BEADS
from Excavations
at Qustul, Adindan, Serra East,
Dorginarti, Ballana, and Kalabsha

A-Group, Post-A-Group, C-Group, N-Type, P-Type, Pan Grave,
Kerma, Middle Kingdom, and New Kingdom

Joanna Then-Obłuska
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CAMPAGNE INTERNATIONALE POUR LA SAUVEGARDE
DES MONUMENTS DE LA NUBIE

THE UNIVERSITY OF CHICAGO
ORIENTAL INSTITUTE NUBIAN EXPEDITION
VOLUME XI

BEADS FROM EXCAVATIONS AT QUSTUL, ADINDAN,
SERRA EAST, DORGI NARTI, BALLANA, AND KALABSHA

PART 1
A-GROUP, POST-A-GROUP, C-GROUP, N-TYPE, P-TYPE, PAN GRAVE,
KERMA, MIDDLE KINGDOM, AND NEW KINGDOM

by

JOANNA THEN-OBŁUSKA

THE ORIENTAL INSTITUTE OF THE UNIVERSITY OF CHICAGO
For my parents, Danuta and Stanisław
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List of Abbreviations

MUSEUMS
BM British Museum, London (www.britishmuseum.org)
BrMu Brooklyn Museum, New York (www.brooklynmuseum.org and personal observation)
JE Egyptian Museum, Cairo (personal observation)
JdE Cairo Museum, Journal d’Entrée
MAN Museo Arqueológico Nacional, Madrid (personal observation)
Met Metropolitan Museum of Art, New York (www.met.org)
MFA Museum of Fine Arts, Boston (www.mfa.org)
OIM Oriental Institute Museum, Chicago (personal observation)
Penn University of Pennsylvania Museum of Archaeology and Anthropology, Philadelphia (www.penn.museum.org)
SNM Sudan National Museum, Khartoum (personal observation)
UC Petrie Museum of Egyptian Archaeology, University College London, London (www.ucl.ac.uk/culture/petrie-museum)

BIBLIOGRAPHIC
CRIPEL Cahiers de recherches de l’Institut de papyrologie et d’égypétoogie de Lille, Lille
FIFAO Fouilles de l’Institut français d’archéologie orientale du Caire, Cairo
JARCE Journal of the American Research Center in Egypt, Cairo
SJE Scandinavian Joint Expedition to Sudanese Nubia
## LIST OF ABBREVIATIONS

### GENERAL

<table>
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<td>B</td>
<td>bead</td>
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<td>ca.</td>
<td>circa</td>
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<td>cat.</td>
<td>catalog</td>
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<td>cm</td>
<td>centimeter(s)</td>
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<td>D</td>
<td>diameter</td>
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<td>g</td>
<td>gram(s)</td>
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<td>H</td>
<td>height</td>
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<td>HD</td>
<td>hole diameter</td>
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<td>kilometer(s)</td>
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<td>L</td>
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Joanna Then-Obłuska
Introduction

This book presents a comprehensive corpus of beads and pendants from Lower Nubia found during the Oriental Institute Nubian Expedition (OINE) and stored in the Oriental Institute Museum (OIM) at the University of Chicago. The collection of beads and pendants comes from excavations undertaken between 1960 and 1968 at the Lower Nubian sites of Qustul, Adindan, Serra East, Dorginarti, Ballana, and Kalabsha (fig. 1). The majority of beads were registered and published in volumes II–X of the OINE series, but not in detail or in color. The main objective of the present work has been to create a vast, illustrated catalog of Lower Nubian beads and pendants as a contribution to the history of beads in Nubia. The classification criteria in bead and pendant typology, as well as an introduction to the catalog entries, are offered in chapter 1.

The collection has been divided chronologically into the main periods of Nubian history and then according to cultural units, beginning with the A-Group and ending with modern times. The present volume—the first of two volumes—comprises beads from Early and Middle Nubian as well as New Kingdom sites. The Early Nubian section includes beads from the A-Group sites (Qustul, Adindan, Serra East) and Post-A-Group sites (Serra East and Adindan). The C-Group (Adindan, Serra East), including C-Group N-Type (Serra East) and C-Group P-Type (Serra East) graves, Pan Grave (Adindan, Serra East), Kerma (Adindan), and Middle Kingdom (Serra East), comprises the Middle Nubian period cultural groups. Egyptian New Kingdom tombs (Qustul, Adindan, Serra East) are treated separately. Whereas discussions of the cultural units and their chronology are found in the archaeological reports (OINE III–VI, X), a general chronological overview is provided in table 1. Table 2 gives an outline of the cultural units and associated catalog numbers.

The discussion of each cultural unit begins with background information and develops into a fascinating story of the most characteristic types that form part of that group’s identity, although the types and materials often cross chronological and regional borders. The story is also one of jewelry fashions and the involved wealth and long-distance contacts of Lower Nubia, which lay at the crossroads of ancient routes in this part of the world. As bead studies reveal, the trade routes did not only run up and down the Nile River—for, with access to Eastern and Western Desert routes, the Nubians were also able to reach the Red Sea coast and the Saharan sands. Very often the Nubians proved to be skilled beadmakers and craftsmen, as the traces of stone bead-making workshops indicate. The Lower Nubians shared some bead types with their royal counterparts in Egypt during the period encompassed by the A-Group, but they also appeared to be the inspiration for new sociocultural symbols in Northeast Africa, such as the gold fly ornament. With time, however, the Lower Nubians developed indigenous styles best reflected in C-Group leather beadwork. Lower Nubia, while being part of a geographically larger cultural unit that included the Pan Grave culture in the Eastern Desert and Egypt, was its own region, where a traditional bead material such as ostrich eggshell was used instead of the white faience that characterized Pan Grave leather beadwork in Egypt. Nubian bead types, their manufacturing techniques, and their materials are likewise preserved in some C-Group and Pan Grave tombs during the period of the New Kingdom, although at this time Lower Nubia was under the influence of Egyptian occupiers.

More specialized information on bead types, ordered by the materials from which they were made, is given in the second section of each cultural category presented in the corpus of OINE beads. This information is preceded by an overview of the sites and a detailed chronological overview of the tombs from which the beads were recovered. Next are given an outline of the preserved beadwork and an anthropological analysis of the skeletal materials of the tomb owners, together with references to parallels known from relevant literature and museum research by the author. An illustrated catalog is provided at the end of each cultural unit or phase.

The volume concludes with illustrated synoptic and concordance tables that allow the user to switch between catalog, OIM, and OINE find numbers. This work has been inspired by publications on ancient beads authored by Carol A. R. Andrews, Maud Spaer, Peter Francis Jr., Lois Sherr Dubin, and Véronique Arveiller-Dulong and Marie-Dominique Nenna.

1 A subsequent volume will contain beads and pendants of Nubian, Meroitic, post-Meroitic (Noubadian X-Group and Blemmyes/Kalabsha culture), Christian, Islamic, and modern date.

2 The P-Type and N-Type graves from Serra East are described in chapter 3 and follow the terminology established in OINE X, 37.

Figure 1. Map of Nubia and Egypt with localities mentioned in the text (drawing by Sz. Maślak)
### Table 1. Chronology of Egypt, Lower Nubia, and Upper Nubia, adapted from OINE V, Welsby and Anderson 2004, Fisher et al. 2012, Gatto 2006, and Dr. Bruce B. Williams (personal communication)

<table>
<thead>
<tr>
<th>Date (BC)</th>
<th>Egypt</th>
<th>Lower Nubia</th>
<th>Upper Nubia</th>
<th>Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>ca. 3800–3400</td>
<td>Naqada IC–IID</td>
<td>Early A-Group</td>
<td>Neolithic and Pre-Kerma</td>
<td>Early Nubian</td>
</tr>
<tr>
<td>ca. 3400–3200</td>
<td>Naqada IID–IIIA</td>
<td>Middle/Classic A-Group</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ca. 3200–2900</td>
<td>Naqada IIIA–beginning of First Dynasty</td>
<td>Late/Terminal A-Group</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ca. 3050–2685</td>
<td>Archaic/Early Dynastic period (First and Second Dynasties)</td>
<td>Post-A-Group</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ca. 2685–2150</td>
<td>Old Kingdom (Third through Sixth Dynasties)</td>
<td>C-Group IA</td>
<td>Early Kerma</td>
<td>Middle Nubian</td>
</tr>
<tr>
<td>ca. 2150–2008</td>
<td>First Intermediate Period (Seventh through first half of Eleventh Dynasties)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ca. 2008–1685</td>
<td>Middle Kingdom (second half of Eleventh through Thirteenth Dynasties/Pan Grave)</td>
<td>C-Group IB</td>
<td>C-Group IIA/Pan Grave</td>
<td>Middle Kerma</td>
</tr>
<tr>
<td>ca. 1685–1550</td>
<td>Second Intermediate Period (Fourteenth through Seventeenth Dynasties/Pan Grave)</td>
<td>C-Group IIB/Pan Grave/Kerma</td>
<td></td>
<td>Classic Kerma</td>
</tr>
<tr>
<td>ca. 1550–1077</td>
<td>New Kingdom (Eighteenth through Twentieth Dynasties)</td>
<td>C-Group III/Pan Grave/Kerma</td>
<td>Egyptian occupation</td>
<td>Egyptian occupation</td>
</tr>
</tbody>
</table>

### Table 2. Overview of cultural units and associated catalog numbers

<table>
<thead>
<tr>
<th>Cultural unit</th>
<th>Catalog number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-Group</td>
<td>1–39, 41–44</td>
</tr>
<tr>
<td>Post-A-Group</td>
<td>40, 45–49</td>
</tr>
<tr>
<td>C-Group</td>
<td>50–73, 75–110, 112–173, 176–229</td>
</tr>
<tr>
<td>C-Group or Pan Grave</td>
<td>74, 111, 174, 175</td>
</tr>
<tr>
<td>C-Group tombs of N-Type</td>
<td>230–255</td>
</tr>
<tr>
<td>C-Group tombs of P-Type</td>
<td>256–265</td>
</tr>
<tr>
<td>Pan Grave</td>
<td>266–293</td>
</tr>
<tr>
<td>Kerma</td>
<td>294</td>
</tr>
<tr>
<td>Middle Kingdom</td>
<td>295–296</td>
</tr>
<tr>
<td>New Kingdom</td>
<td>297–359</td>
</tr>
</tbody>
</table>
This chapter offers an introduction to the typology of beads and pendants as presented in this volume and an explanation of the catalog entries.

1.1. INTRODUCTION TO TYPOLOGY

Beads (centrally perforated objects) and pendants (off-center perforated objects or those with attached loop) are described according to type as defined through material, technique of production, shape, size, and color.

Materials are arranged starting with organic, then inorganic (stone, metal), and finally man-made (faience/glazed composition, glass) types. Organics comprise materials of floral (seed, wood, resin) and faunal origin. The latter are divided according to materials of terrestrial (e.g., ostrich eggshell, bone) and aquatic (i.e., mollusk shell) provenance. The species of marine mollusk is given according to M. L. Rusmore-Villaume unless otherwise stated. Carnelian is here defined as a red to yellowish- or orange-red semiprecious form of the silica mineral chalcedony quartz. Its physical properties are those of quartz.

Techniques of the manufacture of organics and stones follow the works of J. M. Kenoyer, and details are provided in relevant sections. Techniques for the manufacture of glass beads are given according to M. Spaer. Whereas faience (glazed composition) is shaped while cold and subsequently fired, glass is mostly worked in its hot, viscous state.

The morphological description of beads and pendants is classified according to the terms used by H. C. Beck, even if some of them are not accurate (e.g., “lotus seed-vessel” and “pomegranate” pendants). To name the parameters crucial for the description of a bead’s shape, the following terms are usually used: side, edge, and end, with the latter referring to the surface around the opening of the hole (fig. 2A). Apex, base, end (surface around the opening of the hole), and side are used in defining the shape of pendants (fig. 2B).

Since Beck’s classification of shape is exceptionally detailed, a simplified version can be adapted for the given collection since only rounded beads are present in it (fig. 2C). The regular, rounded beads are usually described as cylinder, barrel, oblate, globe/sphere, ellipsoid, cone, and bicone. Cylinder beads feature straight, parallel sides. A true barrel bead has rounded sides and flat ends. In oblate beads, the entire length of the bead, always smaller than the diameter, has a smoothly rounded profile. Globular or spherical beads are round, with their length roughly equaling their diameter. Ellipsoids are elongated spheres. They have a rounded profile with a length greater than their diameter. Cones have a flat, round or oval base and a top that narrows until it forms a point. Bicones can be described as two symmetrical cones with a common base. Conical and biconical beads may have truncated tops. Spacer beads have more than one perforation, although not all were used for spacing strings of beads. Toggle or bilobate beads are elongated in shape and often have a central narrowing and perforation placed in the middle of their longer axis. Segmented beads were made by rolling a long faience core tube on an open mold with grooved or crenellated surfaces. Segmented tubes were then cut or snapped at their intervals to

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4 Rusmore-Villaume 2008.
6 E.g., Kenoyer 2003.
7 Spaer 2001.
8 Ibid., 308, 310.
9 Beck 1928.
Figure 2. Bead and pendant terminology
produce single- or multiple-segment beads. Some of the more regular and outstanding shapes are illustrated in figures adapted from volumes III, V, VI, and X of the Oriental Institute Nubian Expedition (OINE) series (fig. 3 in chapter 2, figs. 10–12 in chapter 3, fig. 20 in chapter 4).

Length ratio indicates the relationship between the length and diameter of a given bead (fig. 2D). The following categories are adapted from Beck’s system. A bead’s length may be described as disc (less than one-third of its diameter), short (more than one-third but less than nine-tenths of its diameter), standard (equal or almost equal to its diameter), long (more than one and one-tenth of but less than twice its diameter), or very long (more than twice its diameter).

Following the classification, the basic geometrical shape of the bead can be combined with its length. Additionally, disc cylinder or short cylinder beads with large perforations are described as ring beads, and long cylinder beads with large hole openings are described as tubular beads. Very thin disc beads are sometimes called wafer beads.

Based on the given measurements (in millimeters), the size of beads of the same material, shape, and manufacturing technique is proportionally estimated as tiny, small, large, or very large. A number of measurements (D = diameter, L = length, HD = hole opening diameter) are given for each bead type (fig. 2A). Other measurements (Th = thickness, W = width, H = height, HD = hole opening diameter) are given for pendants (fig. 2B) or spacers. While width is the maximum distance between the two perforated ends of a pendant, thickness gives the maximum distance between two sides of a pendant. In the case of perforated mollusk shells, the length is the maximum dimension of the specimen.

When classifying a glass bead, its color is one of its most distinguishing features. Generic color names appear of practical value in the literature. The present study makes use of four degrees of diaphaneity: transparent, translucent, semitranslucent, and opaque. Transparent glass allows the light to pass through so that the objects behind it can be clearly seen. Translucent glass permits the light to pass through but diffuses it so that the objects on its other side are not clearly visible. Opaque glass prevents light from traveling through the material. Semitranslucent glass represents the level of transparency between translucent and opaque, whereby a light beam glows through most of the bead or at its edges.

1.2. INTRODUCTION TO THE CATALOG ENTRIES

The catalog presents the beads and pendants found at cemeteries L, R, V, S, and W at Qustul; cemeteries T, U, and K at Adindan; and cemeteries A, B, C, D, F, and G at Serra East. In each cultural unit, the catalog heading provides the site and cemetery name, followed by a grave number and then the find number as published in the OINE series. Wherever possible, each catalog entry gives the find context, the form of beadwork (bead, necklace, armlet, bracelet, leatherwork, etc.), and, if possible, the sex and age identification of the owner of the tomb in which the item was found. The Oriental Institute Museum (OIM) number is given at the end of the heading.

The detailed chronology appears before the description of the numbered bead and pendant types making up an object, such as a necklace or bracelet. This detail includes the material, technique of manufacture, shape, color, and number of elements making up the object. Each object is illustrated in color, and each bead type is indicated in the illustrations according to its catalog number. Some finds were unavailable, and all relevant objects non vidi from the Nubian expedition are marked with an asterisk (*). Objects have modern stringing and arrangement unless stated otherwise. Wherever possible, a bibliography from the OINE series is given for each object.
Early Nubian Period Cultures

2.1. THE A-GROUP BEAD STORY

The A-Group was a cultural complex dating to about 3800–2900 BC and located between the First and Second Cataracts of the Nile. Its traces can be found as far as the Sixth Cataract, the Western Desert, and the Eastern Desert. Materials and bead styles discernible in the A-Group assemblage can be found as far as the Mediterranean and Red Sea coasts and even beyond. The presence of short- and long-distance imports in Lower Nubia may have resulted from exchange at bartering sites, where Nubian beads were trade items. Trade diasporas were a phenomenon at the end of the fourth millennium, and places of bartering have been proposed for the Lower Nubian A-Group site at Khor Daud at the mouth of the Wadi Allaqi and possibly also at Afyeh. Of 578 storage pits excavated at Khor Daud, 71 pits contained various objects, including personal ornaments such as “clay” beads and bracelets, a palette pendant probably of siltstone, and an ostrich eggshell. The geographical placement of the site would have allowed for trade participation by both settled communities along the Nile Valley and mobile desert dwellers. Nevertheless, it was burial sites that provided the best evidence of short- and long-distance contacts in Northeast Africa during the A-Group period.

Throughout the Nile Valley and into the neighboring deserts, burial customs became remarkably uniform in the fifth millennium BC, and personal ornamentation formed the largest single category of grave goods in this period, regardless of the age or sex of the deceased person. This feature continued into the fourth millennium BC, the time of the birth of many civilizations in the ancient Near East, and social complexity can also be observed in Nubian A-Group cemeteries. Some of the bodily adornments, once associated with hunter-gatherer and mobile pastoral communities, continued into the third millennium.

One example is the bag-shaped motif that had a particularly long tradition in Northeast Africa and was present as early as the Neolithic period. Bag-shaped forms were executed in pottery vessels (where they are called tulip or caliciform-shaped beakers), in rock art, and in bodily adornments. A ceramic bag-shaped pendant a few centimeters long was found at the chest of an individual in a Nabta Playa burial in the Western Desert dating to the Final Neolithic period. It bears incised decoration, and its rim has two holes designed for threading. The Predynastic and A-Group carnelian bag-shaped pendants are most probably ancestors of the abovementioned motif and, as such, would belong to a long-standing tradition once associated with mobile pastoral societies (7, 9.9, 15, 23.2). Similarly, carnelian beads and bag-shaped pendants were

10 Stevenson 2012a; Stevenson 2012b; Roy 2011; Gatto 2006.
12 Needler 1984 (for A-Group graves found at Hierakonpolis, Egypt); Lange 2003; Lange 2006.
14 Stein 2002, 36; Ratnagar 2004, 10.
15 Nordström 1972a, 26; Roy 2011, 288.
16 Stevenson 2012b, 18.
18 Roy 2011, 308.
20 Kobusiewicz et al. 2010.
21 Wengrow 2006.
22 Longa 2011, 13–17, and references therein.
23 Ibid.
found in an Early Kerma period grave at Saï Island.\textsuperscript{25} They would all indicate a continuity of form, with or without their makers’ awareness of its primary symbolism. Remarkably, a Middle Kingdom tomb at Medâid, Egypt, contained specimens comparable to these Predynastic, Early Dynastic, and A-Group beads and pendants.\textsuperscript{26} The specimens, however, may have been reused from an earlier Naqada III tomb.\textsuperscript{27}

Bilobate forms belonged to another long-lasting phenomenon in bodily adornment. Stone bilobate or toggle beads found at A-Group (5.3) and contemporaneous sites\textsuperscript{28} are said to be peculiar to the Predynastic period.\textsuperscript{29} Similarly to pointed pendants (9.4, 14), they bear many affinities to stone nose and lip plugs known since the Mesolithic and Neolithic periods in Northeast Africa.\textsuperscript{30} Nevertheless, the presence of marine mollusk shell plugs, hooks,\textsuperscript{31} beads, and pendants (11) in tomb L 17 at Qustul’s royal cemetery remains incomparable in its quantity in Northeast Africa. Clearly, the esteemed person buried there had a special association with the Red Sea region.

The incense trade in antiquity belongs to one of the most fascinating subjects in the archaeology and history of the region,\textsuperscript{32} and an incense burner has become the most recognized and discussed feature of the royal A-Group cemetery at Qustul.\textsuperscript{33} Next to the censers from the cemetery, two remnants of incense were preserved. Bag-shaped resin pendants corresponded exactly to their typical stone counterparts (1.1–2). Resins used as a material for beads have been recorded at other A-Group\textsuperscript{34} and Naqada period sites.\textsuperscript{35} Later, incense was mentioned as an exchange commodity in the inscription of Harkhuf in his tomb at Qubbet el-Hawa on the west bank of the Nile at Aswan. Nubian involvement in incense procurement continued through millennia.\textsuperscript{36}

Mollusk shell and pierced mollusk shell ornaments were common features in Europe, Palestine, Egypt, Mesopotamia, Iran, Pakistan, and India in the fourth and third millennia bc,\textsuperscript{37} and a long-distance mollusk shell trade is attested since the Epipaleolithic period.\textsuperscript{38} The identification of species and their provenance is essential for the interpretation of exchange systems and the social role of shell ornaments. For example, Nassarius gibbosulus comes from the Mediterranean Sea (4.3, 11.10), and its use, together with the Red Sea species, provides excellent evidence for the direct or indirect long-distance connections of A-Group societies. The variety of Red Sea mollusk shell species in tombs of Late A-Group date at Qustul is comparable with that at other A-Group and Naqada sites.\textsuperscript{39} The widespread distribution of these ornaments suggests a very strong connection between the Red Sea coast and distant inland sites in the Nile Valley beginning as early as the fifth millennium bc.\textsuperscript{40} Perforated mollusk shells of the species Polinices (8, 11.1, 4, 13.1)\textsuperscript{41} may also have been in special demand at that time. Polinices sp. has been recognized in Badarian beadwork,\textsuperscript{42} in the Naqada period,\textsuperscript{43} and in graves of the Early Kerma

\textsuperscript{25} For long, orange carnelian barrel beads and a bag-shaped pendant, see Gratien 1986, 369, fig. 72d, 285/HXIII; Reinold 2000, 139, fig. 98.

\textsuperscript{26} For a string of beads with pendants and amulets of the Predynastic type from Medâid tomb 955 [M/955], excavated by the Harvard University Museum of Fine Arts Expedition in 1913 and ascribed to the Middle Kingdom, see MFA 13.3738.

\textsuperscript{27} Dr. Bruce B. Williams (personal communication).

\textsuperscript{28} For an A-Group parallel from Faras, cemetery 3, grave 31, see BM EA51181 (Brunton 1927, 16, pl. 17, 73, M2); bilobate beads found in the tomb of Djer at Abydos were made of gold, amethyst, or dark brown limestone. According to Petrie (1901, 19, pl. 1), they are not perforated and have a double ridge around the middle, with a deep groove in between for the hair thread (see Wilkinson 1971, fig. 11; Bongioanni and Croce 2003, 343).

\textsuperscript{29} Xia 2014, 84.

\textsuperscript{30} E.g., Honegger 2004a, 33, cat. no. 16; Honegger 2004b.

\textsuperscript{31} OINE III, pls. 49–54.

\textsuperscript{32} E.g., Meyer, Todd, and Beck 1991.

\textsuperscript{33} E.g., OINE III; Roy 2011.

\textsuperscript{34} Junker 1919, 103; for other resin finds, see Firth 1912, 188–89; OINE IV, 39; for general information on resin in ancient Egypt, see Serpico 2000; Harrell 2012.

\textsuperscript{35} Andrews 1981, cat. nos. 80 (Naqada I), 126 (Naqada II).

\textsuperscript{36} Roy 2011, 251–53.

\textsuperscript{37} Bar-Yosef Mayer 2002 for Sinai marine shell adornments; Mumford 2012 for Predynastic and Early Dynastic Red Sea shells in Egypt, and references therein; Sefériadès 2010; Bajnóczi et al. 2013 for Spondylus trade in Neolithic Europe; Gensheimer 1984, 67, for Mesopotamia and Indus Valley seashell trade.

\textsuperscript{38} E.g., Reese 1991 for the Red Sea and other perforated shells found in the Mediterranean Basin and Europe; Gensheimer 1984 for Mesopotamian maritime trade with Oman and the Indus Valley civilization; Braun 2011, 105, for Nile shells found in the Southern Levant.

\textsuperscript{39} Junker 1919, 98–101, fig. 56; for the occurrence of seashell pendants in Egypt in Naqada II–III, see Met 99.4.53.

\textsuperscript{40} Pollath 2008, 72, and references therein.

\textsuperscript{41} Rusmore-Villaume 2008, 72, who describes the shell as “always pure white with a lovely silky feel when you hold it in your hand.”

\textsuperscript{42} Andrews 1981, cat. nos. 3–6 (anklets), 53, 67, 70.

\textsuperscript{43} Ibid., cat. nos. 94, 98, for Natica (= Polinices) in Naqada I and II beadwork.
period. Interestingly, *Polinices* sp. shells in the Oriental Institute Nubian Expedition (OINE) assemblage and dated to the A-Group were used to form girdles (8, 11.1.4), and a long girdle of thirty-nine *Polinices* sp. shells has been found in a child’s burial at the cemetery on Mograt Island, between the Fourth and Fifth Cataracts.

Shells worked into disc beads are commonly found at many grave sites in southern Mesopotamia, throughout the Iranian plateau, and as far east as Mehrargarh, Pakistan. By the end of the fourth and the beginning of the third millennia, the extensive use of marine mollusk shell in both natural and highly worked forms can be observed in western Asia. Worked mollusk shell beads and pendants have been recorded at Badarian, Naqada II, and Naqada III sites in Egypt. Whereas simply pierced marine mollusk shells were recovered at Neolithic sites in Nubia, they were found worked into short barrel beads and elongated pendants at Gebel Ramlah in the Final Neolithic period. Artifacts found in A-Group contexts at Qustul constitute the largest collection of beads and pendants made from *Lambis truncata sabea* in Northeast Africa at the turn of the fourth to the third millennium BC (1.3, 4.2, 6, 9.1, 11.2, 3, 16, 17, 14.4). Their large quantity would indicate unrestricted access to the Red Sea coast and Eastern Desert, the latter of whose resources included ostrich eggshell.

While ostrich eggshell beads are well known from Mesolithic and Neolithic sites, they are nevertheless absent from A-Group burials excavated at Qustul. The same observation has been made for contemporary Egyptian Predynastic and Early Dynastic bead assemblages. To judge from eggshells found at A-Group nonburial sites and from depictions of large birds (ostriches) in rock art and on pottery vessels, ostriches were fairly common at the time. Some ostrich eggshell beads were recorded at A-Group nonburial sites such as Nag el-Qarmila. While the custom of placing decorated or plain ostrich eggs in A-Group burials is well known, and while ostrich eggshell containers and fragments, as well as ostrich feather fans, were also noticed in grave inventories, ostrich eggshell beads have been rarely recorded as finds in graves. Although ostrich eggshell has been said to be a common bead material in A-Group assemblages, this assessment is an overestimate. That is, beads of marine mollusk shell could have been incorrectly identified as made of ostrich eggshell.

44 Dunham 1982, pls. 18a, 41c; cf. the Middle Nubian chapter.
45 Weschenfelder and Rees 2014, 151–52, fig. 9, a grave dated to the Late Neolithic—I.e., the end of the fourth and beginning of the third millennium BC.
48 Andrews 1981, cat. no. 29.
49 Ibid., cat. no. 122, pl. 17–Hu, Naqada II; Needler 1984, cat. nos. 234, 236 (= BrMu 09.889.302, 304–Abu Zaidan, Naqada III); Xia 2014, 84. Almost all are exhibited in the Egyptian Museum in Cairo. The disc and short cylinder shell beads made of marine mollusk shells are from sites dated to the fourth millennium BC (JE 71543A, 71549A.C, 71540B, 71548C, 71538B, 71546A).
51 Kurzawska 2010, fig. 6.7 (described as marine shell beads), contra Kobusiewicz et al. 2009, fig. 16 (described as ostrich eggshell beads), for two different identifications of the same disc beads from the fourth millennium BC.
52 E.g., Welsby and Anderson 2004, cat. nos. 12, 19; Salvatori and Usai 2008, 21–22, pls. 16.6, 16.13, 16.21, 16.28; Krzyżaniak 2011, fig. 335; see Gatto et al. 2009, 160.
53 Muir and Friedman 2011, 584–88.
54 Xia 2014, 84.
55 For ostrich eggshell fragments at nonburial sites, see Hewes 1966, 42; Piotrovsky 1967, 129–30; Nordström 1972a. For decorated ostrich eggshells found in Neolithic caves at Seyala and Adinhand, see Bietak and Engelmayer 1963, 11–13, 23, 25; OINE IV, 3–12, fig. 1, pls. 8–11.
56 For the depiction of ostriches in rock art, see Gatto et al. 2009, 191.
57 For the depiction of an ostrich on pottery, see, e.g., Firth 1912, 192; Firth 1915, 50, fig. 22, pl. 27a, 2; Firth 1927, 208, grave 1; Junker 1919, 81–82, fig. 44:43; OINE III, pls. 9d, 84.
58 For the meaning of ostrich eggs in Predynastic Egypt, see Muir and Friedman 2011, and in Dynastic Egypt, see Scaf 2012, 131–32.
60 For an overview of Nubian graves with ostrich eggs and their fragments, see Hofmann 1967, 98, and references therein; Muir and Friedman 2011, 584, n. 3.
61 For ostrich feather fans, see Reisner 1910, 190–97; Nordström 1972a, 188.
62 Nordström 1972a, 20, 123–24 (types A1 and A2: Th 1.5–2.0, D 0.25–10.0).
63 Junker 1919, 101; Griffith 1921, 10—the “ostrich eggshell disk” is mentioned in reference to grave 111, but there is no further information given on that grave; Nordström 1972b, pl. 52; Nordström 1972a, 124—as type A2 with “central hole relatively large,” ostrich eggshell beads are mentioned in the following A-Group contexts: 292/17: “about 100 beads of ostrich egg-shell, ring-shaped, type A2, D: 0.6–1.0 [cm],” 292/13:1 “three ring-shaped of egg-shell, one un-finished, type A2, D: 0.5 [cm],” and 277/51:1 “Beads, disc-shaped, of ostrich egg-shell, type A2. Irregular contours, and as type A1 in 277/59:5 “14 disc-shaped of egg-shell, type A1. D 0.4–0.5 [cm].” For ostrich eggshell beads at Nag el-Qarmila cemeteries WK 14 and WK 22, see Gatto et al. 2009, 191–92: “other artefacts were recorded on the surface and in the deposit, including several ostrich eggshell beads, incised fragments of ostrich egg-shells.” For two...
of ostrich eggshell or ivory. In some cases they are described generally as made of “shell.”

At the Egyptian workers’ cemetery HK43 of Naqada II–IC date at Hierakonpolis, ostrich eggshell beads were infrequent finds. According to A. H. Muir and R. F. Friedman, the limited occurrence of ostrich eggshell at Predynastic sites could be associated with the state formation process, when access to desert supplies may have been restricted to resources for the elites. A potential find of ostrich eggshell beads at the Lower Egyptian Predynastic to Early Dynastic site at Tell el-Farkha would support this hypothesis and offer another example for a long-distance exchange connection along the Nile. Nevertheless, ostrich eggshell beads are lacking from elite graves at cemetery L at Qustul, where elaborate personal adornments should have been a prerogative. What is more, A-Group assemblages were rich in adornments made of mollusk shell species of Red Sea origin, access to which was through the Eastern Desert. There must be another reason, probably cultural, for the limited presence of ostrich eggshell beads at A-Group and Predynastic sites. While these societies gave up old-fashioned beads in favor of those of more attractive materials, such as faience, farther south ostrich eggshell beads were found at Neolithic sites and also at Pre-Kerma sites, where workshops producing ostrich eggshell beads have been recorded. What is more, ostrich eggshell beads were excavated in a contemporary grave farther upstream, on Mograt Island.

Amazonite, microcline feldspar, is one of the most characteristic materials used in the manufacture of beads and plugs at Mesolithic and Neolithic sites in Nubia. Amazonite was quarried in the Red Sea Hills in Egypt in the Mesolithic and Neolithic periods (Wadi Higelig and Gebel Migif) or in the Tibesti Mountains in the central Sahara. Sources for most of the raw materials used in A-Group stone bead manufacturing are placed in the Nile Valley and the Nubian Desert. In Sudan, carnelian, agate, and chalcedony occur in the gravels of the Atbara River, and they are common in the Khasm el-Girba region. Carnelian occurs mainly in the form of rounded, polished pebbles and cobbles in the Fourth Cataract region. Gebel el-Asr, northwest of Abu Simbel, has yielded carnelian near the gneiss quarries, although it is uncertain whether these quarries were exploited in the Predynastic period. While garnets are found in many parts of Egypt, the Aswan region, and particularly the Eastern Desert, garnet kyanite gneiss can be found at Duweishat in northern Sudan and in the Bayuda Desert. Quartz crystal was recorded from the Nubian Desert. So the stone material sourced for bead production by the A-Group culture was not distant.

According to W. Needler, beads of semiprecious stones, including garnet, are generally dated no earlier than the Naqada II period. The occurrence of truncated ends in carnelian and garnet beads in A-Group contexts is consistent with First Dynasty finds from Egypt. While Egyptians are said to imitate blue-green turquoise and lapis lazuli stones in their faience objects,

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of ostrich eggshell or ivory. In some cases they are described generally as made of “shell.”

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Amazonite, microcline feldspar, is one of the most characteristic materials used in the manufacture of beads and plugs at Mesolithic and Neolithic sites in Nubia. Amazonite was quarried in the Red Sea Hills in Egypt in the Mesolithic and Neolithic periods (Wadi Higelig and Gebel Migif) or in the Tibesti Mountains in the central Sahara. Sources for most of the raw materials used in A-Group stone bead manufacturing are placed in the Nile Valley and the Nubian Desert. In Sudan, carnelian, agate, and chalcedony occur in the gravels of the Atbara River, and they are common in the Khasm el-Girba region. Carnelian occurs mainly in the form of rounded, polished pebbles and cobbles in the Fourth Cataract region. Gebel el-Asr, northwest of Abu Simbel, has yielded carnelian near the gneiss quarries, although it is uncertain whether these quarries were exploited in the Predynastic period. While garnets are found in many parts of Egypt, the Aswan region, and particularly the Eastern Desert, garnet kyanite gneiss can be found at Duweishat in northern Sudan and in the Bayuda Desert. Quartz crystal was recorded from the Nubian Desert. So the stone material sourced for bead production by the A-Group culture was not distant.

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amazonite was usually the favored material for these objects in Lower Nubia, although it is absent from the sites in the OINE collection. Although lapis lazuli, probably from Afghanistan, and turquoise from Sinai are found in both Predynastic Egyptian and some A-Group graves, they too are absent from the Qustul cemetery. A glazed composition, commonly known as faience, was a new material that appeared in Egypt in the fourth millennium BC and appeared soon after in Lower Nubia. While glazed stones were known previously, the earliest example of Egyptian faience is probably a bird-shaped pendant dated to the Naqada I period. Nubian faience beads are similar to Egyptian ones, and although there is no reason to reject the possibility of local production, the technology used in their production is typically seen as imported from Egypt. Still, some unglazed faience objects and beads found in Lower Nubia may represent unfinished beads from a local workshop. Whether their glaze is simply weathered away remains uncertain.

Although limited, Egyptian exploitation of resources in the Predynastic and Early Dynastic periods was expanded across the Eastern Desert. While sources of many metals are placed in the Nubian Desert, no gold mining during the Predynastic or Early Dynastic period has been located so far. Whereas evidence for metalworking is not known in Nubia at the end of the fourth millennium BC, there is evidence for such in Upper Egypt at Abydos. Nevertheless, a gold necklace of long cylinder beads and a gold fly pendant was found in one of the A-Group tombs at Qustul (L 17), and the pendant constitutes the oldest representation of the fly symbol that was later associated with prestige, authority, and power. The gold fly, as similarly with later Egyptian falcons, flies, and lions, was associated with prestige, authority, and power. Thus, it is clear that motifs and objects used for personal adornment during the A-Group period began to reflect a highly stratified society. What is more, the presence of prestigious items and emblems of power in Nubian graves was the result of reciprocal exchange between Egyptian and Nubian elites. Taking into consideration the continuity of the fly symbol in Nubian iconography and its earliest appearance at Qustul, Nubia has been suggested as the place of origin for fly amulets. Kerma ivory fly pendants later became a characteristic feature of Nubians represented in New Kingdom wall paintings. The association of the fly symbol with Nubia continued until the post-Meroitic period.

2.1.1. CORPUS OF OINE A-GROUP AND POST-A-GROUP BEADS AND PENDANTS

Sites and Chronology

A-Group bead and pendant adornments from the collection of the Oriental Institute Museum (OIM) were uncovered at the burial sites of Qustul (cemeteries L, S, W, and V), Serra East (cemetery B), and Adindan (cemetery T).

Bead and pendant adornments were found in fourteen graves of cemetery L at Qustul (1–22), in five graves of cemetery W (24–25, 26, 27–28), in one grave of cemetery V (30–31), and in one deposit pit of cemetery S (23), as well as at Serra East in six graves of cemetery B (32–39) and at Adindan in four graves of cemetery T (41–44).

Beads and pendants were also found in two Post-A-Group graves at Adindan (40, 45–49).

A detailed chronology of Early Nubian tombs given according to OINE III, IV, X, and other references is presented below and in table 3.

Chronology at Qustul

With a few exceptions, cemetery L at Qustul is generally dated to the Late A-Group (Naqada IIIA) (1–20, 22). However, grave L 2 is dated to Naqada IIIB, and grave L 29 is of Early A-Group, or Naqada IIC, date (21).

One of the four Late A-Group deposit pits in cemetery S contained three pendants (23). Cemetery V comprises only Late A-Group tombs (30, 31), while cemetery W’s tomb W 11 was assigned as Transition to Late A-Group in date (24), W 19 and W 22 are
BEADS FROM EXCAVATIONS

Late A-Group (25, 27101), and W 29 was called simply A-Group (28). Tomb W 20, "possibly A-Group"102 contained very regular faience ring beads, which are, however, of New Kingdom type (26).103

Only one tomb at Qustul, L 29, is assigned to the Early A-Group. The earlier dating is not reflected, however, in its two carnelian beads, which are consistent with Late A-Group types (21).

Chronology at Serra East

A cluster of graves at cemetery B at Serra East recalls examples from northern Sudan, and their assignment to the A-Group was based on the bodies’ orientation, the pottery, and the beads.104 Due to the lack of other diagnostic finds that would support a later dating of the graves under consideration, all the relevant objects from Serra East are marked here and below with a caret (^) symbol (32^–39^).

<table>
<thead>
<tr>
<th>Phase</th>
<th>Dating</th>
<th>Catalog number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early A-Group</td>
<td>Naqada IIC</td>
<td>21</td>
</tr>
<tr>
<td>Early/Middle A-Group</td>
<td>Naqada IIC–D</td>
<td>42</td>
</tr>
<tr>
<td>Middle A-Group</td>
<td></td>
<td>44</td>
</tr>
<tr>
<td>Middle/Late A-Group</td>
<td>Naqada IIIA–C</td>
<td>41</td>
</tr>
<tr>
<td>Transitional to Late A-Group</td>
<td></td>
<td>24</td>
</tr>
<tr>
<td>Late A-Group</td>
<td>Naqada IIIA</td>
<td>1–20, 22–23, 25–27, 30–31</td>
</tr>
<tr>
<td>&quot;Possibly A-Group“</td>
<td></td>
<td>26</td>
</tr>
<tr>
<td>A-Group or possibly C-Group</td>
<td></td>
<td>43, 32^–39^</td>
</tr>
<tr>
<td>Post-A-Group</td>
<td>Early Dynastic, Old Kingdom</td>
<td>40, 45–49</td>
</tr>
</tbody>
</table>

101 Based on the presence of a wavy-handled jar, the grave W 22 has been lately dated to the Early A-Group (Naqada IIC–D) by Roy 2011, 159, n. 118. But the form of the jar from W 22 is instead dated to Naqada IIIA (Bruce B. Williams and Anna Wodzińska, personal communication).

102 OINE IV, 73.

103 The tomb, however, lacks other diagnostic finds that would support a later New Kingdom dating.

104 OINE X, 1, citing Nordström 1972a, 145–55; Nordström 1972b, pls. 65, 70.

Chronology at Adindan

At Adindan’s cemetery T, tomb T 113 was dated to the Early/Middle A-Group (Naqada IIC–D)105 (42), tomb T 247 to the Middle A-Group (44), tomb T 75 to the Middle/Late A-Group (Naqada IIIA–C)106 (41), and tomb T 243 to the A-Group or possibly C-Group (43).

The presence of Early Dynastic and Old Kingdom objects at cemetery T at Adindan allowed tombs T 35 and T 155 to be classified as Post-A-Group in date (40, 45–49).107

Materials and Techniques

A-Group beads and pendants were made of organic (resin, mollusk shell, bone), inorganic (metal, stone), and man-made (glazed stone, faience/glazed composition) materials. Presented below, they are divided into types according to their technique of manufacture, shape, size, and color. Shapes of beads and pendants and their perforations are illustrated in figure 3 and in figure 12 in chapter 3. An overview of bead and pendant types is given in table 4.


106 Ibid.

107 OINE IV, 122.
Figure 3. Beads and pendants. Stone beads: a (5.2), b (18.1), c (5.3), d (9.6), e (5.6), f (7), g (9.9), h (9.15), i (9.14), j (9.4), k (18.16), l (5.4), m–p (18.14–15), q (9.3), r (5.5); faience beads: s–t (18.5), u (18.10), v (18.11). Scale: 2:1 (adapted from OINE III, pl. 56)
Table 4. Overview of types in A-Group and Post-A-Group culture

<table>
<thead>
<tr>
<th>Material</th>
<th>Bead (B) or pendant (P)</th>
<th>Length and shape</th>
<th>Size</th>
<th>Color(s)</th>
<th>Catalog number(s) of A-Group types</th>
<th>Catalog number(s) of Post-A-Group types</th>
<th>Figure number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resin P</td>
<td>Teardrop with rounded base</td>
<td></td>
<td></td>
<td></td>
<td>1.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bag-shaped</td>
<td></td>
<td></td>
<td></td>
<td>1.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marine mollusk shell P</td>
<td>Conus taeniatus apex removed</td>
<td></td>
<td></td>
<td></td>
<td>11.11</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Oliva sp. apex removed</td>
<td></td>
<td></td>
<td></td>
<td>11.12</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Strombus fasciatus body whorl perforated</td>
<td></td>
<td></td>
<td></td>
<td>16.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fusinus sp. body whorl perforated</td>
<td></td>
<td></td>
<td></td>
<td>11.13</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Polinices mammilla body whorl perforated</td>
<td></td>
<td></td>
<td></td>
<td>8, 11.1, 4, 13.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nerita sp. body whorl perforated</td>
<td></td>
<td></td>
<td></td>
<td>33</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nassarius gibbosulus body whorl perforated</td>
<td></td>
<td></td>
<td></td>
<td>4.3, 11.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cypraea annulus body perforated</td>
<td></td>
<td></td>
<td></td>
<td>11.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cypraea annulus dorsal part removed</td>
<td></td>
<td></td>
<td></td>
<td>11.6, 30, 31</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nassarius sp. sliced body</td>
<td></td>
<td></td>
<td></td>
<td>11.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Round plaque</td>
<td></td>
<td></td>
<td></td>
<td>11.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Trapezoid plaque</td>
<td></td>
<td></td>
<td></td>
<td>11.9, 20–23</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Elongated</td>
<td></td>
<td></td>
<td></td>
<td>11.15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Short barrel of Lambis truncata</td>
<td></td>
<td>Tiny</td>
<td></td>
<td>1.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Short and standard barrel/oblate/sphere Lambis truncata</td>
<td></td>
<td>Large</td>
<td></td>
<td>4.2, 6, 9.1, 11.2, 16–17, 14.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P</td>
<td>Long grooved pendant with tapered base</td>
<td></td>
<td></td>
<td></td>
<td>11.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freshwater shell P</td>
<td>Trapezoid</td>
<td></td>
<td></td>
<td></td>
<td>39.1^</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ostrich eggshell B</td>
<td>Square plaque</td>
<td></td>
<td></td>
<td></td>
<td>36^</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Disc and short cylinder</td>
<td></td>
<td></td>
<td></td>
<td>45.1, 46.1, 47.1, 48, 49.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bone B</td>
<td>Very long cylinder</td>
<td></td>
<td></td>
<td></td>
<td>14.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Standard to long cylinder and barrel</td>
<td></td>
<td></td>
<td></td>
<td>14.1, 35^</td>
<td></td>
<td>Fig. 12d–f</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>39.2^</td>
<td></td>
<td>Fig. 12h–i</td>
</tr>
</tbody>
</table>
Table 4. Overview of types in A-Group and Post-A-Group culture (continued)

<table>
<thead>
<tr>
<th>Material</th>
<th>Bead (B) or pendant (P)</th>
<th>Length and shape</th>
<th>Size</th>
<th>Color(s)</th>
<th>Catalog number(s) of A-Group types</th>
<th>Catalog number(s) of Post-A-Group types</th>
<th>Figure number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carnelian B</td>
<td>B</td>
<td>Short barrel, truncated bicone, and cylinder</td>
<td>Small</td>
<td></td>
<td>4.1, 5.2, 9.5, 7, 10, 13.2–3, 16.4, 18.13, 21.1, 25.1, 29.3–4</td>
<td></td>
<td>Fig. 3a</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Short barrel</td>
<td>Large</td>
<td></td>
<td>11.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Long and very long barrel</td>
<td></td>
<td></td>
<td>5.7, 9.3, 8, 12–13, 13.4, 18.14, 21.2</td>
<td></td>
<td>Fig. 3o–q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Long and very long bicone</td>
<td></td>
<td></td>
<td>5.5, 18.15, 22</td>
<td></td>
<td>Fig. 3m, r</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Long and very long truncated pear-shaped</td>
<td></td>
<td></td>
<td>5.4, 12.1, 16.3</td>
<td></td>
<td>Fig. 3l, n</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Long and very long cylinder</td>
<td></td>
<td></td>
<td>18.16, 25</td>
<td></td>
<td>Fig. 3k</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bilobate</td>
<td></td>
<td></td>
<td>5.3</td>
<td></td>
<td>Fig. 3c</td>
</tr>
<tr>
<td>P</td>
<td>Flattened teardrop with rounded base</td>
<td></td>
<td></td>
<td></td>
<td>23.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bag-shaped</td>
<td></td>
<td></td>
<td></td>
<td>23.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bag-shaped pendant with globular body and double-segmented neck</td>
<td></td>
<td></td>
<td></td>
<td>9.9, 15</td>
<td></td>
<td>Fig. 3g–h</td>
</tr>
<tr>
<td></td>
<td>Bag-shaped long pendant with tapered base</td>
<td></td>
<td></td>
<td></td>
<td>9.4, 14</td>
<td></td>
<td>Fig. 3i–j</td>
</tr>
<tr>
<td></td>
<td>Round flattened bead-pendant</td>
<td></td>
<td></td>
<td></td>
<td>34^</td>
<td></td>
<td>Fig. 12b</td>
</tr>
<tr>
<td>Garnet B</td>
<td>Short barrel, short truncated bicone, and short cylinder</td>
<td></td>
<td></td>
<td></td>
<td>5.1, 9.2, 11, 16.5, 18.1, 19.3, 25.2, 29.5</td>
<td></td>
<td>Fig. 3b</td>
</tr>
<tr>
<td>Rock crystal B</td>
<td>Short barrel, truncated bicone, and cylinder</td>
<td></td>
<td></td>
<td></td>
<td>17.1, 18.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P</td>
<td>Teardrop with rounded base</td>
<td></td>
<td></td>
<td></td>
<td>9.6</td>
<td></td>
<td>Fig. 3d</td>
</tr>
<tr>
<td>Quartz B</td>
<td>Short barrel</td>
<td></td>
<td>Small</td>
<td></td>
<td>29.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Short, standard, and long barrel</td>
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<td>24, 27.1, 29.1</td>
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<td>Agate B</td>
<td>Disc and short barrel, short truncated bicone, and short cylinder</td>
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<td></td>
<td>18.17, 19.6, 27.2–3</td>
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<td></td>
<td>Disc barrel</td>
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<td>Steatite B</td>
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<td>3.1–2</td>
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<tr>
<td>Fine conglomerate B</td>
<td>Short barrel, short truncated bicone, and short cylinder</td>
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<td>27.4–5</td>
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(continued)
### Table 4. Overview of types in A-Group and Post-A-Group culture (continued)

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<th>Material</th>
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<th>Catalog number(s) of Post-A-Group types</th>
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<td></td>
<td>P</td>
<td>Bag-shaped pendant</td>
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<td>Long flat teardrop pendant</td>
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<td>Pebble</td>
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<td>Faience</td>
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<td>Small Blue-green glaze</td>
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<td>Short and standard cylinder and oblate</td>
<td>Whitish core</td>
<td>16.9, 18.4, 19, 27</td>
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<td>Whitish core and reddish, reddish-brown to black glaze</td>
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<td>Grayish glaze</td>
<td>45.3, 46.4</td>
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Table 4. Overview of types in A-Group and Post-A-Group culture (continued)

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<td>Long cylinder</td>
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<td>Brown</td>
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<td>Black</td>
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<td>Disc to short barrel</td>
<td>Blue-green glaze</td>
<td>18.26, 25.4, 28, 44.2</td>
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<td>32.1^, 37^, 38.2^</td>
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<td>Short barrel</td>
<td>Green, blue glaze</td>
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<td>Gritty core and green-blue glaze</td>
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<td>Pear-shaped</td>
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<td>Disc bicone and barrel</td>
<td>Green glaze</td>
<td>45.2, 46.6, 47.2</td>
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(continued)
Table 4. Overview of types in A-Group and Post-A-Group culture (continued)

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<tr>
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<td>White core and glaze</td>
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<td>Whitish core and blue-green glaze</td>
<td>16.8, 18.20, 19.1</td>
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<td>Whitish core and red/brown glaze</td>
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<td>White core and blue glaze</td>
<td>27.10, 41</td>
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<td>White core and glaze</td>
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<td>Oblate beads flattened on one side</td>
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<td>Gray gritty core with white inclusions</td>
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<td>Blue glaze</td>
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<td>Crenelated short cylinder</td>
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<td>White or gray core and blue glaze</td>
<td>27.9</td>
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</table>

Resin

Resin pendants from the OINE assemblage are analogous to the shapes of carnelian examples\(^{108}\) and include a teardrop shape with rounded base (1.1) and bag-shaped pendants (1.2).

Marine Mollusk Shells

With the exception of *Nassarius gibbosulus*, which is from the Mediterranean Sea, all seashells used for bodily adornment are of Red Sea origin. In the OINE assemblage these items were found as simply perforated marine mollusk shells, shell fragments cut into pendants, or beads shaped into barrels.

**Perforated marine mollusk shells**

Many body whorls of seashells were found simply perforated; otherwise, their apex or dorsal part was removed by abrading or they were sliced. In the case of some *Conus* sp., their apexes were removed. The following seashell species were identified: *Conus taeniatus* with apex removed (11.11);\(^{109}\) *Conomurex fasciatus* (11.14); a *Strombus fasciatus* shell\(^{110}\) pendant with the

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\(^{108}\) Cf. cat. nos. 7, 23.1–2.

\(^{109}\) Junker 1919, fig. 56:6; Nordström 1972a, 125; Needler 1984, cat. no. 234, for *Conus* sp.—Abu Zaidan, Naqada III.

\(^{110}\) Junker 1919, fig. 56:5.
body whorl perforated (16.1); *Fusinus* sp. (11.13);¹¹¹ a *Cypraea annulus* shell¹¹² with the dorsal part perforated (11.5) or removed (11.6, 30, 31); an *Oliva* sp. shell pendant with its apex removed¹¹³ (11.12); and a *Polinices mammilla*¹¹⁴ shell pendant with the body whorl perforated (8, 11.1, 4, 13.1).¹¹⁵ In the A-Group OINE collection, all marine mollusk shell pendants that were previously identified as *Nerita* sp.¹¹⁶ are actually *Polinices mammilla* (*tumidus*) shell. Exceptions may be two *Nerita* sp. pendants from Serra East cemetery B that were not available for reexamination (33²).¹¹⁷

Of special consideration are the *Nassarius gibbosulus* mollusk shells from the Mediterranean Sea, with the body whorl perforated for suspension (4.3, 11.10).

Sliced marine mollusk shells

*Nassarius* sp. shells were found sliced, resulting in a natural hole for the bead (11.8).¹¹⁸

Pendants of marine mollusk shell fragments

Pendants of another group are in the form of worked shell fragments—either round (11.7) or trapezoidal plaques (11.9, 20–23), as well as an elongated worked pendant (11.15).

Marine mollusk shell beads and a grooved pendant

The most distinctive Late A-Group category comprises objects cut out of *Lambis truncata*.¹¹⁹ They may have been made from the waste fragments of the shell used for bangles. They were made from the thicker parts of the columella and drilled from both ends.¹²⁰

Tiny, short barrels with greenish tint, probably the result of being deposited near a copper object,¹²¹ were also made of seashell (D 3.0, L 1.3–1.9, HD 0.9) (1.3). Larger shell beads were shaped into short and standard barrel, oblate, and spherical shapes (D 5.3–18.4, L 2.3–17.8, HD 2.0–5.4) (4.2, 6, 9.1, 11.2, 16, 17, 14.4).¹²²

A grooved, long, segmented pendant with tapered base (Th 6.3, W 12.7, H 57.2) (11.3) was most probably also made of *Lambis truncata* shell.¹²³

Freshwater Shell

A trapezoidal plaque pendant was cut from a freshwater mollusk shell (39.1²).

Ostrich Eggshell

There are definitely no ostrich eggshell beads in the OIM A-Group collection. The unique ostrich eggshell square bead fragment (36¹) was tentatively assigned to the A-Group period,¹²⁴ but it could be of Middle Nubian date (cf. below, e.g., 51.1).

In contrast to the A-Group, the majority of Post-A-Group beads were made of ostrich eggshell. Ostrich eggshell discs and short cylinders were drilled from both ends, resulting in an hourglass or nearly parallel perforation shape. The shapes are very regular, and their sides and ends are refined (D 3.1–6.6, L 0.8–2.0, HD 0.8–1.5) (45.1, 46.1, 47.1, 48, 49.1).

