4.1) that has a figure of a white cow/bull on it (Newberry, 1938:126; Wilkinson, 1994:109; Reiblein, 2011:34). Therefore, the symbolic significance of the colour white was its connection to the sacred and pure.

The jewellery piece determined at first glance to contain white used as a colour was namely Khnumet’s Medallion of Dahshur (A4.1).

2.6. Black

Black was the colour of night and death (Wilkinson, 1994:109). However, in ancient Egyptian culture death was also a symbol of regeneration and the afterlife (Singer, 2010:10).

⁵² Translation by Vincent A. Tobin in Simpson (2003:158).

Osiris, the god of the underworld, was also depicted with black skin (see 2.3 for green skin)⁵³ (see Figure 25 below, for an example of black skin used symbolically) (Wilkinson, 1994:109).



Figure 25: Osiris depicted with black skin in the Book of the Dead of the scribe, Nebqed (Photo credit: Fabio Colombini).
 [Source: Fabiocolombini.com.br]

One is also presented with the fact that the Nile Valley of Egypt was often referred to as the Black Land, due to the black alluvium being deposited by the Nile during its annual flooding (AGS s.v. *Color Symbolism*; David, 2003[1998]:112). This black mud was the fertile backbone for all agriculture in ancient Egypt (David, 2003[1998]:112). The Nile Valley relied heavily on this fertile soil to sustain agriculture, as the arid desert did not leave much land available for agricultural activities. This connection of the fertile black mud is the reason why black was symbolically associated with fertility and regeneration (AGS s.v. *Color Symbolism*). Therefore, the symbolic significance of the colour black was the connection to the afterlife, as well as fertility.

The jewellery piece determined at first glance to contain black used as a colour was namely Khnumet's Medallion of Dahshur (A4.1).

⁵³ Green and black were often used interchangeably, because as Wilkinson (1994:109) mentioned, both were used to represent the skin tone of Osiris. Heart scarabs were also made of either green or black stone used for resurrection in the afterlife.

2.7. Brown

Brown was considered to be a relatively new colour used during the Middle Kingdom, as previously it was only regarded as a different shade of red (Baines, 1985:287). Smith (1949:256) mentioned how brown was often achieved by painting black over red, but there is still some uncertainty with regards to the use of brown. The relatively few examples of brown in symbolism made it quite hard to interpret it as a colour on its own (Baines, 1985:287).

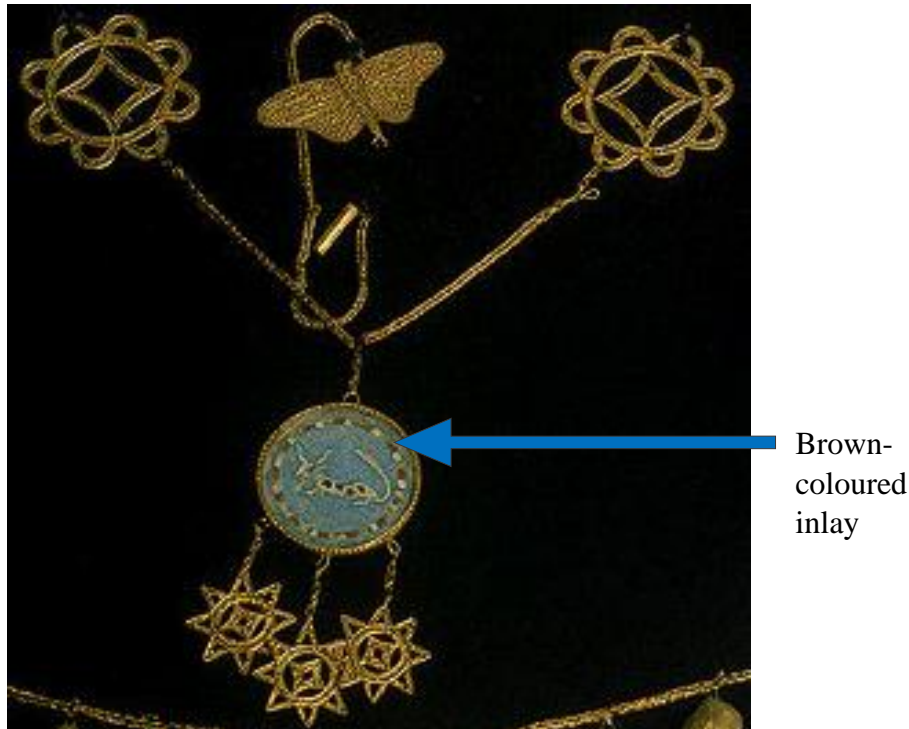


Figure 26: Medallion of Dahshur (A4.1) from the jewellery collection of Princess Khnumet. [Source: GEM]

Brown only occurs in a very small amount on the Medallion of Dahshur (A4.1) from the jewellery relevant to this study (see Figure 26 above, illustrating the location of the colour brown in this jewellery piece).

In the discussion of the symbolism of colour and how it was used in general by the ancient Egyptian culture, one can understand how there lies multiple elements that could be of importance in undertaking an iconographical study on jewellery pieces. The individual colours that were discussed were, namely gold, red, green, blue, white, black, and brown.


3. TYPES OF SYMBOLS

In this section, the different types of symbols identified in the jewellery relevant to this study are divided into five categories, namely botanical motifs, animal motifs, cosmic elements, hieroglyphic symbols, and decorative elements. This section will discuss how the individual symbols are commonly interpreted. This is to give an understanding into what symbolic elements were identified at first glance to be present in the jewellery pieces under discussion, as well as how they were possibly perceived by ancient Egyptian culture. These individual symbolic elements present on a jewellery piece will play a role in determining how the multiple elements could be used to complement one another within an iconographical study (see Chapter 4, section 1).

3.1. Botanical motifs

Commonly found botanical elements in iconography are floral bouquets, flower buds, flower petals, as well as five-pointed florets. Although certain species of plants hold their own symbolism in ancient Egyptian culture (see 3.1 (a) and 3.1 (b), below), one can find a general theme encompassing most botanical motifs. The symbolic use of flora is mainly attributed to creation, rebirth, and resurrection, therefore life (Harris, 2016:269). However, one can also find plant life being associated with sex and fertility, due to its connection to the goddess Hathor (Wilkinson, 1994:182). One should also note how the word for jewellery can also appear to refer to “imitations of plants and flowers” (*g3st*) (Černý, 1965:11).

Floral bouquets were used to represent the hieroglyphic symbol for life (*ankh* – see section 3.4 (a) of this chapter) (Wilkinson, 1994:161). The bouquets were offered to the gods in ceremonies to symbolically represent the “offering of life” (Wilkinson, 1994:10, 161). The flower bud is used as a hieroglyphic determinative in the word *nḥbt* (lotus/lily bud)⁵⁴ (Allen, 2010:436). Flower buds were usually incorporated into floral bouquets as offerings to the deceased, in order to symbolise the act of rebirth into the afterlife. However, some have argued their use to be purely decorative (Harris, 2018:105). The five-pointed florets are reminiscent of the star hieroglyphic symbol (see section 3.3 (a) of this chapter), but still hold the symbolic connotations to those of flowers. The following sections will be in-depth discussions on individual types of botanical motifs, namely the lotus, papyrus, and rosettes.

⁵⁴ See M10  in Gardiner’s sign list. See section 3.4 of this chapter for an explanation on Gardiner’s sign list.

The jewellery pieces determined at first glance to contain botanical motifs in general were, namely Khnumet's circlet (A1.1), diadem (A1.2), and Medallion of Dahshur (A4.1); Sit-Hathor's lotus inlaid clasp (B5.1), and papyrus gold knot clasp (B5.3); and Mereret's inlaid shell pendant (C4.1).

(a) Lotus

In Egypt there are two types of lotus species: *Nymphaea caerulea* (blue Egyptian lotus; see Figure 27a below left), and *N. lotus* (white Egyptian lotus; see Figure 27b below right); both in the Nymphaeaceae family (Kandeler & Ullrich, 2009:2461).



Figure 27a: *Nymphaea caerulea*.
[Source: Pza.sanbi.org]



Figure 27b: *Nymphaea lotus*.
[Source: Cabi.org]

Due to the fact that the lotus flower emerges from the water surface at dawn and recedes at noon, the ancient Egyptians most commonly associated the lotus with the rising sun (Owusu, 1998:240; Kandeler & Ullrich, 2009:2461). In the Egyptian Book of the Dead, Spell 81⁵⁵ describes the transformation into a lotus in order to become one with Ra and rise with the morning sun. One can also find it being used as a symbol of rebirth (Thames and Hudson, 1995:64; Owusu, 1998:240). The lotus flower was also used as a symbol of Upper Egypt and when combined with a papyrus stem (symbol of Lower Egypt) was a symbol indicating the unification of the Two Lands in ancient Egypt (Harris, 2018:104).

⁵⁵ Translation by T. G. Allen (1974:70)

The jewellery pieces determined at first glance to contain lotus elements were namely Sit-Hathor's lotus inlaid clasp (B5.1); and Mereret's inlaid shell pendant (C4.1).

(b) Papyrus

Although papyrus reeds (*Cyperus papyrus*) were used in a practical way to form a flat surface to write on, there were significant iconographical connotations associated with the use of it as a symbol in ancient Egypt (*IDS*⁵⁶ s.v. *papyrus*). The main parts of the Cyperaceae (sedge family, including papyrus) are the main stalk, that carries the umbel⁵⁷ (an inflorescence⁵⁸ with an arrangement of flower spikelets⁵⁹ containing the small flowers of Cyperaceae, and the involucre bracts⁶⁰ surround the inflorescences) (see Figure 28 below, illustrating where the different parts are located).

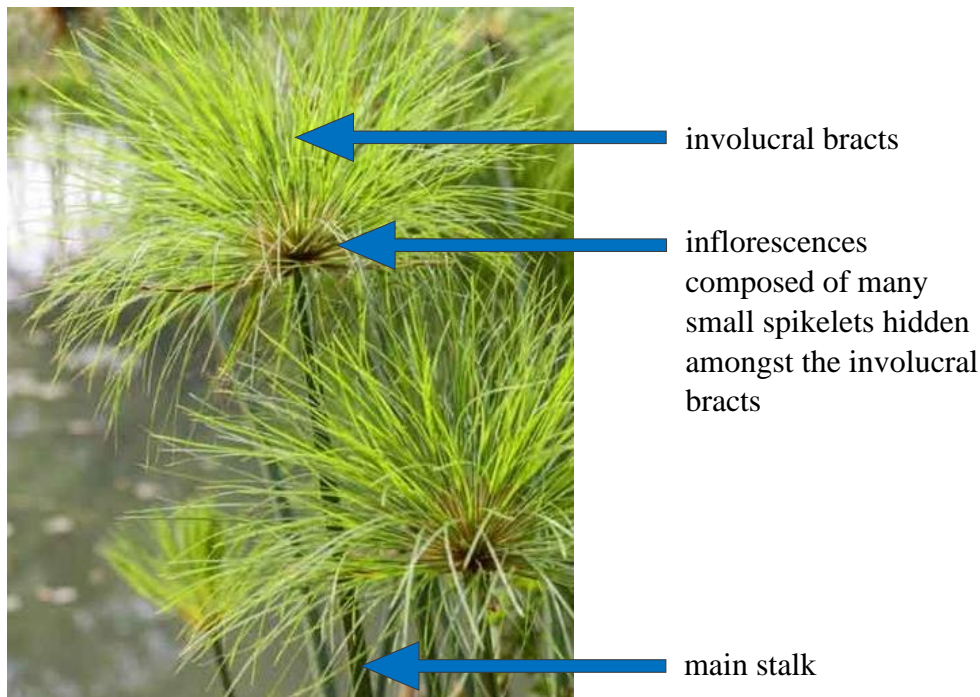


Figure 28: *Cyperus papyrus* umbels.
 [Source: Gardenia.net]

⁵⁶ The abbreviation *IDS* will from here on refer to the Illustrated Dictionary of Symbols in Eastern and Western Art, by James Hall (1996).

⁵⁷ The umbel of a plant is when the flower stalk clusters (inflorescences) all grow from the same point and are of equal length (Retief & Meyer, 2017:1185).

⁵⁸ The inflorescence of Cyperaceae is an arrangement of the flower spikelets (Retief & Meyer, 2017:1152) (see Figure 28 above).

⁵⁹ Pooley (2005:502) describes the spikelets of Cyperaceae as the small flowers that are clustered on upright or spreading stalks.

⁶⁰ The involucre bracts are the leaf-like structures that surround the base of a flower or umbel (Retief & Meyer, 2017:1154). In Cyperaceae they are leafy tufts that protrude above the inflorescences (see Figure 28 above).

The papyrus umbels were mainly used as a whole in symbolism, where the involucre leaves and inflorescences can usually be distinguished by material or colour (as can be seen in jewellery piece A1.1, see section 4.1 of this chapter).

Papyrus was used a symbol of rebirth, life, and vitality, but also had other symbolic meanings (Owusu, 1998:244). Harris (2016:270) briefly mentions how the papyrus elements could be a representation of “life, joy, protection ... and youth”. Another important aspect of the symbolic use of papyrus is the fact that it represents Lower Egypt, in contrast to the lotus of Upper Egypt (see 3.1 (a) above) (Owusu, 1998:245; Harris, 2018:104, 109). This relates back to the unification of Upper and Lower Egypt in the 12th dynasty.

The jewellery pieces determined at first glance to contain papyrus elements were namely Khnumet’s circlet (A1.1), and diadem (A1.2); and Sit-Hathor’s papyrus gold knot clasp (B5.3).

(c) Rosettes

A rosette is a decorative element, which should not always be associated with the floral element, rose. It is defined as a shape which is a radial pattern of petal-like elements, which is often interpreted as loops or ribbons (*OED* s.v. *rosette*). It is often found to represent the idea of binding, but in ancient Egyptian and Near Eastern cultures it also represents solar deities as an apotropaic symbol (*IDS* s.v. *rose, rosette*; *DOS*⁶¹ s.v. *loops*).

The jewellery piece determined at first glance to contain rosettes was namely Khnumet’s Medallion of Dahshur (A4.1).

This section was used to understand how botanical motifs might be used symbolically within jewellery pieces. The discussions on the symbolism of the lotus, papyrus, and rosettes illustrated that not all botanical motifs can be interpreted with the same symbolic significance. This is important to also take note of in the following section on animals’ symbolic significance.

⁶¹ DOS will from here on refer to “Dictionary of Symbols” which was edited by J. E. Cirlot (1971).

3.2. Animals

The use of animals in the symbolism of jewellery is usually attributed to the observations made of the natural world and how the animals would interact with it (Liu, 2001:167). The animals include birds, molluscs, insects, as well as mammals. The animals used as symbols in the jewellery relevant to this study are the falcon, vulture, mollusc shells, the fly, butterfly, and cattle. These were the symbolic elements that could be identified at first glance to be present in the jewellery pieces under discussion.

(a) Falcons

The falcon is often seen as a symbolic depiction of the Egyptian king but can also be found as representing the god Horus⁶² (see Figure 29 below, illustrating a statue of Horus) (Wilkinson, 1994:18, 24).



Figure 29: Horus statue as a zoomorphic falcon at the Temple of Horus in Edfu, Egypt. [Photo credit: Nicole Meyer with my sister, Anika, in the photo]

⁶² The sky god Horus was represented either as anthropomorphic or as a zoomorphic falcon (Wilkinson, 2003:202). Horus is the god of kingship, but is also identified with the sun. Horus and Ra are sometimes combined to become Ra-Horakhty (Wilkinson, 2003:200, 201).

The sun god, Ra, could also be depicted as a falcon, but with a different headdress to Horus.⁶³ The falcon therefore plays an important role in symbolising kingship and royal authority (AGS s.v. *Horus*). The falcon symbol was also representative of rebirth and resurrection (Goff, 1979:228). This can be seen in the use of a falcon body with the head of a human as the symbol of the *ba*, which represents the soul of the deceased that had the ability to leave the deceased's body and travel outside the tomb at night (David, 2003[1998]:188).

The jewellery pieces determined at first glance to contain falcon elements were namely Khnumet's falcon collar 1 (A2.1), and falcon collar 2 (A2.2); and Mereret's falcon pendant (C4.4).

(b) Vultures

A seated vulture was the hieroglyphic symbol for "mother"⁶⁴. This was due to the fact that in order to protect her young, a mother figure would become violent (Goff, 1979:246). Leading to the use of this hieroglyphic symbol for the word "terror"⁶⁵ which also included a vulture hieroglyphic determinative. Jung (1976:344) linked the Osiride myth, where Isis collected and reconstructed the pieces of Osiris' body with that of a vulture that would devour a corpse into pieces, which in contrast linked to the "putting together" of a child in a mother's womb. This dual nature found in vulture symbolism emphasised the role of the mother in ancient Egyptian society and therefore the use of this symbol was prominent in the amuletic jewellery of women (Ritner, 2012:143).

Nekhbet (see Figure 30, pg. 84, illustrating the vulture form of her on the right side) is the vulture goddess, which is one of the two tutelary deities of Egypt, where she represents Upper Egypt (Wilkinson, 2003:213). The cobra goddess, Wadjet, is the other (see Figure 30, pg. 84, illustrating the cobra form of her on the left side), representing Lower Egypt (Wilkinson, 2003:213). Together they are known as the Two Ladies of Egypt, often seen as the mythical mothers of the king (Owusu, 1998:94). One is presented in reliefs either with a vulture or a hybrid of the two deities hovering over the king in a protective manner (Teeter,

⁶³ Horus is depicted with the Double crown to signify kingship, while Ra wears the solar disc (Wilkinson, 2003:202, 208).

⁶⁴ G14: *mwt* (Gardiner, 2001:469)

⁶⁵ G14: *nrw* (Gardiner, 2001:469)

2012:139). Vulture pendants were used as protective amulets in jewellery (Wilkinson, 2003:215).



Figure 30: Relief plaque illustrating a cobra (left) and a vulture (right). They represent the Two Ladies of Egypt. [Source: Metmuseum.org]

The jewellery piece determined at first glance to contain vulture elements was only Khnumet's diadem (A1.2).

(c) Shells

The sporadic increase in the use of shells or imitations of shells in ancient Egyptian jewellery in the Middle Kingdom is mainly attributed to cultural influence from Nubia (Aldred, 1971:147). Shells (especially cowry shells) were linked to the goddess Hathor and her fertility and female sexuality (Manzo, 2011:74).⁶⁶ In ancient Egyptian, the word for an oyster shell (*wḏ3*) literally means “sound, whole, healthy” and wearing of such an amulet would grant these attributes (Andrews, 1994:43). Imitation shells found in the jewellery relevant to this study includes cockle shells (or sometimes called bivalve shells) and oyster shells (also called pearl shells) (see Figure 31, pg. 85, for an example of jewellery pieces in the study containing shell symbols) (Aldred, 1971:187, 196).

⁶⁶ Although the cowrie shell is not used in the jewellery relevant to this study, it is interesting to note how the shape of this shell was linked to that of the female sexual organ, the vulva (Golani, 2014:75).



Figure 31: Mereret's jewellery pieces: A cowrie shell girdle (outer), an inlaid trimmed pearl shell pendant (inner, top) [C4.1], a part of a collar with bivalve shells (inner, middle) [C4.2], and a gold bivalve shell pendant (inner, bottom) [C4.3].
 (Aldred, 1971:Plate 45)


Both types of shells fall under the Bivalvia class, and therefore both will be treated as being an amulet of health (Andrews, 1994:43; *EB*⁶⁷ s.v. *bivalve*).

The jewellery pieces determined at first glance to contain shell elements were namely Khnumet's star pendant necklace w/ cockle-shells (A3.1); and Mereret's inlaid shell pendant (C4.1), shell pendant string (C4.2), and gold shell pendant (C4.3).

(d) Flies

The determinative *ff* (fly)⁶⁸ was a symbol used in jewellery granted as a military award to symbolise courage due to the persistent behaviour of the insect (*IDS* s.v. *fly*). However, Andrews (1994:63) also mentioned how the use of the fly could be seen as an apotropaic

⁶⁷ EB will from here on refer to Encyclopaedia Britannica which was an online resource edited by "The Editors of Encyclopaedia Britannica" (2021) available at: <https://www.britannica.com/>

⁶⁸ L3  in Gardiner's sign list (Allen, 2010:436). See also footnote 77 on the hieroglyphic symbol's image.

amulet in order to ward of the insect, and even goes as far as linking the use of a fly amulet to a symbol of fecundity. Although it is often found to be odd to wear such an insect, one needs to remember how the Egyptians would base their religious beliefs on the observations of the natural world and insects were no different (Liu, 2001:167). The fly symbol was awarded to both men and women for their valour in military service (Liu, 2001:170).



*Figure 32: Fly necklace of Queen Ahhotep I, dating to the 17th Dynasty, excavated at Dra' Abu el-Naga', West Thebes.
[Source: Egypt-museum.com]*

The fly pendant has a very distinct wing shape resembling a modern drawing of a heart symbol. As seen in Figure 32 (above), the wing shape is usually cut from a flat gold sheet plate and will sometimes have a protruding moulded area illustrating the head with bulging eyes (although not always present) (Andrews, 1994:62).

The jewellery piece determined at first glance to contain fly elements was only Khnumet's "fly" pendant necklace (A3.3).

(e) Butterflies

The use of butterfly symbolism in ancient Egypt is widely debated and the meaning is mainly unknown.⁶⁹ Haynes (2013:31) studied the possible symbolic meaning of the butterfly in ancient Egyptian art. She concluded her analysis by proposing that the butterfly's symbolism "is associated with freedom, re-birth and safe passage to the after-life" (Haynes, 2013:116). One also needs to take note how the butterfly motif is found in cultures surrounding Egypt, and could have their cultural influence on this society.⁷⁰



Figure 33: Khnumet's butterfly pendant (A4.2). [Source: Aldred, 1971:Plate 29]

The jewellery piece determined at first glance to contain butterfly elements was only Khnumet's butterfly pendant (A4.2) (see Figure 33 above, for an illustration of this pendant).

(f) Cattle

The sex of the bovine was difficult to determine in the jewellery piece relevant to this study, as it was not clear whether it was meant to be a cow or a bull (see piece A4.1). This is due to the fact that it was lying down and usually the characteristic difference between the cow and bull is the udder or the scrotum area of the animal, respectively, (as seen in Figure 34, pg. 88, illustrating the visual differences), which was not visible in the jewellery pieces. Therefore, it will only be referred to as being cattle.

⁶⁹ See Liu (2001:170); Haynes (2013:27)

⁷⁰ See Aldred (1971:113, 187) and Haynes (2013:28) for further details. The influence of trade will be discussed in section 5.2 of Chapter 5.



Figure 34: The seven heavenly cows and sky bull (bottom, left) in a wall relief in the tomb of Queen Nefertari, in the Valley of the Queens. [Photo credit: Chris Marriot]
 [Source: Cmegyptology.com]

However, the symbolic theme usually encompassing the cow and the bull was their association with the sky and heavens (*DOS s.v. bull*; Owusu, 1998:276). The cow represents the mother-goddess, Hathor⁷¹, but also Nut⁷² (*IDS s.v. cow*). The cow was venerated and thus the heavenly cow connected heaven with the underworld and guaranteed eternal life (Owusu, 1998:276). The bull represented fertility and was the bearer of life force (Owusu, 1998:292). One also finds the Apis bull which is a sacred bull regarded as the earthly embodiment of Ptah and associated with Osiris after death (*IDS s.v. bull*; Owusu, 1998:292).

The jewellery piece determined at first glance to contain cattle elements was only Khnumet's Medallion of Dahshur (A4.1).

This section discussed all the types of animals that were identified at first glance to be present in the jewellery pieces under discussion, namely the falcon, vulture, mollusc shells, the fly, butterfly, and cattle. A general understanding was gained on how these animals were used symbolically within jewellery pieces.

⁷¹ Hathor is a cow goddess, regarded as the mother of Horus and the wife of Ra (Wilkinson, 2003:140). She is the goddess of female sexuality, motherhood, and women, but also closely related to joy, music, and happiness (Wilkinson, 2003:141, 143).

⁷² The Book of the Heavenly Cow tells of the goddess Nut being transformed into a cow who suckled the king and carried him to the heavens (Owusu, 1998:276; Wente, 2003a:289)

3.3. Cosmic elements

In this section symbols will be discussed that are often associated with the cosmos or the heavens. This will include stars and deities with specific reference to the goddess Bat, as these were the elements identified at first glance to be present in the jewellery pieces under discussion.

