Faience
Faience production and use in Late Period Lower Egypt from an international perspective
Felicia Gullman-Strand
Abstract

Faience production and use in the Late Period Lower Egypt from an international perspective.

Faience objects were first produced in Egypt in the pre-Dynastic era and were since then deeply connected with ancient Egyptian material culture and everyday life. Faience has been used for vessels, jewellery and for religious objects and the techniques and trends have evolved over time. There is a great amount of faience objects excavated from Naukratis making it a suitable location for this study. This study has used a catalogue with objects excavated in Naukratis to identify trends, Greek and Egyptian faience, and the market for faience in Naukratis. By first introducing the location of Naukratis in the Late Period, the study then provides an overview of faience production techniques both from Egypt and Naukratis. This was then applied to the objects to distinguish reoccurring features and potential cultural influence on the faience production and demand. The aim was to show the exchange of production techniques between Greek and Egyptian faience which can be exemplified by the Greek technique for polychromatic faience showing up in Egyptian faience objects with traditionally Egyptian motifs. The objects revealed a demand for handcrafted faience with Egyptian motifs of animals, fertility gods and a design for both suspension and as standing decoration. This supports later day findings that the city of Naukratis was a city not only dedicated to Greek citizens but had a mixed population. It also showed that while the origin of a faience object is difficult to determine, influences of technique can still be seen.

Keywords: Ancient Egypt, Delta, Naukratis, faience, faience production, Late Period.

Abstrakt

Fajans produktion och användning under Egyptens senperiod ur ett internationellt perspektiv.


Nyckelord: Forntida Egypten, Delta, Naukratis, Fajans, Fajansproduktion, Senperioden.
BA Thesis in Archaeology and Ancient History with specialization in Egyptology [15 hp].
Supervisor: Luigi Prada. Defended and approved 2023-08-24.
©Felicia Gullman-Strand
Department of Archaeology and Ancient History, Uppsala University, Box 626, 75126.
Uppsala, Sweden.

Acknowledgement
Gullman-Strand, F. 2023. Faience production and use in Late Period Lower Egypt from an international perspective.

I want to thank Luigi Prada and Andreas Dorn for their advice and Christie for her support and feedback.

Table of Contents

1. Introduction .................................................................................................................. 5
   1.1. Statement of purpose ......................................................................................... 5
   1.2. Theory and method ......................................................................................... 5
   1.3. Material ........................................................................................................... 6
   1.4. Previous research ........................................................................................... 6
   1.5. Limitation ....................................................................................................... 7
2. City of Naukratis ......................................................................................................... 7
   2.1. Excavation of Naukratis .................................................................................... 8
   2.2. The origin of Naukratis ..................................................................................... 8
   2.3. Greek or Egyptian city ..................................................................................... 9
   2.4. Politics ............................................................................................................. 9
   2.5. Local faience production ................................................................................. 10
3. Faience ...................................................................................................................... 11
   3.1. Egyptian faience ............................................................................................. 11
       3.1.1. Delta faience ............................................................................................ 11
       3.1.2. Late Period faience .................................................................................. 12
   3.2. Egyptian techniques ....................................................................................... 12
       3.2.1. Efflorescence .......................................................................................... 13
       3.2.2. Cementation ........................................................................................... 13
       3.2.3. Application .............................................................................................. 13
       3.2.4. Characteristics of each method ............................................................... 13
   3.3. Greek (Aegean) faience ................................................................................... 14
4. Materials ..................................................................................................................... 15
4.1. Amulets in the shape of falcons................................................................. 15
4.2. Amulets in the form of scarabs................................................................. 16
4.3. Amulets in the form of animals ............................................................... 16
4.4. Anthropomorphic figurines ..................................................................... 16
4.5. Amulets of various shapes ....................................................................... 17
4.6. Overall observations .............................................................................. 17

5. Discussion ..................................................................................................... 18
  5.1. Technique ................................................................................................ 18
  5.2. Polychromatic faience ........................................................................... 19
  5.3. Locations ............................................................................................... 19
  5.4. Motifs .................................................................................................... 20
  5.5. Similar objects ...................................................................................... 21
  5.6. Summary .............................................................................................. 22

6. Conclusion .................................................................................................... 24

7. Bibliography and Abbreviations ................................................................. 27

8. Catalogue over objects ................................................................................ 30

9. Appendix ..................................................................................................... 36
1. Introduction

Faience is a technique of glazing pottery that, after firing, gives the object a blue patina. Objects that have gone through the process of faience glazing are called faience objects. These objects are inexplicably intertwined with ancient Egyptian culture. They started being produced in Pre-Dynastic Egypt and the iconic blue colour has been dubbed Egyptian blue. While blue was the most common colour for faience, changing the materials used in the glaze can give a wide range of colours from green to purple to red. The faience glazing technique was not contained to Egypt, as the Near East and Greece also had independent production and the objects were used in trade exchanges. The main port of Egyptian Mediterranean trade in the Late Period was the Egyptian city Naukratis. It was established in the 26th dynasty and continued to be an important city of trade, with its own faience production, and the home of both Greek and Egyptian citizens. This essay has looked at the local Naukratis faience production and evaluated potential influence from the growing international trade.

1.1. Statement of purpose
The purpose has been to analyse the local faience production in Naukratis to look for patterns of Greek and Egyptian influences, respectively. The aim was to observe the possible uses and significances of faience in the city and in trade between Egypt and the Aegean. This was to find the working relationship between Egypt and Greece before Egypt was under Greek rule, hence before 300 B.C.E. The main aspects have been the affect through cultural influences on everyday life and objects as well as trade. The large cultural exchange between Egypt and Greece in the Late Period and forward, had an impact upon the faience production in Egypt, shown through the cultural exchange and indicated how cultures shares knowledge and aspects of their cultures. This raises the main question of what kind of influence can be seen from the objects through a material culture and production perspective through an international lens. The essay is about how faience objects can reflect aspects of origin, cultural adaption, and cultural influences of the faience objects found in Naukratis. These elements are questions that together can cover a large area of interest about faience, its production, cultural and trade importance. Since migration and cultural exchange is a large part of today’s globalized society, this research could be used as a comparison to how cultural exchange has changed over the centuries in addition to potential trade patterns of certain objects during the pre-Ptolemaic period.

1.2. Theory and method
This essay has been divided into the following topics to completely cover the topic.

Section 2 provides an overview about the location, politics and overall influences that helped make Naukratis. This was done to clearly show the relationship between the Egyptian city and the Greek international influence upon the city. It also covers the discovery of the city and the work that has been done since then and how the excavations have impacted the way Naukratis and its faience has been perceived. This has been done through an examination of the previous excavations as well as the theories behind the foundation of Naukratis with its political and geographical contexts.

Section 3 covers the origins of faience production in Egypt to identify the techniques that were used and the characteristics by which they are identifiable. It covers the three main techniques: efflorescence, cementation, and application. The section also includes a shorter section about Greek faience objects, their characteristics, and influences.
Section 4 presents the material study of a collection of 30 different objects, all found in the Naukratis excavations. The objects have been analysed based on the established characteristics of Egyptian and Greek faience described in the previous chapters. They have also been compared in terms of size, colour, potential uses as well as the significance in the connection to the location in which they were excavated. This then leads into the discussion of Egyptian vs Greek influence over the production of faience objects as a primarily Egyptian craft. The findings are then discussed in the resulting section 5.

1.3. Material
The materials have all been selected from the collection at the British Museum. This collection was chosen since they have access to material from all excavations of Naukratis and several museums including the Petrie collection in England and as well as the Boston Museum. The selection of objects for this study have been limited to smaller objects that could have been mass produced. There are several different categorises of depictions to make a more well-rounded assessment of the nature of the materials. There are also in these groups similar objects to be able to identify trends within a certain category of objects.

1.4. Previous research
Research about and in Naukratis began with the discovery of Naukratis by Egyptologist Sir William Flinders Petrie in 1884 as described by Villing and Thomas¹. Since then, there have been three excavations carried out in Naukratis which are described in detail in section 2.1. There is a notable difference between older and newer research about Naukratis as older research was done based on the assumption of Naukratis being a Greek city in Egypt, while newer research makes it out to be an Egyptian city with an international population. Hanrahan² has described the time period of Naukratis, the history and politics while framing Naukratis as a Greek city. In 2012 the British Museum started an international collaborative project about Naukratis, by conducting new excavations as well as re-analysis of the objects at the site. Lead researcher Villing³ reframing Naukratis as not purely a Greek city and argues against several points of past research. This has created two models for the city, the Greek city in Egypt with separated communities, and the integrated international city of Naukratis. Little research has been done on the other ethnicities present in ancient Naukratis. From the past excavations, they have covered both the sanctuaries of Naukratis and the harbour, Villing has the most up to date map on the excavation sites and of ancient Naukratis (see fig. 1).

As for faience, a good description can be found in Hedges and Kaczmarczyk's⁴ analytical survey of faience that covers time periods, techniques, and influences from different geographical locations, from Nubia to Greece.

There has also been recent experimental archaeology concerning faience, comparing the ancient techniques to modern techniques⁵. Comparisons and analysis of Graeco-Egyptian faience in the Late Period has also been done, notably by Webb⁶, who has also contributed to the British Museum’s Naukratis project.

¹ Villing & Thomas 2019, 1.
² Hanrahan 1961.
⁴ Hedges & Kaczmarczyk 1983.
⁵ Yamahana 2017.
⁶ Webb 1978.
1.5. Limitation
The essay focuses on faience objects found in Naukratis, not of faience objects found in the Nile delta or upper Egypt nor of Greece. It would be preferable to include all these regions in a larger project to thoroughly assess the influences and differences between time and location. This essay has focused on trends found in Naukratis which could be used in later research and only put the material in the framing of the Late Period of Egypt (600 – 330 B.C.E.), as it concerns the beginning and early influences of Greek style. No objects from the Ptolemaic era have been discussed, although the Ptolemaic era saw Greek rule in Egypt and an increase in mixed Graeco-Egyptian objects. Other objects mentioned in this essay not made from faience or made in a place outside of Naukratis has been given a short comparison or contextualisation but has no thorough kind of guide on those objects. Faience objects of other origin have been put up as objects of comparison but not as part of the catalogue.