Bone

A very long, perforated cylinder, of material that looks consistent with diagnostically altered bone, is in the A-Group collection (D 12.0 × 10.5, L 31.6, HD 2.9) (14.5).¹²⁵

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¹¹¹ Needler 1984, cat. no. 238, pl. 54—El’Adaima, Predynastic(?).
¹¹² Griffith 1921, 15, illustrated in Spencer 1980, cat. no. 557, pl. 59; for other examples of the use of cowries in the A-Group, see Hofmann 1967, 98–99, 120, and references therein; Nordström 1972a, pls. 53A:195:1—probably misidentified as “beads of ivory.”
¹¹³ According to W. Needler (1984, 308), the shell beads from Predynastic Egypt were once brightly colored.
¹¹⁴ For the occurrence of marine shell shaped into beads in the A-Group and Naqada periods, see Reisner 1910, pl. 68a:2; Firth 1912, 128, 193; Firth 1915, 46; Junker 1919, 100; Griffith 1921, 15, cat. no. 556—left anklet from grave 31 at Faras (= Spencer 1980, cat. no. 556, pl. 61, and Andrews 1981, cat. no. 151, pl. 18); Emery and Kirwan 1935, 352, 353, 460, 463; Nordström 1972b, pl. 194:292/1:1—probably misidentified as “beads of ivory, ostrich eggshell”; Needler 1984, cat. nos. 234, 236—“marine shell” beads in the Naqada III at Abu Zaidan; Met 99.4.6—Abydiya, cemetery R, Naqada II–III; Stevenson 2012b, 14—Afyeh “shell beads.”
¹¹⁵ Firth 1912, pl. 37; for online images, see MFA 13.3353—Sheikh Farag SF 2, Predynastic period, before 2960 BC and misidentified as “cowrie”; UC 43214—Abydos, First Dynasty.
¹¹⁷ Non vidi. But for *Nerita* in the A-Group, see Junker 1919, 98; Nordström 1972a, 125.
¹¹⁸ Firth 1912, pl. 37:8; for online images, see MFA 13.3353—Sheikh Farag SF 2, Predynastic period, before 2960 BC and misidentified as “cowrie.”
¹²¹ For bangles. They were made from the thicker parts of the shell used for reexamination (33²).
¹²² Dr. Mindy Pitre (personal communication).
Bone beads were also made of long, cream or brownish tubes of animal metacarpals or metatarsals. However, only one white, very long tube (D 6.6, L 16.3, HD 3.5) (14.1) comes from an A-Group grave. Very long, cylindrical, cream-colored bone beads are consistent with later Middle Nubian period finds, and two sizes can be distinguished: a larger (D 11.3–18.6) (35°) and a smaller (D 6.1–8.5) (39.2°) variety.

Stone

Many diverse stones were used for A-Group beads and pendants; they range from carnelian, garnet, rock crystal, agate, white quartz, chalcedony, and steatite to a fine conglomerate stone. Stone beadworking is evident at some A-Group sites and would confirm local production. Two carnelian-working sites were discovered on the west bank of the Nile near Ballana and consisted in part of a thick layer of charcoal ash debris (between 0.5 and 1 m deep). Transformation through heating is indispensable for carnelian bead production in order to chip and polish the microfibrous stones and achieve an orange and red coloration. A-Group sherds, flint flake knives and worked points (otherwise called microdrills), carnelian beads, and borers, as well as grindstones and pounders, were recorded at the surface of the site near Ballana. What is more, rough fragments of carnelian cobble and worked fragments were preserved from one of the Qustul tombs, L 24 (18.24). While larger beads are produced from one cobble, small or medium beads are made from a few thick cobbles’ flakes or blanks.

Beads in the OINE assemblage were found perforated in a few ways according to their length. Some disc to short barrels were simply pecked. Others were possibly first pecked to provide a slight indentation, which would allow placing a drill into position. Next, using tapered or tapered cylindrical stone drills with an abrasive (quartz or emery) and a vehicle, possibly olive oil, the barrels were drilled from both ends, thus leaving an hourglass-shaped perforation. It seems that their sides were shaped subsequently. Depending on the angle at which they were worked against some surface, straight, convex, or conical-shaped sides were achieved. Two ribbed limestone boards found in Qustul graves L 23–40 and L 24–9, which were interpreted as game boards, could have served for the final shaping of beads. One of them measures 8.5 × 11 cm and has a series of eight transverse grooves and two holes at one end. The other has sixteen transverse grooves. Ribbed boards used for shaping beads have been recorded in Sudan from the Neolithic period. Grooved stones that may have been used as bead grinders have also been recorded in Naqada tombs from Egypt.

Long and very long cylinders, barrels, bicones, and pear-shaped beads, as well as bag-shaped pendants, have hourglass or double, almost parallel, perforations. Shorter forms were perforated from both ends, probably using stone tapered cylindrical drills. Long holes may also have been drilled using copper or tubular metal drills. By about 3000 bc, corundum abrasive was used in the perforation of hard stone beads.

Due to a broad variety of A-Group stone objects, the following bead and pendant types were distinguished according to material, shape, and size.

Carnelian beads

Among short carnelian beads are smaller barrels, truncated bicones, and cylinders (D 2.9–6.0, L 1.1–3.6, H 26–38).

References

126 Nordström 1972a, 124, 212, type B1 from Halfa Degheim, 277/66/7, pl. 52:B1, beads of triangular section L 22.0, D 6.0–10.0 found at the skull of a child, probably a newborn infant(?), in a very fragmentary condition between the debris and the feet of the adult burial.

127 For standard to long bone beads associated with fifteen Nerita sp. shells, a single faience bead, and a carnelian pendant from cairn tumulus tomb 190 of a juvenile burial at Kurgus, see Haddow 2014, 142, pl. 3; for bone beads in C-Group graves, see the chapter on Middle Nubian beads.

128 Smith 1962, 27, 30, fig. 6.

129 Inizan 2000, 474.

130 Smith 1962, 27, 30, fig. 6. Vast quantities of microdrills were found in the ceremonial center at HK29A at Hierakonpolis, where they were especially numerous in the deposits over the floor of the oval courtyard; see http://interactive.archaeology.org/hierakonpolis/field09/3.html.

131 Pelegrin 2000, 53.

132 Tapered drills used for soft stones, shell, ivory, and wood are known worldwide since the Neolithic period and up through the Iron Age (about 1200 bc); see Kenoyer 2003, 17.

133 Tapered cylindrical drills were used for softer stones and short, hard stone beads; they are known from western Asia and the Indus Valley from the Copper-Bronze Age (about 5500 bc) up to the beginning of the Iron Age; see Kenoyer 2003, 17; Hikade 2004, 190; Gwinnett and Gorelick 1993, 123–27; for olive oil used in drilling beads, see Gorelick and Gwinnett 1983, 47.


135 Salvatori and Usai 2008.

136 Xia 2014, 28.

137 Constricted cylindrical drills made of ernestite are known only from the Indus Valley in the Classic Harappan period (2600–1900 bc) and were used in drilling very long, slender beads of hard stone; for constricted cylindrical drills and the material they were made of in India, see Kenoyer and Vidale 1992; Kenoyer 2003, 17.

138 Kenoyer 2003, 17.

139 Firth 1912, pl. 55:1, 4, 5; Firth 1915, pl. 28c:15, 16; Firth 1927, pl. 22a:12–14; Nordström 1972a, 125, pls. 52D and 194:277/1:24;
HD 0.8–2.3) (4.1, 5.2, 9.5, 7, 10, 13.2, 3, 16.4, 18.13, 21.1, 25.1, 29.3, 4). The larger short barrel bead measures 12.0 mm in diameter, 7.3 mm in length, and from 1.8 to 7.2 mm in hole diameter (11.18).

**Long and very long beads** include barrels (D 4.5–7.7, L 5.7–15.2, HD 1.3–2.9) (5.7, 9.3, 8, 12, 13, 13.4, 18.14, 21.2), bicones (D 6.9–8.7, L 13.5–23.8, HD 2.2–3.9) (5.5, 18.15, 22), truncated pear-shaped beads (D 6.6–9.1, L 10.8–26.4, HD 2.3–3.3) (5.4, 12.1, 16.3), and cylinder beads (D 6.8–6.9, L 33.5, HD 2.7–3.3) (18.16, 25).

Two carnelian bilobate (toggle) beads are unique at Qustul cemetery and were found in tomb L 11 (5.3).\(^{143}\)

**Carnelian pendants**

The following types can be distinguished among carnelian pendants: flattened teardrop with rounded base (23.1), bag-shaped (23.2), bag-shaped with globular body and double-segmented neck (9.9, 15), and a long, bag-shaped pendant with tapered base (9.4, 14).

Outstanding in shape and color is a dark red, round, flattened bead pendant (34°).

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141 Met 99.4.4—Abadiya, cemetery H, tomb H129, Naqada III; Met 99.4.2—Abadiya, cemetery B, Naqada I–II.
142 Firth 1927, pl. 22a:11.
143 Brunton 1927, pl. 17, 73, M2; for illustrations of carnelian and ivory toggle beads from Faras, see Spencer 1980, cat. no. 553, pl. 60; Andrews 1981, cat. no. 156, pl. 5.
144 Firth 1912, pl. 55:3; Firth 1915, pl. 28c:9; Nordström 1972b, pl. 194:292/1:7.
145 Reisner 1910, pl. 70a:3–6; Firth 1915, pl. 28c:5; Junker 1919, fig. 58:19; Griffith 1921, pl. 46—Faras; Nordström 1972b, pl. 53:B4, 194:292/1:7; for a First Dynasty illustration from Helwan, see Bongioanni and Croce 2003, 32; for the similar shapes of nw-vase pendant amulets ascribed to the Middle Kingdom, see Andrews 1981, 95, appendix T, with references given there; MFA 13.3636—Sheik Farag, ascribed to the Middle Kingdom; for one of the first bag-shaped pendant forms, see Wendorf and Schild 1980, 161–65, fig. 3.109. The latter is an exceptional pottery pendant in the shape of a tulip beaker; a few centimeters long, it bears an incised decoration and two holes in the rim designed for threading—from Nabta Playa.
146 Reisner 1910, pl. 70a:1.
147 Andrews 1994, fig. 96c (alabaster)—Early Dynastic; for shorter examples, see Andrews 1981, 37, cat. no. 162, pl. 18, with references given there; for a necklace with carnelian pointed pendants ascribed to the Middle Kingdom, see MFA 13.3738.

**Carnelian pendants**

**Garnet beads**

Garnet beads consist in short barrels, short truncated bicones, and short cylindrical shapes (D 2.4–4.9, L 1.1–2.4, HD 1.4–2.2) (5.1, 9.2, 11, 16.5, 18.1, 19.3, 25.2, 29.5).

**Rock-crystal beads and pendant**

Rock crystal was found shaped into short barrels, truncated bicones, and cylinder beads (D 4.1–4.5, L 1.7–2.0, HD 1.7–1.8) (17.1, 18.2), and as a pendant in the shape of a teardrop with rounded base (9.6).

**Quartz bead**\(^{149}\)

White quartz was shaped into small, short barrels (D 3.3, L 2.1, HD 1.3) (29.2) or larger short, standard, and long barrels (D 7.3–10.7, L 3.0–6.8, HD 2.4–4.6) (24, 27.1, 29.1).\(^ {150}\)

**Agate beads**

Agate or carnelian, both opaque and translucent, was shaped into discs and short barrels, short truncated bicones, and short cylinders (D 4.6–10.3, L 1.8–4.3, HD 1.8–4.1) (18.17, 19.6, 27.2, 3). One translucent disc barrel is smaller in size (D 3.0, L 0.8, HD 0.7) (38.1°).

**Steatite beads**

**Short barrels** of black steatite range from 6.4 to 7.2 mm in diameter and 2.6 to 2.9 mm in length, with a 3.0 mm hole diameter (27.8). Black (3.2) and cream (3.1) square tabular beads of steatite are unique shapes.

**Fine conglomerate beads**

A fine conglomerate stone was shaped into larger-sized short barrel beads, short truncated bicones, and short cylinders (D 7.1–8.7, L 2.7–4.4, HD ca. 3.0) (27.4–5).

**Chalcedony beads and pendants**

Among chalcedony types, the following shapes are distinguished: a disc teardrop with rounded base (27.6),...
a bag-shaped pendant\textsuperscript{151} (7), and a long, flat teardrop pendant\textsuperscript{152} (5.6).

**Diorite beads**

An irregular short bicone of diorite has an hourglass-shaped perforation (D 11.4–12.7, L 5.1). It has a 3.7 mm diameter hole opening and a 0.9 mm inner hole diameter (44.1).

**Pebble pendant**

A white and brown pebble pendant\textsuperscript{153} fragment (16.2) was perforated from both ends (Th 5.5, W 16.1).

**Metal**

Many gold sheets were found folded into long beads. These are long barrels\textsuperscript{154} (17.2) and a long bicone\textsuperscript{155} (5.8), as well as a very long cylinder (20).\textsuperscript{156} The latter has the ends bent inside. Smaller, long tubular beads of gold sheet (1.4) were folded, leaving a gap in the seam. Similar to the latter are small tubular beads made of folded gold sheet (10.2) from Qustul, together with an exceptional amulet in the form of a fly, also made of gold sheet (10.1).\textsuperscript{157}

The fly has flat, undecorated wings attached to the protruding back. The back was made of gold sheet folded into a tube, with a tube hole at the top of the fly’s head. Next, the tube was shaped into the fly’s body, which was subsequently attached to a flat sheet base that was cut to form fishtail wings. The transverse hole for stringing was then made through the head part of the protruding back. In general, the fly’s shape is similar to a stone fly from A-Group Kubaniyeh.\textsuperscript{158} A fly with slightly unfolded wings made of steatite comes from the Protodynastic period,\textsuperscript{159} and examples made of black stone are known from the A-Group\textsuperscript{160} and Naqada II period.\textsuperscript{161} The Qustul fly’s shape resembles a fly from el-Asasif, Thebes, ascribed to the Second Intermediate Period or early New Kingdom.\textsuperscript{162}

Fly amulets made of gold sheet are not known before the Second Intermediate Period.\textsuperscript{163} In Egypt gold flies were associated with military honors, possibly for one’s bravery in persistently attacking the enemy.\textsuperscript{164} Three fly ornaments were also found in the tomb of Queen Ahhotep,\textsuperscript{165} and more of them were found in the tomb of Queen Tawosret,\textsuperscript{166} as well as in the fifteenth-century bc tomb of three foreign wives of Thutmose III.\textsuperscript{167} Still, the abovementioned A-Group object is the oldest gold fly specimen known from Northeast Africa.

**Clay**

One clay/pottery bead is a red, very long cylinder core\textsuperscript{168} (D 2.8, L 14.5, HD 0.7) (16.6), and another is a red barrel (16.7).

**Glazed Steatite**

There are two preserved examples of stone objects with traces of glaze. These are an Early A-Group, dark gray lenticular teardrop with traces of green glaze (27.7) and a Late A-Group ring bead that is white with traces of blue glaze (14.3).

**Faience\textsuperscript{169}**

Among the faience beads, the white, blue/green, and red/brown glazes dominate. The blue and dark red to brown color of faience cores and glazes of beads can be seen in fig. 13; for lapis flies from the Mesopotamian city of Tello (ca. 2600–2350 bc), see Inizan 2000, pl. 9:1. For example, gold falcon, lion, and fly amulets come from Buhen; see Randall-Maclver and Woolley 1911, pl. 89 (= Penn E10898B); Andrews 1990, 181, cat. no. 167; Andrews 1994, 62; Met 2012.237.1; BM 65279; MFA 27.917—Semna.

Binder 2008.

Gestoso Singer 2009. These ornaments were given to Ahhotep after her active participation in the war against the Hyksos.


A glaze may have been weathered off, but otherwise they are made of dull red pottery; see Andrews 1981, 35, cat. no. 155.

For A-Group faience beads in Nubia, see Hofmann 1967, 96, and references therein; Nordström 1972a, 125; Nordström 1972b, pl. 52; for the occurrence of Early Dynastic faience beads, see Spencer 1980, 75, and references therein.
also be observed in miniature vessels, with Egyptian parallels, from A-Group Qustul cemetery L (figs. 4, 5).\textsuperscript{170}

Blue and green glazes were colored by copper. Black/purple/red/brown faience could have been colored by iron, manganese, or copper. However, many early red beads were created due to the accidental, secondary deoxidization of copper (18.21). The brownish, reddish, and grayscale color of faience glaze could be the result of weathering or the post-treatment of blue glaze at a higher temperature.\textsuperscript{171} With the many deposits indicating fire that were noted at the site of Qustul and evidenced in objects from tombs L 1 and L 2 (1.5, 2.2), the latter case is more probable.

In Early A-Group contexts were found crenelated short cylinders of white or gray core and applied blue glaze of exceptional quality and shape (27).

Middle and Late A-Group faience beads are of white, blue and red, and brown color. Their fine cores were usually shaped into tubes, which could be segmented into beads of disc, standard, and very long lengths. Their sides may be parallel (cylinders), convex (barrel and pear-shaped beads), or conical (biconical beads). They are characterized by fine to coarse, usually whitish, cores. Flattened beads have an exceptional fracture, showing gritty cores with white, quartzite(?), or blackish color (D 2.3, L 1.2, HD 1.1) (43).

Short and standard cylinders and oblates can have whitish cores (D 3.3–6.4, L 2.4–4.2, HD 0.9–1.7) (16.9, 18.4, 19, 27), a whitish core with traces of green glaze (D 3.2–4.2, L 1.7–4.0, HD 1.0) (18.23, 19.4), or a reddish/orange-brown to black glaze (D 2.9–4.6, L 1.5–2.9, HD 1.0–1.3) (18.9, 12, 22, 28, 19.2). One standard cylinder with a whitish glaze is slightly larger (D 4.1, L 3.2, HD 1.0) (2.2).

Faience long and very long cylinder beads

Long faience cylinders can have white glaze (D 3.2–3.8, L 4.1–6.7, HD 0.8–0.9) (18.3, 7, 19.7) or one of brown color\textsuperscript{173} (D 2.9–4.0, L 3.8–6.5, HD 0.7–0.8) (18.11, 19.10). One long cylinder has a cream core and traces of bluish glaze (D 3.2, L 7.7, HD 1.3) (38.4^4).

\textsuperscript{170} OINE III, pl. 61; for a color photo, see Williams 2011, fig. 9.3; for Early Dynastic faience miniature vessel parallels, see UC 13256; UC 27598—Hierakonpolis; UC 45055.

\textsuperscript{171} Tite and Shortland 2008, 77; Dr. Kyoko Yamahana (personal communication).

\textsuperscript{172} Andrews 1981, 35, cat. no. 155.

\textsuperscript{173} For a string of green and brown glazed composition long cylinder beads from Abydos, First Dynasty, see Spencer 1980, cat. no. 541, pl. 60.
**Beads from Excavations**

Faience disc to short barrel beads
Faience disc to short barrels have a blue-green glaze (D 3.0–5.4, L 1.4–2.3, HD 0.9–2.1) (18.26, 25.4, 28, 44.2). Larger short barrels are of green or blue color (D 4.4–5.2, L 2.9–3.5, HD 1.0–1.5) (25.3, 29.6), or they have a white core and greenish glaze (D 4.0–4.8, L 2.8–3.6, HD 0.7–1.3) (18.5, 44.3).

Slightly smaller disc to short barrels with blue glaze (D 2.3–4.1, L 1.2–2.4, HD 1.0–1.5) (32.1^, 37^, 38.2^) and disc to short barrels with traces of black glaze (D 2.1–2.9, L 0.9–1.4, HD 1.2) (38.3^) would rather suit the Middle Nubian faience bead assemblages.

Faience long barrel beads
Faience long barrel beads can be of brownish color (D 3.7–4.1, L 5.0–6.4, HD 1.1) (18.10) and have a red core (D 5.0, L 6.3, HD 1.0) (16.7).\(^{174}\)

Faience pear-shaped beads
Faience pear-shaped beads have a white core and glaze (D 4.9–5.4, L 5.0–5.8, HD 1.2–1.7) (18.6, 18, 19.8).

Faience biconical beads
Long faience bicones have a white core and glaze (D 3.9 or 4.3, L 5.9 or 6.6) (19.9).

Faience oblate beads
Faience oblates can have a whitish core and traces of blue or green glaze (D 4.0–6.4, L 2.9–3.8, HD 0.9–1.0) (16.8, 18.20, 19.1) or a whitish core and traces of red/brown glaze (D 4.3–5.3, L 2.7–3.5, HD 1.0) (18.21, 19.13). Larger faience oblates have a white core and blue glaze (D 7.4–8.5, L 5.6–6.2, HD 1.6–1.8) (27.10, 41) or a white core and glaze (D 9.5, L 6.6, HD 1.5) (2.1).

Faience oblate beads flattened on one side
Faience oblates, flattened on one side (D 6.2–10.8 × 4.2–5.3, L 6.7–7.3, HD 0.9), have gray gritty cores with white inclusions and traces of a dark glaze (1.5)\(^{176}\) or blue glaze (14.2).

Faience crenelated beads
Crenelated faience short cylinders have very fine white or gray cores that are glazed blue (D 7.3–11.2, L 3.4–4.1, HD 1.8) (27.9). They have from four to five petals.\(^{177}\)

The glazes of Post-A-Group faience beads, on the other hand, are green, blue, and black. They usually have short to very long cylinder, bicone, and barrel shapes.

Faience short to very long cylinder beads
Short faience cylinders are blue glazed (D 5.6 × 5.1, L 2.4, HD 0.9) (40), while short to standard faience cylinders have grayish glaze (D 3.7–4.4, L 2.5–4.1, HD 0.7–1.3) (45.3, 46.4). Very long cylinders have either blue-green glaze (D 4.8, L min. 18.7, HD 1.8) (46.2) or black glaze (D 4.2, L 20.8, HD 1.3) (46.5).

Faience disc to short bicone and barrel beads
Faience disc bicone and barrel beads are covered with green glaze (D 3.8–4.0, L 1.1–1.7, HD 0.9–1.2) (45.2, 46.6, 47.2), and short barrels have a black glaze (D 4.0–6.2, L 2.9–4.6, HD 0.9–1.4) (46.3, 7) or show a gritty core with traces of green-blue glaze (D 8.8, L 3.5, HD 1.2) (49.2).

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\(^{174}\) For an anklet of green and dark gray glazed composition barrel, cylinder, and spheroid beads from Faras, see Griffith 1921, 13 (= Spencer 1980, cat. no. 555, pl. 60; Andrews 1981, cat. no. 150, pl. 18).

\(^{175}\) A glaze may be washed out; otherwise they are made of dull red pottery—Andrews 1981, 35, cat. no. 155.

\(^{176}\) These examples were probably overburned in a fire.

\(^{177}\) The four-petal shapes may be the "cruciform transverse section" example found at the A-Group and C-Group site of Gezira Dabarosa. But the bead was considered "probably of C-Group origin"; see Nordström 2014, 46, object 51:1.
Beadwork

In most cases, A-Group beads were uncovered dispersed in the fill of a chamber or grave shaft, and no traces of stringing were preserved. Nevertheless, a string of mollusk shell beads forming a necklace was found (9.1) and possibly also girdles that were made from perforated Polinices mammillata (8.11.1.4). Other bead assemblages were recorded as a bracelet and an anklet, both made from bone beads.

The Post-A-Group burial of T 155, at Adindan, includes ostrich eggshell and faience bead armbands in three loops around the right arm (45) and left arm (49), a necklace (46), and anklets of beads in three loops around both the right leg (48, of ostrich eggshell) and the left leg (47, of ostrich eggshell and faience).

The Bead Owners

Beads and pendants were found associated with individuals of all ages and both sexes. They were found with adults (2, 32–35, 37–39) and female (25) and possibly male (15, 16)—with children (28, 44), and with an infant (26). In some cases, beads were found in a grave shared by a mature female and a child (41) or by a mature female and male (7).

Due to restricted anthropological data, intentionality in the choice of objects according to color and type among A-Group individuals can be approached only tentatively. Red carnelian, purple garnet, white marine mollusk shells and faience beads, and blue faience beads seem to dominate in the A-Group palette. A string of hundreds of tiny blue beads was uncovered in a child’s grave (28), while hundreds of purple garnet beads were associated with an adult female burial (25). A variety of seashells, white pebble pendants, and other beads were picked up from a grave that belonged to an adult, possibly a male individual (15, 16). A bag-shaped pendant made of transparent red chalcedony was found in a grave shared by a mature female and a male (7).

In two Post-A-Group graves, an adult female was buried with eggshell beads. The overwhelming quantity of ostrich eggshell beads and anklets made of ostrich eggshell in female graves makes the Post-A-Group assemblage more consistent with C-Group or even Pan Grave burials. In addition, black faience became more common in Egypt in the Old Kingdom (2649–2030 BC). Black short barrel (46, 3, 7) and long cylinder (46, 5) faience beads can be compared with types known from Pan Grave graves.

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178 For A-Group necklaces made of beads in diverse materials, see Hofmann 1967, 91, and references therein; cf. nn. 183, 185.
179 For A-Group girdles, see Hofmann 1967, 92–93, and references therein.
180 For a girdle made from Polinices found on Mograt Island, see Weschenfelder and Rees 2014, 151–52, fig. 9.
181 For A-Group bead bracelets, see Hofmann 1967, 91, described as “Perlenketten finden sich auch an Handgelenk,” with the references given there; for a leather thong string of Natica melanistoma (= Polinices sp.) shells on the skeleton’s right wrist, on a leather thong found with an A-Group male burial, see Firth 1912, 193, grave 686.7; cf. nn. 183, 185, 186.
182 For A-Group anklets, see Hofmann 1967, 91–92—“Perlenketten finden sich auch an Fußgelenk,” “einer Kette geschmückt”—and references therein; cf. n. 183.
183 For a necklace of faience and disc shell beads in a double row, found with an adult female, see Nordström 1972a, 170–71, 187/2;12; for a necklace of ivory and seashell pendants found with an adult female, see ibid., 182, 352/53b:5a–d; for a necklace of carnelian, rock crystal, chalcedony, and faience beads found with an adult female, see ibid., 191, 277/1:24; for a necklace of gold beads found with an adult female, see ibid., 202, 277/34Bl:13; for shell, carnelian, faience, and mollusk shell beads found at the pelvis of an adult male, see ibid., 187/2:13; for carnelian and faience beads found around the left wrist of an adult female, see ibid., 195, 277/16b; for faience, carnelian, and shell beads scattered over the right hand, see ibid., 202, 277/34Bl:14; for faience, carnelian, and other stone beads found around the left ankle of a female, see ibid., 202, 277/34Bl:12; for ostrich eggshell beads found in the grave of an adult female, see ibid., 208, 277/51:1; for stone and bone drop pendants in an adult female grave, see ibid., 209, 277/52:1.
184 For ring-shaped beads of a white, hard rock mineral found around the right forearm in an adult male burial, see Nordström 1972a, 194, 277/13:1.
185 For faience beads in a child burial, see ibid., 153, 292/5:1; for faience, stone, shell, and Natica pendants in a child burial, see ibid., 176–77, 332/24:2, 3; for a necklace of faience, ivory, and hard rock beads, see ibid., 194, 227/11:1; for an ivory bead at the left hand, see ibid., 277/1:2; for a white, hard rock mineral bead found at the legs of a child, see ibid., 205, 277/40:4; for a tubular bone bead found at the skull of a child, see ibid., 212, 277/66:7; for hundreds of tiny blue faience beads found in later Kerma infants’ burials, see Then-Obłuska 2014.
186 For eggshell disc beads found at the wrists of a newborn child, see Nordström 1972a, 210, 277/59:3.
187 For a diadem of garnet, carnelian, turquoise, and gold beads found in an adult female burial of the Naqada II period at Abydos, see Andrews 1990, 43, cat. no. 31 (= BM 37532).
188 For bag-shaped pendants associated with adult skeletons, see Nordström 1972a, 152, 292/1:7a; 153, 292/11:3.
190 Cf. the chapter on the Middle Nubian period and cat. no. 292.2, 11.
Catalog

1. Resin, drilled from both ends, teardrop pendant, black and reddish (1 and 1 broken), Th 7.4 × 6.1, H 11.0, 13.0, HD 1.7

2. Resin, drilled from both ends, bag-shaped pendant, black and reddish (1 and 1 broken), Th 8.4 × 7.3, H 13.0, HD 1.4

Bibliography: OINE III, 198, fig. 60h

3. Lambis truncata shell, cut, drilled from both ends, short barrel, whitish, greenish tinged (54), D 3.0, L 1.3–1.9, HD 0.9

4. Gold sheet, folded, long tubular (3), D 1.6, L 3.5, HD 0.8

5. Faience, barrel flattened on one side, bluish glaze (10), D 6.2 × 4.2, L 6.7, HD 0.9

Bibliography: OINE III, 198, fig. 60g, i

Qustul L 1–11a–d: Beads and pendants from burial chamber and fill (no body recorded); OIM E44499, OIM E44500

Late A-Group (Naqada III)

OIM E44499

1. Resin, drilled from both ends, teardrop pendant, black and reddish (1 and 1 broken), Th 7.4 × 6.1, H 11.0; 13.0, HD 1.7

2. Resin, drilled from both ends, bag-shaped pendant, black and reddish (1 and 1 broken), Th 8.4 × 7.3, H 13.0, HD 1.4

Bibliography: OINE III, 198, fig. 60h

OIM E44500

3. Lambis truncata shell, cut, drilled from both ends, short barrel, whitish, greenish tinged (54), D 3.0, L 1.3–1.9, HD 0.9

4. Gold sheet, folded, long tubular (3), D 1.6, L 3.5, HD 0.8

5. Faience, barrel flattened on one side, bluish glaze (10), D 6.2 × 4.2, L 6.7, HD 0.9

Bibliography: OINE III, 198, fig. 60g, i
2 Qustul L 2—11: Beads from fill of chamber (A—adult female, B—adult, ca. 50 years old, skull only); OIM E24866
   Late A-Group (Naqada III)
   1. Faience, oblate, white core and glaze (1), D 9.5, L 6.6, HD 1.5
   2. Faience, short cylinder, greenish glaze (1), D 4.1, L 3.2, HD 1.0
   Bibliography: OINE III, 204

3 Qustul L 5—5: Beads from chamber (intrusive burial noted); OIM E23650A–B
   A-Group
   OIM E23650A
   1. Microcrystalline limestone, short cuboid, cream (1), Th 14.0 × 12.4, L 6.6, HD 6.8
   OIM E23650B
   2. Steatite, short cuboid, black (1), Th 14.0 × 12.8, L 4.8, HD 6.8
   Bibliography: OINE III, 228

4 Qustul L 8—3a–b: Beads from shaft near blocking (intrusive burial recorded); OIM E23548B–C, E
   Late A-Group (Naqada III)
   OIM E23548B
   1. Carnelian, short barrel, drilled from both ends, red (2), D 4.0; 5.2, L 2.2; 2.8, HD 2.3–1.1–2.3
   OIM E23548C
   2. Lamvis sp. shell, cut, barrel, whitish (1), D 9.5, L 8.2, HD 3.0
   OIM E23548E
   3. Nassa shell, body whorl perforated, whitish (1 broken), L 9.2 × 6.4
   Bibliography: OINE III, 236, fig. 87b
Qustul L 11—8a–b, 11a–f: Beads from fill of chamber (no body recorded); OIM E23720
Late A-Group (Naqada III)
1. Garnet, perforated from both ends, short barrel/truncated bicone, purple (104), D 2.4–4.9, L 1.1–2.2, HD 1.8–1.0–1.8
2. Carnelian, perforated from both ends, short barrel, red (6), D 5.3–6.0, L 2.6–2.9, HD 2.0–1.3–2.0
3. Carnelian, drilled from both ends, bilobate, light red to colorless (2), Th 10.2 × 6.9, L 4.7; 5.0, HD 3.3–1.2–3.3
4. Carnelian, drilled from both ends, long pear-shaped, light red to colorless (9), D 6.6–9.1, L 16.1–26.4, HD 2.8–3.3—double parallel
5. Carnelian, very long bicone, light red to colorless (2), D 8.6; 8.7, L 23.3; 23.8, HD 3.9—double parallel
6. Chalcedony, drilled from both ends, long teardrop pendant, transparent (4), Th 4.3–7.1, W 5.8–8.0, H 16.2–19.7, HD 2.9–0.8–2.9
7. Carnelian, drilled from both ends, very long barrel, red (1), D 3.0, L 9.0, HD 1.1–2.4
8. Gold sheet, very long bicone (2), D ca. 10.0, L ca. 25.0 (B 1375A; Cairo jde 89995)—non vidi

Bibliography: OINE III, 269, 272, fig. 111c, pls. 56a, c, e, l, r, 110c
6  Qustul L 13—3: Beads (no body recorded); OIM E31188
   Late A-Group (Naqada III)
   *Lambis truncata* shell, barrel, whitish (2), D 7.7; 8.8, L 4.1; 5.3, HD 2.9
   Bibliography: OINE III, 291

7  Qustul L 15—25: Bag-shaped pendant from body of A or B? (A—mature female, B—mature male); OIM E23664
   Late A-Group (Naqada III)
   Chalcedony, drilled from both ends, bag-shaped pendant, orange/translucent (1),
   Th 8.1 × 7.4, H 11.6, HD 1.8–1.0–1.8
   Bibliography: OINE III, 299–303, fig. 129c, pl. 56f
8

Qustra L 17—2: Shells possibly from a girdle (no body recorded);
OIM E23672B
Late A-Group (Naqada III)
Polinices sp. shells, perforated just below apex, whitish (22—many broken),
Th 7.6–14.5, W 11.2–21.0, L 14.0–23.7, HD 2.2–4.7
Bibliography: OINE III, 304, pl. 55e
9
Qustul L 17—10–11a: Shell bead necklace and stone beads; OIM E23663, OIM E23663A–D
Late A-Group (Naqada III)
OIM E23663
1. Lambis truncata shell, short and standard barrel (40), D 12.0–18.4, L 6.3–17.8, HD 3.9–4.3—double parallel, some hourglass
9 (continued)
OIM E23663A
2. Garnet, short barrel and truncated bicone (ca. 268), D 3.1–4.4, L 1.4–2.2, HD ca. 1.5–1.0–1.5—hourglass
3. Carnelian, long barrel, red (4), D 5.3–6.0, L 7.7–8.3, HD 2.4–1.0–2.4—hourglass
4. Carnelian, bag-shaped long pendant with tapered base (1), Th 6.6 × 7.3, H 28.3, HD 2.7–ca. 1.0–2.7—hourglass; head: 6.3 × 7.6
5. Carnelian, short barrel, truncated bicone, cylinder, yellow to red (ca. 169), D 3.4–4.5, L 1.8–1.9, HD 2.1–1.0–2.1—hourglass
6. Rock crystal, teardrop pendants (3), Th 8.7 × 9.3–9.5–9.9, H 12.0–12.6, HD 3.1–1.0–3.1—hourglass
9 (continued)
OIM E23663C
7. Carnelian, drilled from both ends, short barrel and cylinder, light red (282). D 2.9–4.5, L 1.1–1.8, HD 0.6–0.8
8. Carnelian, drilled from both ends, long barrel, light red (2), D 4.9, L 7.2, HD 2.3
9. Carnelian, drilled from both ends, pendant with globular body and double-segmented neck, red (1), Th 12.2 × 12.0, H 16.9, HD 2.6
9 (continued)
OIM E23663D

10. Carnelian, short barrel (274), D 3.7–4.5, L 1.7–1.9, HD 1.8–1.1–1.8—hourglass
11. Garnet, short barrel (46), D 3.8–4.3, L 1.9–2.2, HD 1.4–1.0–1.4—hourglass
12. Carnelian, long barrel (2), D 6.0; 6.1, L 8.4; 9.5, HD 2.4–ca. 1.0–2.4—hourglass
13. Carnelian, long barrel/bicone (2), D 6.7, L 12.0; 12.2, HD 2.9–ca. 1.0–2.9—double parallel
14. Carnelian, long bag-shaped pendant with tapered base (1), body: Th 9.9 × 10.1, H 27.9, HD 2.8–ca. 1.2–2.8—hourglass; head: D 9.6 × 9.8
15. Carnelian, pendant with globular body and double-segmented neck, (2), Th 11.7; 12.0, H 16.4; 17.0, HD 2.4–1.0–2.4

Bibliography: OINE III, 304–6, fig. 133e, pls. 56d, g–j, q, 57a, e, 58b
9 (continued)
Quastul L 17—11b: Gold fly and beads B 1314/Cairo *JdE* 89993—*non vidi*
Late A-Group (Naqada III)
1. Gold fly (1), Th ca. 4.0 × 6.0
2. Gold sheet, folded, long cylinder/barrel (56), D ca. 1.5, L ca. 3.5—assessment based on published photo in *OINE* III, pl. 110 and photos by B. B. Williams (courtesy of the Egyptian Museum in Cairo)

Bibliography: Seele 1974, 33; *OINE* III, 306, pl. 110a, b
11
Qustul L 17—14g, 28: Pile of shell ornaments "near the pelvis of the body as girdle or belt"; OIM E23718, OIM E23718A–B, E, OIM E24155A–P
Late A-Group (Naqada III)
OIM E23718
1. *Polinices* sp. shell, white (1), Th 16.0, W 23.5, L 29.3, HD 3.9
2. *Lambis truncata* shell beads, short barrel, white (13), D 8.6–14.2, L 3.4–9.6, HD 3.0–5.4
3. Marine mollusk shell pendant, long, axe-shaped with nine grooves (1), Th 6.3, W 12.7, H 57.2
4. *Polinices* sp. shell, white (25), Th 5.9–15.2, W 8.4–22.6, L 9.4–31.4, HD ca. 2.7—body whorl perforated
5. *Cypraea annulus* shell, perforated (2), Th 10.7, W 15.8, L 21.7, HD ca. 4.0
6. *Cypraea annulus* shell, dorsal part removed (1), Th 6.6, W 15.6, L 23.1, HD 16.3 × 10.8
7. Marine mollusk shell, round plaques (4), D 16.0–17.7, H 4.3, HD 2.0
8. *Nassa* sp. shell, sliced (2)
9. Marine mollusk shell, trapezoid fragment, drilled from one end (1), Th 2.6, H 25.5, W 16.4, HD 3.7–1.0
10. *Nassa* sp. shell, body whorl cut (1, broken), Th 8.4, W 10.0, L 12.4, HD ca. 3.7
11. *Conus taeniatus* shell, apex removed (1), Th 8.5, W 9.9, L 13.0, HD 2.2
12. *Oliva* shell (2), Th 12.1; 16.2, W 15.9; 21.0, L 30.4; 34.4, HD 3.7; 2.9
13. *Fusinus* sp. shell (1), Th 22.8, W 27.0, L 44.4, HD 3.5
14. *Conomurex fasciatus* shell (1), Th 13.9, W 18.5, L 30.6, HD 6.5 × 3.5

11 (continued)

OIM E23718A–B

11.12–15
11 (continued)
OIM E23718E

11 (continued)
OIM E23718E
17. *Lambis truncata* shell, barrel and short cylinder (8), D 6.7–13.6, L 3.3–9.8, HD ca. 2.1
18. Carnelian, drilled from both ends, barrel, red (1), D 12.0, L 7.3, HD 7.2–1.8–7.2—hourglass
19. Carnelian, disc cylinder, red (1), D 3.6, L 1.8, HD 1.5–0.9–1.5—hourglass
11 (continued)
OIM E24155A
20. Marine mollusk shell fragment pendant, perforated from both ends (1), W 17.8, L 34.0, Th 4.2, HD 4.9–2.9 (4.370 g) OIM E24155B
21. Marine mollusk shell fragment pendant, perforated from both ends (1), W 33.0, L 51.6, Th 5.0, HD 4.2–2.0–4.2 (12.341 g) OIM E24155C
22. Marine mollusk shell fragments, perforated from both ends (1), W 51.0, L 55.0, Th 8.4, HD 7.4–2.8 (22.733 g) OIM E24155D–O
23. Marine mollusk shell fragments, perforated from both ends (12), W 19.2–41.2, L 35.5–56.5, Th 1.3–5.0, HD 5.7–2.5 OIM E24155P
24. Conus sp. shell, cone perforated, second perforation at spire accidental (1), D 12.3, L 19.7, HD 1.7
Bibliography: OINE III, 306, fig. 134m, n, pl. 55a, b, c
Qustul L 19—19a–c: Beads and pendants from fill of chamber; OIM E31205
Late A-Group (Naqada III)
1. Polinices sp. shell, perforation on the last whorl of the spire, whitish (1), Th 10.7, L 15.3 × 19.5, HD 4.2 × 3.0
2. Carnelian, drilled from both ends, very long pear-shaped, red/orange (1), D 8.3 × 8.5, L 23.8, HD 2.5—double parallel
3. Carnelian, drilled from both ends, short barrel, orange (1), D 5.9, L 3.4, HD 2.5–1.2–2.5
4. Carnelian, drilled from both ends, very long barrel, red (1), D 6.8, L 15.2, HD 2.7

Bibliography: OINE III, 313–14, fig. 141c, e

Qustul L 19—11: Beads from fill of chamber (no body recorded); OIM E31564
Late A-Group (Naqada III)
1. Carnelian, drilled from both ends, very long pear-shaped, red/orange (1), D 8.3 × 8.5, L 23.8, HD 2.5—double parallel
2. Shell—non vidi

Bibliography: OINE III, 313–14
14
Qustul L 19 or L 11(?): OIM E31565A, D, E A-Group, Late A-Group (Naqada III)
OIM E31565A
1. Bone, very long tubular whitish (1), D 6.6, L 16.3, HD 3.5
OIM E31565E
2. Faience, tabular, traces of glaze(?) (1), D 10.8 × 5.3, L 7.3, HD 0.9
3. Steatite, short ring, whitish core, traces of blue glaze (0.5), D 7.8, L 4.4, HD 1.3
4. *Lambis* sp. shell, barrel, white (0.5), D 11.1, L 10.5, HD 2.3
OIM E31565D
5. Bone, very long cylinder, brown (1), D 12.0 × 10.5, L 31.6, HD 2.9
Bibliography: —

15*
Qustul L 22—3: Shell and beads at blocking in trench (adult, possibly male), sample—non vidi
A-Group, Late A-Group (Naqada III)
1. Shell beads
2. Shell
Bibliography: OINE III, 334

16
Qustul L 22—16a–g: Beads and pendants at blocking in trench (adult, possibly male); OIM E31360
A-Group, Late A-Group (Naqada III)
1. *Strombus faciatus* shell, body whorl cut (3—broken, eroded), Th 21.2 × 15.0, L 34.1, HD 5.5 × 3.7—perforation might be accidental
2. Pebble, drilled from both ends, irregular pendant (1—fragment), Th 5.5, W 13.1, HD 2.1–1.1–2.1
3. Carnelian, drilled from both ends, long pear-shaped, orange/red (2), D 6.7; 7.0, L 10.8; 11.7, HD 2.3; 2.5
4. Carnelian, perforated from both ends, short barrel, red (1), D 4.8, L 2.2, HD 1.7–1.0–1.7
5. Garnet, perforated from both ends, short barrel, purple (1), D 4.3, L 2.4, HD 2.2–1.0–2.2
16 (continued)
6. Clay, very long cylinder, red core (1), D 2.8, L 14.5, HD 0.7
7. Clay, long barrel, red core (1), D 5.0, L 6.3, HD 1.0
8. Faience, oblate, whitish core, traces of greenish glaze (6), D 4.0–6.4, L 2.9–3.6, HD 0.9
9. Faience, short cylinder, whitish core (1—broken), D 6.4, L 3.4, HD 0.9
Bibliography: OINE III, 334, fig. 154g

17
Qustul L 23–31a–c: Beads from fill of chamber (no body recorded); OIM E30433
A-Group, Late A-Group (Naqada III)
1. Rock crystal, drilled from both ends, short barrel, transparent (2), D 4.1; 4.5, L 1.7; 1.8, HD 1.7–0.9–1.7
2. Gold sheet, long barrel (1 and fragments), D ca. 5.0, L 9.0—B 1375b (Cairo JdE 89995)—crushed gold cylinder or bicone—non vidi
Bibliography: OINE III, 344, fig. 160h, pl. 110d
18

Quastul L 24–8a–k, 20, 29: Beads from fill of chamber (no body recorded); OIM E23730A–D, N–P, S–T
A-Group, Late A-Group (Naqada III)
OIM E23730A
1. Garnet, perforated from both ends, short barrel, purple (91), D 3.0–3.9, L 1.5–2.0, HD 1.5–0.8–1.5
2. Rock crystal, drilled from both ends, short barrel, transparent (2), D 4.4; 4.3, L 2.0; 1.8, HD 1.8–0.8–1.8
3. Faience, long cylinder white core and glaze (17), D 3.2–3.7, L 4.5–6.6, HD 0.8
4. Faience, short cylinder, white core and glaze (3—one broken), D 3.3–3.4, L 2.4, HD 1.3
18 (continued)
OIM E23730B
5. Faience, short barrel, white core, traces of greenish glaze (69), D ca. 4.0–4.7, L 2.8, HD 0.7
6. Faience, pear-shaped, white core and glaze (2), D 5.2, L 5.5, HD 1.7
7. Faience, long cylinder, white core and glaze (39), D 2.9–3.8, L 4.1–6.7, HD 0.9
8. Faience, long barrel, white core and glaze (20), D 3.7–4.5, L 4.8–5.9, HD 1.0
9. Faience, short cylinder, brownish core, traces of reddish to black glaze (103), D 4.3, L 1.8–3.2, HD 1.3
10. Faience, long barrel, brownish core, traces of brown glaze (7), D 3.7–4.1, L 5.0–6.4, HD 1.1
11. Faience, long cylinder, brownish core, traces of brown glaze (12), D 2.9–3.2, L 4.3–6.5, HD 0.7
12. Faience, short cylinder, brownish core, traces of brown glaze (1), D 3.4, L 1.5, HD 1.3
18 (continued)
OIM E23730C

13. Carnelian, perforated from both ends, short barrel, red/orange to white (295), D 3.0–5.9, L 1.2–3.6, HD ca. 2.0–1.0–2.0

14. Carnelian, drilled from both ends, long barrel/pear-shaped, red/orange to white (8), D 5.0–7.7, L 7.5–13.5, HD 1.5–2.4—double parallel

15. Carnelian, drilled from both ends, long bicone, red/orange to white (1), D 7.5, L 13.5, HD 1.5–2.4—double parallel

16. Agate/carnelian, drilled from both ends, very long cylinder, orange to white (1), D 6.8, L 33.5, HD 3.3—double parallel
BEADS FROM EXCAVATIONS

17. Carnelian, perforated from both ends, short barrel, orange to white (1), D 4.9, L 2.9, HD 1.8–0.8–1.8
18. Faience, pear-shaped, white core and glaze (1), D 5.2, L 5.0, HD 1.5
19. Faience, hexagonal short cylinder, white core and glaze (5), D 6.4, L 4.2, HD 1.7
20. Faience, oblate, white core, traces of greenish and bluish glaze (3), D 4.8–5.3, L 3.1–3.8, HD 1.0
21. Faience, oblate, reddish core and glaze (3), D 4.6–5.3, L 2.7–3.5, HD 1.0
22. Faience, short cylinder, blackish core and glaze (2), D 4.1–4.4, L 3.3, HD 1.0
23. Faience, short cylinder, whitish core, traces of blue glaze (2), D 3.3–3.8, L 2.2, HD 1.1

Tooth fragments
OIM E23730N
24a. Carnelian cobble chip (1)
OIM E23730O
24b. Carnelian, worked fragment, orange (1—broken), Th 9.6 × 15.8 × 3.6
OIM E23730P
25. Carnelian, long cylinder, red (1—broken), D 6.9, L 12.5 (preserved), HD 2.7—double parallel
18 (continued)
OIM E23730S
26. Faience, ring, blue (2—fragments),
   D 3.4; 3.8, L 1.6, HD 0.9
27. Faience, short cylinder, white
   (1—fragment), D ca. 3.6, L 2.5, HD —
   OIM E23730T
28. Faience, standard cylinder,
   brownish (1), D 4.0, L 3.3, HD 1.1
29. Glass, drawn, opaque yellow
   fragment—Meroitic object
   Bibliography: OINE III, 357–58,
   fig. 171c, 1, pls. 56b, k, m–p, s–v, 58a,
   67b–d, f, g

19
Qustul L 24—20: Beads from fill of
   chamber; OIM E31550A–E
A-Group, Late A-Group (Naqada III)
OIM E31550A
1. Faience, oblate, whitish and grayish
   cores, traces of green and blue glaze (251),
   D 4.1–5.7, L 2.4–3.9, HD 1.0–1.1
   OIM E31550B
2. Faience, short and standard oblate,
   brownish core, brownish/blackish glaze
   (52), D 2.9–4.6, L 1.5–2.9, HD 1.0–1.3
3. Garnet, perforated from both ends,
   short barrel, dark purple (1), D 3.4, L 1.9,
   HD 1.7–0.9–1.7
4. Faience, disc to standard cylinder, whitish cores, traces of green glaze (733), D 3.2–4.2, L 1.7–4.0, HD 1.0
OIM E31550C
5. Dozens of tiny whitish faience fragments
OIM E31550D (continuation of cat. no. 18, OIM 23730)
6. Agate/carnelian, drilled from both ends, short barrel, whitish orange, orange, dark red (4), D 4.6–5.6,
 L 2.1–2.6, HD 2.1–1.0–2.1
7. Faience, standard and long cylinder, white core and glaze (12), D 2.5–3.5, L 1.8–5.7, HD 0.9
8. Faience, pear-shaped, white core and glaze (4),
 D 4.9–5.4, L 5.6–5.8, HD 1.2
9. Faience, long bicone, brownish and white core and glaze with whitish cover (2), D 3.9; 4.3, L 5.9; 6.6
10. Faience, long cylinder, brown core and glaze (4),
 D 3.0–4.0, L 3.8–5.0, HD 0.8
11. Faience, short cylinder, white core, traces of greenish glaze (1), D 3.9, L 1.9, HD 1.1
12. Faience, short cylinder, white core, traces of bluish glaze (2—fragments), D 2.9, L 1.4
13. Faience, oblate, grayish (1), D 4.3, L 2.9, HD 1.0
Bibliography: OINE III, 359
20
Qustul L 24—50: Bead from fill of chamber; OIM E23731
A-Group, Late A-Group (Naqada III)
Gold sheet, very long cylinder (1), D 6.8, L 32.7, HD 5.3
Bibliography: OINE III, 363, pl. 58c

21
Qustul L 29(?): Bead; OIM E31560
A-Group, Early A-Group
1. Carnelian, perforated from both ends, short barrel, red (1), D 5.0, L 2.9, HD 2.2–1.4–2.2
2. Carnelian, drilled from both ends, long barrel, red (1), D 4.5, L 5.7, HD 1.3—double parallel
Bibliography: —

22
Qustul L 33—1, 4: Bead from fill of chamber (animal, bovine bone); OIM E30431C
A-Group, Late A-Group (Naqada III)
Carnelian, drilled from both ends, long barrel/bicone, red (1), D 6.9, L 15.5, HD 2.2
Bibliography: OINE III, 386, fig. 189d

23
Qustul S 1—1: Pendants from A-Group deposit pit; OIM E21380
A-Group, Late A-Group (Naqada III)
1. Carnelian/chalcedony, drilled from both ends, teardrop, orange to transparent (2), Th 10.1 × 8.7, L 13.5, HD 4.8–1.0–5.2
2. Carnelian, drilled from both ends, bag-shaped, light red (1), Th 11.5 × 11.3, L 16.2, HD 2.1–1.0–2.1
Bibliography: OINE IV, 38, table 14; 99
24
Qustul W 11—23: Bead in shaft (no body recorded); OIM E23867
A-Group, Transition to Late A-Group
Quartz, short barrel, white (59), D 7.3–8.8, L 3.0–4.4, HD 3.1–2.4
Bibliography: OINE IV, 38, table 14; 63, fig. 27h, pl. 37m

25
Qustul W 19—9: Beads from shaft (adult female); OIM E23501
A-Group, Late A-Group (Naqada III)
1. Carnelian, perforated from both ends, short barrel, light red (24), D 3.2–4.7, L 1.4–2.8, HD 1.9–2.0–1.9
2. Garnet, perforated from both ends, short barrel, purple (322), D 3.0–4.0, L 1.7–2.3, HD 1.7–0.9–1.7
3. Faience, short barrel, light green (45), D 4.4–5.2, L 3.5, HD 1.5
4. Faience, disc cylinder, blue and green (9), D 3.6, L 1.4, HD 1.3
Bibliography: OINE IV, 38, table 14; 70, fig. 34d, pls. 37k–l, 37o, 41e
26
Quastul W 20–1: Beads from shaft (infant, less than one year old); OIM E23860
"Possibly A-Group," here dated to the New Kingdom
1. Faience, disc cylinder, whitish core, traces of glaze (117), D 2.9–3.4, L 0.6–1.0, HD 1.2
2. Faience, disc cylinder, blue glaze (6), D 2.3–4.3, L 0.6–1.2, HD 1.0–2.4
Bibliography: OINE IV, 38, table 14; 73, pl. 41a
Qustul W 22–2: Beads from shaft (probably a child); OIM E23863
A-Group, Late A-Group (Naqada IIC–D)
1. Quartz, short barrel, white (1), D 9.0, L 6.8, HD 4.6
2. Agate, perforated from both ends, disc barrel, translucent red to dark red (2), D 9.3; 10.3, L 4.3, HD 4.1–2.1–4.1
3. Agate, perforated from both ends, disc barrel, salmon with red bands (36), D 6.1–10.0, L 1.8–3.5, HD 2.2–1.0–2.2
4. Black-spotted greenish to brownish stone (fine conglomerate), perforated from both ends, disc barrel (5), D 7.1–8.7, L 2.7–4.4, HD 2.9–1.7–2.9
5. Brown/reddish stone, perforated from both ends, disc barrel (1), D 7.8, L 2.9, HD 3.0–1.6–3.0
6. Chalcedony, perforated from both ends, flat teardrop, transparent (1), H 9.9, Th 4.0, HD 2.5–1.5–2.5
7. Steatite, lenticular teardrop (1), D 9.7 × 7.3, L 2.3, HD 2.1–1.0–2.1
8. Black stone, short barrel, cylinder perforation (3), D 6.4–7.2, L 2.6–2.9, HD 3.0
9. Faience, short cylinder and short bicone, four and five petalled, crenelated, white core, blue glaze (12), D 7.3–11.2, L 3.4–4.1, HD 1.8
10. Faience, oblate, white core, blue glaze (2), D 7.7; 8.5, L 6.2; 5.8, HD 1.8
Bibliography: OINE IV, 38, table 14; 74, fig. 37d, pl. 41b
28 Qustul W 29–1: Beads from shaft (three- to six-year-old child); OIM E23859
A-Group
Faience, ring and short barrel, light blue/light green (504), D 3.0–5.4, L 1.4–2.3, HD 0.9
Bibliography: OINE IV, 38, table 14; 79, pl. 41d

