

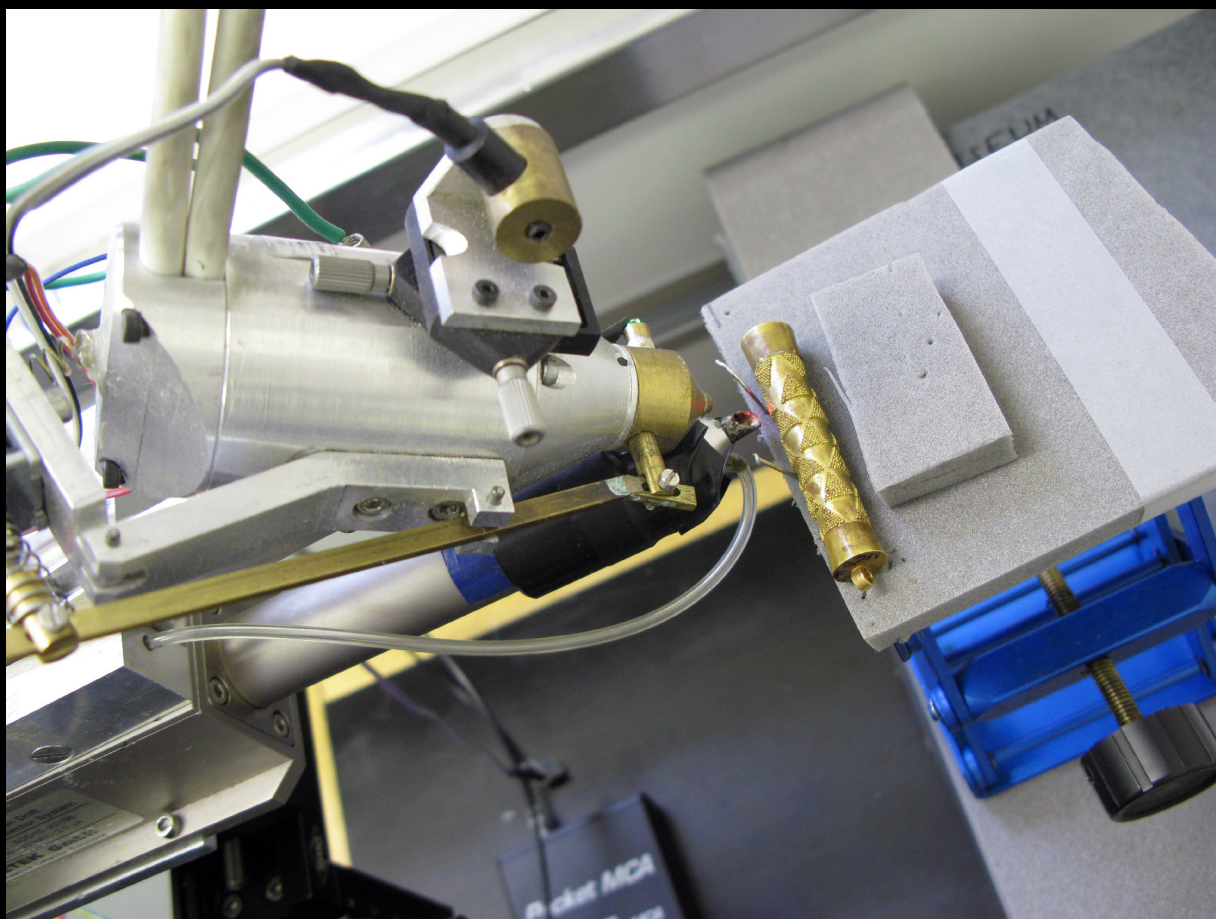


McDONALD INSTITUTE MONOGRAPHS

Ancient Egyptian gold

Archaeology and science in jewellery
(3500–1000 BC)

Edited by Maria F. Guerra, Marcos Martín-Torres
& Stephen Quirke



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with contributions from

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On the front cover: *Analysis of the gold cylindrical amulet from Haraga at The Petrie Museum of Egyptian Archaeology (UC6482) using a portable XRF spectrometer.*

On the back cover: *Details under the SEM of the triangular designs of granulation on the tube of the cylindrical amulet from Haraga.*

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Editorial foreword

This volume aims to present a wide range of perspectives on early Egyptian goldwork, integrating the complementary yet distinct approaches of archaeology, materials science, jewellery and Egyptology. On one level, our primary task has been to present new analytical data on the manufacturing technology and elemental composition of dozens of artefacts preserved at six European museums. At the same time, we have sought to anchor and contextualize this new information based on current research from three perspectives: an introduction to the fundamental geochemistry and material properties of gold, a reanalysis of historical sources and of goldwork manufacturing-techniques, and a guide to the key analytical techniques employed. In this way, we wish to ensure that the volume is accessible to specialists and students from different backgrounds. We anticipate that this body of material will provide a rich source of information for further interrogation and discussion in the future, and our concluding chapter offers a first synthesis of some key points emerging from this new research. There we focus particularly on the findings that seem to us most significant, alongside open questions and suggestions for future work. In so doing, we explicitly highlight some of the many strands beyond the scope of the work presented here, hoping that they may provide pointers for others. We emphasize that the volume is addressed not only to those interested in the archaeology of Egypt in the timespan covered, but equally to scholars researching past technologies and archaeological goldwork elsewhere, who may find technical observations of broader scope that could prompt cross-cultural comparisons.

In spite of the substantial amount of data compiled here for the first time, it is important to remind ourselves of some potential biases that are inherent to this work and may thus skew our interpretations. The most important of these concerns the selection of

objects. This project starts and, in many ways, remains throughout its course with the exceptional group of gold jewellery buried in Qurna, on the west bank of Thebes in Upper Egypt, with a woman and child whose names are unknown to us, at some point in the 17th or 16th century BC. Today the Qurna group is the most important Egyptian assemblage in the National Museum of Scotland, Edinburgh. In 2008, curator Bill Manley with materials scientists Jim Tate, Lore Troalen and Maria Filomena Guerra launched a programme of new analyses of the goldwork from the group. Already in this first investigation, the scope extended to comparison with jewellery from the preceding and following centuries (Tate et al. 2009; Troalen et al. 2009). With funding obtained from the CNRS, Guerra could then expand the range of collections involved in collaboration with Thilo Rehren at UCL, to include the UCL Petrie Museum of Egyptian Archaeology and the UCL Institute of Archaeology with its laboratory facilities, as well as the National Museums of Scotland and the British Museum as project partners (CNRS project PICS 5995 EBAJ-Au). On the initiative of Jim Tate, contact had been established already with colleagues Matthew Ponting and Ian Shaw at the University of Liverpool. As a result, the Garstang Museum is also participant in the wider project, together with the Manchester Museum, through the support of curator Campbell Price, and the Louvre Museum, through the support of curator H  l  ne Guichard and the late Sandrine Pag  s-Camagna, material scientist at C2RMF (Centre de Recherche et de Restauration des Mus  es de France). We wish to emphasize here the fundamental role of Sandrine Pag  s-Camagna in crucial stages of the project; without her participation the project could not have achieved a significant part of its aims – notably comparison between the Qurna group and the nearest securely dated examples of royal goldwork from the reigns of kings Kamose and Ahmose.