![Figure 1: Map of Naukratis. Naukratis project by the British Museum. 2019.](image_url)

2. City of Naukratis
To introduce the city of Naukratis properly it is important to set the scene that it was conceived in. Naukratis was unique as an Egyptian city due to its maritime connection to the Mediterranean world. It housed around 13 000 people at its peak, of which many were Greek. Egypt and Greece have had trade relations dating back to before 700 B.C.E. One of the main trading points of the Mediterranean and Egypt was the port of Naukratis. Located in

---

7 Villing & Thomas 2019, 3.
8 Villing 2015, 229.
the Delta region of Egypt it had canals deep enough to carry boats all the way from the Mediterranean to the port in the western delta.\footnote{8}

The Greek presence in Egypt started as Greek mercenaries were hired to work for the protection of the Delta region in the Late Period. Egyptians and Greeks had already had a continuing trading relationship before this and with the hiring of mercenaries this created new opportunities for Greek traders to settle down in the Delta. Naukratis became the primary city of Greek residents. In Naukratis there has been found over 18,000 objects, a majority of them being pottery. Texts on papyrus, although not found in Naukratis, also show a lot about the intercultural exchanges between Greek and Egyptian culture.\footnote{9}

The Greek relations would last well into the Persian invasions in 525 B.C.E.,\footnote{10} when Naukratis was no longer considered an international harbor of the same importance as it had been and would instead focus on the craftsmanship in the city. The city would remain, and the Greek traders would then return with the conquering by Alexander the Great.

2.1. Excavation of Naukratis
Discovered on the site of modern day Kom Gief in 1884,\footnote{12} Naukratis opened up research opportunities of archaeological evidence about Greek immigration in the Late Period. Up until 1884 textual sources were the only evidence available. The discovery was made by Egyptologist Sir William Flinders Petrie supported by the Egypt Exploration Fund,\footnote{13} uncovering temples, a harbour, and a scarab factory. Petrie continued his excavation until 1886 and then it took three years until Petrie came back for a second excavation period between 1899 and 1903.\footnote{14} After that it was not until 1977 when the next excavation had been conducted, and after that the latest extensive excavation done by the British Museum and its international Naukratis project between 2012 and 2019. This makes a total of four excavations. The first two focused on the scarab factory and Greek sanctuaries. The excavation in 1977 focused less on the excavation and more on surveying the area while the one in 2012 decided to focus on the Naukratis harbour. Between the new excavation and the earlier ones, the British Museum have recorded a total of 18,000 finds. In the original excavations many objects were only marked as having come from Naukratis or Egypt and not one of the excavation locations. Objects not from the Scarab factory, known sanctuaries or found by excavators and brought to Petrie were marked down as being from Naukratis in general or not recorded at all until after the excavation. Pottery from the excavation was mistreated as many pottery sherds were thrown away as they were incomplete.

2.2. The origin of Naukratis
Evidence indicate that Naukratis was established during the Late Period (600 to 330 B.C.E.) and was populated by a large Greek population. There is no archeologically evidence that suggests that the city existed before the Late Period.\footnote{19} The nature behind its foundation is still unknown.

\footnotesize
\begin{itemize}
  \item[10] Hanrahan 1961, 53.
  \item[13] Trope, Quirke & Lacovara 2005, 92.
  \item[14] For a direct account of the 1899 excavations, see Hogarth, D.G., Edgar, C.C. & Gutch, C., 1899, 26–9.
  \item[18] Villing 2015, 230.
  \item[19] Villing 2015, 229.
\end{itemize}
debated. Greek mercenaries became an important part in defence of the Delta, a leading theory is that Naukratis originally started out as a fort for Greek mercenaries close to the delta capital, Sais.\(^{20}\) As the population grew smaller settlements were created around it until it grew into its own city. Trade between Egypt and Greece helped the economy of the city as traders would follow and make Naukratis the trading centre it was known as.\(^{21}\) This theory, however, is disputed by Villing\(^ {22}\) who claims it is unlikely. Another theory is more connected to the trade aspect of the city and takes the argument that due to documents showing the local use of natron and that it might be the leading cause behind the creation of the city.\(^ {23}\) Natron at the time was presumably under a royal monopoly and one of the main ingredients of both embalming\(^ {24}\) and faience\(^ {25}\).  

2.3. Greek or Egyptian city

In previous research Naukratis has often been assumed, or researched based on the premise, that it was a Greek city in Egypt. In reality it is not so simple to categorize. There is no significant evidence that it was purely a Greek city or Egyptian city. From the previously mentioned theory about Greek mercenaries founding the city, cannot be supported by archaeological evidence on site. It can also have been influenced by the existence of Greek architecture such as the Hellenion\(^ {27}\) that was in the centre. However, the evidence points towards an integrated society with both Greek and Egyptian citizens, with their own sanctuaries and everyday interactions. Villing makes a point that local material evidence does not indicate a specific culture being dominant.\(^ {28}\) In addition, Villing also concluded that a city’s population is difficult to estimate and it is even harder to estimate how those cultures and people interacted. In more recent research Egyptians have not been forgotten but included in the previously Greek narrative.\(^ {30}\) It is also crucial to note that Egyptians and Greeks were not the only two groups in the city as Naukratis was a multicultural city with several other countries and communities present which often get overlooked in research. Building on the previous assumption of Naukratis as a Greek city, there is a theory for the layout of the city. Hanrahan argues for separated Greek and Egyptian quarters in the city with the Greek quarter in the north part and the Egyptians in the South. Villing, again, argues against it and instead means it was much more integration than previously thought.\(^ {34}\)

2.4. Politics

Although the trade relations between Greece and Egypt had been on good terms for centuries, the political climate in Egypt was changing. Pharaoh Psamtik I (664–610) allowed the Greeks to travel anywhere throughout Egypt and would even have Egyptian children be taught

\(^{20}\) Hanrahan 1961, 46.
\(^{21}\) Ibid, 48.
\(^{22}\) Villing 2015, 230.
\(^{23}\) Ibid, 238.
\(^{24}\) Noble 1969, 436.
\(^{25}\) Ibid.
\(^{26}\) Villing 2015, 229.
\(^{27}\) Roebuck 1951, 217.
\(^{28}\) Ibid 230.
\(^{29}\) Ibid 230.
\(^{30}\) Ibid 241.
\(^{31}\) Hanrahan 1961, 56.
\(^{32}\) Ibid, 55.
\(^{33}\) Ibid, 55.
\(^{34}\) Villing 2015, 233.
Greek\textsuperscript{35}. However, there was a growing resentment towards the increasing Greek immigration and to stifle it Pharaoh Amasis restricted the place of residence of Greeks to Naukratis\textsuperscript{36}. This meant that Greek citizens could travel through Egypt, but permanent residence could only be granted in Naukratis. Other religions and nationalities were also encouraged to live in Naukratis. There was dedicated land\textsuperscript{37} for religious purposes of the people visiting such as building sanctuaries and altars. Some temples and sanctuaries additionally had access to portions of the docks.

2.5. Local faience production

The research about the local clay and pottery production has been better accounted for than the faience production in a mixed style perspective as there are many finds of local Greek vessels\textsuperscript{38}. There is archaeological evidence for a similar production of faience however it has been commented on being incomplete\textsuperscript{39}. The main export of Naukratis was not faience products but grain\textsuperscript{40}. Faience was still a significant aspect of exported material. The faience production has been noted to have been primarily for local demand\textsuperscript{41} with a majority for religious use in the sanctuaries and not for export\textsuperscript{42}. While this can be strengthened by the location of the factory being so close to the sanctuary of Aphrodite that it was almost a part of it\textsuperscript{43}, which made acquisition of faience objects to the sanctuary fairly easy. However, due to Naukrati’s status as a metropolitan port, faience as an exported material should not to be understated. The range of Egyptian produced faience reached all over the Mediterranean\textsuperscript{44}. Possibly these items were not only sold as items of religious significance or as objects for purchase for visitors of Naukratis or given as personal artefacts\textsuperscript{45}. Many faience items were beads or pendants of some kind with loops built in so they could be hung from a thread. Similar loops on faience objects have been found in Cyprus\textsuperscript{46}. Naukratite faience thus had both a wide market geographically and in the range of categories.

The local faience or scarab seal\textsuperscript{47} factory was located next to the sanctuary of Aphrodite. Unfortunately, there is not much known about the factory. Due to its closeness to the sanctuary\textsuperscript{48}, the factory and objects from both the Late Period and Ptolemaic era are difficult to date. It is currently estimated to have been used in 600 B.C.E to 550 B.C.E\textsuperscript{49}. The four excavations have not found any information regarding who worked at the factory nor the indented audience or clientele of the factory. A theory regarding the factory’s location is that it would have been available “on demand” for the sanctuary\textsuperscript{50}. If this is accurate, then it would strongly connect the faience production to Greek culture in Egypt.

\textsuperscript{35} Hanrahan 1961, 50.
\textsuperscript{36} Ibid, 52; For original source see Herodotus Histories II 78 – 79.
\textsuperscript{37} Roebuck 1951, 212.
\textsuperscript{38} Villing 2015, 233 – 4.
\textsuperscript{39} Ibid, 238.
\textsuperscript{40} Trope, Quirke & Lacovara 2005, 92.
\textsuperscript{41} Villing 2015, 239.
\textsuperscript{42} Ibid, 241.
\textsuperscript{43} Kaczmarczyk & Hedges 1983, 220.
\textsuperscript{44} Villing 2015, 239.
\textsuperscript{45} Ibid, 239.
\textsuperscript{46} Webb undated b, 2.
\textsuperscript{47} Trope, Quirke & Lacovara 2005, 93.
\textsuperscript{48} Webb 2019, 6.
\textsuperscript{49} Webb undated b, 31.
\textsuperscript{50} Webb 2019, 9.
3. Faience

Faience has been described as the ‘first glazed ceramic material invented by man’\(^{51}\), originating in pre-Dynastic Egypt 4500\(^{52}\) B.C.E. It was a glazing method which creates a ceramic object with a glass like exterior\(^{53}\), which can be produced in a vast range of different colours. They are similar to glass since they contain similar ingredients such as silica, however, they are ceramic objects. Faience, in literature, has been used as an umbrella term that can be applied equally to the objects, the technique, and the coating. Thus, this has also been continued in this essay. All faience objects are objects covered with coating made in faience techniques discussed in section 3.

