

Cornelia Kleinitz

The Sudan Archaeological Collection & Archive at Humboldt-Universität zu Berlin: History, components and perspectives

I. Introduction

The Sudan Archaeological Collection & Archive is one of 33 active scientific collections at Humboldt-Universität zu Berlin, which represent a broad spectrum of the university's research areas, from the Arboretum with its collection of live plants to the Zoological teaching collection.¹ In its influential 2011 recommendations, the German Science Council highlighted the potential of scientific collections to serve as research infrastructures ("Forschungsinfrastrukturen"), and it called on the active incorporation of university collections in teaching and research.² Shortly thereafter, in 2014, Humboldt-Universität published its own collections guidelines.³ This provided a legal and administrative setting for the university's collections even though they are curated decentrally at the level of the departments or institutes to keep intact their close link to their respective research environments.⁴ In addition, the Helmholtz Centre for Cultural Techniques at Humboldt-Universität coordinates and supports work on and with the university's collections.⁵

Among the collections of Humboldt-Universität zu Berlin, the Sudan Archaeological Collection & Archive reflects the university's long-term research on and in ancient Sudan as well as the development of the field of Berlin-based Sudan Archaeology since the late 1950s. After a decade in storage due to the lack of adequate depot and exhibition rooms, the Sudan Archaeological Collection & Archive moved to new premises in the historic main building of Humboldt-Universität in the centre of Berlin in late 2017. In the new depot and study rooms, several thousand archaeological objects and materials - ranging from 'museum pieces' to archaeological samples - and several ten thousand items of archaeological documentation as well as documents relating to the context and process of archaeological research in and on Sudan, are accessible again for teaching and research. In the near future, a public display of a selection of the archaeological objects and archival materials will be developed, opening the collection and archive to the wider public.

In view of the recent arrival of the Sudan Archaeological Collection & Archive in its new home it seems opportune to reflect on the history of the collection and archive; give an overview of the archaeological objects and materials as well as the archival holdings; and report on current work on and with the collection and archive. ⁶

¹ http://www.sammlungen.hu-berlin.de/sammlungenaktiv/ (last accessed on 30/08/2018).

² https://www.wissenschaftsrat.de/download/ archiv/10464-11.pdf (last accessed on 30/08/2018).

³ http://www.sammlungen.hu-berlin.de/media2/ upload/77_2014_Sammlungsordnung_DRUCK.pdf (last accessed on 30/08/2018).

⁴ Since 2015, the curators of the collections have been officially appointed by the president of Humboldt-Universität zu Berlin. At that time, the author was appointed as curator of the Sudan Archaeological Collection & Archive at the Institute of Archaeology, Northeast African Archaeology and Cultural Studies (AKNOA). The protection and care for the collection and archive is also anchored at the level of the Faculty of Cultural, Social and Educational Studies (KSBF) with its Dean - until July 2018 Julia von Blumenthal and since then Christian Kassung - serving as keeper or "Bewahrer". At the level of the executive committee of Humboldt-Universität and the Helmholtz Centre for Cultural Techniques, Jochen Hennig was responsible for coordinating the activities of the university's collections until 2018. Since then, Yong-Mi Rauch has acted as coordinator for the university's collections.

⁵ See https://www.kulturtechnik.hu-berlin.de/en/content/sammlungsentwicklung-der-hu/ (last accessed on 30/08/2018).

⁶ Acknowledgement is due to the exceptional team of student assistants, who have been aptly supporting work on and with the collection and archive, covering a wide range of tasks from collections management to digitization to preventive conservation: Julia Steinmetz (November 2015 to September 2019), Jasmin Petschner/Lapajne (internship in 2017, student assistant from November 2017 to September 2019), Annika Böger (November 2017 to September 2019) and Max Bader (November 2018 to September 2019). The latter posts were financed through third party funding,





Fig. 1: The Butana Expedition camping at the pyramids of Meroe in 1958 (photo: Ursula Hintze (?), 1958, A 106).