Other institutions participated with the provision of access to particularly specialized equipment: AGLAE facilities at C2RMF, Bundesanstalt für Materialforschung und –prüfung, and LIBPhys at NOVA University of Lisbon

With this new support, the research agenda was able to grow organically, adapting to fresh questions emerging from preliminary results, while contingent on the artefacts present in museums that were accessible to the project. Indeed, the history of the collections has been a significant factor, both enabling and constraining our research. The Louvre collections contain a range of jewellery from early excavations in Thebes, including representative material from the late second millennium BC settlement Deir al-Madina, and major works from 16th century royal burials uncovered during fieldwork directed by Auguste Mariette. The British Museum and the other participating museums in England and Scotland also preserve a mixture of material from documented excavations and earlier undocumented collecting practice. Here colonial history frames the kinds of material available. During and after the full British military occupation of Egypt (1882–1922), the Antiquities Service of Egypt under French Directors permitted officially recognized institutions to excavate in Egypt and, in return for the enrichment of the Egyptian Museum Cairo, to take a share of finds from excavations. Following division of finds in Egypt, excavation funding bodies based at Liverpool (since 1903) and London (since 1882) distributed finds to dozens of sponsoring museums (Stevenson 2019). The university museums in Liverpool and London were among the major recipients

of these finds, and also hold substantial excavation archives. The Qurna group itself and several other sets of jewellery analysed during the project are unusual examples of this pattern of dispersal, where the vast majority of items distributed belonged to the types of objects found in large numbers in fieldwork. The project was therefore able to investigate objects from a wide social spectrum, from palace production (Qurna group, Haraga fish and cylinder, items of kings Ahmose and Kamose from Thebes) to finds in cemeteries of regional rural towns and villages (Qau, Badari, Matmar). At the same time, in expanding the chronological scope of analyses forwards to the New Kingdom and back to the late prehistory of Egypt, the participating museums could not cover every social group for every period. Most notably, and perhaps surprisingly for those outside the museum circle, these collections hold none of the major goldwork from the age of the great pyramids, the mid-third millennium BC. At that period, the concentration of power at Memphis around kingship separates the royal court from the regions, and this is reflected in the tombs of the period and in the distribution of finds. Gold and gilt ornaments are more prominent in burials at the Memphite cemeteries: Giza and Saqqara. The single outstanding assemblage of Egyptian goldwork from the mid-third millennium BC is the unparalleled burial of material related to Hetepheres, mother of king Khufu; the finds are on display in the Egyptian Museum Cairo. Egyptologists from Cairo, Vienna, Boston, Hildesheim and Leipzig directed excavations at Giza; their museums received a share in finds (Manuelian 1999). The museums in our project, from Paris to Edinburgh,

Table 0.1. *Numbers of artefacts (museum inventory numbers) analysed by site and period.*

	Dyn 1-2	First IP	Middle Kingdom	Second IP(-Dyn18)	New Kingdom	?	Total
Memphis					2		2
Riqqa			4		7		11
Haraga			13 + 1?				14
Lahun			5				5
Ghurab					1		1
Sidmant			1		1		2
Amarna					8		8
Qau area		15		5			20
Abydos	4		2 + 2?	2		3	13
Naqada			2				2
Thebes			2	2 + 7?	4		15
*Qurna				12			12
Buhen			1				1
?		1	5	2	22		30
TOTAL	4	16	36	30	45	3	136

are not on that distribution map. With this and other lesser gaps, our sample, however extensive, cannot and does not claim to be random or representative of an underlying population of 'Egyptian goldwork'. On our chronological range from fourth to second millennia BC, there are peaks and troughs in the frequency of artefacts, and we encourage the reader to keep these in mind graphically, in order to assess our interpretations in context and to develop their own further research agendas (see Table 0.1).

Another delimiting factor in the selection of objects derives from our focus on technique, directing our attention predominantly to jewellery, rather than other gold elements such as the prominent use of sheets for gilding larger substrates of wood or plaster. Gold foils were included for comparative purposes, particularly in the investigation of composition, but to a lesser extent. Furthermore, within the rich repertoire of Egyptian gold jewellery, we took a particular interest in select assemblages, starting with the Qurna group itself, and within these certain specific features, such as the small beads found in the child's coffin and the adult's girdle. While these are fascinating manifestations of both technology and consumption, they are not necessarily representative of a broader corpus. We would also emphasize that we sought primarily artefacts with well-recorded archaeological contexts, as these evidently allow for more robust inferences, and provide the most secure foundations on which to build further research. Where the museums could provide access to material not from documented excavations, but acquired before 1970, we have included certain items if they helped to complete gaps in understanding, as a secondary circle of supplementary information. In each such case we have done our utmost to investigate their authenticity and source, but undeniably any interpretation based on an unprovenanced object will have to remain tentative. Indeed, one of our analytical investigations demonstrated the risks in building historical conclusions on material without documented

excavation context; a gold shell inscribed with the name of king Taa, who reigned close in time to the Qurna group, presents disconcerting features more consistent with modern rather than with ancient manufacture.

A final and equally important constraint concerns the background and expertise of the editors and contributors to this volume. While together we span interdisciplinary breadth, and have found synergies in our research, inevitably there remain areas beyond our interests and access, and indeed beyond the time scope of the project. For example, our data may be used as a starting point to address issues of provenance, but targeted consideration of the extraction methods and possible geological sources of gold is not addressed in detail in this volume. Instead, much more emphasis has been placed on issues of technology, and the application of the results to a concluding interpretation of the Qurna group. We look forward to seeing how others may take up such topics, and feel sure that the woman and child of Qurna will continue to pose new questions.