29 Qustul V 59 (Q2081): Beads (no body recorded); OIM E21834
A-Group
1. Quartz, short barrel, white (1), D 10.7, L 4.7, HD 3.2
2. Quartz, short cylinder (1), D 3.2, L 2.1, HD 1.3
3. Carnelian, perforated from both ends, short cylinder, red (3), D 3.7–4.1, L 1.8–2.2, HD 2.4–1.3–2.4
4. Carnelian, perforated from both ends, short barrel, red (19), D 3.3–4.7, L 1.3–2.0, HD 1.0–1.2
5. Garnet, perforated from both ends, short barrel, purple (11), D 2.9–4.6, L 1.5, HD 1.1
6. Faience, short barrel, traces of green glaze (2), D 4.7, L 2.9; 3.1, HD 1.0
Bibliography: —
30
Qustul V 67—1: Cowrie shell from shaft (no A-Group body or bodies); OIM E21886
A-Group, Late A-Group (Naqada III), later reused
Cypraea annulus shell, body with dorsal part abraded, whitish (4), W 15.3–18.1, Th 6.0–7.6, L 22.5–26.4, HD ca. 12.2 × 16.9–13.7 × 18.9
Bibliography: OINE IV, 38, table 14; 93, fig. 53e–h

31
Qustul V 67—5: Cowrie shell from shaft; OIM E21887
A-Group, Late A-Group (Naqada III), later reused
Cypraea annulus shell, dorsal part removed, white (5.5), W 16.0–18.1, L 21.2–25.1, Th 6.4, HD 11.2 × 16.1–14.8 × 21.0
Bibliography: OINE IV, 38, table 14; 93

32^*
Serra East B 88—1: Beads (adult); OIM E19741
A-Group
1. Faience, short cylinder, blue-green glaze (16), D 3.1–4.1, L 1.3–2.4, HD 1.5
2. Faience, disc cylinder, blue-green glaze (3), D 7.3, L 1.9–3.0, HD 1.5
Bibliography: OINE X, 5, 8

33**
Serra East B 94—1: Shells (adult)—non vidi
A-Group
"Two pierced Nerita shells" (2)
Bibliography: OINE X, 9
34^* Serra East B 100A—5: Pendant (adult); OIM E19747
A-Group
Carnelian, perforated from both ends, dark red (1), D 16.2 × 17.0, L 7.6, HD 5.8–1.5–5.8
Bibliography: OINE X, 5, 11, fig. 3b

35^ Serra East B 107B—10: Anklet found with body B, on left ankle (B—adult, wrapped in reed matting and leather); OIM E19758
A-Group
Bone, very long tubular, cream (3—2 in fragments), D 14.3 × 11.3; 18.6 × 16.0; 16.8, L 45.6; 63.4; 37.9,
HD 9.0 × 12.0; 14.4 × 11.6
Bibliography: OINE X, 5, 15, fig. 10

36^* Serra East B 107B—11: Bead fragment; OIM E19758—non vidi
A-Group
Ostrich eggshell, square with bored hole
Bibliography: OINE X, 5, 15

37^ Serra East B 108—3: Bead (adult); OIM E35624
A-Group
Faience, barrel, turquoise (1), D 5.1, L 3.4, HD 1.4
Bibliography: OINE X, 5, 15
38^ Serra East B 123—2, 1–S–181B: Beads (adult); OIM E19770
A-Group
1. Carnelian, perforated from both ends, disc barrel (1), D 3.0, L 0.8, HD 0.7
2. Faience, disc and short barrel, blue glaze (17), D 2.3–3.6, L 1.2–1.9, HD 1.0
3. Faience, disc and short barrel, brownish core, black glaze (40), D 2.1–2.9, L 0.9–1.4, HD 1.2
4. Faience, long cylinder, whitish core, traces of blue glaze (1), D 3.2, L 7.7, HD 1.3
Bibliography: OINE X, 5, 20

39^ Serra East B 128A–5: Bracelet of bone cylinder beads; shell pendant; "two pierced Nerita shells" (adult; wrapped in leather and matting); OIM E19776
A-Group
1. Shell (freshwater) pendant, triangular, whitish (1), Th 2.6, L 22.0 × 31.0, HD 1.3
2. Bone, standard and long barrel, slightly flattened, cream (8, and 2 in fragments), D 6.1–8.5, L 5.4–20.1, HD 5.4 × 4.8
3. "Two pierced Nerita shells"—non vidi
Bibliography: OINE X, 5, 20, fig. 12b
**Early/Nubian Period Cultures**

40
Adindan T 35–3: Bead (adult female); OIM E30363
Post-A-Group
Faience, short cylinder, blue (1), D 5.6 × 5.1, L 2.4, HD 0.9
Bibliography: OINE IV, 128, fig. 70b

41
Adindan T 75–2: Beads from shaft (A—mature female, B—6.5- to 7.5-year-old child); OIM E30359
Middle/Late A-Group (Naqada IIIA–C)
Faience, globular, green glaze (2), D 7.4; 7.9, L 5.6, HD 1.6
Bibliography: OINE IV, 38, table 14; 113, fig. 67d, pl. 37i

42
Adindan T 113—4: Sample—non vidi
Early/Middle A-Group (Naqada IIIC–D)
Bibliography: OINE IV, 38, table 14; 113

43
Adindan T 243—1: Beads from shaft (6.5- to 7.5-year-old child); OIM E30361
A-Group or possibly later, C-Group
Faience, short cylinder, blue-green (15), D 2.3, L 1.2, HD 1.1
Preserved fragments of original stringing
Bibliography: OINE IV, 38, table 14; 116, fig. 69d, pl. 37i
Adindan T 247—1a–c: Beads from shaft (6.5-year-old child); OIM E30362
Middle A-Group
1. Diorite, drilled from both ends, irregular short bicone, black and white (1), D 11.36 × 12.66, L 5.1, HD 3.7–0.9–3.7
2. Faience, short barrel, green glaze (3), D 3.9, L 2.1, HD 2.1
3. Faience, barrel, traces of light green glaze (1), D 4.8, L 3.6, HD 1.3
Bibliography: OINE IV, 117

Adindan T 155—10a–c: Bead bracelet in three loops around right arm (adult female); OIM E23380
Post-A-Group
1. Ostrich eggshell, disc and short cylinder (276), D 3.1–6.2, L 0.9–2.0, HD ca. 1.2
2. Faience, disc bicone/barrel, blue/green (21), D 4.0, L 1.7, HD 0.9
3. Faience, short and standard cylinder, grayish (4), D 4.1, L 3.2–4.0, HD 0.7
Bibliography: OINE IV, 128, fig. 71k, pl. 52a
Adindan T 155–11a–e: Necklace of beads (adult female); OIM E23381

Post-A-Group
1. Ostrich eggshell, disc cylinder (91), D 3.6–6.5, L 0.8–1.8, HD 1.5
2. Faience, very long tubular, blue/green (1—broken), D 4.8, L 18.7, HD 1.8
3. Faience short barrel, black (36), D 5.4–6.2, L 2.9–4.6, HD 1.4
4. Faience, standard cylinder, grayish (22), D 3.7–4.4, L 2.5–4.1, HD 1.3
5. Faience, long cylinder, black (1—broken in two), D 4.2, L 8.0; 12.8, HD 1.3
6. Faience, disc barrel, blue/green (19), D 3.8, L 1.5, HD 1.2
7. Faience, barrel, black (1), D 4.0, L 3.3, HD 0.9

Bibliography: OINE IV, 128–29, fig. 71m, pl. 52c
Adindan T 155–12a–b: Anklet of beads on left leg (adult female); OIM E23382
Post-A-Group
1. Ostrich eggshell, disc and short cylinder (196), D 3.5–6.6, L 1.2–1.8, HD 1.2–1.3
2. Faience, disc barrel, blue (3), D 3.9, L 1.1–1.5, HD 1.0
Bibliography: OINE IV, 128–31, fig. 71o, pl. 52b
Adindan T 155–13a: Anklet of beads in three loops on right leg (adult female); OIM E23384
Post-A-Group
Ostrich eggshell, disc cylinder (242), D 4.3–6.6, L 1.1–2.0, HD 1.5
Bibliography: OINE IV, 128–29, fig. 71l, pl. 52e
Adindan T 155–14a–b: Bracelet of beads in three loops around left arm (adult female); OIM E23383
Post-A-Group
1. Ostrich eggshell, short cylinder (183), D 3.4–4.6, L 1.4–1.9, HD 0.8—hourglass
2. Faience, short barrel, dark gray core, traces of blue-green glaze (1), D 8.8, L 3.5, HD 1.2
Bibliography: OINE IV, 128–31, fig. 71n, pl. 52d
Middle Nubian Period Cultures

After a four- to five-hundred-year break, Nubian cultures flourished again in the territory between the First and Second Cataracts (ca. 2500–1500 BC). While the Kerma culture is the largest and most notable of all the Middle Nubian period groups and its sites are numerous between the Second and Fourth Cataracts, it is the C-Group and Pan Grave cemeteries that prevailed in territory neighboring Egypt (i.e., Lower Nubia) and in Egypt itself. At the dawn of the Egyptian Old Kingdom, the goods available south of Egypt—including livestock, leather, slaves, mineral resources, and exotic products—were reasons for Egyptian expeditions by land and water. At the end of the third millennium, Egypt conquered Lower Nubia and built a chain of fortresses in the region. Documentary and archaeological evidence attests an exploitation of natural resources, including the “gold of Wawat” from the Wadi Allaqi and Wadi Gabgaba, and the “gold of Kush” from between the Second and Third Cataracts. After about 1750 BC, Egyptian control over Lower Nubia broke down until about 1550 BC, when Nubia was reconquered.

It happens that individuals from three cultures—C-Group, Pan Grave, and Kerma—have been found buried at the same sites. At one point in time, New Kingdom tombs in Lower Nubia were contemporary with some late C-Group tumuli. Moreover, besides many traces of the presence of Nubian mercenaries in Egypt, two C-Group cemeteries were recorded north of the First Cataract at Wadi Kubanieh, and in Upper Egypt at Hierakonpolis HK27C. The occurrence of Middle Nubian pottery at the Middle Kingdom Red Sea harbor at Mersa/Wadi Gawasis, from which seafaring expeditions to Punt were launched, suggests that people from Nubia, including those in the Eastern Desert, were involved in trade.

Although minor regional differences between Nubian bead assemblages in Egypt and Lower Nubia can be discerned, in general the Middle Nubian cultures preserved their own styles while gathering inspiration from diverse influences. Such influences came from Egypt to the north (including the Mediterranean sphere), from Kerma to the south, and from cultures inhabiting both Nubian deserts. These deserts, rich in organics, minerals, and metals, provided the materials used in the manufacture of beads.

In the Oriental Institute Nubian Expedition (OINE) assemblages, the Middle Nubian period comprises objects from tombs assigned to the C-Group (50–73, 75–110, 112–173, 176–229) and to the C-Group or Pan Grave (74#, 111#, 130#, 174#, 175#) traditions. Catalog numbers of objects found in the contexts ascribed to “C-Group or Pan Grave” are marked here and elsewhere with a hashtag (#). C-Group tombs of N-Type (230–255) and P-Type (256–265) are treated separately (in sections 3.1.2 and 3.1.3), for they stand out from other C-Group types but are still part of the cultural environment of the age. Adornments from clearly defined Pan Grave (266–293), Kerma (294), and Middle

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192 Gratien 1986; Lacovara 1987; Lacovara 1997; Emberling 2012.
193 Bietak 1968; Säve-Söderbergh 1989a, 1989b; OINE X; Friedman 2004; Friedman 2007.
194 Bietak 1966; Gatto 2014.
195 Bard and Fattovich 2011.
197 E.g., O’Connor 2015.
199 Friedman 2001.
200 Bard and Fattovich 2011, 127.
201 Dr. Renée F. Friedman (personal communication).
Kingdom tombs (295–296) are also discussed below (in sections 3.2, 3.3, and 3.4, respectively).

3.1. THE C-GROUP BEAD STORY

The use of ostrich eggshell in bead manufacture was common in Lower Nubia during the Middle Nubian period. Lozenge-shaped plaque pendants cut from ostrich eggshell became a diagnostic C-Group type (51.1, 205.1), and the diamond motif became a characteristic element of Nubian style. While C-Group anklets were made mainly of ostrich eggshell beads, the Kerma anklets were made of faience. Ostrich eggshell became a diagnostic C-Group type (51.1, 205.1) and the diamond motif became a characteristic element of Nubian style. While C-Group anklets were made mainly of ostrich eggshell beads, the Kerma anklets were made of faience. Ostrich eggshell discs or short cylinders were commonly found at C-Group and Kerma sites, but they definitely dominated the Pan Grave assemblages. Remarkably, the unrestricted access to neighboring deserts can be measured by the large quantities of ostrich eggshell beads in Middle Nubian repertoires. They may also reflect the engagement of Nubians in mining activities in the deserts. According to inscriptions dating to Mentuhotep IV (Eleventh Dynasty), Egyptian expeditions brought all the people of Wawat and Ta-Seti (Nubia) to establish the amethyst mines in the Wadi el-Hudi, in the Eastern Desert. Recently, a Middle Nubian presence, including Pan Grave people, has been archaeologically documented in this mining area. With the abandonment of Buhen, the presence of amethyst mining and diorite quarries at Gebel Al-Asr in the Western Desert, and the arrival of the C-Group in the region, the Egyptian territorial domination of Lower Nubia changed to one of interaction through intensive trade, secured by sporadic Egyptian military campaigns.

Although millet in India is said to come from Africa, and although a cranium and two bronze figures found at contemporary Harappan period sites have been identified as possibly Nubian females, potential Indus Valley imports—such as very long, biconical, carnelian, and turquoise beads in a Fourth Dynasty necklace, as well as in a bracelet made of diverse materials and a necklace with amulets, both dated to the Sixth Dynasty. Later they appear in necklaces found in Second Intermediate Period contexts at Buhen and in Second Intermediate Period to early New Kingdom contexts at el-Asasif, Thebes. Folded metal beads were used in the stone and metal bracelets and necklaces of the princesses Kahun and Neferuptah during the reigns of Amenemhat II and Amenemhat III, as well as in those of Princess Sathathor during the reign of Senuseret III. In the Thirteenth Dynasty, they can be observed in a collar necklace belonging to Princess Nubhotep. Together

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202 Emery and Kirwan 1935, fig. 486:40; Säve-Söderbergh 1989a, fig. 40-A. third from left; Säve-Söderbergh 1989b, pl. 47-G, m; MAN 1980.91.519a—Argin 6–B–26, T 131 (personal observation).

203 Cf. below.

204 Cf. below on C-Group beadwork.

205 Reisner 1923, 97, for anklets from Kerma.

206 Liszka 2014.

207 Lebedev 2018, 44.

208 Kennedy and Possehl 2012.

with lapis lazuli, carnelian, and turquoise beads, they were threaded on gold wires in an Eighteenth Dynasty bracelet from the burial of Queen Ahhotep, mother of Ahmose, the king who recaptured the Second Cataract forts.\footnote{220} Collars and girdles of metal rings made of folded strips,\footnote{221} also found as loose elements,\footnote{222} have been assigned, more or less securely, to the burials of the foreign wives of Thutmose III.

In Lower Nubia and in Nubian-affiliated burials in Egypt, simple, short to long metal rings were found threaded into nearly identical necklaces for adult female individuals (66, 178). Gold rings (178, 182.1–2) were strung tightly on a thick cord, thus forming a flexible torque, found around the neck of Muyet, a five-year-old girl who was a royal lady of Mentuhotep II and who was buried with the "King's Favorite Ornaments" at Deir el-Bahri just before 2000 bc.\footnote{223} Among the other funerary remains were her necklaces of silver beads\footnote{224} (58.4) and carnelian disc beads, the latter of which were very common in Middle Nubian beadwork (198).\footnote{225} Interestingly, both Mentuhotep II and his ornaments have been considered Nubian.\footnote{226} A collar of gold disc cylinders was found in a late Seventeenth Dynasty female burial in Dra' Abu el-Naga, Qurna.\footnote{227} The gold and other items buried with this woman have also been linked to Nubia.\footnote{228}

Among a few types of amulets, the electrum ibis and the faience wrestlers represent the earliest phase of the C-Group in Lower Nubia. The ibis amulet belongs to the most outstanding metal objects (209) in terms of craft, and the subject, style, and technique can be traced in a gold parallel from Naga el-Deir at the end of the Old Kingdom.\footnote{229} Similar specimens were also found at other Egyptian sites—for example, in a Sixth Dynasty tomb at Balat in the Western Desert oasis of Dakhla\footnote{230} and in Ninth and Eighth Dynasty contexts at Mostagedda,\footnote{231} Matmar,\footnote{232} and Qau.\footnote{233} Gold amulets made with the same technique but in the shape of a hare and a standing dog were dated to the Sixth Dynasty.\footnote{234}

Other figurative faience pendants represent wrestlers (212). Wrestling enjoyed prominence in ancient Nubia and Egypt, and some wrestlers in wall scenes have been identified as Nubians due to their darker skin color.\footnote{235} Another wrestler pendant was found at Aniba.\footnote{236} Amulet figures, also called twins\footnote{237} or lovers,\footnote{238} are similar to ones found in Egyptian graves dating to the Sixth Dynasty.\footnote{239}

Small blue and black faience beads dominated C-Group bead assemblages. They were the most common materials used in C-Group leather beadwork. While the large ivory and gold fly pendant was a symbol of high rank in Kerma culture,\footnote{240} multiple geometric lozenge and zigzag patterns executed with tiny faience, ostrich eggshell, and carnelian beads on leather became a sign of the Middle Nubian cultures in Nubia and Egypt. Moreover, diamond and zigzag motifs characterize C-Group incised pottery,\footnote{241} Nubian-inspired Egyptian pottery,\footnote{242} etched or incised leatherwork,\footnote{243} and the abovementioned leather beadwork.\footnote{244} Lozenges appear within figures incised on C-Group pottery; and women's skirts on the incised pottery were covered with squares as well as vertical or horizontal stripes.\footnote{245} Such motifs are also discerned in ritual art and tattoos. Zigzag and diamond patterns are impressed and incised as tattoo decorations on C-Group clay female figurines,\footnote{246} while zigzag tattoos along the

\begin{itemize}
  \item[231] Brunton 1937, pl. 57, tomb 1873; tombs 542, 563, 1913, gold; tomb 637, electrum (= Andrews 1981, cat. no. 331, copper).
  \item[232] Brunton 1948, 47, nos. 70, 92, pl. 32, gold leaf that has been left smooth (= Rigault 1999, 480–81, cat. no. 201).
  \item[233] Brunton 1928, 12, pl. 97, 47.
  \item[235] Carroll 1988; Pemler 2014, 447, and references therein.
  \item[236] Steindorff 1935, pl. 75:17.
  \item[237] Brunton 1928, pl. 99:74G2, Fifth Dynasty; Brunton 1937, pl. 56:3T6 (10019), Sixth Dynasty.
  \item[238] Dubiel 2008, pls. 1:type 1ce, 18:15.
  \item[239] Brunton 1937, pl. 56:3T6 (10019), Sixth Dynasty.
  \item[240] Cf. the chapter on the New Kingdom.
  \item[241] Steindorff 1935, pls. 33–50.
  \item[242] Rzeusa 2010.
  \item[244] Steindorff 1935, pls. 24–25 (N 234—child’s grave, N 487); cf. an example in a P-Type tomb (259) below.
  \item[245] Emery and Kirwan 1935, pl. 186:16.
  \item[246] OINE V, pls. 102C, 103A–B; Steindorff 1935, pls. 71–72.
\end{itemize}
rib cage of an older woman and tattoos on the hands and pelvis area were recorded in one Hierakonpolis C-Group burial. The early excavators regularly reported that the tattoos on the human remains resembled the patterns found on figurines from C-Group graves.

Interestingly, geometric motifs had a long tradition in Egyptian art and craft. They are also associated with Nubians. Lozenge and zigzag patterns can be traced back in Egyptian art as early as the time of Narmer, and the ruler on the Narmer Palette wears a diamond-patterned belt. A beaded gold belt was found in the tomb of Prince Ptahshepses, “son of the king” (a king who is not identified). The belt was found between the bandages of the mummy in a sarcophagus in the valley temple of Unas in Saqqara and probably dates to the Sixth Dynasty (2323–2152 BC). It is composed of a thin band of gold onto which carnelian and other beads in many colors were fixed to form a geometric pattern of diamonds and triangles. Faience beads form black diamonds on a belt with a green background that was part of a garment of Senebtisi and found in his Lisht tomb, dating to the Thirteenth Dynasty.

A colorful lozenge pattern also appears on a painted wooden statue of an offering bearer. The inscription on the base referred to him as “the Black.” It was found in the tomb of a high dignitary, Niankhpepi, from the reign of Pepy I (2289–2255 BC). The bearer holds a container painted in a lozenge pattern. While the Nubian character of the painted offering bearer seems to be unquestionable in view of his black coloration, the affiliation of diamond-patterned beaded belts and baskets or containers remains an open question.

A few painted wooden statues of Nubian women come from Eleventh Dynasty Theban tombs. The figures wear kilts decorated with zigzag patterns in the belt zone (fig. 6) or with a pattern of squares that fills

247 Hierakonpolis 27, tomb 9; Steffensen 2007; Friedman 2004.
248 Tassie 2003, 89–90, and references therein.
249 E.g., Steffensen 2007.
250 Bongioanni and Croce 2003, 344.
251 Oppenheim et al. 2015, cat. no. 177.
252 Williams 1976.
253 Bongioanni and Croce 2003, 57.
all of what was most probably a leather kilt (fig. 7). A bowl from Aswan displays a hunter with a bow, and he too wears a skirt decorated with a lozenge pattern. Painted wooden figures of Nubian archers came from the Eleventh Dynasty tomb of Prince Mesehti at Asyut (ca. 2135–1994 BC) (fig. 8). They wear cream and red kilts with a central flap or sash, most probably made of leather. Some red kilts were decorated with black-bordered green and blue lozenges. The belts or waistbands and red sashes were fastened on both red and white kilts. While the waistbands were finished with many blue, white, and red stripes, red sashes were decorated with lozenges. Blue-painted necklaces and anklets, most probably representing strings of faience beads, can be discerned on the figures of the first and last rows of the archers.

Geometric motifs are characteristic features of late Old Kingdom and Middle Kingdom paddle dolls, female faience figurines, some female representations in wall paintings, and the traces of tattoos on bodies from tombs. All have been associated with dancers of Hathor. For example, red, black, and cream quadrangular or triangular designs in the waist, and sometimes breast, zone decorate some of the wooden paddle figurines of females found in the Middle Kingdom tombs at Thebes (end of the Eleventh Dynasty, ca. 2050–1991 BC). Dated to the Twelfth Dynasty, faience female fecondity figures, considered to be Egyptian, have skirts decorated with brown-painted lozenge patterns. The most famous tattooed bodies from Egypt are the Eleventh Dynasty Deir el-Bahari mummies of the King’s Favorite Ornaments, mentioned above, and the mummies of so-called Hathoric dancers with lozenge-patterned tattoos. One of the King’s Favorite Ornaments wore a necklace of metal rings, and together with the other royal Ornaments of Mentuhotep II, she is considered to be Nubian, as mentioned above. Similarly, female faience figurines found in Egypt have on their legs a painted tattoo of lozenges. The occurrence of geometric bodily decoration in Nubia and at the Theban court may be associated with women who performed in rites at the Hathor temple and, more specifically, with Nubian dancers.

The lozenge and zigzag patterns survived in the diverse representation of Nubian enemies in New Kingdom art. In the New Kingdom tomb of Rekhmire, hounds from Nubia are depicted, and, surprisingly, a female dog wears a collar decorated with cream and red squares. In the decorative elements of Tutankhamun’s tomb, Nubians wear colorful kilts and necklaces in the triumphal scene painted on the wooden chest, as do bound Nubian captives on the gilded interior of Tutankhamun’s chariot. New Kingdom wall paintings and faience tiles from the royal palace of Ramesses II at Medinet Habu show Nubian captives with kilts and sashes decorated with zigzag and colorful lozenge patterns. Nubians are dressed in the same way in the scene of Amenhotep III and Queen Tiye enthroned in

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255 Met 26.3.232—Thebes, Deir el-Bahri, tomb MMA 511, Eleventh Dynasty, ca. 2050–1981 BC.
256 Steindorff 1935, pls. 71–72 (= Pemler 2014, 444, pl. 1; Oppenheim et al. 2015, cat. no. 108).
257 E.g., Bongioanni and Croce 2003, 458–59 (= Oppenheim et al. 2015, fig. 77).
258 Cf. examples in the chapter on the Pan Grave culture.
259 Morris 2011, figs. 3–10.
260 Ibid.; Bongioanni and Croce 2003, 520; Met 31.3.51a, b; Met 15.10.90; Met 31.3.37a, b; Met 27.3.52a; Met 31.3.43; BM E6459.
261 Friedman 1998, 104, 203, cat. no. 64—Twelfth Dynasty.
262 Tassie 2003, 90–91.
263 Morris 2011, 77, n. 46. The title “Royal Ornament” was attested for all the women except Muyet, who was only three to five years old.
264 Grajetzki 2013, 24—late Middle Kingdom (= JE 47710); Paris, Musée du Louvre E 10942.
265 Morris 2011, 81.
266 Met 27.3.82—Thebes, ca. 1479–1425 BC.
268 Ibid., 272–73.
269 JE 28922.
a kiosk in the Theban tomb of Anen. Nubians in wall paintings in the tombs of Seti I and Ramesses III are belted with red sashes or flaps decorated with lozenges.

Last but not least, in the painted relief on the east wall of the hypostyle hall of the temple of Thutmose III at Deir el-Bahri, a boat is decorated with a scene of a Nubian enemy who wears a fly pendant. Oarsmen on another boat have kilts decorated in a lozenge pattern of C-Group style (fig. 9).

3.1.1. CORPUS OF OINE C-GROUP BEADS AND PENDANTS

Sites and Chronology

C-Group burial sites in the Oriental Institute excavations included cemeteries T, U, and K at Adindan (cat. nos. 50–183) and cemetery B at Serra East (cat. nos. 184–229). They are arranged according to the tomb numbers given by the excavators.

A detailed chronology of Middle Nubian tombs given according to OINE V and X and other works is presented in table 5. In the Oriental Institute Museum (OIM) collection, there are no bead adornments recorded from graves contemporary with the Egyptian Second Intermediate Period and Classic Kerma period (1700–1600 BC). Beads appeared again in burials dated to the Eighteenth Dynasty (1550–1291 BC).

Materials and Techniques

The shapes of beads and pendants from Adindan are illustrated in figures 10–11, and those from Serra East are shown in figure 12. An overview of bead and pendant types is given in table 6.

Materials and tools for beadmaking and beadwork found in C-Group contexts included ostrich eggshell fragments and flint and quartz tools, respectively.

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270 Wilkinson 1983 (= Met 33.8.8, facsimile).
271 Lepsius 1849–56, pl. 136ab, as in KV 17 tomb of Seti I chamber F.
272 Tomb KV 11.
273 Dolińska 2014, fig. 4A; cf. the discussion in the chapter on the New Kingdom.
274 Säve-Söderbergh 1989a, 7.
275 OINE X, 106, fig. 57a.
Table 5. Dating of C-Group objects according to OINE V and X

<table>
<thead>
<tr>
<th>Phase</th>
<th>Dating</th>
<th>Catalog number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IB</td>
<td>ca. 2000–1900 BC, late Eleventh and early Twelfth Dynasties</td>
<td>93, 109, 196, 199, 203, 217</td>
</tr>
<tr>
<td>IB/IIA</td>
<td>This phase was created for tombs demonstrating burial customs consistent with an IB or IIA date</td>
<td>56, 84, 96–97, 99, 103–105, 108–109, 115, 117–119, 122, 128, 137, 145, 147(?), 155, 156(?)</td>
</tr>
<tr>
<td>Early IIA</td>
<td>ca. 1850 BC, mid-Twelfth Dynasty</td>
<td>52, 127, 160</td>
</tr>
<tr>
<td>Late IIA</td>
<td>ca. 1750 BC, Thirteenth Dynasty</td>
<td>63, 86, 121, 135</td>
</tr>
<tr>
<td>Late IIA/B</td>
<td></td>
<td>65–66</td>
</tr>
<tr>
<td>IIA or Late III</td>
<td></td>
<td>91</td>
</tr>
<tr>
<td>IIB</td>
<td>ca. 1700–1600 BC, Second Intermediate Period</td>
<td>No bead adornments were found in tombs assigned to this phase</td>
</tr>
</tbody>
</table>

276 119 is a Meroitic object.
Figure 10. Beads and pendants: a (130.1), b (168.7), c (269), d (51.1).
Scales: (a–c) 2:1, (d) 1:1 (adapted from OINE V, pl. 115)

Figure 11. Beads and pendants: a (97.3), b (89.7), c–d (105), e (267.4), f (89.2), g (267.1), h (74), i (267.2), j (182.2), k (66.1). Scales: (a–d, i–j) 1:1, (e–h, k) 2:1 (adapted from OINE V, pl. 116)
Marine Mollusk Shell

*Cypraea annulus* shells have their dorsal parts removed (59, 126.3–4).\(^{277}\) Both *Nerita* (188, 195.1, 224.1)\(^{278}\) and *Polinices* sp. (135, 138.1–2)\(^{279}\) shells have perforation on the last whorl of the spire, as can also be observed in those from Early Kerma graves.\(^{280}\) A *Conus* sp. shell has the apex removed and a worked area around the opening of the hole (148.1).\(^{281}\) A mollusk shell plaque broken at its perforation was probably a pendant fragment (210.1).

\(^{277}\) Steindorff 1935, pl. 29d.

\(^{278}\) Ibid., pl. 27d; MAN 1980/91/305.8 (ANX F–T.41, Argin W)—although this example might be Pan Grave in date, it was ascribed to the C-Group culture (Almagro, Presedo, and Pellicer 1963); for fourteen exceptional *Nerita* shells in silver mounts, found with a woman in the Middle Kingdom (nineteenth century bc) tomb 142 at Harageh, see Bianchi 2013, 26, fig. 3.

\(^{279}\) For a *Polinices* shell, called a *Natica* shell, in a Mostagedda Pan Grave tomb, see Brunton 1937, 126 (= Andrews 1981, cat. nos. 636, 668, 673–74); for a few *mamma* shells (= *Polinices*) at Kerma, see Reisner 1923, 319; Chaix 1982, 68, fig. 5.

\(^{280}\) Dunham 1982, pls. 18a, 41c.

\(^{281}\) Junker 1919, 184; Junker 1920, 88; Junker 1925, pl. III.100.

Nacre is also known as mother-of-pearl and is derived from the inner layer of mollusk shells. It was most probably nacre of a *Pinctada* sp. shell that was shaped into a crescent plaque pendant (70). Other nacre pendants were made from (mostly broken) keyhole-shaped lobed hair slides (167, 173), the hair slide being a well-known C-Group adornment.\(^{282}\) Similarly to their ovoid equivalents from Kerma,\(^ {283}\) C-Group lobed hair rings come from archaeological contexts dated to phases IIA and IIA/B (ca. 1850–1700 bc).

\(^{282}\) Steindorff 1935, pl. 32:20–23; Reisner 1910, pl. 70.b.8, 15; Firth 1912, pl. 39.b.2; Säve-Söderbergh 1989b, pl. 48.1.a–c; for a drawing of a hair ornament, see Steindorff 1935, 63, fig. 14; OIM E19581.

\(^{283}\) Ferrero 2004, made of mother-of-pearl. Kerma ovoid hair slides were not worn during the Classic Kerma period; see Welsby 2001, cat. nos. 293, 295, for perforated ovoid hair slides.
Table 6. Overview of types from C-Group graves

<table>
<thead>
<tr>
<th>Material</th>
<th>Bead (B) or pendant (P)</th>
<th>Length and shape</th>
<th>Size</th>
<th>Color(s)</th>
<th>Catalog number(s)</th>
<th>Figure number</th>
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<tr>
<td>Marine mollusk shell</td>
<td>P?</td>
<td><em>Cypraea annulus</em> dorsal part removed</td>
<td></td>
<td></td>
<td>59, 126.3–4</td>
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</tr>
<tr>
<td></td>
<td>P</td>
<td><em>Nerita</em> sp.</td>
<td></td>
<td></td>
<td>188.1, 195.1, 224.1</td>
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<tr>
<td></td>
<td></td>
<td><em>Polinices</em> sp.</td>
<td></td>
<td></td>
<td>135, 138.1–2</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td><em>Conus</em> sp. apex removed</td>
<td></td>
<td></td>
<td>148.1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Plaque fragment</td>
<td></td>
<td></td>
<td>210.1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>Short barrel of <em>Conus</em> sp.</td>
<td></td>
<td></td>
<td>57.1</td>
<td></td>
</tr>
<tr>
<td>Nacre</td>
<td>P</td>
<td>Crescent plaque</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Perforated keyhole-shaped</td>
<td></td>
<td></td>
<td>167, 173</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>lobed hair slides/ornaments</td>
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<td></td>
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<tr>
<td>Ostrich eggshell</td>
<td>B</td>
<td>Disc and short cylinder</td>
<td>E.g., 50.1–2, 52.1, 53.1, 4</td>
<td></td>
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<td></td>
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<tr>
<td></td>
<td></td>
<td>Angular disc</td>
<td></td>
<td></td>
<td>211.1–2</td>
<td>Fig. 12k–l</td>
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<tr>
<td></td>
<td></td>
<td>Lozenge-shaped plaque</td>
<td></td>
<td></td>
<td>51.1, 205.1</td>
<td>Fig. 10d</td>
</tr>
<tr>
<td>Bone</td>
<td>B</td>
<td>Short cylinder</td>
<td></td>
<td></td>
<td>117.2</td>
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<tr>
<td></td>
<td></td>
<td>Long tube</td>
<td>White</td>
<td></td>
<td>75, 81, 117.1, 3</td>
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<tr>
<td></td>
<td></td>
<td>Long tube with angular section</td>
<td>Brown</td>
<td></td>
<td>99, 105</td>
<td>Fig. 11c–d</td>
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<tr>
<td>Carnelian</td>
<td>B</td>
<td>Disc and short barrel, truncated bicone, and cylinder</td>
<td>Very small</td>
<td></td>
<td>121.2, 131.1, 156.2, 176.2, 177.3, 12, 193.2, 213.1</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Small</td>
<td></td>
<td>56.1, 58.1–2, 71.2, 84.1, 88.1, 94.1, 96.2, 97.1–2, 103, 107.6, 118.2, 125.1, 127.1, 131.2, 148.6, 168.1–2, 189.1, 193.1, 195.2, 198.1, 200.3, 203.1, 214.2</td>
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<td></td>
<td></td>
<td></td>
<td>Large</td>
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<td>83.1, 90.2, 192.2, 194.1, 210.3</td>
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<tr>
<td></td>
<td></td>
<td>Long barrel</td>
<td></td>
<td></td>
<td>89.2, 168.3</td>
<td>Fig. 11f</td>
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<tr>
<td></td>
<td></td>
<td>Globular</td>
<td></td>
<td></td>
<td>218</td>
<td>Fig. 12a</td>
</tr>
<tr>
<td></td>
<td>P</td>
<td>Teardrop with truncated top and tapered base</td>
<td></td>
<td></td>
<td>71.1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bag-shaped pendant with flattened neck and rounded base</td>
<td></td>
<td></td>
<td>57.5</td>
<td></td>
</tr>
<tr>
<td>Garnet</td>
<td>B</td>
<td>Standard barrel</td>
<td></td>
<td></td>
<td>58.3</td>
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Table 6. Overview of types from C-Group graves (continued)

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<tr>
<th>Material</th>
<th>Bead (B) or pendant (P)</th>
<th>Length and shape</th>
<th>Size</th>
<th>Color(s)</th>
<th>Catalog number(s)</th>
<th>Figure number</th>
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<tr>
<td>Diorite B</td>
<td>Disc and short barrel and short cylinder</td>
<td>Tiny</td>
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<td></td>
<td>65.6, 80.1, 94.2, 102.2, 107.5, 118.1, 121.3, 132.1, 133.1, 176.3, 200.2, 205.2, 207, 208, 214.1, 215.2, 217.2, 220.2, 224.4</td>
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<tr>
<td></td>
<td></td>
<td>Short oblate</td>
<td>Small</td>
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<td>57.3, 107.2–4</td>
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<td></td>
<td></td>
<td>Large</td>
<td></td>
<td></td>
<td>93, 104.1</td>
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<tr>
<td>Gold B</td>
<td>Disc and short cylinder/ring</td>
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<td></td>
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<td>121.5, 182.2, 205.3, 213.2</td>
<td>Fig. 11j</td>
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<tr>
<td>Silver B</td>
<td>Disc and short cylinder/ring</td>
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<td></td>
<td>66.1, 178, 182.1</td>
<td>Fig. 11k</td>
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<tr>
<td>Copper B</td>
<td>Disc and short cylinder/ring</td>
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<td>154.1, 200.4</td>
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<tr>
<td>Other metal B</td>
<td>Disc and short cylinder/ring</td>
<td>Long barrel</td>
<td></td>
<td></td>
<td>58.4, 68.3, 164.5</td>
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<td></td>
<td></td>
<td>69.2, 98.2</td>
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<tr>
<td>Electrum P</td>
<td>Ibis</td>
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<td></td>
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<td>209</td>
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<td>Metal over ceramic core B</td>
<td>Long bicone</td>
<td></td>
<td></td>
<td></td>
<td>66.2, 129.4</td>
<td></td>
</tr>
<tr>
<td>Silver over ceramic core B</td>
<td>Long barrel</td>
<td></td>
<td></td>
<td></td>
<td>53.3, 54.4, 71.3</td>
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<tr>
<td></td>
<td></td>
<td>Long bicone</td>
<td></td>
<td></td>
<td>74#</td>
<td>Fig. 11h</td>
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<tr>
<td>Glazed steatite B</td>
<td>Long barrel</td>
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<td></td>
<td></td>
<td>57.4, 168.4</td>
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<tr>
<td></td>
<td>Unidentified amulet</td>
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<td></td>
<td></td>
<td>71.4</td>
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<tr>
<td>Faience B</td>
<td>Irregular disc and short cylinder</td>
<td>White core and blue and green glaze</td>
<td>Small</td>
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<td>50.3, 52.2, 53.5, 55.2, 65.1, 7, 76, 77.2, 86.1, 88.3, 89.3, 90.4, 102.4, 104.2, 109, 112.1, 113, 114, 117.4, 118.3, 120.2, 121.4, 129.1, 13</td>
<td>Fig. 11a, b</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Large</td>
<td></td>
<td>51.3, 53.2, 8, 55.2, 56.2, 62.2, 85.2, 90.3</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Long cylinder</td>
<td>Blue</td>
<td></td>
<td>89.7, 97.3</td>
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</table>
Ostrich Eggshell

Ostrich eggshell beads were not found in phase IB tombs at cemeteries T, K, and U and occurred rarely in phase IIA, but they became common in Late IIA and extremely common in phase III. They were drilled from both ends. In contrast to Pan Grave ostrich eggshell beads, they are characterized by large hole openings with an hourglass, and often an almost parallel, shape. In most cases they were roughly shaped. Their sides were smoothed, probably while strung, resulting in a uniform or graduated shape and diameter.

For functional reasons, ostrich eggshell beads in the shape of short cylinders were associated with leather garments, while larger disc cylinders were simply threaded, as can be observed in the example from the grave of a senile female at Adindan (53.1, 53.6).

The three general types of these beads are distinguished according to shape. Disc cylinders measure about 4.0–5.4 mm in diameter and 1.5 mm in length (e.g., 50.1, 52.1, 53.1); smaller disc and short cylinders measure 3–4 mm in diameter and 1–2 mm in length (50.2, 53.4). Lozenge-shaped plaque pendants were simply cut from ostrich eggshell and their edges smoothed (51.1, 205.1).

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**Table 6. Overview of types from C-Group graves (continued)**

<table>
<thead>
<tr>
<th>Material</th>
<th>Bead (B) or pendant (P)</th>
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<th>Size</th>
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<th>Catalog number(s)</th>
<th>Figure number</th>
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<tr>
<td>Ring/oblate</td>
<td>Thick</td>
<td>E.g., 51.2, 52.3, 53.7, 60.1–2, 62.1, 63, 65.2, 67.3, 68.2, 4, 69.3, 76, 78, 80.2, 82.3, 83.2, 84.2, 85.3, 87, 88.4, 89.4, 6, 90.4, 91.2–3, 94.3–4, 97.4, 98.3–4, 106, 107.7, 110, 111.2#, 112.2, 114, 115, 116, 120.1, 122.2, 124, 125.2, 128.3–4, 6, 141</td>
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<tr>
<td>Disc barrel</td>
<td>112.1, 192.3, 196.3</td>
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<td></td>
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<tr>
<td>Short barrel</td>
<td>89.3</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Standard barrel</td>
<td>Red</td>
<td>86.2</td>
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<tr>
<td>Long bicone</td>
<td>220.5</td>
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<td>Spherical</td>
<td>Blue</td>
<td>82.2, 130.2#, 176.8, 195.3</td>
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<tr>
<td>Simplified crocodile</td>
<td>130.1# Fig. 10a</td>
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<tr>
<td>Melon</td>
<td>71.7</td>
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<td>Astragal</td>
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<td>Wedjat</td>
<td>71.6</td>
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<tr>
<td>P Wrestlers</td>
<td>212</td>
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<tr>
<td>B Unidentified amulet</td>
<td>168.7 Fig. 10b</td>
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<td>Glass</td>
<td>B Oblate and spherical</td>
<td>Blue-green</td>
<td>163</td>
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<td></td>
<td>Yellow</td>
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<td></td>
<td>Purple</td>
<td>163</td>
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</table>

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284 OINE V, 8.

285 Emery and Kirwan 1935, fig. 486:40; Säve-Söderbergh 1989a, fig. 40.A, third from left; Säve-Söderbergh 1989b, pl. 47.G.m; MAN 1980.91.519a—Argin 6–B–26, T 131.
Bone

Beads in this category were made of white bone or brown finger bones. Short cylinder (117.2) and long tubular beads (75, 81, 117.1, 3) were made of white bone.286 Brown animal finger bones appear as long tubular beads (99, 105).287

A brown bone bead, much smaller in diameter and angular in section, appears to be made of a bird’s bone (200.1).288

Stone

While fragments of diverse material debris and tools that may have been used in beadmaking were found at many C-Group habitation sites,289 the local production of stone beads in the C-Group is more firmly supported by stoneworking sites on the west bank near Ballana.290 They contained C-Group sherds in addition to quartz and carnelian points. The drills were made of bladelets that were modified into tapered cylindrical drills. These tools were used for the softer stones and short beads made from harder stones.291 A beadmaker’s tool kit with a small carnelian borer and bone beads was also found at a C-Group settlement on the west bank at Faras.292

Truncated disc beads, standard barrels, and bicones were drilled from both ends with tapered drills, resulting in a perforation with an hourglass shape, known already from A-Group and Naqada assemblages. As in the A-Group, the ends of the beads were unpolished, but the beads’ sides were polished, perhaps after the beads were strung. Such beads are common in both Kerma and other C-Group assemblages. They are also found in contemporary Egypt. Interestingly, bronze drill points and a stick of emery were found at Kerma and were undoubtedly used for bead production.293

In one case, a larger carnelian standard barrel bead bears traces of saw marks next to one of the hole openings (187.1). Its perforation has a double parallel shape and strongly recalls the technique of perforation used for stone beads from the Meroitic period.294

Carnelian

In contrast to the perfectly polished short barrel beads in the A-Group period, C-Group red beads were made from the more translucent carnelian and agate. Truncated disc and standard beads had their sides shaped into barrels, bicones, and cylinders, and the shapes of their sides probably depended on the angle at which they were polished while strung together.295 According to diameter, the following groups can be distinguished: very small (D 2.1–3.0) (121.2, 131.1, 156.2, 176.2, 177.3, 12, 193.2, 213.1), small (D 3.2–5.8) (56.1, 58.1–2, 71.2, 84.1, 88.1, 96.2, 97.1–2, 103, 107.6, 118.2, 125.1, 127.1, 131.2, 148.6, 166.1–2, 189.1, 193.1, 195.2, 198.1, 200.3, 203.1, 214.2),296 and large (D 6.7–8.0) (83.1, 90.2, 192.2, 194.1, 210.3). The very small and small beads were often found used in leather beadwork. The other forms are long barrels (89.2, 168.3) and globular beads (218).297

Two shapes can be noted among pendants: a teardrop with truncated top and pointed base (71.1) and a bag-shaped pendant with flattened neck and rounded base298 (57.5).

Garnet

A single garnet standard barrel bead is large in size (ca. 7 mm in diameter [58.3]) and larger than the majority of stone beads found in C-Group contexts.299

Diorite

Diorite beads include tiny disc and short barrels and short cylinders (D 2.2–3.2) (65.6, 80.1, 94.2, 102.2, 107.5, 118.1, 121.3, 132.1, 133.1, 176.3, 200.2, 205.2, 207, 208, 214.1, 215.2, 217.2, 220.2, 224.4).300 Some of these beads were used in leather beadwork (65) but also in a necklace (133). There are also small, short barrel and oblate

286 Bonnet 1990, cat. no. 200, D 3.5, L 15—Kerma, Middle Kerma.
287 Emery and Kirwan 1935, figs. 483:10, 484:15, 18; Säve-Söderbergh 1989a, fig. 29-B.
288 JE 65299 = 10999—Aniba.
291 Kenoyer 2003, 17, fig. 3a.
292 Hafsaas 2006, 57.
293 Reisner 1923, 93.
294 Then-Obłuska 2014.
295 Firth 1912, pl. 56, no. 5; Friedman 2007.
297 Ibid., pls. 28–29, type B9—Mirgissa; Met 22.3.321—tomb of Muyet, reign of Mentuhotep II.
298 Firth 1927, pl. 22a.1, described as “gray and white stone.”
299 Vercoutter 1970, pls. 28–29, type B7—Mirgissa; MAN 1980/91/338—Argin T.89; for a wristlet made of short garnet barrel beads in tomb 46 at HK27C, Eleventh to Twelfth Dynasty, see Friedman 2007, 22.
300 Firth 1912, pl. 56, no. 6; Andrews 1981, cat. nos. 377 and 378, pl. 27, mottled pink and black syenite from Faras, cemetery 2, grave 238 (= Griffith 1921, 75); see also Steindorff 1935 (= JE 65264 = 10956).
beads in diorite (D 4.2–7.9, L 2.0–4.3) (57.3, 107.2–4), as well as large examples (D 11.8–13.2) (93, 104.1). Two elongated teardrop pendants are in the collection. One has a pointed base (148.4) and the other a rounded top (148.5).

**Stone**

Three objects probably of stone are more or less tabular with central perforations (224.1–2). A similar bead has been recorded in an N-Type tomb.

**Metal**

Small rings, in the shape of disc cylinders and short cylinders, constitute the most common form among metal beads. In the OINE collection, metal rings made of gold (121.5, 182.2, 205.3, 213.2), silver (66.1, 178, 182.1), copper (154.1, 200.4), and other types of metal (58.4, 68.3, 164.5) were found. Some objects were found in contexts dated to phases IIA (213.2, 154.1), Late IIA (121.5), or Late IIA/B (66.1), and others are dated to Early III (178, 182.1–2).

The beads’ diameter usually remains consistent across a given bead type. Disc cylinders seem to have been made by casting. The shape of the rings was made in fresh clay, for example with a thin tube, and the molten metal was cast in the hollow. These are dated to phase Early III, about 1550 BC (178, 182.1–2). Other beads may also belong to this group (66.1). Short cylinders were also made of solid metal strips that were bent around until their ends touched or overlapped (121.5, 154.1, 164.5, 200.4, 213.2).

**Metal leaf** strips were also turned up into short cylinders with slightly rounded sides and the ends abutted or overlapped (58.4, 205.3). They were found in C-Group contexts dated to phase II.

To another category belong the long barrel-shaped beads from Adindan. Two beads were made from folded metal sheet (98.2, phase IIA/B). In another case, a strip of long metal leaf was found coiled into a bead (69.2, perhaps of phase Early III).

The ibis amulet is made from electrum leaf (209); the body was cut from the metal strip and left without detail, and the legs were then added. The ibis is striding across a bracket (sacred perch) that consists of a curved metal rod. On the bird’s back are traces of a suspension loop, now broken off but probably in the form of a ring.

**Metal over Ceramic Core**

Some metal beads seem to have been made by wrapping metal sheet over a ceramic core, which was previously folded around a rod. These types of beads come from Adindan. This technique is especially discernible in the case of nine bicones from phase Late IIA/B (66.2), and the largest examples in the category are two long biconical beads of the same date (129.4). Where the metal has worn away, it is possible to see a core over which the metal sheet was hammered (D 7.1–7.4, L 11.3, HD 2.4).

Cores wrapped in silver sheet made up some small long barrels in phase Early III (D 2.8–3.4, L 3.6–4.2, HD 1.0–1.5) (53.3, 54.4, 71.3). Another type is represented by ten biconical beads of metal sheet that were much thicker than the other examples (D 4.8–5.5, L 6.4–8.3, HD 1.6) (74#). The beads consist of traces of metal wrapping that are preserved in the form of darker spots left on the ceramic cores, as seen in the beads listed above. The beads were found in phase III C-Group or Pan Grave contexts.

**Glazed Steatite**

Blue-glazed steatite beads had the form of long barrels (D 2.9–3.8, L 3.5–4.7) (57.4, 168.4) and an unidentified form of amulet (71.4).

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301 Vercoutter 1970, pls. 28–29, type B1—Mirgissa; MAN 1980.91.332—Argin, 6–B–26, T.84; Steindorff 1935, pl. O.c (JE 65252 = 10968); JE 65251 = 10969; Reisner 1923, 113, “white speckled granite” beads (D 5–9 mm) found with three individuals in tombs at Kerma.

302 Emery and Kirwan 1935, fig. 489.91; Steindorff 1935, pl. O.c; for the examples from Kerma, see Gratien 1986, fig. 40—Sai; Reinold 2000, 98–Sai, Early Kerma; Bonnet 1990, cat. no. 101—Kerma, Early Kerma; Steindorff 1935 (= JE 65250 = 10970).

303 Steindorff 1935, pl. 27a, b.

304 Cf. below cat. no. 243.3.

305 Hafsaas 2006, appendix 3 for the table with jewelry from Aniba, including metal beads.

306 Steindorff 1935, 125–92, pl. 28d–h (= JE 11003 = JE 65275/1–8); JE 10958 = 65278; JE 11005 = 65273; JE 10985 = 65292; MFA 50.30111—Aniba, object no. 255; Firth 1912, pl. 56.3 (electrum); Säve-Söderbergh 1989b, pl. 50.2.

307 Säve-Söderbergh 1989b, pl. 50.3.

308 MAN 1980.91.305.24; 1980.91.308 (ANX36).

309 MAN 1980.91.433b—Argin tomb 123; UC 38913—Rifch, Middle Kingdom; MFA 50.4091—Aniba; MFA 20.1741—Kerma, tomb K 1600C.

310 Dubiel 2008, pl. 3; for parallels, cf. nn. 229–33.

311 Junker 1920, fig. 10.77.16.h.4.
**Faience**

The most characteristic feature of C-Group beads and beadwork are the tiny faience beads. The shapes and appearance of all beads depend on the length to which the core tubes were cut, their diameter, and the core quality, firing, and glazing process. They usually measure up to 4 mm in diameter, and two subtypes can be differentiated.

The first subtype includes blue- and green-glazed beads, generally in the shape of irregular disc or short cylinders with fine white cores\(^{312}\) (50.3, 52.2, 53.5, 55.2, 65.1, 7, 76, 77.2, 86.1, 88.3, 89.3, 90.4, 102.4, 104.2, 109, 112.1, 113, 114, 117.4, 118.3, 120.2, 121.4, 129.1, 3), or black-glazed beads with brown cores\(^{313}\) that measure either about 2–3 mm in diameter (65.3, 80.3–4, 88.2, 94.5, 96.3, 102.3, 127.2, 129.2, 144) or about 4–5 mm in diameter (51.3, 53.2, 8, 55.2, 56.2, 62.2, 85.2, 90.3). Beads with a clear border between the core and glaze were glazed with an application method that kept the two clearly separated.

The second subtype includes beads usually with oblate sides and a thick layer of very glossy blue, dark blue, green, or black glaze. Their cores are almost indiscernible.\(^{314}\) They are usually of a short oblate shape and measure about 2–4 mm in diameter (51.2, 52.3, 53.7, 60.1–2, 62.1, 63, 65.2, 67.3, 68.2, 4, 69.3, 76, 78, 80.2, 82.3, 83.2, 84.2, 85.3, 87, 88.4, 89.4, 6, 90.4, 91.2–3, 94.3–4, 97.4, 98.3–4, 106, 107.7, 110, 111.2#, 112.2, 114, 115, 116, 120.1, 122.2, 124, 125.2, 128.3–4, 6, 141). The very small, glossy beads were perhaps glazed using an efflorescence method.

Both types have already been recognized from Egyptian\(^{315}\) and Kerma period graves and also in contexts from the Fourth Cataract region.\(^{316}\) Nevertheless, tiny glossy faience beads are not recorded from the Serra East C-Group assemblages, including the N-Type graves (cf. sections 3.1.2 and 3.1.3). This absence would suggest that these beads are later in Lower Nubia than in Egypt or the Fourth Cataract region, as observed with the Adindan burials.

Very regular, thin, disc barrel beads (D 3.4–5.5, L 0.7–1.1, HD 1.2–1.4) (112.1, 192.3, 196.3) are easily distinguished from the abovementioned types. The latter two examples (192.3, 196.3) were probably part of leather beadwork.

A few larger beads in the form of a red faience standard barrel (86.2), large blue globular beads (82.2, 130.2#, 176.8, 195.3),\(^{317}\) short barrels (89.3), long blue cylinders (89.7, 97.3), and long blue-glazed bicones (220.5) represent outstanding types in the undecorated faience category because of their coloration and shape.