2. A HISTORY OF THE SUDAN ARCHAEOLOGICAL COLLECTION & ARCHIVE

2.1. The early archive

In 1957, Fritz Hintze, Professor for Egyptology at Humboldt-Universität zu Berlin, visited the young Republic of the Sudan for the first time. In Khartoum he worked on Meroitic inscriptions and he visited a number of archaeological sites, among them Naqa, Musawwarat es-Sufra and the pyramids of Meroe.⁷ This visit was to mark the beginning of Humboldt-Universität's long-term research in Sudan. Within only a few months Hintze organized a first field project in Sudan, the Butana Expedition, which took place from late December 1957 to early April 1958. This survey focused on the 'Island of Meroe' and brought the East German researchers to 38 archaeological sites in the southern part of the ancient Kingdom of Kush. Besides sites with well-preserved architectural structures, such as Naqa, Musawwarat es-Sufra and Meroe (Fig. 1), other sites that were visited and described include Basa, Awlib, Abu Erteila, Umm Ali and Jebel Qeili. 8 Apart from photographic, filmed, graphic and written documentation, hundreds

Building on the work of the Butana expedition, Fritz Hintze started a long-term excavation project in 1960 at Musawwarat es-Sufra, one of the primary sites of the ancient Kingdom of Kush. Extensive excavations took place at this unique ensemble of monumental built structures during seven field campaigns until 1968, focusing on the oldest known temple dedicated to the lion-headed god Apedemak (Fig. 2); the largest ancient water reservoir in Sudan, the Great Hafir; 10 the labyrinth-like building complex of the Great Enclosure, with its numerous temples, rooms, corridors and courtyards; 11 the Small Enclosure; several smaller temples, shrines and other buildings in the valley as well as a small number of tombs. 12 The in-depth scientific documentation of the archaeological finds and features at Musawwarat as well as the extensive documentation of the preparation and running of the fieldwork form the largest part of the Sudan Archaeological Archive. The archive also includes contextual documentation relating to the social, political and economic settings of the research endeavors in Sudan as well as back

of latex casts were produced of ancient inscriptions and relief decoration. The scientific documentation of the Butana Expedition and documents relating to the preparation of the expedition formed the base of the Sudan Archaeological Archive at Humboldt-Universität zu Berlin.

while the former was funded by a special grant from the Faculty for Cultural, Social and Educational Studies.

⁷ F. Hintze, Tagebuch der ersten Studienreise nach Ägypten und in den Sudan vom 30. Januar bis 27. März 1957, Sudan Archaeological Collection & Archive at Humboldt-Universität zu Berlin, HU-SUDAN_H_TB_1957_DV-0.

⁸ Hintze 1959.

⁹ Hintze 1962a and b, 1963, 1971b; Hintze et al 1993.

¹⁰ Hintze 1963.

¹¹ Hintze 1967-68, 1971a.

¹² Hintze 1962a, 1963, 1967-68.



home in East Germany during the 1950s and 1960s, such as various press materials or correspondence with companies that furnished the Sudan projects with equipment. With the re-building of the Apedemak Temple at Musawwarat es-Sufra and its opening in 1970, field research of Humboldt-Universität in Sudan came to a temporary end.

2.2. Objects

On the basis of the Antiquities Ordinance of 1952, Sections 15 and 19,¹³ the finds made during a decade of fieldwork at Musawwarat were divided between the Sudanese Antiquities Service and Humboldt-Universität zu Berlin. Archival records include an export permit for the first "share of archaeological finds" dated to 5 April 1960.¹⁴ A final finds division took place at Musawwarat on 29 January 1970. A letter written by Fritz Hintze shortly after to the then Commissioner of Archaeology, Sayed Thabit Hassan Thabit, states, however, that only a selection of the objects forming the university's share could be exported at that time due to the lack of adequate packaging solutions. Other objects were to be left at the Musawwarat dig house to be exported at a later opportunity.¹⁵