3.1. Egyptian faience

Faience objects are closely tied to ancient Egyptian material culture. In a religious context faience has been used to make amulets, shabti, bead nets and other vessels. The earliest accounts of faience are from the predynastic period, making faience as old as Egypt itself. Faience has changed over the centuries in terms of colours, characteristics, ingredients, and motifs. Faience objects can be divided into categories of Pre-Dynastic, Pharaonic faience and later Hellenistic faience\(^{54}\).

Techniques and the materials used are well known, however tracing back to the discovery of such colours and techniques in Egypt is more difficult\(^{55}\) to determine. Most can be traced back to a time period but not to an exact century. One of the main colours is thought to have come from the material malachite\(^{56}\) which was used in ancient Egyptian eyeshadow. Since malachite contains copper, it will create a blue colour when fired. Important ingredients for Egyptian faience are also natron and quartz. Although there are faience objects of pure quartz, evidence reveal that faience factories most likely used local sand\(^{57}\), which was close by, cheap and already had limestone and impurities in them which made imports of materials less needed to produce cheaper objects. These impurities could still change the intended colours\(^{58}\) thus the type of sand used would have to have been picked carefully by the craftsmen.

3.1.1. Delta faience

The place of manufacture was an important factor in the resulting faience. The factories located in the Delta (i.e., the Nile Delta of Lower Egypt), were responsible for a large part of the entire faience production\(^{59}\). These factories used lower levels of lead and higher levels of tin than in other contemporary places in the Late Period\(^{60}\). Naukratis was a city within the Delta region, but there is not much to distinguish Naukraitite faience from other contemporary Delta faience\(^{61}\). Delta factories were also known for producing larger batches of green and blue faience using cheap recipes\(^{62}\). Kaczmarczyk and Hedges noted that there was no polychromatic faience in Naukratis\(^{63}\), however, since then several Naukraitite objects in the British Museum have been

\(^{51}\) Noble 1969, 435.
\(^{52}\) Yamahana 2022, 512.
\(^{53}\) Ibid, 512.
\(^{54}\) Kaczmarczyk & Hedges 1983, 265.
\(^{55}\) Ibid, 150.
\(^{56}\) Noble 1969, 437.
\(^{57}\) Kaczmarczyk & Hedges 1983, 188.
\(^{58}\) Ibid, 188.
\(^{59}\) Kaczmarczyk & Hedges 1983, 267.
\(^{60}\) Ibid, 271.
\(^{61}\) Ibid, 270.
\(^{62}\) Ibid, 272.
\(^{63}\) Ibid, 272.
noted as containing residue of several colours (see figs. 1, 3 & 5.) These residues are usually in the shape of smaller details being added in another colour, but no longer visible to the naked eye.

3.1.2. Late Period faience
Late period faience is a subgroup within pharaonic faience, also known as Saïte faience. Kaczmarczyk and Hedge described Late Period faience as more heterogenous than faience objects from any other time period. They also denoted the time period between the 26th dynasty to the 30th dynasty as a transitional period between what is considered Pharaonic faience and Hellenistic faience, with changes in the chemical structure and colours used. Late Period faience was in the transition period between what is seen as “traditional” Pharaonic and Hellenistic faience. Due to the political climate of the time, there was limited access to certain materials such as cobalt and antimony, which in turn made it harder to produce colours other than green or blue. While this did affect parts of faience production, Late Period faience is also known for improved quality such as adhesion control and new techniques including reducing oxidisation.

3.2. Egyptian techniques
Faience was not a type of naturally occurring stone or even the way the object body is shaped or made but in the way it is fired. The type of glaze and how it is applied is what makes faience, faience. There are three main methods: Efflorescence, cementation, and application. In Noble’s article from 1969, the techniques are not listed with the previous names but as “standard faience” or “composite faience”. Noble also mentioned another separate technique, not be covered in detail in this essay, that consisted of carving out shapes from steatite, which was then glazed.

Since faience was made in local factories and workshops, the specific technique variations and exact measurements had no specific guidelines. The information would instead be varied by the location and be passed down orally between workers. Due to the lack of plasticity of the material, which must have ideal conditions not to lose its shape, it was hard to form by hand, hence moulds were commonly used. According to Kaczmarczyk’s and Hedge’s analysis, faience could be divided into 7 colour classes and in 12 time periods. The colour of faience was determined by impurities in the glaze. A scientifically correct way to describe it is “transition metal ions embedded in a silicate matrix”. The main body made of quartz or alkali sand was usually being light beige or sand coloured. The body can also be coloured by the glaze but most often it colours only the outer layer. Additional factors that affect colour and durability are temperature and impurities. Due to the types of fires available to the ancient Egyptian faience factories,

---

64 Ibid, 265.
65 Ibid, 177.
66 Ibid, 266.
67 Ibid, 269.
68 Noble 1969, 438.
69 Yamahana 2022, 513.
70 Noble 1969, 436.
71 Yamahana 2022, 512.
73 Ibid, 6.
74 Ibid, 140.
75 Ibid, 7.
which could not reach temperature above 900 degrees Celsius\textsuperscript{76}, the heat would only be able to reach the outer parts of the faience body and make it react to create the glass like surface.

3.2.1. Efflorescence
The oldest technique efflorescence is from the early Dynastic Period (3000 – 2686 B.C.E.)\textsuperscript{77}. In this technique the entire object was made at once and is self-glazing. This means that all ingredients for the ceramic body and for the colouring glaze are all mixed together with a binding fluid\textsuperscript{78}. It was then left alone until it showed signs of salt crystals forming on the outer layer. This was caused by the evaporation of the water in the clay and is called efflorescence, hence the name. However, mixing everything together makes the clay body compact and hard to shape. Therefore, larger faience objects of this technique are rare\textsuperscript{79}. To make production faster and easier, the use of moulds was possible, though this requires an additional firing step as the object only self-glaze if it is able to oxidise in contact with air.

3.2.2. Cementation
The second technique appeared in the middle of the Middle Kingdom (1985 – 1650 B.C.E.)\textsuperscript{80} where the making of the body and the glaze\textsuperscript{81} was separated. The glaze used was in a powdered form that the ceramic bodies were submerged in, covering the objects completely. The covered bodies were then put into a kiln and fired which caused the glaze powder closest to the clay body to melt, react with, and glaze the object\textsuperscript{82}. The extra glaze would then be removed to reveal the colourful faience underneath. Cementation used a large quantity of glazing powder but made mass production easier.

3.2.3. Application
The third method, application, is still in use by craftsmen today\textsuperscript{83}. Appearing in the Third Intermediate Period (1650–1550 B.C.E.)\textsuperscript{84}, this method also separated the two parts, but the glaze was in a liquid state which was applied either by hand (and brush) or by dipping the object into the glaze before firing. Extra details in other colours would be added after the first layer of glaze using an application technique\textsuperscript{85}. Black details were made with a glaze mixed with iron or manganese\textsuperscript{86}.

3.2.4. Characteristics of each method
Efflorescence can leave behind an uneven thickness and the surface can be bubbly and uneven\textsuperscript{87}. Cementation is the technique most used in the Late Period due to its mass production ability. It is less cost efficient when making single objects due to the amount of glazing powder used but it leaves an even surface glaze. It was also the best method for thin

\textsuperscript{76} Yamahana 2022, 512.  
\textsuperscript{77} Ibid, 513.  
\textsuperscript{78} Ibid, 513.  
\textsuperscript{79} Ibid, 513.  
\textsuperscript{80} Ibid, 513.  
\textsuperscript{81} Ibid, 514.  
\textsuperscript{82} Ibid, 514.  
\textsuperscript{83} Yamahana 2022, 514.  
\textsuperscript{84} Ibid, 513.  
\textsuperscript{85} Kaczmarczyk & Hedges 1983, 6.  
\textsuperscript{86} Noble 1969, 439.  
\textsuperscript{87} Yamahana 2022, 513.
objects. Today, modern craftsmen use the application technique as the main one. It can be identified by brush marks and bubbles.

3.3. Greek (Aegean) faience

Greek faience was not developed alongside Egyptian faience but inspired by it, brought either to Greece with trade from Egypt or the Near East in the 3rd millennium B.C.E. and reached its peak in 1700–1400 B.C. E. It is not known which culture first inspired the faience production, but it was most likely the Egyptian. Of the two main types of Greek faience, Minoan, and Mycenaean (covered below), Minoan seems to have been more influenced by Syrian imports while Mycenaean was more influenced by Egyptian 18th dynasty faience. Even though they still imported faience, there was a local production of more “Greek” faience objects. The production of local glass was more favoured than faience in Greece. It is generally quite difficult to distinguish between Greek and Egyptian faience.

The general production of Greek faience separated the clay body from the glaze. The body was made with a base material such as sand or quartz and then mixed with a binding agent. Then the body was fired before applying any glaze. This resulted in a white body to which a glaze would be applied either as a full cover or as extra details. An important characteristic of Greek faience is the polychromatic faience, which could be made with up to four layers of additional glaze, a technique that was developed 1700 – 1650 B.C.E. Greek faience was one of the earliest to use multiple colours to create vivid details, copper to make green and blues but also manganese for black and purple, and iron for red. Additional colours were yellow, white, and black was predominantly used to mark details or to make patterns. For the red and the black Greek faience, they had perfected an iron iron-reduction technique, making whole black faience objects found more likely Greek. All of the colours available made a polychromatic trend not only defining a lot of Greek faience but also being a future influence upon the Egyptian Hellenistic faience. However, these vibrant colours have faded much and few glaze layers survive.