(a) Stars

The hieroglyphic star symbol is a five-pointed element used as a celestial motif (Harris, 2018:178).⁷³ Rice (1991:180) describes how the firmament contained the “realm of the Imperishable Stars” and this links to the use of the star symbol as representing immortality (Harris, 2018:177). One finds the star symbol in depictions of Nut, where it fills her body (as seen in Figure 35 below), or on tomb walls to represent the heavens (Wilkinson, 1994:27, 69, 78; Harris, 2018:178).

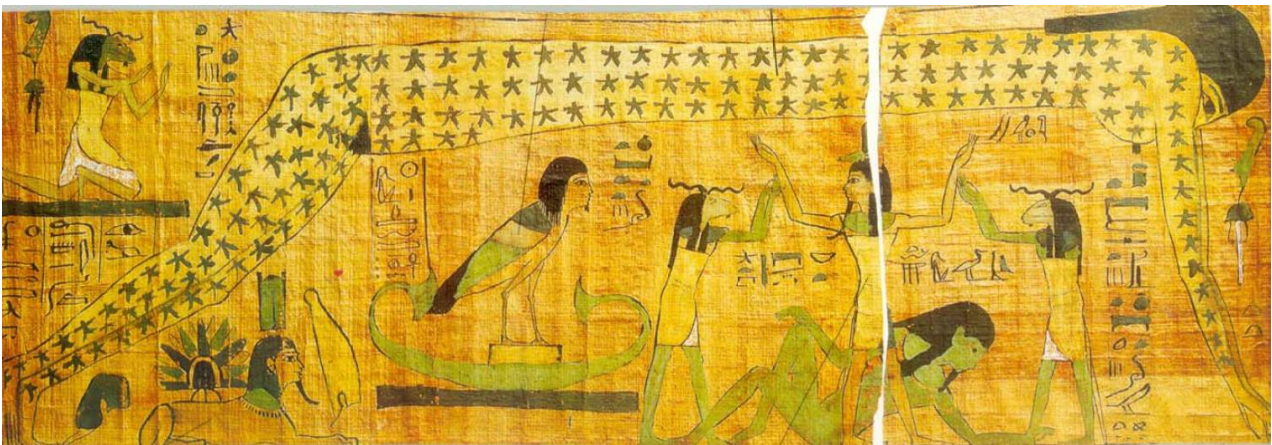


Figure 35: The funerary papyrus found in the tomb of Djedkhonsuefankh, depicting the Goddess Nut's arching body filled with stars. [Source: Commons.wikimedia.org]

The jewellery pieces determined at first glance to contain star elements were namely Khnumet's star pendant necklace w/ cockle-shells (A3.1). However, it should also be noted that Khnumet's circlet (A1.1) contained five-pointed flowerets that could likewise be seen as stars.

⁷³ N14 ★ was a symbol used in the phonogram of *sb3* (star), as well as in *dw3* (morning). When the star is circled (N15) it was used as the ideogram *dw3t* (*Duat*, Netherworld). (Gardiner, 2001:487; Allen, 2010:438) See also footnote 77 on the hieroglyphic symbol's image.

(b) Deities

Deities are often found to be represented as animals, as can be seen in section 3.2 of this chapter. Furthermore, in the jewellery relevant to this study, one also finds the goddess Bat, the cow goddess, as a human head with cow ears (see B5.1). This depiction of Bat always had horns which curved inwards (see Figure 36 below, for an illustration of horns curved inwards on Bat) (as opposed to Hathor's outwards curving horns) (Wilkinson, 2003:172). Her body can either be seen as a necklace counterpoise (as seen in B5.1) or a type of garment which resembles a sistrum⁷⁴ (Wilkinson, 2003:172).



Figure 36: Possibly the goddess Bat depicted on the top of the Narmer Palette.
[Source: Egyptianocculthistory.blogspot.com]

During the unification of Egypt in the Middle Kingdom, the iconography of Bat was completely absorbed into that of Hathor⁷⁵ and Bat became an aspect of her (Wilkinson, 2003:172).

The jewellery piece determined at first glance to contain a depiction of a deity, namely the goddess Bat, was Sit-Hathor's lotus inlaid clasp (B5.1).

This section discussed all the types of cosmic elements that were identified at first glance to be present in the jewellery pieces under discussion, namely stars, and deities. This gave one the first insight into abstract concepts in symbolism, that would not be as apparent as those linked to physical counterparts, namely botanical motifs, and animals. This idea of abstract concepts links to the next section on hieroglyphic symbols, as one would need to understand the language of ancient Egypt in order to interpret the symbolic significance.

⁷⁴ A percussion instrument that is shaken like a rattle (AGS s.v. *Hathor*)

⁷⁵ See section 3.2 (f) of this chapter.

3.4. Hieroglyphic symbols

The first use of hieroglyphs in Egypt as a written language can be traced back to around 3 200 BCE (Allen, 2010:2). The sporadic appearance of hieroglyphs as a complete system is still debated among scholars.⁷⁶ It is a system consisting of about 500 common signs during the Middle Kingdom (Allen, 2010:2).

Gardiner had established a standard list to help catalogue hieroglyphs in a more systematic way, of which Gardiner (2001:442–543) was mainly used and consisted of 763 signs.⁷⁷ They were organised into 26 categories, for example, G – birds, H – parts of birds (Gardiner, 2001:467, 473). The categorisation within this list will be referred to in this study when discussing the individual symbols, in order to give an easy reference guide of how the symbol was commonly used in the ancient Egyptian language. However, Allen (2010:425–450) also included a comprehensive guide into Gardiner’s sign list, which can also be used for a more detailed discussion on each hieroglyphic symbol. From here onwards no individual references to the hieroglyphic symbols in this list will be mentioned.

In this section, one will be introduced to specific hieroglyphic symbols that could be identified at first glance to be present in the jewellery pieces under discussion, namely the *ankh*, *djed*-pillar, *was*-sceptre, and *shen*-ring. Their use as symbols will be discussed.


In general, the jewellery pieces identified to contain hieroglyphic symbols and phrases were namely Khnumet’s falcon collar 1 (A2.1), falcon collar 2 (A2.2), and *ankh* necklace (A3.2); Sit-Hathor’s motto clasp (B5.2); and Mereret’s falcon pendant (C4.4).

(a) *Ankh*

The *ankh* (see Figure 37, pg. 92, for an example of a carved *ankh* artefact) has a long history of being used as a symbol for eternal life (*DOS* s.v. *cross*). It is used as an ideogram or phonogram⁷⁸ for *nh* in words like *nh* (live or sandal strap), *nh.ti* (living), and *nhw* (life) (see Figure 38, pg. 93, for a depiction of the *ankh* being used in a phrase as the left symbol) (Allen, 2010:457; Manley, 2012:155). The *ankh* is used in ancient Egyptian depictions as

⁷⁶ See Allen (2010:2) for a discussion on the different opinions.

⁷⁷ The images of these symbols used in footnotes were sourced from Anon. (2013), an online resource available at: <http://www.egyptianhieroglyphs.net/gardiners-sign-list/>

⁷⁸ S34  in Gardiner’s list.

being handed to the deceased in order to ensure rebirth and the prospect of eternal life (Klop, 2008:110).



*Figure 37: Wood carved ankh symbol, dating to the Middle Kingdom from excavations at Meir, Egypt.
[Source: Metmuseum.org]*

The jewellery pieces determined at first glance to contain *ankh* symbols were namely Khnumet's falcon collar 1 (A2.1), falcon collar 2 (A2.2), and *ankh* necklace (A3.2).

(b) Djed-pillar

The *djed*-pillar (see Figure 38, pg. 93, for a depiction of the *djed*-pillar being used in a phrase as the centre symbol) was a symbol of fertility, often connected to harvest rites in prehistoric times (*IDS* s.v. *pillar*). The symbol closely resembles a pole to which grain stalks were attached, but could also be a tree with branches cut and tied together (Owusu, 1998:193). Later one sees the *djed*-pillar closely related to the fertility rituals associated with the god Osiris in the New Kingdom (*IDS* s.v. *pillar*). The hieroglyphic symbol was a phonogram⁷⁹ *dd*, but also an ideogram for the “*djed* column/amulet” (Allen, 2010:442). The pillar was also known to represent stability, hence the use as a phonogram in *ddj* meaning “to be stable”

⁷⁹ R11  in Gardiner's list.

(Allen, 2010:473). This connection to stability was due to the fact that it was used as a cosmic pillar that held up the sky (Clark, 1991:236).

The jewellery pieces determined at first glance to contain *djed*-pillar symbols were namely Khnumet's falcon collar 1 (A2.1), falcon collar 2 (A2.2), and *ankh* necklace (A3.2).

(c) **Was-sceptre**

The *was*-sceptre originated as an animal-head, a fox or dog-like animal, which granted protection (*IDS* s.v. *sceptre*). The bottom of the stick was also forked (see Figure 38 below, for a depiction of the *was*-sceptre being used in a phrase as the right symbol).



Figure 38: A relief in Hatshepsut's tomb at Deir el-Bahr illustrating an ankh (left), djed-pillar (centre), and was-sceptre (right).
 (Photo credit: Kyera Giannini) [Source: Ancient.eu]

It was given to the dead in order to secure prosperity and a pleasant afterlife (*IDS* s.v. *sceptre*; Owusu, 1998:16). The hieroglyphic symbol was a phonogram for *w3s* (staff) and an ideogram for *j3tt* (milk, cream; and Iatet, the milk goddess), but can also be seen as a phonogram⁸⁰ in the word *w3s* meaning “dominion, authority and power” (Allen, 2010:444, 458).

⁸⁰ S40  in Gardiner's list.

The jewellery piece determined at first glance to contain *was*-sceptre symbols was only Khnumet's falcon collar 1 (A2.1).

In the three-part illustration of Figure 38 (pg. 93) you have life (*ankh*), stability (*djed*), and power (*was*). These three symbols were often depicted together in illustrations to represent the eternal nature of these concepts when granted as wishes to someone (*EHD1*⁸¹ s.v. *ānkh*; Anon., 2020).

(d) *Shen-ring*


A *shen*-ring (see Figure 39 below, for a *shen*-ring being used in a jewellery piece) is a round cartouche used as a determinative⁸² in *šnw* (circuit), but is also an ideogram for “circuit” (Allen, 2010:447). It is commonly found in words relating to circles or circuits (*EHD2* s.v. *shenu*, *shenn*, *shenu ent pet*, *shenu en ta*). One also had the hieroglyph that combined the *shen*-ring with two flails (whips), which was used as a phonogram⁸³ for *dmd* or *dmd* (unite, total, sum) (Allen, 2010:443, 473).



Figure 39: A gold Shen ring motto clasp from the Second Intermediate Period inlaid with carnelian. [Source: Metmuseum.org]

⁸¹ EHD will from here on refer to Budge's 1920 “An Egyptian Hieroglyphic Dictionary” which is divided into a Volume 1 (*EHD1*) and 2 (*EHD2*).

⁸² V9  in Gardiner's list.

⁸³ S23  in Gardiner's list.

The *shen*-ring is also found as an “eternity” hieroglyph, often associated with depictions of deities, such as Horus and Nekhbet (Wilkinson, 2003:214).

The jewellery piece determined at first glance to contain *shen*-ring symbols was only Mereret’s falcon pendant (C4.4).

This section introduced the specific hieroglyphic symbols that could be identified at first glance to be present in the jewellery pieces under discussion, namely the *ankh*, *djed*-pillar, *was*-sceptre, and *shen*-ring. These symbols were important to take note of when determining what symbolic significance a jewellery piece might have, as these symbols were commonly present in ancient Egypt. These hieroglyphic symbols are in contrast to the following section, which deals with symbols that fall under decorative elements that might not have a clear symbolic significance.

3.5. Decorative elements

Decorative elements on jewellery refer to specific shapes and abstract forms that do not at first glance resemble something of the known world. Some might have connotations to natural elements, but others have no clear symbolic use in jewellery of ancient Egypt, that is currently understood. The decorative elements that could be identified at first glance to be present in the jewellery pieces under discussion was namely the Pate cross, knot, drop-beads, caged-beads, and chevrons.

(a) Pate Cross

The use of the word pate cross is only used as a descriptive word to refer to the central elements on the floral circlet of Khnumet (A1.1). It is not meant to imply any religious connotations as the modern use of the pate cross in Christian religion. Pate crosses are formed by four arms of concave nature meeting at the middle. There are six different types of pate crosses, I will mainly be referring to the Pate Cross *Alisee* (see Figure 40, pg. 96, for an illustration of the different types found).

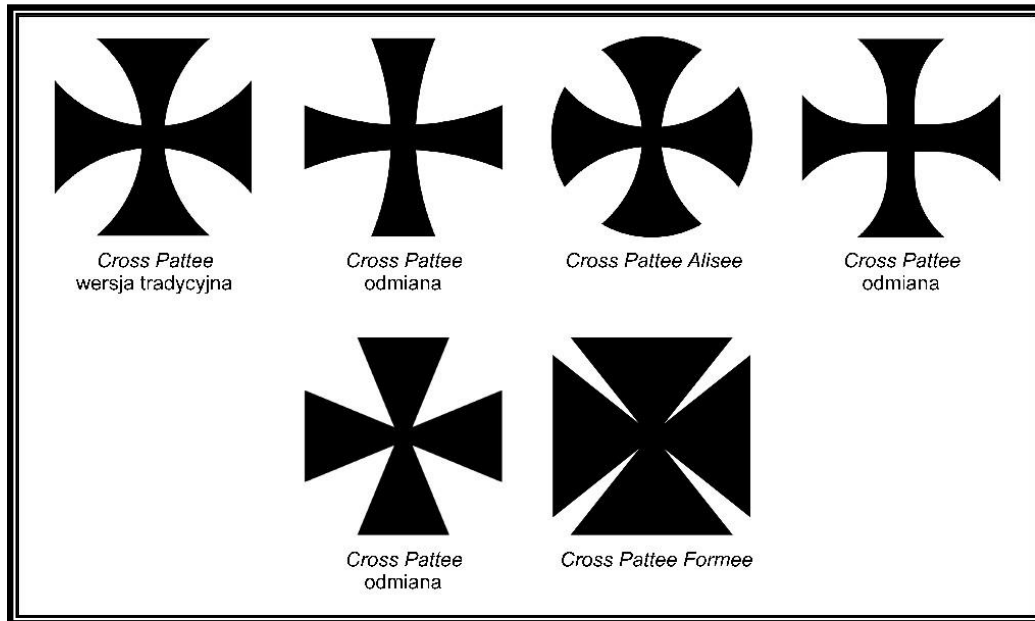


Figure 40: Types of pate crosses. [Source: Wyprawykrzyzowe.wordpress.com]

The Egyptian use of this symbol in A1.1 has multiple layers of symbolic meaning (a hermeneutic sign⁸⁴), the first being in the formation of four papyrus umbels. The number four occurs quite prominently in ancient Egyptian religion. Wilkinson (1994:133) states that the number four is one of the most used numbers in the Egyptian culture, more than any other number apart from two. In Egyptian religion, the number four represented completeness and totality (Wilkinson, 1994:133). The number links up to multiple different aspects of the Egyptian religion, such as the four cardinal points, the four funerary goddesses, the four pillars of the sky, the four legs of the cosmic cow, the four areas of the cosmos (earth, sky, heavens, underworld), and multiple rituals incorporate the number four in repeated actions or the number of offerings, or animals present, as can be seen from wall reliefs and paintings (Wilkinson, 1994:133–135).

Another layer of meaning in the pate cross in A1.1, lies within the carnelian disc in the centre with the gold dot. Harris (2018:178) mentions how this disc resembles the “all-important solar disc”. A disc with a dot in the middle was the ideogram⁸⁵ for the word *r*’ (sun), *hrw* or *sw* (day), as well as the name of the sun god Ra (Kozloff, 2015:296). Together with the papyrus umbels that represent the reeds, the sun was reborn every day, these pate

⁸⁴ Hermeneutics is the interpretation and the analysis of the different layers of meaning that exceeds “the literal or obvious signification of textual and visual motifs” (Angenot, 2015: 108).

⁸⁵ N5 ☉ in Gardiner’s list.

cross elements in A1.1 were symbolic of “the sunrise, the daily rebirth of the sun, and eternal resurrection” (Kozloff, 2015:296).

The jewellery piece determined at first glance to contain pate cross symbols was only Khnumet’s circlet (A1.1).

(b) Knot

The knot, used both as a hieroglyphic symbol and in amulets, was seen as a symbol of protection through binding or union (see Figure 41 below, for an example of a knot amulet) (Andrews, 1994:44).




Figure 41: Knot amulet carved from wood dating to the 18th Dynasty. [Source: Metmuseum.org]

The knot was used as an ideogram⁸⁶ in *ḫst* (knot or vertebra), as well as in the verb form *ḫs* (tie, bind) (Gardiner, 2001:506). It was used as a determinative sign in words, like oaths and journey, aiding in the symbolism of “keeping in touch with someone who is far away” (*DOS* s.v. *knot*).

The jewellery pieces determined at first glance to contain knot symbols were namely Sit-Hathor’s lotus inlaid clasp (B5.1), and papyrus gold knot clasp (B5.3).

(c) Drop-beads

Drop-beads were commonly found as a decorative element on collars in the jewellery pieces relevant to this study. This term refers to a casing material in the form of a water droplet. This casing could either be inlaid with semi-precious stones (see Figure 42, pg. 98, for an example

⁸⁶ S24  in Gardiner’s list.

of such a jewellery piece) or faience; however, some examples are just filled with plaster (see Figure 43 below, for an example of such a jewellery piece) to form a gold bead.



Figure 42: Princess Khnumet's falcon collar with inlaid drop-beads (A2.2).
[Source: Egypt-museum.com]



Figure 43: Broad collar of Princess Seneb-tisi, dating to the 12th Dynasty, excavated at the Tomb of Senwosret, with gold drop-beads.
[Source: Metmuseum.org]

The jewellery pieces determined at first glance to contain drop-bead symbols were, namely Khnumet's falcon collar 1 (A2.1), falcon collar 2 (A2.2), and drop-bead pendants (A4.3).

(d) Caged beads

The caged beads found in the jewellery relevant to this study is part of the necklace (C3.1) of Princess Mereret (see Figure 44 below, illustrating this jewellery piece). These pendants were formed by a round semi-precious stone (8 turquoise, 5 carnelian, and 5 lapis lazuli) that were wrapped in two gold strips connecting at the top to form a tube (Aldred, 1971:195). One of the gold strips was extended to form a loop by which the pendant could be hung (Aldred, 1971:196).



Figure 44: Princess Mereret's jewellery, including the caged bead necklace (outer, C3.1) and six motto clasps.
[Source: Brown.edu]

The jewellery piece determined at first glance to contain caged beads was only Mereret's gold-framed bead necklace (C3.1).

(e) Chevrons

Chevron symbols are lines in a repeating triangular shape, sometimes forming a zigzag, as can be seen in Figure 45 (pg. 100). Mundkur (1978:267) proposed the idea that one can interpret these triangular shapes as a reference to fertility. This was linked to the shape of the pubic area (Mundkur 1978:264). Another symbolic meaning in the use of chevrons, could be

interpreted as resembling the body of a serpent (Mundkur 1978:265). Serpents were seen in ancient Egypt as both destructive and protective deities, but one can also see them being used as fertility symbols (Wilkinson, 2003:220, 224, 227).



Figure 45: Gold cylinder pendant of Princess Mereret with chevron granulation details (C4.6).

The jewellery pieces determined at first glance to contain chevrons were namely Mereret's inlaid shell pendant (C4.1), and gold cylinder pendant (C4.6).

This section discussed all the decorative elements that could be identified at first glance to be present in the jewellery pieces under discussion, namely the Pate cross, knot, drop-beads, caged-beads, and chevrons. These were examined to understand how these symbols were possibly interpreted within ancient Egypt.

Through these discussions on each type of symbol that was identified at first glance to be present in the jewellery pieces under discussion, one gained a better understanding of how the symbolic significance could have been present within each individual element. This knowledge on the types of symbols, as well as the symbolism of specific colours was important to discuss in the iconographical description phase. This is due to the fact that first one should gain a better understanding of the individual elements, before one can begin to connect the elements and understand how they complement one another within each piece. Following this section, the identification of each individual element that was identified at first glance to be present in the jewellery pieces under discussion, will be placed into analytical tables, in order to group these elements together for each jewellery piece.

4. ANALYTICAL TABLES

The following three tables (see Table A, B, and C) combined some of the information from the pre-iconographical description, as well as that of the iconographical description. The column included from the pre-iconographical description is the materials, as it is necessary to take note of how the materials were chosen based on the colours. The columns included for the iconographical description are colours and symbols. These listed the individual elements discussed in this chapter that were identified at first glance to be present in the jewellery pieces under discussion. In the next chapter, the iconographical interpretation will be discussed, which will include a full analysis of the iconographical study of each jewellery piece.

4.1. Khnumet's Jewellery

Table A illustrates all the relevant information regarding Khnumet's jewellery pieces regarding the iconographical description.

Table A: Khnumet's jewellery pieces relating to the iconographical description.

Item Code	Khnumet's Pieces (10)	Materials	Colours	Symbols
A1.1	Circlet	Gold, carnelian, lapis lazuli, turquoise	Gold, red, blue	Pate cross, the five-pointed flowerets and flower buds, papyrus
A1.2	Diadem	Gold, carnelian, lapis lazuli, turquoise	Gold, red, blue	Vulture, flowers, flowering stalk
A2.1	Falcon collar 1	Gold, lapis lazuli, turquoise, carnelian, garnets, green felspar	Gold, red, blue, green	<i>Ankh</i> , <i>djed</i> -pillar, <i>was</i> -sceptre, drop-beads, falcon heads
A2.2	Falcon collar 2	Gold, carnelian, lapis lazuli, turquoise	Gold, red, blue	Falcon heads, hieroglyphs, drop-beads
A3.1	Star pendant necklace w/ cockle-shells	Gold	Gold	Stars, cockle shells

Item Code	Khnumet's Pieces (10)	Materials	Colours	Symbols
A3.2	<i>Ankh</i> necklace	Gold, carnelian, lapis lazuli, turquoise	Gold, red, blue	<i>Ankh</i>
A3.3	"Fly" pendant necklace	Gold	Gold	"Fly"
A4.1	Medallion of Dahshur	Gold, blue frit	Gold, blue, black, brown, white	Cattle, rosettes
A4.2	Butterfly pendant	Gold	Gold	Butterfly
A4.3	Drop-bead pendants	Gold, blue inlay?	Gold, blue	Drop-beads

4.2. Sit-Hathor's Jewellery

Table B illustrates all the relevant information regarding Sit-Hathor's jewellery pieces regarding the iconographical description.

Table B: Sit-Hathor's jewellery pieces relating to the iconographical description.

Item Code	Sit-Hathor's Pieces (3)	Materials	Colours	Symbols
B5.1	Lotus inlaid clasp	Gold, carnelian, lapis lazuli, turquoise	Gold, red, blue	Lotus flowers, goddess Bat w/ pectoral, knot
B5.2	Motto clasp	Gold, carnelian, lapis lazuli	Gold, red, blue	Hieroglyphs
B5.3	Papyrus gold knot clasp	Gold, carnelian	Gold, red	Knot, papyrus umbels

4.3. Mereret's Jewellery

Table C illustrates all the relevant information regarding Mereret's jewellery pieces regarding the iconographical description.

Table C: Mereret's jewellery pieces relating to the iconographical description.

Item Code	Mereret's Pieces (7)	Materials	Colours	Symbols
C3.1	Gold-framed bead necklace	Gold, carnelian, lapis lazuli, turquoise	Gold, red, blue	Caged beads
C4.1	Inlaid shell pendant	Gold, carnelian, lapis lazuli, turquoise	Gold, red, blue	Pearl shell, lotus flower, flower petals, chevrons
C4.2	Shell pendant string (part of collar?)	Gold	Gold	Bivalve shell
C4.3	Gold shell pendant	Gold	Gold	Bivalve shell
C4.4	Falcon pendant	Gold, carnelian, blue and green faience	Gold, red, blue, green	Falcon, <i>shen</i> -signs
C4.5	Blue cylinder pendant	Gold, lapis lazuli, turquoise	Gold, blue	
C4.6	Gold cylinder pendant	Gold	Gold	Chevrons

5. SUMMARY

In this chapter, the second phase in the iconographical study was discussed. This phase was the iconographical description. In order to apply Van Straten's theory to jewellery pieces, this phase interpreted the identification of subjects in an artwork as the individual symbolic elements one can identify at first glance to be present within each jewellery piece under discussion. The iconographical description was therefore used to better understand how symbolic elements were commonly perceived in the 12th Dynasty of ancient Egypt. Firstly, the symbolic significance was determined of all the colours identified at first glance to be present in the jewellery pieces under discussion from the previous chapter. The colours that were discussed were gold, red, green, blue, white, black, and brown.