Hintze was only able to return in 1975, when it had become clear that Humboldt-Universität would not be able continue field research in Sudan for the time being. The minutes of the final inspection visit of the then Commissioner for Archaeology, Sayed Negm el Din M. Sherif, to Musawwarat on 31 March and 01 April 1975 reveal that "The Commissioner inspected the packing and closing of the boxes of the archaeological finds due for export to Berlin. These finds are the rest of the share of Humboldt University according to the division of 1970 (ref. letter to the Commissioner of 25.2.1970). The 16 boxes were loaded to the lorry and carried to Khartoum, National Museum to be handed over to the Shipping Comp." The preparation for their transportation



Fig. 2: The head of the god Apedemak excavated from the rubble of the Early Meroitic Apedemak (or Lion) Temple at Musawwarat es-Sufra, which had been constructed in the late 3rd century BCE (photo: Karl-Heinz Priese, 1964, 466/26).



Fig. 3: Winged goddess as part of architectural decoration from the Great Enclosure at Musawwarat (photo: Ursula Hintze, 1966, 606/21).

and the packing of these objects is documented on 8mm film footage held at the Sudan Archaeological Archive.

The archaeological objects and materials from Musawwarat – most dating to the Meroitic period of the Kingdom of Kush (c. 270BCE to CE300) – subsequently became the Sudan Archaeological Collection at Humboldt-Universität. This teaching and research collection is now composed of several hundred archaeological objects, among them decorated architectural pieces (Fig. 3), temple furniture, statuettes, vessels, tools, weapons and jewellery as well as several thousand pottery sherds, and numerous archaeological samples. The Sudan Archaeological Collection represents the largest collection of archaeological material from Musawwarat outside

¹³ Extract from Legislative Supplement to Sudan Government Gazette. No. 840 dated 15th March 1952. Contents. The Antiquities Ordinance (1952 Ordinance No. 2). Sudan Archaeological Collection & Archive at Humboldt-Universität zu Berlin.

¹⁴ Export permit no. 60, CA/11-5, signed by T.H. Thabit, Commissioner for Archaeology. Sudan Archaeological Collection & Archive at Humboldt-Universität zu Berlin.

¹⁵ Letter containing a "list of objects (Berlin share according to division of 29. 1.1970)" dated to 25 February 1970 and signed by Fritz Hintze. Sudan Archaeological Collection & Archive at Humboldt-Universität zu Berlin.

¹⁶ Files note on final inspecting visit of Commissioner for

Archaeology Sayed Negmel Din M. Sherif at Musawwarat es Sufra 31.3.-1.4.1975, dated to 14.4.1975 and signed by the Commissioner and Fritz Hintze. Sudan Archaeological Collection & Archive at Humboldt-Universität zu Berlin.

¹⁷ Wenig 2000b.



of Sudan. When Musawwarat was inscribed in the UNESCO World Heritage List in 2011 as part of the "Archaeological Sites of the Island of Meroe" serial property alongside neighbouring Naqa and Meroe, the collection additionally became an ambassador for Sudan's World Heritage. ¹⁸

Besides objects and materials from Musawwarat es-Sufra, the Sudan Archaeological Collection also comprises hundreds of ceramic sherds and stone artefacts collected during the Butana Expedition as well as from the prehistoric site of Shaqadud, where the university ran an excavation project in 1963 and 1964 in parallel to the work at Musawwarat.¹⁹

The Sudan Archaeological Collection is planned to be extended by loans from the National Corporation for Antiquities and Museums (NCAM) on the basis of the currently valid Ordinance for the Protection of Antiquities, issued in 1999. Such loans would concern archaeological materials from more recent projects run by Humboldt-Universität in Sudan (see below). Pottery sherds and lithic artefacts from beyond the 'Island of Meroe' could widen the regional and temporal scope of the collection, which would be especially useful in teaching.

2.3. Consolidation of the archive

In the decades following the temporary end of fieldwork in Sudan in 1970, the academic field of Sudan Archaeology was developed and expanded by Fritz Hintze and later by Steffen Wenig, and extensive scientific networks were established and maintained. The development of Berlin-based Sudan Archaeology and its growth into a globally recognized centre for teaching and research on ancient Sudan during the 1970s and 1980s is reflected by archival records documenting the establishment of the International Conferences for Meroitic Studies ('Internationale Tagung für meroitistische Forschungen')²⁰ and the founding and running of the successful 'Meroitica' publication series, which is dedicated to the history and archaeology of ancient Sudan.²¹ Numerous

folders of scientific and administrative correspondence are also part of the archive as well as documents relating to various efforts to publish the extensive research on Musawwarat.