There are two main types of Greek faience, Minoan, and Mycenaean faience. Minoan faience has an uncoloured inner body with a colourful glaze outside. Mycenaean faience was coloured throughout the object body, usually in a blue colour and was also the faience type closest to Egyptian faience.
4. Materials
The objects chosen for this examination were divided into 5 different groups based on motifs. This was done to be able to discern common traits by compare similar looking objects. Comments have not been made on the entirety of practices and trends on the type of objects made in the Naukratis factory. The objects are listed in section 8 with both descriptions and pictures. In the following sections the objects will be referenced by number in parenthesis.

4.1. Amulets in the shape of falcons
Several of the amulets are in the shape of falcons (1 – 7). They all display a falcon sitting up, with wings on the side and a loop on the back of the falcons neck. The loops are most likely for suspension as mentioned in section 2.5. Not all falcon objects are well preserved as some have missing parts such as the base (4 & 7) or the head (3). Two of the falcon amulets were not recorded as excavated in the Naukratis factory but in the temples of Apollo (2 &6) and Aphrodite (7), specifically Greek sanctuaries and spaces. The production location was put as Naukratis or the scarab factory, but it is plausible they were all produced in the scarab factory. No comment can be made on the production year of the faience objects, hence if they all were created in the same year or if they are hundreds of years apart. Thus, little can be said for their local development.

Due to the similar size and look of the amulets it is probable they came from the same mould or same set of moulds from the same production location. The slight difference in size could be due to the additional layer of cementation, the process popular for mass production. Cementation adds a layer of glaze on top that, depending on the conditions, could be adding different amounts of glaze. While all objects have traces of their original colour most of it has faded to show the colour of the body and not the glaze, which confirms the technique used being cementation or application due to the glaze just colouring the outside of the object. Two amulets (1 & 5) have shown in analysis traces of multiple colours, especially as black details on the beak and talons. As for the technique, it could be any of the two mentioned earlier, however, the application was done after the first firing. Extra details in other colours are a marker of Aegean faience, however, not uncommon for Late Period Egypt and earlier and can thus not be a sign of definite Greek influence. The different measurements of the amulets could be attributed to the artisans making the base shape using a common mould and then shaping and carving the details by hand. This would explain the similar appearance and the differing size. When compared the sizes vary at most 3 cm in height, 1.25 cm in width and 3 cm in length.

It is hard to determine with certainty if the falcons represent a god, and in that case, which god in particular. No comment or certain characteristics are noted for a specific divinity. This ambiguity could mean that it reached a wider audience as it did not have to be specifically an Egyptian or Greek deity. As they were excavated in Greek sanctuaries it could show a Greek demand for these types of objects, perhaps even for international trading.

109 Web undated b, 2.
110 Web 2019, 2; for maps of amulet distribution in the Greek world; see Web 2019 page 2.
4.2. Amulets in the form of scarabs

All scarabs (8–12) were produced in the scarab factory and all but one (11) was marked as having been excavated from the factory. Three of them (9, 10 & 12) have a rich Egyptian blue colour, one has a light turquoise colour (8), and one has a red colour (11). The last object with the strong red colour is a mould for scarab objects. It has inversed details compared to the rest of the objects (except 9) which would create a carving into any clay body pressed into the mould. That particular object depicts a sphinx like being. Why the mould is in red, and none of the scarabs, is unclear. There are also small indents on the side of the middle that suggests reference points for a top part. Indications of the use of a mould for production can be seen in detail pointing outwards which can be seen with one amulet (9). Hand carving could be a possible production method when the details are set into the scarab (8, 10 & 12).

With the scarabs (9 & 11) it is less clear to tell the extent of the colouring. The carved decorations show depictions of a man holding two dogs by their legs and two dogs in a running position. The carving reveal that the material underneath the glaze is sand coloured. Two of the scarabs have hieroglyphs (10 & 12), one spelling hpr-r’ and the other wḥ-ib-r’, meaning rising sun and one of the names of Pharaoh Psamtik 1, respectively.

All scarabs are similar in size. Scarabs as amulets were common and could either be used as decoration without a specific meaning or be a symbol of life and death. The amulets in the collection do not have symbols connected to life or death and therefore are likely of the decoration kind.

4.3. Amulets in the form of animals

Faience figures also appear as other animals and motifs such as the uraeus snake (13 & 14), with a curving body and an addition of a loop at the top of the snake’s body. Other include an amulet in the shape of a lion (15). All objects are seated on a rectangular base with the loop on the upper back. Colours alternate between sand and light turquoise, and none measure larger than 2.70 centimetres. All objects were excavated in the scarab factory, but why one figure (15) is credited as being produced in Naukratis in general and not in the scarab factory is unknown. Both the lion and the snake were symbols of royal power and danger, the snake notably being in a hostile pose.

4.4. Anthropomorphic figurines

Several of the faience objects are representations of the Egyptian god Bes (16, 17, 19 & 24), depicting Bes in the form of a man as well as that of a lion with a man’s head. When depicted as a man Bes can be seen standing up in a traditional Egyptian pose of arms at the side and the left leg forward (19), or in a squatting position with the hands put as fists at the side (24). One (17) has a fist like protrusion out of the right side beside the face.

Two objects (18 & 20) are the head of a man and a male figure standing, respectively. They are not connected to any known deity or specific person. Identification (20) is also difficult due to it missing part of the upper body. It stands in a similar position as to a figure (19) of Bes.

As for female gods, Isis (21) and Tawaret (22) are in the catalogue. Isis is depicted sitting down and nursing her son, the god Horus. Tawaret is instead standing up, hands to the side.

111 Petrie 1920, 112.
112 Petrie 1920, 107.
The Tawaret object is the only object in the catalogue with a drill hole through the back instead of as an additional loop to the top as many of the previous objects.

Lastly is a figure of a human (23) in the position (similar to figure 19 and 20), but with a lion’s head wearing a crown. It could be a lion deity, or a symbol of royal power, due to the crown. It is also the only object to be made with a black faience glaze, which makes it a rare find as black faience is uncommon to find, especially in Naukratis faience113.

Six objects (16, 18, 20, 21, 22 & 24) share a similar faded light green/turquoise colour while two other (17 & 19) share a sand and brown colour to it. No object is larger than 4 cm in height. This category is the category with most objects credited to being produced in Egypt, with no further limitation.

4.5. Amulets of various shapes
One object is in the form of a circular pendent (25) with no holes for suspension. Its original outer glaze was a light green which now has faded to show the sandy body beneath. It has an illustration on the front of unknown meaning but resembled that of a bud of a lotus or papyrus plant. Figures of traditional Egyptian motifs such as a wedjat eye (26) inside of a square, the upper part of a djed pillar (27) and lotus pillars (28). The lotus pillar shares a shape similar to that of architectural lotus columns with that of a curved elongated body that represents the stem and flower114. The above-mentioned objects (26, 27 & 29) in addition to four of the pendants on the bracelet (20) of an Egyptian blue while the rest are light turquoise. All except one (29) were found in the scarab factory.

There is one object that represents a grape (29) with a small drill hole at the top, presumably to act as a suspension loop. The last object is a bracelet (30), with 14 different pendants totalling at 8.5 cm in length. It demonstrates a use for the loops previously described on the objects. If the rest of the other objects in the catalogue were meant to appear alongside multiple objects or alone is not clear.

4.6. Overall observations
In total eight objects were produced in the factory (8, 9, 10, 11, 12, 13, 14 and 17) and out of those 3 (11, 13 and 14) were also excavated there. The number of objects excavated from the factory could be greater. Twelve of the objects were excavated in the factory but have no clear origin (15, 16, 19, 20, 21, 22, 23, 25, 26, 27, 28 and 30). Five objects only have the origin and excavation of Naukratis (14, 15, 18, 24 and 29).

The majority of objects have some type of loop at the back, presumably for suspension of some kind as shown by figure 30. Many of the objects have been made with rectangular base which could be for added support so the objects could also be presented in a standing position.

All objects show signs of fading of colour and weathering that has worn away parts of the original glaze. Out of the colours the red and the Egyptian blue are the ones that have been best preserved. This could signify that the light green/turquoise colour is more likely to wear off.

---

114 Petrie 1920, 76.
5. Discussion
In section four the objects from the catalogue were introduced and described in detail. The details and the several variations in their characteristics are then further detailed in this section.

5.1. Technique
Based on the three techniques described in section 3.2.4, the objects show no inconsistencies in the glaze consistency or bubbles on any of the objects that could indicate the use of the early Pharaonic efflorescence technique. This is also supported by the worn off glaze on the majority of the objects which allows the colour of the faience body to be visible. Efflorescence would have coloured the entire body in the colour of the glaze. The extra details added in other colours were most likely added post firing with an application technique. The carvings in the scarabs showing the sand colour below the glaze layer could be an indication that the carvings were added after the first layer of glaze has been applied. It seems unlikely that another colour was added upon the carved section after the carving had been done. Due to the ability to mass produce objects using the cementation technique it is plausible that the main bodies were done using cementation and the extra glaze added with application. The extra layer could also have been added between periods of firing the objects, as one of the Greek application techniques. The difficulty in assessing the type of application method is that none of the details are visible in modern time. The Greek method seems probable as it would have layered the colours and still let the first glaze layer be visible underneath the additional details. However, there is no evidence that points to that the Egyptians did not already know and use this method of application as well. That said, the application technique appeared in the third intermediate period, just before the late period, suggesting that it was a relatively new method.