Among the decorated faience objects is an amulet that looks like a flattened form of a *simplified crocodile* (130.1#). A parallel comes from the New Kingdom Hathor sanctuary at Mirgissa.\(^{318}\) A similarly shaped specimen was found in a C-Group grave at Abka.\(^{319}\) Other forms represented are a *melon* (71.7), *astragal* (71.5), *wedjat* (71.6), *wrestlers* (212),\(^{320}\) and an unidentified form of amulet (168.7).

**Glass**

**Wound-glass beads**

Although catalog number 163 was found in the C-Group cemetery K at Adindan, the excavation register (OIM E23070) describes it as “50–70 blue glass, bone, and carnelian beads” from tomb K 45 and assigns to it a post–New Kingdom date.\(^{321}\) The object consists of some multiple segmented black faience beads and many translucent dark blue, semitranslucent blue, and opaque yellow beads. The glass beads are made with a winding technique and measure 3.7–6.6 mm in diameter. Translucent and semitranslucent wound-glass oblate and globular beads are known from New Kingdom assemblages (324, 326), but they also recall wound-glass examples from Dorginarti and dated to the Egyptian Third Intermediate Period.\(^{322}\)

**Drawn-glass beads**

Another later example is a cut fragment of a blue drawn-glass tube (80.4), which could be medieval and therefore intrusive.

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312 Firth 1912, pl. 56, no. 9.
313 Ibid., pl. 56, no. 8.
315 E.g., MFA 13.3537—from Sheikh Farag, Egypt, SF 18.1913.
316 Then-Obłuska 2014.
**Beadwork**

**Leather Beadwork**

The most characteristic Middle Nubian beadwork in Lower Nubia consisted in thousands of faience beads, somewhat fewer ostrich eggshell beads, and sometimes red carnelian beads stitched onto leather. The leather fragments with stitched beads in the OINE collection show diverse types of beadwork. In some cases, two thongs are threaded through the hole of every bead, creating a system that appears like an alternating brick pattern. Lozenge-shaped patterns of beads are preserved in only a few cases. Bordering by a single row of ostrich eggshell beads, a lozenge pattern of blue faience beads was set into a blue faience background. Faience beads either fill the leather surface or are sewn in one row on the edge of a leather garment. Some beads, from the waist area of a garment, may have been attached to the drawstring of a skirt and are visible through openings in the leather. They could have been fastened to the edge of the leather.

Unfortunately, Middle Nubian leather beadwork is mostly preserved in the form of dispersed beads and leather fragments. These items consist in the remains of thongs for bead embroidery and broken leather pieces, and some thong fragments come from sewing beads together with a single thread. The beads are attached at their ends and arranged slightly diagonally in one or more lines. The combination of bead materials consists of faience, ostrich eggshell, and faience beads. More colorful compositions include beads made of carnelian and faience. Bone, dionite, carnelian, and faience were included in necklaces.

**Necklaces**

Necklaces were composed not only of beads made of faience, carnelian, ostrich eggshell, silver, and diorite and faience but also of carnelian, garnet, and silver. Interestingly, in contrast to other types of C-Group beadwork (leatherwork, bracelets, anklets, girdles), no ostrich eggshell beads were included in necklaces.

**Wristlets/Bracelets**

Bracelets were found composed of perforated Polinices shells; ostrich eggshell beads; a combination of Nerita shell, carnelian, and faience beads; and a combination of ostrich eggshell, silver, and faience beads.

** Anklets**

 Anklets were found composed mainly of ostrich eggshell beads along with some faience beads. In two cases, anklets were made solely of ostrich eggshell beads.

**Girdles**

Cowry shells, as well as a combination of Nerita shell, ostrich eggshell, and faience beads, were found in accessories in the location of the waist.

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324 For many types of beadwork, bead pot nets, and leather and cloth beadwork recorded at Kerma, see Reisner 1923, 94–106; for C-Group leather beadwork, see Steindorff 1935.

325 For one case of a leather skirt that preserved a beaded lozenge pattern at Kerma, see Reisner 1923, 102.

326 For two Kerma examples of a lozenge pattern of faience and shell beads on leather skirts, see Reisner 1923, 102–K 5611:A, lot (b); Emery and Kirwan 1935, 285—cemetery 195/522:2, showing a fragment of a bead belt in a child burial with ostrich eggshell and blue faience beads sewn in a diamond pattern on leather; Griffith 1921, 75, pls. 11.1, 11.c, 12.1, 14.2/54, showing a set of lozenges of white and blue borders with red and black centers and bordered by two rows of white beads on a blue background, found sewn into a girdle of the child in grave 54 at Faras; for a more sophisticated bead pattern, cf. P-Type cat. no. 259; see also Friedman 2001 for white, blue, and dark blue faience beads arranged in a lozenge pattern on a leather bag found at the Pan Grave cemetery, HK47, at Hierakonpolis.

327 Cf. the Pan Grave items, cat. nos. 268, 270, 272, 277–79, 282, 284.

328 For beaded sashes at Hierakonpolis in the C-Group cemetery of HK27C, see Friedman 2007, 21.
The Bead Owners

In many cases, individuals were anthropologically identified by age and sex. Although the overwhelming majority of beads were found dispersed in grave shafts, or beadwork was not recorded, the items can nevertheless be identified as associated with individuals of a given age and sex based on the available data.

Infants

Two exceptional bracelets made of Polinices shells belong to individuals of this age group (135, 138). Leather beadwork was found with a five- to six-year-old child and was composed of ostrich eggshell and faience beads (128). Like contemporary Kerma examples known from the Fourth Cataract region, large quantities of very small faience rings were found with infant burials (60, 114, 166). In one case, amulets were buried with an infant (71).

Juveniles

A bracelet of Nerita sp. shell, carnelian, and faience beads, along with other bead objects, was found with a juvenile of unidentified sex (195).

Females

A juvenile female was found with some leather faience beadwork (63, 129). Another female individual was adorned with a necklace made from carnelian, garnet, and silver beads (58) and with a girdle made from twenty cowrie shells (59). Twenty cowrie shells were also found in another burial of an adult female (126), and three more adult females were found with anklets of ostrich eggshell beads or ostrich eggshell and faience beads (134, 142, 179) and with necklaces variously made of silver, diorite, and faience beads (133, 140, 178). Remains of leather beadwork were found with one adult female (141) and with two others (65, 199). Anklets were made from ostrich eggshell (142) or ostrich eggshell and faience beads (91, 134, 142, 179). In two cases, necklaces were made from metal rings (66, 178). In one case, a single bracelet of ostrich eggshell was found (142).

Also, a senile female was found with an anklet (55), a bracelet (54), and leather beadwork (53). An ostrich eggshell and faience anklet was recorded with a female individual in the same age category (77).

Males

A juvenile male was found with leather beadwork in his grave. Ostrich eggshell, faience, and single-metal beads were sewn in a lozenge pattern on leather (68). Similar leather beadwork was associated with an adult (87) and a few mature males (78, 110, 177).

Summary

Leather beadwork was found with individuals of all age categories and with both males and females. Shell girdles were found with juvenile females only. Anklets belonged to adult and senile females. Interestingly, with the exception of one male individual (182), metal beads, whether short cylinders or bicones and barrels, were usually found with females (54, 58, 66, 74#, 178, 180). Faience amulets and mollusk shell bracelets were usually associated with infants. The wrestler or twin amulets constitute exceptional examples of figural amulets and were found with an adult of unspecified sex (212).

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329 Then-Obłuska 2014.
330 For a belt of gold cowries belonging to Princess Sathathor and Queen Uret, see Bongioanni and Croce 2003, 346, 352; for a stone carving of a girl with a cowrie girdle, see Andrews 1990, 173, cat. no. 156; for faience female figures with painted cowrie girdles, dated to the Middle Kingdom, see Grajetzki 2013, 24, and Paris Musée du Louvre, E 10942; for statues of women with cowrie girdles, see Andrews 1981, 94; for a wooden statue of a woman with a cowrie girdle from the Twelfth or Thirteenth Dynasty, see MFA 00.607. 
331 Bianchi 2013, 25–31, fig. 2, and references therein for Middle Kingdom necklaces and girdles made of metal cowrie shells.
332 Firth 1912, vol. 1, 179—cemetery 87, grave 106, object G 3; vol. 2, pl. 56, 3, for a necklace of gold beads buried with a female skeleton.
333 For 546 faience beads still wrapped around the wrist of the senile female in tomb 36 at Hierakonpolis HK27C, see Friedman 2007, 22.
334 Metal beads were found associated with male individuals in two anthropologically identified examples from Aniba; see Steindorff 1935, N 222, N 352; Hafsaas 2006, 150.
Adindan T 3−3a–c: Beads from shaft, uncertain location (mature male); OIM E21428 (labeled OIM E21425, which belongs instead to Q446 of X-Group date)
C-Group, phase III
1. Ostrich eggshell, drilled from one end, disc cylinder, grayish (1), D 5.4, L 1.5, HD 2.4
2. Ostrich eggshell, short cylinder, drilled from one end (23), D 3.2−3.6, L 1.1−1.9, HD 0.6−1.7
3. Faience, disc and short cylinder, blue and green (100), D 3.0, L 0.8−1.7, HD 1.0
Bibliography: OINE V, 127
51
Adindan T 4B—6a–b: Pendant and beads from shaft with burial B (no body recorded); OIM E21568B
C-Group, phase III
1. Ostrich eggshell, rhomboidal plaque pendant, yellow (1), L 18.9 × 17.9, Th 1.9, HD 1.8
2. Faience, short oblate, blue (1), D 2.4, L 1.0, HD 0.7
3. Faience, short barrel, black, some bluish or grayish traces (82), D 3.7–4.0, L 0.9–1.5, HD 1.2
Bibliography: OINE V, 128, pl. 115L

52
Adindan T 5—3: Beads from debris in shaft (mature/senile); OIM E21535
C-Group, phase Early IIA
1. Ostrich eggshell, disc cylinder (13), D 5.6–6.3, L 1.4, HD 1.3
2. Faience, short cylinder, light green/blue (3), D 3.5–4.4, L 1.7–2.1, HD 1.3
3. Faience, ring, blue (1), D 2.6, L 0.9, HD 1.0
Bibliography: OINE V, 128
Adindan T 8–1a–b, 5a–b: Lozenge-shaped pattern of beads on body and in debris in shaft (senile female);
OIM E21536
C-Group, phase Early III
From debris:
1. Ostrich eggshell, drilled from one end, disc cylinder (1), D 5.4, L 1.3, HD 3.6–1.0–3.6
2. Faience, disc cylinder, black (13), D 4.2–5.2, L 1.5–2.0, HD 1.2
3. Silver sheet over ceramic core, barrel, dark gray (2–1 broken), D 2.8, L 3.6, HD 1.0
From possible lozenge-shaped pattern:
4. Ostrich eggshell, drilled from one end, short cylinder (90), D 3.8–4.4, L 1.2–1.7, HD 1.9–1.0
5. Faience, short cylinder, blue (295), D 2.3–4.5, L 0.9–2.1, L 1.0–1.9
53 (continued)
From lozenge pattern:
6. Ostrich eggshell, short cylinder (50), D 3.9–4.2, L 1.8, HD 1.0
7. Faience, ring, blue (ca. 20), D 2.8–3.0, L 1.2–1.9, HD 1.2
8. Faience, disc cylinder, black (1), D 4.0, L 1.5, HD 1.2
Bibliography: OINE V, 129

54
Adindan T 8—2: Bracelet, small silver barrels in shaft and on body (senile female); OIM E21516
C-Group, phase Early III
1. Ostrich eggshell, drilled from one end, disc cylinder (3), D 4.2, L 1.6, HD 1.0
2. Ostrich eggshell, drilled from one end, disc cylinder (2), D 5.7, L 1.8, HD 1.5
3. Ostrich eggshell, drilled from one end, disc cylinder (1), D 7.4, L 1.8, HD 2.7
4. Silver sheet folded, standard barrel, dark gray (15), D 3.0, L 3.0–3.8, HD 1.1–1.2
5. Faience, disc cylinder, blue (56), D 2.3–2.9, L 0.7–1.1, HD 0.7–0.8
6. Faience, disc and short cylinder, green and blue (88), D 2.9–3.7, L 1.0–1.9, HD 0.7–0.9
Bibliography: OINE V, 129, pl. 117F
Adindan T 8–3a–b: Anklet in shaft and on body (senile female);
OIM E21514
C-Group, phase Early III
1. Ostrich eggshell, drilled from one end, short and disc cylinder (145),
D 3.9, L 1.2–2.2, HD 1.4–1.0
2. Faience, disc cylinder, black and blue (28), D 3.3–4.4, L 1.3–1.8,
HD 1.2
Bibliography: OINE V, 129

Adindan T 10–1a–b: Beads from shaft (no body recorded);
OIM E21534
C-Group, phase IB/IIA
1. Carnelian, drilled from both ends, short barrel, red (6), D 4.4–4.9,
L 1.9–3.0, HD 2.6–0.7–2.6
2. Faience, short cylinder, black (89),
D 3.5, L 0.9–1.7, HD 1.5
Bibliography: OINE V, 129
57
Adindan T 11—1a–g: Beads from shaft (child); OIM E21532 C-Group?
1. Conus sp. shell (1), D 5.2, L 3.2, HD 2.4
2. Ostrich eggshell, disc and short cylinder (129), D 2.9, L 1.6, HD 1.1—hourglass
3. Diorite, short barrel, white and black (1), D 5.8, L 2.4, HD 2.4–1.2–2.4—hourglass
4. Steatite, long barrel, light-blue glaze (5), D 3.3, L 3.5, HD 0.8
5. Carnelian, bag-shaped pendant, red/orange (1), Th 6.0, L 10.0, HD 1.2—traces of drilling tool next to largest hole opening
6. Faience, disc and short cylinder, dark and light blue, black (280), D 2.9, L 1.1–1.8, HD 0.8
Bibliography: OINE IV, 117

58
Adindan T 12B—1a–c: Part of necklace, beads from shaft (juvenile female, less than 15 years old); OIM E21518 C-Group, phase III
1. Carnelian, drilled from both ends, disc barrel, red (2), D 4.2, L 1.9, HD 1.9–0.9–1.9—hourglass
2. Carnelian, drilled from both ends, truncated barrel (3), D 3.8, L 2.6–3.3, HD 2.4–0.7–2.4—hourglass
3. Garnet, standard truncated barrel (1), D 6.0
4. Metal (silver?), folded, short cylinder (156), D 3.0–3.4, L 1.2–1.4, HD 2.1
Bibliography: OINE V, 130
59
Adindan T 12B—2: Girdle of 20 cowrie shells in shaft and on body (juvenile female, less than 15 years old); OIM E21509A
C-Group, phase III
Cypraea annulus shell, dorsal part removed, white (20), W 13.6–17.8, H 5.1–6.2, L 18.6 × 24.3, HD 9.6 × 13.3–17.2 × 12.6
Bibliography: OINE V, 130, pl. 118C

60
Adindan T 32—2: Beads from shaft (infant, 2–3 years old); OIM E23302A, C
C-Group, phase IIA
OIM E23302A
1. Faience, disc cylinder, blue (ca. 469), D 2.6, L 0.9, HD 0.7–1.1
OIM E23302C
2. Faience, disc cylinder, blue (27), D 2.6, L 0.7, HD 1.5
Bibliography: OINE V, 130
61
Adindan T 33—1: Beads in debris of tomb (adult female); OIM E23300
C-Group, phase III
1. Ostrich eggshell, drilled from both ends, disc and short cylinder (56), D 3.7, L 1.0–1.9, HD 2.5–1.0–2.5
2. Ostrich eggshell, drilled from both ends, disc and short cylinder (42), D 5.5, L 1.5–2.0, HD 2.9–1.5–2.1
3. Ostrich eggshell, drilled from both ends, disc and short cylinder (2), D 7.1, L 1.6, HD 1.6–1.1–1.6
Bibliography: OINE V, 130–31

62
Adindan T 39—5: Beads from shaft (adult female); OIM E23360
C-Group, phase IIA
1. Faience, ring, disc and short cylinder, blue (7), D 2.6–3.5, L 0.7–2.2, HD 0.9–1.6
2. Faience, ring, disc and short cylinder, black, a few bluish (193), D 3.2, L 0.7–1.3, HD 0.9
Bibliography: OINE V, 133
63  
Adindan T 40—7: Beads, some sewn on leather near head (juvenile female, ca. 14 years old);  
OIM E23359  
C-Group, phase Late IIA  
Faience, disc and short cylinder, ring, blue and green (544), D 2.3–3.1, L 0.6–1.9, HD 0.9  
Bibliography: OINE V, 133

64  
Adindan T 43—1: Beads from shaft (mature male);  
OIM E30088  
C-Group, phase III  
Ostrich eggshell, disc (2—sample), D 8.0; 9.7, L 1.7; 1.8,  
HD 1.5; 1.9  
Bibliography: OINE V, 134, pl. 116D
Adindan T 46–1b–d: Leather garment with beads near hips, or near body in shaft (adult female); OIM E23305A–D C-Group, phase Late IIA/B
OIM E23305A
1. Faience, short to standard cylinder, blue, dark blue, black (288), D 2.1–3.1, L 1.1–2.6, HD 1.0–1.4
OIM E23305B
2. Faience, ring, disc and short cylinder, blue (ca. 501), D 2.2–3.0, L 0.9–2.2, HD 1.0–1.1
OIM E23305C
3. Faience, short cylinder, black, dark blue (518), D 2.4–2.9, L 0.9–2.4, HD 0.8–1.3
4. Faience, short cylinder, green (24), D 2.4–3.2, L 0.7–1.8, HD 0.8–1.0
Adindan T 46—3a–b: Beads from neck (adult female); OIM E23357 C-Group, phase Late IIA/B

1. Silver, folded strip, disc cylinder (ca. 100 and many fragments), D 4.4, L 1.1, HD 3.4
2. Silver sheet over possible ceramic core, bicone (9), D 6.3–6.8, L 6.5–8.8, HD 2.0

Bibliography: OINE V, 134–35, pls. 116W, 117E, G

5 (continued)

OIM E23305D
5. Ostrich eggshell, drilled from one end, short cylinder, whitish (212), D 3.0, L 0.7–1.9, HD 1.1
6. Diorite, drilled from one end, short cylinder, white and black (1), D 2.3, L 1.0, HD 0.7
7. Faience, short cylinder, blue (211), D 2.2–3.2, L 0.8–2.1, HD 1.3

Bibliography: OINE V, 134–35
Adindan T 52—2a–c: Beads from shaft near neck (adult female?) (beads from T 52 were mixed with those from T 61); OIM E30096 C-Group, phase Early III
1. Ostrich eggshell, short cylinder (2), D 2.6, L 1.5, HD 1.0
2. Ostrich eggshell, short cylinder (1), D 4.1, L 1.6, HD 1.0
3. Faience, ring, short cylinder, blue (18), D 2.5–3.3, L 1.0–2.3, HD 0.8–1.4
Bibliography: OINE V, 136–37

Adindan T 54—1: Beads in lozenge-shaped pattern (from leather?) from shaft, at southwest end (juvenile male, ca. 17.5–18.5 years old); OIM E23200 C-Group, phase Early(?) III
1. Ostrich eggshell, disc cylinder (246), D 3.2–3.4, L 1.0–1.6, HD 0.9—elements of lozenge pattern
2. Faience, ring, blue and greenish (585), D 2.8–3.5, L 1.0–1.2, HD ca. 1.2—elements of lozenge pattern
3. Metal folded sheet, short cylinder (1), D 2.7, L 1.1, HD 2.0
4. Faience, disc and short cylinder, blue and greenish, blackish (ca. 583), D 2.4–3.0, L 1.0–2.0, HD ca. 1.1
Bibliography: OINE V, 137, pl. 106B
Adindan T 55—1a–c: Beads from shaft (no body recorded); OIM E23201
C-Group, phase Early(? ) III
1. Ostrich eggshell, disc cylinder (6), D 3.9, L 1.8, HD 1.1
2. Metal sheet, barrel, dark gray (1), D 2.8, L 3.9, HD 1.0
3. Faience, ring, blue and green (44), D 2.0–2.9, L 0.7, HD 0.8
Bibliography: OINE V, 137

Adindan T 56—1: Pendant from shaft (adult male); OIM E23203
C-Group, phase Early III
Nacre, drilled from both sides, crescent (1), Th 3.7, W 21.8, H 92.5, HD 2.5
Bibliography: OINE V, 138, pl. 115E
Adindan T 60—1a–d: Beads from shaft (infant, ca. 2 years old); OIM E23207
C-Group, phase Early III
1. Carnelian, teardrop pendant with truncated top, red (1), D 4.7 × 4.0, L 9.9, HD 2.4–0.9–2.4—hourglass
2. Carnelian, disc barrel, red (2), D 4.5; 4.6, L 2.1; 1.5, HD 1.5; 1.0—hourglass
3. Copper, barrel, dark gray (1), D 3.4, L 4.2, HD 1.5
4. Glazed steatite, blue (1), D 7.2 × 2.8, Th 3.3, HD 1.1
5. Faience amulet, blue (1), Th 2.0 × 4.8, L 8.2, HD 1.3
6. Faience, wedjat amulet, blue (1), D 5.0 × 2.9, L 5.8, HD 1.0
7. Faience, carinated barrel, blue (1), D 4.2, L 3.9, HD 1.0
Bibliography: OINE V, 138

Adindan T 61—2: Beads from shaft (mature female); OIM E30096
C-Group, phase Early(? ) III
Beads from T 52 and T 61 were mixed together (cf. cat. no. 67)
Bibliography: OINE V, 139

Adindan T 65—1: Beads, strung(?), in grave (child, ca. 4 years old); OIM E23206
C-Group, phase IIA/B
1. Ostrich eggshell, short cylinder (34), D 3.3, L 1.8, HD 0.9—some on string fragment
2. Ostrich eggshell, disc cylinder (3), D 6.2, L 1.4, HD 2.0
Bibliography: OINE V, 140
74
Adindan T 66—1: Beads from shaft (adult female); OIM E23204
C-Group, phase III or Pan Grave
Silver sheet, long biconical (10), D 4.8–5.5, L 6.4–8.3, HD 1.6
Bibliography: OINE V, 140, pl. 116S

75
Adindan T 68—3, 5: Bead and looped band of fibers serving as core of necklace in shaft (adult male); OIM E30100,
OIM E30101—band
C-Group, phase IIA
Bone, drilled from both ends, long tubular, whitish (1), D 7.9 × 7.7, L 19.9, HD 4.2
Bibliography: OINE V, 140, pl. 107A

76
Adindan T 71—1: Beads from grave (adult male); OIM E23227
C-Group, phase Early(?) III
Faience, ring, short cylinder, blue and green (46), D 2.8–3.8, L 1.3, HD 1.0
Bibliography: OINE V, 141
Adindan T 72-4a-b, 6 (6—non vidi): Bead anklet, with stringing, in shaft under legs of body (senile female); OIM E23228 (field register ascribes OIM E23228 to T 82)
C-Group, phase Early III
1. Ostrich eggshell, disc cylinder (ca. 120), D 3.1–4.1, L 0.8–1.4, HD 1.0–1.4
2. Faience, disc cylinder (32), D 3.4–4.4, L 1.2, HD 1.7
Bibliography: OINE V, 141–42, pls. 116A, 117C
Adindan T 76: From dark leather garment with stitching and beads from shaft (mature male); OIM E23062
C-Group, phase III
Faience, ring, blue (a few dozen), D 2.3, L 1.3, HD 1.1
Bibliography: OINE V, 142, pl. 106A (mistakenly noted in publication as pl. 106D)
79 (cf. cat. no. 80)
Adindan T 84—2: Bead in debris in grave (child, 6.5 years old); OIM E30111
C-Group, phase IIA
Very large bead—see cat. 80.4
Bibliography: OINE V, 144

80
Adindan T 84—4a–c: Beads from shaft (child, 6.5 years old); OIM E30111
C-Group, phase IIA
1. Diorite, short cylinder, drilled from both ends (1), D 2.6, L 1.0, HD 0.7
2. Faience, ring, short cylinder, blue (21), D 1.8–3.8, L 0.7–1.2, HD 0.6–1.1
3. Faience, short cylinder, black (7), D 2.0–3.2, L 1.1–1.2, HD 0.9–1.2
4. Glass, drawn, short cylinder, semitranslucent blue (1), D 6.8, L 5.7, HD 1.8—most probably a large medieval cane bead
Bibliography: OINE V, 144

81
Adindan T 88—4: Bead in shaft (adult); OIM E30114
C-Group, phase IIA
Bone, drilled from both ends, long barrel (1), D 9.1, L 14.4, HD 4.2
Bibliography: OINE V, 144–45
Adindan T 89—3a–c: Beads from shaft (adult male?);
OIM E30118
C-Group, phase Early(?) III
1. Ostrich eggshell, disc cylinder (1), D 4.7, L 1.6, HD 2.1
2. Faience, barrel, blue (1), D 5.7, L 4.7, HD 1.4
3. Faience, ring, disc cylinder, blue (13), D 3.8, L 1.3–1.6, HD 1.2
4. Faience, disc cylinder, blue (9), D 2.8–3.0, L 0.8–1.1, HD 1.0
Bibliography: OINE V, 145

Adindan T 93—3: Beads from shaft (adult male);
OIM E23231A–B
C-Group, phase IIA
1. Carnelian, drilled from both ends, short barrel (5), D 6.8–8.0, L 4.6–6.6, HD 3.8–1.5–3.8
83 (continued)
2. Faience, ring, disc cylinder, blue (242), D 2.2–3.2, L 0.7–1.3, HD 0.9–1.2
OIM E23231B
3. Ostrich eggshell, drilled from both ends, short cylinder (8), D 4.2–5.7, L 1.4–1.8, HD 0.8–1.1
Bibliography: OINE V, 146–47
Adindan T 98—2a–b: Beads, with stringing, in shaft (no body recorded); OIM E23233
C-Group, phase IB/IIA
1. Carnelian, drilled from both ends, short barrel, red (13), D 4.7–5.0, L 1.9, HD 0.9
2. Faience, ring, blue (54), D 2.1–3.0, L 1.0–1.3
Bibliography: OINE V, 148, pls. 116I, 117B

Adindan T 101—6a–b: Beads, with stringing, in shaft (mature female); OIM E23292A–B
C-Group, phase III
OIM E23292A
1. Ostrich eggshell, disc cylinder (43), D 3.9–5.5, HD 1.3
2. Faience, disc, black (4), D 4.4, L 0.7–1.5, HD 1.8
OIM E23292B
3. Faience, ring, disc and short cylinder, blue and green (63), D 2.3–3.0, L 0.6–1.1, HD 0.9–1.2
Bibliography: OINE V, 149
86
Adindan T 104—5a–b: Beads from shaft (adult male); OIM E23291
C-Group, phase Late IIA
1. Faience, short cylinder, blue and greenish (127), D 3.6–4.9, L 2.0–2.6, HD 1.3
2. Faience, barrel, reddish (1), D 5.2, L 5.4, HD 1.3
Bibliography: OINE V, 150

87
Adindan T 106—5: Fur with beads from shaft (adult male); OIM E30132
C-Group, phase IIA
Faience, disc ring, blue (89), D 2.4, L 0.6, HD 0.7
Bibliography: OINE V, 150

88
Adindan T 107—4a–c: Beads from shaft (juvenile female, ca. 15 years old); OIM E23234
C-Group, phase III
1. Carnelian, drilled from both ends (2), D 5.7; 4.5, L 1.6; 1.8, HD 2.4–0.8–1.7
2. Faience, short cylinder, black (164), D 2.8, L 1.1–1.3, HD 0.9
3. Faience, short cylinder, greenish/bluish (43), D 2.8, L 1.1–1.3, HD 0.9
4. Faience, ring, disc cylinder, blue (1), D 2.1, L 0.8, HD 0.8
Bibliography: OINE V, 151
89

Adindan T 115–1a–e: Beads "under head of burial" according to registration number OIM E23293 and noted as at "pelvis of burial" according to registration number P1010275; burial record sheet missing, so location of beads unknown; OIM E23295
C-Group, phase III?
OIM E23293
1. Ostrich eggshell, disc cylinder (48), D 3.8–5.0, L 1.1–1.7, HD 0.7–2.4
2. Carnelian, drilled from both ends, long barrel, red (1), D 6.9, L 12.5, HD 3.3
3. Faience, disc, blue (29), D 3.6–4.4, L 0.8–1.8, HD 1.0
89 (continued)
4. Faience, ring, blue (36), D 2.4–2.8, L 0.7, HD 0.8
5. Faience, short cylinder, green (48), D 1.8, L 0.7–1.2, HD 0.7
6. Faience, ring, short cylinder, green (1), D 2.6, L 1.7, HD 1.0
7. Faience, long cylinder, blue (1), D 10.2 × 10.8, L 18.3, HD 4.5; 6.1
   OIM E23295
8. Ostrich eggshell (849), D 4.1–5.3, L 1.3–1.8, HD 1.6–2.4
9. Faience, short cylinder, blue and green (64), D 1.8–4.3, L 0.6–1.4, HD 0.5–0.8
10. Faience, oblate (1), D 21.5, L 15.0, HD 6.4
Bibliography: OINE V, 152–53, pl. 116M, Q
90
Adindan T 117: From bottom of shaft (younger infant); OIM E23288
C-Group, phase Early III
1. Ostrich eggshell, drilled from both ends, short cylinder (24), D 4.0–4.5, L 1.3–1.4, HD 1.4
2. Carnelian, drilled from both ends, red (2), D 5.9; 6.9, L 3.7; 3.6, HD 4.1–1.0–3.7; 3.8–1.4–3.6—hourglass
3. Faience, short cylinder, black (15), D 4.6–5.4, L 1.6–3.3, HD 1.2
4. Faience, ring, short cylinder, blue and green (29), D 2.6–3.5, L 1.0–2.1, HD 0.9
Bibliography: OINE V, 153

91
Adindan T 121–1a–b: Beads, with stringing, in shaft (adult female); OIM E23285
C-Group, phase III (IIA or Late III)
1. Ostrich eggshell (100–1 in halves), D 3.4–4.0, L 1.2–1.8, HD 1.1–1.4
2. Faience, ring, blue (3), D 1.7–1.8, L 0.6–1.0, D 0.5
3. Faience, ring, blue (1), D 2.9, L 1.5, HD 0.8
Bibliography: OINE V, 154
92*  
Adindan T 122—3: Looped band of fibers that served as core for metal ring–bead necklace, bound with leather, in shaft (no body recorded); OIM E23276—*non vidi*
C-Group, phase IIA/B
Bibliography: OINE V, 93, 154, pl. 117H

93  
Adindan T 131—3: Bead in debris in shaft (mature female?); OIM E30140
C-Group, phase IB
Diorite, drilled from both ends, white and black (1), D 12.6, L 5.2, HD 7.0–3.0–7.0
Bibliography: OINE V, 155–56

94  
Adindan T 134—6a–c, 7: Beads in debris in shaft (probably adult male); OIM E23356 (T 134–7 is Cairo *JdE* 89990, B 1002, 64 gold rings in fiber core)
C-Group, phase IIA
1. Carnelian, drilled from both ends, disc barrel, red (116), D 4.6–5.4, L 1.2–2.2, HD 2.4–1.0–1.4
2. Diorite, drilled from both ends, disc to short barrel, white and black (27), D 2.2, L 0.8–1.1, HD 0.5
3. Faience, ring, disc to short cylinder, blue (50), D 2.5, L 0.6–1.1, HD 0.6
4. Faience, ring, disc to short cylinder, blue (30), D 3.0–3.7, L 0.8–1.1, HD 0.8
5. Faience, short cylinder, black (1), D 2.8, L 1.2, HD 0.7
Bibliography: OINE V, 156
95
Adindan T 135—2: Beads from shaft (adult female); OIM E30154
C-Group, phase III
Ostrich eggshell, drilled from both ends, short cylinder, cream (35), D 3.5–4.8, L 0.5–1.7, HD 0.9
Bibliography: OINE V, 156–57

96
Adindan T 136—1: Beads from shaft near surface (adult male); OIM E23297
C-Group, phase IB/IIA
1. Ostrich eggshell, drilled from one end, short cylinder, white (208), D 3.4–5.5, L 1.6–1.9, HD 1.1
2. Carnelian drilled from both ends, disc barrel, red (1), D 3.9, L 1.2, HD 0.9
3. Faience, disc ring, black (22), D 3.4–3.8, L 1.1–1.5, HD 2.0
4. Faience, disc, blue (1), D 3.0, L 1.4, HD 0.8
Bibliography: OINE V, 157
Adindan T 141–2a–d: Beads from shaft (infant, less than 1 year old); OIM E23375
C-Group, phase IB/IIA
1. Carnelian, disc barrel, red (1), D 3.4, L 0.9, HD 1.7–0.6–1.0
2. Carnelian, disc barrel, red (1), D 4.9, L 1.5, HD 1.7–0.8–1.9
3. Faience, long cylinder, whitish core, light blue glaze (1—broken in halves), D 3.5, L 10.6–14.2, HD 0.9
4. Faience, ring, disc cylinder, blue (19), D 3.0, L 0.5–1.4, HD 1.2
Bibliography: OINE V, 158, pl. 116L

Adindan T 147–4a–c: Beads on bottom of shaft near body (adult female); OIM E23368
C-Group, phase IIA/B
1. Ostrich eggshell, disc cylinder (1), D 3.3, L 1.2, HD 1.4
2. Metal sheet, barrel (2), D 2.4 × 1.6, L 2.6, HD 0.8
3. Faience, ring, disc and short cylinder, blue (10), D 2.9, L 0.9–1.8, HD 0.8
4. Faience, ring, disc and short cylinder, blue (25), D 2.2, L 0.5–1.1, HD 0.7
Bibliography: OINE V, 160
99
Adindan T 148—2: Beads from shaft (adult male);
OIM E30162A–D
C-Group, phase IB/IIA
Bone, long tubular, cream and brownish (4), D 8.8 × 7.2;
8.5 × 7.7; 9.0 × 8.6; 9.7 × 8.6, L 21.7; 20.7; 19.9; 10.6,
HD 4.5–6.4 × 3.5
Bibliography: OINE V, 160

100
Adindan T 150—1: Beads from shaft (adult female);
OIM E30164
C-Group, phase III
Ostrich eggshell, drilled from both ends, disc cylinder
(20), D 5.5–6.1, L 1.5–1.7, HD 2.0
Bibliography: OINE V, 160–61

101
Adindan T 151—1: Beads from shaft (adult female);
OIM E30163
C-Group, phase Early III
Ostrich eggshell, disc cylinder (8), D 6.8–7.3, L 1.5–1.8,
HD 2.6
Bibliography: OINE V, 161
Adindan T 154—2a–d: Beads, uncertain location, probably from shaft (no body recorded); OIM E23372
C-Group, phase II A
1. Ostrich eggshell, disc cylinder (1), D 3.9, L 1.4, HD 1.6
2. Diorite, disc cylinder, white and black (24), D 2.5, L 1.1, HD 0.9–0.6–0.9
3. Faience, short cylinder, black (15), D 3.8, L 2.3, HD 1.5
4. Faience, short cylinder, light blue/green (195), D 3.8, L 1.5–2.2, HD 1.2
Bibliography: OINE V, 162

Adindan T 156—1a–b: Beads from shaft (adult, probably female); OIM E30166
C-Group, phase IB/II A
1. Carnelian, drilled from both ends, disc truncated barrel, red (11), D 5.8, L 1.7, HD 1.4
2. Faience, short cylinder, blue/green (1), D 3.5
Bibliography: OINE V, 162
104
Adindan T 160–2a–b: Beads from shaft (adult male); OIM E23376
C-Group, phase IB/IIA
1. Diorite, short barrel and oblate, white and black (5), D 11.8–13.2, L 4.8–7.7, HD 7.7–2.4–7.7
2. Faience, short cylinder, blue (1), D 6.8 × 7.3, L 3.7, HD 2.6
Bibliography: OINE V, 164, pl. 116K

105
Adindan T 163–1: Bead from grave (juvenile, possibly female, ca. 12 years old); OIM E23370
C-Group, phase IB/IIA
Bone, long tubular (11), D 9.3 × 10.4–14.6 × 12.0, L 18.6–26.0, HD 4.7–10.4
Bibliography: OINE V, 165, pl. 116N–O
106
Adindan T 165–2: Beads from possible leather garment in shaft (younger child, 7.5–8.5 years old); OIM E30168
C-Group, phase Early III
Faience, ring, blue and green (6), D 2.8, L 1.2, HD 1.3
Bibliography: OINE V, 165–66

107
Adindan T 166—4a–f: Beads from shaft (adult female); OIM E23373
C-Group, phase III
1. Ostrich eggshell, drilled from both ends (1), D 5.6, L 1.7, HD 2.4
2. Diorite, drilled from both ends, short barrel (7), D 4.2, L 2.0, HD 2.3–1.0–2.3
3. Diorite, drilled from both ends, short barrel (2), D 7.9, 7.3, L 4.3, 3.6, HD 3.8–1.3–3.8
4. Diorite, drilled from both ends, short barrel (3), D 5.6–6.1, L 2.1–3.3, HD 2.9–1.3–2.9
5. Diorite, drilled from both ends, short barrel (3), D 3.2, L 1.5, HD 1.3–1.0–1.3
6. Carnelian, drilled from both ends, short barrel (1), D 5.4, L 2.5, HD 2.1–0.8–1.8
7. Faience, ring, short cylinder, blue, green (40), D 2.8–3.7, L 1.2–1.7, HD 0.7
Bibliography: OINE V, 166, pl. 116J
108
Adindan T 169—2: Beads with stringing, in grave (adult female);
OIM E23391
C-Group, phase IB/IIA
Ostrich eggshell, disc cylinder (246), D 5.4–6.8, L 1.3–1.7, HD 2.0
Bibliography: OINE V, 166–67, pl. 116C

109
Adindan T 171—3: Beads from shaft (adult male);
OIM E23400
C-Group, phase IB
Faience, short cylinder, light blue, some greenish
(270), D 3.6, L 1.6–2.4, HD 1.0–1.2
Bibliography: OINE V, 168
Adindan T 176—1: Beads sewn to leather in lozenge-shaped pattern, in shaft (mature male); OIM E23362
C-Group, phase IIA
1. Copper alloy, folded sheet, short cylinder (1), D 2.6, L 1.1, HD 2.4
2. Faience, disc to short cylinder, blue (ca. 585), D 2.5–3.2, L 1.1–2.1, HD 1.1–1.2
3. Faience, ring, disc cylinder, black (ca. 19), D 2.8, L 1.2–1.8, HD 1.2
Bibliography: OINE V, 168–69, pl. 106D
111#
Adindan T 177—2: Beads from shaft (adult, possibly male, and an unidentified individual); OIM E23296B
C-Group, phase IIA or Pan Grave
1. Ostrich eggshell, drilled from both ends, disc cylinder (50), D 3.0–3.9, L 1.4, HD 1.5–1.0–1.5
2. Faience, ring, disc cylinder, blue (3), D 2.4–2.9, L 1.1, HD 0.9
Bibliography: OINE V, 170

112
Adindan T 182A—2a–b: Beads from shaft (mature female); OIM E23388
C-Group, phase III
1. Faience, disc barrel, green (8), D 5.5, L 1.1, HD 1.4
2. Faience, ring, disc to short cylinder, green, blue (170), D 3.7, L 1.1–2.6, HD ca. 2.3
Bibliography: OINE V, 171
Adindan T 183—1: Beads from shaft (senile female); OIM E30177
C-Group, phase III
Faience, short cylinder, light blue and green (7), D 3.7, L 2.6, HD 1.9
Bibliography: OINE V, 171

Adindan T 184—1: Beads from shaft (infant, 2.5–3 years old); OIM E23390
C-Group, phase III
Faience, ring, disc and short cylinder, green and blue (301), D 2.6–4.2, L 1.3–2.6, HD 0.8–1.6
Bibliography: OINE V, 171
115
Adindan T 187—1: Beads from shaft (adult female); OIM E23389
C-Group, phase IB/IIA
Faience, ring, short cylinder, greenish, blue (149), D 4.2, L 1.6–2.0, HD 1.3
Bibliography: OINE V, 172, pl. 116G

116
Adindan T 192—1: Beads from shaft (young adult); OIM E30179
C-Group, phase III
Faience, ring, short cylinder, blue and green (42), D 2.6–3.5, L 2.1, HD 0.9–1.5
Bibliography: OINE V, 173
117
Adindan T 194–1a–d: Beads from shaft (no body recorded); OIM E23392
C-Group, phase IB/IIA
1. Bone, standard to long tubular (12), D 6.8 × 5.8–9.5 × 8.3, L 6.7–17.6, HD 3.6
2. Bone, tooth(?), short cylinder (1), D 8.1, L 3.4, HD 2.7
3. Bone, tooth(?), long tubular (1), D 4.8, L 6.0, HD 1.9
4. Faience, disc cylinder, blue (1), D 3.1, L 2.1, HD 1.1
Bibliography: OINE V, 173

118
Adindan T 195–2a–c: Beads from shaft (mature male); OIM E23398
C-Group, phase IB/IIA
1. Diorite, short cylinder, white and black (2), D 2.4, L 1.1, HD 1.0–0.6—hourglass
2. Carnelian, drilled from both ends, standard barrel, red (1), D 4.4, L 3.0, HD 2.7–1.3–2.7—hourglass
3. Faience, short cylinder, light blue (142), D 3.7, L 2.1, HD 1.4
Bibliography: OINE V, 174
Adindan T 195–4a–b: Meroitic beads with stringing, found north of superstructure, displaced in plundering; OIM E23543
C-Group, phase IB/IIA and Meroitic
1. Faience, short cylinder, blue (31), D 2.9–3.7, L 1.4–2.5, HD 0.5
2. Gold-in-glass, drawn single-segment, barrel (1), D 5.1, L 4.6, HD 1.2
Bibliography: OINE V, 174, pl. 117A

Adindan T 201–1a–b: Beads from shaft (mature female); OIM E30183
C-Group, phase Early III
1. Faience, ring, disc cylinder, blue and green (39), D 2.6, L 1.0, HD 0.8
2. Faience, disc cylinder, light green (5), D 3.2, L 1.9, HD 1.1
Bibliography: OINE V, 175
Adindan T 205–7a–d: Beads from bottom of shaft (probably mature male); OIM E23419, OIM E23420
C-Group, phase Late IIA
1. Ostrich eggshell, drilled from one end, short cylinder, white (1), D 4.3, L 1.3, HD 2.3
2. Carnelian, drilled from both ends, short cylinder, red (209), D 2.9–3.0, L 0.9–1.2, HD 1.3–0.7–1.3
3. Diorite, drilled from both ends, short cylinder, white and black (173), D 2.7, L 0.9–1.4, HD 1.0–0.7–1.0
4. Faience, disc short cylinder blue and green glaze (488), D 3.0–3.6, L 1.1–2.9, HD 1.6
Bibliography: OINE V, 176
Adindan T 213–3a–b: Beads with stringing, in grave (child, 2.5–3 years old); OIM E23399
C-Group, phase IB/IIA
1. Ostrich eggshell, disc cylinder (247), D 4.6–6.0, L 0.8–1.9, HD 2.0
2. Faience, ring, blue (8), D 2.5–3.7, L 1.3–2.0, HD 1.1
Bibliography: OINE V, 178, pl. 116B

121 (continued)
OIM E23420 (B–1066)
5. Gold sheet, folded, short cylinder (68), D 2.7–5.3, L 1.1–1.8, HD 1.3–3.2
123
Adindan T 214—3a–c: Beads from shaft and debris above (adult female); OIM E23401
C-Group, phase Early III
1. Ostrich eggshell, drilled from both ends, disc cylinder (28), D 4.4–7.4, L 0.9–2.0,
   HD 2.1
2. Faience, short cylinder, blue and green (29), D 2.7–3.6, L 1.5–2.2, HD 0.8
Bibliography: OINE V, 178

124
Adindan T 215—2: Beads from body (adult male); OIM E30199
C-Group, phase IIA
Faience, ring, short cylinder, blue and green (14), D 2.0–3.0, L 1.6, HD 1.1
Bibliography: OINE V, 178–79
Adindan T 217—3a–c: Beads from shaft (mature male); OIM E23402
C-Group, phase IIA
1. Carnelian, drilled from both ends, short barrel, red (13), D 3.7–4.2, L 1.4–1.8, HD 2.2–0.8–2.2
2. Faience, ring, short cylinder, blue (146), D 3.4, L 1.3, HD 1.0–2.2
3. Faience, disc cylinder, blue (1), D 4.3, L 1.6, HD 1.0
4. Faience, disc cylinder, light green (1), D 3.5, L 1.8, HD 1.7
Bibliography: OINE V, 179
Adindan T 221–1a–c: Ostrich eggshell beads, with stringing, from shaft (adult female); OIM E23403A–C
C-Group, phase IIA?
OIM E23403A
1. Ostrich eggshell, short cylinder (ca. 290), D 4.9–7.7, L 1.4–1.8, HD 1.9–2.1
2. Faience, disc, blue (6), D 2.5–3.7, L 0.7–1.6, HD 1.1
OIM E23403B
126 (continued)
OIM E23403C
4. Cypraea annulus shell, dorsal part removed, whitish (19), W 16.4–23.2,
Th 7.0–9.9, L 25.7–32.0, HD ca. 24.7 × 18.0
Bibliography: OINE V, 181, pl. 118D
Adindan T 223–4a–b: Beads from grave (mature female); OIM E23414
C-Group, phase Early IIA
1. Carnelian, disc cylinder, light red to dark red (9), D 4.2–5.8, L 1.1–2.1, HD 1.0
2. Faience, short cylinder, black (116), D 2.8, L 1.1–1.2, HD 0.9
Bibliography: OINE V, 181
Adindan T 224–2a–b: Most beads from leather garment in shaft (child, ca. 5–6 years old);
OIM E23405A–D
C-Group, phase IB/IIA
OIM E23405B
1. Ostrich eggshell, drilled from both ends, disc cylinder (240), D 4.9–6.7, L 1.1–1.7, HD 1.7–1.9
2. Faience rings, blue (2), D 2.8, L 1.2, HD 0.8–1.1—not illustrated
OIM E23405C
3. Faience, ring, blue (50) and black (7) rings, D 2.5–3.1, L 1.0–2.1, HD ca. 1.0
OIM E23405D
4. Faience, blue rings, some sewn together (28), D 2.9, L 1.6, HD 1.0
Adindan T 225–2a–c: Blue glass-like beads in pattern on leather in shaft and debris (juvenile female, ca. 15–16 years old);
OIM E23406A–C
C-Group, phase IIA/B
OIM E23406A

5. Ostrich eggshell, disc cylinder, white (16), D ca. 3.0, L 1.4, HD 0.9
6. Faience, blue rings (53), D ca. 3.0
Bibliography: OINE V, 182–83, pl. 106C

OIM E23405A

5. Ostrich eggshell, disc cylinder, white (16), D ca. 3.0, L 1.4, HD 0.9
6. Faience, blue rings (53), D ca. 3.0
Bibliography: OINE V, 182–83, pl. 106C

Adindan T 225–2a–c: Blue glass-like beads in pattern on leather in shaft and debris (juvenile female, ca. 15–16 years old);
OIM E23406A–C
C-Group, phase IIA/B
OIM E23406A

1. Faience, short cylinder, light green (123), D 2.6–3.9, L 1.5–2.4, HD 1.0–1.7—unknown pattern on leather
2. Faience, short cylinder, blackish (30), D 2.3–3.2, L 1.1–1.7, HD 1.0—unknown pattern on leather
3. Faience, ring, blue/turquoise (347), D 2.2–4.1, L 0.8–1.8, HD 0.9–2.1—unknown pattern on leather
   OIM E23406B
4. Metal sheet over possible ceramic core, bicone (2), D 7.1; 7.4, L 11.3, HD 2.4
5. Faience, disc cylinder, turquoise (1), D 2.6, L 1.4, HD 1.0
   OIM E23406C
6. Ostrich eggshell, some drilled from both ends, short cylinder (83), D 2.6–3.9, L 1.0–1.9, HD 0.7–1.5
   Bibliography: OINE V, 183–84
Adindan T 229–1–3: Beads from shaft (no body recorded); OIM E30213A–C
Pan Grave or C-Group, phase III
OIM E30213A
1. Faience, amulet, green (1), D 7.2 × 3.4, L 17.3, HD 3.4 × 1.6; 2.4 × 1.5
OIM E30213B
2. Faience, globular, blue (1), D 10.4, L 9.6, HD 1.5
OIM E30213C
3. Faience, short cylinder, blue (32), D 2.9, L 1.4, HD 1.4
Bibliography: OINE V, 184–85, pl. 115F
131
Adindan T 234–3a–d: Beads from shaft (child, 3–4 years old); OIM E23416
C-Group, phase IIA
1. Carnelian, drilled from both ends, disc cylinder (4), D 2.9–3.1, L 0.8, HD 0.6
2. Carnelian, drilled from both ends, disc cylinder (1), D 4.5, L 1.3, HD 1.9–0.7–1.9
3. Faience, disc and short cylinder, blue (116), D 2.6–3.5, L 0.7–1.5, HD 0.8
4. Faience, disc and short cylinder, dark blue and black (171), D 2.5, L 0.9–1.3, HD 1.2
Bibliography: OINE V, 187
Adindan T 236: Beads from shaft (juvenile, probably female, less than 19 years old); OIM E23409 C-Group, phase IIA
1. Diorite, drilled from both ends, white and black (1), D 2.5, L 1.1, HD 1.2–0.6–1.2
2. Faience, disc and short cylinder, black (22), D 2.5–3.5, L 1.1–2.8, HD 0.8–0.9
3. Faience, disc and short cylinder, blue/green (169), D 2.2–3.1, L 0.9–1.9, HD 0.9–1.2
Bibliography: OINE V, 188
Adindan T 239–4a–b: Necklace made of diorite and green to blue glass-like beads, with stringing, in shaft (adult female); OIM E23418
C-Group, phase IIA
1. Diorite, drilled from both ends, short cylinder, white and black (228), D 2.5–2.8, L 0.9–1.3, HD 0.6–0.9—hourglass
2. Faience, disc and short cylinder, blue (6), D 2.4–4.8, L 0.8–1.9, HD 0.6–1.9
3. Faience, short cylinder, black (1), D 3.0, L 1.5, HD 0.8

Bibliography: OINE V, 189
134
Adindan T 239—5a–b: Anklet made of one ostrich eggshell bead and black glass-like beads, with stringing, from left ankle, in shaft (adult female); OIM E23417
C-Group, phase IIA
1. Ostrich eggshell, disc cylinder (1), D 6.3, L 1.6, HD 2.0
2. Faience, short cylinder, black (ca. 140), D 3.0, L 1.4–1.7, HD 1.2
3. Faience, short cylinder, light green (1), D 3.2, L 1.6, HD 1.2
Bibliography: OINE V, 189

135
Adindan T 246—4: Bracelet(? ) from shaft (child, ca. 6 years old); OIM E24145B
C-Group, phase Late IIA (cuts T 211)
Polinices shells, perforated below spire, white (17), Th 11.3–17.5, W 15.2–25.2, L 19.9–31.3, HD 4.6 × 3.6
Bibliography: OINE V, 192, pl. 118B (19 shells on plate)
Adindan T 249–1: Leather garment with stitching and beads in shaft (mature, probably male); OIM E23412
C-Group, phase III
1. Faience, disc and short cylinder, blue (368), D 2.5–2.9, L 1.0–1.7, HD 0.9–1.2
2. Faience, disc and short cylinder, black (71), D 2.9, L 1.2–1.8, HD 1.1
Bibliography: OINE V, 192
137
Adindan T 253–1a–b: Beads from shaft (adult female); OIM E23421
C-Group, phase IB/IIA
1. Faience, disc cylinder, black (4), D 5.0–5.5, L 0.9–1.9, HD 1.4
2. Faience, disc and short cylinder, black (3), D 3.1–3.4, L 1.2–1.7, HD 0.9
3. Faience, disc and short cylinder, light green and blue (68), D 3.1–4.3, L 0.8–2.5, HD 0.6–0.8
4. Faience, disc cylinder, blue (6), D 4.9, L 1.7–1.9, HD 1.5
Bibliography: OINE V, 193

138
Adindan T 255–1a: Bracelet in shaft (child, ca. 6.5–7.5 years old); OIM E24154, OIM E30233
C-Group, phase III
OIM E24154
   OIM E30233
2. Polinices shell, body perforated, white (1—broken), W 17.5, L 22.3, H 14.1, HD 4.2 × 3.1
Bibliography: OINE V, 193, pl. 118A (13 shells on plate)
139
Adindan T 263—2: Ostrich eggshell beads near head (adult female); OIM E23537B
C-Group, phase III
Ostrich eggshell, short cylinder (38), D 3.1–3.5, L 1.2–1.8, HD 1.1
Bibliography: OINE V, 195

140
Adindan T 263—2, 3: Necklace on body (adult female); OIM E23537B
C-Group, phase III
Faience, short barrel, blue (36), D 2.5–2.8, L 1.1–1.7, HD 1.5
Bibliography: OINE V, 195

141
Adindan T 263—6b: Beads from leather garment at pelvis (adult female); OIM E23537A,
OIM E30241
C-Group, phase III
Faience, ring, blue (1,069), D 3.7–3.9, L 1.2–2.1, HD 1.2
141 (continued)
OIM E30241
2. Faience, ring, blue and green
(312), D ca. 2.9, L 1.4–1.6,
HD 0.9–1.4
Bibliography: OINE V, 195 (leather
garment OIM E23541)

141.2

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Adindan T 263–7: Anklet of ostrich eggshell beads on body (adult female); OIM E23537B
C-Group, phase III
Ostrich eggshell, short cylinder (116), D 3.0–3.5, L 1.2, HD 0.9
Bibliography: OINE V, 195

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Adindan T 263–7: Anklet of ostrich eggshell beads on body (adult female); OIM E23537B
C-Group, phase III
Ostrich eggshell, short cylinder (116), D 3.0–3.5, L 1.2, HD 0.9
Bibliography: OINE V, 195
143
Adindan T 263–4: Looped band of fibers that served as core for metal ring–bead necklace, on body (adult female); OIM E30240—*non vidi*
C-Group, phase III
Bibliography: OINE V, 195

144
Adindan T 268–4: Beads from shaft (adult female); OIM E30243
C-Group, phase IB/II
1. Faience, short cylinder, black (295), D 2.9, L 1.4, HD 1.4
2. Faience, short cylinder, blue (1), D 2.5, L 0.9, HD 1.1
Bibliography: OINE V, 196