Next, the symbols identified at first glance to be present in the jewellery pieces were discussed. These symbols were grouped into five categories, namely botanical motifs, animal motifs, cosmic elements, hieroglyphic symbols, and decorative elements. The botanical motifs discussed specific types of botanical elements, namely the lotus, papyrus, and rosettes. The specific types of animal motifs that were discussed, were namely the falcon, vulture, mollusc shells, the fly, butterfly, and cattle. Stars and deities were discussed in the cosmic elements category. The specific hieroglyphic symbols under discussion were namely the *ankh*, *djed*-pillar, *was*-sceptre, and *shen*-ring. Lastly, certain elements were discussed under the category decorative elements, namely the Pate cross, knot, drop-beads, caged-beads, and chevrons.

Subsequently, these discussions were summarised within analytical tables. These tables included the materials identified at first glance to be present in each jewellery piece from the pre-iconographical description, in order to identify the iconographical description's use of colour as symbolic elements. Also, the symbolic elements that were identified at first glance to be present in each jewellery piece under discussion, were also listed in these tables.

In conclusion, the iconographical description phase was therefore essential in the iconographical study to better understand how the above-mentioned elements were commonly perceived as symbolic elements in the 12th Dynasty of ancient Egypt. The analysis of these individual symbolic elements was important, as in the next chapter, these elements will be grouped together based on similar symbolic themes, in order to identify the overall theme or subject of the jewellery pieces under discussion.

CHAPTER 4: ICONOGRAPHICAL INTERPRETATION

1. INTRODUCTION

In the previous chapter the iconographical description was discussed. This was done by analysing how the ancient Egyptians generally understood the symbolism in the colours and symbols that were identified at first glance to be present in the twenty jewellery pieces under investigation. This second phase, the iconographical description, was important as it gave one a general understanding of how the symbols could be interpreted based on their iconographical value, which gave one the tools to then understand the jewellery pieces as a whole in the third phase, namely the iconographical interpretation.

Van Straten (1994:10) stated that the purpose of this phase is to ask the question: “Does the work have a deeper, or secondary, meaning that could lie within the artist’s intention?” This means that one can find an underlying meaning that cannot be determined at first glance (Van Straten, 1994:10). It would only be possible to find this meaning if one has a good grasp of the individual elements that make up the work (Van Straten, 1994:10). This phase is applicable to jewellery pieces as one would often see the individual elements found in the piece, such as flowers (creation, rebirth, and resurrection; see Chapter 3, section 3.1) and stars (immortality; see Chapter 3, section 3.3 (a)) in Khnumet’s circlet (A1.1), and often we forget to think about how the two different symbolisms can complement each, such as interpreting the use of flowers and stars within the circlet as the rebirth into immortality within the afterlife.⁸⁷

The iconographical interpretation involves delving for the deeper meaning of the jewellery piece, therefore the symbolic representation of the piece as a whole is investigated. It will combine the information gathered in phase one and two of the iconographical study, by taking into consideration the materials, colours, and symbols found in each piece of jewellery in this study. With this background information I will aim to classify each jewellery piece into an iconographical theme by using terminology accumulated in phase one and two. This accumulation into iconographical themes will simplify the iconographical interpretation

⁸⁷ See section 2.1 of this chapter for a full discussion on A1.1

phase, as it will be important to notice how certain sets of symbolic themes were more prominently represented within a jewellery piece.

These iconographical themes were determined with the grouping of themes according to semantic domains⁸⁸. A semantic domain is simply defined as an “area of meaning” (Moe, 2003:219). It refers to a single concept that is paired with words related to it through lexical relations (Moe, 2003:215, 219). The methodology is called in the field of lexical semantics as an onomasiological approach. It is “the study of the links between senses of words that belong to common or contiguous semantic networks” (Grossman & Polis, 2012). Moe (2003:219) noticed patterns appearing in the relationship of the semantic domains and words classified under them. There were three examples presented in their research paper:

Some domains consisted of a *generic term*, such as 'Game', and a list of specifics: chess, checkers, charades, monopoly. Others were based on the *Whole-Part lexical relation*, such as 'Head' and eye, nose, mouth. Other domains included a *variety of words related by different lexical relations*, such as 'Wave' and tidal wave, crest, break, roar, surfboard (Moe, 2003:219).⁸⁹

This study identified iconographical themes with the use of information gathered from the ancient Egyptian culture and grouped words into domains relating to aspects prominent in the 12th Dynasty. The method used to classify these themes into semantic domains was partly based on a generic term (the iconographical themes) with specifics, as well as the use of lexical relations (symbolic themes from the iconographical description). The themes have been grouped in the following manner:

- Afterlife: eternal life, regeneration, life, resurrection, afterlife, rebirth, immortality, eternity, eternal resurrection, creation, youth.
- Unity: kingship, Upper Egypt, Lower Egypt, binding, courage, power, union.
- Heavenly influence: chaos, sky, heavens, sacred, pure, solar.
- Womanhood: fertility, mother, cow.
- Health: protection, health, stability.
- Decor.

This grouping of terms gave one the identification of an iconographical theme that represents the semantic domain through their lexical relationships. This approach aims to simplify the

⁸⁸ Forming part of the hybrid methodology applied in this study, by introducing this sub-branch of semiotics.

⁸⁹ Italics were used for emphasis purposes in this study.

discussions within the iconographical interpretation phase, as it will be important to notice how certain symbolic themes were more prominently represented within a jewellery piece. So therefore, in identifying the iconographical theme represented within each jewellery piece, one can begin to understand how certain symbolic elements were dominant within a collection of jewellery pieces from one royal woman.

The iconographical theme, ‘afterlife’, groups together terms relating to the ancient Egyptians belief of what happened when one passed away. This includes the terminology relating to eternal life, regeneration, life, resurrection, afterlife, rebirth, immortality, eternity, eternal resurrection, and creation. These terms imply the existence of a next life which one enters when one passes away. The ancient Egyptians believed that a person was reborn in the afterlife and entered the underworld to reside with Osiris there for eternity (David, 2003[1998]:175, 186–188).

The iconographical theme, ‘unity’, groups together terms relating to the political elements prominent in the Middle Kingdom. This includes the terminology that highlighted the fact that the 12th Dynasty was known for the unification of Upper and Lower Egypt under one pharaoh’s rule (Callender, 2002:139; David, 2003[1998]:84). These terms include: kingship, Upper Egypt, Lower Egypt, binding, courage, power, and union.

The iconographical theme, ‘heavenly influence’, groups together terms relating to the gods of the ancient Egyptians. Ancient Egyptian religion consisted of the interaction with multiple gods, as well as the implementation of rituals. These were often orientated at the sun god, Amun-Ra, as well as the creational aspect of the world (*AGS s.v. Amun and Amun-Re; God, Goddesses, and the Stories of Creation; Maat*; Wilkinson, 2003:205). This theme combines the cosmogony and cosmology terminologies of the ancient Egyptian religion: chaos, sky, heavens, sacred, pure, and solar.

The iconographical theme, ‘womanhood’, groups together terms relating to the ancient Egyptians’ societal expectations of what a woman’s role should be in a household. This was based on the ancient Egyptians’ culture of a woman being responsible for having offspring and raising the children as a motherly figure (David, 2003[1998]:250, 259). This iconographical theme is associated with the cow goddess, Hathor (and Bat⁹⁰), as well as the

⁹⁰ See Chapter 3, section 3.3 (b) for an explanation on the difference between the two.

vulture goddess, Nekhbet (Jung, 1976:344; Goff, 1979:246; *IDS s.v. cow*). The terminology relating to this iconographical theme are: fertility, mother, and cow.

The iconographical theme, ‘health’, groups together terms relating to wishes of well-being in ancient Egyptian culture (*EHDI s.v. ānkh*; Anon., 2020). This includes terminologies that not only refers to physical well-being and health, but also emotional well-being, protection, and the stability of a person.

The iconographical theme, ‘decor’, groups together terms relating to jewellery elements that do not have a clear symbolic nature in relation to the ancient Egyptians’ symbolism. This was based on the fact that no symbolic element could be identified to be present on an element of a jewellery piece. This was, for example, caged beads, drop-bead pendants, or the blue segments of C4.5.

The following discussions will firstly further elaborate on the provenance of the burial setting of each royal woman. This is then followed by a discussion on each piece individually. Each piece was given an item code to refer to it, as explained in section 6 of Chapter 2. The letter A referred to Khnumet, B to Sit-Hathor, and C to Mereret. The first number indicated the type of jewellery: 1 for head pieces, 2 for falcon collars, 3 for complete necklaces, 4 for pendants, and 5 for clasps. The second number indicated its numerical order in that category, for example, A1.2 will refer to Khnumet’s (A) head piece (1), the second head piece (2).

The discussion on each item will aim to identify the overarching iconographical theme of each jewellery piece. Firstly, each jewellery piece will be described based on the materials and techniques used to construct it. Then, a brief understanding of the different symbols identified in each piece with their symbolic themes. Lastly, these themes will be used to identify the iconographical theme (as determined above through semantic domains) that could be associated with the jewellery piece. This approach aims to simplify the discussions within the iconographical interpretation phase, as it will be important to notice how certain symbolic themes were more prominently represented within a jewellery piece. This iconographical theme will help in understanding how each woman had certain symbolic elements that were dominant within her collection of jewellery pieces.

2. KHNUMET'S JEWELLERY

The burial chamber of princess Khnumet⁹¹ was excavated on 12 February 1895, in conjunction with the burial chamber of princess Ita (De Morgan, 1903:40). These chambers are located at Amenemhet II's pyramid, southeast of the Northern Pyramid of Sneferu⁹², which is one of the main attractions at Dahshur (Fakhry, 1969:216). This pyramid is now in ruins, and it is unclear what its dimensions were, but we do know that it was built of limestone. The royal tombs that lie on the west side of the pyramid within the temenos wall⁹³ were the final resting place for several princesses and a queen; this included princess Khnumet (Edwards, 1947:183; Fakhry, 1969:216–217). Khnumet's burial chamber was found northwest of the main pyramid and was not looted, as was the case with some of the other chambers (De Morgan, 1903:40). The identity of the owner of this tomb is the only one in this study which can be determined with confidence, i.e., princess Khnumet (possibly short for Khenmet-nefer-hedjet) (Grajetzki, 2014:60). It is inscribed on her coffin, as well as on her canopic box⁹⁴ with the title “king's daughter”, possibly referring to Amenemhet II (Grajetzki, 2014:60). She is believed to have died at a young age, not yet reaching proper queen status⁹⁵, therefore most of her jewellery pieces found in her burial chamber are not formal cultic items, such as pectorals used and designed for religious ceremonies (Harris, 2016:263).

2.1. Khnumet's Jewellery Pieces

There were ten jewellery pieces selected from princess Khnumet's collection in order to gain a proper understanding of the type of iconography her jewellery pieces would display. At the present time of writing, and as far as could be established, the jewellery pieces can be found

⁹¹ De Morgan (1903:40) referred to her as Khnoumit, while Grajetzki (2014:54) referred to her as Khenmet. I will be using the name Khnumet, as that is the name Aldred (1971:113) employed. This is due to the fact that Aldred (1971) was regarded as a primary source from which the pieces were selected from.

⁹² He is regarded as the founder of the 4th Dynasty and was the first to build his pyramid at Dahshur (Fakhry, 1969:71).

⁹³ The wall that surrounds the pyramid and related tomb structures (*OED* s.v. *temenos*).

⁹⁴ A box sometimes found within a tomb that contains the 4 jars used to hold the organs the Egyptians thought important, i.e., stomach, large intestine, small intestine, lungs, liver, and gallbladder (David, 2003[1998]:199). These jars were usually topped with the heads of the Four Sons of Horus, namely Imsety, Hapy, Duamutef, and Kebehsenuf (*AGS* s.v. *deities*; David, 2003[1998]:199).

⁹⁵ Grajetzki (2014:60) stated that through her jewellery pieces it was once assumed that she reached queen status (such as Aldred, 1971:186). However, she was never granted the title “king's wife”, which made it safer to assume that she was just the favourite daughter of the king, due to her remarkable jewellery collection (Grajetzki, 2014:60).

in the Cairo Egyptian Museum. These jewellery pieces were mentioned in the catalogue plates from Aldred (1971:Plates 11–12, 27–31).

Within this section the ten jewellery pieces of princess Khnumet will be described based on their individual elements identified at first glance, as well as the symbolic significance of these individual elements. These elements will then be grouped based on their semantic domains into the corresponding iconographical theme. These jewellery pieces were namely Khnumet's circlet, diadem, falcon collar 1, falcon collar 2, star pendant necklace w/ cockle-shells, *ankh* necklace, "fly" pendant necklace, the Medallion of Dahshur, butterfly pendant, and drop-bead pendants. These were chosen to represent an array of different types of jewellery, as well as to include a variety within each type. This selection also tried to eliminate the possible influence of ceremonial dress, as pectorals, for example, were mainly worn in religious ceremonies.

A1.1⁹⁶ Circelet

Gold, carnelian, lapis lazuli, and turquoise.

D. 18 cm⁹⁷

Cairo Museum, Cat. No. 52859⁹⁸

De Morgan, 1903:61(19)⁹⁹



Figure 46: Khnumet's floral circlet (A1.1). [Source: Brown.edu]

Princess Khnumet's floral circlet was constructed out of 6 pate crosses, connected with 10 gold wires (see Figure 46 above) (Aldred, 1971:186). These wires were then interlaced into pairs by 26 flowerets and 19 pairs of lapis lazuli buds in between each pair of crosses (i.e., in total ca. 156 flowerets and 114 pairs of lapis lazuli buds) (Aldred, 1971:186). The gold floweret cloisons had 5 petals inlaid with turquoise that surrounded a carnelian centre (Aldred, 1971:186). The pate crosses were formed by 4 papyrus umbels around a central boss (Aldred, 1971:186). The gold cloisons in the pate cross were inlaid with carnelian and turquoise. The spikelets of the papyrus flowers were clustered into multiple inflorescences that were inlaid with the carnelian and connected to the involucral leaves that were inlaid with the turquoise (Aldred, 1971:186). The central boss cloison was inlaid with carnelian with a central gold dot. The 10 gold wires were soldered onto the papyrus umbels of the cross (Aldred, 1971:186). Three of the wires are connected to the top umbels, four to the middle

⁹⁶ This section discusses Khnumet's head pieces.

⁹⁷ Abbreviations to be used in the descriptions of the jewellery pieces: D. (diameter), H. (height), L. (length), W. (width).

⁹⁸ All museum catalogue numbers were documented by Aldred (1971:Plates 11–12, 27–31, 34, 44–46).

⁹⁹ Reference to the excavation report of De Morgan (1903) includes the allocated excavation catalogue number in brackets.

umbels and three again to the bottom umbels. The flowerets and lapis lazuli buds were attached to the wires.

The pate cross elements in Khnumet's circlet were a hermeneutic sign. This included the use of the number four, the papyrus umbels, and the carnelian disc (see Chapter 3, section 3.5 (a)). The number four represented completeness, the papyrus umbels were a symbol of rebirth and life, and the carnelian disc resembled the "all-important solar disc" (Harris, 2018:178). Together these elements concluded that the pate cross represented the daily rebirth of the sun and the eternal resurrection (Kozloff, 2015:296). This linked the pate cross to the afterlife where one is reborn into the next life.

The five-pointed elements on Khnumet's circlet are another hermeneutic sign. According to Harris (2016:269, 270) the five-pointed elements are mostly interpreted as floral motifs having the symbolic meaning of creation, rebirth, and resurrection, namely to life. However, another interpretation can be the connotation to the shape with the star hieroglyph which can be seen as representing immortality (Harris, 2018:178). These symbols were all associated with the afterlife and how the Egyptians believed one to be reborn into an eternal afterlife.

The small lapis lazuli pairs of buds are possible representations of lotus flower buds. The symbolism of the lotus flower is linked to the rebirth of the rising sun in the morning and how the flower closed at night and opened during the day.¹⁰⁰ The fact that it is a flower bud could also represent youth and new life. This linked to Khnumet having died at a young age and was never affected by royal responsibilities (Harris, 2016:263). This headdress was therefore possibly used as an informal, non-state headdress on festive occasions by young princesses (Harris, 2016:264).

Therefore, the iconographical theme associated with Khnumet's floral circlet was the 'afterlife'. This was based on the themes encompassed by the symbols and materials used, namely rebirth, eternal life, immortality, and youth.

¹⁰⁰ The lotus flower can also be seen being used in Buddhism to represent birth and rebirth, as well as purity and enlightenment (*SS s.v. the lotus*). Furthermore, in Hindu culture the lotus represents the sun and creation, and purity (*SS s.v. the lotus*). *SS will from here on refer to the book "Signs & Symbols: an illustrated guide to their origins and meanings" edited by Miranda Bruce-Mitford (2019).*

A1.2 Diadem

Gold inlaid with carnelian, lapis lazuli, and turquoise.
D. 20,5 cm; Max. H. 4,2 cm
Cairo Museum, Cat. No. 52860
De Morgan, 1903:62 (20)



Figure 47: Khnumet's diadem (A1.2), back view. [Source: GEM]

Khnumet's diadem is an intricate cloisonné-piece composed of eight identical segments (see figure 47 above, black outline). Each of these segments was made up of a central disc, with three lyre-shaped flowers¹⁰¹ attached to it. Two were soldered onto the horizontal and one was soldered on top of the central disc (i.e., 24 lyre-shaped flowers). These segments were then divided by another disc (i.e., 16 discs). The central discs were inlaid with a carnelian centre, surrounded by 14 turquoise petals with the background inlaid with lapis lazuli (see Figure 48, pg. 114). Harris (2018:185) called these discs "daisy-like rosettes". The lyre-

¹⁰¹ Aldred (1971:186) called these lyre-shaped flowers "flowering rush calices", while Harris (2018:185) called them lilies. Harris (2018:185) made mention of the fact that Vilímková suggested these were "lotus blooms or cornflower petals". Andrews (1996:103) called them the "lily of Upper Egypt". Due to the fact that all four suggestions related to vegetation, linking to the iconography of the 'afterlife', I will only be referring to them as lyre-shaped flowers.

shaped flowers were inlaid in a diagonal pattern with carnelian, turquoise, and lapis lazuli. These flowers also have 4 triangular-shaped elements, two in carnelian and two in lapis lazuli.¹⁰²



As can be seen in Figure 47 (pg. 113), there are two elements that form the focal-points of the diadem. The front focal-point is a flying vulture whose outstretched wings were soldered onto the central discs of the front of the diadem (see Figure 48 above). The vulture holds a *shen*-sign in each of its talons (not clearly visible in any images). The back focal-point is a flowering stalk made of gold foil and is attached through a socket at the back of the diadem. The stalk is now badly damaged (Aldred, 1971:186).

The floral elements were cloisons made of gold. The inner gold band was chased with a design to accentuate the inlaid semi-precious stones on the outside. The vulture was formed from a gold sheet curved and chased with feather details, and the body, head and talons were separate casted parts soldered together. The flowering stalk was made of a gold foil tube, with gold leaves and floral¹⁰³ elements attached.

The vulture was a motherly figure, as well as a symbol of Upper Egypt. The vulture element on Khnumet's diadem was the biggest challenge to interpret, as the use of it implied that she had reached queen status, which might not have been the case. This is due to the fact that she was never referred to by the title of "king's wife" (Grajetzki, 2014:60). This gave one

¹⁰² Harris (2018:185) suggested that these are the stamens inside the lily flower.

¹⁰³ Andrews (1996:103) stated that these were meant to represent fruits from the date palm. Aldred (1971:186) referred to it as "a kind of palm tree". While Harris (2018:186, 188) stated that it resembled "a species of common reed grass", such as a "sedge or rush", that is flowering. Due to this discrepancy, these will only be referred to as floral elements and not attributed to any specific type of plant.

the impression that the vulture should not be interpreted as the motherly figure in this crown and rather be seen as a symbol of unity between Upper and Lower Egypt. This was emphasised by the two *shen*-signs the vulture holds in its talons. The *shen*-sign represented unity and completeness, as well as eternity. Therefore, the conjunction of the vulture and *shen*-signs, can be interpreted as the element of the diadem symbolising the unity between Upper and Lower Egypt.

The floral elements, as well as the flowering stalk could be interpreted as a symbol of rebirth, life, and youth. This linked back to Khnumet's floral circlet (A1.1), which is also a symbol for the eternal nature of life. The flowering stalk has also been interpreted as a reed, which links it to the use of the papyrus being a symbol of Lower Egypt. This created the balance in the two focal points of the diadem, namely the vulture and the stalk, in order to refer to the unity between Upper and Lower Egypt. Harris (2018:188) also attributed this balance in the two focal points to the worldview of the ancient Egyptians, *ma'at*¹⁰⁴, which even further emphasised the unity between Upper and Lower Egypt, as the unification brought balance to the chaos.

Therefore, the iconographical themes related to this diadem is 'afterlife' and 'unity'. These two themes were both important, as it was necessary to include both the symbolism of the floral elements and that of the vulture and flowering stalk. The floral elements linked to the iconographical theme of 'afterlife', due to the symbolism of rebirth and life, as well as the youthful nature of the flowers. The symbolism of the vulture and flowering stalk connected to Upper and Lower Egypt, illustrated the iconographical theme of 'unity'.

¹⁰⁴ The term *ma'at* refers to the cosmic balance the ancient Egyptians based their world view on (AGS s.v. *maat*). It is their ethical system that brings order into the world (AGS s.v. *maat*). This world view was based on the recurring cycles of chaos that turns into harmony, such as the flooding of the Nile that results in fertile land (AGS s.v. *maat*).

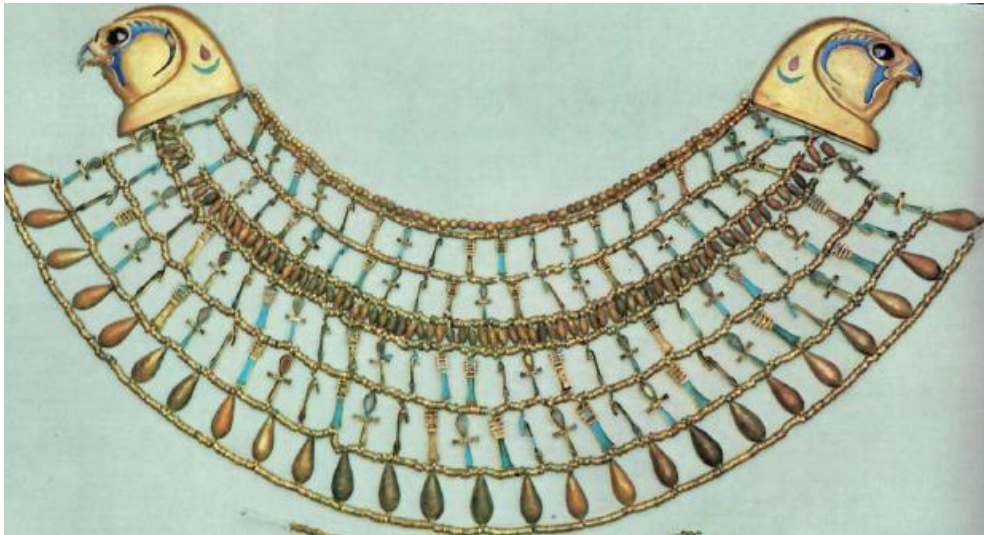
A2.1¹⁰⁵ Falcon collar 1

Gold inlaid with lapis lazuli, turquoise, carnelian, garnets, and green felspar.

Terminals: H. 3,8 cm, W. 4,3 cm

Cairo Museum, Cat. No. 52861

De Morgan, 1903:58 (1–2)



*Figure 48: Khnumet's falcon collar 1 with gold terminals (A2.1).
[Source: Aldred, 1971:Plate 11]*

Khnumet's falcon collar 1 is a reconstruction made up of elements that were all found in a group around the neck of the mummy (De Morgan, 1903:58; Aldred, 1971:180; Grajetzki, 2014:55). The falcon head terminals were made of hollow gold that were inlaid with carnelian eyes, and lapis lazuli eyebrows and beak (De Morgan, 1903:58; Grajetzki, 2014:55). There were seven holes at the bottom of the falcon head for strings to be attached. The seven string rows were reconstructed as follows: one row of round-beads, two rows of small *ankh*, *djed*, and *was* symbols, one row of drop-beads, one row of medium *ankh*, *djed*, and *was* symbols, one row of large *ankh*, *djed*, and *was* symbols, and lastly one row of bigger drop-beads.