The evidence that points to a handcrafted element to the smaller faience objects is the height difference displayed in the catalogue. The height of the tallest object used in the catalogue is 7 centimetres (27). The bracelet (30) has a longer length of 8 centimetres but is made up of smaller beads. One note that could be said about the descriptions made in section 4, is the observation that many of the similar looking faience objects are all different in height. The falcon amulets differ 3 centimetres at most, the scarabs 0.9 centimetres and 2.45 centimetres. This discrepancy could be explained as the height lost when the objects are missing parts, but the tallest falcon object (7) is missing its base and would have even been larger before. This has been explained previously in the essay as perhaps being a feature of the technique, cementation, as extra glaze is added. However, this would not explain the 3 centimetre height difference of the falcons. An addition to the previous explanation is that the handcrafted details played a larger part than previously assumed. In modern times mass production has been seen as a way to get objects with more quantity than quality. The amount of faience objects and the similarity in features of the objects in the same category point to a mould being used for the main features. However, the difference in size and the hand carved details point to a handcrafted art. It is reasonable to say that both methods were used and valued in the faience production. While the basis for the object would be created in a mould, the more delicate features such as the base, suspension loops and smaller details would be added on by craftsmen. Even in objects such as the falcon, even though it has no connection to a certain god or activity and could be mass produced for a large demand, they were still handcrafted.
5.2. Polychromatic faience

Polychromatic faience was a marker of Greek faience as it was used in inlays\textsuperscript{115} and as mosaic, combining several colours to create decorative pieces. This was the technique that truly developed into polychromatic faience at the same time as Naukratis is thought to have been established. Several of the objects described in section 4 show traces of polychromatic faience. This could be considered a strong indicator for Greek influence on the Egyptian faience production. However, polychromatic faience, especially the types with adding extra details in black, have been known since Amarna in the New Kingdom 18\textsuperscript{th} dynasty\textsuperscript{116}. The knowledge of which materials created the different colours was already known and used. That said, many of these colours were not\textsuperscript{117} used after the Amarna period which can still mean that a new wave of decorated polychromatic faience could have been inspired by the Greeks. For instance, small human like figurines, ushabti, from this time were monochromatic and had a soft green colour\textsuperscript{118}, except for the occasionally wig outlined in black\textsuperscript{119}. The high quality of the ushabtis figures suggests a lot of time spent on the figures and that there was a\textsuperscript{120} ushabtis in burials. Ushabtis from tombs in the 21\textsuperscript{st} to the 25\textsuperscript{th} dynasty show ushabtis\textsuperscript{122}, although they are less common. At sets of such large quantities the lack of multiple colours can be seen as a waste of time and effort but could also be because of a monochromatic trend. The scarabs mentioned in section 4.2. that showed traces of lost additional colour show that either these extra details were added to smaller pieces that were made in fewer quantities, or that the polychromatic faience objects were beginning to enter the market. The fact that there are only two objects in the catalogue with the multi colour traces show no relation to the frequency of such objects excavated. However, the few examples in the catalogue should not diminish their significance as individual objects. The red and black examples of faience suggests that the Greek iron-reduction technique was available and used in Naukratis which points to an actual adoption of a technique. There are no examples of purple, strong green, or yellow faience available. The lack of purple could be because it was simply never introduced to Egypt but the lack of yellow can be explained by the limited access to cobalt and antimony at the time, as mentioned earlier in section 3.1.2.

5.3. Locations

Since the falcons cannot be tied to any deity or specific religious activity, they could be targeted to a larger audience than for only Egyptian customers. Since three of the falcon amulets were found in the Sanctuaries of Apollo and Aphrodite it indicates they could have had some kind of religious use, but not specific to single cult. It is possible they were also intended as trinkets for exportation or as pendants for necklaces. Falcon amulets increased in popularity in the Graeco-Roman world with a large number of falcons have been found in east Greece\textsuperscript{123}.

As mentioned previously, a lot of the objects in the first two excavations were not properly labelled after the excavations took place, making the place of excavation and production location imprecise. Although the findings can still help clear up information about the

\textsuperscript{115} Foster 1979, 153.
\textsuperscript{116} Trope, Quirke & Lacovara 2005, 196.
\textsuperscript{117} Ibid, 196.
\textsuperscript{118} Aston 2009, 266.
\textsuperscript{119} Ibid, 357.
\textsuperscript{120} Kaczmarczyk & Hedges 1983, A-126.
\textsuperscript{121} Aston 2009, 356.
\textsuperscript{122} Aston 2009, 358.
\textsuperscript{123} Webb 2019, 10.
material production in Naukratis, it cannot help with the specific information to specific places in the city. No maps are attested to study the frequency of faience objects found in site.

Similarly, no note can be made if the amulets were introduced by Greeks using Egyptian goods in their religious activities or if it was introduced by Egyptians practicing Greek religion.

5.4. Motifs

As mentioned in section 3.1.2. the wedjat eye, pillars, and figures of Egyptian deities such as Bes and Isis were connected to religious activity and often found as burial goods\(^\text{124}\) in tombs from the beginning of the Late Period onwards. Amulets of gods increased in popularity in the Late Period and would be used in mummy wrapping but could also be used as ornaments\(^\text{125}\). The motifs on the items from the catalogue are clearly Egyptian with Egyptian deities and hieroglyphic writing.

The animals are less clear on their intended origin. As mass produced objects this would have enabled the faience objects to be used by Egyptians and Greeks alike. While all animals are in positions seen in earlier Egyptian objects, they do not appear to be connected to any specific use which makes opportunities for several uses.

Of the anthropomorphic amulets in the catalogue (\textit{figures} 16, 17, 19, 21, 22, 24), six are of traditional Egyptian deities including Bes, Isis with Horus, and Tawaret. They belong to the category of deities that includes a third of the thousands\(^\text{126}\) of amulets found at Naukratis. All of the listed Gods have a connection to childbirth and children. Bes, (\textit{figures} 16, 17, 19) was strongly connected to pregnant women as well as a protector of children\(^\text{127}\) and against dangerous animals\(^\text{128}\). His appearance in Naukratis does not link him as one of the main gods of Naukratis as he was not tied to a specific place\(^\text{129}\) and was a popular amulet depiction for necklaces and figurines. Bes is often connected to and found together with Tawaret (\textit{figure} 22), a goddess in the form of a standing hippopotamus or as a pregnant woman with the head of a hippopotamus\(^\text{130}\). Both Bes and Tawaret were popular motifs of amulets since the Third Intermediate Period and Old Kingdom, respectively\(^\text{131}\). Bes is also known to have been depicted in the shape of a lion\(^\text{132}\) as well as a man and thus the lion pendent (\textit{figure} 15) could be connected to Bes as well due to the similar position it is seated in. However, there is no description to confirm it.

Isis (\textit{figure} 21) is sitting with her son Horus which is a very common motif, and there have been thousands of similar figurines created in Egypt\(^\text{133}\). Bes and Isis have both later gathered followings outside of Egypt with Bes becoming a popular deity in Cyprus and Syria\(^\text{134}\) while Isis got a large cultural following in the Greek world, eventually also getting a form

\(^{124}\) Aston 2009, 374, 290 & 384.

\(^{125}\) Petrie 1920, 114.


\(^{127}\) Wilkinson 2003, 102.


\(^{129}\) Petrie 1920, 115.

\(^{130}\) Wilkinson 2003, 185.

\(^{131}\) Ibid, 103 & 186.

\(^{132}\) Ibid, 102.

\(^{133}\) Ibid, 146.

\(^{134}\) Ibid, 104.
combined with the Greek goddess Aphrodite into Isis-Aphrodite. It would not be unlikely that her popularity among the Greek population was already growing in Naukratis.

All of the gods mentioned are connected to birth and life. Tawaret, shown with a pregnancy could be used for pregnant women. The amulet of Isis is sitting with her son on her lap, already a small child, and nursing him. This shows the next step of life. Bes, as mentioned earlier is a protector of children and mothers and together with the other goddesses they form protection for all stages of motherhood and for children. As stated earlier, these deities could also be found as burial goods just like the scarabs that could be used as signs for both life and death.

The one amulet that shows a food item is the grape pendent. Although it shows no clear connection to Egyptian or Greek motifs, faience grapes have been popular. Moulds for grape shaped faience objects have been recorded from 18th dynasty Amarna. Grape pendants could be affixed to the wall by the ceiling to assimilate the look of grape vines. Although the grape objects used for this had a square shape take out of the top to fit along beams, the loop on the grape pendent in the catalogue could have been for a similar purpose. Many of the objects in the catalogue are displayed with the suspension loop. By the bracelet it is seen shown to have been used in jewellery, presumably also for necklaces. The grape pendent is unique in being used as ceiling decoration but this does not exclude the other objects from also being suspended from walls or as decoration depending on the nature of the need of the consumer.

5.5. Similar objects
The more objects there is of a category found and excavated at the same location, the better the foundation for a quantitative analysis can be made i.e., of the style of a location. In terms of international influence, Greek faience was the dominant one, however, the other international influences acting in Naukratis should not be overlooked. One such example is the category of naked figures excavated in Naukratis clearly not made in Greek or Egyptian style but in Nubian or Cypriot. The catalogue used in this essay focuses on smaller faience objects, but larger objects were also present. Another aspect, that cannot be understated, complicates the study of faience from Naukratis is, as stated earlier, that the excavation place of many objects was never recorded. As for objects found outside of Egypt it is unclear if they are from or only credited to Naukratis. One such object that was found both in and outside of Egypt at the same time was the aryballoi. It is an object with known Greek influence, a Greek style vessel, that made up a large part of the Egyptian-Greek faience objects exported from Naukratis. Webb, after studying hedgehog aryballoi noted that they were most likely made in Egypt ‘In an area under East Greek influence’. This points to Naukratis, as it was the city in Egypt with the most Greek influence. Research about another aryballo in Poland pointed to that it originated in Naukratis, but there was also a possibility of Eastern Greece origin. Kubala, also noted the difficulty in tracing the origin of a

135 Ibid, 149.
136 Petrie 1920, 80.
137 Trope, Quirke & Lacovara 2005, 195.
138 Petrie 1920, 80.
139 Webb undated a, 3.
140 For an in-depth discussion about similar objects: see Webb 2019.
141 Webb undated a, 2.
142 Webb undated a, 2.
143 Kubala 2017.
faience object. There are few identifying details that could make a clear difference between an object from a Greek and one from a contemporary Naukratis workshops. This makes the identification of objects based on signs of workshop manufacture problematic. Yet another technique for Greek faience, of which no influence has been found in the catalogue, is the technique of inlaying shell into the faience, giving the faience another aspect of iridescence.