Finally, for the opportunity to share our discussions and findings with a wider research audience, we would like to express our gratitude to the McDonald Institute for Archaeological Research for including this volume in its series.

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Chapter 3

Jewellery in Egyptian burials

Wolfram Grajetzki

Ancient Egyptian jewellery items in burials may be products of a funerary industry, or items made for use in life and later placed in a tomb. Within this overall pattern, social and regional differences are discernible. People at the royal residence and of high social status might receive objects of a funerary industry, indicating special access to resources;

away from those centres, even people of high social status were often equipped only with objects already used in daily life. The selection is also heavily influenced by the burial customs of a period. Recognition of these factors is essential in analysing jewellery.

Egyptian burial goods are always an interaction between items of a funerary industry and those coming from daily life and placed for different reasons into a tomb. This relationship is indeed most clearly visible for jewellery. On the one side, are those personal adornments placed on the body and often especially made for the burial, but, on the other, burials also contain many personal adornments, that were already worn in daily life. Within this overall pattern, social and regional differences are discernible. People at the royal residence and of high social status were more often equipped with objects of a funerary industry. Evidently, they had access to these objects and the resources to obtain them. The picture in the provinces is different. In many periods, even people of high social status at places far away from the royal residence were equipped, not with objects of a funerary industry, but instead with those already used in daily life. Furthermore, the selection of personal adornments placed into a grave is also heavily influenced by the burial customs of a period. In the Old Kingdom, burials, even at the highest social level, were only equipped with a very restricted range of objects. Unsurprisingly, tombs of that date also contain only a few personal adornments. In the First Intermediate Period, people in the provinces were far more often equipped with objects once worn in daily life either on or close to the body. The burials of this period contained, in contrast to the Old Kingdom, a great number and variety of personal adornments, even in burials for people at a modest social level.

Three level system of Egyptian burials

For most periods of Egyptian history up to the Rameside Period (about 1200 BC), a three level system of burial goods is visible (Fig. 3.1).¹ The very poorest people were most likely just covered with some reed mats or wrapped in linen, but buried without any further objects. These burials are therefore outside of this system. Bad preservation conditions and a general lack of interest in poor burials make these the least well-known social group in the cemeteries. The first level is burials just containing vessels. Almost all burials with burial goods contain at least some pottery vessels. It becomes clear that the main concern in many periods was the eternal food supply and rituals related to that. If other goods were not affordable, at least one or more vessels were placed into a burial, albeit undecorated coffins appear already early on in burials even at a modest social level. The second level is burials with objects of daily life. Somebody with more resources may place into the burial also daily life objects and/or might invest in more elaborate tomb architecture. The objects of daily life often include personal adornments, but also other objects, often worn in life close to the body, such as a dagger for a man. Personal adornments are an important part of these daily life objects. There are few burials with daily life objects but without pottery. The third level introduces objects of a funerary industry, evidently only found in burials of the wealthiest people. The most common item is a decorated coffin. From the

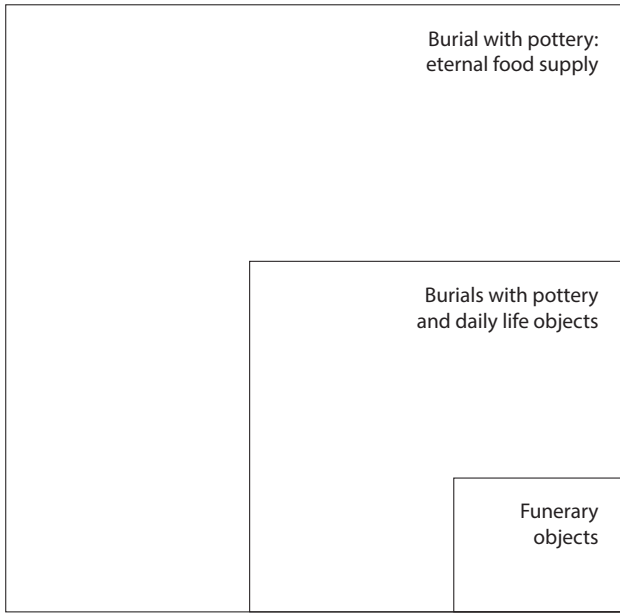


Figure 3.1. *Categories of Egyptian burials: three steps of burial equipment types.*

First Intermediate Period onward we find also mummy masks, the canopic boxes and jars, and the well-known wooden models of estates placed in burials. The body of the deceased was often adorned with jewellery especially made for the tomb, notably a broad collar, armlets and anklets. In the late Middle Kingdom appear the first shabtis and heart scarabs. However, in general it seems that the funerary industry almost disappeared in the late Middle Kingdom and Second Intermediate Period and people were more often adorned with daily life objects, even at higher social levels, albeit at the royal court were the ‘court type burials’ containing mainly objects of a funerary industry. During the New Kingdom further objects made for the tomb appear, such as the Book of the Dead papyri. In the Ramesseide Period and later, objects of a funerary industry dominate the burials of the ruling classes. Objects of daily life became rare, even in poorer burials. This change marks a stark contrast in the archaeological record; before the Ramesseide period, there are hardly any tombs equipped only with the products of a funerary industry, without the other two categories of items.

Chronological overview

In the Naqada Period (c. 3900–3100 BC), most objects placed in the burials seem to be items already used in daily life. These are objects close to the body and include personal adornments often found with women but also attested for men. In burials of women were also often

found cosmetic palettes with small stones for grinding eye paint. However, there are also many burials which only contain pottery vessels. These vessels were most likely in some way the symbolic eternal food supply and were seen as essential. To give one example: in the small Naqada period cemetery at Haraga were found 46 burials. Most of them contained one or more pottery vessels, there were found some stone vessels and several stone knives. However, beads were found in only four burials; one of them belonged to a man, for the three others the sex of the buried people is unknown (Engelbach 1923, LIII beads, LV tomb register: 406, 415 of man, 422, 459). In one of the burials with beads was also found an ivory pin (tomb 459). In one burial of a woman was found an amulet (tomb 470, Engelbach 1923, pl. VI).