Each row included the use of ring-beads made of gold, which is a short cylinder bead. The round-beads were gold spheres, while the drop-beads were plaster-filled gold foil. It is assumed that the beads were mainly just decorative elements.¹⁰⁶

¹⁰⁵ This section discusses Khnumet's falcon collars.

¹⁰⁶ Gold is, however, seen as the flesh and bones of the gods in ancient Egyptian religion (Singer, 2010:11). It is important to note that many cultures included the use of gold in colour symbolism. Gold is often associated with the divine, as in Greek mythology where Jason was on a quest for the Golden Fleece being representative of spiritual illumination (*SS s.v. gold*).

The *ankh*, *djed*, and *was* symbols were grouped into three sizes of gold foil cloisons, inlaid with turquoise, carnelian, garnets, and green felspar. The grouping of the three hieroglyphic symbols was used almost as a “proverb” in Middle Egyptian as a granting of good wishes, namely for life, stability, and prosperity (*EHDI* s.v. *ānkh*).

The falcon head terminals were a symbolic representation of kingship and authority. The falcon was also used in images representing rebirth and resurrection. The terminals on Khnumet’s falcon collar 1 could embody both these aspects. This linked back to the use of the three-part hieroglyphic symbols, as it grants life, stability, and prosperity and good wishes to the royalty, which was princess Khnumet, in the next life.

The combination of these symbols, namely life, stability, power, kingship, rebirth, and decor, supported the iconographical theme, ‘health’. The use of the *ankh*, *djed*, and *was* symbols in this large quantity indicated how important the theme was in this jewellery piece of princess Khnumet.

A2.2 Falcon collar 2

Gold inlaid with carnelian, lapis lazuli, and turquoise.

Terminals: H. 1,3 cm, W. 1,1 cm

Cairo Museum, Cat. No. 52920–21

De Morgan, 1903:63 (36–47, 49)



*Figure 49: Khnumet's falcon collar 2 with inlaid terminals (A2.2).
[Source: Egypt-museum.com]*

The reconstructed collar of princess Khnumet was made up of elements excavated as scattered pieces found around the mummy within the coffin (De Morgan, 1903:63). Grajetzki (2014:56) suggested, however, that they could have been originally intended to be a choker, due to the small size of the terminals. The reconstruction was restrung with two falcon head terminals, inlaid with lapis lazuli and turquoise. Two rings were soldered to the bottom of the falcon heads for two rows of string to pass through. Twenty hieroglyphic elements used to reconstruct the collar were pairs which have a left and right version (i.e., 10 pairs). The 21st element, restrung as the central element, did not have a matching pair.

The rows were restrung with ring-beads made of gold, as well as drop-beads inlaid with turquoise, carnelian, and lapis lazuli in three cloisons. The 21 hieroglyphic elements

were cloisons inlaid with carnelian, lapis lazuli, and turquoise; and the gold was chased on the back. The hieroglyphic elements were restrung in the following order: bee (L2)¹⁰⁷, lung and windpipe (F36), *ankh* (S34), *djed*-pillar (R11), stone jug with handle (W9), eye with falcon markings (D10), the goddess Bat, cobra on basket with *shen*-sign (I13+V9), vulture with flail on basket (G14a/G15), head and neck of jackal (F12), an *ankh* surmounting an offering mat (R4+S34), and then followed by the inverse list of the left aspects of the pairings. Most of these hieroglyphs are abstractions of ‘life’, ‘union’, ‘strength’, ‘stability’, and ‘protection’ (Aldred, 1971:188).

The falcon head terminals, as mentioned in the discussion of the previous jewellery piece were symbolically representative of both kingship and resurrection. This also, in conjunction with the hieroglyphic symbols, emphasised the good wishes of life, stability, and prosperity. The two hieroglyphic elements of the vulture and cobra symbolised the Two Ladies of Egypt. The vulture is Nekhbet, representing Upper Egypt, and the cobra is Wadjet, representing Lower Egypt. The use of both ladies in the jewellery piece of princess Khnumet, emphasised the unification of Egypt in the 12th Dynasty. The drop-beads could purely have been used decoratively.

Therefore, the iconographical themes identified for the falcon collar 2 of princess Khnumet is both ‘health’ and ‘unity’. This is based on the connection of kingship with the use of the hieroglyphic symbols for life, stability, and prosperity, as well as the unification aspect of the Two Ladies of ancient Egypt.

¹⁰⁷ Numbering based on Gardiner’s sign list, see Chapter 3, section 3.4.

A3.1¹⁰⁸ Star pendant necklace with cockle-shells

Gold decorated with applied wires and granules.

Stars: W. 2.5 cm

Cairo Museum, Cat. No. 52978

De Morgan, 1903:67 (63)



*Figure 50: Khnumet's star pendant necklace with cockle-shell pendants (A3.1).
[Source: GEM]*

This necklace of princess Khnumet was excavated as an intact piece (De Morgan, 1903:67). It is a double loop-in-loop chain with two star pendants and ten cockle-shell pendants, attached to the main chain by short chain links (Aldred, 1971:187). The cockle-shells consisted of two gold foil halves soldered together with a clay filling within. The halves were chased with striation details of the shells. Gold wire outlined the star pendants' points, as well as the central circle.¹⁰⁹ These outlines were filled with granules.¹¹⁰

The celestial connotation to the star pendants is evident. The use of the star symbol represented immortality. However, one should not dismiss the fact that it could also possibly be a representation of a starfish. This is highly probable, due to the fact that shell pendants were proven to have been traded with the Nubian area in the Middle Kingdom (Aldred, 1971:187). This linked to the use of the cockle shell pendants also on this necklace, which is of an amuletic nature for health.

The symbolic connotation of the star shape to immortality and the conjunction of the shell amulet for health in one necklace could be interpreted as a wish of well-being into the afterlife, the immortal realm. This led to the classification of the star pendant necklace with cockle-shells to the iconographical theme 'afterlife'.

¹⁰⁸ This section discusses Khnumet's complete necklaces.

¹⁰⁹ It is unclear from the available sources and images whether the star pendants consisted of a gold sheet with filigree wires soldered onto the plate and then filled with the granules or whether it is just openwork. De Morgan (1903:67), Aldred (1971:187), and Grajetzki (2014:58) did not clearly specify this. Curtis (1915:67) and Lilyquist (1993:37), on the other hand, mentioned that there is no backing plate, which made openwork the more probable solution.

¹¹⁰ Princess Khnumet's jewellery is regarded as the first appearance of the granulation technique in Egypt. The technique was believed to have originated from Mesopotamia (Grajetzki, 2014:58).

A3.2 Ankh necklace

Carnelian, turquoise, and lapis lazuli ankh-signs, with a gold ankh-clasp

Clasp: H. 1.9 cm

Cairo Museum, Cat. No. 53012–3, 52916

De Morgan, 1903:59 (9–10)

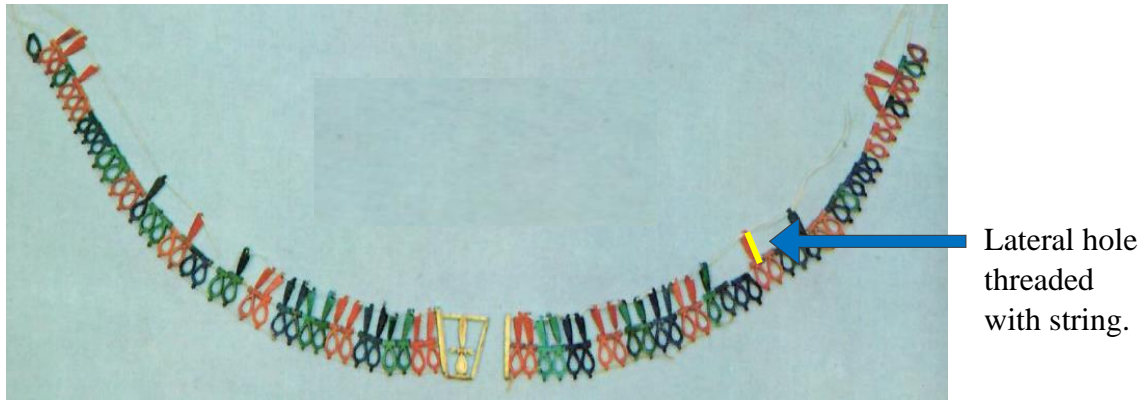


Figure 51: Khnumet's ankh necklace (A3.2). [Source: Aldred, 1971:Plate 12]

Khnumet's *ankh* necklace is reconstructed from elements excavated on the tomb floor. It is displayed in Figure 52 (above) upside down and curving in the wrong direction to which it would have curved around the neck (Aldred, 1971:181). The clasp¹¹¹ in the centre of the reconstruction was made of a gold *ankh* framed in a trapezoid. The sides of the trapezoid have two gold bars that can slide over them to form a clasp. These gold bars have three holes for strings from which stone *ankhs* were strung (De Morgan, 1903:59). The *ankhs* were shaped from carnelian, turquoise, and lapis lazuli. The *ankh* elements consisted of two parts, the upper loop with the cross-bar, and the bottom stick. These two parts were strung on the strings separately to form the ankh shape. A lateral hole was drilled through the cross-bar and length of the stick for a separate thread to keep the two parts together (see Figure 52 above, yellow line) (Aldred, 1971:181).

The *ankh* symbol is one of the most well-known symbols of ancient Egypt. It was a symbol for eternal life and granted one the power to be reborn into the next life (Klop, 2008:110). The use of the stones in the colour red, blue, and a greenish blue, all link to the symbolism of regeneration, creation, and life or resurrection. This conjunction of the colour symbolism and the *ankh* all lead to princess Khnumet's ankh necklace to be classified in the iconographical theme 'afterlife'.

¹¹¹ It was suggested that the clasp also functioned as a pendant that would have made up the central focal-point of the necklace (Aldred, 1971:181).

A3.3 “Fly” pendant necklace

Gold decorated with applied wires and sheet metal cut-outs.

Chain: L. 28 cm

Cairo Museum, Cat. No. 52976

De Morgan, 1903:68 (66)

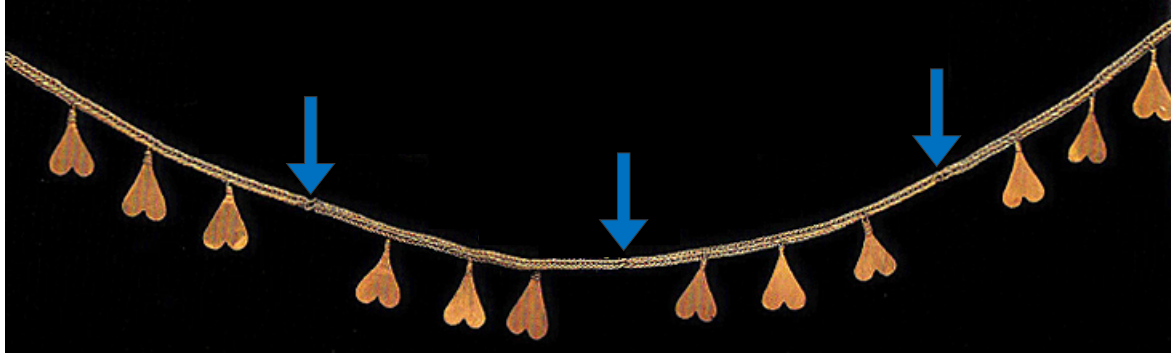


Figure 52: Khnumet's "fly" pendant necklace (A3.3). [Source: Judithweingarten.blogspot.com]

The necklace chain is another double loop-in-loop chain (such as A3.1), which was broken and repaired in three places (indicated by the blue arrows in Figure 53 above) (Aldred, 1971:187). There are twelve gold pendants made from gold sheets cut into the shape of a stylised fly¹¹². The point of the shape has a gold wire wrapped around it which is then attached to the chain. The twelve pendants are spaced out into four sections of three. It is speculated that other pendants would have been attached between these sections (De Morgan, 1903:68).

The fly symbol was used as a symbol of courage, but also in amulets for their fecundity attributes (Andrews, 1994:63; *IDS* s.v. *fly*). This gives a strong inclination to the iconographical theme, ‘womanhood’, due to the connection to fertility.

¹¹² Aldred (1971:187) suggested that they could also be bee, hence the name of the piece in quotation marks.

A4.1¹¹³ Medallion of Dahshur

Gold decorated with applied wires and granules, and a blue frit inlay.

D. 2,85 cm

Cairo Museum, Cat. No. 52975

De Morgan, 1903:67 (62)



Figure 53: Medallion of Dahshur (A4.1) from the jewellery collection of princess Khnumet. [Source: GEM]

The central focal point of this pendant is the “Medallion of Dahshur”. It consists of a blue frit plaque painted with a recumbent bovine, surrounded by a circle of black, white, and brown segments. The plaque was inlaid into a gold frame decorated with granules. The plaque was also covered by a thin layer of quartz.¹¹⁴ Attached to the bottom of the frame were three simple chains from which three, open-work, eight-pointed rosettes decorated with granules were suspended (Aldred, 1971:187; Lilyquist, 1993:37). At the top of the frame two other chains were attached with two larger rosettes, also openwork decorated with granules, from which the medallion was suspended (Aldred, 1971:187).

¹¹³ This section discusses Khnumet’s pendants.

¹¹⁴ The layer of quartz crystal created uncertainties as to what material the blue background was made of, due to the fact that it cannot be removed without destroying the artefact (Newberry, 1938:127). However, today it is agreed upon to be blue frit, as opposed to glass or stone mosaic (Newberry, 1938:127). It is still uncertain whether the cow was painted onto the blue frit, or painted in reverse on the back of the rock crystal (Newberry, 1938:127).

The painted bovine in a recumbent position possibly symbolised the goddess Hathor. However, without direct view of the udder or scrotum area, it is safer to rather not assume the sex of the bovine. It is generally assumed that the use of a bovine was linked to the heavens (*DOS* s.v. *bull*; Owusu, 1998:276).¹¹⁵ The use of the Apis Bull, as well as Hathor, the cow goddess, was associated with fertility (see Chapter 3, section 3.2 (f)).

Rosettes in ancient Egypt were usually linked to the solar deities, as well as giving a sense of binding. Both types of rosettes¹¹⁶ in the Medallion of Dahshur have 8 sections. This is important to note from an iconographical point of view, as this connects the rosettes to “The Book of the Heavenly Cow” which tells of the god Shu that created eight assisting deities¹¹⁷ to help support the legs of Nut in the shape of the heavenly cow (Wilkinson, 1994:137; Wente, 2003a:289). This connection was important to note with the symbol of the bovine.

The two main themes found in the Medallion of Dahshur were, therefore, heavens and fertility, which in effect placed the jewellery piece into two iconographical themes, i.e., ‘heavenly influence’, and ‘womanhood’.

¹¹⁵ In other cultures, one also sees the bull/cow being connected with the heavens, such as Hindu beliefs and the Sumerian religion (*DOS* s.v. *bull*; *cow*; *IDS* s.v. *cow*).

¹¹⁶ One with pointed edges, one with rounded edges.

¹¹⁷ Four pairs of *Heh*-gods, the Infinite Ones, assisted Shu to support the heavenly cow (Wente, 2003a:293).

A4.2 Butterfly pendant

Gold decorated with applied wires and granules.

W. 2,7 cm

Cairo Museum, Cat. No. 52977

De Morgan, 1903:67 (64)



*Figure 54: Khnumet's butterfly pendant (A4.2).
[Source: Aldred, 1971:Plate 29]*

Khnumet's butterfly pendant was created with a gold sheet on which gold wire was soldered to outline the details (filigree) (Lilyquist, 1993:37). These outlines were filled with gold granules. The wings have single lines of granules radiating from the centre (Curtis, 1915:67). It is attached to a double loop-in-loop chain, believed to have belonged to a full necklace (Aldred, 1971:187). The pendant also functions as a clasp, as a channel was soldered to the back onto which a fastening bar can slide (Aldred, 1971:187).

The meaning behind the symbol of the butterfly is still not fully understood. Haynes (2013:116), however, suggested that the butterfly was associated with rebirth and safe passage into the afterlife. There was also the probability that together with the granulation technique, the butterfly pendant was produced in the Etruscan area, which would make the use of the butterfly more understandable, as it was not a symbol often found in ancient Egyptian culture (Curtis, 1915:67). However, Curtis (1915:66) noted that the granulation technique had a lack of "careful attention to minor details". Which made it more probable that the technique was adopted by the ancient Egyptians and produced in Egypt. This gave the implication that the use of the butterfly symbol as the pendant should therefore be interpreted as an item that also retains magical powers in ancient Egyptian culture (Haynes, 2013:115).

The connection of the butterfly to aspects of the afterlife thus associated it with the iconographical theme, 'afterlife'.

A4.3 Drop-bead pendants

Gold inlaid with unknown blue inlay.

No dimensions given.

Cairo Museum, Cat. No. 52862

De Morgan, 1903:59 (3)



Figure 55: Khnumet's drop-bead pendants (A4.3).

[Source: Aldred, 1971:Plate 11]

According to De Morgan (1903:59) ten drop-shaped pendants with inlays intact were excavated from Khnumet's tomb; however, only seven of them were restrung on the necklace shown in Figure 56 (above). The seven drop-beads were inlaid with a blue centre, of which the material is unknown.¹¹⁸ It was restrung alongside eleven other gold drop-bead pendants with missing inlays. The cloisons and back of the pendants were made of gold. The pendants were separated by gold cylindrical beads on the reconstruction.

The drop-beads were interpreted as a purely decorative element within this study, due to the lack of information surrounding the use of these elements. Therefore, this jewellery piece was grouped under the iconographical theme, 'decor'.

Therefore, within this section the ten jewellery pieces of princess Khnumet was described based on their individual elements identified at first glance, as well as the symbolic significance of these individual elements. These elements were then grouped based on their semantic domains into the corresponding iconographical theme. These jewellery pieces were namely Khnumet's circlet, diadem, falcon collar 1, falcon collar 2, star pendant necklace w/ cockle-shells, *ankh* necklace, "fly" pendant necklace, the Medallion of Dahshur, butterfly pendant, and drop-bead pendants. These discussions on each piece will furthermore be summarised within the following analytical table, in order to identify the iconographical theme that encompasses all the jewellery pieces as a whole.

¹¹⁸ De Morgan (1903:59) stated that it was inlaid with emerald; however, under closer inspection it was not the case.

2.2. Analytical Table

Table A illustrates all the relevant information about Khnumet's jewellery pieces regarding the iconographical interpretation. This table combines the information gathered from the pre-iconographical description (materials and colours) and the iconographical description (symbols), in relation to the iconographical interpretation's themes and the overall iconographical theme.

Table A: *Khnumet's jewellery pieces relating to the iconographical interpretation.*

Item Code	Khnumet's Pieces (10)	Materials	Colours	Symbols	Themes	Iconographical Theme
A1.1	Circlet	Gold, carnelian, lapis lazuli, turquoise	Gold, red, blue	Pate cross, the five-pointed flowerets and flower buds	Rebirth, eternal life, immortality, youth	Afterlife
A1.2	Diadem	Gold, carnelian, lapis lazuli, turquoise	Gold, red, blue	Vulture, flowers, flowering stalk	Rebirth, youth, Upper Egypt, Lower Egypt	Afterlife, Unity
A2.1	Falcon collar 1	Gold, lapis lazuli, turquoise, carnelian, garnets, green felspar	Gold, red, blue, green	Ankh, djed-pillar, was-sceptre, drop-beads, falcon heads	Life, stability, power, kingship, rebirth, decor	Health
A2.2	Falcon collar 2	Gold, carnelian, lapis lazuli, turquoise	Gold, red, blue	Falcon heads, hieroglyphs, drop-beads	Kingship, rebirth, hieroglyphs, decor	Health, Unity
A3.1	Star pendant necklace w/ cockle-shells	Gold	Gold	Stars, cockle shells	Immortality, health	Afterlife
A3.2	Ankh necklace	Gold, carnelian, lapis lazuli, turquoise	Gold, red, blue	Ankh	Eternal life	Afterlife

Item Code	Khnumet's Pieces (10)	Materials	Colours	Symbols	Themes	Iconographical Theme
A3.3	"Fly" pendant necklace	Gold	Gold	"Fly"	Courage, fertility	Womanhood
A4.1	Medallion of Dahshur	Gold, blue frit	Gold, blue, black, brown, white	Cow/bull, rosettes	Heavens, fertility	Heavenly influence, Womanhood
A4.2	Butterfly pendant	Gold	Gold	Butterfly	Rebirth	Afterlife
A4.3	Drop-bead pendants	Gold, blue inlay?	Gold, blue	Drops	decor	Decor
Summary:		Gold, carnelian, lapis lazuli, turquoise, garnets, green felspar, blue frit, blue inlay?	Gold, red, blue, green, black, brown, white	Pate cross, five-pointed flowerets, flower buds, Vulture, papyrus stalk, Ankh, djed-pillar, was-sceptre, drop-beads, falcon heads, Stars, cockle shells, "Fly", Cow/bull, rosettes, butterfly	Rebirth, eternal life, immortality, youth, Upper Egypt, Lower Egypt, life, stability, power, decor, kingship, hieroglyphs, health, courage, fertility, heaven	Afterlife x5, Unity x2, Womanhood x2, Health x2, Heavenly influence x1, Decor x1

This table gives a clear indication as to what the attributed iconographical theme was per jewellery piece, as well as an indication in the summary of which iconographical theme was the most commonly found within the selection of jewellery pieces. This iconographical theme should be kept in mind when beginning the next section on Sit-Hathor's jewellery, as one should note how it differs or has possible similarities between them.

3. SIT-HATHOR'S JEWELLERY

The pyramid of Senwosret III was built of mudbricks and is situated north of Amenemhet II's pyramid (Fakhry, 1969:221). Although the pyramid is also now in ruins, on the north side of the pyramid the royal family's tombs were excavated, including those of Sit-Hathor and Mereret (Edwards, 1947:185). Although the identity of the woman found with the scarab inscribed with the name Sit-Hathor cannot be confirmed, this study will be referring to her as Sit-Hathor as this is the name most commonly ascribed to her. Sit-Hathor is often given the title "king's daughter" and is often associated with Senwosret III (Grajetzki, 2014:86). However, her jewellery collection also contains the name Senwosret II, which leads to an alternative interpretation: she is either the daughter of Senwosret II and died during the reign of Senwosret III, or she is the daughter of Senwosret III and received heirlooms of Senwosret II (Grajetzki, 2014:86–87).

3.1. Sit-Hathor's Jewellery Pieces

There were three jewellery pieces identified from Aldred (1971:Plate 34) to represent the jewellery pieces of princess Sit-Hathor. In the excavation reports of De Morgan these jewellery pieces¹¹⁹ were also mentioned (De Morgan, 1895:60, 61).

Within this section the three jewellery pieces of princess Sit-Hathor will be described based on their individual elements identified at first glance, as well as the symbolic significance of these individual elements. These elements will then be grouped based on their semantic domains into the corresponding iconographical theme. These jewellery pieces were namely Sit-Hathor's papyrus inlaid clasp, motto clasp, and papyrus gold knot clasp. These were chosen as they represented a variety within the clasp category. This selection also tried to eliminate the possible influence of ceremonial dress, as pectorals, for example, were mainly worn in religious ceremonies.

¹¹⁹ There were also 32 bivalve shell pendants and two cylindrical pendants mentioned in the report of De Morgan (1895:60, 61). The two cylindrical pendants had a loop fitted to the top to be strung on a necklace. One was described as having a braided pattern on it (De Morgan, 1895:61(17)). The other contains lapis lazuli; however, it is uncertain from the image and description if it is inlaid or a segment on the cylinder (De Morgan, 1895:61(16)). These pieces will not be included in this study due to only low quality images available, and therefore a proper remote study on these could not be done.

B5.1¹²⁰ Lotus inlaid clasp

Gold inlaid with carnelian, lapis lazuli, and turquoise.

H. 2,7 cm

Cairo Museum, Cat. No. 53142

De Morgan, 1895:60 (3)



Figure 56: Sit-Hathor's lotus inlaid clasp (B5.1). [Left drawing – De Morgan, 1895:Plate 15; right – Aldred, 1971:Plate 3]

Sit-Hathor's Lotus clasp was inlaid with carnelian, lapis lazuli, and turquoise. It was constructed with cloisonné in the shape of two lotus flowers with their stalks tied in a knot from which the goddess Bat was suspended. The goddess Bat was stylised by a front-facing head with cow ears, two loops instead of horns on top of the head, and a pectoral hanging from her neck (Aldred, 1971:191). The clasp was formed by two tubes sliding on a tongue and was attached to the back of the clasp (Aldred, 1971:191).