There are a few researchers who claim identifying details that are for larger objects than those in the catalogue. One note that has been made about Greek vessels made in Egypt was the inferior quality displayed from Naukratis. However, that cannot be used as an identifying detail for individual examples with no comparison of objects that have confirmed origins. It was noted for vessels and not smaller objects and can therefore not be used applied for the study of smaller faience objects. Two types of faience notes to have identifying detail have been pilgrim flasks and faience objects from Greek archaic sanctuaries. The production of pilgrim flasks and other faience vessels in Naukratis, although not proving, indicates a local mixed faience style. Greek faience objects that can be differentiated from Egyptian faience are the objects from Greek archaic sanctuaries that usually differ from the green and blue hues of the Egyptian style amulets. They show some trends for mixed style, but the larger objects are not relevant for the study of the smaller objects.

5.6. Summary
Since Greeks were only allowed residence to Naukratis, it was the only place in Egypt that could cultivate a mixed culture with a major international presence. Imported goods and visiting craftspeople could of course encourage or influence local production as well but not at the same scale or change the demand as a permanent population could with everyday influence.

Due to the large quantity of amulets of deities, the falcons found in the workshop and in the sanctuaries, as well as the connection of life to the scarabs and deities, the theory about the faience production being on demands for the sanctuary is feasible. Most likely the workshop made objects that could be sold to the general public as well as by order from the temples. If the demand for the faience objects came from both the population of the city, for international trade, temple use and for burial goods, it points to the large scale that the one production site would have to run at.

There is another technique used for the production of larger faience vessels where the structure of the body was formed around grass or reed stalks and then the clay mixture added on top. This technique was also used for producing the more Greek influenced aryballoi. The larger objects would be handmade and not made by the quicker mould method. Webb argues that these aryballoi were both part of a larger cultural influence from both sides. Some aryballoi are with Egyptian motifs while others are clearly more Greek such

---

144 Ibid, 78.
145 Ibid, 77.
146 Foster 1979, 153.
147 Kubala 2017, 84.
148 Webb undated a, 239.
149 Webb 2019, 12.
150 Webb undated a, 2.
151 Kubala 2017, 84.
152 Webb 19, 3.
153 Ibid, 4.
as the round one or the ones portraying Herakles head lionskin\textsuperscript{154}. Although this method shows a Greek influence a clear conclusion cannot be made with the objects from the catalogue as none of the objects are large. What can be said is that the larger objects were sometimes made in Greek motifs while the smaller amulets were made with Egyptian motifs and styles. There is no sign of any of the popular Greek mosaic or inlays in the amulets.

While Mycenaean faience is described as being more similar to Egyptian faience than Minoan faience it is coloured throughout the entire object which can only be seen in the efflorescence method. Looking at the objects, none seem to have been made with efflorescence or any other technique that could result in a completely colourful object. Using this argument Minoan faience seems closer in colour of the clay body but no more can be identified.

Identifying clues from workshops is problematic so it is easier to looks at the general technique or motif. There is no mark made by the workshop or the individual craftsman to show its origin either by location or time. Even though the ways of making the faience was passed down from craftsman to craftsman, there is no particular identification that can be made. The earlier comments made about Naukratis faience being of an inferior kind can also not be used as an identification since it could belong to a certain time period of production and as new people took over the business, the methods and quality changed. One remark made in the identification of other Greek aryballoi was the mention of Eastern Greece.

Larger faience objects such as the Greek aryballoi seem to have been created using Greek methods like using grass to form the main body while the objects from the catalogue were made using traditionally Egyptian methods. The one method that is directly taken from Greek faience production is the iron reducing technique to create a glaze that makes black faience. This development in black faience cannot be credited to Aegean faience however, neither should it be excluded\textsuperscript{155}. The main argument for Greek influence is the appearance of polychromatic faience. While it does exist in the Naukratite faience, it is limited as the accesses to material to create more colours was limited. This could also explain the prevalence of green and blue faience as it was made by readily available materials. Polychromatic faience had also been recorded in Egypt during the New Kingdom, but the extra colours used more to make details stand out than as part of it. The appearance of polychromatic faience could either be a continuation of the New Kingdom trend or a reappearance reintroduced by the Greek faience.

As many objects were recorded to have been excavated in Egypt or Naukratis in general rather than a specific location it can be difficult to locate trends. From the falcon amulets being found in the Greek sanctuaries, it reveals a use of Egyptian faience in traditionally Greek spaces. Since the factory is close to the temple of Aphrodite it would have given the temple quick access to the factory’s faience which in turn could mean that the sanctuary had high demands for faience objects even if the motifs were mainly Egyptian, making the use more important than the motifs. The falcon amulets were not connected to a god but were still an Egyptian motif which shows the adoption of Egyptian motifs into Greek religious use.

Whether it was Egyptians in the Egyptian factory or if it was Greeks learning and using Egyptian tools and techniques is a facet of the production that is impossible to determine. Villing suggest that the local production could be an indication of Egyptian techniques being

\textsuperscript{154} Ibid, 6.

\textsuperscript{155} Kaczmarczyk & Hedges 1983, 270.
taught to and picked up by local Greeks. Whether the production was for local demand if it was an international market as well is hard to determine, though it is probably both as faience has been excavated at the local sanctuaries and found outside of Egypt. Since Naukratite faience had access to the global market it is probable that a lot of the Egyptian objects in the Greek world are from Naukratis. This is hard to prove as objects cannot be placed in a production place with certainty. Petrie himself thought the faience objects in Naukratis were imitations of Egyptian faience. This belief of imitation made by another culture instead of a strong multicultural production is what marks the earlier research about Naukratis and has created an image of an Egypt that refused to cooperate which is not the case.

Similarly, larger objects tell that seeing origin from an object is very hard, even if the type is traditionally Greek it is a difficult task. What can be said is that the objects were not made in a Greek workshop in Egypt, but more cannot be established with certainty. Since faience is originally an Egyptian technique and type of object, the Greek presence is a new and not seen before influence on its production. Webb even argues that the faience at Naukratis was not beginning to develop a new style but rather that it was the ending. That although the Greek faience would continue to develop in Naukratis, the faience for Greece was less and less in demand. The majority of sources agree on that the faience objects in Naukratis bear resemblance to Greek techniques and influence. The objects in the catalogue do not prove that there were no Greek influences, neither does it prove that there were. It might be due to the small sample size. What can be determined is that Greek faience did not influence Egyptian faience enough for it to take over the entire faience production to be Greek faience. The lack of definite Greek influence could be due to the lack of need to please the Greek audience as they would also use Egyptian amulets for their own reason. While the production adapted some of the techniques for the larger objects, the Greeks also adapted the available faience similar to the one they are used to, to their own religious and everyday needs. This is both seen from the use of the falcon amulets as well as the figurines of deities. Both Bes and Isis, who would at one time fuse with Aphrodite, were fertility and protection gods whose popularity would spread through the Aegean. These deities (Bes and Isis) would eventually become popular in Greece as well which could have been from the export of the figurines.

6. Conclusion
The excavations in Naukratis have been extensive and have helped to map out how this city looked, but the earliest research was based on the assumptions that Naukratis was a Greek city and thus that the objects in the city were Greek as well. This assumption was made due to the circumstances of the city’s foundation, its inhabitants and that it was the only city that Greeks could chose as residence in Egypt. This approach has affected the reading of the objects to have been mainly Greek or heavily influenced by Greek faience. To the early researchers objects that look Egyptian are Egyptian for local purposes while Greek looking objects were Greek. This division helped categorise objects and buildings found, but it only distorts the view on material culture and production as cultural influences never work in absolutes.

Naukratis Egyptian faience can be identified by the motifs used and the monochromatic coatings. They were used as pendants, amulets, and decorations both in everyday settings and

---

157 Webb undated b, 2.
158 Ibid, 2.
as religious objects. The Greek influences and traits can be seen from other research in bigger objects but even then the origin cannot be fully determined only based on the visible characteristics. The smaller amulets show limited Greek influence with only the traces of polychromatic faience. The use of the iron reducing technique is the only technique that has clear Greek influence behind it and resulted in black and red faience pieces. The polychromatic faience of Greece has been known and used in Egypt since the New Kingdom, but not to the same extent. Egyptian faience adds details after production in one layer, often in black. The Greek polychrome faience method included adding several layers of colours on top of the original faience body, that also had a larger variety in colour availability. The technique for making black faience was most likely introduced to the Greeks by Egyptian faience and then improved and furthered in Greece. It was then brought back and reintroduced into Egyptian faience, making it a cooperative process, albeit unknowingly.

It is not trivial to determine the production location of a faience object and thus difficult to determine specific characteristics of faience of different cultures, except for the motifs. The traditional motifs were both used for local Egyptian demand for burial practices as well for religious purposes. Many of the figurines are of Egyptian deities working as protection. There was a demand for amulets of gods that could both be used in the context of death but also of life, birth, and motherhood. The existence of faience objects with these motifs in Greek sanctuaries, show a local demand by the Greek sanctuaries as well. It is further justified by the close location of the scarab factory to the Temple of Aphrodite, which would have made the availability of faience at convenience for the Greek temple. The loops and base of the objects made it easy for several uses, both for wearing and for using as decorative or votive objects. There was perhaps no need to expand into Greek motifs if the traditional ones were sold to both Egyptians and Greeks. This is also supported by the falcon amulets as they have also been found outside of Egypt, in Greece. This demand for both local and international markets made it an ideal setting for a site of mass production for faience objects and yet evidence show that the objects were shown great care as they were to a large extent handcrafted by the artisans at the faience factory. The majority of the faience objects show signs of being created with the Egyptian cementation technique, however, if the details were added with an Egyptian or a Greek application technique is unclear.

The religious freedom and accessibility in Naukratis most likely made it easy to mix different belief systems and share aspects of cultures, such as leaving votive offerings of faience in a space not dedicated to Egyptian religion. Greece, as stated previously, was not a stranger to faience and so might not have been completely unfamiliar as faience was something they recognised from their own culture as well.