A teaching position on Meroitic Studies was created at Humboldt-Universität in 1981 and a professorship in 1984, and Steffen Wenig was appointed to both positions.²² Fieldwork in Sudan recommenced in the early 1990s under Wenig's directorship and the respective documents and documentation subsequently became part of the Sudan Archaeological Archive. This included the short-lived Meroe Joint Excavations (MJE) in 1992²³ and the revival of the field project at Musawwarat since 1993²⁴. As the project in Musawwarat is ongoing until today, currently led by Cornelia Kleinitz and Alexandra Verbovsek, the archive on this exceptional archaeological site is still steadily growing. The youngest project represented in the Sudan Archaeological Archive – apart from the ongoing work at Musawwarat-is the Humboldt University Nubian Expedition (H.U.N.E.), an archaeological salvage project that took place at the Fourth Nile Cataract between 2004 and 2008 under the directorship of Frank Kammerzell and Claudia Näser.²⁵ Apart from the focus on Sudan Archaeology, the archive also contains the documentation of Humboldt-Universität's project in Eritrea in 1995-1997, led by Steffen Wenig, which broadened the geographical scope of the department's field research.26

3. THE SUDAN ARCHAEOLOGICAL COLLECTION: COMPONENTS, RESEARCH AND EXHIBITION HISTORY

3.1. Objects, materials and samples

The Sudan Archaeological Collection at Humboldt-Universität includes archaeological objects made of stone, metal, clay, glass and various organic materials, which primarily come from Musawwarat es-Sufra.²⁷

The largest objects are decorated architectural pieces as well as parts of temple furniture and equipment made from local sandstone. The most

¹⁸ https://whc.unesco.org/en/list/1336 (last accessed on 30/08/2018).

¹⁹ Otto 1963 and various objects and archival materials in the Sudan Archaeological Collection & Archive.

²⁰ Hintze 1973, 1984.

²¹ The first volume was the publication of the first International Conference for Meroitic Studies, Hintze 1971. The Meroitica series was edited by Fritz Hintze up to volume 11 (1989), by Steffen Wenig from volume 12 (1990) to volume 22 (2005), by Steffen Wenig and Claudia Näser from volume 23 (2007) to 26 (2012) and is now overseen by Alexandra Verbovsek starting with volume 27 (2018).

Meroitica was first published by Akademie Verlag Berlin and has been published by Harrassowitz Verlag, Wiesbaden since volume 15 (1999).

²² Wenig 1996b, 2000.

²³ Wenig 1994.

²⁴ Wenig 2008.

²⁵ See http://www2.hu-berlin.de/aknoa/hune/hune-en.htm for an overview (last accessed on 30/08/2018).

²⁶ Wenig 1997.

²⁷ For overviews of the archaeological objects see Wenig 1996a, 2000b.



prominent piece among these is a 'Triple Protome' (Dreikopf), an architectural plate made of sandstone with a central ram figure, flanked by two lion figures, which was found in the Apedemak Temple at Musawwarat in 1960 (Fig. 4). This spectacular object has long been exhibited at the Egyptian Museum and Papyrus Collection in Berlin. A similar piece from the Apedemak Temple is exhibited at the National Museum in Khartoum.²⁸ 'Triple Protome' are hitherto only known from Musawwarat, where they were used as architectural decoration during the Early Meroitic period, crowning the entrance portals to temples. Indeed, two further 'Triple Protome' were found at the Central Temple (Temple 100) of the Great Enclosure, one showing a ram figure flanked by the heads of the gods Arensnuphis and Sebiumeker (Fig. 5) and a second with two goddesses flanking a central figure (Fig. 6 and see below). While the former is exhibited at the National Museum in Khartoum,²⁹ fragments of the latter are part of the Sudan Archaeological Collection & Archive.