The symbolism of the lotus flowers was often attributed to rebirth into the afterlife, as well as being symbolically used to represent Upper Egypt. The connection of the stalks which were tied in a knot linked to the union of Upper and Lower Egypt in the 12th Dynasty, as well as the protection which was gained through binding. This protection was emphasised by the use of the goddess Bat suspended from the knot, which was representative of the cow goddess.¹²¹ The cow goddess was linked to the afterlife, as well as the protection of the deceased in the travel to the afterlife.¹²²

The themes found in the Lotus clasp of Sit-Hathor were rebirth, Upper Egypt, and protection. All three of these themes were important aspects of the 12th Dynasty and, therefore, three iconographical themes are associated with the lotus clasp, namely 'afterlife', 'unity', and 'health'.

¹²⁰ This section discusses Sit-Hathor's clasps.

¹²¹ During the unification of Egypt in the Middle Kingdom, the iconography of Bat was completely absorbed into that of Hathor and Bat became an aspect of her (Wilkinson, 2003:172).

¹²² See Wente (2003a:289) for a translation of "The Book of the Heavenly Cow".

B5.2 Motto clasp

Gold inlaid with carnelian and lapis lazuli, other inlays missing.

H. 1,8 cm

Cairo Museum, Cat. No. 53150

De Morgan, 1895:60 (4)

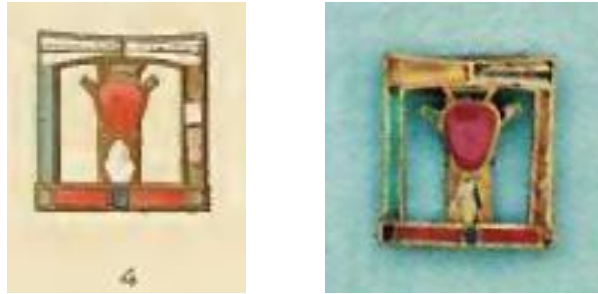


Figure 57: Sit-Hathor's motto clasp (B5.2). [Left drawing – De Morgan, 1895:Plate 15; right – Aldred, 1971:Plate 34]

The cloisonné-work of this motto clasp was inlaid with carnelian and lapis lazuli; however, some inlays are now missing. The clasp is also a sliding tongue (such as B5.1) which was soldered onto the back (Aldred, 1971:190). It is a combination of hieroglyphs reading “The two gods are at peace” (Aldred, 1971:190).¹²³

This motto clasp of Sit-Hathor has a similar design to clasps found in other royal burials of the 12th Dynasty. The “two gods” refer to Horus and Seth who engaged in contest with one another to claim the throne of Osiris after he was murdered (Wente, 2003b:91; Wilkinson, 2003:198). This combination of hieroglyphs alludes to the unification of Upper and Lower Egypt during the 12th Dynasty. Therefore, the iconographical theme associated to Sit-Hathor’s motto clasp is ‘unity’.

¹²³ It is formed by a central heart hieroglyph (F34, heart), flanked by two “cloth wound on pole” hieroglyphs (R8, determinative for god), and at the bottom a “bread loaf on mat” hieroglyph (R4, offering table) (De Morgan 1895:60; Allen, 2010:432, 442). *Numbering based on Gardiner’s sign list (see section 3.4 of Chapter 3).*

B5.3 Papyrus gold knot clasp

Gold inlaid with carnelian, other inlays missing.

L. 3,7 cm

Cairo Museum, Cat. No. 53141

De Morgan, 1895:61 (13–14)



Figure 58: Sit-Hathor's papyrus gold knot clasp (B5.3). [Source: Aldred, 1971:Plate 34]

This clasp of Sit-Hathor was created with a central gold knot, casted in two halves, that could slide together on a tongue and groove (Aldred, 1971:190). From the knot hangs two papyrus stalks on either side made with cloisons, with only one carnelian inlay still intact. Three rings were soldered onto the papyrus umbel to thread a three-string necklace through (Aldred, 1971:190).

The symbolic use of the knot could be attributed to protection which was gained through binding. This is once again very important to note (as in B5.1), as the unification of Upper and Lower Egypt played an important role in the 12th Dynasty. This union is strengthened by the use of papyrus, which symbolically represented Lower Egypt (in contrast to the lotus of Upper Egypt, see B5.1). Papyrus was also symbolically significant of rebirth and youth.

These symbolic themes of the papyrus gold knot clasp can therefore be classified into three iconographical themes namely 'health', 'afterlife', and 'unity'.

Therefore, within this section the three jewellery pieces of princess Sit-Hathor was described based on their individual elements identified at first glance, as well as the symbolic significance of these individual elements. These elements were then grouped based on their semantic domains into the corresponding iconographical theme. These jewellery pieces were namely Sit-Hathor's papyrus inlaid clasp, motto clasp, and papyrus gold knot clasp. These were chosen as they represented a variety within the clasp category. These discussions on each piece will furthermore be summarised within the following analytical table, in order to identify the iconographical theme that encompasses all the jewellery pieces as a whole.

3.2. Analytical Table

Table B illustrates all the relevant information about Sit-Hathor's jewellery pieces regarding the iconographical interpretation. This table combines the information gathered from the pre-iconographical description (materials and colours) and the iconographical description (symbols), in relation to the iconographical interpretation's themes and the overall iconographical theme.

Table B: Sit-Hathor's jewellery pieces relating to the iconographical interpretation.

Item Code	Sit-Hathor's Pieces (3)	Materials	Colours	Symbols	Themes	Iconographical Theme
B5.1	Lotus inlaid clasp	Gold, carnelian, lapis lazuli, turquoise	Gold, red, blue	Lotus flowers, goddess Bat w/ pectoral, knot	Rebirth, Upper Egypt, protection through union	Afterlife, Unity, Health
B5.2	Motto clasp	Gold, carnelian, lapis lazuli	Gold, red, blue	Hieroglyphs ("the two gods are at peace")	Hieroglyphs	Unity
B5.3	Papyrus gold knot clasp	Gold, carnelian	Gold, red	Knot, papyrus umbels	Protection through union, rebirth, youth, Lower Egypt	Health, Afterlife, Unity
Summary:		Gold, carnelian, lapis lazuli, turquoise	Gold, red, blue	Lotus flowers, goddess Bat, knot, hieroglyphs, papyrus umbels	Rebirth, Upper Egypt, protection through union, hieroglyphs, youth, Lower Egypt	Afterlife x2, Unity x3, Health x2

This table gives a clear indication as to what the attributed iconographical theme was per jewellery piece, as well as an indication in the summary to which iconographical theme was the most commonly found within the selection of jewellery pieces. This iconographical theme should be kept in mind when beginning the next section on Mereret's jewellery as one should note how it might differ or have possible similarities between them.

4. MERERET'S JEWELLERY

Also excavated at the pyramid of Senwosret III, was the burial chamber of a princess. This princess' treasure contained three scarabs inscribed with the name Mereret and the title "king's daughter" (Grajetzki, 2014:92). Therefore, Mereret is believed to have been the owner of this treasure and will be referred to as such in this study. There is, however, no conclusive proof, but it is believed that she was the daughter of Senwosret III (Grajetzki, 2014:92).

4.1. Mereret's Jewellery Pieces

There were seven jewellery pieces selected to represent the jewellery of princess Mereret. These were also identified with the use of Aldred (1971:Plates 44, 45, 46).

Within this section the seven jewellery pieces of princess Mereret will be described based on their individual elements identified at first glance, as well as the symbolic significance of these individual elements. These elements will then be grouped based on their semantic domains into the corresponding iconographical theme. These jewellery pieces were namely Mereret's gold-framed bead necklace, inlaid shell pendant, shell pendant string, gold shell pendant, falcon pendant, blue cylinder pendant, and gold cylinder pendant. These were chosen to represent an array of different types of jewellery, as well as to include a variety within each type. This selection also tried to eliminate the possible influence of ceremonial dress, as pectorals, for example, were mainly worn in religious ceremonies.

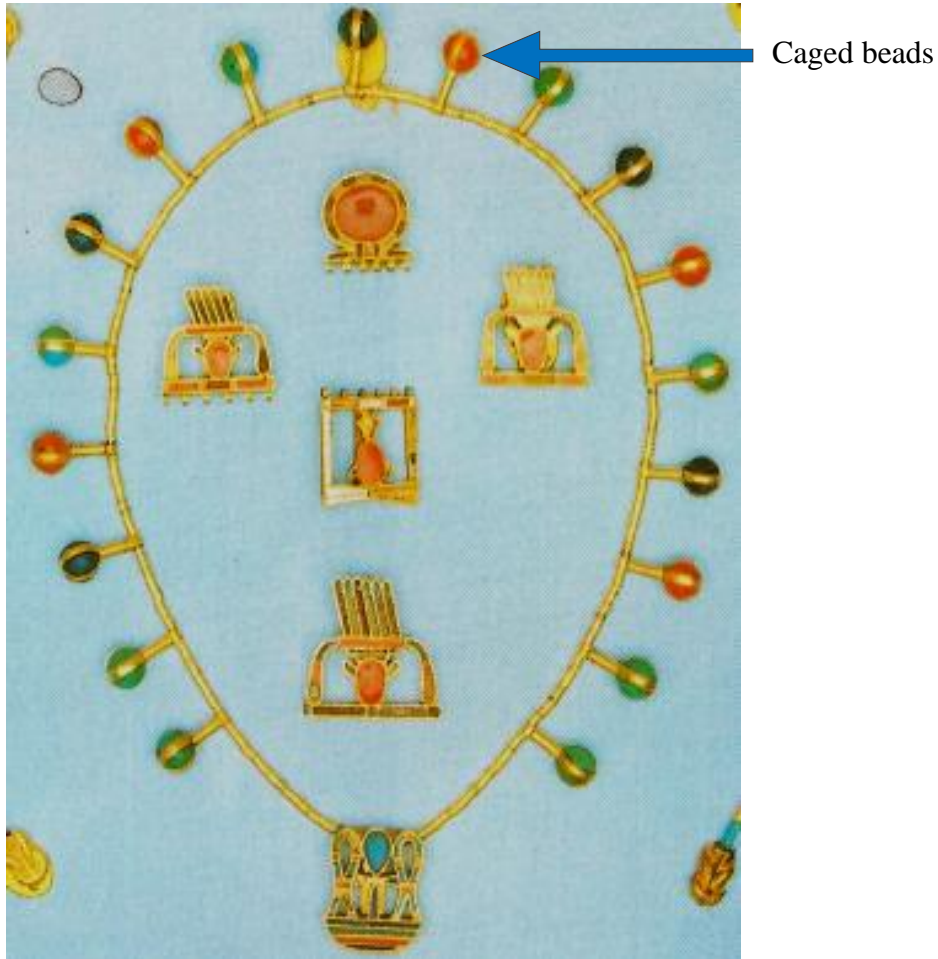
C3.1¹²⁴ Gold-framed caged bead necklace

Gold, carnelian, lapis lazuli, and turquoise.

No measurements

Cairo Museum, Cat. No. 53069

De Morgan, 1895:66 (12)



*Figure 59: Princess Mereret's jewellery, including the caged bead necklace (outer, C3.1) and six motto clasps.
[Source: Brown.edu]*

This necklace of princess Mereret displayed in the Cairo Museum was reconstructed from pieces discovered throughout her tomb (Aldred, 1971:195). In this study, only the caged beads will be analysed, as the reconstruction with the motto clasp as seen in figure 60 (above), should not be allowed to influence the iconographical theme of the caged beads. These pendants were made from five carnelian, five lapis lazuli, and eight turquoise balls (Aldred, 1971:195). The balls were wrapped in two strips of gold sheet to form a cage around the ball (Aldred, 1971:196). These strips were inserted into a gold foil striated tube, from

¹²⁴ This section discusses Mereret's complete necklaces.

which one strip extends through into a loop and soldered to form a ring for a string to thread through (Aldred, 1971:196).

These perfectly round balls of semi-precious stones illustrated the expert lapidary work the ancient Egyptians had mastered already in the 12th Dynasty (Lucas & Harris, 1962:42). The use of the stone balls can be associated with their colour symbolism (red representing chaos, and regeneration; blue representing the heavens, and creation); however, it is highly probable that these caged beads were firstly meant to be a decorative element in the necklace. Therefore, the iconographical theme attributed to Mereret's gold-framed caged bead necklace is 'decor'.

C4.1¹²⁵ Inlaid shell pendant

Gold inlaid with carnelian, lapis lazuli, and turquoise.

H. 4,6 cm

Cairo Museum, Cat. No. 53070

De Morgan, 1895:65 (4)



Figure 60: Princess Mereret's inlaid shell pendant with floral motifs (C4.1). [Source: Egypt-museum.com]

The inlaid shell pendant was a gold sheet formed to look like a trimmed pearl shell (Aldred, 1971:196). It was inlaid with carnelian, lapis lazuli, and turquoise. The cloisonné-work outlined a lotus flower at the top of the pendant, a ring of stylised flower petals around the edges, and at the bottom a three chevron design.

The pearl shell (bivalve) shaped pendant was used as an amulet for health (Andrews, 1994:43). The lotus flower was a symbol of rebirth into the afterlife, as well as representing Upper Egypt. The flower petals were symbols of rebirth, but also life and fertility. It was important to note that the chevron pattern at the bottom of the pendant could be interpreted as a fertility symbol, due to the resemblance of the triangular pubic area, as well as the body of serpents (Mundkur 1978:264, 265). However, the stylised flower petals around the edge, could lead one to interpret the chevrons as another stylised flower petal design. Therefore, only three iconographical themes are present in princess Mereret's inlaid shell pendant, namely 'health', 'afterlife', and 'unity'.

¹²⁵ This section discusses Mereret's pendants.

C4.2 Shell pendant string (part of collar?)

Gold.

L. of chain 10 cm (longer in De Morgan, 1895:65 (10), Plate 23), H. of shells 0,8 cm

Cairo Museum, Cat. No. 53171

De Morgan, 1895:65 (10)



Figure 61: Princess Mereret's jewellery, including the shell pendant string with soldered links (C4.2). (De Morgan, 1895:Plate 23)

The shell pendant string of princess Mereret consisted of approximately 50 sets¹²⁶ of 3x3 ring-beads soldered together to form a rectangular segment. Attached to some of these segments were 26 bivalve shells (De Morgan, 1895:65).¹²⁷ It was suggested by Aldred (1971:196) that these segments would have been strung on a three string necklace, forming part of a collar; however, these elements will only be looked at as pendants in this study.

The symbolic use of the bivalve shell was connected to amulets of health (Andrews, 1996:43). It is therefore associated with the iconographical theme of 'health'. It is also important to note how the 3x3 rectangular segments consisted of nine ring-beads and is therefore attributed also to the Ennead, which was a group of nine gods in the Heliopolis cosmogony (David, 2003[1998]:152). This connection to the gods, could possibly be interpreted as a protection of health with the power of the gods.

¹²⁶ Due to sources not specifying the exact amount (i.e., De Morgan, 1895:65; Aldred, 1971:196), as well as unclear photographs, the number of sets could not be determined with certainty (see Appendix A for a detailed image illustrating the approximation of sets).

¹²⁷ Aldred (1971:196, Plate 45) only displayed five of these bivalve shells on 18 rectangular segments.

C4.3 Gold shell pendant

Gold.

W. 7,6 cm

Cairo Museum, Cat. No. 53255

De Morgan, 1895:64 (3)

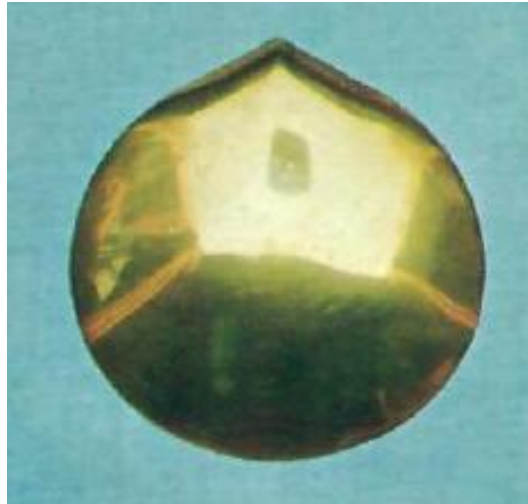


Figure 62: Princess Mereret's gold shell pendant (C4.3). (Aldred, 1971:Plate 45)

This shell pendant was shaped from a gold sheet. It is hollow at the back with a ring soldered at the top for a string to thread through. It is believed that the inspiration for such pendants came from Nubia. Originally such large pendants were made of an actual shell trimmed to the desired shape and inscribed with the name of the king. The use of solid gold in this pendant emphasised the economic stability during the 12th Dynasty of ancient Egypt, as well as the advancement of jewellery production techniques in order to achieve such a smooth surface on the convex (Aldred, 1971:72, 85).

The symbolic use of such a bivalve shell was to be an amulet of health. This led to categorising the gold shell pendant of princess Mereret according to the iconographical theme of 'health'.

C4.4 Falcon pendant

Gold inlaid with carnelian and faience, other inlays missing.

W. 3,3 cm

Cairo Museum, Cat. No. 53078

De Morgan, 1895:65 (6)



Figure 63: Princess Mereret's falcon pendant (C4.4). [Left drawing – De Morgan, 1895:Plate 19; right – Aldred, 1971:Plate 44]

This pendant was cut from a gold sheet with cloisons soldered to the front. These were inlaid with carnelian, and blue and green faience. Other inlays were also present, but have since decayed into a white paste or become missing (Aldred, 1971:195). The gold sheet was cut into the shape of a falcon with its wings outstretched. In its talons, it holds two *shen*-rings. On the back, two rings were soldered for a necklace string, and two rings were soldered below the tail for other pendants, not identified in the deposits of the tomb (Aldred, 1971:195).

The falcon was a symbol of kingship, as well as a representation of rebirth in the afterlife (Goff, 1979:228; *AGS* s.v. *Horus*). The *shen*-rings were symbols of eternity and unity, which emphasised the symbolic themes of kingship, and rebirth. The symbolic significance of the *shen*-rings' unity aspect, in conjunction with the falcon's kingship aspect, was reminiscent of the unification of Upper and Lower Egypt during the 12th Dynasty. Therefore, the iconographical themes attributed to the falcon pendant of princess Mereret was 'unity', and the 'afterlife'.

C4.5 Blue cylinder pendant

Gold inlaid with lapis lazuli and turquoise.

L. 5,3 cm

Cairo Museum, Cat. No. 53072

De Morgan, 1895:70 (56)

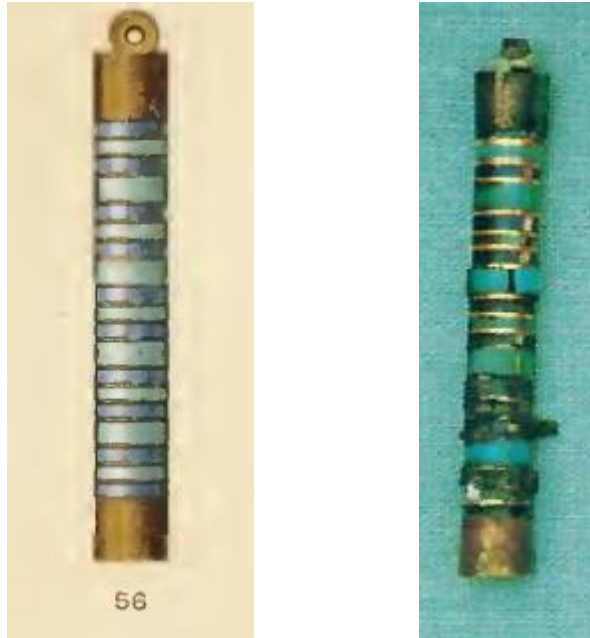


Figure 64: Princess Mereret's blue cylinder pendant (C4.5). (Left drawing – De Morgan, 1895:Plate 19; right – Aldred, 1971:Plate 46)

The following two pendants are gold cylinders with a hollow centre, fitted with a top to function as a cap. A ring was soldered to the top for a string to thread through. It was believed that these pendants contained an amulet of perishable materials (Aldred, 1971:197).

The blue cylinder pendant of princess Mereret has gold cloison rings inlaid with alternating rows of lapis lazuli and turquoise (Aldred, 1971:197). There were no apparent symbolic themes within this pendant. However, the use of lapis lazuli and turquoise had a close connection to the sky and heavens through the use of blue semi-precious stones. This would imply that the pendant was used to form a connection to the gods. Regardless of this, it is safe to assume that this pendant was rather decorated according to the iconographical theme, 'decor', due to the fact that the contents of the amulet would have determined the symbolic significance of the pendant (Aldred, 1971:197).

C4.6 Gold cylinder pendant

Gold decorated with granules.

L. 4,9 cm

Cairo Museum, Cat. No. 53071

De Morgan, 1895:70 (55)



Figure 65: Princess Mereret's gold cylinder pendant (C4.6). (Left – De Morgan, 1895:Plate 24; right – Aldred, 1971:Plate 46)

Similar to the previous pendant, the gold cylinder pendant of princess Mereret is also a cylindrical tube with a cap and ring (Aldred, 1971:197). However, this tube was decorated with granules in a chevron pattern (De Morgan, 1895:70). The granulation technique of this pendant is much finer than the examples from princess Khnumet's deposits.

The use of the chevron pattern was symbolically significant of fertility, due to the triangular shape being reminiscent of the pubic area, as well as serpents (Mundkur 1978:264, 265). Due to the use of such a clear decorative pattern, the gold cylinder pendant is classified according to the iconographical theme of 'womanhood'.

Therefore, within this section the seven jewellery pieces of princess Mereret was described based on their individual elements identified at first glance, as well as the symbolic significance of these individual elements. These elements were then grouped based on their semantic domains into the corresponding iconographical theme. These jewellery pieces were namely Mereret's gold-framed bead necklace, inlaid shell pendant, shell pendant string, gold shell pendant, falcon pendant, blue cylinder pendant, and gold cylinder pendant. These discussions on each piece will furthermore be summarised within the following analytical table, in order to identify the iconographical theme that encompasses all the jewellery pieces as a whole.

4.2. Analytical Table

Table C illustrates all the relevant information about Mereret's jewellery pieces regarding the iconographical interpretation. This table combines the information gathered from the pre-iconographical description (materials and colours) and the iconographical description (symbols), in relation to the iconographical interpretation's themes and the overall iconographical theme.

Table C: Mereret's jewellery pieces relating to the iconographical interpretation.

Item Code	Mereret's Pieces (7)	Materials	Colours	Symbols	Themes	Iconographical Theme
C3.1	Gold-framed caged bead necklace	Gold, carnelian, lapis lazuli, turquoise	Gold, red, blue	Caged beads	Decor	Decor
C4.1	Inlaid shell pendant	Gold, carnelian, lapis lazuli, turquoise	Gold, red, blue	Pearl shell, lotus flower, flower petals, chevrons	Health, rebirth, Upper Egypt	Health, Afterlife, Unity
C4.2	Shell pendant string (part of collar?)	Gold	Gold	Bivalve shell	Health	Health
C4.3	Gold shell pendant	Gold	Gold	Bivalve shell	Health	Health
C4.4	Falcon pendant	Gold, carnelian, blue and green faience	Gold, red, blue, green	Falcon, <i>shen-signs</i>	Kingship, rebirth, Eternity	Unity, Afterlife
C4.5	Blue cylinder pendant	Gold, lapis lazuli, turquoise	Gold, blue		Decor	Decor
C4.6	Gold cylinder pendant	Gold	Gold	Chevrons	Fertility	Womanhood

Item Code	Mereret's Pieces (7)	Materials	Colours	Symbols	Themes	Iconographical Theme
	Summary:	Gold, carnelian, lapis lazuli, turquoise, blue and green faience	Gold, red, blue, green	Caged beads, Pearl shell, lotus flower, flower petals, Bivalve shell, Falcon, <i>shen</i> -signs, Chevrons	Decor, health, rebirth, Upper Egypt, kingship, eternity, fertility	Decor x2, Health x3, Afterlife x2, Unity x2, Womanhood x1

This table gives a clear indication as to what the attributed iconographical theme was per jewellery piece, as well as an indication in the summary to which iconographical themes were the most commonly found within the selection of jewellery pieces. These iconographical themes, as well as those from Khnumet and Sit-Hathor introduced one to the probability of similar iconographical themes between jewellery pieces from the same royal woman.