145
Adindan T 271–1: Beads from shaft (senile female); OIM E23533—sample
C-Group, phase III
1. Faience, short cylinder, blue (25), D 3.2, L 1.3–1.6, HD 1.1
2. Faience, short cylinder, light blue and greenish (30), D 2.9–3.9, L 1.2–2.2, HD 1.3
3. Faience, short cylinder, black (1), D 5.4 × 4.6, L 1.7, HD 1.7—*not illustrated*
Bibliography: OINE V, 196–97
Adindan T 277—1: Beads from shaft (adult female);
OIM E23900
C-Group, phase III
Faience, short cylinder, blue and green (375), D 2.6–3.0,
L 1.1, HD 0.6–0.8
Bibliography: OINE V, 198

Adindan T 279—1b: Beads from shaft or debris (child,
5.5–6 years old); OIM E30251
C-Group, phase IB/IIA, if not, phase III
Faience, short cylinder, blue (2), D 3.8; 3.7, L 1.8; 1.6,
HD 1.4
Bibliography: OINE V, 198
Adindan T 280—1a–d: Beads from shaft (child, ca. 7.5 years old); OIM E23901
C-Group, phase III
1. *Conus* sp. shell (6), Th 3.6–4.7, L 5.8–7.4, HD 1.0–1.4
2. Ostrich eggshell, disc cylinder (29), D 6.2–6.6, L 1.5–1.8, HD 2.6
3. Ostrich eggshell, plaque (2), W 17.0 × 12.1, Th 1.96; W 8.4 × 5.5, Th 2.0
4. Diorite, drilled from both ends, elongated drop pendants with pointed base and top, black and white (1), Th $6.6 \times 4.4$, H 24.7, HD 3.1–1.5–3.1
5. Diorite, drilled from both ends, elongated drop pendants with pointed base and top, black and white (1), Th $5.4 \times 3.9$, H 14.8, HD 3.3–1.1–3.3
6. Carnelian, drilled from both ends, short truncated barrel, red (2), D 5.8; 5.7, L 4.0; 4.6, HD 2.1–1.0–2.1
7. Faience, disc barrel, blue (10), D 3.5–4.0, L 1.3–1.8, HD 0.9
8. Bone(?), fragment (1), W 16.8 × 9.4, Th 0.8—not illustrated

Bibliography: OINE V, 198–99
149
Adindan T 281—1: Beads in grave (adult female); OIM E30252
C-Group, phase III
1. Faience, short cylinder, blue (6), D 3.5, L 1.4, HD 1.4
2. Faience, short cylinder, light green (7—sample), D 3.7–5.0, L 2.0, HD 1.7–2.4
Bibliography: OINE V, 199

150
Adindan T 285—1: Beads from shaft (adult, probably female); OIM E30253
C-Group, phase IIA/B
Faience, short cylinder, blue and green (20—sample), D 2.9–4.0, L 1.9, HD 1.6
Bibliography: OINE V, 199–200

151
Adindan T 288—1a–b: Beads from shaft (juvenile female, ca. 18 years old); OIM E23902
C-Group, phase III
Faience, short cylinder, turquoise, bluish, greenish (336), D 3.7–3.9, L 1.2–2.1, HD 1.2
Bibliography: OINE V, 200
153
Adindan T 294-1a-c: Beads from shaft (adult female); OIM E23905A C-Group, phase III
Faience, disc and short cylinder, blue and green (76), D 2.4–4.6, L 0.8–2.9, HD 1.0–1.2
Bibliography: OINE V, 201
Adindan K 25–3a–b: Beads from shaft (no body recorded); OIM E23068
C-Group, phase IIA
1. Copper, folded (1), D 4.1 × 3.6, L 1.2, HD 1.8
2. Faience, disc cylinder, blue (ca. 300), D 2.8, L 0.6–1.0, HD 0.7
Bibliography: OINE V, 206
Adindan K 26: Beads from shaft (adult female); OIM E22982
C-Group, phase IB/IIA
1. Ostrich eggshell, disc cylinder (190), D 6.0–7.7, L 1.1–1.7, HD 2.8
2. Faience, short cylinder, blue (5), D 3.2, L 1.1, HD 1.0
Bibliography: OINE V, 206
Adindan K 28–1a–b: Beads from shaft (no body recorded); OIM E23069
C-Group, phase IB/IIA or IIA/B
1. Ostrich eggshell, disc and short cylinder (19), D 2.6–3.4, L 1.3–1.8, HD 1.0–1.3
2. Carnelian, drilled from both ends, disc cylinder, red (1), D 2.3, L 0.8, HD 0.7
3. Faience, disc and short cylinder, blue and green (34), D 3.2–3.5, L 0.9–2.3, HD 1.2
4. Faience, disc and short cylinder, blue and green (157), D 2.2–3.2, L 0.8–2.3, HD 0.7–0.9
Bibliography: OINE V, 207
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157
Adindan K 32–8: Beads from shaft (infant, ca. 1 year old); OIM E23147
C-Group, phase IIA
1. Faience, short cylinder, black (9), D 2.8, L 1.1–2.0, HD 0.8
2. Faience, short cylinder, blue and green (59), D 3.2–3.4, L 0.8–1.8, HD 1.0
Bibliography: OINE V, 207–8

158
Adindan K 34–5: Beads from shaft (no body recorded); OIM E30259
C-Group, phase IIA
Faience, barrel, blue and black (22), D 3.1–3.2, L 1.9, HD 1.1–1.4
Bibliography: OINE V, 209

159
Adindan K 40–2: Bead bracelet at left hand, in shaft (adult female); OIM E23073
C-Group, phase III
Ostrich eggshell, disc cylinder (12), D 4.1–6.4, L 1.1–1.9, HD 1.1–2.1
Bibliography: OINE V, 210
160
Adindan K 41—4: Beads from shaft (no body recorded); OIM E23072
C-Group, phase Early IIA
Faience, short cylinder, blue (72), D 3.0, L 1.7, HD 0.8
Bibliography: OINE V, 210

161
Adindan K 43B—4a—b: Beads from shaft (no body recorded); OIM E23071
C-Group, phase III
1. Faience, short cylinder, light blue (70 and 9 fragments), D 3.9, L 1.0—2.0, HD 1.1
2. Faience, short cylinder, black (1.5), D 4.4, L 1.9, HD 1.0
Bibliography: OINE V, 211–12
162
Adindan K 44—3: Beads from shaft (adult female); OIM E23067
C-Group, phase III
Ostrich eggshell, drilled from both ends, irregular disc, many squares
(146 and 4 broken), D 3.7–5.8, L 1.1–1.9, HD 1.0–2.1
Bibliography: OINE V, 212
Adindan K 45: Beads from shaft (no body recorded); OIM E23070
Post-New Kingdom
1. Glass, wound, short oblate, blue (30), D 4.6–6.6, L 3.0–5.1, HD 2.1
2. Glass, wound, short oblate, translucent dark blue (7), D 3.7–4.3, L 2.5–3.8, HD 1.6
3. Glass, wound, short oblate, translucent purple (11), D 5.0–5.5, L 2.5–4.4, HD 1.7
4. Glass, wound, short oblate and globular, opaque yellow (3), D 4.6–5.8, L 4.2–5.0, HD 1.9
5. Glass, ring, blue (1), D 3.2, L 1.3, HD 1.4
6. Faience, short cylinder, some segmented, black (11 segments), D 3.3–3.6, L 1.7, HD 1.1

Bibliography: OINE V, 212; excavation register describes OIM E23070 as “50–70 blue glass, bone, and carnelian beads” and assigns it to K 45.
Adindan K 47–1a–b: Beads, "some still strung," from shaft (adult female); OIM E23065
C-Group, phase III (?) or Pan Grave
1. Ostrich eggshell, disc and short cylinder (ca. 2,427), D 4.2–6.5, L 1.8–1.9, HD 1.8
2. Ostrich eggshell, disc, roughly cut (1), D 9.3, L 1.95, HD 2.3
3. Glass, wound, short barrel, translucent purple (1), D 3.5, L 2.0, HD 1.0
4. Glass, wound, globular, translucent purple (1), D 3.7, L 3.1, HD 1.3
5. Metal sheet, folded, short cylinder (1), D 2.7, L 1.1, HD 2.4
6. Faience, short cylinder, blue (42), D 2.4–2.8, L 0.8–2.2, HD 0.7
Bibliography: OINE V, 212
Adindan K 56—4: Beads from shaft (infant, ca. 2–3 years old); OIM E23075
C-Group, phase IIA
Faience, short cylinder, blue and green (146), D 2.2–2.9, L 1.3, HD 1.0
Bibliography: OINE V, 214

Adindan K 49—1: Beads from shaft, some near head (juvenile female, 18–19 years old); OIM E23066
C-Group, phase III
Ostrich eggshell, disc cylinder (59), D 3.9–6.1, L 1.2–1.9, HD 1.1–1.7—conical and hourglass
Bibliography: OINE V, 212–13

Adindan K 56—4: Beads from shaft (infant, ca. 2–3 years old); OIM E23075
C-Group, phase IIA
Faience, short cylinder, blue and green (146), D 2.2–2.9, L 1.3, HD 1.0
Bibliography: OINE V, 214
168
Adindan K 63–7a–g: Beads from shaft (mature);
OIM E23153
C-Group, phase IIA
1. Carnelian, drilled from both ends, short barrel, red (2), D 3.8; 4.0, L 1.4; 1.6, HD 1.8–0.9–1.8
2. Carnelian, drilled from both ends, standard barrel, red (1), D 5.4, L 4.0, HD 3.0–1.0–3.0
3. Carnelian, drilled from both ends, long barrel, red (1), D 6.4, L 10.1, HD 2.7—double parallel
4. Steatite, drilled from both ends, long barrel, blue glaze (6), D 2.9–3.8, L 3.5–4.7, HD 1.2
5. Faience, short to standard cylinder, black (220), D 2.6–3.2, L 0.9–1.9, HD 1.1
6. Faience, short cylinder, blue (5), D 2.5–3.0, L 1.1–1.4, HD 1.0
7. Faience, amulet, blue (1), D 5.8 × 2.2, L 9.7, HD 1.0
Bibliography: OINE V, 218, pl. 115G

167
Adindan K 62–5: Pendant, made from broken lobed hair slide, in shaft (juvenile, ca. 16 years old);
OIM E23145
C-Group, phase IIA
Shell, broken, unfinished hair slide, lobed, repair perforation (1), W 22.5, Th 2.5, L 50.3, HD 1.1
Bibliography: OINE V, 217
169
Adindan K 66: Beads from shaft (no body recorded); OIM E23076
C-Group, phase III
Ostrich eggshell, drilled from both ends, short cylinder (116),
D 4.1–5.1, L 1.4–2.0, HD 1.4
Bibliography: OINE V, 219

170
Adindan K 69—2a–b: Beads from shaft (no body recorded); OIM E23144
C-Group, phase IIA/B
1. Ostrich eggshell, short cylinder (28), D 2.7–3.1, L 0.9–1.5, HD 0.8
2. Faience, short cylinder, blue and green (466), D 2.9, L 1.4–1.9, HD 1.0
Bibliography: OINE V, 220
171
Adindan K 75—1: Beads from shaft (adult male);
OIM E23150
C-Group, phase III
1. Ostrich eggshell, drilled from both ends (28),
   D 4.6–5.9, L 1.5–1.7, HD 1.2
2. Faience core, short cylinder, dark gray (1),
   D 4.9 × 5.7, L 3.3, HD 1.5 × 0.7
Bibliography: OINE V, 222

172
Adindan K 76—2: Beads from shaft (mature);
OIM E23149
C-Group, phase II A/B
Faience, short cylinder, black (156), D 2.5–2.8,
L 0.9–2.3, HD 1.0
Bibliography: OINE V, 223
173
Adindan K 78: Shell from shaft (no body recorded); OIM E23155
C-Group, phase IIA/B
Shell, part of hair ring/slide with two perforations (1), W 9.7, Th 2.2,
L 34.5, HD 2.0
Bibliography: OINE V, 223

174#
Adindan K 89—1a–c: Strung beads (no body recorded);
OIM E23157
C-Group, phase III or Pan Grave
1. Ostrich eggshell, disc cylinder (16), D 3.8–5.0, L 1.6–2.1, HD 0.7–1.2
2. Faience, disc cylinder, blue (5), D 1.9–3.1, L 1.2–0.8, HD 0.7–1.1
3. Faience, disc cylinder, black (1), D 4.0, L 1.5, HD 1.5
Bibliography: OINE V, 225

175#
Adindan K 91—3: Beads from shaft (no body recorded);
OIM E30274
C-Group, phase III or Pan Grave
1. River snail shell, apex removed (unintentional), white (1), D 3.8, L 9.2, HD 1.0
2. Ostrich eggshell, drilled from both ends, ends not polished, short cylinder (13), D 3.7–5.9, L 1.7–2.1, HD 0.9
Bibliography: OINE V, 226
Adindan K: Beads from cemetery surface probably mixed with beads from OIM E23228
1. Ostrich eggshell, disc cylinder (26), D 3.1–4.0, L 0.6–1.3, HD 1.2–1.5
2. Carnelian, disc barrel, red (44), D 2.7, L 0.8–1.1, HD 0.7
3. Diorite, short cylinder, white and black (12), D 2.3–2.6, L 1.1–1.3, HD 0.7
4. Faience, disc barrel, blackish (10), D 3.0–3.9, L 1.2–1.6, HD 1.0–1.2—not illustrated
5. Faience, disc cylinder, bluish (6), D 3.3–3.8, L 0.8, HD 1.2—not illustrated
6. Faience, disc barrel, bluish (10), D 2.9–3.4, L 0.6–1.3, HD 0.9
7. Faience, disc rings, blue (137), D 2.4–3.0, L 0.6–1.1, HD 0.9
8. Faience, globular, whitish core, traces of blue glaze (2), D 9.8; 10.5, L 9.2; 9.9, HD 1.4

Bibliography: OINE V, pl. 116V (noted as pl. 116U in publication)
Adindan U 1–5a–b, 10: Beads from leather garment, some in lozenge-shaped pattern, at hips and in shaft with burial (mature male); OIM E21512A–F
C-Group, phase Early III
OIM E21512A
1. Ostrich eggshell, drilled from both ends, short cylinder, white (76), D 3.3–4.1, L 1.0–1.7, HD 2.2–1.0–2.2
2. Ostrich eggshell, drilled from both ends, short cylinder, white (16), D 2.9, L 1.1–1.4, HD 1.5–0.8–1.5
3. Carnelian, short cylinder, drilled from both ends, red (63), D 2.3–2.7, L 0.9–1.3, HD 1.2–0.6–1.2
4. Faience, “doughnut,” blue and green glaze (804), D 2.5–3.7, L 0.6–1.9, HD 0.7–1.1
Bibliography: OINE V, 231
177 (continued)

OIM E21512B—leather garment
5. Ostrich eggshell, drilled from one or both end(s), whitish (22), D 3.6–4.5, L 1.1–1.7, HD 1.0
6. Faience, “doughnut,” blue and green glaze (42), D 2.9–3.4, L 1.0–1.5, HD 1.0–1.3
177 (continued)

OIM E21512C
7. Faience, "doughnut," blue glaze (953), D 2.6–3.7, L 0.7–1.7, HD 0.7–1.1
8. Faience, short cylinder, black glaze (2), D 3.4, L 1.5, HD 1.1
OIM E21512D
9. Ostrich eggshell, drilled from one or both end(s), short cylinder, white (69), D 3.1–3.8, L 1.1–1.4, HD 1.1
10. Faience, disc and short "doughnut," green glaze (419), D 2.5–3.4, L 0.8–2.0, HD 0.7–2.0
11. Ostrich eggshell, drilled from one or both end(s), short cylinder, whitish (52), D 3.1–3.6, L 1.1–1.5, HD 2.0–0.9
12. Carnelian, drilled from both ends, short cylinder, red (129), D 2.1–2.8, L 1.0–1.5, HD 1.2–0.7–1.2
13. Faience, short barrel, green glaze (12), D 2.7–3.3, L 1.0–1.7, HD 1.1
14. Faience, short cylinder, black glaze (1), D 3.5, L 1.5, HD 1.1
OIM E21512F
15. Ostrich eggshell, drilled from one or both end(s), short cylinder, whitish (ca. 1,550), D 3.4–4.5, L 1.1–1.6, HD 2.2–1.2
16. Quartz(?), drilled from one end, spherical, opaque white (1), D 11.8, L 11.7, HD 2.6; 1.6
Adindan U 2–6: Necklace made of silver rings, on body (young adult female); OIM E21515
C-Group, phase Early III
Silver, cast disc cylinder (556), D 5.7, L 0.6, HD 4.7
Bibliography: OINE V, 234
179
Adindan U 2—8a–b: Anklet made of ostrich eggshell beads and faience tubular bead, on body (young adult female); OIM E21519
C-Group, phase Early III
1. Ostrich eggshell, disc cylinder (161), D 3.6–3.9, L 1.0–1.4, HD 0.9
2. Faience, long tubular bead, blue (1), D 4.5 × 5.1, L 17.4, HD 1.3
Bibliography: OINE V, 234

180
Adindan U 2—9: Anklet from shaft, in fill (young adult female); OIM E21537A–C
C-Group, phase Early III
OIM 21537B
1. Ostrich eggshell, disc cylinder, whitish (179), D 3.7, L 1.2, HD 1.5
OIM 21537C
2. Faience, disc cylinder, blue (83), D 2.6–3.9, L 0.8–2.0, HD 0.8
OIM 21537A
3. About 108 silver "solid rings of exceptional quality" probably a part of OIM E21515—non vidi
Bibliography: OINE V, 234
181
Adindan U 3—4a: Beads, ostrich eggshell, with stringing, in shaft (mature male); OIM E21539A
C-Group, phase Early III
Ostrich eggshell, drilled from one end, short cylinder (ca. 570—9 on original string), D 3.2–4.2, L 1.1–1.6, HD 1.2
Bibliography: OINE V, 234, pls. 116V, 117D

182
Adindan U 3—4b: Metal beads from grave (mature male); OIM E21539B
C-Group, phase Early III
1. Silver, cast disc cylinder (7), D 5.9, L 0.5, HD 4.6
2. Gold, cast disc cylinder (14), D 4.6, L 0.3, HD 3.8
Bibliography: OINE V, 234, pls. 116V, 117D
183
Adindan U 4—2a–b: Beads from shaft (senile male); OIM E21533
C-Group, phase Early III
1. Ostrich eggshell, disc cylinder (62), D 3.5–5.4, L 0.8–1.6, HD 1.1–1.9
2. Faience, short cylinder (182), D 3.0–3.7, L 0.9–2.1, HD ca. 1.0
Bibliography: OINE V, 234

184
Serra East B 2–4: Beads on leather from shaft (adult); OIM E19644
C-Group, phase IIA
1. Ostrich eggshell, drilled from both ends, disc cylinder (135), D 4.3–5.0, L 1.2–1.5, HD 2.6–1.4–2.6
2. Faience, disc and short cylinder, turquoise (400), D 2.5–4.7, L 0.9–3.8, HD 1.0
Bibliography: OINE X, 67
185
Serra East B 3–5: Beads from shaft (adult); OIM E19646
C-Group, phase IIA
Faience, short cylinder, brown and black (132), D 2.4–3.0,
L 1.2–2.0, HD 0.7
Bibliography: OINE X, 69

186
Serra East B 5–4: Beads from shaft (no body recorded);
OIM E19649, OIM E19650
C-Group
OIM E19649
1. Ostrich eggshell, short cylinder, whitish (2), D 3.2,
   L 1.6, HD 0.9
2. Faience, short cylinder, blue, green (472), D 2.5–2.9,
   L 0.8–1.6, HD 1.0
OIM E19650
3. Marine mollusk shell fragments of hair rings(?)
   (3 objects—in fragments), W 26.0, Th 1.7, HD 5.9—*not
   illustrated*
Bibliography: OINE X, 70, fig. 20a
187
Serra East B 7—6: Beads from shaft (adult);
OIM E19571
C-Group, phase IIA
1. Carnelian, short barrel, red (1), D 6.6, L 3.9,
   HD 1.2; 1.4
2. Faience, short cylinder, black (152), D 2.9, L 0.9–1.5,
   HD 1.0
3. Faience, short cylinder, turquoise (5), D 3.5,
   L 0.8–1.7, HD 1.0
Bibliography: OINE X, 71–72

188
Serra East B 8—3: Beads at pelvis (adult); OIM E19651
C-Group, phase IIA
1. Nerita sp. shell, perforation on the last whorl of the
   spire, whitish (1), Th 13.1 × 9.5, L 15.5, HD 3.1 × 1.9
2. Ostrich eggshell, disc cylinder (1), D 6.7, L 1.3,
   HD 1.7
3. Faience, disc cylinder irregular, blue (1), D 7.0 × 7.6,
   L 2.4, HD 2.0
Bibliography: OINE X, 72–73, fig. 22b
189
Serra East B 9—6: Beads on leather in shaft (adult);
OIM E19656
C-Group, phase IIA?
1. Carnelian, drilled from both ends, short barrel, red (1),
D 4.5, L 2.2, HD 2.7–1.1–2.7
2. Faience, short cylinder, green, brown (73), D 2.5–2.8,
L 1.0–1.3, HD 1.0
Bibliography: OINE X, 74

190
Serra East B 10—6: Beads with leather in shaft (adult);
OIM E19662
C-Group
1. Ostrich eggshell, drilled from both ends, disc (2),
D 5.5, L 1.4, HD 1.9
2. Faience, short barrel, bluish and brownish (89), D 2.7,
L 1.0–1.5, HD 0.8
Bibliography: OINE X, 74
**191**
Serra East B 11—5: Beads from shaft (adult); OIM E19663
C-Group, phase IIA
Faience, disc and short cylinder, dark gray core, traces of blackish glaze (105), D 2.5–3.5, L 0.9–1.3, HD 1.3
Bibliography: OINE X, 75–76

**192**
Serra East B 12—7: Beads from leather at pelvis, in shaft (adult); OIM E19667
C-Group, phase IIA
1. Wood, drilled from both ends, barrel, dark brown (1), D 7.7, L 7.3, HD 2.0
2. Carnelian, drilled from both ends, short barrel, orange (1), D 6.7, L 3.7, HD 4.0–1.4–4.0
3. Faience, disc, whitish core with green, traces of blue glaze (ca. 295.5), D 3.4–3.6, L 0.8, HD 1.1
4. Faience, short cylinder, dark blue, blue glaze (ca. 88), D 2.8, L 0.8–1.4, HD 0.7
5. Faience, short cylinder, black glaze (ca. 10), D 2.5, L 1.9, HD 1.0
Bibliography: OINE X, 76–77, fig. 26b
Serra East B 17—3: Beads from shaft (adult); OIM E19669
C-Group
1. Carnelian, drilled from both ends, short barrel, red (14), D 3.8–4.2, L 1.4–1.9, HD 1.2
2. Carnelian, drilled from both ends, short barrel, red (4), D 2.6, L 0.8, HD 0.4
3. Faience, disc and short cylinder, greenish (11), D 2.1–2.4, L 0.9–1.0, HD 0.9
Bibliography: OINE X, 80

Serra East B 19—4: Beads from shaft (no body recorded); OIM E19672
C-Group
1. Carnelian, drilled from both ends, short barrel, red (11), D 6.3, L 1.7–2.5, HD 2.4–1.3–2.4
2. Faience, short barrel, greenish and blackish (70), D 2.4–3.1, L 1.0–1.4, HD 1.1
Bibliography: OINE X, 82
195
Serra East B 22—3: Beads in bracelet in shaft (juvenile); OIM E19673
C-Group, phase IIA
1. *Nerita* sp. shell, perforation on the last whorl of the spire, white (1), W 15.1 × 18.9 × 11.4, HD 3.7
2. Carnelian, drilled from both ends, disc barrel, red (3), D 4.4–5.4, L 1.4–2.4, HD 1.8–0.8–1.8
3. Faience, spherical, blue (3), D 10.2, L 9.7–10.4, HD 1.1
4. Faience, disc and standard cylinder, black (195), D 2.8–3.4, L 0.8–1.6, HD 1.1
5. Faience, disc and short cylinder, blue and green (64), D 2.5–2.7, L 0.9–1.3, HD 0.8
Bibliography: OINE X, 83–84

196
Serra East B 29—3: Beads on leather at pelvis, in shaft (adult); OIM E19674
C-Group, phase IB
1. Ostrich eggshell, short cylinder (1)
2. Faience, short cylinder, black (154), D 3.0–3.3, L 1.2–1.6, HD 1.1
3. Faience, disc barrel, turquoise (140), D 3.5–3.7, L 0.7, HD 1.2
Bibliography: OINE X, 85, fig. 36b
Serra East B 30—3: Beads from shaft (no body recorded); OIM E19675
C-Group
Faience, short cylinder, dark gray/blackish (49),
D 2.6–4.0, L 0.9–1.7, HD 1.4
Bibliography: OINE X, 85–86

198
Serra East B 31—2a–b: Carnelian bead necklace and beads from pelvis, in burial (adult);
OIM E19677
C-Group
1. Carnelian, disc barrel, red/orange (109),
D 3.2–3.6, L 0.7–1.4, HD 0.7
2. Faience, short cylinder, turquoise (2), D 3.0,
L 1.6, HD 0.9
Bibliography: OINE X, 86
Serra East B 36—2: Beads on leather at waist, with burial (adult); OIM E19680
C-Group
1. Bone, long cylinder, brown (1), D 3.5 × 2.6, L 16.3, HD 1.2
2. Diorite, drilled from both ends, short truncated barrel, black and white (46), D 2.9, L 1.3–1.6, HD 1.1
3. Carnelian, drilled from both ends, short truncated barrel, red (2), D 4.0; 4.2, L 2.0; 2.1, HD 1.0
4. Copper alloy, folded sheet strips, short cylinder (96), D 3.0, L 1.2, HD 1.3
5. Faience, disc cylinder, gray, bluish (57), D 2.8, L 0.9–1.2, HD 1.2
6. Faience, short cylinder (1), D 3.6, L 1.5, HD 1.3
Bibliography: OINE X, 89

Serra East B 32—3: Beads from leather, near knees, from burial (adult female); OIM E19679
C-Group, phase IB
1. Faience, disc and short cylinder, turquoise and blackish (113), D 3.4–4.3, L 0.7–1.6, HD 0.9–1.2
2. Faience, disc, blackish (1), D 5.4, L 1.3, HD 1.8
3. Faience, disc, turquoise (1), D 3.7, L 2.4, HD 1.4
Bibliography: OINE X, 87
201
Serra East B 37—5: Beads from unspecified location, probably burial (adult); OIM E19681
C-Group
1. Ostrich eggshell, disc cylinder (3), D 4.0–5.5, L 1.5–1.6, HD 2.2
2. Faience, short cylinder, blue (21), D 3.1–4.3, L 1.0–1.8, HD 1.1
Bibliography: OINE X, 89

202
Serra East B 41—1: Beads from shaft (adult); OIM E19685
C-Group
1. Faience, short cylinder, turquoise (23), D 2.5, L 0.7, HD 0.7
3. Faience, disc cylinder, black (2), D 3.0, L 1.4; 2.1, HD 1.0
Bibliography: OINE X, 91
Serra East B 42–6: Beads from uncertain location, probably from shaft with burial (adult); OIM E19687
C-Group, phase IB
1. Carnelian, drilled from both ends, disc barrel, red (137), D 4.0–4.5, L 0.8–1.5, HD 1.7–0.9–1.7
2. Faience, short cylinder, black (34), D 2.8, L 1.1, HD 1.1
3. Faience, short cylinder, blue and turquoise (32), D 2.5–4.0, L 1.0–2.5, HD 1.4
4. Faience, disc barrel, brown core (1), D 4.1, L 1.2, HD 1.5
Bibliography: OINE X, 91–92
204
Serra East B 43–1: Beads from superstructure (no body recorded); OIM E19688
C-Group
Faience, short cylinder, blue and turquoise (347), D 2.9–3.9, L 1.8–2.7, HD 0.9–1.4
Bibliography: OINE X, 92
Serra East B 43—2, 43—7: Beads from shaft (no body recorded); OIM E19689A–B C-Group
OIM E19689A
1. Ostrich eggshell, drilled from both ends, square plaques, whitish (7), Th 1.5–1.8, L 12.5 × 12.5, HD 1.1
2. Diorite, drilled from both ends, short cylinder, white and black (9), D 2.6, L 1.2–1.3, HD 1.2–0.6–1.2
4. Faience, disc cylinder, whitish core, blue, turquoise glaze (6), D 3.6, L 1.1, HD 1.0
OIM E19689B
5. Brown fibers wrapped in narrow leather thong fragments, "probably string for gold rings" (19 fragments), D 1.9–3.8, L 3.7–11.8
Bibliography: OINE X, 92
Serra East B 44–3: Beads from shaft (adult); OIM E19691
C-Group
1. Ostrich eggshell, drilled from both ends (16), D 4.6, L 1.2, HD 1.5
2. Faience, short cylinder, black (124), D 3.5–5.7, L 1.1–2.3, HD 1.0–1.6
Bibliography: OINE X, 92
207*  
Serra East B 45—5: Bead from shaft (no body recorded), sample—*non vidi*  
C-Group  
Diorite, disc (1), D 3.0, L 1.5  
Bibliography: OINE X, 94

208  
Serra East B 46—1: Beads from shaft (juvenile); OIM E19692  
C-Group  
Diorite, drilled from both ends, short barrel, white and black (121), D 2.6–2.7, L 1.1–1.3, HD 0.6  
Bibliography: OINE X, 95, fig. 47
Serra East B 47—2: Ibis amulet from shaft (adult); OIM E19693 C-Group
Electrum ibis (1) Th 1.6, L 12.6, H 11.0; base: L 7.0, W 2.7
Bibliography: OINE X, 96, fig. 48c, pl. 33b

209

Serra East B 48—1: Beads from grave (juvenile); OIM E19695 C-Group
1. Marine mollusk shell fragment, pierced (1), W 24.0 × 13.6, Th 0.2, HD 1.9
2. Ostrich eggshell, drilled from both ends (67), D 4.1–4.5, L 1.6–1.8, HD 3.1
3. Carnelian, drilled from both ends, short truncated barrel, red (1), D 8.4, L 3.4, HD 4.6–1.5–4.5—hourglass
4. Faience, short cylinder, white core (11), D 7.3–8.9, L 2.0–4.6, HD 3.1
Bibliography: OINE X, 96
Serra East B 49–6b, 8: Beads (and bone needle) from shaft (adult); OIM E19697
C-Group
1. Ostrich eggshell, drilled from both ends, slightly squared disc (1), D 20.3–19.4, L 2.0, HD 2.0
2. Ostrich eggshell, rectangular disc (1), D 14.2–11.4, L 2.0, HD 2.4
OIM E19699
Bibliography: OINE X, 97–98, fig. 49a–b

Serra East B 49–7: Amulet (two wrestlers/twins) from shaft (adult); OIM E19698
C-Group
Faience, amulet, spacer(?), traces of greenish glaze (1), W 10.2, H 13.3, Th 4.4, HD 4.1; 3.1
Bibliography: OINE X, 97–98, fig. 49c, pl. 33a
213
Serra East B 51–4: Beads from shaft (adult); OIM E19701
C-Group, phase IIA
1. Carnelian, drilled from both ends, short truncated barrel (1), D 2.4, L 1.1, HD 0.6
2. Gold, folded, short cylinder (2), D 2.6, L 0.9, HD 1.5
3. Faience, short cylinder, black (45), D 3.2–4.6, L 1.1–2.1, HD 1.3–1.6
4. Faience, short cylinder, light green (1), D 3.4, L 1.6, HD 0.8
5. Faience, short cylinder, black (7), D 2.4, L 0.8–1.0, HD 0.8
Bibliography: OINE X, 98
214
Serra East B 52–1: Beads found associated with grave (adult); OIM E19702
C-Group
1. Diorite, drilled from both ends, short cylinder, white and black (170), D 2.4–2.5, L 0.9, HD 0.8—hourglass
2. Carnelian, drilled from both ends, short truncated barrel (1), D 3.5, L 1.5, HD 2.4–0.8–2.4—hourglass
3. Faience, short cylinder, blue (2), D 3.8, L 1.2–1.7, HD 1.4
4. Faience, short cylinder, black (126), D 2.7, L 1.1, HD 0.8
Bibliography: OINE X, 99
215
Serra East B 53—3: Beads from shaft (adult); OIM E19703
C-Group
1. Ostrich eggshell, disc cylinder (1), D 5.9, L 1.5, HD 1.7
2. Diorite, drilled from both ends, short cylinder, black and white (7), D 2.4, L 0.8, HD 0.8—hourglass
3. Faience, short cylinder, green (21), D 3.6, L 1.5, HD 1.4
Bibliography: OINE X, 99

216*
Serra East B 54—1: Beads associated with grave (juvenile), sample—*non vidi*
C-Group
Bibliography: OINE X, 100
217
Serra East B 55—2: Beads from shaft (adult); OIM E19704
C-Group, phase IB
1. Diorite, drilled from both ends, disc and short cylinder, white and black (6), D 2.4, L 1.1–1.4, HD 1.2–0.7–1.2—hourglass
2. Faience, disc and short cylinder, blue (4), D 2.9–3.9, L 0.9–1.9, HD 1.4
3. Faience, disc and short cylinder, gray, blackish, greenish, yellowish (163), D 2.3–2.8, L 0.9–1.1, HD 0.8
Bibliography: OINE X, 100

218
Serra East B 56B—2: Beads from shaft (adult); OIM E19706
C-Group
Carnelian, drilled from both ends, barrel, red/orange (1), D 13.1, L 11.7, HD 5.4–1.5–5.4—hourglass
Bibliography: OINE X, 100, fig. 52b
219
Serra East B 59—2: Beads associated with grave (adult); OIM E19708
C-Group
1. Ostrich eggshell, drilled from both ends, disc (8), D 4.4, L 0.8–1.8, HD 1.9–0.9–1.9
2. Faience, disc, black (21), D 4.2, L 0.5–1.5, HD 1.2
Bibliography: OINE X, 101

220
Serra East B 60—1: Beads associated with grave (adult); OIM E19709
C-Group
1. Ostrich eggshell, drilled from one end, short cylinder (1), D 5.3, L 1.4, HD 3.0–1.9
2. Diorite, drilled from both ends, short cylinder, white and black (2), D 1.9, L 0.8, HD 0.4—hourglass
3. Faience, disc and short cylinder, gray, black, green (13), D 2.5–2.8, L 0.7–0.9, HD 0.8
4. Faience, short cylinder, turquoise (18), D 3.4–3.9, L 1.3–2.3, HD 1.5
5. Faience, long barrel, turquoise (18), D 2.3–2.5, L 3.4–4.8, HD 0.6
Bibliography: OINE X, 101
221
Serra East B 62—1: Beads associated with grave (adult);
OIM E19711
C-Group
Faience, short cylinder, blue/green/blackish (92),
D 3.4–4.1, L 0.9–1.8, HD 1.2
Bibliography: OINE X, 101

222
Serra East B 63—1: Beads associated with grave (adult);
OIM E19712
C-Group
Faience, short cylinder, blue/green/blackish (9), D 2.8,
L 1.1, HD 1.3
Bibliography: OINE X, 101
Serra East B 81–3: Beads associated with grave (adult); OIM E19734
C-Group
1. Ostrich eggshell, short cylinder (43), D 3.5–4.1, L 0.7–1.7, HD 1.4
2. Faience, short cylinder, bluish (266), D 3.2, L 0.9–1.6, HD 1.0
Bibliography: OINE X, 103
Serra East B 87–2, 87–3: Beads with shell in grave (adult); OIM E19740A

C-Group

1. *Nerita* sp. shell, perforation on the last whorl of the spire, whitish (9), Th 9.3, L 12.4 × 17.1, HD 2.0–3.3

2. Stone, irregular, gray (1), Th 4.6, L 15.0 × 11.3, HD 2.6

3. Stone, irregular, brownish (1), Th 2.7, L 16.1 × 16.3, HD 1.8

4. Diorite, drilled from both ends, short cylinder, white and black (4), D 2.5, L 1.3, HD 1.1–0.9–1.1

5. Faience, disc and short cylinder, brownish core, greenish glaze (35), D 3.1–3.9, L 1.1–2.1, HD 1.3

6. Shell, no traces of perforation (1), W 30.3, L 45.9, H 11.0—not illustrated

Bibliography: OINE X, 103
225  
Serra East: unknown location; OIM E35651  
Labeled as C-Group  
Diorite, drilled from both ends, short barrel (1), D 3.1, L 1.5, HD 1.8

226  
Serra East: unknown location; OIM E35659  
Labeled as C-Group  
Ostrich eggshell, drilled from both ends, disc cylinder (3), D ca. 4.7, L 1.6, HD 2.2

227  
Serra East: unknown location; OIM E35660  
Labeled as C-Group  
Faience, short barrel, blue (1), D 4.0, L 1.8, HD 1.8

228  
Serra East: unknown location; OIM E35661  
Labeled as C-Group  
1. Faience, ring (1), D 3.6, L 1.8, HD 1.5  
2. Faience, ring (1), D 2.3, L 1.0, HD 0.8

229  
Serra East: unknown location; OIM E35664  
Labeled as C-Group  
1. Faience, short cylinder, black (1), D 3.0, L 1.1, HD 1.0  
2. Faience, ring, greenish (half), D 2.6, L 0.7, HD 0.8
3.1.2. CORPUS OF OINE C-GROUP N-TYPE BEADS AND PENDANTS

Sites and Chronology

In many Middle Nubian tombs at Serra East, no pottery was found. This is true of the N-Type tombs identified by the presence of needles in many or most of them—something that differentiates them from most C-Group burials. The N-Type tombs are considered to belong “to [the] earlier C-Group, ending roughly in phase IB” (ca. 2000–1900 BC, late Eleventh and early Twelfth Dynasties), a dating that would make N-Type beads the oldest in the Middle Nubian assemblage.

This earlier dating would accord with an amulet form that was dated to the Fifth and Sixth Dynasties in Egypt. Ring-shaped ostrich eggshell beads and large black faience discs, both found in N-Type graves, do not appear in other C-Group graves. Twenty-five N-Type graves contained beads.

Materials and Techniques

The N-Type assemblage is dominated by faience beads. Ostrich eggshell and carnelian examples constitute the second-largest share. Some beads are made of other stones (diorite, quartz), animal bone, and Red Sea marine mollusk shells. An overview of types from N-Type graves is given in table 7.

Seed/Fruit

Black, berry-like organics may have been included accidentally in one grave. These organics could be seed cones from a juniper tree of the cypress family, most probably of the Juniperus excelsa species. They measure about 5 mm in diameter, 3 mm in thickness, and 2 mm in hole diameter.

Marine Mollusk Shells

A Polinices sp. shell perforated on the last whorl of the spire was found, and a Cypraea sp. cowrie shell had its dorsal part removed.

One disc cylinder / ring-shaped bead was made of a marine mollusk shell of an unidentified species (D 6.4–6.8, L 2.1, HD 2.9) (231.1).

Ostrich Eggshell

A few subtypes could be distinguished among ostrich eggshell beads: ring cylinders with wide perforation holes (D 4.1–4.7, HD 2.1 and D 2.9, HD 1.2) (244.1, 249.1), short cylinders with traces of drilling from both ends (D 4.1–6.7, L 0.9–1.8, HD 1.0–2.3) (234.1, 240.2, 244.2, 245), and disc cylinders with perfectly smoothed perforation holes (D 5.2–6.0, L 1.2–1.3, HD 1.6) (240.1).

Stones

Almost all stone (carnelian, quartz, and diorite) beads were drilled from both ends, resulting in a perforation with an hourglass shape. In softer stones (calcite), the perforation may have been made using copper drills, resulting in a bead hole with a double parallel shape.

Carnelian

Large globular beads were drilled from both ends, resulting in a perforation with an hourglass shape (D 9.5–10.3, L 6.9–8.4, HD 4.2–2.0) (230.1). They are comparable to one specimen from the C-Group.

Carnelian/agate

Short truncated bicones can be divided according to their diameters: small (D 2.3–2.8, L 0.9–1.2, HD 1.2–2.0) (233.2, 235.2), medium (D 4.0–4.4, L 1.8, HD 2.0) (235.1), and large (D 5.2–5.4, L 1.7–2.1, HD 2.6) (234.2).

Quartz

Standard and long barrel beads were made of white quartz (D 7.4–8.1, L 4.7–7.0, HD 3.3) (240.3).

Diorite

The shapes of diorite beads are short cylinders (D 2.6–2.7, L 1.0–1.2, HD 0.6) (252.1).

Calcite

A remarkable calcite bead is shaped into a long barrel (Th 6.5, W 6.9, L 9.3, HD 2.6) (240.4).

Stone(?)

A tabular perforated object may have been made of stone or faience (W 8.8, Th 5.2, L 12.8, HD 2.1–3.1) and can be compared with objects recorded in other C-Group tombs.

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335 OINE X, 26, table 7.
336 Ibid., 26–27.
337 Ibid., 37.
338 Cf. cat. no. 218 and references therein.
339 Cf. cat. no. 224.1–2.
Faience beads appeared in blue, green-blue, and black, and in most cases they were made by cutting a core tube into discs or short, standard, and (rarely) long cylinders. Such segments turned into more or less convex shapes during firing and after applying the glaze. Most faience beads had glaze; however, some blue beads, which appeared as glassy faience, have their cores missing, and the very fine cores may have been burned out during the glazing process. The beads may have been glazed by efflorescence, which was common in Kerman graves in the heartland and in Kerman burials in the Fourth Cataract region.340

In contrast to the P-Type bead assemblage, the large proportion of black faience beads in N-Type burials is significant.

340 Then-Obłuska 2014.
Disc to short cylinders

Small disc to short cylinders (D 2.4–4.2) are blue, green (233.4, 234.3, 235.4, 237, 238.1, 242.4, 243.2), and black or sometimes brown (230.2, 231.2, 232.1, 235.3, 238.2, 242.5, 6, 244.3). Medium short cylinders (D 3.7–4.0) are blue and green (232.2, 233.3).

Much larger in diameter than the abovementioned ones are the black disc cylinders, both large (D 5.5–6.5, L 1.2–2.0, HD 1.6–2.0) (240.5) and very large (D 7.1–8.0, L 1.1–1.3, HD 1.0) (246), which are unique in the Middle Nubian assemblage. Another exceptional type in the N-Type assemblage is the larger short cylinder (D 4.6–4.7), most probably self-glazed during firing (242.3).

A tabular faience form (W 8.8, Th 5.2, L 12.8, HD 2.1–3.1) may have been a roughly shaped faience core or a stone (cf. above) (243.3).

Faience oblate

A large faience oblate bead is blue-green (D 5.6–5.8, L 9.9, HD 1.6–1.9) (244.4).

Faience amulet

A faience amulet measures 5.3 mm in width, 3.5 mm in thickness, 9.9 mm in length, and 1.6–1.9 mm in hole diameter (244.5). Brunton described the type as a long lion shape and dated it to the Sixth Dynasty.341

Beadwork

An anklet made of large black disc beads (246) is the only threaded beadwork preserved in N-Type burials.

The Bead Owners

Beads were recorded with children’s burials in two cases. While one object (239) was not available for study, the second one (230) consists of a few faience and three large carnelian beads, whose jewelry attribution (necklace, bracelet, etc.) is uncertain. Other beads were found with a juvenile (233), a probable juvenile (244), and adults (231, 232, 234–238, 243, 245–255).

341 Brunton 1937, pl. 56:15.H2, H7. In one case the amulet was ascribed to the Fifth or Sixth Dynasty, but in the majority of cases it was dated to the Sixth Dynasty. For an unperforated amulet of similar shape, described as a hare, from Zawyet el-Aryan grave 240, see MFA 11.2740.
230
Serra East N-B 40—1: Beads from tomb (older infant); OIM E19683
C-Group
1. Carnelian, globular, red (3), D 9.5–10.3,
L 6.9–8.4, HD 4.2–2.0–4.2—hourglass
2. Faience, disc cylinder, black (3), D 2.8–4.2,
L 1.1–1.6, HD 1.4
Bibliography: OINE X, 104

231
Serra East N-B 61—2: Beads from tomb (adult); OIM E19710
C-Group
1. Marine mollusk shell, disc cylinder (1),
D 6.4 × 6.8, L 2.1, HD 2.9
2. Faience, short cylinder, black (4), D 3.0,
L 1.5–1.6, HD 1.1
Bibliography: OINE X, 104

232
Serra East N-B 65—1: Beads from tomb (adult); OIM E19713
C-Group
1. Faience, short cylinder, black (79), D 2.8,
L 1.0, HD 0.8
2. Faience, short cylinder, blue (1), D 4.0, L 2.1,
HD 1.4
Bibliography: OINE X, 105
233
Serra East N-B 66—1: Beads from tomb (juvenile); OIM E19714
C-Group
1. Seed/fruit, oblate, black (1), D 5.4, L 3.2, HD 2.0
2. Carnelian/agate, short truncated barrel (1), D 2.8, L 1.1, HD 1.2–0.7–1.2—hourglass
3. Faience, short cylinder, turquoise (6), D 3.7, L 1.1–1.9, HD 1.3
4. Faience, short cylinder, turquoise (6), D 2.6–3.0, L 1.0–1.5, HD 0.8
Bibliography: OINE X, 105
Serra East N-B 70—4: Beads and perforated *Nerita* shell, at pelvis (adult); OIM E19573A–C

C-Group

OIM E19573A

1. Ostrich eggshell, disc cylinder, drilled from one end, whitish (35), D 4.6–5.9, L 0.9–1.5, HD 1.9
2. Carnelian, drilled from both ends, short barrel, light red to red (5), D 5.2–5.4, L 1.7–2.1, HD 2.6–1.5–2.6
3. Faience, short and standard cylinder, brownish core, bluish, greenish, and blackish glaze (171), D 2.7–3.1, L 1.2–2.9, HD 0.9

OIM E19573B

4. *Cypraea* sp. shell, body whorl perforated, whitish (1), Th 5.1, L 14.2 × 21.0, HD 14.7 × 11.4

OIM E19573C

5. *Polinices* sp. shell, apex missing (perhaps accidental) and spire whorl perforated, whitish (1), Th 9.8, L 13.7 × 15.6, HD 4.4; 4.8

Bibliography: OINE X, 105–6
235
Serra East N-B 84—1: Beads from tomb (adult); OIM E19735
C-Group
1. Carnelian, drilled from both ends, short truncated barrel, red (21), D 4.0–4.4, L 1.8, HD 2.0–0.9–2.0—hourglass
2. Carnelian, drilled from both ends, short truncated barrel, red (6), D 2.3, L 0.9–1.2, HD 2.0–0.9–2.0—hourglass
3. Faience, short cylinder, black (197), D 2.1–2.9, L 0.7–1.6, HD 0.8
4. Faience, short cylinder, greenish, bluish, yellowish (246), D 2.1–2.9, L 0.7–1.6, HD 0.8
Bibliography: OINE X, 106

236°
Serra East N-B 85—1: Beads from tomb (adult), sample—non vidi
C-Group
Bibliography: OINE X, 106
237
Serra East N-B 86—5: Bead necklace from tomb (adult); OIM E19739
C-Group
Faience, disc cylinder, blue and green (403), D 3.5, L 0.9–1.6, HD 1.0
Bibliography: OINE X, 106–7

238
Serra East N-B 91—1: Beads from tomb (adult); OIM E19742
C-Group
1. Faience, short cylinder, turquoise (115), D 3.2–3.5, L 0.9–2.2, HD 1.2
2. Faience, short cylinder, blackish (21), D 3.2–3.5, L 0.9–2.2, HD 1.2
Bibliography: OINE X, 107–8

239*
Serra East N-B 93—1: Beads from tomb (older infant), sample—non vidi
C-Group
Bibliography: OINE X, 57, 108
Serra East N-B 100B—1: Beads from tomb (no body recorded); OIM E19748

C-Group
1. Ostrich eggshell, disc cylinder, white (43), D 5.2–6.0, L 1.2–1.3, HD 1.6
2. Ostrich eggshell, disc cylinder, white (16), D 4.1, L 1.3–1.4, HD 0.9
3. Quartz, barrel, whitish (7), D 7.4–8.1, L 4.7–7.0, HD 3.3
4. Calcite(?), drilled from both ends, long barrel, colorless (1), D 6.9 × 6.5, L 9.3, HD 2.6—double parallel
5. Faience, disc cylinder, black (40), D 5.5–6.5, L 1.2–2.0, HD 1.6–2.0

Bibliography: OINE X, 108–9
241
Serra East N-B 103C—4: Beads from tomb (no body recorded); OIM E19751
C-Group
1. Ostrich eggshell, disc cylinder (3)
2. Ostrich eggshell, disc to short cylinder (37)
3. Carnelian, disc cylinder (4)
4. Faience, short to standard cylinder, black (23)
Bibliography: OINE X, 109

242
Serra East N-B 104—1: Beads from tomb (no body recorded); OIM E19752
C-Group
1. Ostrich eggshell, disc cylinder (39),
   D 4.5–4.6, L 1.2–1.4, HD 1.5
2. Ostrich eggshell, disc cylinder (1), D 3.1, L 1.5, HD 0.9
3. Faience, short cylinder, whitish (19),
   D 4.6–4.7, L 1.9–2.8, HD 1.6
4. Faience, short cylinder, turquoise (11),
   D 3.1–3.5, L 0.9–1.6, HD 1.6
5. Faience, short cylinder, black (18),
   D 2.8–3.1, L 0.9–1.2, HD 0.8
6. Faience, short cylinder, black (2), D 3.9, L 1.8, HD 1.5
Bibliography: OINE X, 109
243
Serra East N-B 106–1: Beads from tomb (adult); OIM E19755
C-Group
1. Carnelian, drilled from both ends, short truncated barrel (19), D 2.5–2.7, L 0.9–1.0, HD 0.5—hourglass
2. Faience, short cylinder, blue/green/gray (38), D 2.5–2.6, L 1.0, HD 1.0
3. Faience, tabular, gray core (1), L 12.8, W 8.8, Th 5.2, HD 2.1 × 3.1
Bibliography: OINE X, 108
Serra East N-B 107–8: Beads from tomb, probably with intrusive burial A (juvenile);
OIM E19756
C-Group
1. Ostrich eggshell, drilled from both ends, disc rings, white (80), D 4.1–4.7, L 1.0–1.4, HD 2.1
2. Ostrich eggshell, drilled from both ends, disc, white (2), D 6.1; 6.7, L 1.6; 1.5, HD 2.3; 1.5
3. Faience, short cylinder, black, brownish (2), D 3.9, L 2.7, HD 1.2
4. Faience, oblate, turquoise (1), D 5.8 × 5.6, L 4.8, HD 0.9
5. Faience, amulet, turquoise (1), W 5.3, Th 3.5, L 9.9, HD 1.9 × 1.6
Bibliography: OINE X, 109–10, 16, fig. 8a
Serra East N-B 109–2: Beads from tomb (adult); OIM E19760
C-Group
Ostrich eggshell, drilled from both ends, disc cylinder (218), D 4.5–6.3, L 1.5–1.8, HD 1.0–1.7
Bibliography: OINE X, 110
246
Serra East N-B 115—1: Bead anklet from tomb (adult); OIM E19764
C-Group
Faience, disc, black (256), D 7.1–8.0, L 1.1–1.3, HD 1.0
Bibliography: OINE X, 110, fig. 62
247
Serra East N-B 115—2: Beads from tomb (adult); OIM E19765
C-Group
1. Faience, short cylinder, turquoise (102), D 2.4–2.6, L 0.8–1.0, HD 0.7–1.0
2. Faience, short cylinder, turquoise (278), D 2.9–3.7, L 1.3–1.7, HD 1.5
3. Faience, short cylinder, turquoise (232), D 2.9–3.7, L 1.3–1.7, HD 1.5
4. Faience, short cylinder, turquoise (133), D 2.4–2.6, L 0.8–1.0, HD 0.7–1.0
Bibliography: OINE X, 110
Serra East N-B 118–1: Beads from tomb (adult); OIM E19766
C-Group
Faience, short and standard cylinder, black, a few blue/green (116), D 2.8, L 0.8–2.8, HD 1.0
Bibliography: OINE X, 111
Serra East N-B 119—1: Beads from tomb (adult); OIM E19767
C-Group
1. Ostrich eggshell, drilled from both ends, disc cylinder (13), D 2.9, L 0.8, HD 1.2
2. Carnelian, disc cylinder (91), D 3.5–4.1, L 0.9–1.5, HD 0.8
3. Faience, short and standard cylinder, black, brownish (51), D 2.8–3.3, L 0.8–2.0, HD 1.2
4. Faience, short and standard cylinder, turquoise (15), D 3.0–3.3, L 0.7–1.6, HD 1.7
Bibliography: OINE X, 111
250*
Serra East N-B 122—2: Beads from tomb (adult), sample—non vidi
C-Group
Bibliography: OINE X, 58, 112

251
Serra East N-B 125—1: Beads from tomb (adult); OIM E19771
C-Group
1. Ostrich eggshell, disc cylinder (76), D 2.5–4.3, L 0.9–1.4, HD 0.8
2. Faience, short cylinder, black and brown (121), D 2.7–4.3, L 1.0–1.9, HD 1.5
3. Faience, short cylinder, turquoise (21), D 2.7–4.3, L 1.0–1.9, HD 1.5
Bibliography: OINE X, 112–13
Serra East N-B 126–1: Beads from tomb (adult); OIM E19772

C-Group

1. Diorite, drilled from both ends, short cylinder, black and white (5), D 2.6–2.7, L 1.0–1.2, HD 0.6
2. Carnelian, drilled from both ends, short cylinder, red (1), D 3.9, L 1.8, HD 2.4–1.4–2.4—hourglass
3. Faience, drilled from both ends, short cylinder, black (20), D 3.5, L 1.2, HD 1.0

Bibliography: OINE X, 113
Serra East N-B 127—1: Beads from tomb (adult); OIM E19773
C-Group
1. Ostrich eggshell, drilled from both ends, short cylinder (1), D 4.1, L 1.4, HD 1.0
2. Faience, disc turquoise (1), D 4.9, L 1.1, HD 1.4
3. Faience, short cylinder, turquoise (143), D 2.6–3.2, L 0.8–1.3, HD 1.1
4. Faience, short cylinder, black (3), D 2.6–3.2, L 0.8–1.3, HD 1.1
Bibliography: OINE X, 113
Serra East N-B 129—1: Beads from tomb in *redim* (adult); OIM E19777
C-Group
Faience, short cylinder, light turquoise (73), D 2.2, L 0.8–1.3, HD 0.9
Bibliography: OINE X, 113

Serra East N-B 130—1: Beads from tomb in *redim* (adult), sample—*non vidi*
C-Group
Bibliography: OINE X, 113
3.1.3. CORPUS OF OINE C-GROUP P-TYPE BEADS AND PENDANTS

Sites and Chronology

Beads were recorded in eight P-Type graves (256–265). P-Type graves were contemporary with the latest phase of cemetery B at Serra East—phase IIA (ca. 1850–1750 BC, mid-Twelfth to Thirteenth Dynasty). These graves were tentatively identified as Pan Grave burials, but while colorful lozenge-patterned leather beadwork and metal rings were found in C-Group tombs (258, 259), the latter have also been recorded in a Pan Grave tomb at Mostagedda. It seems that P-Type graves were linked with the Pan Grave culture, whose grave contents were dominated by ostrich eggshell beads (256). Still, it should be emphasized that the P-Type material is not a purely Pan Grave tradition despite the sharing of some common features. Pan Grave, in its strictest sense, is limited in time and space but emerged out of a longer-lasting and widespread tradition.