Similar trends in burial customs are also visible in the 1st to 3rd Dynasties (c. 3100–2600 BC). Burials of the ruling class became more densely equipped than ever before or after with daily life objects, including literally thousands of pottery vessels to secure the eternal food supply. In the storage chambers and in the coffin chambers of the period were found many daily life objects, including personal adornments, tools, gaming boards and even furniture. The tomb was seen as a store-house of eternity and everything needed in life on earth was placed there. Less wealthy people had to select the objects placed into their burial. Vessels are often the only goods for the less well to do. Personal adornments, most often beads, were found in burials of all social levels. One outstanding example is a set with necklace and pendants found on the body in a mastaba at Naga al-Deir in Upper Egypt, dating to the 1st Dynasty. Two pendants are made of gold foil and are in the shape of a ram and of a bull. A large pendant shows the sign connected to the goddess Neith. The necklace comprised a row of beetles, again in gold foil (Reisner 1908, 29–33, pls. 5–9; Aldred 1971, 174–5, pl. 2). This golden jewellery is of the highest quality and one wonders whether they are made in a royal workshop. Evidently, someone from the local ruling class was buried here and equipped with these adornments. There are several other examples for high quality golden jewellery in 1st and 2nd Dynasty tombs, but none of them is decorated with figures of such high quality. Similar figures on personal adornments are only known from much later jewellery, indicating a major gap in our sources. The most famous other discovery of jewellery, dating to the 1st Dynasty is the set of four armlets discovered in the tomb of king Djer at Abydos. The armlets were found still attached to the bones of an arm and are made of gold, turquoise and lapis lazuli. One of them is a row of serekhs (a palace façade, part of the writing for the most important royal name in this period), the others

are elaborated arrangements of beads (Petrie 1901, frontispiece and 16–17; Aldred 1971, 174, pl. 1). In mastaba 3471 at Saqqara were found a high number of bracelets, made of copper, shell and ivory. Some of the copper examples bear depictions of scorpions (Emery 1949, 62). A further example is a collection of beads and pendants from a partly disturbed 1st Dynasty tomb at Saqqara. A high number of beads were found here, some of them made in gold. The original arrangements and functions of these beads is not known, but several of them belonged to a belt (Emery 1958, 80–3, pls. 99, 108, mastaba 3507). To the end of the 2nd Dynasty, date two gold armlets found in the Abydos tomb of king Khasekhemwy (c. 2700 BC). They are undecorated and made of gold sheet. They might be imitations of examples made in ivory (Petrie 1901, 27, pl. IX, 3.4; Aldred 1971, 181, pl. 13). A little later another example of golden beads made into a bracelet, is among the finds from the pyramid complex of the 3rd Dynasty king Sekhemkhet (Aldred 1971, 181–2, pl. 14). In the same tomb were also found golden bracelets, similar to those in the tomb of Khasekhemwy (Seipel 2001, 30–1, no. 13). Silver bracelets from the tomb of queen Hetepheres, mother of king Khufu, builder of the biggest pyramid, have the same shape, but are decorated with inlays, showing butterflies (Aldred 1971, 175, pl. 3). These are all high status burials. More modest graves with personal adornments contain beads, but also bracelets (compare the tomb register in Brunton 1927, pls. X–XI). Objects especially made for the tomb

are rare in the 1st to 3rd Dynasties. The most important one was the coffin, but there are also models of granaries and model vessels (Rummel 2007, 87). There is so far no evidence that personal adornments were especially produced for burials in this period.

In the classical Old Kingdom, in the 4th and 5th Dynasties (c. 2600–2350 BC), there is visible a stark change in burial customs. Objects of daily life disappear from the tombs at the royal residence (Roth 1995, 58; Grajetzki 2003, 15–26). The burials are now mainly equipped with objects of a funerary industry. These objects include a set of model copper tools as well as model stone and pottery vessels. However, it seems that burial equipment was not always seen as essential and there are many burials, even at a higher social level, without any grave goods at all (Roth 1988, 76–7, no. 6). Unsurprisingly in this context, personal adornments in this period are rare. However, the period sees the first adornments especially made for a burial (Fig. 3.2). The few personal adornments found in the cemeteries of the royal residences include broad collars, as well as armlets, anklets and for women, chokers. They appear often as set. They are made of beads with end pieces for the collar and claps for the armlets and anklets. The beads are of different materials, including gold (Hassan 1932, 63, pls. XLII, LXXVIII, LXXIX, XLII; Hassan 1941, 254, pl. LXXI, no. 1; Hassan 1953, 9; Junker 1944, 227, fig. 92). Another typical adornment of the period is simple gold wires placed around the neck. They appear mainly in burials of men. They are most often adorned with

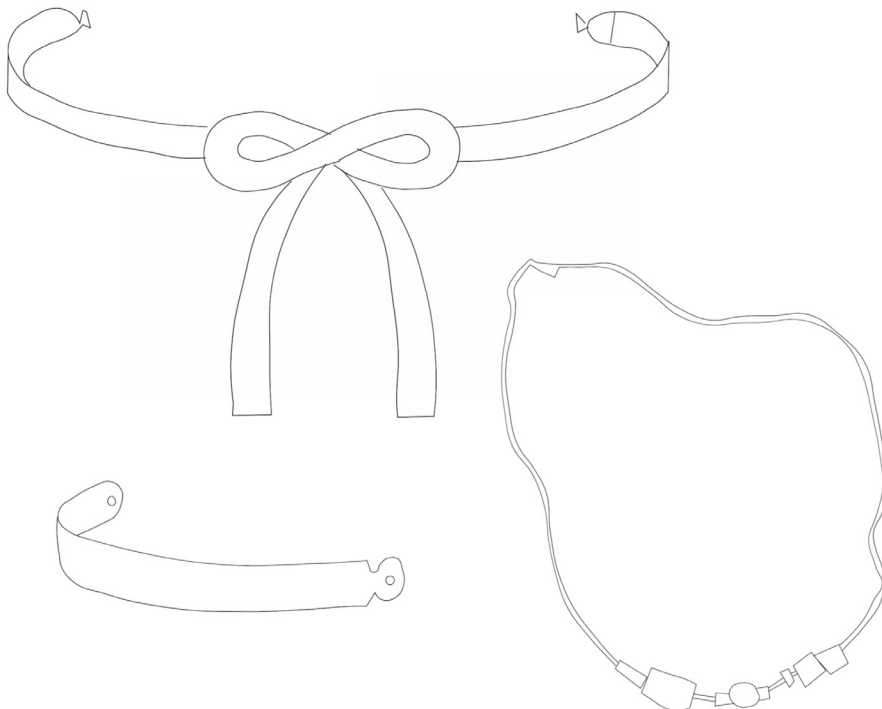


Figure 3.2. *Examples of Old Kingdom funerary jewellery, two diadems and gold wire with beads (drawn by the author after diadems: Junker 1938, 227, fig. 45; Junker 1944, 53–4; gold wire with beads: Hassan 1941 pl. XXVI, 2).*