The factor of unknown excavation locations makes it difficult to create quantative data for locations however, research made of more objects from specific locations is needed to make a clearer representation of not only how techniques were spread in the ancient world but also how the people spreading them were received. The new theories about a more mix cultured Naukratis can give way for new research for Late Period Egypt and can give insight not only for the faience made in the Ptolemaic era but can also reveal how Greek faience developed from Egyptian or tell what influences were Egyptian and which were Syrian. This is not only a research field for Egyptology but that of classical Greece and further cooperation between the fields would be beneficial for the understanding of ancient Naukratis and its people.

As a conclusion, the Greek influence on smaller Egyptian faience objects was minimal. Naukratis faience has a trend of monochromatic light green faience that had developed in
Late Period Lower Egypt. The Greek influences are best shown in the use of iron reduction technique for black faience and in the traces of polychromatic faience in the scarab amulets. Greek influence cannot be completely ruled out but neither can it be completely supported for smaller objects. The objects do tell that the faience made in Naukratis was made for both an international and local audience of both Egyptians and Greeks. The Greek faience may not have revolutionised the faience industry but the Greek population, and especially the local Greek sanctuaries, contributed to the demand of local handcrafted faience. The faience products of ancient Naukratis were, like that of everyday life in Naukratis, not the product of a single culture but several cultures working together and influencing each other.
7. Bibliography and Abbreviations


Bell, I. 1922, 'Hellenic Culture in Egypt', *JEA* 8, 139 –55.


Hanrahan, M. 1961, 'Naucratis, and the Relations Between Greece and Egypt During the VIIth and VIth Centuries B.C.', *University Review* 2, 46–57.


Yamahana, K. 2022, ‘Historical consideration of Ancient Egyptian faience through a craftsman’s point of view’, JCS 130, 512–18.
Abbreviations:

*BMSAES*  
British Museum Studies in Ancient Egypt and Sudan.

*CPh*  
Classical Philology.

*JAS*  
Journal of Archaeological Science.

*JEA*  
Journal of Egyptian Archaeology.

*JCS*  
Journal of the Ceramic Society of Japan.

*SAAC*  
Studies in Ancient Art and Civilisation.

*SSAA*  
Sheffield Studies in Aegean Archaeology.
<table>
<thead>
<tr>
<th>Item</th>
<th>Naucratis</th>
<th>Naukratis</th>
<th>Sanctuary of Aphrodite (Naukratis)</th>
<th>Naukratis Excavation Location</th>
<th>Production Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>9.9, 9.86, 9.59</td>
<td>1975-3</td>
<td>H: 4.40 L: 3.50 W: 1.60</td>
<td>Sand</td>
<td>Naukratis</td>
</tr>
<tr>
<td>4</td>
<td>9.9, 9.86, 9.59</td>
<td>1975-3</td>
<td>H: 4.80 W: 1.50</td>
<td>Sand, light blue (worn)</td>
<td>Naukratis</td>
</tr>
<tr>
<td>3</td>
<td>9.9, 9.86, 9.59</td>
<td>1975-3</td>
<td>H: 5.60 L: 4.50 W: 2.20</td>
<td>Sand</td>
<td>Naukratis</td>
</tr>
<tr>
<td>1</td>
<td>9.9, 9.86, 9.59</td>
<td>1975-3</td>
<td>H: 4.90 L: 3.00 W: 1.70</td>
<td>Sand</td>
<td>Naukratis</td>
</tr>
</tbody>
</table>

**Measurements in cm**

<table>
<thead>
<tr>
<th>Item</th>
<th>Naucratis</th>
<th>Naukratis</th>
<th>Sanctuary of Aphrodite (Naukratis)</th>
<th>Naukratis Excavation Location</th>
<th>Production Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>9.9, 9.86, 9.59</td>
<td>1975-3</td>
<td>H: 4.40 L: 3.50 W: 1.60</td>
<td>Sand</td>
<td>Naukratis</td>
</tr>
<tr>
<td>4</td>
<td>9.9, 9.86, 9.59</td>
<td>1975-3</td>
<td>H: 4.80 W: 1.50</td>
<td>Sand, light blue (worn)</td>
<td>Naukratis</td>
</tr>
<tr>
<td>3</td>
<td>9.9, 9.86, 9.59</td>
<td>1975-3</td>
<td>H: 5.60 L: 4.50 W: 2.20</td>
<td>Sand</td>
<td>Naukratis</td>
</tr>
<tr>
<td>1</td>
<td>9.9, 9.86, 9.59</td>
<td>1975-3</td>
<td>H: 4.90 L: 3.00 W: 1.70</td>
<td>Sand</td>
<td>Naukratis</td>
</tr>
</tbody>
</table>

**Colour**

<table>
<thead>
<tr>
<th>Item</th>
<th>Naucratis</th>
<th>Naukratis</th>
<th>Sanctuary of Aphrodite (Naukratis)</th>
<th>Naukratis Excavation Location</th>
<th>Production Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>9.9, 9.86, 9.59</td>
<td>1975-3</td>
<td>H: 4.40 L: 3.50 W: 1.60</td>
<td>Sand</td>
<td>Naukratis</td>
</tr>
<tr>
<td>4</td>
<td>9.9, 9.86, 9.59</td>
<td>1975-3</td>
<td>H: 4.80 W: 1.50</td>
<td>Sand, light blue (worn)</td>
<td>Naukratis</td>
</tr>
<tr>
<td>3</td>
<td>9.9, 9.86, 9.59</td>
<td>1975-3</td>
<td>H: 5.60 L: 4.50 W: 2.20</td>
<td>Sand</td>
<td>Naukratis</td>
</tr>
<tr>
<td>1</td>
<td>9.9, 9.86, 9.59</td>
<td>1975-3</td>
<td>H: 4.90 L: 3.00 W: 1.70</td>
<td>Sand</td>
<td>Naukratis</td>
</tr>
</tbody>
</table>

**Description**

<table>
<thead>
<tr>
<th>Item</th>
<th>Naucratis</th>
<th>Naukratis</th>
<th>Sanctuary of Aphrodite (Naukratis)</th>
<th>Naukratis Excavation Location</th>
<th>Production Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>9.9, 9.86, 9.59</td>
<td>1975-3</td>
<td>H: 4.40 L: 3.50 W: 1.60</td>
<td>Sand</td>
<td>Naukratis</td>
</tr>
<tr>
<td>4</td>
<td>9.9, 9.86, 9.59</td>
<td>1975-3</td>
<td>H: 4.80 W: 1.50</td>
<td>Sand, light blue (worn)</td>
<td>Naukratis</td>
</tr>
<tr>
<td>3</td>
<td>9.9, 9.86, 9.59</td>
<td>1975-3</td>
<td>H: 5.60 L: 4.50 W: 2.20</td>
<td>Sand</td>
<td>Naukratis</td>
</tr>
<tr>
<td>1</td>
<td>9.9, 9.86, 9.59</td>
<td>1975-3</td>
<td>H: 4.90 L: 3.00 W: 1.70</td>
<td>Sand</td>
<td>Naukratis</td>
</tr>
</tbody>
</table>

**Museum Number**

<table>
<thead>
<tr>
<th>Item</th>
<th>Naucratis</th>
<th>Naukratis</th>
<th>Sanctuary of Aphrodite (Naukratis)</th>
<th>Naukratis Excavation Location</th>
<th>Production Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>9.9, 9.86, 9.59</td>
<td>1975-3</td>
<td>H: 4.40 L: 3.50 W: 1.60</td>
<td>Sand</td>
<td>Naukratis</td>
</tr>
<tr>
<td>4</td>
<td>9.9, 9.86, 9.59</td>
<td>1975-3</td>
<td>H: 4.80 W: 1.50</td>
<td>Sand, light blue (worn)</td>
<td>Naukratis</td>
</tr>
<tr>
<td>3</td>
<td>9.9, 9.86, 9.59</td>
<td>1975-3</td>
<td>H: 5.60 L: 4.50 W: 2.20</td>
<td>Sand</td>
<td>Naukratis</td>
</tr>
<tr>
<td>1</td>
<td>9.9, 9.86, 9.59</td>
<td>1975-3</td>
<td>H: 4.90 L: 3.00 W: 1.70</td>
<td>Sand</td>
<td>Naukratis</td>
</tr>
<tr>
<td>Item</td>
<td>Excavation Location</td>
<td>Production Location</td>
<td>Colour</td>
<td>Description</td>
<td>Museum Number</td>
</tr>
<tr>
<td>------</td>
<td>---------------------</td>
<td>---------------------</td>
<td>--------</td>
<td>-------------</td>
<td>---------------</td>
</tr>
<tr>
<td>Item 1</td>
<td>Naukratis</td>
<td>Scarab Factory (Naukratis)</td>
<td>Blue</td>
<td>Scarab with writing in hieroglyphs spelling ḫ-pr-ꜥ</td>
<td>EA66503</td>
</tr>
<tr>
<td>Item 2</td>
<td>Naukratis</td>
<td>Scarab Factory (Naukratis)</td>
<td>Blue</td>
<td>Scarab with depiction of two dogs.</td>
<td>EA29961</td>
</tr>
<tr>
<td>Item 3</td>
<td>Naukratis</td>
<td>Scarab Factory (Naukratis)</td>
<td>Light turquoise (worn)</td>
<td>Scarab with depiction of a person holding two animals upside down.</td>
<td>H5115.6</td>
</tr>
<tr>
<td>Item 4</td>
<td>Naukratis</td>
<td>Sanct Temple of Apollo (Naukratis)</td>
<td>Sand, brown</td>
<td>Amulet in the shape of a falcon with a small loop at the top. Missing lower part.</td>
<td>EA58319</td>
</tr>
</tbody>
</table>

**Measurements in cm**
- Item 1: L: 1.15, W: 1.45, H: 0.60
- Item 2: L: 0.75, W: 1.25, H: 0.65
- Item 3: L: 1.45, W: 1.25, H: 6.80
- Item 4: L: 3.10, W: 1.25, H: 3.80