Materials and Techniques

Faience beads, however, dominated the P-Type bead assemblages. Ostrich eggshell, carnelian, and metal beads constitute the second-largest group. Other materials (glazed steatite, ocher) are represented by singular items. An overview of the bead types from P-Type graves is given in table 8.

Ostrich Eggshell

Ostrich eggshell beads, both discs and short cylinders, were drilled from both ends, often with almost-parallel perforations. They range from 3.0 to 5.5 mm in diameter, 0.9 to 1.8 mm in length, and 0.9 to 2.5 mm in hole diameter (256.1, 259.1, 8, 260.1, 3, 261.1, 6, 263.1, 264.1).

Metal

Gold

One necklace was made of cast gold disc cylinder rings. The beads measure 4.1 mm in diameter, 0.47 mm in length, and 2.2 mm in hole diameter (258.1).

One gold foil was folded into a long bead and measures 2.6 mm in diameter, 3.4 mm in length, and 0.7 mm in hole diameter (260.4).

Silver(?) over a core

One bead fragment consists of silver(?) foil that was folded over a brown, probably ceramic, core. It measures 4.2 mm in diameter, 3.6 mm in preserved length, and 1.4 mm in hole diameter (265.1).

Stone

Stone beads make up a small portion of the P-Type assemblages.

Ocher or jasper

A flat crescent pendant with its perforation drilled from both sides measures 7.1 mm in width, 3.5 mm in thickness, 90.0 mm in length, and 3.1 mm in hole opening (262).

Carnelian

Carnelian short cylinders, some with slightly convex or biconical sides, were drilled from both ends, resulting in an hourglass-shaped perforation. They range from 3.2 to 4.4 mm in diameter, 1.0 to 2.1 mm in length, and 1.8 to 2.4 mm in hole diameter (259.2, 261.2).

Glazed steatite

A long cylinder consists of a white core and blue-green glaze and measures 3.9 mm in diameter, 7.5 mm in length, and 1.9 mm in hole diameter (256.2).

Faience

Faience disc to short cylinders

Small, faience disc to short cylinders measure 2.3–4.0 mm in diameter (256.5, 258.2, 259.4, 6, 7, 9–11, 13, 261.5, 346 Säve-Söderbergh 1989a, 116; Säve-Söderbergh 1989b, pl. 50, 2 (site 179/6:5a—about seven hundred small gold rings, and from the same grave [179/6:5b] a necklace of some two thousand beads of silver; see ibid., 1989a, 116; 1989b, pl. 50, 3).

347 For an electrum sheet over a barrel-shaped core in a Pan Grave context, see Brunton 1937, 126.

348 For a similarly shaped crescent pendant, in shell or ivory, from an A-Group context, see Firth 1915, pl. 28c:12 (grave 102:9:i).

342 OINE X, 37.

343 Ibid.


345 Cf. the discussion in the chapter on the Pan Grave culture.
BEADS FROM EXCAVATIONS

Table 8. Overview of types from P-Type graves

<table>
<thead>
<tr>
<th>Material</th>
<th>Bead (B) or pendant (P)</th>
<th>Length and shape</th>
<th>Size</th>
<th>Color(s)</th>
<th>Catalog number(s)</th>
<th>Figure number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ostrich eggshell</td>
<td>B</td>
<td>Disc and short cylinder</td>
<td></td>
<td></td>
<td>256.1, 259.1, 8, 260.1, 3, 261.1, 6, 263.1, 264.1</td>
<td></td>
</tr>
<tr>
<td>Gold</td>
<td>B</td>
<td>Disc cylinder</td>
<td></td>
<td></td>
<td>258.1</td>
<td></td>
</tr>
<tr>
<td>Silver over ceramic core</td>
<td>B</td>
<td>Long barrel</td>
<td></td>
<td></td>
<td>265.1</td>
<td></td>
</tr>
<tr>
<td>Ocher/jasper</td>
<td>P</td>
<td>Flat crescent</td>
<td></td>
<td></td>
<td>262</td>
<td></td>
</tr>
<tr>
<td>Carnelian</td>
<td>B</td>
<td>Short cylinder</td>
<td></td>
<td></td>
<td>259.2, 261.2</td>
<td></td>
</tr>
<tr>
<td>Glazed steatite</td>
<td>B</td>
<td>Long cylinder</td>
<td></td>
<td></td>
<td>256.2</td>
<td></td>
</tr>
<tr>
<td>Faience</td>
<td>B</td>
<td>Disc to short cylinder</td>
<td>Small</td>
<td>Blue-green</td>
<td>256.5, 258.2, 259.4, 6, 7, 9–11, 13, 260.5–6, 261.5, 7–8, 263.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Large</td>
<td></td>
<td>261.3–4</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Short cylinder</td>
<td></td>
<td>Gray</td>
<td>264.2, 265.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Black</td>
<td>259.5, 12</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Long bicone</td>
<td></td>
<td>Brownish core and blue glaze</td>
<td>256.3–4</td>
<td></td>
</tr>
</tbody>
</table>

7–8, 263.2). Larger beads measure 4.1–4.6 mm in diameter (261.3, 4). While most of them no longer have their glaze, they retain traces of blue or blue-green glaze, and some blue examples have a characteristic glassy appearance due to the loss of their very fine faience core during the firing process. In other beads, the once-white core now has a greenish hue often covered with dark dirt. Only one bead has a black glaze (263.3). Small blue-green beads were found in Kerma graves\(^{349}\) and are common in C-Group assemblages.\(^{350}\)

Some short cylinders have a darker, grayish appearance (264.2, 265.2). A few are black, most probably because they were overfired (259.5, 12). Some larger specimens with a brownish core preserve traces of blue glaze (D 3.4 to 4.0, L 1.9 to 3.1) (256.3, 4).

Faience long bicone

A long bicone of blue-green faience measures 3.7 mm in diameter, 6.0 mm in length, and 0.9 mm in hole diameter (256.6).

Beadwork

The beads found associated with leather remains in P-Type contexts were mainly of faience and ostrich eggshell (260, 264). In only one case, tomb P-B 73 (259), were the details of beadwork on leather preserved on a skirt or kilt, and a reconstruction was drawn on the burial excavation sheet (fig. 13). Blue faience, carnelian, and ostrich eggshell beads were arranged in colorful lozenges, comparable to C-Group examples known from Aniba,\(^{351}\) while the border was designed in a zigzag pattern. Lozenge designs were also recorded from two other burials at Aniba.\(^{352}\) In one case, the diversity of patterns and colors within the many diamond-shaped patterns is unique.\(^{353}\)

A necklace of gold rings from the same burial, P-B 73 (258.1), was typical of C-Group adornment, and the burial might be attributed instead to the C-Group. However, strings of rings that were made of rolled-up

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349 Then-Obłuska 2014.
350 Cf. chapter 3.1 on the C-Group.
351 Steindorff 1935, pls. 24, 25.
352 Ibid., pls. 27, 28.
353 Ibid., pl. 28 (grave N 487).
Figure 13. Excavation sheet of tomb P-B 73 (258–259)
gold, electrum, or silver strips are also recorded from Pan Grave contexts at Mostagedda.\textsuperscript{354}

The Bead Owners

In one case, beads and a crescent-shaped pendant were found with a cattle burial (262–263). Bead adornments associated with cattle have been recorded at other C-Group sites.\textsuperscript{355}

Beads and pendants in P-Type graves were recorded with adults (256, 257, 260, 261), juveniles (258–259, 264), and infants (265). Leather beadwork from the pelvis area was found in both juvenile burials (259, 264). Beads on leather were also found in an adult grave (260).

\textsuperscript{354} Brunton 1937, 126, grave 3163, 3251, pl. 76, 47 (= Andrews 1981, cat. no. 617).

\textsuperscript{355} For strings of beads on sacrificial animals, see, e.g., Vila 1987, 217, fig. 246.
256
Serra East P-B 69—1: Beads from grave (adult);
OIM E19568
C-Group
1. Ostrich eggshell, drilled from both ends,
disc and short cylinder (250 and ca. 20 in
fragments), D 3.9–5.5, L 1.1–1.7, HD 0.9
2. Steatite, long cylinder, blue/green glaze (1),
D 3.9, L 7.5, HD 1.9
3. Faience, short cylinder, brownish
weathering (39), D 3.7–3.9, L 1.9–3.1, HD 1.1
4. Faience, short cylinder, turquoise (5),
D 3.4–4.0, L 2.0, HD 1.1
5. Faience, short cylinder, turquoise (17),
D 2.6–3.0, L 1.0–1.7, HD 0.7
6. Faience, long bicone, turquoise (1), D 3.7,
L 6.0, HD 0.9
Bibliography: OINE X, 113, fig. 66
Serra East P-B 72—2: Beads from grave (adult); OIM E19718
C-Group
Faience, short cylinder, blue/gray (121), D 2.4–3.1, L 1.4–1.9, HD 1.1
Bibliography: OINE X, 114
258
Serra East P-B 73–1: Gold and faience bead necklace from grave (juvenile); OIM E19577
C-Group
1. Gold, disc cylinder (ca. 170), D 4.1, L 0.47, HD 2.2
2. Faience, disc cylinder, blue (1), D 3.6, L 1.5, HD 1.6
Bibliography: OINE X, 114
259
Serra East P-B 73—4: Beads from leather—girdle or kilt (juvenile); OIM E19582A—G
C-Group
OIM E19582A
1. Ostrich eggshell, drilled from both ends, disc cylinder (12), D 3.4–4.4, L 1.3–1.6, HD 2.5–1.3–2.5
2. Carnelian, short cylinder, some slightly convex or biconical, drilled from both ends (709), D 3.2–3.4, L 1.1–1.5, HD 1.8–1.0–1.8—hourglass
3. Carnelian, short cylinder, truncated barrel and bicone, drilled from both ends (1), D 3.2, L 1.3, HD 1.8–1.0–1.8—hourglass
4. Faience, disc and short cylinder, turquoise (492), D 3.0–3.9, L 1.0–1.5, HD 1.1
5. Faience, short cylinder, brown (3), D 2.6, L 1.7; 1.9, HD 1.5
6. Faience, disc and short cylinder, turquoise (629), D 2.7–4.0, L 1.0–1.7, HD ca.1.0
OIM E19582C
7. Faience, disc and short cylinder, turquoise (597), D 2.7–4.0, L 1.0–1.7, HD ca.1.0
259 (continued)
OIM E19582D
8. Ostrich eggshell, drilled from both ends, disc cylinder (756), D 4.1–4.5, L 1.2–1.8, HD 1.2
9. Faience, disc cylinder, blue (1), D 3.7, L 1.4, HD 1.3
OIM E19582E
10. Faience, disc and short cylinder, turquoise (573), D 3.5, L 1.4, HD 1.3
259 (continued)
OIM E19582F
11. Faience, disc and short cylinder, turquoise (640), D 2.9–4.0, L 1.0–1.9, HD 1.3
12. Faience, short cylinder, brown (3), D 2.6–2.9, L 1.7; 1.9, HD 1.5
OIM E19582G
13. Faience, disc and short cylinder, turquoise (592), D 2.8–4.0, L 1.0–1.8, HD 1.3
Bibliography: OINE X, 114–15, fig. 68f, pl. 43

259.11–12

259.13
260
Serra East P-B 74–2, 3: Gold bead and other beads on leather (adult); OIM E19720
C-Group
1. Ostrich eggshell, drilled from both ends, disc and short cylinder (86), D 3.6–5.1, L 1.0–1.8, HD 2.1–1.4–2.1
2. Faience, disc and short cylinder, turquoise (298), D 1.8–4.1, L 0.7–2.2, HD ca. 1.1
260 (continued)
3. Ostrich eggshell, drilled from both ends, disc cylinder (1), D 4.1, L 1.3, HD 1.5
4. Gold foil, folded, barrel (1), D 2.6, L 3.4, HD 0.7
5. Faience, short cylinder, turquoise (664), D 2.8–3.9, L 1.0–2.0, HD 0.9
6. Faience, disc cylinder, turquoise (235), D 2.1, L 0.6, HD 0.6
Bibliography: OINE X, 115

261
Serra East P-B 75—4: Beads in tomb (adult); OIM E19722
C-Group
1. Ostrich eggshell, drilled from both ends, short cylinder (311), D 3.0–4.3, L 0.9–1.7, HD 1.1
2. Carnelian, short truncated barrel (21), D 3.2–4.4, L 1.0–2.1, HD 2.4–1.2–2.4
—hourglass
3. Faience, short cylinder, blue (19), D 4.1–4.6, L 1.2–1.8, HD 1.7
4. Faience, short cylinder, brownish, weathered (2), D 4.1–4.6, L 1.2–1.8, HD 1.7
261 (continued)
5. Faience, short cylinder, blue/green (2), D 3.1, L 1.3, HD 0.9
6. Ostrich eggshell, perforated from both ends (23), D 3.3–4.1, L 1.4–1.7, HD 1.3
7. Faience, short cylinder, bluish, greenish, dark blue, brown (126), D 2.8–3.6, L 0.8–1.8, HD 1.1
8. Faience, disc cylinder, bluish, greenish, dark blue, brown (316), D 3.0, L 0.6–1.5, HD 0.7
Bibliography: OINE X, 115

262
Serra East P-B 76–2: Pendant in cattle burial; OIM E19723
C-Group
Jasper or ocher, drilled from both ends, flat crescent pendant, dark red (1), Th 7.1 × 3.5, L 90.0, HD 3.1–0.8–3.1
Bibliography: OINE X, 115, fig. 71b
263
Serra East P-B 76–3: Beads in cattle burial; OIM E19724
C-Group
1. Ostrich eggshell, short cylinder (7), D 4.2–5.4, L 1.0–1.4, HD 1.9
2. Faience, short cylinder, turquoise (14), D 2.5–3.0, L 0.4–1.0, HD 1.1–1.0
3. Faience, short cylinder, turquoise (2), D 3.9, L 1.9, HD 1.5
4. Faience, short cylinder, black (1), D 2.4, L 1.5, HD 0.9
Bibliography: OINE X, 115, 117, fig. 71

264
Serra East P-B 78–2: Beads from leather at pelvis (juvenile); OIM E19725
C-Group
1. Ostrich eggshell, short cylinder, drilled from both ends (55), D 3.3, L 1.7–1.8, HD 1.2–0.6–1.2
2. Faience, short cylinder, greenish, blue/gray (135), D 2.3–3.0, L 0.9–1.9, HD 1.1
Bibliography: OINE X, 117
265
Serra East P-B 80—2: Beads in tomb (older infant); OIM E19729
C-Group
1. Metal sheet over brown core, long barrel, silver (1—fragment), D 4.2, L 3.6 (preserved), HD 1.4
2. Faience, short cylinder, light blue (19), D 2.5–2.9, L 1.1–1.7, HD 1.4
Bibliography: OINE X, 118
3.2. THE PAN GRAVE BEAD STORY

The Pan Grave phenomenon links characteristics of material culture that have been recognized in the Nile Valley, the deserts of Egypt and Nubia, and even as far south as Jebel Moya, located in the Gezira Plain between the White and Blue Niles.356

One of the unique characteristics of Pan Grave pottery is a four-horned plate, often incised with motifs that resemble the pattern of ostrich feathers.357 Interestingly, a similar but etched design also appears on a leather wrist-guard used for archery and found in a Pan Grave burial at Mostagedda.358 Although ostrich eggshell beads are known from the Nubian C-Group and Kerma graves,359 they constitute the overwhelming majority of beads in Pan Grave assemblages. They are extremely common in Pan Grave tombs in Egypt,360 but they are much more numerous than faience beads in the largest Lower Nubian Pan Grave cemeteries.361 At Aniba, almost all graves with shell plaques, or “spacers”—also a defining characteristic of Pan Grave jewelry—contained ostrich eggshell beads.362 Bietak has noted that the combined weight of ostrich eggshell beads in Pan Grave ornaments could be so great that these ornaments are unlikely to have been everyday jewelry and could not have been worn at one time.363 Thus it is very probable that the more than twenty-four hundred ostrich eggshell and a few garnet beads found in grave K 47 (1a–b) at Adindan, and ascribed to the C-Group culture, actually belonged to a Pan Grave burial (164). This likelihood stems from the considerable number of beads used for some item of adornment or clothing.

At Masmas, ostrich eggshell beads were found threaded to form belts364 or necklaces.365 In Pan Grave burials at Adindan, some ostrich eggshell beads were found still threaded together (272.1, 277.1, 279.2), but it is uncertain whether they were fragments of belts or necklaces. In some cases, ostrich eggshell beads were identifiably part of leather beadwork of an indeterminate nature366 (268.2, 270) or were stitched in single or double rows into the seams of leather clothes.367

Although large pendants made of the Red Sea shell Pinctada sp. were found in many Kerma graves,368 long rectangular plaques cut from Pinctada and pierced at each end were tied together into wristlets or armlets and are a diagnostic feature of the Pan Grave culture (269, 271, 273, 277.2, 278.1, 283.1, 290, 291.1). In the past, the nacre (mother-of-pearl) armlet plaques were called “spacers” because they could have been used to hold strings of beads apart; but they were found threaded together into armlets with a rawhide thong.369 In a burial at Hu (Diospolis Parva), in Egypt, were found three bracelets on each forearm of the deceased person. They were threaded together by two strands of sinew passing through each hole in opposite directions to keep the thin plaques edge to edge.370 Fragments of original threading were found at Hierakopolis, and a tomb in cemetery HK47 had a beaded plaque with two threads that passed through each hole of the beads, strung together in a palisade arrangement with a leather thong.371 Remarkably, such plaques formed a belt in one female adult burial at Masmas.372 These shell “spacers” have been found as far south as Jebel Moya.373

After the nacre armlets, the Red Sea Nerita sp. shells (277.4) are the second most characteristic feature of Pan

357 E.g., Säve-Söderbergh 1989b, pl. 2I:Pi.1.
358 BM EA63225, grave 3135.
359 See Reisner 1923, 109, where he notes that “ring beads of white shell were used chiefly in decorating drawstrings of leather skirts . . . , in parcolored beaded lozenges on leather skirts . . . , and in beaded pot-nets . . . , but they also occurred in necklaces.”
360 Brunton 1937, pl. 76, 63 (3170), 126; Andrews 1981, cat. nos. 580–81, 592–93, 595, 599–604, 606–7, 609–13, 615–16, 619, 621, 623–25, 628, 631–32, 634–35, 644–45, 647, 660—all described as “shell”; and at Hierakopolis, where more than one thousand ostrich eggshell beads have been recorded at cemeteries HK47 and HK21 (Dr. Renée F. Friedman, personal communication).
361 Säve-Söderbergh 1989a, 84–88—at Pan Grave cemeteries at Debeira (sites 47, 99, 170) and Ashkeit (site 95), ostrich eggshell beads (A 1–A 2) are much more numerous than faience ones (F).
362 Steindorff 1935, 54 (form D 14 and G), pl. 27f.
363 Bietak 1966, 57.
Grave personal adornment. 374 Some *Nerita* sp. shells were also found with burials ascribed to the C-Group culture (188, 195.1, 224.1). 375 *Polinices* sp. shells were found in both C-Group (135, 138.1–2) and Pan Grave burials. 376 In contrast to *Nerita, Conus,* and *Polinices* sp. (289), sliced *Nassa* shells (291.2, 292.4) have not been found in C-Group contexts but only in Pan Grave assemblages. On the other hand, cowrie shells, which were used by the C-Group people, are absent from Pan Grave contexts. 377

Black beads made of fruit or seed (270.3) have been identified in Pan Grave burials in Hierakonpolis, where they were also found alternating with ostrich eggshell beads. 378 They were collected in similar form as surface finds at Adindan cemetery (cf. 348.4). It is possible that the seeds/fruits come from a juniper tree of the cypress family.

Tiny disc cylinders of carnelian, so common in C-Group leather beadwork, are, except for seven specimens (267.3–4, 286.2, 291.4), almost absent from the OINE Pan Grave assemblages. They are rarely found at Pan Grave sites in Egypt, 379 and only five carnelian beads were recorded at cemeteries HK47 and HK21 at Hierakonpolis. 380 At Lower Nubian sites, carnelian beads are also rare finds; carnelian was recorded with only two Pan Grave burials at Aniba, 381 and at the largest Pan Grave cemeteries at Debeira site 47 and Ashkeit site 95, only a few carnelian beads were recorded. 382

Although still restricted in number, beads made of amethyst and garnet seem to have been favored by the Pan Grave people. Amethyst beads were especially common in the Middle Kingdom, during the Eleventh to Twelfth Dynasties, 383 and they are also known from Kerma. 384 Still, at Mostagedda, 385 in Egypt, and in the Lower Nubian cemeteries at Masmas, 386 Aniba, 387 Debeira, 388 Ashkeit, 389 and Abka, 390 amethyst beads were found mainly in Pan Grave tombs. In the Middle Nubian OINE collection they were found solely in Pan Grave contexts (267.1, 270.5, 291.5). Access to precious stone material from the Eastern Desert, like amethyst, was easier for the Pan Grave people, who dwelt there. Recently, the involvement of the Middle Nubian and Pan Grave cultures in such mining has been archaeologically verified from the amethyst mining area in the Wadi el-Hudi, about 35 km to the southeast of Aswan. 391

Many examples of garnet beads appear in Pan Grave contexts (267.5, 268.3, 274.3, 287.2, 288.2); for example, an exceptional bracelet composed of forty-eight garnet beads was recorded from Hierakonpolis burial 10. 392 Similarly to amethyst, garnet beads were common in Middle Kingdom Egypt. 393 Some spherical garnet beads, whose source is believed to be

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374 Wainwright 1920, 19; Bietak 1966, 59; Säve-Söderbergh 1989a, 138.
375 Steindorff 1935, pl. 27d; MAN 1980/91/305.8—ANX F, T.41, Argin W. ANX was ascribed to the C-Group culture (Almagro, Presedo, and Pellicer 1963).
376 For *Polinices* shell, called *Natica* in a Mostagedda Pan Grave tomb, see Brunton 1937, 126; Andrews 1981, cat. nos. 636, 668, 673, 674.
377 Wainwright 1920, 19.
378 Dr. Renée F. Friedman (personal communication)—Hierakonpolis HK47, burials B20, B23, B25 assoc.; for seed beads in C-Group burials, compare cat. no. 233.1.
379 E.g., Andrews 1981, cat. nos. 591 (string), 594 (one bead), 598 (some small beads), 617, 620 (two short cylinders), 634 (a few oblate), 636 (three tiny), and 653 (a few).
380 Dr. Renée F. Friedman (personal communication)—HK47, burials B9, B20 assoc., B23.
381 Steindorff 1935, 53, form C 4 from N 87, 54, form E 4 from N 87.
382 For all nineteen carnelian beads at cemetery site 47 at Debeira, see Säve-Söderbergh 1989a, 84–85; for all thirty carnelian beads at cemetery site 95 at Ashkeit, see ibid., 86; Emery and Kirwan 1935, 316, object 201/20:2, 319, object 201/31:4.
384 For amethyst beads from Kerma, see Dunham 1982, 38; Reisner 1923, 73, 80, 82, 98, 99, 102, 106, 116, 120, 123, 130; Markowitz and Doyex 2014, fig. 10; MFA 13.4111—Middle Kerma, tomb K 1053; MFA 13.4113.
386 Emery and Kirwan 1935, 312, object 201/1.9. 320, object 201/38.2—amethyst and carnelian ball and barrel beads in a necklace; ibid., 315, object 201/15.8—mixed beads, including carnelian and amethyst beads; MAN 1980.97.39.40—cemetery at Masmas (FARK.1), excavated by the Spanish Mission to Sudan.
387 Steindorff 1935, 52–53—form B 5 from N 87, C 5 from N 27 and N 87.
388 Säve-Söderbergh 1989a, 79, objects 47/7.6a, 47/131.1, 87, objects 170/1.4–6, 88, object 170/25.1, 79, object 95/171.3, 87, objects 99/6.5, 99/9.3; but also probably C-Group objects 332/25.2b and 410/20.2.
389 Ibid., 86, object 95/171.2–3.
390 Ibid., 233, object 254/3.1.
391 See Liszka 2014, 44–45, for Nubian engagement in the mining; Shaw 2006; Shaw 2012; Shaw and Jameson 1993 for Middle Kingdom amethyst mining.
392 Friedman 2001; Dr. Renée F. Friedman (personal communication—a garnet bead in Hierakonpolis cemetery HK47 in burial B20 assoc.).
surface deposits from Dongola Province, were found at Kerna. 394

Some larger stone beads in the Pan Grave repertoire may have come from Kerna, since they were found together with a glazed rock-crystal bead (270.6). Blue-glazed quartz and rock-crystal beads constitute a characteristic feature of Kerna culture, and glazed crystal beads were especially common in the Classic Kerna phase (ca. 1700–1550 bc). 395 Interestingly, a blue-glazed rock-crystal pendant was also recorded from a Pan Grave burial at Hu in Egypt. 396

In contrast to other Middle Nubian assemblages, only a small number of faience beads were found in Pan Grave burials at Adindan and Serra East. Brunton noted that the material quality of the faience beads found at Mostagedda was clearly different from that of the faience found in contemporary Egyptian graves, and he concluded that the Pan Grave people manufactured their own faience. 397 Since the quality is comparable to the faience products in the C-Group and Kerna assemblages, they may have been Nubian products. While C-Group leatherwork displays beads arranged in lozenge patterns, the Pan Grave people stitched blue faience beads into the seams of leather garments 398 in single or double rows. 399

It is noteworthy that a leather bag containing a tool kit for making carnelian beads—a kit consisting of a flint core to make microdrills, polishing stones, and carnelian cobbles—was found in the Pan Grave cemetery HK47 at Hierakonpolis, next to the above-mentioned burial 10, which also contained a bracelet of garnet beads. (As noted above, carnelian beads were rarely found in the Pan Grave repertoire.) The leather of the gourd-shaped bag had deteriorated, but it still preserved the band of woven faience beads that had once adorned it with an intricate diamond pattern, composed of blue and dark blue beads bordered by a single row of white faience beads. 400 However, the Lower Nubian Pan Grave beadwork usually lacks white faience beads, using ostrich eggshell beads instead. Indeed, beads found in the Pan Grave cemetery at Hu, Egypt, and described as ivory are of white faience. 401 This phenomenon would indicate cultural regionalization in Pan Grave body adornment. The faience beads from Hu were threaded together with a pendant of glazed rock crystal, a characteristic material of the Kerna culture (270.6). The leather bag may also have been of Kerna origin, especially considering that a large mollusk shell and tiny faience beads, both in Kerna style, 402 were found outside one of the tombs in the neighboring C-Group cemetery HK27C at Hierakonpolis. 403 The remarkable bead types found at Hierakonpolis may indicate another cross-cultural “bead encounter” in Upper Egypt rather than Pan Grave regionalization.

Finally, reviewing the wooden figures of Nubian archers from the tomb of Mesehti (Eleventh Dynasty) in Middle Egypt, presently in the Grand Egyptian Museum in Giza (fig. 8) and the Nubian Museum in Aswan, soldiers with cream-colored kilts and with red kilts can easily be distinguished. Both have red shirts decorated with lozenges. While colorful designs on kilts are traceable in C-Group faience, carnelian, and ostrich eggshell leather beadwork, white kilts may indicate the use of ostrich eggshell beads in a Pan Grave leather beadwork tradition and could thus indicate the presence of a Pan Grave contingent along with C-Group troops. Independently of the kilt color, all these Nubian warriors wear beaded necklaces, anklets, or armlets.

### 3.2.1. Corpus of Oine Pan Grave Beads and Pendants

Bead adornments were found in eleven Pan Grave tombs at Adindan cemetery K (266–281) 404 and at Serra

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394 Reisner 1923, 117; MFA 20.1759—garnet beads from Kerna, K X B-20.
395 For glazed quartz beads, see Reisner 1923, 52, 54, 80, 81, 82, 83, 92, 93, 100, 102, 106, 114–15, 118, 122, 127, 129, 132; for some illustrations of the latter, see MFA 13.3971—grave 1046 no.1; MFA 20.2011—tomb K IV B-46 body BA; MFA 13.4115—tomb K 1016l; MFA 13.14959—tomb K 1067; MFA 20.1718—tomb K 310/3; MFA 13.3970—tomb K 1055/16a; MFA 14.1530—tomb K X B-147; at the neck of body QB; MFA 20.1716—K 309, 12; MFA 20.1743—south cemetery K 334 debris; see Markowitz and Doxey 2014.
396 BrMu 02.242.
397 Brunton 1937, 125.
398 Wainwright 1920, 20, 29, and pl. 10, 1 (far left). The same technique is described at Rifeh (Petrie 1907, 20) and Mostagedda (Brunton 1937, 125).
399 Wainwright 1920, 20; Hafsaas 2006, 129.
400 Friedman 2001, 23.
401 For possible faience beads from the Pan Grave cemetery at Hu, see BrMu 02.242—which look like faience beads though they are described as ivory; see http://www.brooklynmuseum.org/opencollection/objects/3202/Pan_Grave_Necklace.
402 Then-Obłuska 2014, 1075, pl. 1, and references given there.
404 Additionally, compare the chapter on the Early Nubian period, cat. nos. 40, 45–41.
East in six tombs of cemetery C (282–288), one tomb of cemetery D (289), and three of cemetery F (290–293). Four graves were ascribed to uncertain C-Group or Pan Grave contexts (cf. above 74, 111, 174, 175).

The Pan Grave bead assemblages found in cemetery K at Adindan were in graves contemporary with the C-Group phase Late IIA, phase III, and early New Kingdom. Pottery and painted gazelle skulls from the offering pits in cemetery C at Serra East point to a late Seventeenth Dynasty and the beginning of the Eighteenth Dynasty. Although the tombs in cemetery D at Serra East closely resemble Pan Grave burials, some objects indicate that the cemetery is to be assigned to the Naqada culture. There is no good dating evidence for cemetery F.

Materials and Techniques

The materials of which the beads and pendants were made are dominated by ostrich eggshell. Faience and stones (garnet, amethyst, carnelian, quartz), including glazed rock crystal, constituted the second-largest group. Marine mollusk shells, including nacre, were present in considerable quantity. An overview of types in Pan Grave contexts is given in table 9.

Seed/Fruit

A black, berry-like organic is probably seed cone (270.3).

Marine Mollusk Shell

Perforated marine mollusk shells

Conus taeniatus shell has spiral bands of strong, alternating dark and light dashes on white or gray. It was perforated through the space where the apex was removed. The larger species measure 14.5 mm in length (289).

The dark dashes did not remain on smaller shells. The Conus sp. seashells range from 4.7 to 6.0 mm in thickness and from 7.6 to 8.8 mm in length (274.1). Nerita albicilla shell was found in only one case (277.4), although, next to shell plaques, this type is considered one of the diagnostic Pan Grave markers.

Sliced Nassa seashell is another characteristic feature of the Pan Grave assemblage, but it may be reused from the burials of another cultural group at Mostagedda. Sliced Nassa shells range from 7.3 to 9.2 mm in width, 10.8 to 11.7 mm in length, and 2.1 to 3.6 mm in thickness (291.2, 292.4).

Worked marine mollusk shells

A short cylinder was cut from a Conus sp. seashell. It measures 9.6 mm in diameter, 4.0 mm in length, and 4.5 mm in hole diameter (268.1).

Nacre

Nacre of Pinctada radiata or Pinctada margaritifera shell was cut into long rectangular plaques. In contrast to standard cylinder beads cut from Conus sp. seashells range from 4.7 to 6.0 mm in thickness and from 7.6 to 8.8 mm in length (274.1). Nerita albicilla shell was found in only one case (277.4), although, next to shell plaques, this type is considered one of the diagnostic Pan Grave markers.

Sliced Nassa seashell is another characteristic feature of the Pan Grave assemblage, but it may be reused from the burials of another cultural group at Mostagedda. Sliced Nassa shells range from 7.3 to 9.2 mm in width, 10.8 to 11.7 mm in length, and 2.1 to 3.6 mm in thickness (291.2, 292.4).

Worked marine mollusk shells

A short cylinder was cut from a Conus sp. seashell. It measures 9.6 mm in diameter, 4.0 mm in length, and 4.5 mm in hole diameter (268.1).

Nacre

Nacre of Pinctada radiata or Pinctada margaritifera shell was cut into long rectangular plaques. In contrast

405 OINE V, 4; Dr. Bruce B. Williams (personal communication).

406 OINE X, 124.

407 Ibid., 133.

408 Cf. n. 378.

409 Brunton 1930, 5, grave 1303, 1989; Brunton 1937, 126; for Conus sp. in a Pan Grave, see also Andrews 1981, cat. nos. 580, 632–33, 635–37, 664–66, 668, 671–72, 674; Säve-Söderbergh 1989a, 83.
Table 9. Overview of types from Pan Grave graves

<table>
<thead>
<tr>
<th>Material</th>
<th>Bead (B), pendant (P), or spacer (S)</th>
<th>Length and shape</th>
<th>Size</th>
<th>Color(s)</th>
<th>Catalog number(s)</th>
<th>Figure number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seed/fruit</td>
<td>B</td>
<td>Oblate</td>
<td></td>
<td></td>
<td>270.3, 348.4</td>
<td></td>
</tr>
<tr>
<td>Marine mollusk shell</td>
<td>B</td>
<td>Conus taeniatus</td>
<td></td>
<td></td>
<td>289</td>
<td></td>
</tr>
<tr>
<td></td>
<td>P</td>
<td>Conus sp.</td>
<td></td>
<td></td>
<td>274.1</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Nerita albicilla</td>
<td></td>
<td></td>
<td>277.4</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Nassa sp. sliced</td>
<td></td>
<td></td>
<td>291.2, 292.4</td>
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</tr>
<tr>
<td>Nacre</td>
<td>“S”</td>
<td>Short cylinder of Conus sp.</td>
<td></td>
<td></td>
<td>268.1</td>
<td></td>
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<tr>
<td>Ostrich eggshell</td>
<td>B</td>
<td>Disc to short cylinder</td>
<td>Small</td>
<td></td>
<td>266, 269, 271, 273, 277.2, 278.1, 283.1, 290, 291.1</td>
<td>Fig. 10c</td>
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<tr>
<td>Carnelian</td>
<td>B</td>
<td>Spherical</td>
<td></td>
<td></td>
<td>267.3</td>
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<td></td>
<td></td>
<td>Short oblate</td>
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<td></td>
<td>291.4</td>
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<td></td>
<td></td>
<td>Standard oblate</td>
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<td></td>
<td>270.4, 286.2, 291.4</td>
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<tr>
<td></td>
<td></td>
<td>Long barrel</td>
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<td></td>
<td>267.4</td>
<td>Fig. 11e</td>
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<tr>
<td>Amethyst</td>
<td>B</td>
<td>Spherical</td>
<td></td>
<td></td>
<td>267.2, 270.5, 291.5</td>
<td>Fig. 11i</td>
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<tr>
<td></td>
<td></td>
<td>Long barrel</td>
<td></td>
<td></td>
<td>267.1</td>
<td>Fig. 11g</td>
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<tr>
<td>Quartz</td>
<td>B</td>
<td>Short barrel</td>
<td></td>
<td></td>
<td>279.3</td>
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<tr>
<td>Garnet</td>
<td>B</td>
<td>Short barrel</td>
<td></td>
<td></td>
<td>268.3, 274.3, 287.2, 288.2</td>
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<tr>
<td></td>
<td></td>
<td>Standard barrel</td>
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<td></td>
<td>267.5</td>
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<tr>
<td>Glazed rock crystal</td>
<td>B</td>
<td>Spherical</td>
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<td></td>
<td>270.6</td>
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<tr>
<td>Faience</td>
<td>B</td>
<td>Ring</td>
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<td></td>
<td>272.3, 274.5</td>
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<td></td>
<td>Short to standard cylinder</td>
<td>Small</td>
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<td>268.4, 270.7, 272.2, 275.2, 278.4, 284.2, 287.3, 288.4, 292.7</td>
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<td></td>
<td>Medium</td>
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<td></td>
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<td></td>
<td>Large</td>
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<td>291.7, 292.3, 11</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Very large</td>
<td></td>
<td>282.10</td>
<td></td>
</tr>
</tbody>
</table>

(continued)
to some examples with four holes, all the recorded plaques in the OIM’s collection have two perforations. They measure 4.6–15.9 mm in width, 18.4–27.1 mm in length, 0.5–4.1 mm in thickness, and 1.5–4.2 mm in hole diameter (266, 269, 271, 273, 277.2, 278.1, 283.1, 290, 291.1). A fragment of Pinctada mollusk shell was found in one Pan Grave burial (268.5).

**Terrestrial Mollusk Shell**
Terrestrial snail shells of the Cerionidae (?) family were collected together with bead remains from Pan Grave pits at Adindan (277.3, 279.1), as well as from burials ascribed to “C-Group or Pan Grave” individuals (175.1). They are all unintentionally perforated objects. The Pan Grave pits may have been dug in natural land depressions and into the remains of former paleolakes where these snail shells were present.

**Ostrich Eggshell**
The ostrich eggshell beads were drilled from both ends. The perforations are characterized by an hourglass or biconcave shape.416

In general, these beads measure 3.8–6.4 mm in diameter (268.2, 270.1, 272.1, 274.2, 275.1, 277.1, 278.2, 279.2, 280, 282.1, 283.2, 284.1, 285, 286.1, 287.1, 288.1, 291.3, 292.1, 5, 293.1).

**Stone**
All larger hard stone beads in Pan Grave assemblages were drilled from both ends, and almost all of them have perforations with a double parallel shape. A few carnelian and quartz short barrel beads have truncated ends. These beads were perforated from both ends with tapered microdrills, resulting in perforations with an hourglass shape. This technique belongs to a long Nubian tradition and is not a chronological or cultural marker.

**Carnelian**
Carnelian bead shapes are spherical or standard to long barrel. A spherical carnelian bead measures 6.6 mm in diameter, 6.0 mm in length, and 0.9–1.9 mm in hole diameter (267.3).417 Standard barrel, oblate, and globular carnelian beads were drilled from both ends. They measure 6.2–7.9 mm in diameter, 4.1–6.7 mm in length, and 1.3–1.6 mm in hole diameter (270.4, 286.2, 291.4). A carnelian long barrel measures 5.7 mm in diameter, 9.2 mm in length, and 1.5–17 mm in hole diameter (267.4).

A single example recalls a short barrel C-Group specimen. Drilled from both ends, it has an hourglass perforation and measures 7.2 mm in diameter, 4.1 mm in length, and 1.4–3.2 mm in hole diameter (291.4).

**Amethyst**
Amethyst was used to make spherical and long barrel beads. Spherical beads measure 6.2–7.2 mm in diameter, 4.8–6.9 mm in length, and 1.2–1.8 mm in hole diameter (267.2, 270.5, 291.5).418 Long barrel beads measure 7.1–7.7 mm in diameter, 11.0–11.2 mm in length, and 1.3–1.6 mm in hole diameter (267.1).

**Quartz**
A single short quartz barrel, drilled from both ends and with an hourglass perforation, measures 4.4 mm

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416 Gatto and Cremaschi 2006, fig. 13; cf. n. 360.
417 Emery and Kirwan 1935, 316, object 201/20:2, fig. 303/2, 3, 320, object 201/38:2, fig. 2; Dr. Renée F. Friedman (personal communication)—HK47, burial B23, Hierakonpolis.
418 Brunton 1937, 126.
in diameter, 2.4 mm in length, and 1.2–2.3 mm in hole diameter (279.3).

*Garnet*

A standard garnet barrel was perforated from one end. It measures 6.3 mm in diameter, 5.5 mm in length, and 1.3–2.0 mm in hole opening (267.5).

Short garnet barrels and oblates were drilled from one end. They measure 3.0–3.9 mm in diameter, 2.0–3.5 mm in length, and 0.8–2.1 mm in hole diameter (268.3, 274.3, 287.2, 288.2).

*Glazed Rock Crystal*

A transparent rock crystal with spherical shape was drilled from one end and has traces of blue glazing. It measures 6.5 mm in diameter, 4.7 mm in length, and 1.1–1.4 mm in hole diameter (270.6).

*Faience*

Except for a broken spacer, the majority of faience beads were disc to short cylinders, blue-green in color, and in two general sizes: small and large. The latter were sometime glazed black. There were also black barrel shapes.

*Ring beads*

Faience ring beads of blue-green color measure 4.0–4.3 mm in diameter, 1.0–2.3 mm in length, and 1.8 mm in hole diameter (272.3, 274.5).

*Small, medium, large, and very large short to standard cylinder*

Small short and standard faience cylinders are glazed blue and green, and they measure 2.4–3.4 mm in diameter, 1.0–3.2 mm in length, and 0.7–1.2 mm in hole diameter (268.4, 270.7, 272.2, 275.2, 278.4, 284.2, 287.3, 288.4, 292.7).

Medium-sized short faience cylinders with green and blue glaze range from 3.9 to 5.3 mm in diameter, 1.0 to 2.0 mm in length, and 1.0 to 1.8 mm in hole diameter (268.5, 278.3, 282.2, 292.8, 293.2).

Large faience short cylinders measure between 5.4 and 8.4 mm in diameter, 1.2 and 3.4 mm in length, and 1.2 to 2.1 mm in hole diameter. They are found in blue, green (275.3, 283.3, 288.3, 291.6, 292.2, 9), and black colors (291.7, 292.3, 11).

Very large faience short cylinders are blue in color (292.10). They range from 8.5 to 9.7 mm in diameter, 2.0 to 3.1 mm in length, and 1.2 to 2.7 mm in hole diameter.

*Long cylinder and pear-shaped beads*

A long blue faience cylinder measures 5.2 mm in diameter, 13.4 mm in length, and 1.5 mm in hole diameter (274.6).

A long pear-shaped faience bead measures 3.9 mm in diameter, 11.3 mm in length, and 1.0 mm in hole diameter (274.7).

*Standard barrel beads*

Standard faience barrel beads were found solely with traces of black glaze and dark cores. They range from 3.5 to 4.4 mm in diameter, 2.9 to 3.9 mm in length, and 0.8 to 1.3 mm in hole diameter (272.4, 274.4, 277.5).

*Spacer*

A single faience spacer fragment measures 6.3 mm in width, 4.4 mm in thickness, 18.3 mm in preserved length, and 1.8 mm in hole diameter (292.12).

*Beadwork*

Shell plaques were recorded as part of *wristlets/armlets* and constitute one diagnostic adornment of the Pan Grave people (269, 271, 273, 277.2, 278.1, 283.1, 290, 291.1). Some ostrich eggshell beads were preserved still joined together by their ends to form a string of beads (272). Although not specified for the OINE Pan Grave assemblage, ostrich eggshell and blue and black faience beads could have been the remains of necklaces, anklets, or bracelets. As can be observed in other Pan Grave bead collections, the Pan Grave strings may be monochrome and made from one material or in alternating patterns: “in short lengths, 7 white and 7 black” or “usually 1 white alternating with 2 or 3 blue colors.”

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419 UC 38834—Rifeh; Brunton 1937, 126; Andrews 1981, cat. nos. 617, 625, 634.
420 Brunton 1937, pl. 76, 39 (1811); Petrie 1901, 54.
422 MFA 13.3974—Kerma, southern cemetery, K 10, grave 1041 no. 2. 1913.
423 Säve-Söderbergh 1989b, 10, pl. 48:2b, c—object 176/25:01; Säve-Söderbergh 1989a, 204—objects 176/25:01, 176/31:02 with no material specified.
424 E.g., Bietak 1968, table 13, and references therein.
427 E.g., Steindorff 1935, 195—necklace from grave C 11; Emery and Kirwan 1935, 312—bracelet of faience beads, object 201/1:12.
or black.\textsuperscript{428} Often necklaces were made from ostrich eggshell, with faience beads as accents.\textsuperscript{429} A complete bracelet made of about forty-eight barrel-shaped garnet beads was found at Hierakonpolis and is an exceptional find.\textsuperscript{430}

Many beads were associated with leather beadwork. In contrast to C-Group beadwork, which was dominated by faience, Pan Grave leatherwork was decorated with ostrich eggshell beads. A headband with ostrich eggshell beads plaited in diagonally arranged rows is exhibited as a Pan Grave object in the Egyptian Museum in Cairo.\textsuperscript{431} The beads may be stitched diagonally into an edge of leather or into the seam between leather pieces. In the OINE collection, the ostrich eggshell beadwork was recorded as sewn on the edge of a leather band (268, 270).\textsuperscript{432}

The Bead Owners

While amethyst, garnet, and carnelian beads were found in an adult female burial (267),\textsuperscript{433} males were found buried with a sliced Nassa seashell (291.2, 292.4). Armlets/wristlets made of seashell plaques were found in the grave of an adult male and a juvenile (278.1), with a mature individual (283.1), and with an adult, possibly a male (290, 291.1).\textsuperscript{434}

\begin{itemize}
  \item \textsuperscript{428} Petrie 1901, 46; http://www.hierakonpolis-online.org/index.php/explore-the-nubian-cemeteries/hk47-pan-graves.
  \item \textsuperscript{429} Sanders 2001, 26.
  \item \textsuperscript{430} Friedman 2001.
  \item \textsuperscript{431} JE 52899.
  \item \textsuperscript{432} Brunton 1927, pl. 76, 63 (3170); Petrie 1901, 47.
  \item \textsuperscript{433} For carnelian and amethyst ball and barrel beads found in an adult female burial at Masmas, see Emery and Kirwan 1935, 312, object 201/1:9; for a necklace of mixed materials, including amethyst and carnelian beads, in a young female burial, see ibid., 315, object 201/15:8; for a necklace of carnelian and amethyst ball beads in a child burial, see ibid., 320, object 201/38:2.
  \item \textsuperscript{434} For spacer beads in an adult female burial, see ibid., 314, object 201/10:1; for spacer beads in a child burial, see ibid., 318, object 201/33:1.
\end{itemize}
Catalog

266
Adindan K 51—1: Shell plaque in shaft (no body recorded); OIM E23074
Pan Grave
Nacre, rectangular plaque, perforated at each end (1), W 12.0–13.9, L 21.5, Th 1.4, HD 2.3
Bibliography: OINE V, 213

267
Adindan K 74—3a–d: Beads in shaft, among bones (adult female); OIM E23159
Pan Grave
1. Amethyst, long barrel, light purple to transparent (2), D 7.7; 7.1, L 11.0; 11.2, HD 1.3–1.4; 1.3–1.6
2. Amethyst, globular, light purple to transparent (1), D 7.2, L 6.9, HD 1.8; 1.7
3. Carnelian, globular, red (1), D 6.6, L 6.0, HD 1.9–0.9
4. Carnelian, long barrel, red (1), D 5.7, L 9.2, HD 1.7–1.5
5. Garnet, barrel, dark purple (1), D 6.3, L 5.5, HD 2.0–1.3
Bibliography: OINE V, 221, pls. 116P, R, T
Adindan K 93–1a–d (c–d—non vidit): Beads found with and on leather in shaft (no body recorded); OIM E23170A, C
Pan Grave
OIM E23170A
1. Conus sp. shell, cut, short cylinder (1), D 9.6, L 4.0, HD 4.5
2. Ostrich eggshell, drilled from both ends, short cylinder (985), D 4.2–6.6, L 0.9–2.0, HD 1.0–1.5
3. Garnet or glass, short barrel (1), D 3.0, L 2.0, HD 1.1; 1.3
4. Faience, short cylinder, blue (2), D 3.9; 2.9, L 1.6; 1.2, HD 1.7; 1.1
5. Nacre, plaque fragment (1) Th 2.7, L 37.2 × 36.5

Bibliography: OINE V, 226
269
Adindan K 93—222: Pierced shell plaques in shaft (no body recorded); OIM E23170B
Pan Grave
Nacre, rectangular plaque, perforated at each end (23—3 broken), Th 1.2–2.5, L 5.1–8.0 × 21.0–22.0, HD 1.9
Bibliography: OINE V, 226, pl. 115H
Adindan K 94–7a–c: Beads in debris; some ostrich eggshell sewn on leather in debris (A–B—adult female); OIM E23171
C-Group, phase III or Pan Grave
1. Ostrich eggshell, disc cylinder (ca. 2,990), D 4.0–6.4, L 1.2–1.9, HD 1.0
2. Ostrich eggshell, disc cylinder (2), D 7.2–8.0, L 1.4–1.5, HD 2.3
3. Organic, seed/fruit, black (1), D 4.0, L 3.4, HD ca. 1.0
4. Carnelian, drilled from both ends, standard barrel, red (1), D 7.1, L 5.5, HD 1.9
5. Amethyst, drilled from both ends, barrel (1), D 6.6, L 5.5, HD 1.3
6. Rock crystal, barrel, blue glaze (1), D 6.5, L 4.7, HD 1.4; 1.1
7. Faience, disc and short cylinder, blue (30), D 2.5–3.2, L 1.0–2.2, HD 0.7
Bibliography: OINE V, 226–27
Adindan K 94—8: Shell plaques in debris (no body recorded); OIM E23171
C-Group, phase III or Pan Grave
Nacre, rectangular plaques, perforated at each end (9—2 broken), W 4.6–8.2, L 22.0–22.5, Th 1.2–1.8
Bibliography: OINE V, 226–27
Adindan K 95–1a–e: Beads in shaft (no body recorded); OIM E23911A
Pan Grave
1. Ostrich eggshell, short cylinder (ca. 975), D 3.8–6.3, L 1.4–1.9, HD 0.8
2. Faience, short cylinder, blue (4), D 2.4–3.4, L 1.0–1.5, HD 0.9
3. Faience, ring (10), D 4.0, L 1.5, HD 1.8
4. Faience, barrel, black (4), D 4.4, L 3.2, HD 1.1
Bibliography: OINE V, 227
273
Adindan K 95—2: Shell plaques in shaft (no body recorded); OIM E23911B
Pan Grave
Nacre, rectangular plaques, perforated at each end (65.5), W 5.4–11.6, L 18.4–26.6, Th 0.9–2.2, HD 1.3–2.8
Bibliography: OINE V, 227

274
Adindan K 95—1a–e, 2: Beads in shaft (no body recorded); OIM E23911C, D
OIM E23911C
Pan Grave
1. Conus sp. shell, apex removed (14), Th 4.7–6.0, L 7.6–9.8, HD 1.4–3.1
**274 (continued)**

OIM E23911D

2. Ostrich eggshell, disc (2), D 5.3, 4.2, L 1.5, HD 0.8

3. Garnet, drilled from both ends, barrel (1), D 3.9, L 3.5, HD 1.3

4. Faience, barrel, black (12), D 3.5–4.4, L 2.9–3.9, HD 0.8–1.3

5. Faience, ring, blue (22), D 4.1–4.3, L 1.0–2.3, HD 1.8

6. Faience, long cylinder (1), D 5.2, L 13.4, HD 1.5

7. Faience, long pear-shaped, blue (1), D 3.9, L 11.3, HD 1.0

Bibliography: OINE V, 227
Adindan K 96—1a–c: Beads in shaft (no body recorded); OIM E30275
Pan Grave
1. Ostrich eggshell, some drilled from both ends, disc cylinder (36), D 4.1–5.6, L 1.5–2.1, HD 0.9–1.6
2. Faience, disc and short cylinder, blue (4), D 3.0–3.2, L 1.6–3.2, HD 1.0–1.2
3. Faience, short cylinder, greenish (1), D 6.4 × 5.9, L 3.7, HD 1.7
Bibliography: OINE V, 227

Adindan K 97—1: Beads in shaft (no body recorded), sample—non vidi
Pan Grave
Bibliography: OINE V, 228
Adindan K 98–1a–b, 2, 3, 4: Beads, pierced shell wristlet plaques, and 16 small snail shells in shaft (no body recorded); OIM E23906A–E

Pan Grave

OIM E23906A
1. Ostrich eggshell, drilled from both ends, short cylinder (ca. 425), D 4.4–4.8, L 1.6–2.0, HD 0.9

OIM E23906B
2. Nacre, rectangular plaques, perforated at each end (18–1 broken), W 6.3–11.2, L 18.6–23.0, Th 1.2–2.2, HD 1.8

OIM E23906C
277 (continued)
3. Mollusk shell, perforation accidental (14), Th 3.6, L 10.5—not illustrated
   OIM E23906D
4. *Nerita albicilla* shell, black and white (1), W 15.3, Th 8.3, L 16.4, HD 3.5 × 2.3
   OIM E23906E
5. Faience, short barrel, black (1), D 4.3, L 3.3,
   HD 1.3
Bibliography: OINE V, 228

278
Adindan K 99–1a–b: Pierced shell wristlet plaques in shaft (A—adult male, B—juvenile);
OIM E23907
Pan Grave
1. Nacre, rectangular plaques, perforated at each end (8—4 broken), W 5.8–7.0, L 19.4–22.5,
   Th 1.6–2.4, HD 2.0
2. Ostrich eggshell, drilled from both ends, short cylinder (ca. 340), D 3.8–6.4, L 1.2–1.9,
   HD 0.6
3. Faience, short cylinder, green (1),
   D 4.0 × 3.5, L 3.3, HD 0.9
4. Faience, short cylinder, blue (1),
   D 2.9, L 2.3, HD 1.1
Bibliography: OINE V, 228
Adindan K 100: Beads in shaft (adult male); OIM E23910A–B
Pan Grave
OIM E23910B
1. Terrestrial snail shells, perforation accidental (63), D ca. 3.8, L 6.8–10.0—not illustrated
2. Ostrich eggshell, drilled from both ends, disc cylinder (ca. 683), D 5.1–6.3, L 1.7–1.9, HD ca.1.0
OIM E23910A
3. Quartz, drilled from both ends, short barrel (1), D 4.4, L 2.4, HD 2.3–1.2–2.3
Bibliography: OINE V, 229

Adindan K 101: Beads in shaft (no body recorded), sample—non vidi
Pan Grave
Ostrich eggshell (4)
Bibliography: OINE V, 229
281*  
Adindan K Surface, 4a–f: Beads, sample—*non vidi*
Pan Grave
Carnelian, diorite, faience
Bibliography: OINE V, 229

282  
Serra East C 1–1a–c: Beads, shell plaques from tomb (female?); OIM E24425
Pan Grave
1. Ostrich eggshell, drilled from both ends, disc and short cylinder (494), D 3.5–5.0, L 1.3–2.0, HD 1.6–0.9
2. Faience, drilled from both ends, disc cylinder (4), D 4.0, L 1.0–1.8, HD 1.1
Bibliography: OINE X, 123, 125–26
283
Serra East C 2–1, 2: Beads and shell wristlet plaques in tomb (mature); OIM E24426
Pan Grave
1. Nacre, perforated at each end (traces of drilling tool), rectangular plaque (3), Th 1.9–2.5, L 10.6 × 21.0–12.2 × 27.1, HD 2.7–1.5
2. Ostrich eggshell, drilled from one end, disc cylinder (9), D 4.0–5.2, L 0.9–1.4, HD 1.3–1.5
3. Faience, disc cylinder, light blue (3), D 6.1, L 2.3, HD 1.3–2.2
Bibliography: OINE X, 123, 127

284
Serra East C 3–5: Beads in offering pit B under tumulus (mature male); OIM E24430 (50 percent in SNM)
Pan Grave
1. Ostrich eggshell, drilled from both ends, short cylinder (1,136; ca. 587 in OIM), D 4.3–5.3, L 1.7–1.9, HD 1.7–1.0–1.7
2. Faience, short cylinder (2), D 3.3, L 2.7; 1.5, HD 0.7
Bibliography: OINE X, 123, 127
285
Serra East C 3—8a–b: Beads in shaft (mature male); OIM E24436—*non vidi*
Pan Grave
1. Ostrich eggshell (17)
2. Faience, black and blue (3)
Bibliography: OINE X, 123, 127

286
Serra East C 4—1a–b: Beads from tomb (mature male); OIM E24433
Pan Grave
1. Ostrich eggshell, drilled from both ends, disc cylinder (58), D 4.3–5.6, L 1.4–2.1, HD 2.4–1.3–2.4—hourglass
2. Carnelian, drilled from both ends (traces of drilling tool), spherical, red (1), D 7.9, L 6.7, HD 1.3—double parallel
Bibliography: OINE X, 123, 130
Serra East C 5—1a–c: Beads from tomb (mature to senile male); OIM E24438
Pan Grave
1. Ostrich eggshell, drilled from both ends, short cylinder (141), D 4.4–6.0, L 1.6–2.1, HD 2.7–1.6–2.7—hourglass
2. Garnet, oblate, dark purple (1), D 3.9, L 2.9, HD 1.0; 2.1—conical
3. Faience, short and standard cylinder, whitish core, bluish and greenish glaze (66), D ca. 3.1, L 1.2–1.7, HD 0.7
Bibliography: OINE X, 123, 130
BEADS FROM EXCAVATIONS

Serra East C 6–2a–b: Beads from tomb (mature male); OIM E24440
Pan Grave
1. Ostrich eggshell, drilled from both ends, short cylinder (102), D 4.3–5.3, L 1.6–1.7, HD 2.8–1.6–2.8—hourglass
2. Garnet, drilled from one end, barrel, purple (1), D 3.5, L 2.7, HD 0.9; 1.7—conical
3. Faience, disc cylinder, light turquoise (17), D 6.4–8.4, L 1.5–3.3, HD 1.5
4. Faience, short cylinder, turquoise (6), D 2.7, L 1.7, HD 0.8

Bibliography: OINE X, 123, 130
V. SHELL BEADS AND SHELL PLAQUES

289
Serra East D 1—1: Shell bead from tomb (adult); OIM E24448
Pan Grave
Conus taeniatus shell, spire removed, white with brown spots (1), D 9.5 × 8.5, L 14.5, HD 1.2
Bibliography: OINE X, 123, 138

290
Serra East F 1—1: Shell wristlet plaques on surface at shaft (adult, possibly male); OIM E24450
Pan Grave
Nacre, rectangular plaques, perforated at each end (7), D 10.8 × 24.9–15.9 × 27.1, Th 0.5–4.1, HD 4.2–2.2—conical
Bibliography: OINE X, 123, 145–46
291
Serra East F 1–2a–c: Beads from surface and shaft (adult, possibly male); OIM E24451
Pan Grave
1. Nacre, rectangular plaque, perforated at each end (1), L 11.1 × 21.9, Th 1.5, HD 1.4
2. Nassa sp. sliced shells, body whorl cut (5), Th 10.8 × 7.3 × 3.6, HD 4.6 × 3.2
3. Ostrich eggshell, drilled from both ends, disc cylinder (185), D 3.8–4.8, L 1.5–1.9, HD 2.3–1.2
4. Carnelian, drilled from both ends, oblate and spherical, red (3), D 6.2–7.2, L 4.1–5.5, HD 1.6; 3.2–1.4–3.2—hourglass perforation in 1 bead
5. Amethyst, drilled from both ends, spherical (3), D 6.2–6.8, L 4.8–5.6, HD 1.2—double parallel
6. Faience, disc cylinder, blue (141), D 5.5–6.7, L 1.2–3.4, HD 1.4
7. Faience, disc cylinder, brownish core, traces of black glaze (6), D 5.5–6.0, L 1.5–2.1, HD 1.5
Bibliography: OINE X, 123, 145–46
Serra East F 2—1a–f: Beads, faience spacer from surface, shaft, and pit (mature male); OIM E24453
Pan Grave
1. Ostrich eggshell, short cylinder (306), D 4.2–4.9, L 1.4–1.8, HD 2.7–1.2–2.7—hourglass
2. Faience, disc cylinder, turquoise (16), D 5.4–6.3, L 2.2, HD 1.4
3. Faience, disc cylinder, black (10), D 6.4, L 2.0–2.6, HD 1.6
4. Nassp. shell, sliced (1), Th 9.2 × 11.7 × 2.1, HD 5.7 × 3.0
5. Ostrich eggshell, disc cylinder (6), D 4.0–4.8, L 1.1–1.7, HD 1.4
6. Faience, short cylinder, turquoise (29), D 4.3, L 1.5, HD 1.3
7. Faience, short cylinder, turquoise (64), D 2.6, L 1.3, HD 0.5
8. Faience, short cylinder, turquoise (1), D 4.2, L 1.5, HD 1.0
10. Faience, short cylinder, blue (3), D 8.5–9.7, L 2.0–3.1, HD 1.7–2.7
11. Faience, short cylinder, black (2), D 8.1–8.3, L 2.8, HD 2.1
12. Faience, spacer with four preserved holes (1—broken), Th 5.4 × 6.3, L 18.3 (preserved), HD 1.8

Bibliography: OINE X, 123, 147
292 (continued)
293
Serra East F 3–1a–b: Beads on surface and in shaft (adult female);
OIM E24449
Pan Grave
1. Ostrich eggshell, short cylinder (128), D 4.0–5.1, L 0.8–2.0,
HD 1.7–0.8–1.7—hourglass
2. Faience, short cylinder, blue (35), D 3.9–5.3, L 1.0–2.0, HD 1.0
Bibliography: OINE X, 123, 148
3.3. KERMA

3.3.1. CORPUS OF OINE KERMA BEADS

Tombs K 57 and K 88 in cemetery K at Adindan were identified as Kerma burials. They were contemporary with C-Group phase IIB and phase III, also present at cemetery K.\(^\text{435}\) Only in tomb K 88 were beads found (294)—beads made of ostrich eggshell (294.1), a globular shape in faience (294.2), and disc to short cylinders of faience (294.3).\(^\text{436}\)

\(^{435}\) OINE V, 2; Dr. Bruce B. Williams (personal communication).