Other pieces of architectural decoration include parts of friezes of *uraei*, a lintel with a sun disk flanked by falcon-headed *uraei*, or a building block with a

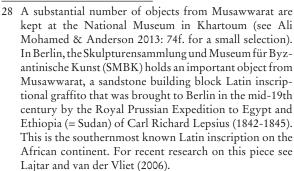
relief of the head of a god. Several sandstone building blocks were incised with graffiti, among them a lion



Fig. 4: Architectural plate with a crowned ram and two crowned lion figures shortly after it was uncovered in the Apedemak Temple (photo: Ursula Hintze, 1960, 112/11).



Fig. 5: Architectural plate with a crowned ram and the gods Arensnuphis and Sebiumeker from the Central Temple of the Great Enclosure (photo: Ursula Hintze, 1964, 465/1-4).



²⁹ Ali Mohamed & Anderson 2013: 75.



Fig. 6: Part of an architectural plate with two goddesses and a central figure as found during excavation (photo: Karl-Heinz Priese, 1964, 401/22).





Fig. 7: Statuette in the shape of a lion (photo: Ursula Hintze, 1960, 106/6).

and a crocodile, a cattle figure, an elephant, a dog and a winged sun disk. Another block was inscribed with an invocation to the god Apedemak in Early Meroitic cursive script, which can be palaeographically dated to c. the mid-second century BCE.³⁰ Among the sculpted sandstone objects are the figure of a winged goddess (see Fig. 3), lion statuettes (Fig. 7) and an *ankh* sign. Offering basins made of sandstone and of clay will have been used for libations (Fig. 8).

Objects made from stone furthermore include grinding platforms and grinders, fragments of stone vessels and objects that have been interpreted as loom weights. Even very small objects were made from stone, but also from marl, such as objects thought to be gaming pieces, amulets and a seal. While the majority of these objects were shaped from rather soft stone, some were worked from hard stone, such as polished axes, a stone ring, arrow heads and what have been interpreted as spherical gaming pieces. Many of these objects were found within temple buildings and may represent temple equipment and sacrificial objects.



Fig. 8: Offering basin for libations with shape of an *ankh* (photo: Ursula Hintze, 1960, 104/7).



Fig. 9: Iron trumpet (photo: Heike Zappe, HU Berlin).

Among the metal objects in the collection those made of iron dominate.³¹ Exceptional among these is an iron trumpet, a rare piece that was found near an altar in a small temple building, pointing to the role of music and sound in cult proceedings of the Meroitic period (Fig. 9).³² Some iron objects, such as various chisels, can be attributed to the processing of the sandstone building material and thus to building processes. Iron nails of various sizes are also frequent. Weapons are represented by a spearhead and arrowheads. The latter date to the post-Meroitic period and illustrate the ongoing use of the site of Musawwarat es-Sufra. An amulet representing the monogram of the Archangel Michael dates even younger, i.e. to the Christian Medieval period.

A Ptolemaic bronze coin from the third century BCE points to the construction and/or use period of some of the Great Enclosure's structures. It was found in the Central Temple of the Great Enclosure as were fittings made of bronze and gilded silver plate as well as tiny pieces of gold foil with small holes.

³¹ Rehren 1996.

³² Billig 2001.

³⁰ Claude Rilly, pers. comm. 2017.



The latter indicate that the gold foil may have been sown onto cloth or leather and may have formed part of the adornment of the temple building or a cult statue.³³ In the Apedemak Temple, a thin lead plate with the depiction of a bound prisoner was uncovered in the vicinity of the altar.

A large number of objects from the Sudan Archaeological Collection were made of fired clay. A plumb-bob seems to belong to the 'toolbox' related to building processes at Musawwarat, while fired bricks represent building materials. Ceramic vessels include bottles, cups

and a chalice, plates, cups, bowls and jugs, of which at least some will have been used in cult proceedings judging from their find spots. While some of the vessels are well preserved, others are represented only by individual, sometimes decorated sherds. A small head of a lion may have been part of a statuette or a vessel. Most of the beads from the collection were made from faience, with a few others made of stone and glass. In addition to glass beads there are a few pieces of glass vessels in the collection. Other materials are rare in the collection. They include few fragments of ostrich egg shells as well as shells of snails and mussels.