5. SUMMARY

In summary, the third phase of this iconographical study was the iconographical interpretation. In order to simplify the discussions within the iconographical interpretation phase and properly notice how certain symbolic themes were more prominently represented within a jewellery piece, groups were formed based on semantic domains. These groups were termed iconographical themes and represented a set of symbolic themes used in the jewellery pieces under discussion. The six iconographical themes were ‘afterlife’, ‘unity’, ‘heavenly influence’, ‘womanhood’, ‘health’, and ‘decor’.

This chapter introduced the setting in which these jewellery pieces were excavated in. Each of the twenty jewellery pieces selected for this study was then analysed with the use of the information gathered in phase one and two of the iconographical study. First, the pieces were described based on the descriptions of Aldred (1971) and some individual reports on certain pieces. After describing the manufacturing of each piece, the symbolic elements were discussed in relation to each other. After which these elements were grouped to identify the corresponding iconographical themes.

This chapter facilitated the understanding of how the jewellery pieces could have been created with a specific iconographical theme. The iconographical themes will help in the coming chapters to understand how each woman had a possible preference towards a certain group of jewellery pieces based on their iconographical value.

This chapter therefore concluded the iconographical study division, and therefore the next division will be a discussion on the iconological interpretation.

CHAPTER 5: ICONOLOGICAL INTERPRETATION

1. INTRODUCTION

In the previous chapter the iconographical interpretation was discussed. This third phase of the iconographical study was to simplify the discussions within the iconographical interpretation phase and properly observe how certain symbolic themes were more prominently represented within a jewellery piece, and groups were formed based on semantic domains. These groups were termed iconographical themes and represented a set of symbolic themes used in the jewellery pieces under discussion. The six iconographical themes were ‘afterlife’, ‘unity’, ‘heavenly influence’, ‘womanhood’, ‘health’, and ‘decor’. Firstly, the pieces were described based on the descriptions of Aldred (1971) and other individual reports on certain pieces. After describing the physical appearance of each piece, the symbolic elements were discussed in relation to each other. After which these elements were grouped to identify the corresponding iconographical themes. This previous chapter therefore helped one to understand how the jewellery pieces could have been created with a specific iconographical theme. The iconographical themes will help in the coming chapters to understand how each woman had a possible preference towards a certain group of jewellery pieces based on their iconographical value. This previous chapter therefore concluded the iconographical study division, and therefore the last division will be discussed.

This last division in this study is the iconological interpretation. Van Straten (1994:4) stated that the purpose of this section was to ask the question: “Why was it created just so?”

Iconology is a term that refers to the identification of the theme of an artwork through the analysis of its “cultural, social, and historical background” (Van Straten, 1994:12; Müller, 2015:78). Iconology differs from iconography, based on the method used to interpret an art piece. Iconography describes an artwork and tries to interpret the representations in it, while iconology tries to explain an artwork based on socio-historical factors (Van Straten, 1994:18). An iconological investigation, therefore, makes use of the socio-historical factors that might not have been “consciously brought into play” by an artist (Van Straten, 1994:12). Consequently, an iconological investigation aims to identify “the deeper contents of a work

of art not explicitly intended by the artist but nevertheless incorporated in his work” (Van Straten, 1994:16). The use of such an iconological interpretation, as defined by Van Straten (1994:12), in this iconographical study was important, as one had to understand how the socio-historical context could have influenced the design process of a jewellery piece.

The iconological interpretation phase will therefore be used to determine how the “cultural, social, and historical background” could have possibly influenced the use of certain themes and symbols in art (Van Straten, 1994:12).

Firstly, mention will be made of the historical background. This section will help one understand the historical background that could have played a part in the design of a jewellery piece. Certain factors will arise in this section that will help one to understand what the iconological interpretation could be influenced by.

Next, it is important to be reminded in the iconological interpretation of the setting in which these jewellery pieces under discussion were excavated in. This is based on the fact that the setting of a jewellery piece would form part of the cultural background a jewellery piece would have. This section will help one to understand that the jewellery pieces can be interpreted as personal objects and not purely as funerary objects.

Following the setting, will be a discussion on the types of jewellery one can find in ancient Egypt. The different types of jewellery pieces will be discussed based on the common use they had in ancient Egyptian culture. The type of jewellery piece would form part of the social background in the iconological interpretation. This social background will be determined by the types of jewellery pieces found from ancient Egypt, as they might be influenced by the social traditions¹²⁸ of a culture.

Henceforth, the iconographical interpretation will aim to determine how the iconographical themes determined in the previous chapter could have been influenced by “cultural, social, and historical background” of ancient Egypt (Van Straten, 1994:12). These factors determined as possible influences in the 12th Dynasty were namely the craftsmen, trade, and the amuletic use of jewellery pieces. In the next chapter, these factors will be taken into consideration when discussing the selected jewellery pieces of each royal woman. Understanding how the historical, cultural, and social background impacted the design of a

¹²⁸ This term is used in this study to refer to items used in a culture to portray certain social factors, such as a king would wear a crown to illustrate his role in power, or the function of a wedding ring to indicate that one is married.

jewellery piece, will be important to take note of in the following chapter. This is due to the fact that all the jewellery pieces will be discussed as a set of each royal woman, in order to identify the common or opposing features between them.

2. HISTORICAL BACKGROUND

In order to understand the 12th Dynasty, one was first introduced to the history that led up to it in section 1 of Chapter 1. The history of Egypt was seen to be divided into nine time periods, namely the Early Dynastic, Old Kingdom, First Intermediate, Middle Kingdom, Second Intermediate, New Kingdom, Third Intermediate, Late, and the Ptolemaic Periods. The 12th Dynasty formed part of the Middle Kingdom and is the time period relevant to this study. A brief overview will therefore be given here on all the factors that were applicable to the 12th Dynasty in ancient Egypt. This section will help one understand the historical background that could have possibly influenced the design of a jewellery piece.

The 12th Dynasty began after the assassination of the third ruler of the 11th Dynasty. Amenemhet I then rose to power and reorganised the country for a period of political and foreign trade policies that characterised the 12th Dynasty (David, 2003[1998]:126). This was a period when there was a lot of interaction with different cultures, such as Nubia, the Syria-Palestine region, Asia Minor, particularly Byblos and Phoenicia, the Aegean Islands, as well as re-established connections with Punt¹²⁹ (David, 2003[1998]:127; Willems, 2010:92). One also saw activity on the trade routes with Sinai's turquoise mines, and between the Levant¹³⁰ and ancient Egypt (Callender, 2002:158).

This type of interaction with foreign lands is supported by *The Story of Sinuhe*. This story describes how the official, Sinuhe, fled Egypt due to a force disturbing his soul after the death of the pharaoh, Amenemhet I (Simpson, 2003:56). He was welcomed and fed in many cities in Syria-Palestine, which clearly shows how the relationship with Egypt gave him good fortune (Simpson, 2003:56). One should recognise that this interaction with foreign lands was mainly for trade, and in the jewellery industry this introduced different materials. A main example was the import of lapis lazuli (see Chapter 2, section 2.2). This is the only semi-

¹²⁹ The first interaction with Punt was in the Old Kingdom (David, 2003[1998]:127).

¹³⁰ The Levant is a part of the Fertile crescent that encompasses areas such as the eastern Mediterranean regions of Asia Minor and Phoenicia (*WHE s.v. levant*). *WHE* will from here on refer to the "World History Encyclopedia"; an online resource edited by Jan van der Crabben (2021) available at: <https://www.worldhistory.org/>

precious stone used that was not available in ancient Egypt and was mainly imported from Persia, but possibly from Afghanistan (Lucas, 1926: 166).

Therefore, factors that could have played a role in the analysis of the jewellery design in the iconological interpretation, were related to the historical background in the 12th Dynasty. These factors were namely the location of where they were created, the influence foreign cultures had through the trade of items, symbols, and techniques, or the specific use a jewellery piece might have had in rituals or as social traditions. These factors will be analysed fully in section 5 of this chapter. However, one first needs to explore the setting in which the jewellery pieces under discussion were excavated in.

3. SETTING OF THIS STUDY

It was important in the iconological interpretation to be reminded of the setting in which these jewellery pieces under discussion were excavated in. This was especially noteworthy, as these pieces were uncovered in a burial setting. Jewellery pieces in a burial could have been influenced by a different set of iconographical themes. This is due to the fact that the burial in ancient Egypt was prepared in specific ways to help guide the deceased into the eternal afterlife. This section will therefore highlight the setting in which the jewellery pieces under discussion were excavated in, in order to remind the reader that care was taken to avoid the use of purely religious items, such as pectorals.

The three women whose jewellery were analysed, was princesses Khnumet, Sit-Hathor, and Mereret. They were buried with these jewellery pieces in the pyramid complexes of Amenemhet II and Senwosret III, respectively. Their relationship to the pharaohs Amenemhet II and Senwosret III is still unclear, but what is certain is the fact that they were regarded as part of the royal family, be it as queens or princesses. Most often they were referred to with the title of “king’s daughter” (*sʿt nsw*) (see also Chapter 4 – section 2 on Khnumet, section 3 on Sit-Hathor, and section 4 on Mereret) (Grajetzki, 2014:60, 83, 92).

These royal women’s jewellery pieces were chosen for this study because all three of their tombs are situated at Dahshur. The Dahshur site was in use during the 12th Dynasty (ca. 1994–1781 BCE), and was excavated by Jacques de Morgan in 1894–1895 (Fakhry, 1969:216, 220, 253; Dodson & Hilton, 2010:289). Dahshur is located west of the Nile, south of Saqqara. It is a necropolis containing different pyramid structures. The pyramid relevant to

the excavation of Khnumet's jewellery was the one of Amenemhet II, and the pyramid relevant to the excavation of Sit-Hathor's and Mereret's jewellery was the one of Senwosret III (Arnold, 2002:69; Harris, 2016:263).

Amenemhet II's pyramid was found southeast of the Northern Pyramid of Sneferu¹³¹, which is one of the main attractions at Dahshur (Fakhry, 1969:216). This pyramid, called the White Pyramid, is now in ruins and it is unclear what its dimensions were, but we do know that it was built of limestone (Watson, 1987:52). The royal tombs that lie on the west side of the pyramid within the temenos wall were the final resting place for several princesses and a queen; this included princess Khnumet (Edwards, 1947:183; Fakhry, 1969:216–217).

The pyramid of Senwosret III was built of mudbricks and is situated north of Amenemhet II's pyramid (Fakhry, 1969:221). Although the pyramid is also now in ruins, on the north side of the pyramid the royal family's tombs were excavated, including those of Sit-Hathor and Mereret (Edwards, 1947:185).

Most of the jewellery pieces selected for this study were excavated in the chamber next to the burial chamber. This was to eliminate the possibility that the jewellery pieces were only present in the tomb for funerary rituals, and not pieces that could be regarded as personal items.¹³² Therefore, the understanding that the jewellery pieces could be interpreted as personal objects and not purely as funerary objects, was important to consider in the iconological interpretation. This is based on the fact that the setting of a jewellery piece would form part of the cultural background it had. Following this discussion on the cultural background of a jewellery piece, will be the factor applicable to the social background an item has, namely the type of jewellery.

4. TYPES OF JEWELLERY

Different types of jewellery had different functions. These functions also often played a role in the design and what symbols would be present in the jewellery piece. The different types of jewellery pieces will therefore be discussed based on the common use they had in ancient Egyptian culture. This is based on the fact that the type of jewellery piece would form part of

¹³¹ He is regarded as the founder of the 4th Dynasty and was the first to build his pyramid at Dahshur (Fakhry, 1969:71).

¹³² See section 5.3 of Chapter 2 for a discussion on the location where the jewellery pieces under discussion were excavated.

the social background a jewellery piece would have in the iconological interpretation. The social background will be determined by the types of jewellery pieces found from ancient Egypt, as they might be influenced by the social traditions of a culture.

Within cultures there are certain social traditions. These relate information to others of the same culture through certain practises. This is for example the use of a crown on a person's head to indicate kingship, or the function of a wedding ring (in Christian culture) or bindi (in Hindu culture), to indicate a person is married (*SS s.v. love & marriage*). These practises will only be recognised through the understanding of the culture and therefore their social background.

In ancient Egyptian culture these social traditions can be seen in wall reliefs (as discussed in section 5.2 of Chapter 2). The social background of jewellery pieces therefore relies on the fact that different types of jewellery pieces were used for different social traditions.

The type of jewellery used for the head was usually classified as diadems, but could also include circlets or wig ornaments. These were used to adorn the head, but were especially used to indicate status, as the head is “the uppermost part of the human body” (Harris, 2016:254). These headpieces were also important for their symbolic use, as they were used to incorporate symbolic meanings for rituals and symbolic motifs.

Around the neck, one had pieces such as collars, necklaces, and pectorals. Collars are regarded as one of the most common pieces of jewellery in ancient Egypt (Grajetzki, 2014:118). There are two different types of collars relevant to this study: the broad collar (that has two semi-circular terminals) and the falcon collar (with two terminals in the shape of a falcon head with head cloths) (Grajetzki, 2014:119). Collars are most often depicted in ancient Egyptian art in the use of rituals, and are found adorning mummies in their tombs. Necklaces range from very simple pendants on a string, to the intricate design of a pectoral (Aldred, 1971:144). Their use differs depending on the design of the pendant, such as a symbol of a deity, a scarab, or a flower. Pectorals were often presented as gifts, but were also worn in rituals and had protective properties (Aldred, 1971:20, 146–148).

Around the limbs, the ancient Egyptians usually wore bracelets and anklets, but rings can also be found in the scarab form in burials. Bracelets and anklets were often designed to match a broad or falcon collar (Scott, 1964:226). While around the waist, a girdle was worn

most often in religious ceremonies, but was also very often used in the funerary context. Girdles also had amuletic properties in the protection of the “pelvic organs from the aborting and sterilizing effect of a malevolent gaze” (Aldred, 1971:16).

Princesses Khnumet, Sit-Hathor, and Mereret’s jewellery collections included a wide variety of jewellery types. In the 12th Dynasty, royal women were buried usually wearing a collar, bracelets, anklets, and various amulets (Grajetzki, 2014:129). The rest of their jewellery array was buried with them in their tomb in a jewellery casket, such as their diadems, necklaces, wig ornaments, anklets, bracelets, girdles, etc. (Grajetzki, 2014:132).

In conclusion, these jewellery types would have been used in ancient Egypt based on their social traditions. This leads one to understand the social background applicable to the 12th Dynasty in the iconological interpretation.

5. POSSIBLE INFLUENCES

From the above discussion, one was presented with the historical, cultural, and social background that could have had a possible influence on the construction of a jewellery piece. These backgrounds led to the different factors that could have influenced the design and production of a jewellery piece. In this section the possible influences that could have had an impact on the design of a jewellery piece will be discussed. The biggest influence would have been the craftsmen, as well as the techniques available to them, which would have restricted the possibilities in the design of a jewellery piece. Another aspect that was taken into consideration was the contact with foreign cultures, as trade and military policies were expanded during the Middle Kingdom. Lastly, the use of a jewellery piece would have influenced the types of symbols in the design based on their amuletic value for religious purposes.

5.1. Craftsmen

The first factor one should consider when discussing the iconological interpretation was the role the craftsmen played in the manufacturing of jewellery. Jewellery making techniques were quite advanced in ancient Egypt. These manufacturing techniques were usually handed down by craftsmen from fathers to their sons. It was a “closely guarded mystique” and only a

select few families had the knowledge to produce the jewellery pieces we know today (Aldred, 1971:47). The royal elites of ancient Egypt usually had their personal craftsmen connected to the royal family, who made all the jewellery for the royal household. These privileged craftsmen worked in the royal workshops connected to the palace (Aldred, 1971:47).

One of the first depictions of jewellery makers busy working in these workshops, dates to the 5th Dynasty (see Figure 67 below, for this relief) (Andrews, 1996:68). It is a painted relief from the tomb of Kaemrehu at Saqqara, now held in the Cairo Museum (Andrews, 1996:68). The rows of labourers were depicted baking, brewing, sculpting, metalworking, and bead-threading (Andrews, 1996:68). This depiction of threading beads onto a string was done by two dwarfs to form a collar (see Figure 67 below, indicating these dwarfs in a red square) (Andrews, 1996:68). The only depiction of jewellery makers in the Middle Kingdom is in the tomb of Baqt III¹³³ at Beni Hasan (Andrews, 1996:74).



Figure 66: Relief from the tomb of Kaemrehu at Saqqara, now in the Cairo Museum. [Source: Library-artstor-org]

In the 12th Dynasty, Amenemhet I rose to power. He founded the capital Itj-towy in about the 20th year of his reign (Simpson, 1963:57, 58; David, 2003[1998]:84). Although the exact location of the town is still unknown, it is generally believed to be on the West Bank of the Nile, south of Memphis, and north of Thebes; possibly in the vicinity of Lisht (Simpson, 1963:57; Bell, 1975:256; David, 2003[1998]:84; Romer, 2013:531). The full name of the city

¹³³ He was a provincial nobleman, who helped reunite Egypt at the end of the First Intermediate Period (Andrews, 1996:74).

'*Imn-m-h't itw t'.wy* ("Amenemhet takes possession of the two land") was shortened to Itj-towy (Simpson, 1963:56, 59). The capital Itj-towy was said to be the home of the royal residence of the pharaohs from this dynasty (including Amenemhet II and Senwosret III), as well as government administration (Simpson, 1963:58). This is supported by the fact that the name of the capital was used in references to craftsmen, artisans, the mortuary cult of the ruler¹³⁴, and royal officials/priests (Simpson, 1963:58, 59). Therefore, the workshops, where the jewellery pieces relevant to this study were created, were most likely situated at Itj-towy.

The selected craftsmen who worked in these workshops connected to the palace would change as kingship shifted, which would cause the change in techniques in the production of jewellery across generations (Aldred, 1971:47). This would make one expect consistency in the form of jewellery pieces under the same ruler; however, this is not the case. One can see in this study how the jewellery differs quite substantially even if it was possibly made in the same royal workshop.

Craftsmen played an important role in the iconological interpretation and are therefore a factor that could have been a possible influence in the design applicable to all the jewellery pieces under discussion. This is based on the assumption that these jewellery pieces were created in the same workshop that was connected to the royal household. However, the role craftsmen play is in conjunction with the materials and techniques available to them, which will be discussed next.

5.2. Trade

As seen in section 2 of this chapter, the Middle Kingdom unification of Egypt reintroduced trade routes with foreign cultures (García, 2017:118). There is evidence of contact with foreign cultures through literature, artefacts, as well as the inclusion of foreign motifs in art (Kantor, 1947:23; Simpson, 2003:45, 54; García, 2017:115).

The two literary works¹³⁵ specifically of interest to studies of trade in the Middle Kingdom were *The Story of Sinuhe* and *The Shipwrecked Sailor*. The first appearance of both these texts dates to the 12th Dynasty (Simpson, 2003:45, 54). *The Shipwrecked Sailor* relates

¹³⁴ A mortuary cult refers to the aftercare of the deceased. This was done by providing regular offerings at a shrine of the deceased. The offerings were provided either by the family, or by a group of mortuary priests who would also conduct the cult of the deceased (AGS s.v. *necropolis*).

¹³⁵ Both translated by W. K. Simpson in Simpson (2003:45, 54).

the story told by a junior officer to his senior, about a time when he was shipwrecked after a storm on an expedition to the south. He tells the story at the occasion of returning after a failed expedition. These references to expeditions to foreign lands support the fact that in the Middle Kingdom there was an increase in contact with other cultures. *The Story of Sinuhe* tells of the man, named Sinuhe, who fled Egypt and reached cities in Syria and Palestine. There he was often welcomed and fed by the locals, based on the fact that he was “recognized” as a man from Egypt (*The Story of Sinuhe* B.27). This was evidence of a respectable relationship between Egypt and Syria-Palestine.

Both these texts tell us that trade routes were often ventured in search of valuable goods. However, these expeditions, being peaceful or not, accompanied the fact that the interaction with foreign cultures also lead to exchanging of ideas.

Evidence found to indicate the contact with other cultures included foreign motifs in art forms, as well as imported artefacts. Seals with Syrian stylistic elements were excavated in Egypt dating to the 12th Dynasty (García, 2017:115). This indicated either the movement of these people through Egypt, or the import of these objects through trade; however, it is clear that contact with foreign cultures was present during the Middle Kingdom. There are also multiple examples of tombs with foreign motifs decorating the walls, such as the use of spirals (Crete), griffins (Levant), or even jars resembling those from Canaan (Ataç, 2015:431; García, 2017:115). Fragments of Canaanite pottery have also been excavated along routes believed to be for trade in the Western Desert, and the Mersa/Wadi Gawasis Harbour (García, 2017:115). The motifs found to be of foreign origin in the jewellery pieces under discussion was the use of the butterfly motif in Khnumet’s butterfly pendant (A4.2) (discussed in section 3.2 (e) of Chapter 3, and A4.2 of section 2.1 in Chapter 4).

Through interaction with foreign cultures one can also see other elements being introduced into jewellery designs not found in previous pieces. The most obvious influence would be the introduction of foreign materials. As discussed in section 2.2 of Chapter 2, lapis lazuli was the only semi-precious stone found at first glance to be present in the jewellery pieces under discussion, that would not have been found in Egypt. Evidence showed that this semi-precious stone was traded in Persia and Afghanistan (Lucas & Harris, 1962:399). All the jewellery pieces identified to contain lapis lazuli, were namely Khnumet’s circlet (A1.1), diadem (A1.2), falcon collar 1 (A2.1), falcon collar 2 (A2.2), and *ankh* necklace (A3.2); Sit-Hathor’s lotus inlaid clasp (B5.1), and motto clasp (B5.2); and Mereret’s gold-framed bead

necklace (C3.1), inlaid shell pendant (C4.1), and blue cylinder pendant (C4.5). These jewellery pieces were thus created with the use of imported lapis lazuli.

Similarly to how materials would have been traded in foreign localities, new techniques in production of jewellery pieces were also identified in the 12th Dynasty. This being the granulation technique (discussed in section 3.8 of Chapter 2). The use of granulation in the jewellery pieces under discussion, was identified at first glance to be present in the jewellery pieces of Khnumet, namely her star pendant necklace w/ cockle-shells (A3.1), Medallion of Dahshur (A4.1), and butterfly pendant (A4.2); but also, in Mereret's gold cylinder pendant (C4.6). The introduction of this technique into Egypt was said to have been from the Etruscans or possibly from the Crete-Anatolian area (Curtis, 1915:66; Lilyquist, 1993:37). This identification of granulation in jewellery pieces made it clear that the interaction with foreign cultures brought over new ideas and technologies in the production of jewellery.

From these three elements that could have possibly influenced the design of a jewellery piece, one can begin to notice how much the 12th Dynasty would have come into contact with these foreign cultures. This is, therefore, also important to take into consideration when discussing the iconological interpretation, as the impact of trade would have been supported by the historical background. However, there is also the possibility that the design of a jewellery piece could have been influenced by the intended use of the piece.

5.3. Uses

Although the role craftsmen and trade had on a jewellery piece, another aspect important to take into consideration was how the jewellery piece would have been used in the 12th Dynasty. Jewellery was worn in ancient Egypt in daily life, rituals, and as funerary jewellery (Andrews, 1994:6). It is often difficult to determine whether jewellery was made just for the burial, or if it was actually worn in daily life for personal adornments (Grajetzki, 2014:129, 130).

The use of a jewellery piece is often determined by certain social traditions (discussed in section 4 of this chapter), which forms part of the social background a jewellery piece had. The function of the social background in the iconological interpretation would be based on the subconscious social traditions a craftsman had when designing a jewellery piece. This is

due to the fact that each jewellery piece was created with a specific function in mind, being it to identify genders, social status, occupation, or used in religious ceremonies. Although there is little evidence of jewellery being worn just as regular attire, one mainly has references to jewellery for its magical attributes (Scott, 1964:223).

The first evidence of the use of jewellery as amulets¹³⁶ dates to the Early Dynastic Period (Andrews, 1994:8). The use of an amulet was to provide the wearer with magical attributes, usually associated with protection against hostile forces (Scott, 1964:234; Aldred, 1971:15; Andrews, 1994:6)¹³⁷. The use of jewellery in the funerary practise is often attested to provide guidance and protection to the deceased in the afterlife (Scott, 1964:234; Andrews, 1994:6; Grajetzki, 2014:129).

This amuletic nature of a jewellery piece also came into play in the type of jewellery pieces. This was seen in section 4 of this chapter, which also mentioned the role headpieces had to indicate status (Harris, 2016:254). These aspects, i.e., the use or the type of jewellery piece, would have had a subconscious impact on a craftsman. Therefore, the design of a jewellery piece would have also been impacted by these aspects.