**Other Information**
- Item 1: Scarab with writing in hieroglyphs spelling ḫ-pr-ꜥ.
- Item 2: Scarab with depiction of two dogs.
- Item 3: Scarab with depiction of a person holding two animals upside down.
- Item 4: Amulet in the shape of a falcon with a small loop at the top.
<table>
<thead>
<tr>
<th>Item</th>
<th>Excavation Location</th>
<th>Museum Number</th>
<th>Colour</th>
<th>Description</th>
<th>Measurements in cm</th>
<th>Photo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scarab Factory (Naukratis)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scarab Factory (Naukratis)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scarab Factory (Naukratis)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Naukratis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scara Factory (Naukratis)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scara Factory (Naukratis)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scara Factory (Naukratis)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L: 2.70</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H: 1.80</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>W: 1.10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D: 0.70</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depth: Not given</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Photo</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scarab Factory (Naukratis)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scarab Factory (Naukratis)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scarab Factory (Naukratis)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Naukratis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scara Factory (Naukratis)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scara Factory (Naukratis)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scara Factory (Naukratis)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L: 2.20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>W: 0.70</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depth: 1.70</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H: 0.10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>W: 0.70</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depth: Not given</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Photo</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scarab Factory (Naukratis)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scarab Factory (Naukratis)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scarab Factory (Naukratis)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Naukratis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scara Factory (Naukratis)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scara Factory (Naukratis)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scara Factory (Naukratis)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L: 1.10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>W: 0.80</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depth: Not given</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Photo</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scarab Factory (Naukratis)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scarab Factory (Naukratis)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scarab Factory (Naukratis)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Naukratis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scara Factory (Naukratis)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scara Factory (Naukratis)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scara Factory (Naukratis)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L: 1.40</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>W: 0.90</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depth: Not given</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Photo</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Excavation Location</td>
<td>Production Location</td>
<td>Item</td>
<td>Colour</td>
<td>Description</td>
<td>Measurements in cm</td>
<td>Museum Number</td>
</tr>
<tr>
<td>---------------------</td>
<td>---------------------</td>
<td>------</td>
<td>--------</td>
<td>-------------</td>
<td>--------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>Egyptian</td>
<td>Scarab Factory</td>
<td>Scarab Factory (Naukratis)</td>
<td>Brown</td>
<td>Amulet of a standing figure, arms at the side, left foot forward. Missing face.</td>
<td>H: 3.90 W: 1.70 Depth: 0.80</td>
<td>AN1888.211</td>
</tr>
<tr>
<td>Egyptian</td>
<td>Scarab Factory</td>
<td>Scarab Factory (Naukratis)</td>
<td>Green</td>
<td>Amulet of the god Bes, standing up, arms at the side, left foot forward.</td>
<td>H: 3.80 W: 1.45 Depth: 0.90</td>
<td>AN1886.452</td>
</tr>
<tr>
<td>Egyptian</td>
<td>Scarab Factory</td>
<td>Scarab Factory (Naukratis)</td>
<td>Green</td>
<td>Amulet of the god Bes, lying down.</td>
<td>H: 2.80 W: 1.95 Depth: 2.35</td>
<td>P.5220</td>
</tr>
<tr>
<td>Egyptian</td>
<td>Scarab Factory</td>
<td>Scarab Factory (Naukratis)</td>
<td>Green</td>
<td>Figurine in the shape of a head.</td>
<td>H: 3.15 W: 1.8 Depth: 1.18</td>
<td>AN1886.452</td>
</tr>
<tr>
<td>Egyptian</td>
<td>Scarab Factory</td>
<td>Scarab Factory (Naukratis)</td>
<td>Brown</td>
<td>Amulet of the god Bes, lying down.</td>
<td>H: 2.80 W: 1.20 Depth: 0.90</td>
<td>P.5220</td>
</tr>
<tr>
<td>Excavation Location</td>
<td>Production Location</td>
<td>Item</td>
<td>Description</td>
<td>Colour</td>
<td>Diameter</td>
<td>Thickness</td>
</tr>
<tr>
<td>---------------------</td>
<td>---------------------</td>
<td>------</td>
<td>-------------</td>
<td>--------</td>
<td>----------</td>
<td>-----------</td>
</tr>
<tr>
<td>Egypt</td>
<td>Egypt</td>
<td>Scarab Factory (Naukratis)</td>
<td>Circular amulet with indentations.</td>
<td>Green</td>
<td>0.10</td>
<td>Not given</td>
</tr>
<tr>
<td>Egypt</td>
<td>Egypt</td>
<td>Scarab Factory (Naukratis)</td>
<td>Figure of the god Bes sitting down, fists clenched at the side.</td>
<td>Light green</td>
<td>1.70</td>
<td>Not given</td>
</tr>
<tr>
<td>Egypt</td>
<td>Egypt</td>
<td>Scarab Factory (Naukratis)</td>
<td>Figure of a person with a lion head and crown standing, arms at the side, left foot forward.</td>
<td>Black</td>
<td>H: 3.00 W: 1.30 D: 0.70</td>
<td>0.53</td>
</tr>
<tr>
<td>Egypt</td>
<td>Egypt</td>
<td>Scarab Factory (Naukratis)</td>
<td>Figure of a woman sitting down, Isis nursing Horus.</td>
<td>Faded light green</td>
<td>H: 0.36 W: 1.55 D: 2.00</td>
<td>0.53</td>
</tr>
<tr>
<td>Egypt</td>
<td>Egypt</td>
<td>Scarab Factory (Naukratis)</td>
<td>Pharaoh standing, head of the figure on the back.</td>
<td>Faded light green</td>
<td>H: 0.20 W: 1.00 D: 1.75</td>
<td>0.53</td>
</tr>
</tbody>
</table>

Image under copyright – for original, see [link](https://www.britishmuseum.org/collection/object/X__2252)

Image under copyright – for original, see [link](https://www.britishmuseum.org/collection/object/X__7262)

Image under copyright – for original, see [link](https://www.britishmuseum.org/collection/object/X__4193)

Image under copyright – for original, see [link](https://www.britishmuseum.org/collection/object/X__4056)

Image under copyright – for original, see [link](https://www.britishmuseum.org/collection/object/X__6653)
<table>
<thead>
<tr>
<th>Item</th>
<th>Excavation Location</th>
<th>Production Location</th>
<th>Museum Number</th>
<th>Description</th>
<th>Colour</th>
<th>Measurements in cm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scarab Factory (Naukratis)</td>
<td>Naukratis, Egypt</td>
<td>H: 1.25</td>
<td>1888.061.57</td>
<td>Round amulet with loops at the top of the amulet in the shape of a grape.</td>
<td>Light green (worn)</td>
<td>W: 4.08, H: 5.30, D: 1.47</td>
</tr>
<tr>
<td>Scarab Factory (Naukratis)</td>
<td>Naukratis, Egypt</td>
<td>H: 1.35</td>
<td>65</td>
<td>Amulets in the shape of pillars with loop at the top.</td>
<td>Light green (worn)</td>
<td>D: 2.90, H: 1.10, W: 4.40</td>
</tr>
<tr>
<td>Scarab Factory (Naukratis)</td>
<td>Naukratis, Egypt</td>
<td>H: 1.35</td>
<td>2500</td>
<td>Amulet in the shape of a Djed pillar and a crown.</td>
<td>Turquoise</td>
<td>W: 4.40, H: 7.10, D: 1.00</td>
</tr>
<tr>
<td>Scarab Factory (Naukratis)</td>
<td>Naukratis, Egypt</td>
<td>W: 2.20</td>
<td>987.799</td>
<td>Square amulet of a wedjat eye.</td>
<td>Egyptian blue</td>
<td>W: 4.20, H: 2.90, D: 1.10</td>
</tr>
</tbody>
</table>

*Photo Source: © The Trustees of the British Museum*
9. Appendix


Bibliography items:
Figure 1: https://www.britishmuseum.org/collection/object/X_5335
Figure 2: https://www.britishmuseum.org/collection/object/X_5846
Figure 3: https://www.britishmuseum.org/collection/object/X_159
Figure 4: https://www.britishmuseum.org/collection/object/X_5334
Figure 5: https://www.britishmuseum.org/collection/object/X_5845
Figure 6: https://www.britishmuseum.org/collection/object/Y_EA58319
Figure 7: https://www.britishmuseum.org/collection/object/X_670
Figure 8: https://www.britishmuseum.org/collection/object/X_6224
Figure 9: https://www.britishmuseum.org/collection/object/Y_EA29961
Figure 10: https://www.britishmuseum.org/collection/object/Y_EA66503
Figure 11: https://www.britishmuseum.org/collection/object/X_5858
Figure 12: https://www.britishmuseum.org/collection/object/X_5732
Figure 13: https://www.britishmuseum.org/collection/object/X_6651
Figure 14: https://www.britishmuseum.org/collection/object/X_618
Figure 15: https://www.britishmuseum.org/collection/object/X_4053
Figure 16: https://www.britishmuseum.org/collection/object/X_4054
Figure 17: https://www.britishmuseum.org/collection/object/X_5813
Figure 18: https://www.britishmuseum.org/collection/object/Y_EA27543
Figure 19: https://www.britishmuseum.org/collection/object/X_5853
Figure 20: https://www.britishmuseum.org/collection/object/X_2312
Figure 21: https://www.britishmuseum.org/collection/object/X_6653
Figure 22: https://www.britishmuseum.org/collection/object/X_4056
Figure 23: https://www.britishmuseum.org/collection/object/X_4193
Figure 24: https://www.britishmuseum.org/collection/object/X_7262
Figure 25: https://www.britishmuseum.org/collection/object/X_2252
Figure 26: https://www.britishmuseum.org/collection/object/X_4525
Figure 27: https://www.britishmuseum.org/collection/object/X_6817
Figure 28: https://www.britishmuseum.org/collection/object/X_5944
Figure 29: https://www.britishmuseum.org/collection/image/1292989001
Figure 30: https://www.britishmuseum.org/collection/object/X_6658