Many of the objects were made on site at Musawwarat. The sandstone for the architectural pieces was quarried and worked locally – evidenced by numerous sandstone quarries in the valley of Musawwarat es-Sufra³⁴ – and a pottery workshop was found in one of the courtyards.³⁵ In contrast, other objects testify to connections with the Mediterranean world. The latter include, for example, a large amphora with painted decoration, which appears to have served as a building deposit in the Great Enclosure,³⁶ and a faience box that was found in one of the smaller temples (Fig. 10, Colour fig. 4).³⁷

A variety of samples from Musawwarat are also considered part of the Sudan Archaeological Collection. They include a range of materials, such as



³⁴ Becker 2000; Gabriel 2002.



Fig. 10: Faience box with intricate decoration (photo: Heike Zappe, HU Berlin).

sediments, or stone, plaster, paint and wood samples (Fig. 11). Apart from archaeological objects and materials, various replicas belong to the collection, such as plaster casts of reliefs from of the Apedemak Temple. Among them is a cast of a relief with depictions of elephants, soldiers and prisoners from the West wall of the temple and a depiction of the builder of the temple, King Arnekhamani, and his son Arka from its South wall.



Fig. 11: Sediment samples from the Great Hafir taken for pollen studies (photo: Cornelia Kleinitz).

³⁵ See Onasch 2001 for a first description. This workshop has since been intensively investigated, see http://www.topoi.org/project/a-6-5-1/ for current references.

³⁶ Zeitler 1999.

³⁷ Helmbold 2001.





Fig. 12: Parts of the Sudan Archaeological Collection in storage in 2017 (photo: Cornelia Kleinitz).

In addition, the material culture of transport packaging has been incorporated into the collection. Finds or samples are in some instances still kept in their original transport and storage containers from the 1960s, which range from reused food containers to film or match boxes. For the transport of architectural pieces wooden transport boxes were constructed. They have over time accumulated a history of travel to various exhibitions, which is evidenced by their many labels. Last but not least, some of the technical equipment used in fieldwork and in the lab as well as in data processing is also considered part of the Sudan Archaeological Collection.

3.2. Storage, exhibition and research history

After the objects came to Berlin, they were initially stored at the Egyptian Museum in East Berlin, where they supplemented the museum's own Sudan collection. Double accession numbers for many of the objects, one internal and one belonging to the Egyptian Museum, testify to this episode in the collection's history. The objects were repatriated from the Egyptian Museum to Humboldt-Universität between 1997 and 2000. Until 2006 they were kept at the Department of Northeast African Archaeology and Cultural Studies' former premises at Prenzlauer Promenade in the far East of Berlin. At that time, the collection was exhibited in departmental rooms and the objects were actively used in teaching and research.

After the department moved back to the centre of Berlin, exhibition, depot and study rooms were no longer available. Hence, from 2006 until 2017 the collection was kept in storage, first in the basement and then under the roof of the building Mohrenstr. 40/41 (Fig. 12). Teaching and research on the collection were possible only to a very limited degree. Only in 2017 the situation changed for the better with the allocation of new depot and study rooms in the main building of Humboldt-Universität at Unter den Linden 6. An exhibition space had been allocated in the immediate vicinity of these rooms already. This new room situation now provides an

infrastructure for teaching and research as well as for the public presentation of the collection and archive.

Objects from the Sudan Archaeological Collection have repeatedly been shown to the wider public in temporary exhibitions nationally and internationally. Some exhibitions were organized by the department itself in Germany, Austria and Cuba during the 1990s and early 2000s, sometimes in cooperation with the Sudan Archaeological Society of Berlin (SAG). These exhibitions were dedicated to the site of Musawwarat, such as the exhibition at the National Museum in Havanna in 1994 or at the Urania in Berlin in 1996. They were organized with the aim of raising awareness of Sudan's rich archaeological heritage and of the work of Humboldt-Universität in Sudan. In Sudan.