In conclusion, this section emphasised how the historical, cultural, and social background influenced the manufacturing of a jewellery piece. This was emphasised by role craftsmen have on the design aspect. Trade would have brought foreign materials, motifs, and techniques into a jewellery piece. And lastly, the intended use of a jewellery piece had social traditions that would have influenced the design of a jewellery piece.

The historical, cultural, and social background, therefore, gives one the tools to understand the context in which a jewellery piece was created. This was the aim that the iconological interpretation was set out to do.

¹³⁶ An amulet is defined as an object that grants magical powers or capabilities to the wearer, based on its shape, material from which it was made, or colour (Andrews, 1994:6).

¹³⁷ A plethora of research had been devoted to the studies of amulets, as Egyptian literature gives extensive guidance in the making and use of amulets from specific materials, shapes, and colours. See Andrews (1994) and Petrie (1914) for detailed divisions of different types of amulets.

6. SUMMARY

In this chapter, the iconological interpretation was analysed. This concluded the last phase in this study. The purpose of this phase was to understand how the design of a jewellery piece could have been influenced by aspects other than the iconography. This was done with the use of three elements Van Straten (1994:12) identified to be of importance, i.e., the historical, cultural, and social background.

Firstly, one was introduced to the historical background of the 12th Dynasty. This section emphasised how the historical context of a jewellery piece could have impacted the design. Certain factors were identified in this section that will help one to understand what the iconological interpretation could have been influenced by. These factors were namely the location of where they were created, the influence foreign cultures had through the trade of items, symbols, and techniques, or the specific use a jewellery piece might have had in rituals or as social traditions.

Before these factors were discussed in full, one was first reminded of the setting in which these jewellery pieces under discussion were excavated in. This was based on the fact that the setting of a jewellery piece would form part of the cultural background a jewellery piece had. This section, therefore, emphasised that the jewellery pieces could be interpreted as personal objects and not purely as funerary objects.

Following that, a discussion was required on how these personal objects could have functioned based on the type of jewellery piece. This section formed part of the social background in the iconological interpretation. This social background determined how the types of jewellery pieces might be influenced by the social traditions of ancient Egypt.

From these three discussions, one was introduced to the three possible influences that formed the iconological interpretation, namely the craftsmen, the impact of trade, and the use of a jewellery piece. These were determined to be the factors that could have been unconsciously brought into play by the craftsman designing a jewellery piece.

In the next chapter, these influences will be taken into consideration along with the iconographical themes, as the jewellery pieces will be discussed as a set of each royal woman, in order to identify the common or opposing features between them.

CHAPTER 6: DISCUSSION

1. INTRODUCTION

In Chapter 2 to 5, an iconographical approach was done as set out by Van Straten (1994:4). The first division was the iconographical analysis which gave one the tools to determine the iconographical themes relevant to each jewellery piece (see Chapter 4). However, with the incorporation of the iconological interpretation as a second division, it was emphasised that certain factors could have influenced the design of the jewellery. From these two divisions one was, therefore, introduced to each jewellery piece as an individual item. This chapter will discuss how these individual items could be connected for each royal woman.

Firstly, reference will be made to the information gathered in the pre-iconographical phase (Chapter 2). This will be done by analysing how certain materials, techniques, and colours identified at first glance were used repeatedly or as exceptions as compared to the jewellery piece collections of each woman.

Using the information gathered from the colours present on the jewellery pieces, the symbolic use of colours will be analysed in conjunction with the symbolic elements found at first glance to be present in the jewellery pieces, forming part of the iconographical description (Chapter 3). These elements will be discussed based on the iconographical themes found to be present in each jewellery piece, identified in the iconographical interpretation phase (Chapter 4).

From these three stages, one will therefore be presented with certain materials, techniques, and iconographical themes each woman might have had a certain tendency towards. Lastly, it will also be important to consider how the iconological interpretation might also have had an effect on the jewellery pieces found in a collection. This will be done by mentioning the possible influences that could have come into play when the collections of jewellery pieces were crafted for each woman.

From this section, one will possibly take away how each woman might have been inclined towards certain aspects when building her collection of jewellery pieces. This will help in understanding the freedom of expression these royal women might have had in ancient Egypt.

2. KHNUMET'S JEWELLERY

Iconographical themes identified in Chapter 4, section 2.1:

Afterlife x5, Unity x2, Womanhood x2, Health x2, Heavenly influence x1, Decor x1

In the analysis of princess Khnumet's jewellery pieces, one sees the most common use of the iconographical theme to be the 'afterlife'. This was based on the fact that her jewellery pieces often included symbols of rebirth, eternal life, immortality, and youth. This iconographical theme was attributed to five of the ten jewellery pieces of Khnumet, namely her circlet (A1.1), diadem (A1.2), star pendant necklace w/ cockle-shells (A3.1), *ankh* necklace (A3.2), and butterfly pendant (A4.2). The use of this iconographical theme in such prominence indicated that Khnumet would have possibly had a strong inclination towards jewellery pieces with symbolic elements relating to the 'afterlife' iconographical theme.

A possible explanation for the use of the 'afterlife' iconographical theme would be related to the fact that she is believed to have died at a young age, not yet reaching proper queen status (Harris, 2016:263). It is probably due to her youth that her jewellery pieces would have mainly used symbols relating to rebirth and eternal life, such as the use of floral elements¹³⁸ and *ankhs*¹³⁹. Formal cultic items relating to the iconographical themes of 'womanhood' and 'unity' would only have been introduced more prominently into her jewellery collection at a later stage in her life (Harris, 2016:263).

Another important aspect of princess Khnumet's jewellery pieces were that they were mainly gold with the use of chains, wires, and gold detailing. This being six of Khnumet's pieces: her circlet (A1.1) included wires, falcon collar 1 (A2.1) included gold drop beads, star pendant necklace w/ cockle-shells (A3.1) included chains, granulation, and gold shell pendants, "fly" pendant necklace (A3.3) included chains, and gold "fly" pendants, Medallion of Dahshur (A4.1) included chains, and granulation, and butterfly pendant (A4.2) included chains, and granulation. These pieces also lacked the use of semi-precious stone inlays as the main form of detailed work. This is in contrast to the jewellery pieces of Sit-Hathor, as well as Mereret, which were lacking in the use of chains, wires, and gold detailing in their jewellery pieces.¹⁴⁰ The granulation technique as a form of gold detailing is mainly present in

¹³⁸ See Khnumet's circlet (A1.1), and diadem (A1.2).

¹³⁹ See Khnumet's falcon collar 1 (A2.1), falcon collar 2 (A2.2), and *ankh* necklace (A3.2).

¹⁴⁰ Except for three pieces of princess Mereret: shell pendant string (C4.2) included gold soldered segments, and gold shell pendants, gold shell pendant (C4.3) included a gold shell pendant, and gold cylinder pendant (C4.6) included a gold cylinder pendant, and granulation.

the jewellery pieces of princess Khnumet.¹⁴¹ It was first interpreted as a method similar to that used by the Etruscans; however, Curtis (1915:66) noted that the butterfly (A4.2) and star pendant (A3.1)¹⁴² had a lack of “careful attention to minor details”. The globules are quite uniform in size; however, not perfectly round and smooth, with deep dents often on the sides (Curtis, 1915:66). He believed that these granules were formed from melting drops from a piece of wire (Curtis, 1915:66, 67). He also mentioned that the granules tended to be attached to the backing plate with “a superfluous amount of solder” (Curtis, 1915:67). It was especially of interest that only one other piece of jewellery included the use of granulation, i.e., Mereret’s gold cylinder pendant (C4.6). This observation, therefore, illustrates the unique aspects present in the techniques used to manufacture Khnumet’s jewellery pieces.

Furthermore, the use of mainly gold detailing in jewellery pieces could be identified as a supporting aspect of the ‘afterlife’ iconographical theme. This observation was based on the fact that gold was seen as a “divine and imperishable substance” (Wilkinson, 1994:83). It was referred to as an “imperishable” material that would last for eternity (Singer, 2010:11). The ancient Egyptians believed that the gods’ flesh and bones were made of pure gold, therefore the use of this metal was symbolic (AGS s.v. *Color Symbolism*; Singer, 2010:11).

This use of gold being the main material in the majority of jewellery pieces, led one to the analysis of the minimal use of the semi-precious stones. This lack of use of semi-precious stones in Khnumet’s jewellery could lead one to believe that the use of lapis lazuli, turquoise, carnelian, garnets, green felspar, and blue frit were supporting elements of creation (blue), sky and heavens (lapis lazuli), regeneration (red), and life and resurrection (green); and therefore, should not be regarded as the main iconographical theme of these items. These elements should rather be seen as attributes to the use of the ‘afterlife’ iconographical theme.

In relation to the iconological interpretation of the jewellery of princess Khnumet, was the possible influence trade would have had on the symbols and techniques. This was supported by her butterfly pendant (A4.2). The use of the butterfly in ancient Egyptian symbolism is still unclear (Haynes, 2013:27). It is, however, clear that the use of the butterfly was reminiscent of the other cultures the 12th Dynasty would have interacted with, i.e., Greece¹⁴³ (Haynes, 2013:28). This could have led one to interpret the butterfly as a symbol of

¹⁴¹ The only exception being the gold cylinder pendant (C4.6) of princess Mereret.

¹⁴² Curtis (1915:66) does not mention the Medallion of Dahshur (A4.1).

¹⁴³ Haynes (2013:28) also mentioned the use of the butterfly in Mexican beliefs and South American cultures.

rebirth and safe passage into the afterlife (Haynes, 2013:116). However, the butterfly symbol should still be regarded as a foreign motif in the 12th Dynasty.

The oldest dated archaeological finds making use of the granulation technique was found in Mesopotamia, approximately 2500 BCE, in the royal tombs of Ur (Maxwell-Hyslop, 1960:105). It is, therefore, believed that the granulation technique present in Khnumet's jewellery should be seen as a "foreign" technique that was not yet fully developed in ancient Egypt (Ogden, 2000:165).

In conclusion, Khnumet's jewellery pieces included mainly the use of the 'afterlife' iconographical theme. Her jewellery is also uniquely identified with multiple uses of chains, wires, and gold detailing from the three collections under discussion. One also sees a unique use of the granulation technique mainly within the jewellery pieces of princess Khnumet. In order to recall all the information gathered in this iconological analysis, the findings will be summarised in the following analytical table.

2.1. Khnumet's combined analytical table

The use of the following analytical table (Table A below) serves the purpose of combining all the information gathered from Khnumet's jewellery pieces in the first division of this study. This table lists the materials, colours, and techniques identified at first glance to be present on the jewellery pieces in the pre-iconographical description phase. The provenance that was important to note on each jewellery piece is also included from this phase. From the iconographical description, the symbols identified at first glance are listed. The symbolic significance of the colours and symbols is listed collectively as the themes identified in each jewellery piece in this analytical table. The iconographical themes present in each jewellery piece are also listed from the iconological interpretation phase. Each column was then summarised in the final row, as well as the aspects of importance as indicated in section 2 of this chapter marked in bold.

Table A: Khnumet's combined analytical table.

Item Code	Khnumet's Pieces (10)	Materials	Colours	Techniques	Provenance	Symbols	Themes	Iconographical Interpretation
A1.1	Circlet	Gold, carnelian, lapis lazuli, turquoise	Gold, red, blue	Cloisonné, wire	None	Pate cross, the five-pointed flowerets and flower buds, papyrus	Rebirth, eternal life, immortal, youth	Afterlife
A1.2	Diadem	Gold, carnelian, lapis lazuli, turquoise	Gold, red, blue	Cloisonné, casting, chasing, gold foil, gold sheet	None	Vulture, flowers, flowering stalk	Rebirth, youth, Upper Egypt, Lower Egypt	Afterlife, Unity
A2.1	Falcon collar 1	Gold, lapis lazuli, turquoise, carnelian, garnets, green felspar	Gold, red, blue, green	Cloisonné, beads, gold foil, plaster-filled casting	Reconstructed	<i>Ankh</i> , <i>djed</i> -pillar, <i>was</i> -sceptre, drop-beads, falcon heads	Life, stability, power, rebirth, decor	Health

Item Code	Khnumet's Pieces (10)	Materials	Colours	Techniques	Provenance	Symbols	Themes	Iconographical Interpretation
A2.2	Falcon collar 2	Gold, carnelian, lapis lazuli, turquoise	Gold, red, blue	Cloisonné, chasing, beads	Reconstructed, arbitrary, found on the mummy	Falcon heads, hieroglyphs, drop-beads	Kingship, rebirth, hieroglyphs, decor	Health, Unity
A3.1	Star pendant necklace w/ cockle-shells	Gold	Gold	Chain, gold foil, chasing, clay filled gilding, wire, granulation	None	Stars, cockle shells	Immortal, health	Afterlife
A3.2	<i>Ankh</i> necklace	Gold, carnelian, lapis lazuli, turquoise	Gold, red, blue	Drilling	Reconstructed	<i>Ankh</i>	Eternal life	Afterlife
A3.3	“Fly” pendant necklace	Gold	Gold	Chain, wire, gold sheet	None	“Fly”	Courage, fertility	Womanhood
A4.1	Medallion of Dahshur	Gold, blue frit	Gold, blue, black, brown, white	Cloisonné, granulation, chain	None	Cattle, rosettes	Heaven, eternal life, fertility	Heavenly influence, Womanhood
A4.2	Butterfly pendant	Gold	Gold	Gold sheet, wire, chain granulation, filigree	None	Butterfly	Rebirth	Afterlife
A4.3	Drop-bead pendants	Gold, blue inlay?	Gold, blue	Cloisonné, beads	Arbitrarily assembled	Drop-beads	Decor	Decor

Item Code	Khnumet's Pieces (10)	Materials	Colours	Techniques	Provenance	Symbols	Themes	Iconographical Interpretation
	Summary:	Gold, carnelian, lapis lazuli, turquoise, garnets, green felspar, blue frit, blue inlay?	Gold, red, blue, green, black, brown, white	Cloisonné, wire, casting, chasing, gold foil, gold sheet, beads, plaster-filled casting, chain , clay filled gilding, granulation , drilling, filigree		Pate cross, five-pointed flowerets, flower buds, Vulture, papyrus stalk, <i>Ankh</i> , <i>djed</i> -pillar, <i>was</i> -sceptre, drop-beads, falcon heads, Stars, cockle shells, "Fly", Cattle, rosettes, butterfly	Rebirth, eternal life, immortality, youth, Upper Egypt, Lower Egypt, life, stability, power, decor, kingship, hieroglyphs, health, courage, fertility, heaven	Afterlife x5 , Unity x2, Womanhood x2, Health x2, Heavenly influence x1, Decor x1

3. SIT-HATHOR'S JEWELLERY

*Iconographical themes identified in Chapter 4, section 3.1:
Afterlife x2, Unity x3, Health x2*

The jewellery pieces of Sit-Hathor were found in a jewellery box excavated within the pyramid complex of Senwosret III. The exact location is uncertain, due to a lack of proper evidence.¹⁴⁴ However, it is clear that these jewellery pieces were worn in daily life and was not just made for the burial (Grajetzki, 2014:84). Even though the selected jewellery pieces for Sit-Hathor only included her collection of clasps, it was important to understand that similarities can also be found in small collections of jewellery pieces, i.e., even in three jewellery pieces.¹⁴⁵

The three clasps under discussion all have symbols relating to the iconographical theme of 'unity'. This gave one the impression that they played an important role in symbolising the unification of Egypt in the 12th Dynasty. Sit-Hathor is associated with the title "king's daughter", and it can therefore be assumed that she played an important role when it came to kingship and the unification in the 12th Dynasty (Grajetzki, 2014:83). This link to kingship and the importance of unity, made it highly probable to interpret the three clasps as being iconographical representations to indicate the importance of this period in the history of Egypt.

The portrayal of the iconographical theme 'unity' in two of her clasps made use of the lotus flower and papyrus umbels symbols, respectively. Sit-Hathor's lotus inlaid clasp (B5.1) included representations of the lotus flower, which symbolically represented Upper Egypt (Harris, 2018:104). Her papyrus gold knot clasp (B5.3) made use of the papyrus umbel to represent Lower Egypt (Owusu, 1998:245; Harris, 2018:104, 109). By utilising both these symbols in her jewellery collection there was a strong connection to the importance the unification of Upper and Lower Egypt played in the 12th Dynasty.

However, the lotus and papyrus symbols were also elements of rebirth and life (Thames and Hudson, 1995:64; Owusu, 1998:240, 244), which also allocated the lotus inlaid clasp (B5.1) and papyrus gold knot clasp (B5.3) the iconographical theme 'afterlife'.

¹⁴⁴ De Morgan (1894:57) stated that the box was excavated from a hole in the floor in front of a sarcophagus; however, no such hole was found in recent excavations (Arnold, 2002:70; Grajetzki, 2014:83).

¹⁴⁵ Although it might have been more useful to use larger collections, such finds are not always discovered in the archaeological record. Therefore, small collections should also be considered in the methodology applied in this study as valuable information can also be gathered in regard to the royal women of the 12th Dynasty.

Furthermore, these two clasps also included the use of the iconographical theme ‘health’ through the use of the knot symbol.

The use of the knot symbol was a perfect example of how the interconnectedness of ‘health’ and ‘union’ was an important aspect that was prominent in the 12th Dynasty. The knot symbol was often used in amulets to grant the wearer “protection through binding or union” (Andrews, 1994:44). The link to the knot being used as a determinative sign in words, like oath in Middle Egyptian, only emphasised how the knot represented this prospering (‘health’) aspect of the unification of Upper and Lower Egypt (*DOS* s.v. *knot*).

Therefore, by combining the ‘unity’ iconographical theme with the ‘afterlife’ and ‘health’ iconographical themes in Sit-Hathor’s lotus inlaid clasp (B5.1) and papyrus gold knot clasp (B5.3), one can begin to understand how these jewellery pieces could also be seen as declarations of the new rule in ancient Egypt, i.e., the eternal (‘afterlife’) and prospering (‘health’) unification of the Two Lands.

Lastly, the motto clasp (B5.2) of Sit-Hathor supports the use of the iconographical theme ‘unity’, as it is made up of 3 hieroglyphic symbols reading “The two gods are at peace” (Aldred, 1971:190). This phrase was used to describe the balance that was gained after the chaos when Horus and Seth were contending for the throne (see B5.2 in section 3.1 of Chapter 4). Therefore, when “the two gods are at peace” there is balance in the world, i.e., the unified Egypt is the balance gained (Aldred, 1971:190).

In conclusion, Sit-Hathor’s jewellery collection under discussion should be interpreted with the use of the interconnectedness all three iconographical themes have to the unification of ancient Egypt. It is, therefore, possible to assume that in her role as “king’s daughter” she was inclined towards jewellery pieces that reflected the iconographical theme ‘unity’. In order to recall all the information gathered in this iconological analysis, the findings will be summarised in the following analytical table.

3.1. Sit-Hathor's combined analytical table

The use of the following analytical table (Table B below) serves the purpose of combining all the information gathered in the first division of this study from the jewellery pieces of Sit-Hathor. This table lists the materials, colours, and techniques identified at first glance to be present on the jewellery pieces in the pre-iconographical description phase. The provenance column is included in this table; however, there was no provenance important to note on the jewellery pieces of Sit-Hathor. From the iconographical description, the symbols identified at first glance are listed. The symbolic significance of the colours and symbols is listed collectively as the themes identified in each jewellery piece in this analytical table. The iconographical themes present in each jewellery piece are also listed from the iconological interpretation phase. Each column was then summarised in the final row, as well as the aspects of importance as indicated in section 3 of this chapter marked in bold.

Table B: Sit-Hathor's combined analytical table.

Item Code	Sit-Hathor's Pieces (3)	Materials	Colours	Techniques	Provenance	Symbols	Themes	Iconographical Interpretation
B5.1	Lotus inlaid clasp	Gold, carnelian, lapis lazuli, turquoise	Gold, red, blue	Cloisonné	None	Lotus flowers, goddess Bat w/ pectoral, knot	Rebirth, Upper Egypt, protection through union	Afterlife, Unity, Health
B5.2	Motto clasp	Gold, carnelian, lapis lazuli	Gold, red, blue	Cloisonné	None	Hieroglyphs ("the two gods are at peace")	Hieroglyphs	Unity
B5.3	Papyrus gold knot clasp	Gold, carnelian	Gold, red	Cloisonné, casting	None	Knot, papyrus umbels	Protection through union, rebirth, youth, Lower Egypt	Health, Afterlife, Unity

Summary:	Gold, carnelian, lapis lazuli, turquoise	Gold, red, blue	Cloisonné, casting		Lotus flowers, goddess Bat, knot, Hieroglyphs, papyrus umbels	Rebirth, Upper Egypt, protection through union, hieroglyphs, youth, Lower Egypt	Afterlife x2, Unity x3, Health x2
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4. MERERET'S JEWELLERY

*Iconographical themes identified in Chapter 4, section 4.1:
Decor x2, Health x3, Afterlife x2, Unity x2, Womanhood x1*

There were eight jewellery pieces analysed from the collection of Mereret. From these eight, she had three pieces that portrayed the iconographical theme 'health', namely her inlaid shell pendant (C4.1), shell pendant string (C4.2), and gold shell pendant (C4.3). This iconographical theme grouped together terms relating to wishes of well-being in ancient Egyptian culture (*EHDI* s.v. *ānkh*; Anon., 2020). However, all three these pieces were pendants depicting the shell symbol. The use of a bivalve shell was often attributed to the amuletic use for health (Andrews, 1994:43; *EB* s.v. *bivalve*). Her shell pendant string (C4.2) and gold shell pendant (C4.3) were cockle shells, while her inlaid shell pendant (C4.1) is identified as a pearl/oyster shell (Aldred, 1971:187, 196). Both these types fall under the term bivalve shells, which could, therefore, indicate the use of these jewellery pieces as being amulets of health, assimilating it with the iconographical theme 'health'.

Furthermore, this prominent use of the shell symbol in her collection opened up the possibility of the maritime trade influence attributed to Nubian culture interactions (Aldred, 1952:132; Aldred, 1971:147). This could explain the use of the shell in amulet form from the iconological interpretation point of view. Later specimens of shell pendants in ancient Egypt were found inscribed with the cartouche of the relevant pharaohs, which gave one the impression that this practise was adopted by the ancient Egyptians (Aldred, 1952:132). Leading one to the conclusion that Mereret might have found closure in the wearing of such amulets, even if they were not inscribed.¹⁴⁶ It brought protection and well-being which assimilated it to the iconographical theme 'health'.

Another observation that should be considered in the analysis of Mereret's jewellery pieces, were the identification of two pieces which only contained the iconographical theme 'decor'. These were namely her gold-framed bead necklace (C3.1) and blue cylinder pendant (C4.5). This phenomena of identifying no symbolic significance in a jewellery piece, is only present in one other jewellery piece under discussion, namely Khnumet's drop-bead pendants

¹⁴⁶ One might be able to assume that she was often sick, or even terminally ill; however, due to the fact that no mummy has been identified to represent the name Mereret, one is unable to identify such characteristics and cannot as of yet make such conclusions.

(A4.3)¹⁴⁷. In understanding that these two jewellery pieces of princess Mereret do not reflect any symbolic significance at first glance, makes it a challenge to analyse her jewellery collection.

The gold-framed bead necklace (C3.1) that contains the caged beads, is beautifully crafted. The delicate process of wrapping a spherical semi-precious stone with two strips of gold sheet, and then fitted with a gold foil striated tube, must have been a difficult technique to create 18 almost identical pendants. Due to the fact that such a large number of pendants were excavated, lead to the interpretation that these pendants would have been used as focal points on a jewellery piece. This is seen in the example of the reconstructed version of the necklace displayed in the Cairo Museum, which used these caged beads and only made use of a single clasp from Mereret's jewellery collection (see Figure 60, pg. 135, for a depiction of this reconstructed necklace).

The blue cylinder pendant (C4.5) was determined to represent the iconographical theme 'decor' through the assumption that the contents of the amulet would have determined the symbolic significance of the pendant (Aldred, 1971:197).

These two pendants identified as not containing any symbolic significance at first glance was important to consider in this analysis, as this was not a prominent phenomenon in the jewellery collections of the other two women. This makes the jewellery collection of Mereret unique in this study, in relation to its symbolic significance.

However, certain other decorative elements were also found to be present in Mereret's jewellery collection, namely the chevron pattern found as gold granulation on the gold cylinder pendant (C4.6), but also through inlays on the inlaid shell pendant (C4.1). Although the use of such a shape can be attributed to decoration, the ancient Egyptians also interpreted the triangular shapes as a reference to fertility (Mundkur 1978:265, 267). The use of the chevron symbol was only identified to be present in the jewellery pieces of princess Mereret, giving her jewellery collection another aspect that is unique in the jewellery collections under discussion.