some beads made again of different materials (Hassan 1941, 87, pl. XXVI, no. 2; Junker 1938, 226, fig. 45; Junker 1940, 223–4, fig. 89). The simplicity of these gold wire necklaces is striking and contrasts with the precious material. One wonders whether these gold wires were especially made for the burial and replaced simple strings made of organic materials that were vulnerable to decay. More elaborate are diadems, found in several other undisturbed tombs at Giza. They consist of a sheet metal band with plaques on it, showing flowers and ducks. At least some of them were most likely especially made for the burial, as they are not easy to wear (Wilde 2013, 177–9 on diadems; Aldred 1971, 182, no. 16). They copy flower arrangements worn in the hair (Aldred 1971, 131–2). A unique diadem was found in a burial at Giza. It is made of gilded copper and consists of circlet with two imitations of linen (?) straps made again of gilded copper and hanging down on either side. The object is fragile and totally impractical to wear. Evidently, it was especially made for the burial (Junker 1944, 53–4; Seipel 2001, 33–5, no. 18).

The diadems and the gold wires are personal adornments copying other personal adornments made in organic materials, such as flowers and linen. These are materials that will decay very soon. These adornments evidently had the function of lasting for eternity and transformed. This goes together with several bodies of the period covered in plaster and modelled as live like human figures (Tacke 1996). The human body with clothing and personal adornments was transformed into some kind of eternal figure adorned with eternally lasting materials. It is hard to say whether the broad collars, armlets, anklets and chokers found in burials of the same period were objects of a funerary industry. In the Middle Kingdom, they are often made especially for burials, for the Old Kingdom clear evidence is not abundant.² However, it should be stressed again that all evidence indicates that a high number of burials did not contain burial goods or personal adornments. The examples cited belong to a small number of burials.

Burial customs changed again in the late Old Kingdom, at the end of the 5th Dynasty (c. 2300 BC). More objects were now placed into burials all around the country (Grajetzki 2003, 27–36), including a wider range of personal adornments. The tombs of the ruling class contained now a high number of objects especially made for the burial. Inscribed coffins became more common. There is now a wider range of other objects of a funerary industry, notable the wooden models showing servants at work. There are many ritual objects in tombs, such as copper or wooden offering tables, objects related to the Opening of the Mouth or stone containers for meat. It seems that personal adornments as part of the funerary equipment became more common and

more standardized. A broad collar, armlets and anklets are typical for burials of the ruling class (Wilde 2013, 182–3 on broad collars and beads). In the burial of queen Ipout were found a golden armlet, still on her body and remains of a necklace, perhaps a broad collar with two drop-shaped beads. This is the earliest example for cloisonné-work in ancient Egypt (Firth & Gunn 1926, 12, pl. 15B, nos. 1–5; Aldred 1971, 114). A remarkable find is the belt of the ‘king’s son’ Ptahshepses, found in his sarcophagus. The belt is made of beads with a frontal piece made of gold and with inlays showing the prince, his name and titles (Brunton 1947, 125–33; Moustafa 1957; Dodson 1992, 49–51 on the date).

The burials of the broader population at the end of the Old Kingdom and in the First Intermediate Period (c. 2150–2025 BC) are well prepared with adornments too. As already mentioned, these people are mostly equipped with objects close to the body. These objects are gender or status related. Women are often equipped with personal adornments, but there is also often a cosmetic/jewellery box next to the coffin. In the cosmetic box were placed further personal adornments. There are also often cosmetic jars, a mirror and stones for grinding eye paint. The jewellery found in the burials of the broader population is very different to those found in the burials of the ruling class. Most importantly, there are no broad collars. Evidently broad collars were not (often?) worn by the people of the broader population. Instead, we find many necklaces, armlets and anklets with a wide range of pendants and amulets (Fig. 3.3), made of different materials, including gold (Dubiel 2008). There are also the button seals often decorated on the underside with geometric symbols and on the upper side sometimes showing animals.

The burials with a high number of personal adornments from the First Intermediate Period onward often belong to young women, while burials of elderly ladies, often of similar social status, had little or no jewellery. Stephan Seidlmayer argued that the jewellery equipment of these young women was their dowry (Seidlmayer 1987, 193). They died before they were married and received their full dowry for the burial. From a much later period, the objects of a dowry are listed in a papyrus found on Elephantine, dating to 449 BC: one garment of wool, a mirror, a single pair of sandals, a few handfuls of castor oil and a tray (Farber et al. 2011, 210). There are no personal adornments mentioned in this particular dowry, but the mirror and the oils (vessels) are typical objects found in several jewellery boxes of the First Intermediate Period and Middle Kingdom. In contrast, married women even of high status were often buried with few personal adornments. Good examples for the Middle Kingdom are Ankhnet and Satip, who will be mentioned again



Figure 3.3.
*Examples of golden
amulets, found in
burials at Qau and
Badari, dating to the
First Intermediate
Period (Brunton
1928, pls. XCVIII–
XCIX).*

below. Both women – although we do not know their marriage status – were placed in fully decorated coffins showing that they had substantial resources. However, Ankhet was wearing only a simple bead necklace, not even a broad collar (Arnold 1992, 54–8). Satip was also placed in a decorated coffin. Personal adornments mentioned in the publication (de Morgan 1895, 35–6) for Satip include a broad collar, but no richer daily life jewellery.

In the early Middle Kingdom, burial customs did not undergo any radical change. The burials of the ruling class were still equipped with a high number of items of a funerary industry. There are the decorated coffins and there are mummy masks. Broad collars,

armlets and anklets appear in most burials of men and women. The burials of the broader population are still equipped mainly with objects taken directly from daily life, albeit the rich culture of amulets disappears within the 12th Dynasty (c. 1976–1795 BC).