\(^{436}\) For globular faience beads from Kerma, see, e.g., Reisner 1923, 113–14; Markowitz and Doxey 2014, pl. 5, Classic Kerma (= MFA 20.1729); MFA 13.5776, Classic Kerma, K III grave 303; MFA 20.1719, tomb K II A-17.
294
Adindan K 88—3a–d: Beads in shaft (no body recorded); OIM E30273
Kerma Classic(?)
1. Ostrich eggshell, disc cylinder (6), D 4.3–7.3, L 1.4–2.0, HD 0.8–2.4
2. Faience, globular, dark green (1), D 7.2, L 6.3, HD 1.3
3. Faience, disc and short cylinder, blue (2), D 2.9, L 1.3; 1.9, HD 0.8
Bibliography: OINE V, 224–25
3.4. MIDDLE KINGDOM

3.4.1. CORPUS OF OINE MIDDLE KINGDOM BEADS

A few objects came from the Middle Kingdom Quarry Dump II at Serra East. One amulet is probably in the shape of the hippopotamus goddess Taweret and has also been recorded from Nubian and Egyptian contexts dated to both the Middle Kingdom and New Kingdom (295). A long barrel made of wound black glass comes from an “assorted assemblage” and might have been later (296.3). Other, short cylinder beads were made of ostrich eggshell (296.4–5) and blue faience (296.1–2) and are not closely assigned to a chronological period or cultural group.

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437 Säve-Söderbergh 1989b, 10, pl. 46.A.e, and 253, object 410/20:3—“Hippopotamus Taueret”; Junker 1919, 186, type 16:28 r 4; Dunham and Janssen 1960, fig. 45, and 84, no. 24–3–240g; Vercoûter 1975, 108, fig. 35, 19, tomb 100, fig. 33:19, tomb 131, fig. 82:69—Mirgissa, Middle Kingdom.

438 Herrmann 2003, 112–13, pl. 78, cat. no. 553—New Kingdom.
Catalog

295
Serra East, labeled 2S—527: Serra excavation register assigned this number to a “blue glazed bead” of Middle Kingdom date from Quarry Dump II; OIM E24772
Middle Kingdom
Faience, Taweret amulet, blue-green (1), H 8.0, W 4.2, Th 3.0, HD 0.9
Bibliography: —

296
Serra East, 2S—589: Serra excavation register assigned this number to “assorted beads” of Middle Kingdom date from Quarry Dump II; OIM E24808
Middle Kingdom
1. Ostrich eggshell, drilled from both ends, short cylinder (7), D 3.3–5.0, L 1.0–1.7, HD 1.2–2.0
2. Ostrich eggshell, drilled from both ends, disc cylinder (1), D 8.2, L 1.4, HD 1.3–1.6
3. Faience, short barrel, blue (3), D 3, L 2.6, HD 1.0–1.2
4. Faience, short barrel, black (1), D 2.8, L 1.6, HD 1.2
5. Glass, wound, long barrel, black (1), D 3.8, L 7.1, HD 0.9
Bibliography: —
4.1. THE NEW KINGDOM BEAD STORY

During the New Kingdom, the Lower Nubian region was controlled by the viceroy of Kush through the deputy of Wawat. The Eighteenth Dynasty kings created a series of new settlements and military posts, with Aniba and Buhen serving as major centers and with Qubban at the mouth of the Wadi Allaqi flourishing as a center for gold mining in the Eastern Desert. Gold mining and processing emerged in the area—notably in the Duweishat area south of Semna. Tribute scenes on wall paintings in New Kingdom Egyptian tombs show the bringing of gold to Egypt by Nubians. The Egyptians used gold so copiously as a gift and trade item that it may have caused huge changes in the Babylonian economy. Thus, gold jewelry is much in evidence not only in New Kingdom Egypt but also in Lower Nubia (398.1, 319.6, 331, 339.2–3). Among other items, a two-bead spacer (339.2) from Qustul (VF 72B) can be compared with those on the feline armlets attributed to foreign wives of Thutmose III.

Phase Early III of the C-Group culture was contemporary with the end of the Second Intermediate Period and the early Eighteenth Dynasty, the latter beginning around 1550 BC. The earlier local populations continued to inhabit Lower Nubia, while tombs classified as Egyptian New Kingdom also appeared in the region. As a result, some kind of cross-cultural encounter was certainly taking place both in Egypt and in Nubia. A scene on a fan shows Tutankhamun hunting ostriches in the Eastern Desert, and ostrich eggs are one of the attributes associated with Nubians in tribute or audience scenes. Moreover, in audience and triumphal scenes, ostrich feathers are shown on the heads of some Nubians. The presence of roughly shaped ostrich eggshell beads in New Kingdom tombs may have resulted from their own cultural encounter with Nubian jewelry fashions (301.17, 305.9, 308.10, 313.1, 322.3, 347, 351.1). Soon thereafter, ostrich eggshell beads disappeared from Egypt until the Twenty-Second Dynasty.

Perforated marine mollusk shells of Red Sea origin were often found in Lower Nubian tombs (301.1–4, 305.11, 308.11–12, 310.1–2, 340.3–4, 352), but they have not been recorded in New Kingdom tombs in Egypt.

In contrast to the case in earlier periods in Nubia, the majority of stone beads were found drilled from one end (297.4, 298.1, 299.1, 311, 319.1, 327.3, 339.1, 342.1, 350.1) in a process that requires more power and probably a bow-driven drill. A bow-driven metal drill for drilling multiple beads is illustrated in some New Kingdom tombs in the Theban necropolis that are dated to about 1475–1290 BC. A fragment of painted plaster from the tomb of Sebekhotep, a senior

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439 E.g., Davies and Gardiner 1926, pls. 23–24; Davies 1943, vol. 2, pl. 18.
441 Lilyquist 2004, cat. nos. 137–38, figs. 169–70.
442 Cf. the chapter on C-Group beads and cat. nos. 53–55, 67, 70, 71, 77, 101, 106, 120, 123, 177–83 for examples from phase Early III and an unspecified period within phase III.
443 Hafsaas 2006, 47.
446 E.g., Davies 1943, pl. 19.
447 E.g., James 2000, 276–77, an openwork shield with the king as a sphinx and two defeated Nubians (= JE 61577 = Carter 379A); ibid., 195, sandals with enemy figures (= JE 62685 = Carter 397); Davies and Gardiner 1926, pls. 23, 30.
448 Xia 2014, 117, 123.
449 Xia 2014.
450 Drilling without a bow is shown already in the tomb of Ti at Saqqara during the Fifth Dynasty; see ibid., pl. 1 C (1).
treasury official of Thutmose IV (1400–1390 BC), shows craftsmen producing jewelry, including drilling stone beads with a bow-driven drill.\textsuperscript{451} The same depiction can be observed in the tomb of Rekhmire.\textsuperscript{452} Polishing, in which one or two men rub carnelian beads on a bead grinder, is illustrated in the tomb of Aba at Deir el-Gebrawi\textsuperscript{453} and in the tomb of Sebekhotep.\textsuperscript{454}

New Kingdom tomb paintings also may help us understand cross-cultural encounters involving or relating to beads’ being worn by the participants. The phenomenon may have occurred during audiences or on the arrival of tribute, as shown in the tomb of Rekhmire,\textsuperscript{455} a “governor of the town” (Thebes) and vizier during the reigns of Thutmose III and Amenhotep II. Garnet in the form of small oval red lumps, with the stone’s Egyptian name written beside it, is depicted among the tribute from Nubia.\textsuperscript{456} Strings of beads are brought by representatives from both the southern\textsuperscript{457} and northern extents of Egypt’s area of influence,\textsuperscript{458} and Nubians meet neighbors from Punt, as well as Minoans or Syrians, who are depicted with long strings of variously shaped beads hanging from their arms.\textsuperscript{459} Beads appear to have been the first glass products in the ancient world. Glass was manufactured in western Asia from at least 1500 BC, and this glass was a product demanded by Egyptian rulers, although glass was also produced in Egypt.\textsuperscript{460}

Glass finds from the Late Bronze Age constituted valuable gifts exchanged between the elite classes of Mesopotamia, Egypt, and the Aegean.\textsuperscript{461} By 1400 BC, long-distance exchange systems had evolved—systems connecting the shores of the Euphrates and Tigris rivers in Mesopotamia and the Nile in Egypt with the beaches of the Baltic and North Seas.\textsuperscript{462} Glass beads from Danish graves are the only attested finds of Egyptian glass outside the Mediterranean area, and these finds have demonstrated the far-reaching contacts of New Kingdom Egypt, most likely through intermediaries. Chemical analysis has also demonstrated that there was trade in raw glass materials imported from Mesopotamia and Egypt for bead production in Mycenaean Greece.\textsuperscript{463}

Egyptian glass is considered to be an elite material, and Lower Nubians were quick to access this latest man-made product. The first glass beads in Egypt are said to have come from Qau, where tombs 3757 and 902 are dated to around 1550 BC.\textsuperscript{464} The small wound beads were translucent copper-green in color. Later glass objects were made from slabs of glass, such as examples found at Amarna during the reign of Akhenaten\textsuperscript{465} and still later at Qantir (Pi-Ramesses) during the reign of Ramesses II.\textsuperscript{466} Ruby-colored glass was produced later at Qantir and also identified at Gala Abu Ahmed.\textsuperscript{467} but it does not exist in the earlier materials of the Oriental Institute Nubian Expedition (OINE) collection. The earliest examples of translucent blue and amber glass beads in Lower Nubia were found in a sixteenth-century BC child’s tomb (322.1–2, 349.3), and beads of the same type came from a tomb located on a rocky outcrop 1 km northwest of the Serapeum at Saqqara in Egypt.\textsuperscript{468} Multiple burials, placed beside a wooden coffin, were found intact in this tomb. The identity of the individuals buried in the tomb is unknown, as is the reason for the burials’ presence in a remote location, away from the main cemetery of Saqqara. The beads were found within the coffin, containing multiple children’s burials, which was dated to the Second Intermediate Period or early Eighteenth Dynasty. A pottery vessel found in the coffin was dated to the early Eighteenth Dynasty. The average diameter of the beads is 8.8 mm, and the thickness is 2.6 mm. The beads are translucent blue, brownish-red, and amber in color. Chemical analysis of the glasses revealed that the beads are made of a lime-magnesia glass composition, body decorated with three stratified eyes in white, amber, and yellow (fig. 6, type 3, fourteenth century BC). Blue and green beads (type 4, thirteenth to twelfth centuries BC), and turquoise glass beads (fig. 7, type 5, thirteenth to twelfth centuries BC) have been identified as Mesopotamian glass.\textsuperscript{469}

\textsuperscript{451} BM EA920; Andrews 1990, 76, cat. no. 55; Dziobek and Abdel Rasiz 1990.

\textsuperscript{452} Davies 1943, vol. 2, pl. 54.

\textsuperscript{453} Xia 2014, 28B, pl. 1, and references therein.

\textsuperscript{454} Andrews 1990, 76, cat. no. 55.

\textsuperscript{455} For Nubian representatives with probable fly pendants on their necklaces and bearing tribute to the king, see wall paintings from, e.g., the tomb of Rekhmire (TT 100) in Davies 1943, vol. 2, pls. 18–20.

\textsuperscript{456} Andrews 1990, 43.

\textsuperscript{457} Davies 1943, vol. 2, pls. 30, 32.

\textsuperscript{458} Ibid., vol. 2, pls. 34–35.

\textsuperscript{459} Ibid., vol. 2, pls. 17, 20.

\textsuperscript{460} Rehren 2014.

\textsuperscript{461} Çınardalı-Karaslan 2012 and references therein.

\textsuperscript{462} Varberg, Kaul, and Gratze 2014; Varberg, Gratze, and Kaul 2015—two cobalt-blue glass beads (type 1, fourteenth century BC) have been recognized as Egyptian. Dark blue and turquoise glass beads (type 2, fourteenth century BC), a blue-bead
and plant ash was a source of the alkali.\textsuperscript{469} Specific information on the origin of the beads was not available because of the lack of trace elements in the analysis. The finds may have belonged to a foreign population living in Egypt during or just after the Hyksos war.\textsuperscript{470} The presence of these glass beads at Saqqara and Qustul may also have resulted from the transfer of some foreign groups into Egypt and Nubia and from the presence of foreign auxiliary troops as occurred in the late New Kingdom. For example, Apiru were sent from the Levantine coast to Nubia, while Nubian troops were requested by the ruler of Ugarit.\textsuperscript{471}

Opaque yellow glass pendants or spacers, decorated with stratified “eyes” in black and white (304.2, 345.4), represented one of the most characteristic adornments later in the New Kingdom.\textsuperscript{472} Glass eye beads became popular after the Amarna period (1550–1333 BC) and were most common in the reigns of Tutankhamun and Ramesses II.\textsuperscript{473} One of the spacers (304.2) was found together with a flat lotus seed-vessel pendant (304.1). Both types were found strung together at Buhen.\textsuperscript{474}

Semitranslucent and opaque wound-glass globular beads, either monochrome or trail decorated (324, 326), are among the most characteristic New Kingdom types. Together with multiple-segment faience beads, they were attached to a \textit{menat} counterpoise that was found in the corner of a private house in the city of Amenhotep III at Malqata, Thebes.\textsuperscript{475} Long single- and multiple-segment tubes were the most common faience bead type in the New Kingdom (342.4).\textsuperscript{476} While these simple beads may have been segmented on grooved molds, the decorated, perforated faience objects were formed in pottery molds (306, 329, 334) similarly to beads that were excavated at Malqata.\textsuperscript{477}

Lenticular\textsuperscript{478} and wafer-like\textsuperscript{479} faience beads were found, and they are also present at the palace of Amenhotep III at Malqata (321, 357.1–2, 358). One or more strands of lenticular beads made up a type of necklace, called the \textit{shebyu} collar, that joined the repertoire of Egyptian jewelry in the New Kingdom. The \textit{shebyu} collars were composed of biconical or lenticular beads, or they consisted of flat, disc-like or wafer-shaped beads made of gold, faience, and glass.\textsuperscript{480} They were worn both by officials and by private individuals, including children.\textsuperscript{481} Miniature gold \textit{shebyu} collars were presented as honorific awards in the Eighteenth Dynasty.\textsuperscript{482} The first securely dated example of a \textit{shebyu} collar, made of faience beads, came from the tomb of Kha at Deir el-Medina, dated to the reign of Amenhotep III. An X-ray of his mummy revealed a necklace composed of a strand of large lenticular beads.\textsuperscript{483} However, a Pan Grave tomb at Saqqara, in which lentoid faience beads were found, has been dated earlier, to about the reign of Amenhotep I.\textsuperscript{484} Beads of this type are recorded in two sizes from late Eighteenth Dynasty Amarna.\textsuperscript{485} Interestingly, multicolored strands are well attested in artistic representations of the collar, but actual examples of polychrome necklaces were more commonly created for royalty; lower-quality, mass-produced \textit{shebyu} collars generally have only one strand of blue or blue-green beads.\textsuperscript{486} \textit{Shebyu} collars found in Tutankhamun’s tomb consist of lenticular rings of about 15 mm in diameter and are made of metal\textsuperscript{487} or of blue, white, red, and yellow faience.\textsuperscript{488} In contrast to the majority of mass-produced faience lentoid beads, Tutankhamun’s beads have large perforation holes, measuring about 10 mm in diameter.

\textbf{Amulets} were characteristic of Egyptian bodily ornamentation since the Predynastic period. Stone and glass lotus seed-vessel and pomegranate pendants first appeared in the New Kingdom repertoire (303, 304, 316, 335). The shape of the former resembles the base-ring juglets made in Cyprus and imported to Egypt in the Eighteenth Dynasty on a large scale. The vessel was intended to resemble the poppy-seed capsule, and it contained aromatic oils.\textsuperscript{489}

\begin{thebibliography}{9}
\bibitem{} Brand 2006, 18, figs. 13–6 to 13–8, gold; 13–9 to 13–12, faience; 13–1 to 13–5, glass.
\bibitem{} Lileyquist 2004, 136–37; Brand 2006, 17–42.
\bibitem{} Andrews 1990, 183, cat. no. 169; for a depiction of general Horemheb invested with a number of \textit{shebyu} collars, see ibid., 185, cat. no. 168.
\bibitem{} Brand 2006, 18.
\bibitem{} Capel and Markoe 1996, 88, cat. no. 271 (= Cincinnati Art Museum 1927.362).
\bibitem{} Brand 2006, 18.
\bibitem{} JE 61931 = SR1/2918 = Carter 44-dd.
\bibitem{} JE 61931 = SR1/2918 = Carter 44-cc.
\bibitem{} E.g., Chovanec, Bunimovitz, and Lederman 2015, fig. 2, also for the theory that Cypriot base-ring juglets contained opium.
\end{thebibliography}
In the New Kingdom, fish and scarab amulet types were crafted of diverse materials, including red carne-
lion and blue glass (e.g., 319.3, 5, 325, 327.10, 335, 337). Fish pendants probably depict the bolti fish (Tilapia
nilotica). In contrast to the various shapes and incised details of fish amulets known from other Nubian
sites, the fish amulets from Qustul lack an incised crisscross decoration that imitates fish scales (335,
337, 338).

Anthropological associations can be indicated for certain types of pendants and amulets, such as the
fish mentioned above, as well as the Taweret, Hathor heads, Horus falcon, and a wedge-eye amulets (see be-
low). A wooden figure of a girl, excavated during the nineteenth century on the west bank of the Nile near
Thebes, is of special interest for the Bes amulet depicted (fig. 14). The figure seems to belong to the funerary
goods of Meryptah, the chief priest of Amun under Amenhotep III (ca. 1390–1352 bc). Made of boxwood
with pigment and gold leaf, the wooden female figure wears a large Bes amulet and a gilded girdle around
her hips. Unfortunately, the owner of the Bes amulets found at Qustul could not be anthropologically
identified (306, 310.3).

The necklace of a mature male and an infant (315, 340) incorporated fly amulets. In Middle Nu-
bian graves, large ivory fly pendants, with transverse holes through the head, were often covered in gold
and gold/electrum, and they appeared in pairs in tombs at Kerma, Semna, Buhen, Qau in Egypt, and
Gamai. Two silver flies were found on the neck

of a body in the sacrificial corridor in one of the Ker-
ma tombs. Pairs of the fly pendants also appeared
in tombs of Kerma warriors. Fly pendants returned
to Lower Nubia in the New Kingdom in the form of
small faience and glazed steatite amulets. At the same
time, among various Nubians depicted in New King-
dom art, characteristic figures have lobe earrings or
fly pendants in their necklaces. The gold fly, given as a
military honor in Egypt, was possibly awarded for
persistent attack of the enemy. Contrary to one sug-
gestion, fly pendants depicted with Nubians in New
Kingdom art seem to have had little in common with
Egyptian gold jewelry made for persons of high rank,
including the “gold of honor” collar. Like C-Group
leather beadwork depicted on Nubians in New

490 For fish pendants formed from gold sheet, see Freed 1982,
237–38, cat. no. 312, Eighteenth Dynasty.
491 E.g., Markowitz and Doxey 2014, fig. 9, MFA 27.899—Sem-
na, S 563, Eighteenth Dynasty; Säve-Söderbergh and Troy 1991,
pl. 21/6, object 185/137:1, pl. 26:2.
492 Oriental Museum, Durham University, UK, EG4007.
493 For Bes representations in Pan Grave art, see BM
EA63225—a leather wrist-guard from Mostagedda, grave 3135;
for Bes depictions in C-Group art, see a faience bowl decorated
with a dancing Bes in Säve-Söderbergh 1989b, pl. 62; for a fa-
ience Bes amulet, see ibid., pl. 46.
494 Binder 2008, 51, table 3.6–1; for an illustration, see Mar-
kowitz and Doxey 2014, fig. 14; MFA 20.1775a–b, 20.1776a–b,
13.4006.
495 MFA 27.878a–b—from tomb S 579, ascribed to the New
Kingdom.
496 Randall-Maclver and Woolley 1911, pl. 51; O’Connor 1993,
137, fig. 50, pl. 7 (= Penn E10347A, B—Second Intermediate
Period).
497 Brunton 1930, pl. 21: tomb 7196 (= UC 26032A, B—Second
Intermediate Period).
498 Bates and Dunham 1927, 16, pls. 10.4, A, A’, 69, fig. 48—
Gamai, grave 200, R 1.
499 Reisner 1923, 110, K 401:5.
500 Roy 2011, 281; Markowitz and Doxey 2014, 100.
501 For gold flies in the New Kingdom, see Andrews 1994; for
discussion, see Binder 2008.
the Kerma fly pendant was simply an attribute and element of Nubian costume.

Some Nubians bearing tribute wear necklaces with white fly pendants and mollusk shells in the tomb of Rekhmire (TT 100) (figs. 15, 16). Of special interest is a Nubian in the front, who seems to wear three flies in his necklace. A fly pendant can be seen in the necklace of a Nubian depicted on a painted relief scene of a boat with oarsmen from the east wall of the hypostyle hall in the temple of Thutmose III at Deir el-Bahari (see fig. 9 in chapter 3). While the oarsmen wear the lozenge-decorated kilts known from C-Group beadwork, the enemy depicted on the boat, with darker skin and a fly pendant, would be an individual from farther south in Nubia.

In the tomb of Sebekhotep (TT 63), a treasury official in the service of the Egyptian king Thutmose IV, Nubian envoys bringing gifts are depicted with a fly pendant and mollusk shells in their necklaces (figs. 17, 18). In the tomb of Qenamun (TT 93), a scene of Amenhotep II enthroned shows, among others from subject nations beneath the throne, a Nubian with a fly pendant (fig. 19). A fly with unfolded wings is also easily discernible in the necklace of a Nubian prisoner depicted in bas-relief in the temple of Soleb, which was commissioned by Amenhotep III.

502 Cf. the sections on leather beadwork in the chapters on the C-Group and Pan Grave cultures.
504 Davies 1943, vol. 2, pl. 18.
505 Dolińska 2014, fig. 4A.
506 Cf. the chapter on the C-Group.
508 For illustrations, see BM EA921; BM EA922; Dziobek and Abdel Rasziq 1990; Quirke and Spencer 1992.
509 For an illustration, see Wilkinson 1983, Met 30.4.69 facsimile.
BEADS FROM EXCAVATIONS

The large fly pendants depicted in New Kingdom art are most probably derived from large ivory and metal objects well known from the tombs of Kerman warriors. Moreover, fly pendants of metal and other materials were long-lasting phenomena in Nubia starting in the A-Group period (10.1) and surviving until the post-Meroitic period.511

4.1.1. CORPUS OF OINE NEW KINGDOM BEADS AND PENDANTS

Sites and Chronology

Bead objects were recorded from twelve New Kingdom tombs at Qustul in cemetery R (297–325), from ten tombs in cemetery V (326–342), from one tomb in cemetery S (343), and from other uncertain locations at Qustul (344–347). Beads were found in one tomb at Adindan (349), at surface (348), and in ten graves at Serra East (350–359).

New Kingdom cemetery R was located on the low desert near the southern end of Qustul village. It contained large chamber tombs that were filled with burials dated mostly to the sixteenth and fifteenth centuries BC.512 Detailed dates were estimated by Bruce B. Williams on the basis of the pottery types present in the tombs, as well as other attributes.513 A few graves were dated to the period of Thutmose III (311, 312, 349), although other tombs could have been dated to the periods between Amenhotep II and Thutmose IV (300, 314–318, 342), between Amenhotep III and the Amarna period (310, 313, 319–321, 326–329, 335, 340, 341, 343, 344), and to the post-Amarna period (297–299, 301–309, 323–325, 330–332). A detailed chronology of New Kingdom objects given according to OINE VI and other works already mentioned is additionally presented in table 10.

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511 Cf. the chapter on A-Group beads and amulets. For a gold fly pendant from El-Kurru tomb Ku 16, from the Napatan period, see MFA 21.314; for quartz and carnelian flies from the Napatan period cemetery at Missinnia, see Vila 1980, fig. 76:6–8; for Meroitic examples, see MFA 24.1092—Meroe, Beg. W. 179, third century BC to third century AD, and MFA 24.538—Meroe. For gold fly pendants from a Meroitic burial mound in a mining village in the Nubian Desert in Wadi Terfowi, Sudan, third century BC to third century AD, see Castiglioni and Castiglioni 2004, cat. no. 106. For silver toe rings with a fly attached from a royal post-Meroitic tomb at Ballana, see Emery and Kirwan 1938, pl. 42, B. 47–48 (= JE 70384–70387).

512 OINE VI, 160.

Materials and Techniques

The overwhelming majority of New Kingdom beads and pendants were made of faience, and in many shapes. Glass and stone (carnelian, amethyst, garnet, diorite, chalcedony, black stone) constitute the second-most common groups. Transitional materials, such as vitreous materials and glazed steatite, are also present. Organics (mollusk shell, bone, ostrich eggshell) and metals were rarely found. The shapes of some beads and pendants from New Kingdom sites are illustrated in figure 20. An overview of types from New Kingdom graves is given in table 11.

Marine Mollusk Shell

All marine mollusk shells that come from New Kingdom tombs are of Red Sea provenance. These are Nerita (310.1, 340.3–4, 352), Polinices (308.11), Cypraea

514 Vercoutter 1975, fig. 23, tomb 47, fig. 84, tomb 132A, fig. 93—Mirgissa; Minault-Gout and Thill 2012, pl. 120:Fb—Saī.
annulus cowrie \((308.12)\)

Conus taeniatus \((301.1)\),

Columbella \((Pyrene)\) testudinaria \((301.2)\),

Nassarius coronatus \((301.4)\), and

Ancilla sp. \((301.3, 305.11, 310.2)\).

Bone

Two drop pendants made of bone have slightly flattened sides and rounded bases \((303.1–2)\).

Ostrich Eggshell

Ostrich eggshell beads were drilled from one end, resulting in a perforation with a truncated conical shape. They include discs and short cylinders \((D\ 4.5–5.8,\ Th\ 1.4–4.0,\ HD\ 0.7–1.3)\).

A larger disc bead \((D\ 6.6,\ L\ 1.5,\ HD\ 2.4)\) was found in an infant’s grave together with the early translucent glass beads dated to the sixteenth century BC mentioned above \((322.3)\). Other beads were slightly smaller \((D\ 2.9–4.3,\ Th\ 1.1–1.5,\ HD\ 1.2)\).

Stone

Carnelian

In the New Kingdom, small carnelian barrel beads or truncated, slightly biconical beads were drilled from one end, resulting in a perforation with a truncated conical shape \((D\ 1.7–3.8,\ Th\ 1.4–4.0,\ HD\ 0.7–1.3)\).

New Kingdom carnelian beads are typically either semitranslucent or opaque, in contrast to the translucent carnelian used in the C-Group period \((297.4, 298.1, 299.1, 311, 319.1, 327.3, 339.1, 342.1, 350.1)\).

A long barrel bead was drilled from one end and has a perforation with a truncated conical shape \((D\ 3.3,\ L\ 4.4,\ HD\ 0.8;\ 1.7)\).

The pendants are amulets of faunal, anthropoid, or floral shape. They are either flat on one side and convex on the other or three-dimensional. In the first group, a scarab pendant with three pairs of legs \((325.1)\), a Taweret \((333.3–4, 335.2)\), and fish amulets have flat reverse sides and obverse sides incised with basic details. Fish swim both to the right \((319.3a, 337.2)\) and to the left \((319.3b, 337.3, 338)\).

One heart amulet pendant is flat on one side and divided across the top and down the center with incised lines on its convex side \((303.3)\); another undecorated.

515 Vercoutter 1975, fig. 93; Minault-Gout and Thill 2012, pl. 120:Fa—Sai.

516 Vercoutter 1975, fig. 93.

517 Säve-Söderbergh and Troy 1991, pl. 28.7.

518 Lahitte 2013.
A heart amulet is flat on one side and has a convex profile on the other side\(^2\)\(^2\)\(^4\)\(^{319.2}\). On one side of a remarkable \textit{wedjat}-eye amulet is a tiny incised figure of a goddess with a uraeus and holding a \textit{wedj} scepter, the figure being placed within an oval field \(^2\)\(^3\)\(^2\)\(^5\).

A carnelian teardrop bead is flat on one side and convex on the other \(^2\)\(^7\)\(^1\), similar to the profiles of a lotus seed-vessel pendant \(^3\)\(^0\)\(^4\)\(^1\) and another pendant of uncertain shape with pointed base \(^3\)\(^3\)\(^5\). Other beads rendered in three dimensions include lotus seed-vessel pendants with \(^3\)\(^0\)\(^3\)\(^5\) or without \(^3\)\(^0\)\(^3\)\(^1\) a clearly defined, flared base.


\[^{525}\] OINE VI, 119; Brunton and Engelbach 1927, pl. 42-38; Steindorff 1937, pl. 51:30.

\[^{526}\] Andrews 1994, fig. 48d—Eighteenth Dynasty; BM EA18172—Akhmim; Inizan 2000, fig. 1.1–2—necklaces found in tombs at Mari, dated to the thirteenth to twelfth centuries BC; McGovern 1985, 47–48, 161, pl. 11:4. F.5.a 143. McGovern ascribes them to a period between Late Bronze II and Iron II (e.g., early Late Bronze IIB from Beth Shan, and from an Late Bronze I–IIA tomb at Megiddo). See also Herrmann and Staubli 2010, 60, cat. no. 22—Iron IA–B (1250–1000 BC); Säve-Söderbergh and Troy 1991, pl. 23:3, object 318/7A.8, pl. 27:1, 3; Randall-Maclver and Woolley 1911, pl. 51:10252—from Buhen. For similar types from Napatan graves, see Griffith 1923, pl. 58, ob. 10, gr. 231/8 (of carnelian) and 140, pl. 64, ob. 8, gr. 949 (of red paste)—Sanam; Minault-Gout and Thill 2012, pl. 59:Ca18, 21—Saï; Then-Oubuska 2014, pl. 1, cat. no. 80.

\[^{527}\] Numerous parallels for this type can be cited from Egyptian Eighteenth and Nineteenth Dynasty contexts; see McGovern 1985, 48, and references therein; Emery and Kirwan 1935, fig. 486:55; Freed 1982, 238, cat. no. 314—from Semna—references therein; Randall-Maclver and Woolley 1911, pl. 51:10249—from Buhen; Beck 1928, fig. 24:B.3.d; Inizan 2000, fig. 1:1 and 2—necklaces found in the tombs at Mari, dated to the thirteenth to twelfth centuries BC; McGovern 1985, 47–48, 161, pl. 114:5.5b 155—examples from five Palestinian sites dated mainly to the Late Bronze IIB; Säve-Söderbergh and Troy 1991, pl. 27:4.


\[^{529}\] Andrews 1994, fig. 90a—New Kingdom, faience; McGovern 1985, 70, fig. 67.B.2 299, faded faience examples from Late Bronze II to Iron I contexts; Müller-Winkler 1987, pl. 29:59.


\[^{525}\] OINE VI, 119; Brunton and Engelbach 1927, pl. 42-38; Steindorff 1937, pl. 51:30.

\[^{526}\] Andrews 1994, fig. 48d—Eighteenth Dynasty; BM EA18172—Akhmim; Inizan 2000, fig. 1.1–2—necklaces found in tombs at Mari, dated to the thirteenth to twelfth centuries BC; McGovern 1985, 47–48, 161, pl. 11:4. F.5.a 143. McGovern ascribes them to a period between Late Bronze II and Iron II (e.g., early Late Bronze IIB from Beth Shan, and from an Late Bronze I–IIA tomb at Megiddo). See also Herrmann and Staubli 2010, 60, cat. no. 22—Iron IA–B (1250–1000 BC); Säve-Söderbergh and Troy 1991, pl. 23:3, object 318/7A.8, pl. 27:1, 3; Randall-Maclver and Woolley 1911, pl. 51:10252—from Buhen. For similar types from Napatan graves, see Griffith 1923, pl. 58, ob. 10, gr. 231/8 (of carnelian) and 140, pl. 64, ob. 8, gr. 949 (of red paste)—Sanam; Minault-Gout and Thill 2012, pl. 59:Ca18, 21—Saï; Then-Oubuska 2014, pl. 1, cat. no. 80.

\[^{527}\] Numerous parallels for this type can be cited from Egyptian Eighteenth and Nineteenth Dynasty contexts; see McGovern 1985, 48, and references therein; Emery and Kirwan 1935, fig. 486:55; Freed 1982, 238, cat. no. 314—from Semna—references therein; Randall-Maclver and Woolley 1911, pl. 51:10249—from Buhen; Beck 1928, fig. 24:B.3.d; Inizan 2000, fig. 1:1 and 2—necklaces found in the tombs at Mari, dated to the thirteenth to twelfth centuries BC; McGovern 1985, 47–48, 161, pl. 114:5.5b 155—examples from five Palestinian sites dated mainly to the Late Bronze IIB; Säve-Söderbergh and Troy 1991, pl. 27:4.


\[^{529}\] Andrews 1994, fig. 90a—New Kingdom, faience; McGovern 1985, 70, fig. 67.B.2 299, faded faience examples from Late Bronze II to Iron I contexts; Müller-Winkler 1987, pl. 29:59.
Figure 20. Beads and pendants: a (298.8), b (299.3), c (324.5), d (305.2), e (326.2), f (317.1), g (311), h (298.5), i (316.1), j (324.4), k (298.6), l (299.2), m (317.4), n (298.2), o (298.5), p (312), q (297.3), r (297.4), s (327.1, 10), t (306), u (310.3), v (302), w (299.4), x (334), y (333.1–4), z (331), aa (332), bb (309), cc (325), dd (329), ee (319.2, 4), ff (303), gg (307), hh (319.3a), ii (315.5, 4), jj (316.2), kk (303.5), ll (304.2), mm (349.2), nn (343), oo (304.1). Scale 1:1 (adapted from OINE VI, fig. 17)
Table 11. Overview of types from New Kingdom graves

<table>
<thead>
<tr>
<th>Material</th>
<th>Bead (B), pendant (P), or spacer (S)</th>
<th>Length and shape</th>
<th>Size</th>
<th>Color(s)</th>
<th>Catalog number(s)</th>
<th>Figure number</th>
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<td>310.1, 340.3–4, 352</td>
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<td><em>Columbia (Pyrene) testudinaria</em></td>
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<td><em>Ancilla</em> sp.</td>
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<td>Bone</td>
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<td>Drop with flattened side and rounded base</td>
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<tr>
<td>Ostrich eggshell</td>
<td>B</td>
<td>Discs and short cylinder</td>
<td>Very small</td>
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<td>313.1, 348.2</td>
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<td>Carnelian</td>
<td>B</td>
<td>Small barrel or truncated biconical</td>
<td>297.4, 298.1, 299.1, 311, 319.1, 327.3, 339.1, 342.1, 350.1</td>
<td>Fig. 20g, r</td>
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<td>P</td>
<td>Scarab pendant with three pairs of legs</td>
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<td></td>
<td></td>
<td>Taweret</td>
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<td>333.3–4, 335.2</td>
<td>Fig. 20y</td>
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<td></td>
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<td>327.2, 335.3</td>
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<td>Heart amulet, flat on one side</td>
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<td>Fig. 20ee</td>
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<td></td>
<td></td>
<td><em>Wedjat</em></td>
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<td></td>
<td>332</td>
<td>Fig. 20aa</td>
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<td>Fig. 20s</td>
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(continued)
Table 11. Overview of types from New Kingdom graves (*continued*)

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<th>Material</th>
<th>Bead (B), pendant (P), or spacer (S)</th>
<th>Length and shape</th>
<th>Size</th>
<th>Color(s)</th>
<th>Catalog number(s)</th>
<th>Figure number</th>
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<td>Fig. 2000</td>
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<td>Lotus seed-vessel pendant with outlined base, in three dimensions</td>
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<td>Jasper</td>
<td>P</td>
<td>Bes-Pataikos</td>
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<td>Heart amulet, flat on one side</td>
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<td>Fig. 20ee</td>
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<td>Metal over ceramic</td>
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<td>Fig. 20ii</td>
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<td>Bes</td>
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Table 11. Overview of types from New Kingdom graves (continued)

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<td>Fig. 20ii</td>
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(continued)
Table 11. Overview of types from New Kingdom graves *(continued)*

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<th>Material</th>
<th>Bead (B), pendant (P), or spacer (S)</th>
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<td>Vitreous material</td>
<td>Flying scarab with double-ring suspension loop</td>
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<td>329</td>
<td>Fig. 20dd</td>
<td></td>
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<tr>
<td></td>
<td>Taweret amulet with attached ring loop</td>
<td></td>
<td>330.1</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Hathor</td>
<td></td>
<td>334.1–11</td>
<td>Fig. 20x</td>
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<tr>
<td>Glass wound</td>
<td>Short barrel</td>
<td>Small</td>
<td>Blue</td>
<td>315.6</td>
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<td></td>
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<tr>
<td></td>
<td></td>
<td>Large</td>
<td></td>
<td>298.6</td>
<td>Fig. 20k</td>
<td></td>
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<tr>
<td></td>
<td>Standard barrel</td>
<td></td>
<td>Orange</td>
<td>317.6</td>
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<td></td>
<td></td>
<td>Red</td>
<td></td>
<td>351.3</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Black</td>
<td></td>
<td>351.4</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Oblate</td>
<td>Translucent amber</td>
<td></td>
<td>318.1</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Translucent purple</td>
<td></td>
<td>324.2</td>
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<tr>
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<td></td>
<td>Translucent blue</td>
<td></td>
<td>326.4</td>
<td></td>
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<tr>
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<td>Spherical</td>
<td>Translucent blue</td>
<td></td>
<td>308.1</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Semitranslucent blue</td>
<td></td>
<td>324.3</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Translucent dark blue</td>
<td></td>
<td>308.2</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Opaque black</td>
<td></td>
<td>342.5</td>
<td></td>
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<tr>
<td></td>
<td>Spherical</td>
<td>Black with white trail</td>
<td></td>
<td>324.4</td>
<td>Fig. 20j</td>
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<tr>
<td></td>
<td>Long</td>
<td>Translucent amber</td>
<td></td>
<td>326.9</td>
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<td></td>
<td></td>
<td>Translucent cobalt blue</td>
<td></td>
<td>297.8, 326.6</td>
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<td></td>
<td></td>
<td>Black</td>
<td></td>
<td>326.7</td>
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<td></td>
<td></td>
<td>Translucent purple</td>
<td></td>
<td>324.1</td>
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<tr>
<td></td>
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<td>Opaque yellow</td>
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<td>297.9</td>
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<td></td>
<td></td>
<td>Opaque light blue</td>
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<td>297.3, 326.8</td>
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<td>S</td>
<td>Tabular body with attached loop</td>
<td>Yellow body with white and black eye</td>
<td></td>
<td>304.2, 345.4</td>
<td>Fig. 20ll</td>
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Table 11. Overview of types from New Kingdom graves (continued)

<table>
<thead>
<tr>
<th>Material</th>
<th>Bead (B), pendant (P), or spacer (S)</th>
<th>Length and shape</th>
<th>Size</th>
<th>Color(s)</th>
<th>Catalog number(s)</th>
<th>Figure number</th>
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<tbody>
<tr>
<td>Glass molded</td>
<td>P</td>
<td>Cardium edule seashell, flat on one side</td>
<td>Light blue</td>
<td>349.2</td>
<td>Fig. 20mm</td>
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<td>Teardrop pendant, flat on one side</td>
<td>Opaque light blue</td>
<td>327.10</td>
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<td>Fig. 20s</td>
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<td></td>
<td></td>
<td>Bulla</td>
<td>Opaque red-orange</td>
<td>349.1</td>
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<td></td>
<td></td>
<td>Fish amulet, swimming to the left with decorated obverse</td>
<td>Light blue</td>
<td>319.5</td>
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<tr>
<td></td>
<td></td>
<td>Fish amulet, swimming to the right with decorated obverse</td>
<td>Semitranslucent blue</td>
<td>337.2</td>
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<td></td>
<td></td>
<td>Fish amulet, swimming to the left with slightly convex obverse</td>
<td></td>
<td>335.7</td>
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<td></td>
<td></td>
<td>Taweret</td>
<td>Opaque blue</td>
<td>333.1–2</td>
<td>Fig. 20y</td>
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<td></td>
<td></td>
<td>Beetle pendant flat on one side with three pairs of legs</td>
<td>Blue</td>
<td>325.2</td>
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<td>Fig. 20cc</td>
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<tr>
<td></td>
<td></td>
<td>Falcon</td>
<td>Light blue</td>
<td>299.4</td>
<td>Fig. 20w</td>
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<td></td>
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<td>Cornflower/pomegranate</td>
<td>Opaque light blue</td>
<td>316.2, 335.9</td>
<td>Fig. 20jj</td>
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<tr>
<td></td>
<td></td>
<td>Cornflower/pomegranate with attached loop</td>
<td>Blue</td>
<td>335.8</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Heart amulet</td>
<td>Red</td>
<td>307</td>
<td></td>
<td>Fig. 20gg</td>
</tr>
<tr>
<td>Glass drawn and cut</td>
<td>B</td>
<td>Short cylinder</td>
<td>Yellow</td>
<td>297.5</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>Blue and dark blue</td>
<td>297.6–7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glass drawn, folded, and cut up</td>
<td>B</td>
<td>Short barrel/oblate</td>
<td>Translucent blue</td>
<td>322.1, 349.3</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Translucent amber</td>
<td>322.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gold-in-glass</td>
<td>B</td>
<td>Oblate</td>
<td></td>
<td>297.1—intrusive</td>
<td></td>
<td>Meroitic bead</td>
</tr>
</tbody>
</table>
incised lines (319.4), and perhaps a scorpion amulet (354.1).  

**Chalcedony**

A long pendant was drilled from both ends, resulting in a perforation of hourglass shape (319.7).

**Clay**

Although not perforated, a five-armed star may have been suspended in some other way (359).  

**Metal**

Standard and long barrels of gold (298.3–5) came from a post-Amarna context. A longer barrel bead made of gold sheet is another example (319.6). These beads are perfectly shaped, and a seam, placed where the ends of the sheet join, is not visible with the naked eye.

Another standard barrel bead (339.2) and two-bead biconical spacers were made of folded gold sheet with visible seams (339.3). They come from a context dated to Thutmose III and find parallels in the beads of other New Kingdom armlets and bracelets, including the feline armlets of the foreign wives of Thutmose III. Two-bead biconical spacers were also part of the double suspension pectoral string dating to the reign of Psusennes I in the Twenty-First Dynasty, about 1050 BC.

A gold sheet wedjat amulet is made of two parts (331). The upper part of this remarkable amulet is formed of gold sheet over a core that was then removed, leaving the element hollow. The base is a flat sheet. The edges of the upper and lower parts were soldered together, and a thread hole was punched through the upper part.

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530 For a similarly shaped amulet, but made of metal, see Met 26.7.1384—Thebes, el-Asasif, tomb CC 37, burial 78, dated to the reigns of Ahmose to Thutmose III.

531 For faience star amulets, see Met 22.1.1944—Lisht North, cemetery south of pyramid, house A 1, a “faience factory,” Thirteenth to Eighteenth Dynasty; Met 15.3.491—Malqata palace of Amenhotep III; Met 22.1.1298—Lisht North, Middle Kingdom to early New Kingdom; Markowitz and Dockey 2014, pl. 4—Kerma, K 1041, Classic Kerma, 1700–1550 bc (= MFA 13.3969); Petrie 1914, pl. 45:275b.

532 Met 26.7.1384—Thebes, el-Asasif, tomb CC 37, burial 78, dated to the reigns of Ahmose to Thutmose III.

533 Egggebrecht 1993, fig. 46.


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536 For a similarly shaped amulet, but made of metal, see Met 26.7.1384—Thebes, el-Asasif, tomb CC 37, burial 78, dated to the reigns of Ahmose to Thutmose III.

537 Similar to BM EA3135; Petrie 1914, pl. 44:19g; Säve-Söderbergh 1989b, pl. 45:275b.


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Coiled wires made from a folded silver sheet (315.7) come from a tomb dated to the period between Amenhotep II and Thutmose IV.  

**Metal over a ceramic core**

A metal copper-alloy sheet was folded over a ceramic core that was shaped into a long, faceted biconical bead (312.1). Other beads in the jewelry object have lost their metal covers.

**Glazed Steatite**

A green-glazed steatite fly with hatched wings is pierced transversely for suspension (315.4). Another fly has undecorated wings but a horizontally segmented, raised back. The fly was pierced transversely for suspension (340.1).

A blue-glazed steatite amulet has been identified elsewhere as Bes (302) and dated to the Eighteenth Dynasty.

**Faience**

Large, short standard and long barrel beads (350.2–3, 5), as well as short bicones (350.4), may have been intrusive Meroitic and post-Meroitic beads. The remaining faience beads are well-known New Kingdom types.

**Segmented beads**

Among the most characteristic monochrome faience beads in the New Kingdom are multiple-segmented tubes. Tubular cores were most probably rolled on grooved molds before glazing. New Kingdom multiple-segment beads reveal white cores when found broken (342.4), and they have short cylinder segments (D 1.6–3.6) in blue (310.6, 324.8, 327.5–7, 328, 330.2–3, 342.4, 346.2), yellow (345.1–2), and red (345.3). One item is a quadruple-segment green tube with barrel-shaped segments (D 3.7) (317.1).

**Disc beads**

Lenticular disc and wafer-shaped blue beads (D 11.7–21.0, Th 1.1–4.0) (321, 357.1–2, 358) were most prob
ably remains from a necklace,\textsuperscript{540} while a faience disc truncated bicone in blue (299.2) constitutes another type. There are also blue and green disc cylinder beads (301.12, 305.2, 308.9, 344).

**Short cylinder beads**

Short faience cylinders were regularly shaped beads found in many colors: blue (299.3, 300.1, 301.13, 308.7, 356.1), green (308.3), white (301.9, 12, 356.2), black (301.10–11, 305.4, 302.2, 362.3), red (301.10, 305.6, 308.4, 320.1, 324.5, 326.2, 356.3), and yellow (305.3, 308.5, 320.3, 326.1, 335.5).

**Irregular disc to short cylinder**

Irregularly shaped disc to standard cylinder beads have rounded edges. They are found in black (298.8, 318.2) and are more similar to Middle Nubian faience specimens.

**Long beads**

A long green faience barrel bead measures 5.8 mm in length (346.1), and long blue bicones (349.4) with lengths ranging from 6.4 to 7.6 mm are also represented in the corpus.

**Decorated beads and pendants**

Except for a blue faience melon bead (317.4),\textsuperscript{541} faience objects were shaped in pottery molds and one of their sides is flat. These items include a wedjat amulet with four holes, which may indicate that it is a spacer (309); a blue scaraboid (316.1);\textsuperscript{542} a large Bes with a long penis (306);\textsuperscript{543} and a Bes with a short penis (310.3). A green-glazed faience fly is flat on one side and has undecorated wings and a longitudinally segmented head, pierced transversely for suspension (315.5).\textsuperscript{544}

Other amulets have single- or double-ring loops attached for suspension. These items include a pendant in the form of a flying scarab, with a double-ring loop (329);\textsuperscript{545} and a Taweret amulet molded with an attached ring loop (330.1).\textsuperscript{546} Faience Hathor amulets have flat backs and suspension loops running horizontally over the attached headaddresses (334.1–11).\textsuperscript{547} The plaque forms a woman’s head with the ears of a cow, and the face of the goddess is depicted in relief. She wears a two-tiered wig ending in two locks and a crown atop her head. At the hair’s part, there may be three uraei. Under the chin is a long neck, marked by horizontal strokes, that may also be interpreted as a sistrum handle.\textsuperscript{548} The amulets come from a tomb dated variously to Thutmose III or from Amenhotep III to the Amarna period.