¹⁴⁷ Khnumet's drop-bead pendants (A4.3) were not regarded as significant to mention in the discussion of Khnumet's jewellery pieces in section 2 of this chapter, as these pendants were arbitrarily assembled from pieces found in the tomb. This led one to rather disregard this piece in order to eliminate the possibility of misinterpretation, due to the fact that other elements could have been incorporated in this jewellery piece not presently displayed together. Drop-beads were often incorporated into other jewellery pieces as spacers and not seen being used as the focal point of a jewellery piece.

In conclusion, the majority of princess Mereret's jewellery pieces were found to represent the iconographical theme 'health'. This was also supported by the use of the shell symbol in these jewellery pieces, which was symbolically significant as amulets of health. One was also made aware of the connection to the iconological interpretation possibility of maritime trade influences from Nubia in the use of shell pendants in jewellery pieces. Her jewellery collection also included unique cases of the iconographical theme 'decor' which gave two of her pieces a lack of symbolic significance present in their design. However, the use of chevron symbols gave another unique aspect only found in her jewellery collection from the jewellery pieces relevant in this study.

4.1. Mereret's combined analytical table

The use of the following analytical table (Table C below) serves the purpose of combining all the information gathered in the first division of this study from the jewellery pieces of Mereret. This table lists the materials, colours, and techniques identified at first glance to be present on the jewellery pieces in the pre-iconographical description phase. The provenance important to note on each jewellery piece is also included from this phase. From the iconographical description, the symbols identified at first glance are listed. The symbolic significance of the colours and symbols are listed collectively as the themes identified in each jewellery piece in this analytical table. The iconographical themes present in each jewellery piece are also listed from the iconological interpretation phase. Each column was then summarised in the final row, as well as indicating the aspects of importance discussed in section 4 of this chapter, highlighted.

Table C: Mereret's combined analytical table.

Item Code	Mereret's Pieces (7)	Materials	Colours	Techniques	Provenance	Symbols	Themes	Iconographical Interpretation
C3.1	Gold-framed bead necklace	Gold, carnelian, lapis lazuli, turquoise	Gold, red, blue	Gold foil, beads, gold sheet	Reconstructed	Caged beads	Decor	Decor
C4.1	Inlaid shell pendant	Gold, carnelian, lapis lazuli, turquoise	Gold, red, blue	Cloisonné, gold sheet		Pearl shell, lotus flower, flower petals, chevrons	Health, rebirth, Upper Egypt	Health, Afterlife, Unity
C4.2	Shell pendant string (part of collar?)	Gold	Gold	Soldering, beads		Bivalve shell	Health	Health
C4.3	Gold shell pendant	Gold	Gold	Gold sheet		Bivalve shell	Health	Health

Item Code	Mereret's Pieces (7)	Materials	Colours	Techniques	Provenance	Symbols	Themes	Iconographical Interpretation
C4.4	Falcon pendant	Gold, carnelian, blue and green faience	Gold, red, blue, green	Cloisonné		Falcon, <i>shen</i> -signs	Kingship, rebirth, Eternity	Unity, Afterlife
C4.5	Blue cylinder pendant	Gold, lapis lazuli, turquoise	Gold, blue	Cloisonné			Decor	Decor
C4.6	Gold cylinder pendant	Gold	Gold	Granulation		Chevrons	Fertility	Womanhood
Summary:		Gold, carnelian, lapis lazuli, turquoise, blue and green faience	Gold, red, blue, green	Gold foil, beads, gold sheet, cloisonné, soldering, granulation		Caged beads, Pearl shell, lotus flower, flower petals, Bivalve shell, Falcon, <i>shen</i> -signs, Chevrons	Decor, health, rebirth, Upper Egypt, kingship, eternity, fertility	Decor x2, Health x3, Afterlife x2, Unity x2, Womanhood x1

5. SUMMARY

In conclusion, this chapter discussed the findings of the four phases in this iconographical study. By making use of the information gathered in the four phases per individual jewellery piece, this chapter was able to identify how certain aspects were found to be present in multiple jewellery pieces, or even determined to be a unique aspect in relation to the other women under discussion. From this chapter, it was possible to take away how each woman might have been inclined towards certain aspects when building her collection of jewellery pieces. This helped to understand how these royal women might have had some freedom of expression in ancient Egypt.

From Khnumet's jewellery collection, it was determined that her jewellery pieces included mainly the use of the 'afterlife' iconographical theme. Her jewellery was also uniquely identified with multiple uses of chains, wires, and gold detailing from the three collections under discussion. One also sees a unique use of the granulation technique mainly within the jewellery pieces of princess Khnumet.

From Sit-Hathor's jewellery collection, it was determined that her jewellery collection under discussion should be interpreted with the use of the interconnectedness all three iconographical themes had to the unification of ancient Egypt. It was, therefore, possible to assume that in her role as "king's daughter" she was inclined towards jewellery pieces that reflected the iconographical theme 'unity'.

Princess Mereret's jewellery pieces, on the other hand, were found to represent the iconographical theme 'health'. This was supported by the use of the shell symbol in these jewellery pieces, which was symbolically significant as amulets of health. One was also made aware of the connection to the iconological interpretation possibility of maritime trade influences from Nubia, in the use of shell pendants in her jewellery pieces. Her jewellery collection also included unique cases of the iconographical theme 'decor' which gave two of her pieces a lack of symbolic significance present in their design. However, the use of chevron symbols also gave another unique aspect only found in her jewellery collection from the jewellery pieces relevant in this study.

Therefore, this chapter made it possible to deduce how each woman might have been inclined towards certain aspects when building her collection of jewellery pieces. This will help in understanding the role royal women might have had, based on the assumption that these royal women might have had some freedom of expression in ancient Egypt.

CHAPTER 7: CONCLUSION

This study set out to ask the overarching question: By using an iconographical study and iconological interpretation, what aspects in a jewellery collection can be identified that are unique to the individual royal woman, as compared to that of another royal woman? This question was answered with the use of the four phase methodology as set out by Van Straten (1994:4).

This question was applied to three jewellery collections excavated at Dahshur, dating to the 12th Dynasty, namely the jewellery pieces of Princesses Khnumet, Sit-Hathor, and Mereret. The crowns/circlets, necklaces, collars, and pendants were chosen to represent the jewellery collections of these three women, with 20 items in total that were discussed in this study.

By dividing Van Straten's (1994:4) approach into two divisions, one was presented with two questions. The first division relied on the question: What was the intended meaning of the craftsmen, when creating each jewellery piece?

The first division, therefore, started by first discussing the pre-iconographical description in Chapter 2. This phase identified all the physical elements of the jewellery pieces. It was aimed at only getting a "mental tally" of all the physical elements present in each item. The physical elements that were discussed were namely, the materials and techniques. From these materials the colours that were present in the jewellery pieces were also listed. The pre-iconographical description also made mention of the role craftsmen and provenance had when analysing the jewellery pieces. From these discussions, the first set of three analytical tables were drawn to summarise the list of elements that were identified at first glance to be present in each jewellery piece under discussion, into an easily navigable format.

Building on the first phase, the second phase, the iconographical description, started with a discussion on the symbolic significance the identified colours were often interpreted with. This third chapter also discussed the symbolic significance these symbols, identified at first glance to be present in the jewellery pieces under discussion, were often interpreted to have in the 12th Dynasty. Chapter 3 was also concluded with a set of three analytical tables to

summarise the lists of elements that were identified at first glance to be present in the jewellery pieces under discussion.

The third phase of this iconographical study was the iconographical interpretation discussed in Chapter 4. In order to simplify the discussions on each of the jewellery pieces in the iconographical interpretation phase, and properly notice how certain symbolic themes were more prominently represented within each jewellery piece, groups were formed based on semantic domains. These groups were termed iconographical themes and represented a set of symbolic themes used in the jewellery pieces under discussion. The six iconographical themes were ‘afterlife’, ‘unity’, ‘heavenly influence’, ‘womanhood’, ‘health’, and ‘decor’. In this fourth chapter, one was properly introduced to each of the twenty jewellery pieces selected for this study. Each piece was described based on the descriptions of Aldred (1971) and some other individual reports on specific pieces. After describing the manufacturing of each piece, the symbolic elements were discussed in relation to each other. These elements were then grouped to identify the iconographical theme found to represent the jewellery piece in its entirety. Chapter 4 also summarised the findings for each royal woman in an analytical table.

Chapter 4, therefore, concluded the first division in this iconographical study and introduced the observation that the jewellery pieces could have been created with a specific iconographical theme in the mind of the craftsman.

The second division, and fourth phase, was the iconological interpretation, discussed in Chapter 5. Van Straten (1994:4) stated that the purpose of this division was to ask the question: “Why was it created just so?” It was important to understand that the aim of this phase was to get an idea of how ancient Egypt was organised and what could possibly have influenced the design of each jewellery piece.

In this phase, one looked at the “cultural, social, and historical background” (Van Straten, 1994:12). These backgrounds were used to identify the three aspects that could have influenced the design of each jewellery piece in the 12th Dynasty, namely the craftsmen, the impact of trade, and the use of each jewellery piece. This concluded the four phases of this iconographical study, which was done on the jewellery pieces as individual items.

By first analysing each jewellery piece as an individual item in the four phases, one was able to identify certain aspects that were repeatedly used in each royal woman’s

jewellery collections. This was discussed in Chapter 6. The information gathered in the four phases per individual jewellery piece, granted one the ability to identify certain aspects, like physical or symbolic elements that were recurrently present in multiple jewellery pieces, or even determined to be a unique aspect in relation to the other women under discussion. Some aspects were also discussed in relation to the possible influences that could have come into play in the design of the jewellery pieces.

In conclusion, one can therefore deduce from this study how each woman might have been inclined towards certain aspects when building her collection of jewellery pieces. This will help in understanding the role royal women might have had in ancient Egypt. This might also open up a further question: Could an analysis on an entire collection of jewellery from a specific individual reveal tendencies towards certain elements in jewellery pieces?

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MAP OF ANCIENT EGYPT

Figure 1: Map of ancient Egypt. Blue dots indicate the locations relevant to this study.
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(accessed 29 May 2020)

CHAPTER 2

Figure 2: Lapis lazuli beads.
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(accessed 16 April 2020)

Figure 3: Raw turquoise stones.
<https://thehealingchest.com/crystals-stones/turquoise-meaning/> (accessed 27 April 2020)

Figure 4: Polished carnelian stones.
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Figure 6: Necklace of faience beads with coloured amulets. Excavated at Tell-El-Amarna, dating to 18th Dynasty.
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Figure 8: Blood red pyrope garnet gemstone.
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Figure 10: Medallion of Dahshur found in the tomb of Princess Khnumet with a blue frit inlay (A4.1).
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Figure 11: Khnumet's "fly" pendant necklace (A3.3).
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Figure 13: Khnumet's floral circlet (A1.1) with intricate use of wires.

https://www.brown.edu/Departments/Joukowsky_Institute/courses/egyptianartandarch11/files/15748002.pdf (accessed 27 May 2020)

Figure 14: An illustration of the three simplified stages of the lost-wax method. (Black, 1974:31)

Figure 15: An example of filigree on a shell pendant from Tomb 124 in Riqqa, Egypt. (Troalen, et al., 2019:587,598)

Figure 16: Khnumet's butterfly pendant (A4.2) with the body and wings outlined in gold wire and filled with gold granules. (Aldred, 1971:Plate 29)

Figure 17: Diagram showing how cloisons are made with metal strips and then filled with enamel. [Drawing by David Goodger] (Buckton, 1982:108)

Figure 18: Painting in the Tomb of Rekhmire illustrating how beads were drilled using a bow drill (right) and strung (left).

<https://www.historymuseum.ca/cmhc/exhibitions/civil/egypt/egcl05e.html> (accessed 28 May 2020)

Figure 19: A tomb painting of Djehuti-hotpe's daughter, adorned with boatman's circlets, pectorals, bracelets, and anklets.

<https://za.pinterest.com/pin/76913106114047502/> (accessed 20 April 2020)

CHAPTER 3

Figure 20: Two corn mummies representing the god Osiris with gold masks and foot covers, whose bodies were reconstructed for display purposes.

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Figure 21: Painting in the Tomb of Rekhmire depicting the use of colour to represent skin tone.

<https://www.flickr.com/photos/manna4u/32287453640> (accessed 17 June 2020)

Figure 22: Polished malachite stone.

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Figure 24: A page from the Book of the Dead of Hunefer illustrating priests and mourners in white linen cloth.

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Figure 26: Medallion of Dahshur (A4.1) from the jewellery collection of Princess Khnumet.

<http://www.globalegyptianmuseum.org/record.aspx?id=15537> (accessed 18 February 2021)

Figure 27a: *Nymphaea caerulea*.

<http://pza.sanbi.org/nymphaea-nouchali-var-caerulea> (accessed 10 September 2020)

Figure 27b: *Nymphaea lotus*.

<https://www.cabi.org/isc/datasheet/115821> (accessed 10 September 2020)

Figure 28: *Cyperus papyrus umbels*.

<https://www.gardenia.net/plant/cyperus-papyrus> (accessed 11 September 2020)

Figure 29: Horus statue as a zoomorphic falcon at the Temple of Horus in Edfu, Egypt.

[Photo credit: Nicole Meyer with my sister, Anika, in the photo]

Figure 30: Relief plaque illustrating a cobra (left) and a vulture (right). They represent the Two Ladies of Egypt.

<https://www.metmuseum.org/art/collection/search/545195> (accessed 11 September 2020)

Figure 31: Mereret's jewellery pieces: A cowrie shell girdle (outer), an inlaid trimmed pearl shell pendant (inner, top) [C4.1], a part of a collar with bivalve shells (inner, middle) [C4.2], and a gold bivalve shell pendant (inner, bottom) [C4.3]. (Aldred, 1971:Plate 45)

Figure 32: Fly necklace of Queen Ahhotep I, dating to the 17th Dynasty, excavated at Dra' Abu el-Naga', West Thebes.

<https://egypt-museum.com/post/189528680876/golden-flies-of-ahhotep#gsc.tab=0>
(accessed 5 October 2020)

Figure 33: Khnumet's butterfly pendant (A4.2). (Aldred, 1971:Plate 29)

Figure 34: The seven heavenly cows and sky bull (bottom, left) in a wall relief in the tomb of Queen Nefertari, in the Valley of the Queens. [Photo credit: Chris Marriot]

<https://cmegyptology.com/heavenly-cows-and-celestial-oars/> (accessed 8 October 2020)

Figure 35: The funerary papyrus found in the tomb of Djedkhonsuiefankh, depicting the Goddess Nut's arching body filled with stars.

<https://commons.wikimedia.org/wiki/File:Djedkhonsuifeankh.jpg> (accessed 11 September 2020)

Figure 36: Possibly the goddess Bat depicted on the top of the Narmer Palette.

<https://egyptianocculthistory.blogspot.com/2017/08/lecture-bat-goddess.html> (accessed 21 October 2020)

Figure 37: Wood carved *ankh* symbol, dating to the Middle Kingdom from excavations at Meir, Egypt.

<https://www.metmuseum.org/art/collection/search/546309> (accessed 3 September 2020)

Figure 38: A relief in Hatshepsut's tomb at Deir el-Bahr illustrating an *ankh* (left), *djed*-pillar (centre), and *was*-sceptre (right). (Photo credit: Kyera Giannini)

<https://www.ancient.eu/image/4572/ankh-djed--was/> (accessed 22 October 2020)

Figure 39: A gold *shen*-ring motto clasp from the Second Intermediate Period inlaid with carnelian.

<https://www.metmuseum.org/art/collection/search/546044> (accessed 16 November 2020)

Figure 40: Types of pate crosses.

<https://wyprawykrzyzowe.wordpress.com/2015/03/26/krzyze-krzyzowcow/> (accessed 28 July 2020)

Figure 41: Knot amulet carved from wood dating to the 18th Dynasty.

<https://www.metmuseum.org/art/collection/search/548786> (accessed 16 November 2020)

Figure 42: Princess Khnumet's falcon collar with inlaid drop-beads (A2.2).

<https://egypt-museum.com/post/187108293041/necklace-of-princess-khnumit#gsc.tab=0> (accessed 16 November 2020)

Figure 43: Broad collar of Princess Seneb-tisi, dating to the 12th Dynasty, excavated at the Tomb of Senwosret, with gold drop-beads.

<https://www.metmuseum.org/art/collection/search/544168> (accessed 16 November 2020)

Figure 44: Princess Mereret's jewellery, including the caged bead necklace (outer) and six motto clasps.

https://www.brown.edu/Departments/Joukowsky_Institute/courses/egyptianartandarch11/files/15748002.pdf (accessed 16 November 2020)

Figure 45: Gold cylinder pendant of Princess Mereret with chevron granulation details (C4.6). (Aldred, 1971:Plate 46)

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Figure 46: Khnumet's floral circlet (A1.1).

https://www.brown.edu/Departments/Joukowsky_Institute/courses/egyptianartandarch11/files/15748002.pdf (accessed 8 March 2021)

Figure 47: Khnumet's diadem (A1.2), back view.

<http://www.globalegyptianmuseum.org/record.aspx?id=15526> (accessed 8 March 2021)

Figure 48: Front section of Khnumet's diadem illustrating the detailed elements. (Aldred, 1971:Plate 27)

- Figure 49: Khnumet's falcon collar 1 with gold terminals (A2.1). (Aldred, 1971:Plate 11)
- Figure 50: Khnumet's falcon collar 2 with inlaid terminals (A2.2).
<https://egypt-museum.com/post/177387638186/necklace-of-princess-khnumit#gsc.tab=0>
(accessed 8 March 2021)
- Figure 51: Khnumet's star pendant necklace with cockle-shell pendants (A3.1).
<http://www.globalegyptianmuseum.org/record.aspx?id=15537> (accessed 12 March 2021)
- Figure 52: Khnumet's *ankh* necklace (A3.2). (Aldred, 1971:Plate 12)
- Figure 53: Khnumet's "fly" pendant necklace (A3.3).
<http://judithweingarten.blogspot.com/2014/05/egyptian-tomb-treasures-of-late-middle.html> (accessed 12 March 2021)
- Figure 54: Medallion of Dahshur (A4.1) from the jewellery collection of Princess Khnumet.
<http://www.globalegyptianmuseum.org/record.aspx?id=15537> (accessed 12 March 2021)
- Figure 55: Khnumet's butterfly pendant (A4.2). (Aldred, 1971:Plate 29)
- Figure 56: Khnumet's drop-bead pendants (A4.3). (Aldred, 1971:Plate 11)
- Figure 57: Sit-Hathor's lotus inlaid clasp (B5.1). (Left drawing – De Morgan, 1895:Plate 15; right – Aldred, 1971:Plate 34)
- Figure 58: Sit-Hathor's motto clasp (B5.2). (Left drawing – De Morgan, 1895:Plate 15; right – Aldred, 1971:Plate 34)
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- Figure 60: Princess Mereret's jewellery, including the caged bead necklace (outer, C3.1) and six motto clasps.
https://www.brown.edu/Departments/Joukowsky_Institute/courses/egyptianartandarch11/files/15748002.pdf (accessed 16 November 2020)
- Figure 61: Princess Mereret's inlaid shell pendant with floral motifs (C4.1).
<https://egypt-museum.com/post/186908127841/pendant-of-mereret#gsc.tab=0> (accessed 19 March 2021)
- Figure 62: Princess Mereret's jewellery, including the shell pendant string with soldered links (C4.2). (De Morgan, 1895:Plate 23)
- Figure 63: Princess Mereret's gold shell pendant (C4.3). (Aldred, 1971:Plate 45)
- Figure 64: Princess Mereret's falcon pendant (C4.4). (Left drawing – De Morgan, 1895:Plate 19; right – Aldred, 1971:Plate 44)
- Figure 65: Princess Mereret's blue cylinder pendant (C4.5). (Left drawing – De Morgan, 1895:Plate 19; right – Aldred, 1971:Plate 46)
- Figure 66: Princess Mereret's gold cylinder pendant (C4.6). (Left – De Morgan, 1895:Plate 24; right – Aldred, 1971:Plate 46)

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Figure 67: Relief from the tomb of Kaemrehu at Saqqara, now in the Cairo Museum.

https://library-artstor-org.uplib.idm.oclc.org/#/asset/SCALA_ARCHIVES_10310475333
(accessed 25 May 2021)

APPENDIX A

Figure 68: Princess Mereret's jewellery, including the shell pendant string with soldered links (C4.2). (De Morgan, 1895:Plate 23)

APPENDIX A – C4.2 Soldered Links Counting Guide

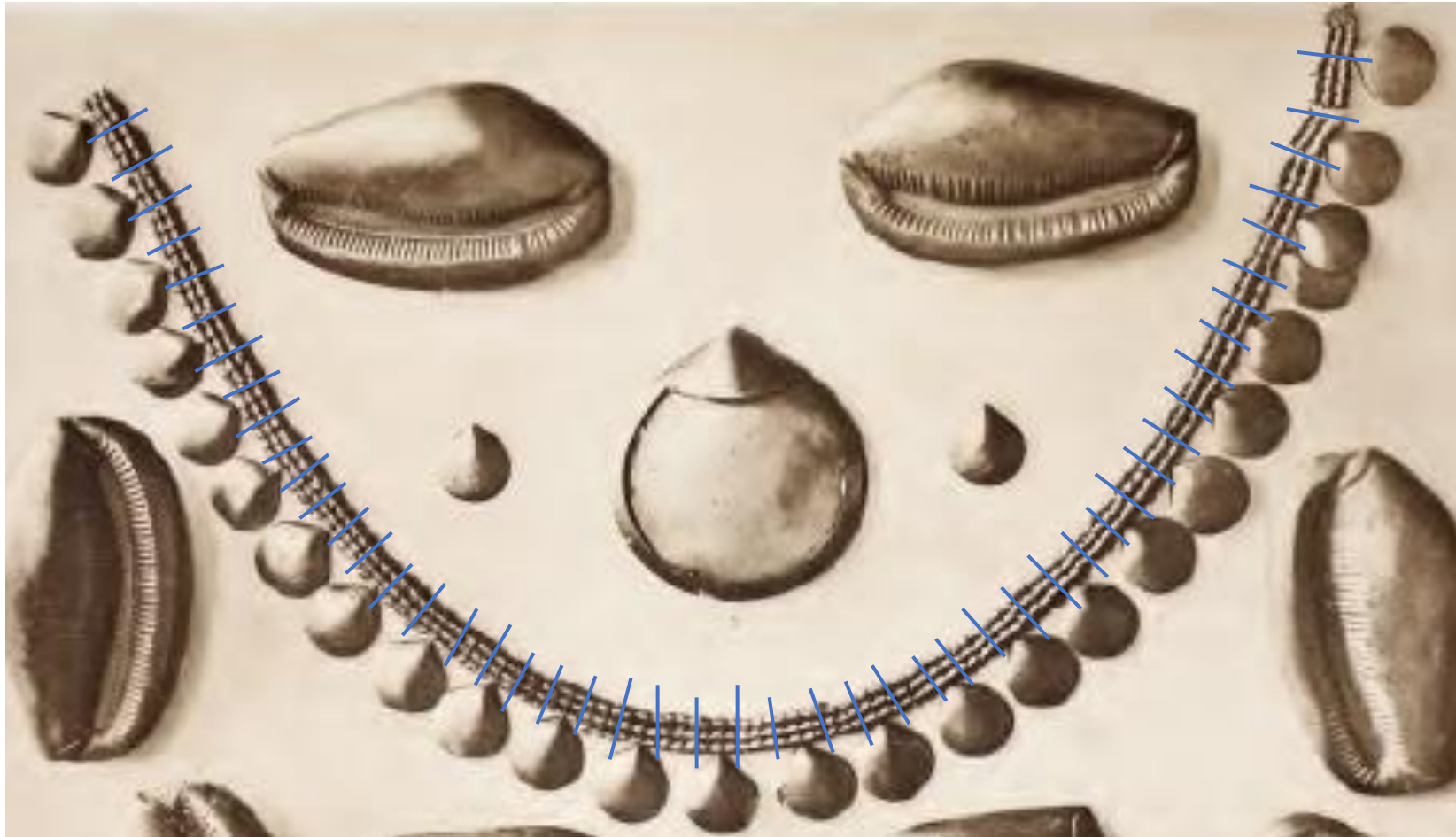


Figure 68: Princess Mereret's jewellery, including the shell pendant string with soldered links (C4.2). (De Morgan, 1895:Plate 23)