Jewellery found in early Middle Kingdom burials of high-ranking people is surprisingly simple. In the funerary complex of king Mentuhotep II at Deir al Bahari, Edouard Naville found the undisturbed burial of a woman. She was wearing three pairs of plain silver bracelets. Around her neck was a broad collar (Naville 1907, 44, pl. X). The funerary complex of Mentuhotep II also contained the burial of a young girl with named Mayet. She was placed in an outer stone

sarcophagus and in an inner wooden coffin. Her head was adorned with a mummy mask. Around her neck were found several necklaces, one of them consisting of a row of golden, hollow ball beads and another of fine gold ring beads tightly strung on leather bands, giving the impression of a torque (Fig. 3.4) (Winlock 1921, 52–3, figs. 29–30). A close comparable burial is that of the storage manager Wah found at Thebes. Unlike Mayet, he had no direct royal connection but was in the staff of the high official Meketre and buried within the tomb complex of the latter. Wah was only placed in one wooden coffin. His mummy was also equipped with a mummy mask and an array of personal adornments. Around his neck was found a broad collar, most likely again an object especially made for the tomb. There were also found several necklaces, but these were perhaps personal adornments worn already in daily life (Fig. 3.5). One of the necklaces consisted of hollow silver ball beads, similar to those of Mayet, mentioned above. The outstanding piece is certainly a silver scarab naming Wah and his ‘master’ Meketra (Roehrig 2003, 11–13).

Another example of a high status burial found undisturbed and dating to the early Middle Kingdom, is that of a woman called Ankhet discovered next to the pyramid of Senusret I at Lisht and datable under his reign. Ankhet was an elderly lady when she died (Arnold 1992, 54–8, pls. 66–9). Her tomb was found undisturbed and contained a high number of items of a burial industry. There was a decorated coffin, a wooden *hes* vase, a wooden head rest, and a mummy mask. These are all objects of a funerary industry. Ankhet did not have a broad collar. That seems strange, as broad collars are so common in burials of the ruling class. However, a broad collar was painted on the badly preserved mummy mask. A broad collar was therefore in some way part of the burial equipment. The only real personal adornment found in the tomb was a necklace. On a first view, this seems odd for a woman who had the resources for a fully decorated coffin. A comparable burial is that of Satip, next to the pyramid of Senusret III at Dahshur. She was placed in a decorated coffin. Therefore, it seems that she had some resources. However, the only personal adornment



Figure 3.4. *Bead necklaces from the burial of Mayet with a torque-like string of gold beads in the middle. The Metropolitan Museum of Art, Acc. nos. 22.3.320–.324-related, Rogers Fund and Edward S. Harkness Gift, 1940.*



Figure 3.5. *Necklace of Wah. The Metropolitan Museum of Art, Acc. No. 40.3.19, Rogers Fund and Edward S. Harkness Gift, 1940.*

mentioned in the excavation report is a broad collar (de Morgan 1895, 35–6).

In sum, the burials of the ruling classes of the Old and Middle Kingdoms contained a high number of objects especially made for the tomb including personal adornments. The bodies in these burials were often equipped with broad collars, armlets and anklets (Fig. 3.6).

Indeed, exactly these adornments are the most common set, represented in formal art. In depictions on monuments, most people on a higher social standing are equipped with a broad collar, with armlets and with anklets. Furthermore, this jewellery was not sex related. It is attested for both, men and women, in the burials and in formal art. Evidently, this jewellery was seen as the most prestigious and is also the main adornment worn by deities. Perhaps not by accident, one of the first depictions of a broad collar is attested for the god Geb on a shrine erected by king Djoser and found at Iunu (Heliopolis) (Grajetzki 2014, 118). It is as if the people wearing these personal adornments wanted to become a god-like being. Diana Craig Patch called these the ‘divine jewellery’ (Patch 2005, 192). However, to complicate matters, not all broad collars found on the body of the deceased were originally made for the burial. When a broad collar was part of the personal adornments of the deceased, that could be used too and no extra collar was acquired. This is at least the impression we receive from the well-made broad collars found in some burials, compared to other broad collars of very flimsy production (compare the remarks of Aldred 1971, 179, no. 10). Beside this set of personal adornments, other types of funerary jewellery

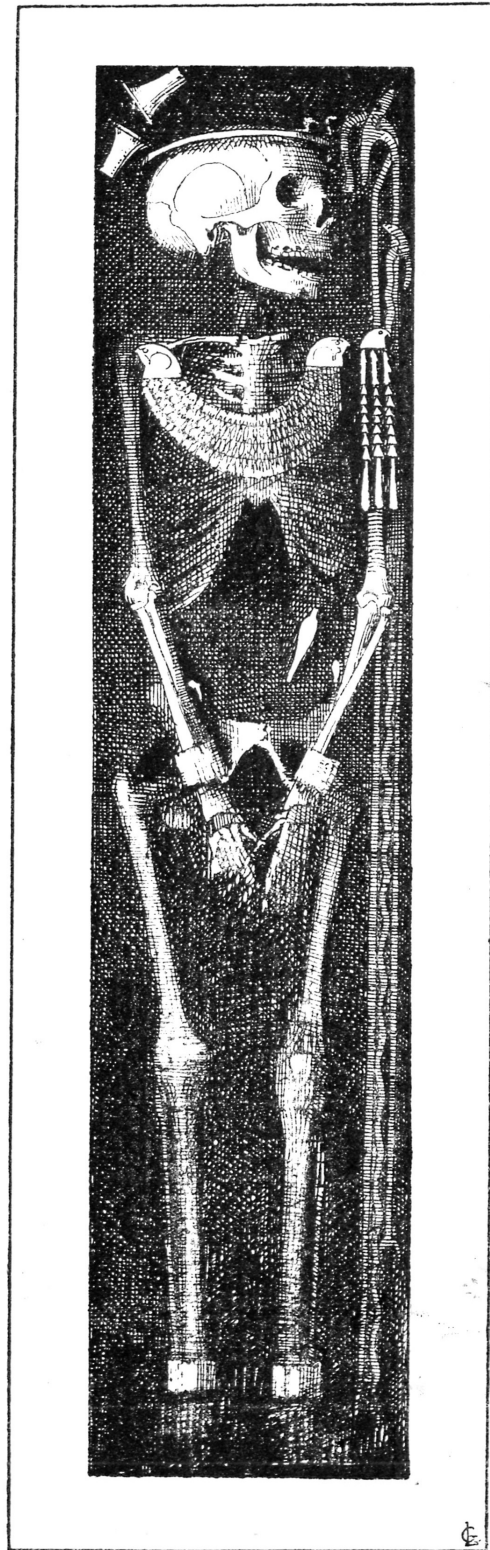


Figure 3.6. *Burial of Nubhetepti-khered with the typical jewellery equipment of a high status person of the Middle Kingdom: broad collar, armlets and anklets (de Morgan 1895, 111, fig. 264).*