**Vitreous Material**

Short, opaque and matte blue barrel beads are present in two sizes. The smaller ones measure 2.4–4.0 mm in diameter (315.6), and the larger beads measure 4.5–5.0 mm in diameter (298.6). Other matte beads that lack traces of glaze are short barrels, light orange in color (317.6).

Some glossy coating can also be discerned on standard barrel cores of red (351.3), brown, and almost black color (351.4).

**Monochrome Glass**

**Drawn and cut glass**

Short cylinders in opaque yellow and blue are made of glass that bears traces of a drawing method (297.5–7).

**Drawn, folded, and cut-up glass strip**

H. C. Beck noticed that Amarna tubes were drawn from strips of glass folded around a wire and then broken into beads.\textsuperscript{549} They were also found at Amenhotep III’s Malqata palace near Thebes.\textsuperscript{550} However, these types of glass beads from Malqata, as presented at the Metropolitan Museum of Art, are missing from...

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\textsuperscript{540} The same is true of those on a shebyu necklace.
\textsuperscript{541} Säve-Söderbergh and Troy 1991, pl. 23-4, object 185/133:2.
\textsuperscript{542} Patch 2005, 207, cat. no. 126—-from a basket in a child’s coffin in western Thebes, Birabi, tomb 37, burial 31, early Eighteenth Dynasty, reigns of Thutmose I to Thutmose III (1504–1425 bc) (= Met 26.7.1369); Minault-Gout and Thill 2012, pl. 116: T3Ca20—Saï.
\textsuperscript{543} MFA 27.903a–c—from New Kingdom remains at Semna South, H. 3.5 cm; MFA 11.2583—from Egypt, Zawiye-yet el-Aryan; Vercoutter 1975, fig. 43:13—Mirgissa; Goulding 2013, fig. 5—Eighteenth Dynasty, of red faience (= UC 1135).
\textsuperscript{544} Säve-Söderbergh and Troy 1991, pl. 21:4, object 185/129:7, pl. 23:4, object 185/133:2, pl. 26:9; Vercoutter 1975, fig. 28b—a—d—Mirgissa, tomb 84.
\textsuperscript{545} Herrmann 2003, 161, pl. 123, cat. no. 943—New Kingdom; Herrmann and Staubli 2010, 121—Nineteenth to Twentieth Dynasties, 1306–1070 bc; Müller-Winkler 1987, pl. 29:595.
\textsuperscript{546} Bleiberg 2008, cat. no. 84 (= BrMu, inv. 48.66.42)—probably late Eighteenth Dynasty, ca. 1332–1292 bc; Herrmann 2003, 111, pl. 76, cat. no. 539 (Ramesside), and references therein; Herrmann and Staubli 2010, 79, cat. no. 37—Iron Age IA–B, 1200–1000 bc; Megiddo; OIM E20617.
\textsuperscript{547} Herrmann 2003, 70, pl. 36, cat. nos. 258–59—Ramesside; Herrmann and Staubli 2010, 59, cat. no. 8—Nineteenth to Twentieth Dynasties (1306–1070 bc); BrMu 48.66.37.
\textsuperscript{548} Vincentelli 2006, 161.
\textsuperscript{549} Beck 1928, 61; Petrie 1894, 27, pl. 13, 55—Tell el-Amarna.
\textsuperscript{550} Lankton 2003, 43.
the OINE assemblage. The same technique was identified by Beck as used for short beads from Abydos, These beads are now in the Petrie Museum of Egyptian Archaeology, University College London, and in contrast to the Malqata examples, they are comparable to some OINE beads. In the OINE assemblage, segments of drawn tubes, folded and cut up into short barrel or oblate beads, were recorded in translucent blue (322.1, 349.3) and translucent amber (322.2). They measure 4.6–5.8 mm in diameter, 2.1–3.2 mm in thickness, and 1.4–2.2 mm in hole diameter. This type of bead was also found in a sixteenth-century BC burial at northwest Saqqara.

Wound glass

Evidence for the production of wound-glass beads was found at Tell el-Amarna. Among monochrome wound-glass beads, short, standard, and long beads can be distinguished. These oblate beads are translucent amber (318.1), translucent purple (324.2), and translucent blue (326.4) in color.

Globular beads made of wound glass are translucent blue (308.1), semitranslucent blue (324.3), translucent dark blue (308.2), and opaque black (342.5) in color.

Long beads are colored translucent amber (326.9), translucent cobalt blue (297.8, 326.6), black (326.7), translucent purple (324.1), opaque yellow (297.9), and opaque light blue (297.3, 326.8).

Molded light blue glass was shaped into a cardium edule seashell (349.2), the shape of which is found elsewhere but made of carnelian. A teardrop pendant, flat on one side, is made of opaque light blue glass (327.10) and was also executed in carnelian (cf. 327.1). A glass pendant, flat on one side, is called a bulla and is matte opaque red/orange in color (349.1), perhaps to resemble carnelian. A fish amulet, swimming to the left, has incised details (319.5) in the same manner as one in carnelian (cf. 319.3). Another translucent blue fish, with a flat reverse and decorated obverse side, swims to the right (337.1). A Taweret amulet in opaque blue glass (333.1–2) is shaped like its carnelian counterparts (cf. 333.3–4), and a blue glass beetle pendant, flat on one side and with three pairs of legs (325.2), was found with carnelian examples (cf. 325.1). In addition, a light blue glass falcon (299.4) and a fish amulet swimming to the left (335.7) are flat on their reverse sides but have slightly convex obverse sides.

Other forms were executed in three dimensions. Glass cornflower/pomegranate pendants are made of opaque light blue glass and are rod pierced for suspension (316.2, 335.9), while blue (335.8) or light green (335.10) ones have attached ring loops. A heart amulet pendant is made of opaque red glass (307).

Evidence for the production of wound-glass beads was found at Tell el-Amarna. Among monochrome wound-glass beads, short, standard, and long beads can be distinguished. These oblate beads are translucent amber (318.1), translucent purple (324.2), and translucent blue (326.4) in color.

Globular beads made of wound glass are translucent blue (308.1), semitranslucent blue (324.3), translucent dark blue (308.2), and opaque black (342.5) in color.

Long beads are colored translucent amber (326.9), translucent cobalt blue (297.8, 326.6), black (326.7), translucent purple (324.1), opaque yellow (297.9), and opaque light blue (297.3, 326.8).

552 Beck 1928, 61; Lankton 2003, 43; UC 43028—from Abydos, but ascribed to the Roman period.
553 UC 43028.
555 Ibid.
556 Yoshimura and Kawai 2007.
557 Petrie 1894, 27, fig. 13.
558 Cooney 1976, cat. no. 1044—Akhenaten, Tell el-Amarna, Eighteenth Dynasty; UC 51644, 24388—Tell el-Amarna, Eighteenth Dynasty; Varberg, Kaul, and Gratuze 2014—a single Egyptian glass bead was confirmed by laboratory analysis and came from a Bronze Age woman’s burial excavated in Denmark; Met 11.215.653, 659—wound-glass barrel beads can be discerned among other beads found at the palace of Amenhotep III at Malqata, about 1390–1353 BC; Firth 1912, pl. 55.9—standard to long beads.
559 Cooney 1976.
560 UC 51644—Tell el-Amarna, Eighteenth Dynasty.
561 Cooney 1976, cat. no. 1044—Tell el-Amarna, reign of Akhenaten, Eighteenth Dynasty; UC 51644, 24388—Tell el-Amarna, Eighteenth Dynasty; Firth 1912, pl. 55, no. 9; Met 11.215.662—from the Malqata palace of Amenhotep III.
562 Met 11.215.66—from the Malqata palace of Amenhotep III.
563 Petrie 1914, 27, cat. no. 111.
564 Arnold, Green, and Allen 1999, fig. 20—a wooden figure of Queen Tiyeh with a necklace of dark blue pendants.
566 Patch 2005, 206, cat. no. 124b. This object is dated to the early Eighteenth Dynasty, between the reigns of Thutmose I and Thutmose III (1504–1425 BC), and is from a small box in a man’s grave, burial 53 in tomb 37, in the area of Birabi, western Thebes.
567 Cf. cat. no. 325.1.
568 For stone falcon amulets, see Herrmann 2003, 28–29, 141, pl. 105, cat. no. 801; Berman 1999, 173, cat. no. 114—assemblage of beads and amulets of mostly Middle Kingdom date.
569 Beck 1928, B.2.g, faience—Tell el-Amarna.
570 Smith 2007, 4, color pl. 3 for the shape of the amulet from New Kingdom contexts at Tombs.


Bichrome and Polychrome Glass

Wound glass

Spherical beads were made of a body of wound black glass and decorated with an applied white trail around the middle (324.4).571

Glass eye spacer beads consist of perforated bodies and loops. A black-and-white eye was applied in layers to one side of the yellow body. While still on a rod, the decorated side was flattened and the loop attached (304.2, 345.4).572

Drawn gold-in-glass

A gold-in-glass bead is made of two drawn layers of clear glass with gold foil between them (297.1). The ends of the bead are heat-rounded. However, this object is an intrusive Meroitic find.573

Beadwork

In only a few cases were beads found associated with parts of the body in a way that indicates the type of object to which they belonged. Beads were found presumably at the head (300), as cap or headband pendants (303), from the neck (307, 315, 334[?], 340), on or near the chest (317, 336, 338), as bracelets (313), around the pelvis (341), and near the hand and head (351).

Beads that were found presumably at the head (300) may have been part of a cap, as observed on the head of a figure of Queen Tiye, which had inset blue glass beads.574

Although the shebyu collar is composed of single or multiple rows of gold disc beads,575 it is possible that imitations were made of faience disc, biconical, or wafer beads (321, 357.1–2, 358).576

The Bead Owners

Since New Kingdom tombs contained multiple burials, it was often not possible to assign beads or beadwork to any particular burial. Beads associated with anthropologically identified individuals at Qustul included burials of females (299, 300, 314, 317–319, 320[?], 326, 330, 334, 339), males (309, 310[?], 315), and children, including infants (307, 322, 340, 341). In addition, two tombs contained skeletons of infants and females together (323, 324, 336–338) or infants with mature males (321). At Serra East, beads were also recorded with a juvenile body (351).

Some anthropological associations can be indicated for some types of objects. Fish amulets come from a burial of a mature female (319.3, 5) and from a shared infant and female grave (337). Fish amulets, called nekhaw, are said to have been given especially to children to protect them from drowning, and during the Twelfth Dynasty they were attached to the end of the side lock or plait of the child’s hair.577 A Taweret amulet is associated with a senile female (330.1), and an unusual group of eleven Hathor head pendants also comes from a senile female burial (334). As the goddess protector of pregnant women, Taweret was believed to protect the deceased woman during her rebirth into the next world.578 A Horus falcon amulet belonged to a female (299). A wedjat-eye amulet was found with a juvenile male (309). Heart amulets were recorded from a child’s grave (307) and a mature female’s burial (319).
Catalog

Qustul R 4B—13a–j: Beads from uncertain location, presumably the eastern chamber (D—mature male, E—mature female, F—child); OIM E20666
New Kingdom, post-Amarna period
1. Gold-in-glass, drawn and rounded, standard barrel (1), D 3.0, L 2.5, HD 1.4—Meroitic bead
2. Silver, barrel (2), D 1.7, L 2.2, HD 0.7
3. Glass, wound, long barrel, blue (2), D 3.4; 3.8, L 7.7; 7.6, HD 0.8
4. Stone, carnelian, drilled from one end, barrel, red (3), D 2.1, L 2.2, HD 0.8; 0.7
5. Glass, drawn and cut, short cylinder, opaque yellow (2), D 2.3, L 1.7, HD 0.6—Meroitic bead
6. Glass, drawn and cut, short cylinder, blue (1), D 1.8, L 1.1, HD 0.7
7. Glass, drawn and cut, short cylinder, blue (1—broken), D 2.3, L 1.9, HD 0.7
8. Glass, wound, long barrel, dark blue, one bead covered with silverfish patina (2), D 3.8; 4.3, L 10.3; 10.1, HD 0.8
9. Glass, wound, long barrel, opaque yellow (2), D 2.9; 4.1, L 6.5; 8.4, HD 0.9
Bibliography: OINE VI, 125, 161, fig. 17q, r
298
Quastul R 19—4a–g: Beads from tomb
(A—unidentified individual, B—adult male); OIM E20898
New Kingdom, Post-Amarna period
1. Carnelian, drilled from one end, short irregular bicone (2), D 3.8, L 2.8, HD 1.1; 1.3
2. Garnet, drilled from one end, irregular globular, slightly biconical, purple (58), D 3.2–4.3, L 2.1–3.1, HD 1.1; 2.4
3. Gold sheet, barrel (21), D 3.0–3.3, L 2.4, HD 1.1
4. Gold sheet, barrel (2), D 3.5, L 2.8, HD 1.6
5. Gold sheet, long barrel (3), D 2.8, L 4.9, HD 1.4
6. Vitreous material, barrel, blue (32), D 4.5–5.0, L 3.6–3.7, HD 1.0
7. Faience, barrel, blue (3), D 3.2, L 2.2, HD 0.6
8. Faience, disc and short cylinder, black (237), D 2.1–2.3, L 0.9–2.1, HD 0.8
Bibliography: OINE VI, 125, 165, fig. 17a, h, k, n, o
Qustul R 20–44a–c: Beads, including falcon amulet from eastern chamber (F—mature female, G—mature female, H—senile female); OIM E20913
New Kingdom, post-Amarna period
1. Carnelian, drilled from one end, barrel, red (93), D 2.0–2.4, L 1.8, HD 0.8
2. Faience, truncated bicone disc, blue (7), D 3.9–4.6, L 1.4–1.6, HD 1.2
3. Faience, short cylinder, blue (1), D 2.8, L 1.4, HD 1.2
4. Glass, falcon amulet, light blue (1), Th 3.0, W 5.8, H 10.2, HD 1.4 × 1.3 – 1.9 × 1.4
Bibliography: OINE VI, 166–70, figs. 17l, b, v, w, 41k
Qustul R 32–11a–c: Beads from uncertain location, presumably at head (mature female);
OIM E20893
New Kingdom, Thutmose III to Amarna period (and most likely Amenhotep II to Thutmose IV)
1. Faience, short barrel, blue and green (374), D 2.8–5.0, L 1.4–1.8, HD 1.0
2. Faience, short barrel, white (4), D 3.0, L 1.6, HD 1.1
3. Faience, short barrel, black (2), D 2.9, L 1.0, HD 0.9
Bibliography: OINE VI, 183–84
Qustul R 35—4: Beads from shaft, level 1 (A—younger infant, B—senile female, C—mature female, D—mature female, E—mature male, F—); OIM E21297A–B
OIM E21297A
New Kingdom, post-Amarna period
1. Conus taeniatus shell, apex removed, whitish (1), W 9.3 × 8.7, L 13.1, HD 2.4
2a. Columbella (Pyrene) testudinaria shell, body whorl cut and apex removed, whitish (1), W 9.7 × 8.1, L 13.0, HD 4.5; 5.5 × 4.2—cut might be accidental
2b. Columbella (Pyrene) testudinaria shell, apex removed, brown waves, whitish (1), W 8.4 × 7.4, L 10.7, HD 2.4
2c. Columbella (Pyrene) testudinaria shell, apex removed, brown and whitish (1), W 9.0 × 8.1, L 11.5, HD 3.5
2d. Columbella (Pyrene) testudinaria shell, apex removed, whitish (4), W 6.0 × 7.1, L 9.6, HD 2.8
3. Ancilla sp. shell, apex removed, whitish (8), W 3.4 × 3.1—4.6 × 4.2, L 5.6–9.1, HD 1.0–1.6
4. Nassarius coronatus shell, whitish (1—broken), W 6.4
5. Faience, disc cylinder, whitish (2), D 2.5; 3.0, L 1.3; 1.2, HD 1.0
6. Faience, disc cylinder, black (1), D 2.6, L 1.4, HD 0.8
301 (continued)
OIM E21297B
7. Faience, disc cylinder, black (57), D 2.6–2.7, L 0.9–2.1, HD 0.8
8. Faience, disc cylinder, yellow (41), D 2.4–3.2, L 1.0–2.0, HD 1.0
9. Faience, disc cylinder, blue (20), D 2.2–2.9, L 1.0–1.8, HD 0.8
10. Faience, disc cylinder, red (1), D 2.9, L 1.1, HD 1.0
11. Faience, disc cylinder, blue and green (116), D 4.1–5.6, L 1.1–2.0, HD 1.4
12. Faience, disc, blue (3), D 6.7–7.0, L 0.9–1.0, HD 1.3
13. Ostrich eggshell, drilled from one end, disc cylinder, whitish (77), D 4.5–5.1, L 1.4–1.9, HD 2.6–1.4
14. Faience, oblate, yellow (1), D 3.8, L 2.9, HD 0.6
Bibliography: OINE VI, 126, 188–91
302
Qustul R 35—5: Amulet, Bes, from shaft, level 2 (G—younger infant, H—mature male, I—mature female, K—mature female, J—senile individual, L—juvenile female, M—, N—); OIM E21324
New Kingdom, post-Amarna period
Steatite, Bes pendant, blue glaze (1), W 7.7, Th 4.0, H 15.1, HD 1.2
Bibliography: OINE VI, 126, 188–91, figs. 17v, 41k

303
Qustul R 35—13: Amulets and band pendants from shaft, level 2, with burials G–N (G—younger infant, H—mature male, I—mature female, J—senile individual, K—mature female, L—juvenile female, M—, N—); OIM E21296A–F
New Kingdom, post-Amarna period
OIM E21296A
1. Bone, teardrop, white (1), W 8.7, Th 5.7, H 13.5, HD 1.5–1.8
OIM E21296B
2. Bone, teardrop, white (1), W 8.6, Th 5.4, H 10.8, HD 1.5–1.8
OIM E21296C–D
303 (continued)
3. Carnelian, heart pendant, red (2), W 9.5, Th 3.3, H 16.7; 16.2, HD 0.8–1.4
   OIM E21296E
4. Carnelian, lotus seed-vessel pendant, red (1—broken), D 6.2, H 10.3, HD 1.0–1.6
   OIM E21296F
5. Carnelian, lotus seed-vessel pendant, red (1), D 6.7, H 13.4, HD 1.0–1.3
   Bibliography: OINE VI, 126–27, 189–99, figs. 17ff, kk, 41f, pl. 49a
Qustul R 35–15a–b: Pendants from shaft, level 2, with burials G–N (G—younger infant, H—mature male, I—mature female, J—senile individual, K—mature female, L—juvenile female, M—, N—); OIM E21190A–B

New Kingdom, post-Amarna period

OIM E21190A

1. Carnelian, flat lotus seed-vessel pendant, light to dark red (1), W 11.6, Th 4.0, L 21.8, HD 1.1–1.6

OIM E21190B

2. Glass, stratified eye pendant/spacer, opaque yellow, black-and-white eye (1), W 8.1, Th 4.6, H 13.3, HD 2.4 × 1.6 (loop), HD 2.3 (body)

Bibliography: OINE VI, 126–27, 189–99, figs. 17ll, oo, 41l
Qustul R 35–18a–h: Beads from shaft, level 2, with burials G–N (G—younger infant, H—mature male, I—mature female, J—senile individual, K—mature female, L—juvenile female, M—; N—); OIM E21195
New Kingdom, post-Amarna period
1. Faience, disc cylinder, blue and green (146), D 3.8–6.5, L 1.9, HD 1.6–1.9
2. Faience, disc and short cylinder, blue and green (60), D 2.0–3.7, L 1.0–1.9, HD 1.0–1.3
3. Faience, disc and short cylinder, yellow (3), D 2.1–2.5, L 1.1, HD 0.6–0.9
4. Faience, disc cylinder, black (3), D 2.6, L 1.3, HD 0.9
5. Faience, disc cylinder, brown (3), D 2.6, L 1.6, HD 1.0
6. Faience, disc cylinder and disc barrel, dark red (10 and 1 double-segment), D 2.3–3.1, L 1.0–1.2, HD 1.0
7. Faience, disc cylinder, white (3), D 2.6–2.9, L 1.0–1.4, HD 0.8
8. Faience, disc cylinder, yellowish core (1), D 2.7, L 1.2, HD 0.8
9. Ostrich eggshell, some drilled from one end and some from both ends, disc cylinder, whitish (68), D 4.6–5.7, L 1.1–1.8, HD 1.7–2.9—hourglass or conical
10. Stone, carnelian, drilled on one end, long barrel, red (1), D 3.3, L 4.4, HD 0.8; 1.7
11. Ancilla sp. shell, apex removed, white (6), W 3.2–4.7, L 5.9–9.4, HD 1.1–1.5
12. Faience, disc cylinder, yellow (1), D 5.3, L 1.3, HD 1.8
Bibliography: OINE VI, 126–27, 189–99, fig. 17d
Qustul R 35–19: Amulet, Bes, in shaft, level 2, with burials G–N (G—younger infant, H—mature male, I—mature female, J—senile individual, K—mature female, L—juvenile female, M—, N—); OIM E21192
New Kingdom, post-Amarna period
Faience, Bes amulet, blue (1), W 15.2, H 34.9, Th 6.5, HD 1.4
Bibliography: OINE VI, 126–27, 189–99, figs. 17t, 41j

Qustul R 35–33: Heart pendant, uncertain location in shaft, from neck (child); OIM E21198
New Kingdom, post-Amarna period
Glass, heart pendant, opaque dark red (1), W 14.5, Th 6.9, H 24.0, HD 2.0 (loop)
Bibliography: OINE VI, 189–99, figs. 17gg, 41m
308
Qustul R 35–34a–m: Beads from uncertain location in shaft; OIM E21293
New Kingdom, post-Amarna period
1. Glass, wound, oblate, translucent blue (2), D 9.0; 9.0, L 7.8; 9.9, HD 3.3; 2.7
2. Glass, wound, oblate, cobalt blue (1), D 11.2, L 9.8, HD 2.6
3. Faience, disc and short cylinder, green (10), D 2.5–3.2, L 1.1–1.4, HD 0.7
4. Faience, disc and short cylinder, red (6), D 2.9–3.1, L 1.1, HD 0.7
5. Faience, disc and short cylinder, white and yellow (5), D 2.4–3.4, L 1.1, HD 0.7
6. Faience, disc and short cylinder, light blue (1), D 2.8, L 1.7, HD 0.9
7. Faience, disc and short cylinder, dark blue (1), D 2.7, L 0.9, HD 1.4
8. Faience, disc cylinder, blue (1), D 4.5, L 1.6, HD 1.2
9. Faience, disc cylinder, turquoise (3), D 5.2, L 1.6, HD 1.2
10. Ostrich eggshell, drilled from one end, disc cylinder, white (8), D 5.1, L 1.8, HD 2.7–1.9
11. Polinices sp. shell, body whorl perforated, white (1), W 16.2, Th 13.8, L 28.0, HD 3.6
12. Cypraea annulus shell, body whorl perforated, cowrie, white (1), W 16.7, L 22.3, HD 3.5 × 2.4
13. Shell, not perforated, white (4), W 5.8–7.5, L 10.6–13.8, Th 3.5 × 2.4—not illustrated
Bibliography: OINE VI, 189–99

309
Qustul R 35–45: Amulet, wedjat-eye, in eastern chamber, from burial X (juvenile male); OIM E21227
New Kingdom, post-Amarna period
Faience, wedjat-eye amulet spacer, blue (1), L 45.0, H 4.9, H 28.9, HD 1.8
Bibliography: OINE VI, 189–200, fig. 17bb
Qustul R 35–100a–g: Beads and Bes amulet in western burial chamber (scattered bones—at least 7 mature or senile, mostly male); OIM E21196
New Kingdom, Amenhotep II to post-Amarna period (and most likely Amenhotep III to Amarna period)
1. *Nerita* sp. shell, perforation on the last whorl of the spire, whitish (1), W 16.7, L 20.8, H 12.4, HD 4.3
2. *Ancilla* sp. shell, apex removed, white (2), W 4.4 × 3.2, L 5.6, HD 1.9
3. Faience, Bes amulet, green (1), W 5.5, Th 3.3, H 12.9, HD 1.0
4. Faience, barrel, green (1), D 4.0, L 3.4, HD 1.3
5. Faience, disc cylinder, blue (3), D 3.5–4.3, L 0.7–1.0, HD 0.7
6. Faience, quadruple-segmented cylinder, blue (1), D 1.6, L 5.2, HD 0.8
Bibliography: OINE VI, 188–201, fig. 17u
311
Quastul R 40—13: Beads from shaft, level 2 (B—male, C—); OIM E21364
New Kingdom, Thutmose III
Stone, carnelian, drilled from one end, standard barrel, red (84), D 2.1–3.8, L 1.6–3.0, HD 0.8–1.1
Bibliography: OINE VI, 127, 202–4, fig. 17g
312
Qustul R 40—48a—b: Beads from eastern chamber in uncertain location (I—child, J—mature female, K—mature female(?), L—mature male, M—juvenile male (I and M probably the same burial); OIM E21365
New Kingdom, Thutmose III
1. Metal, slightly faceted long bicone (1), D 5.4 × 4.8, L 11.4, HD 1.0
2. Ceramic core, bicone, blue, green (14.5), D 3.5–4.2, L 3.5–7.0, HD 1.0
Bibliography: OINE VI, 127, 202–10, fig. 17p

313
Qustul R 41—3a—b: Bracelet (no body recorded); OIM E20890
New Kingdom, Thutmose III to post-Amarna period (and most likely Amenhotep III to Amarna period)
1. Ostrich eggshell, short cylinder, whitish (59), D 2.2–2.4, L 0.9–1.2, HD 0.8
2. Faience, short cylinder, blue (1), D 2.8, L 2.2, HD 0.9
Bibliography: OINE VI, 128, 211
Qustul R 45—3a: Beads in shaft, level 2, from coffin in burial I (senile female); OIM E21309—*non vidi*
New Kingdom, Amenhotep II to Thutmose IV
Bibliography: OINE VI, 128, 215, pl. 49d

Qustul R 45—12a–d: Beads, amulets, coils in shaft, level 3, from neck of burial K (mature male); OIM E21310
New Kingdom, Amenhotep II to Thutmose IV
1. Amethyst, drilled from one end, spherical, light purple (1), D 4.7, L 4.2, HD 1.0; 0.8
2. Carnelian, short truncated barrel, red (1), D 3.9, L 2.8, HD 1.3; 1.8
3. Carnelian, short truncated barrel, salmon (1), D 2.5, L 1.6, HD 1.1
4. Steatite, fly, green glaze (1), Th 2.9, W 9.1, H 11.7
5. Faience, fly, green (2), Th 3.6, W 7.1, H 13.4
6. Vitreous material, short barrel, blue (7), D 2.4–4.0, L 1.3–2.9, HD 0.9
7. Metal coils (2), D 1.7, W 8.2, H 8.8; 11.0, L ca. 26.0
Bibliography: OINE VI, 128, 215–17, fig. 17ii, pl. 49c
BEADS FROM EXCAVATIONS

316
Qustul R 45–14a–b: Pendant and amulet in shaft, uncertain location (A–H—, I—senile female, J—mature female, K—mature male); OIM E21265
New Kingdom, Amenhotep II to Thutmose IV
1. Faience, barrel, flat on one side, blue (1), Th 4.9, W 8.0, L 11.8, HD 1.3
2. Glass, cornflower pendant, light blue (1), Th 3.4, H 7.9, HD 1.1–1.4
Bibliography: OINE VI, 128, 215–17, fig. 17i, jj, pl. 49b

317
Qustul R 45–31a, c: Shell and beads in eastern chamber with burial N, shell on chest (mature female); OIM E21327C
New Kingdom, Amenhotep II to Thutmose IV
1. Faience, quadruple-segment, green (1), D 3.7, L 13.0, HD 1.6
2. Faience, disc barrel, blue/green (2), D 4.1, L 1.5, HD 1.0
3. Faience, disc barrel, blue (2—attached), D 2.6, L 2.5, HD 0.6
4. Faience, melon, blue (1), D 4.6, L 3.2, HD 1.5
5. Glass, short barrel, light blue (1), D 2.6, L 1.6, HD 1.2
6. Vitreous material, short and standard barrel, light orange (16), D 2.7, L 1.7, HD 0.9
OIM E21327C bis
7. Faience, disc and short cylinder, dark green to black (22), D 2.6–3.3, L 0.6–0.7, HD 0.9
Bibliography: OINE VI, 128, 215–17, fig. 17f, m
Qustul R 45–44a–b: Beads in eastern chamber, uncertain location (M—senile female, N—mature female); OIM E21354
New Kingdom, Amenhotep II to Thutmose IV
1. Glass, short barrel, amber (1), D 3.2, L 1.5, HD 1.1
2. Faience, disc and short cylinder, dark blue, green, black (427), D 2.6–3.4, L 1.5–3.0, HD 1.0
Bibliography: OINE VI, 128, 215–20
Qustul R 75—8a–b or R 75—18:
Pendants (5 fish, 7 heart) and beads (2), under burial G or D (G—mature female, D—mature female); OIM E23505, OIM E42485
New Kingdom, Amenhotep III to post-Amarna period (and most likely Amenhotep III to Amarna period)
OIM E23505
1. Carnelian, drilled from one end, short barrel (1), D 1.7, L 1.4, HD 0.7; 0.8
2. Carnelian, pointed heart amulet (5), W 2.7–3.0, Th 1.4, H 6.0–7.1, HD 0.6; 0.7
3. Carnelian, fish amulet, three facing left, one facing right (4), W 3.5, Th 1.8, H 6.9–7.3, HD 0.6; 0.7
4. Diorite, pointed heart amulet (2), W 3.3, Th 1.7, H 6.7, HD 0.6; 0.7
5. Glass, fish amulet facing left, blue (1), W 3.3, Th 1.8, H 7.8, HD 0.7; 0.9
6. Gold, barrel (1), D 1.8, L 2.3, HD 0.7
OIM E42485 (found in box with scarab OIM E23506, possibly from burial G)
7. Stone, pendant, drilled from both ends, brown, semitranslucent (1), Th 9.8, W 10.8, H 29.9, HD 3.8–1.7–3.8—hourglass
Bibliography: OINE VI, 128, 232–34, fig. 17ee, hh
Quastul R 75—9a–b: Beads in fill of shaft and opening of chamber (probably female);
OIM E23422
New Kingdom, Amenhotep III to post-Amarna period (and most likely Amenhotep III to
Amarna period)
1. Faience, short cylinder, red (53), D 1.6, L 0.9–1.0, HD 0.5
2. Faience, short cylinder, black (67), D 1.8–2.7, L 0.9–1.0, HD 0.5–1.1
3. Faience, short cylinder, yellow and light orange (74), D 1.4–2.1, L 1.0–1.4, HD 0.5–1.1
Bibliography: OINE VI, 128, 232–34
BEADS FROM EXCAVATIONS

321
Qustul R 84—9a: Beads in fill of shaft (A/C—mature males, B—older infant, D—younger infant); OIM E42486
New Kingdom, Amenhotep III to post-Amarna period (and most likely Amenhotep III to Amarna period)
Faience, disc cylinder and bicone, whitish core, blue glaze (4), D 11.7–13.0, L 1.1–3.0, HD 1.7
Bibliography: OINE VI, 128, 242–46

322
Qustul R 85—2a–c: Beads from tomb (infant, 1–2 years old); OIM E23424
New Kingdom
1. Glass, drawn, folded and cut into rings, translucent turquoise (13), D 4.7–5.3, L 2.1–3.0, HD 1.7–1.9
2. Glass, drawn, folded and cut into ring, translucent amber (11–2 linked together), D 4.6–5.8, L 2.5–3.2, HD 1.4–2.2
3. Ostrich eggshell, disc, grayish (1), D 6.6, L 1.5, HD 2.4
Bibliography: OINE VI, 129, 247

323
Qustul R 94—12: Amulets, Taweret, from western chamber with I–O burials (I–M—adult females, N—younger infant, O—younger infant?); OIM E23519—non vidi
New Kingdom, post-Amarna period
Bibliography: OINE VI, 129, 248–52
Qustul R 94–13a–g: Beads from western chamber with burials I–O (I–M—adult females, N—younger infant, O—younger infant?); OIM E23528
New Kingdom, post-Amarna period
1. Glass, wound, short and standard barrel, translucent purple (10), D 4.6–5.3, L 3.6–5.9, HD 1.5
2. Glass, wound, short barrel, translucent purple (1), D 3.8, L 2.4, HD 1.6
3. Glass, wound, standard barrel, semitranslucent blue (1), D 6.4, L 5.5, HD 2.1
4. Glass, wound, standard barrel, black white trailed (8.5), D 5.0–5.8, L 3.9–4.9, HD 1.9
5. Faience, short cylinder, red (1), D 2.8, L 2.0, HD 1.0
6. Faience, short to standard cylinder, blue (4), D 2.5–3.1, L 1.4–2.2, HD 0.9
7. Faience, barrel, blue (1), D 4.4, L 4.7, HD 1.3
8. Faience, triple-segment, blue (2), D 2.5; 2.8, L 4.4; 5.0, HD 0.8
Bibliography: OINE VI, 129, 248–52, fig. 17c, j
325

Qustul R 94—26: Amulet, scarab from eastern chamber with burials P—Y (P—adult [probably male], Q/S—V—adult female, W—younger infant, X/Y—female); OIM E23520A–B
New Kingdom, post-Amarna period
OIM E23520A
1. Carnelian, scarab, light red (1), W 10.5, Th 4.9, L 15.9, HD 1.0–1.6
OIM E23520B
2. Glass, scarab, blue, translucent (1), W 10.9, Th 5.3, L 16.4, HD 1.0–1.6
Bibliography: OINE VI, 129, 248–52, fig. 17cc
Qustul VC 45—5a–k: Beads with burial B, under body (juvenile female); OIM E21633
New Kingdom, Amenhotep III to Amarna period (with possible extension)

1. Faience, short cylinder, yellow (343), D 1.7–2.4, L 0.8–1.3, HD 0.7
2. Faience, short cylinder, red (233), D 1.7–2.4, L 0.9–1.4, HD 0.9
3. Faience, double- to quadruple-segment, gray/bluish (38), D 1.7–2.4, L 0.9–1.4, HD 0.9
4. Glass, wound barrel, translucent blue (13), D 3.5–3.9, L 2.1–4.3, HD 0.6–0.9
5. Glass, wound, long barrel, semitranslucent blue (3), D 3.4, L 6.3, HD 0.9
6. Glass, wound, long barrel, dark blue (1), D 3.4, L 5.9, HD 0.6
7. Glass, wound, long barrel, black (1), D 3.7, L 7.3, HD 0.7
8. Glass, wound, long barrel, semitranslucent light blue (1), D 3.2, L 7.0, HD 1.0
9. Glass, wound, long barrel, translucent dark amber (2), D 3.1, L 5.9, HD 0.7
10. Stone, garnet, drilled from both ends, long barrel, dark purple (14), D 3.6–4.2, L 4.1–7.9, HD 1.7–1.8
11. Stone, garnet, drilled on both ends, standard tubular, dark purple (3—2 broken), D 3.7–4.0, L 3.0–4.2, HD 1.9; 1.4

Bibliography: OINE VI, 129, 255, fig. 17e
Beads from excavations

326.1–3, 4–5, 7–10

1

2

3
Qustul VC 46–66a–c: Beads, pendants, and amulet in chamber with burials AD–AO (AD—senile male, AE/AM—mature to senile female, AF/AH—, AI—adult to mature male, AJ/AK—senile female, AL—mature to senile individual, AO—); OIM E21783

New Kingdom, Amenhotep III to post-Amarna period (and most likely Amenhotep III to Amarna period)

1. Jasper, drop pendant, flat on one side, red (1), W 5.0, Th 3.0, H 9.2, HD 0.7–1.2
2. Carnelian, amulet, flat on one side, red (1), W 5.7, Th 2.7, H 9.8, HD 0.7–1.2
3. Carnelian, drilled from one end, barrel, red (2), D 2.0, L 1.6, HD 0.8–1.1
4. Faience, short cylinder, green (8), D 2.7, L 1.5, HD 1.1
5. Faience, double-segment cylinder, green (18), D 2.7, L 3.1, HD 1.1
6. Faience, triple-segment cylinder, green (9), D 2.7, L 3.1, HD 1.1
7. Faience, quadruple-segment cylinder, green (8), D 2.7, L 3.1, HD 1.1
8. Faience, barrel, green (2), D 3.9, L 3.2, HD 1.7
9. Faience, long barrel, reddish (1), D 1.9, L 3.2, HD 0.7
10. Glass, drop pendant, flat on one side, light blue (3), W 5.9, Th 3.0, H 9.2, HD 0.7–1.2

Bibliography: OINE VI, 130, 256–68, fig. 17s
Qustul VC 46–69a: Beads in shaft, uncertain location (29 burials in shaft, mostly mature or senile individuals of both sexes); OIM E21778
New Kingdom, Amenhotep II to post-Amarna period (and most likely Amenhotep III to Amarna period)
Faience, single- and multiple-segment, blue (41 segments), D 2.5–3.6, L 0.9–1.7, HD 1.1
Bibliography: OINE VI, 130, 256–68

Qustul VC 46–70: Amulet, winged scarab in fill, just within chamber (11 burials in chamber, mostly mature or senile individuals of both sexes); OIM E21782
New Kingdom, Amenhotep III to post-Amarna period (and most likely Amenhotep III to Amarna period)
Faience, mold, winged scarab pendant, blue (1), W 20.6, Th 3.5, H 24.7, HD 1.3
Bibliography: OINE VI, 130, 256–68, fig. 17dd
NEW KINGDOM

330
Qustul VC 47–1a, b: Amulet, Taweret, beads probably from shaft (A—senile female); OIM E21631A–B
New Kingdom, post-Amarna period
OIM E21631A
1. Glass, Taweret amulet, blue (1), W 6.4, Th 2.7, H 15.7, HD 1.1
OIM E21631B
2. Faience, double-segment cylinder, blue (1), D 3.6, L 3.3, HD 1.3
3. Faience, triple-segment cylinder, light blue (1), D 3.1, L 6.3, HD 1.2
Bibliography: OINE VI, 130, 269

331
Qustul VC 48–23: Amulet, wedjat-eye, in shaft, level 7 (M—, N—juvenile, O—); OIM E21784
New Kingdom, Amenhotep III to post-Amarna period
Gold sheet, wedjat-eye amulet (1), Th 2.9, W 11.3, H 8.4, HD 0.9
Bibliography: OINE VI, 272–87, fig. 17z, pl. 49f

332
Qustul VC 48–27: Amulet wedjat-eye with goddess on back in shaft, level 7 (M—, N—juvenile, O—); OIM E21786
New Kingdom, Amenhotep III to post-Amarna period
Carnelian, drilled from both ends, wedjat-eye (1), W 11.0, Th 3.1, H 8.3, HD 1.2—double parallel
Bibliography: OINE VI, 272–87, fig. 17aa, pl. 49g
Qustul VC 48—117: Amulets, Taweret, uncertain location (shaft and chamber with mostly mature or senile individuals of both sexes); OIM E21754A–E

New Kingdom

OIM E21754A
1. Glass, Taweret amulet, blue (1—broken), W 4.2, H 11.2, Th 2.2
OIM E21754B
2. Glass, Taweret amulet, blue (1), W 4.4, H 12.2, Th 2.7, HD 1.1
OIM E21754C
3. Carnelian, Taweret amulet, red (1—broken loop), W 5.1, H 12.3, Th 2.3, HD 1.2
OIM E21754D
4. Carnelian, Taweret amulet, red (1), W 5.4, H 13.2, Th 2.1, HD 0.7
OIM E21754E
5. Carnelian, Bes amulet, red (1), W 4.8, Th 2.9, H 9.0

Bibliography: OINE VI, 272–90, fig. 17y, pl. 49e
Qustul VD 54–7: Necklace(?) of Hathor amulets, in tomb (senile female);
OIM E21647A–K
New Kingdom, Thutmose III or Amenhotep III to Amarna period
Faience, Hathor-head amulets with attached ring loops, blue or green glaze (11), W 5.7–8.3, H 11.7–16.0, Th 2.4–3.4, HD 1.4–2.6
Bibliography: OINE VI, 130, 292, fig. 17x, pl. 49h
Qustul VF 60—39: Beads, pendants, and amulets from various locations; OIM E21977
New Kingdom, Amenhotep II to post-Amarna period (and most likely Amenhotep III to Amarna period)
1. Diorite, teardrop pendant, black and white (1), Th 4.5, W 4.7, H 9.4, HD 1.6–2.0
2. Carnelian, Taweret amulet, flat on one side, red (1), W 2.6, Th 1.4, H 8.3, HD 0.5
3. Carnelian, amulet pendant, flat on one side, red (1), W 3.9, Th 2.3, H 8.7, HD 0.7
4. Carnelian, pendant, flat on one side, red (1), W 2.7, Th 2.2, H 7.0, HD 0.7
5. Faience, short cylinder, yellow (21), D 1.8, L 0.9–1.0, HD 0.9
6. Faience, double-segment cylinder, yellow (3), D 1.8, L 2.6, HD 0.9
7. Glass, fish amulet, light green (1), W 4.1, Th 2.0, H 6.7, HD 0.7–1.1
8. Glass, pomegranate pendant, dark blue (1), Th 2.1, H 5.2, HD 0.7–1.1
9. Glass, pomegranate pendant, blue (1), Th 2.1, H 5.8, HD 0.7–1.1
10. Glass, pomegranate pendant, light green (1), Th 2.1, H 5.8, HD 0.7–1.1
Bibliography: OINE VI, 130, 297–303

Qustul VF 69—3: Beads in tomb, near chest (older infant and female), sample—non vidi
New Kingdom
Bibliography: OINE VI, 130, 307
Qustul VF 69—4: Amulets in tomb, near chest (older infant and female); OIM E21888A–D
New Kingdom
OIM E21888A
1. Glass, fish amulet, turquoise, translucent (1), W 4.7, Th 2.2, L 9.5, HD 0.9–1.6
OIM E21888B–D
2. Carnelian, drilled from one end, fish amulet, light red (1), W 5.6, Th 2.9, L 11.1, HD 0.8–1.3
3. Carnelian, drilled from one end, fish amulet, light red (1), W 4.2, Th 2.9, L 9.0, HD 0.8–1.2
4. Carnelian, drilled from one end, fish amulet, light red (1), W 4.6, Th 2.1, L 8.2, HD 0.6–0.9
Bibliography: OINE VI, 130, 307, pl. 49i

Qustul VF 69—5: Amulet in tomb, near chest (older infant or female); OIM E21892
New Kingdom
Carnelian, fish amulet, red (1), W 4.3, Th 2.3, L 8.0, HD 0.6–0.8
Bibliography: OINE VI, 130, 307, pl. 49j
339  
Qustul VF 72B–38a–d: Beads in chamber B fill (E—mature to senile female, F—senile female); OIM E21999  
New Kingdom, Thutmose III  
1. Carnelian, drilled from one end, short barrel (1), D 3.3, L 2.4, HD 1.0; 1.3  
2. Gold sheet, barrel (1), D 3.4, L 2.7, HD 1.4  
4. Faience, short cylinder, greenish (10), D 2.8, L 1.0–1.8, HD 0.8–0.9  
Bibliography: OINE VI, 130, 311–17

340  
Qustul VF 74—5a–b: Beads, shells, and amulet around neck (older infant); OIM E21836A–D  
New Kingdom, Thutmose III to post-Amarna period (and most likely Amenhotep III to Amarna period)  
OIM E21836A  
1. Glazed steatite, fly, light green (1), W 8.7, Th 5.1, L 15.9, HD 1.7  
OIM E21836B  
2. Glass, long barrel, opaque light blue (1), D 6.6 × 6.8, L 15.7, HD 2.2  
OIM E21836C  
3. Nerita sp. shell, perforation on the last whorl of the spire, white with black (1), W 10.2, Th 5.9, L 11.8, HD 3.0  
OIM E21836D  
4. Nerita sp. shell, spire perforated, white with black (1), W 9.3, Th 5.3, L 10.4, HD 3.0  
Bibliography: OINE VI, 130, 321

341*  
Qustul VF 74—4: Shells on string around pelvis (older infant); OIM E21836—non vidi  
New Kingdom, Thutmose III to post-Amarna period (and most likely Amenhotep III to Amarna period)  
Bibliography: OINE VI, 130, 321
Qustul VF 76—19a–f: Beads and fragment of gold leaf from western chamber (5 disturbed skulls and other bones);
OIM E22071A–B
New Kingdom, Amenhotep II to Thutmose IV (with possible extension)
OIM E22071A
1. Carnelian, drilled from one end, standard barrel, red (2), D 3.8, L 3.4; 4.0, HD 1.1; 1.8
2. Faience, disc cylinder, traces of bluish glaze (1), D 4.8, L 0.9, HD 1.4
3. Faience, standard cylinder, blue (1), D 8.0 × 8.4, L 7.8, HD 2.3
4. Faience, long cylinder, multiple-segment (double to octuple), blue/green (24), D 2.1–2.9, L 3.1–11.4, HD 1.0
5. Glass, wound, barrel, black(?) (1), D 3.7, L 3.9, HD 0.7
OIM E22071B
6. Glass, wound, spherical, blue (1—fragment), D ca. 7.4, L 6.3, HD 1.7
Bibliography: OINE VI, 130, 322–28
Qustul S 8–6: Amulet, under burial in west chamber (I—); OIM E21419
New Kingdom, Amenhotep III to Amarna period (with possible extension)
Stone, moon with crescent amulet, black (1), W 22.7, Th 4.6, H 21.5, HD 2.3
Bibliography: OINE VI, 130, 387–92

Qustul S 8–27, 32: Beads from shaft in chamber with burials A–P (A–C—mature individuals, D—juvenile, E/G–H—mature males, F—senile female, I—); OIM E21418A
New Kingdom, Amenhotep III to Amarna period (with possible extension)
Faience, disc cylinder, light green (467), D 4.1–5.3, L 1.4–1.8, HD 1.6
Bibliography: OINE VI, 130, 387–92
Qustul: OIM E42484A
New Kingdom
1. Faience, short cylinder, yellow (1), D 1.8, L 1.3, HD 0.7
2. Faience, triple-segment, yellow (1), D 1.7, L 3.0, HD 0.6
3. Faience, triple-segment, red (1), D 1.7, L 3.5, HD 0.8
4. Glass, eye pendant with loop, opaque yellow body, black-and-white stratified eye (1—broken), W 7.8, Th 4.7, H 11.4
Bibliography: —
Qustul: OIM E42487
New Kingdom(?) (written on label)
1. Faience, long barrel, green glaze (1), D 3.7, L 5.8, HD 1.2
2. Faience, quadruple-segment long cylinder, blue glaze (1), D 2.4, L 5.8, HD 1.0
Bibliography: —

Qustul: OIM E42488
New Kingdom(?) (written on label)
Ostrich eggshell, disc cylinder (1—broken), D 5.3, L 1.1, HD 1.3
Bibliography: —
Adindan B 661 Surface: Beads, some beads on string fragments; OIM E23019
New Kingdom(?) (written on label)
1. Ostrich eggshell, disc cylinder (27), D 4.7–5.8, L 1.2–2.1, HD 1.2
2. Ostrich eggshell, disc cylinder (35), D 2.5–3.0, L 0.5–1.2, HD 0.8–1.4
3. Faience(?), short cylinder, greenish (3), D 2.8–3.1, L 1.4–2.7, HD 0.9
4. Seed/fruit, oblate, blackish (8), D 2.8–4.0, L 2.3–3.0, HD 1.1

Bibliography: —
Adindan K 31–17a–b: Beads, amulets, and shell, from uncertain location; OIM E23060
New Kingdom, Thutmose III
1. Glass, rod formed, tear-shaped pendant, flat on one side, opaque orange (1), Th 6.1, W 11.6, H 13.4, HD 1.3
2. Glass, shell pendant, flat on one side, light blue (1—broken loop), Th 3.7, W 8.6, H 12.5, HD 0.6
3. Glass, drawn, folded and cut, short oblate, translucent blue (1), D 6.5, L 3.1, HD 2.9
4. Faience, spindle-like, turquoise (5), D 2.7–2.9, L 6.4–7.6, HD 0.8
Bibliography: OINE VI, 130, 369, fig. 17mm
350
Serra East A 18–25a–d: Beads from chamber A (no bodies recorded); OIM E24525
Early New Kingdom
1. Stone, carnelian, long truncated bicone, red (3), D 1.7, L 1.5, HD 0.7
2. Faience, standard cylinder, light green (1), D 6.2, L 6.1, HD 2.0
3. Faience, short cylinder, light green (1), D 7.5, L 3.0, HD 2.0
4. Faience, short bicone, light green (1), D 7.5, L 3.5, HD 1.9
5. Faience, long cylinder, light green (1), D 6.7, L 10.0, HD 2.2
Bibliography: OINE X, 158, 190

351
Serra East A 25–4 (Quarry Dump II): Beads near hand and head, some strung (juvenile); OIM E24797
New Kingdom
1. Ostrich eggshell, disc ring, whitish (4), D 2.9–4.3, L 1.1–1.5, HD 1.2
2. Faience core, long barrel, whitish/gray (1), D 6.4, L 9.7, HD 0.8
3. Faience, short and standard barrel, dark red (63), D 2.9–3.9, L 2.5–3.6, HD 0.8
4. Faience, short and standard barrel, black (2), D 3.8; 5.3, L 3.2; 4.4, HD 0.9
5. Vitreous material, short and standard cylinder, light green/blue (3), D 3.0, L 1.6–2.5, HD 0.9
6. Vitreous material, disc, short and standard cylinder, light green/blue, dark red, black (119), D 2.4–3.3, L 1.2–2.4, HD 0.7
Bibliography: OINE X, 158, 194
352
Serra East G 5—6: Shells from burial (A—adult male, B—adult to mature female? C—child); OIM E24480
New Kingdom
Nerita sp. shells, perforation on the spire, whitish (2), H 7.4, W 11.2, L 12.6, HD 1.6 × 2.5
Bibliography: OINE X, 158, 207

353∗
Serra East G 11—2: Faience bead from burial (scattered bones), discarded—non vidi
New Kingdom
Bibliography: OINE X, 158, 212–13

354
Serra East G 12—15b, c(?): Pendant and bead, uncertain location (7 bodies of diversely aged individuals); OIM E24491A–B
New Kingdom
OIM E24491A
1. Diorite scorpion, black and white (1), Th 2.5 × 2.7, L 11.2, HD 0.7
OIM E24491B
2. Faience, elongated bicone, green (1), D 4.7, L 11.0, HD 1.3–1.6—not illustrated
Bibliography: OINE X, 158, 213–15

355∗
Serra East G 14—5: Bone bead from uncertain location, sample—non vidi
New Kingdom
Bone(?)
Bibliography: OINE X, 158, 217–18
356
Serra East, 1S—205: Beads from uncertain location; OIM E19798
New Kingdom
1. Faience, disc cylinder, turquoise (116), D 3.0–3.8, Th 1.0–1.3, HD 0.6–1.0
2. Faience, disc cylinder, white (3), D 2.7–3.0, Th 1.1, HD 1.1
3. Faience, disc cylinder, red (5), D 3.8–4.5, Th 1.2, HD 1.1
Bibliography: —
357
Serra East, 1S—206: Beads from uncertain location;
OIM E19799A, C
New Kingdom
OIM E19799A
1. Faience, disc bicone, blue (1), D 21.0, L 3.76, HD 1.6
OIM E19799C
2. Faience, disc bicone, blue (1), D 13.7, L 4.0, HD 2.3
Bibliography: —

358
Serra East, 1S—599: Bead from uncertain location;
OIM E24811
New Kingdom
Faience, disc, blue (1), D 20.7, Th 3.9, HD 1.4
Bibliography: —

359
Serra East, 2S—45: OIM E24466
New Kingdom
Clay, star with five arms (1)
Bibliography: —
5

Synoptic and Concordance Tables
Table 12A. A-Group (1–9, 11–14, 16–26)
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Table 12D. C-Group (93–122)
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Table 12F. C-Group (155–184)
Table 12G. C-Group (185–206, 208–215)
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Table 12K. New Kingdom (316–322, 324–335, 337–340, 342–348)
Table 12L. New Kingdom (349–352, 354, 356–359)
Table 13. Concordance of the OIM, catalog, and OINE find numbers
(* = *non vidi*; # = C-Group or Pan Grave; ^ = A-Group or possibly C-Group)

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Table 13. Concordance of the OIM, catalog, and OINE find numbers (continued)

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JOANNA THEN-OBŁUSKA is a researcher at the University of Warsaw and an associate of the Oriental Institute of the University of Chicago, specializing in the archaeology of Northeast Africa. Since receiving her PhD from the Jagiellonian University in Kraków in 2008, her interests have focused primarily on issues of society and trade, looking at ancient and medieval Egyptian, Sudanese, and Ethiopian beads and jewelry in terms of both material and bead-making techniques. Her recent monograph on the Indian glass bead trade in Northeast Africa based on evidence from several royal burials established her as a leading authority on the University of Warsaw faculty.

BEADS from Excavations at Qustul, Adindan, Serra East, Dorginarti, Ballana, and Kalabsha

A-Group, Post-A-Group, C-Group, N-Type, P-Type, Pan Grave, Kerma, Middle Kingdom, and New Kingdom

This book presents a comprehensive corpus of beads and pendants from the Lower Nubian sites of Qustul, Adindan, Serra East, Dorginarti, Ballana, and Kalabsha excavated by the Oriental Institute of the University of Chicago between 1960 and 1968. Joanna Then-Obłuska, a researcher at the University of Warsaw and an associate of the Oriental Institute of the University of Chicago, specializes in the archaeology of Northeast Africa. Since receiving her PhD from the Jagiellonian University in Kraków in 2008, her interests have focused primarily on issues of society and trade, looking at ancient and medieval Egyptian, Sudanese, and Ethiopian beads and jewelry in terms of both material and bead-making techniques. Her recent monograph on the Indian glass bead trade in Northeast Africa based on evidence from several royal burials established her as a leading authority on the University of Warsaw faculty.

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