Table 3.1. *Jewellery types found on mummies of princesses, in jewellery boxes, on mummies of non-royal women and on faience figures in the late Middle Kingdom.*

	Mummies of court women	Jewellery box	Mummies of non royal women	Faience figure
royal apron	x			
broad collar	x		rare	rare
necklaces	x	x	x	x
anklets and armlets	x	x	rare	x
shell pendants		x	x	x
cowry shell girdle		x	x	x
pectorals		x	x	
fish pendants			x	

are attested too, but they appear less frequently. In the Old Kingdom, there were the replicas in metal of organic personal adornments, mentioned above. For the late Middle Kingdom and Second Intermediate Period, the diadem of king Nubkheperre Intef and that of Nubhetepi-khered should be mentioned.

In stark contrast to that, the personal adornments mainly found in the burials of the broader population do not appear often in formal art. The amulets found in many poorer burials of the First Intermediate Period appear in hardly any of the depictions in relief, painting or on statues of the Period. These were most likely the personal adornments worn in life by a high number of people, but they were not seen as appropriate to be shown in formal art.

From the late Middle Kingdom (19th–18th centuries BC) there have survived a higher number of well-preserved burials of high status women, most often princesses at the royal court (Table 3.1). They provide us with a selection of finest jewellery most likely made in royal workshops. These burials most often consist of several sarcophagi with the body of the deceased woman richly adorned with personal adornments. There is also often a jewellery box in the same tomb with further personal adornments. Sometimes burials did not contain the jewellery box, in other cases only the jewellery box survived. The jewellery found on the deceased is often different to those found in the box. The personal adornments on the bodies of the deceased still included broad collars, armlets and anklets.

In the same period, around 1800 BC, we find a rather restricted repertoire of personal adornments in burials of the broader population (Table 3.1). These are fish pendants, cowrie girdles, shell pendants, pectorals and small golden cylinders. Interestingly, these types of jewellery are also well attested in the jewellery boxes of the Middle Kingdom princesses, while so far no jewellery box has been found in association with a broad collar. The jewellery boxes evidently contained

personal adornments already worn in daily life and typical for women of a wider social spectrum. Another interesting corpus of evidence is provided by the small faience figures of naked women only wearing personal adornments and tattooed. They are rarely dressed in any garments. Their adornments are indeed identical to those found in the jewellery boxes and in the burials of the broader population. They have armlets and anklets, necklaces with a shell pendant, a cowrie shell girdle and they wear body chains. Broad collars are rather rare (Patch 2015).

As mentioned above, many burials of high status women are known from the reign of king Amenemhat II and onward. Some of these burials should be presented. Next to the pyramid of king Amenemhat II at Dahshur were found four burials of royal women, three of them with the title ‘king’s daughter’. The tomb of Khnumet contained a high number of personal adornments. Her body was placed in a set of three coffins adorned with the standard set of jewellery found on burials of the ruling class, a broad collar, armlets and anklets. Khnumet also had a jewellery box found in a small chamber next to the sarcophagus. The box contained a set of personal adornments perhaps already worn in daily life. These include golden necklaces and pendants most likely produced in the Aegean. Furthermore, two diadems were found, deemed to be among the most beautiful ever discovered in Egypt (de Morgan 1903, 55–68, pls. V–XII). Less richly equipped were three other burials of the three other royal women. Their bodies were equipped with broad collars, armlets and anklets (de Morgan 1903, 71–7).

From the reign of Amenemhat III three sets of jewellery boxes are known, again belonging to women related to the king (Grajetzki 2014, 35–46 Sihathorinet; 81–93 Sihathor and Mereret). Their three sets of jewellery are close in style and the adornments are different to those found on the bodies of princesses. Most strikingly, the broad collars are missing. The

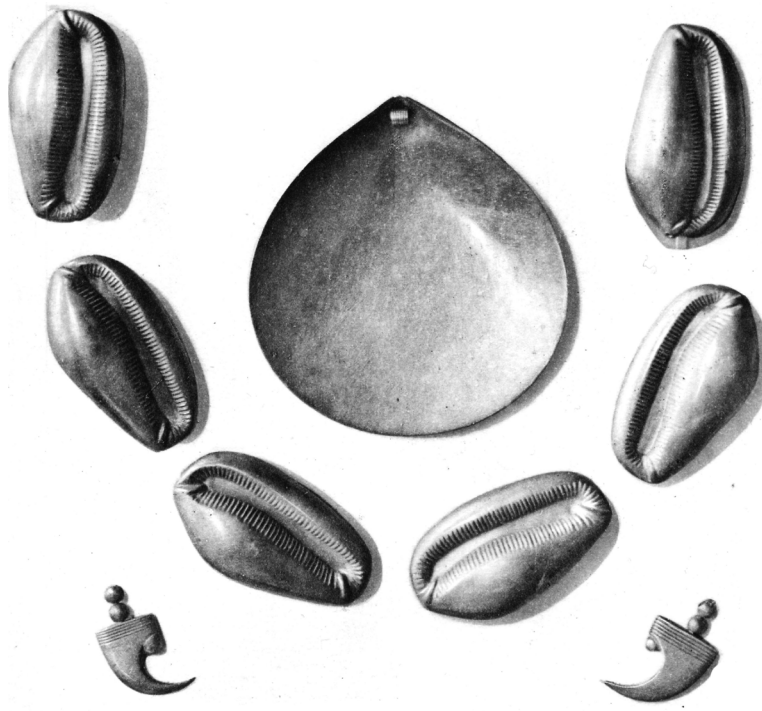


Figure 3.7. Shell pectoral, cowrie shells for a girdle and leopard claws worn at the feet, from the jewellery box of the king's daughter Sahathor at Dahshur (from de Morgan 1895, pl. XVII).



Figure 3.8. The broad collar of Senebtysy, especially made for the burial; it did not have any loops for holding the back together and was just placed within the mummy bandages (compare Mace & Winlock 1916, pl. XXV). The Metropolitan Museum of Art, Acc. No. 08.200.30, Rogers Fund, 1908.

personal adornments in the boxes include several pectorals and many golden shells, at least some of the worn as girdles (Fig. 3.7). There were single, sometimes decorated, shells most likely worn as pendants. There are golden lion figures used as end pieces for bracelets and necklaces. There are several pendant-like objects in the shape of hieroglyphic signs. Spacers belong to armlets. Beads most likely come from necklaces, armlets, anklets and girdles (Legrain in de Morgan 1895, 60–72; Winlock 1934).

Finally, to the very end of the 12th Dynasty and the early 13th Dynasty belong three undisturbed burials of high status women, two of them again ‘king’s daughters’; these are the burials of Senebtysy (Mace & Winlock 1916), Neferuptah (Farak & Iskander 1971) and Nubhetepi-khered (de Morgan 1895, 107–16). The burial of Senebtysy is of special importance as it was found well preserved and was recorded to a high standard. The mummified body of Senebtysy was equipped with three broad collars, with armlets and anklets. In addition to some necklaces, there was a girdle with an apron, which is also known as dress of the king in certain religious scenes (Grimm 1990; Grajetzki 2018, 235–6). This apron is known from depictions in art and shows the deceased equipped as Underworld king Osiris. It is clearly an object especially made for the burial.

The broad collars (Fig. 3.8), armlets and anklets in the burial of Senebtysy are the clearest evidence for funerary jewellery. The armlets and anklets found are too short to go around her arms and legs (Mace & Winlock 1916, 73–4). Two broad collars made of beads did not have locks for holding strings. The materials of them are described as ‘flimsy’. A third broad collar was just a gilded copper plate. However, besides these funerary adornments, Senebtysy was also wearing several rather simple necklaces, perhaps already worn in daily life (Mace & Winlock 1916, 57–8; compare comments in Aldred 1971, 177–8, nos. 7–8).

Besides the burials of women at the royal court, there are many others dating to the late Middle Kingdom, making this period one of the richest in terms of personal adornments. People at this social level were mainly buried with objects taken from daily life. These include pottery vessels, personal adornments, and also now gaming boards and papyri. Burials sometimes also include faience figures of animals and the so-called magical wands. The only objects of a funerary industry in these tombs are the coffins and canopic jars. In a few cases, shabtis and heart scarabs are also attested. However, in comparison to other periods, these objects of a funerary industry are surprisingly rare. With this development, the production of funerary jewellery declined heavily and was now restricted to people closely related to the royal court. Within this

period, jewellery already worn in life became common in burials even of people of high social standing.

One example is tomb E108 at Abydos, excavated by John Garstang. He described that the tomb was partly looted but basically left intact as sand had fallen into the chamber. The tomb contained a set of typical late Middle Kingdom personal adornments including a shell found on the chest and two fish pendants. There were also silver cowrie shells and a cylinder made of electrum (Garstang 1901, 4, pl. I). Another example is tomb 124 at Haraga (Engelbach 1923, 15–16). The burial was found disturbed. The elaborate tomb architecture indicates a burial place for a person of some higher status. The finds in the tomb include silver cowrie shells and the remains of a pectoral. In the tomb was found a stela belonging to a woman named Iytenheb, but this may have fallen into the tomb chamber from a surface chapel and might not be the person buried here. There are almost no objects of a funerary industry in her burial. The personal adornments were most likely already worn in daily life, as they are identical to those in the cosmetic boxes of the royal women described above and identified as most likely already worn in life. One better-recorded example is the burial at Saqqara with the body of a girl placed in an inscribed coffin that provides her name Hetepet. She was wearing a girdle of eight silver cowrie shells. On her chest was found a silver pendant in form of a shell. At her wrist were found two golden lions. Similar lions are well known from the jewellery boxes of the royal women at Lahun and Dahshur. Apart from the inscribed coffin there are no objects of a funerary industry in the burial of Hetepet (Firth & Gunn 1926, 59–60, pls. 37a,b). The main focus of the burial equipment is the personal adornments.

The Second Intermediate Period (c. 1650–1550 BC) seems to follow the burial customs of the late Middle Kingdom. Objects already used in daily life remain the main focus of the burial equipment including personal adornments already used in daily life. Personal adornments made for the burial became very rare and are perhaps restricted to the royal court. One possible example is a silver crown assigned to king Nubkheperre Intef (Winlock 1924, 217–77, especially 230–1; Aldred 1971, 214, pls. 82–3), similar to a diadem found in the early 13th Dynasty burial of Nubhetepi-khered (de Morgan 1895, 112, pl. XXXVIII, g).

In the New Kingdom 18th Dynasty (c. 1550–1292 BC), burial customs are in many ways a continuation of those from the late Middle Kingdom and Second Intermediate Period. A wide range of daily life objects dominates the burial equipment. However, burials of the highest social classes also contain objects of a funerary industry, such as shabtis, decorated coffins, and the Book of the Dead papyri. Personal

adornments already worn in daily life are common at all social levels; jewellery made for the burial seems to be far less common than in the Middle Kingdom, but does still appear. Two falcon collars made of gold sheet, from the burials of queens are an example (Lilyquist 2004, 131 no. 24, 132 no. 27).

Personal adornments especially made for the burial had their heydays in the Middle Kingdom. Later they are only attested at highest social levels, close to the royal family and royal court. In a particular case, it remains often hard to tell whether adornments were already worn in daily life or not. It must for the moment remain open whether the broad collar, armlets and anklets of Nubhetepi-khered (de Morgan 1895, 107–16) were already worn in daily life or just made for her burial, to give just one example. The clearest examples are those from the burial of Senebtysy where the broad collars had no loops for holding the ends and where the armlets were too short for going around the arms. In most other cases, the classification as ‘funerary industry’ or jewellery worn in ‘daily life’ is rather a guess. Here, future research on the individual objects will certainly help.

Notes

1. Compare the classifications of late Middle Kingdom burials in Grajetzki 2014, 100–12.
2. Aldred (1971, 183, no. 19), argues also that the broad collar of Impy found at Giza and inscribed with his name (6th Dynasty) was purely funerary, though he does not present any clear evidence for this idea.

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