In 2000 and 2001 the Sudan Archaeological Collection itself became a subject of the exhibition 'Theatrum Naturae et Artis' at the Martin Gropius exhibition hall among other collections of Humboldt-Universität. This was its last large-scale public presentation. Since then, only individual objects have been exhibited. This includes a sandstone building block decorated with a graffito of a lion and a crocodile, which was displayed in the Foyer of Humboldt-Universität's main building in an exhibition making the 200th anniversary of the founding of the university, ⁴² or a large amphora, which was part

³⁸ Wenig 2000.

³⁹ For a list of exhibitions see https://www.sag-online. de/projekte-der-sag/exhibitions/ (last accessed on 30/08/2018).

⁴⁰ Loeben 1995; Wenig 1996.

⁴¹ Andrássy 1997.

⁴² Thom and Weining 2010: 286.



of the exhibition 'Welt Wissen' ('World of Knowledge') at the Martin Gropius exhibition hall in 2010 and 2011.43

A single object from the Sudan Archaeological Collection is part of a permanent exhibition: the 'Triple Head' from the Apedemak Temple at Musawwarat. This exceptional piece has long been exhibited in the Sudan and Nubia room at the Egyptian Museum and Papyrus Collection in Berlin. It was also displayed in several temporary exhibitions, such as the 'The Arts of Africa' exhibition at the Brooklyn Museum in 1978⁴⁴ and the 'Kingdoms on the Nile' exhibition in Munich and Paris in the mid-1990s. 45 Various publications and catalogue entries illustrate the competing interpretations this piece has undergone since its discovery: the two lions flanking the central ram figure have been argued to be depictions of the Egyptian gods Shu and Tefnut⁴⁶, the indigenous gods Arensnuphis and Sebiumeker⁴⁷ or Apedemak⁴⁸.

In general, research on the collection has been limited and its objects have only in part been published. The objects coming from the Apedemak Temple and the Small Enclosure were published in the respective volumes dedicated to these buildings.⁴⁹ An unpublished Magister dissertation submitted at Humboldt-Universität in 1999 was dedicated to the small finds of the 1960s from Musawwarat, including those that had become part of the Sudan Archaeological Collection.⁵⁰ In the late 1990s and early 2000s several objects and object groups were examined in some detail by students from the department and published in a series of articles in the journal 'Der Antike Sudan. Mitteilungen der Sudanarchäologischen Gesellschaft zu Berlin e.V.'. This included the iron trumpet, the small faience box and several pieces of decorated sandstone building blocks as well as pottery.⁵¹ Several small booklets provided information on the objects when they were shown in temporary exhibitions.⁵² A full publication of the collection, however, is still lacking and remains one of the tasks for the coming years.

4. The Sudan Archaeological Archive: Documents and documentation

4.1. Research values

In addition to the archaeological objects and materials of the collection, the extensive scientific and contextual documentation in the archive mirrors the long-term research of Humboldt-Universität in and on Sudan. What is especially striking are the close interconnections between the objects, materials and samples as well as the archival materials, the latter comprising the documentation of the archaeological finds and findings as well as documents relating to the settings of research in Sudan and back home in East Germany. From the perspective of the History of Science, the broad range of closely interconnected archival materials from the 1950s to 1980s are of special interest as they help to understand the academic, political and economic frameworks of the GDR's archaeological research 'abroad'.

Hence, the Sudan Archaeological Collection & Archive can truly serve as one of the 'research infrastructures' that the German Science Council had called for in 2011. Not only does it document the development of a field of research at Humboldt-Universität, i.e. Sudan Archaeology, and provides an archive of knowledge on ancient Sudan, but it allows very different fields of research and sciences to engage with an intricate and diverse corpus of archaeological objects and archival materials, including Cultural Studies, Gender Studies, History or Anthropology in addition to the History of Science.

43 Andraschke et al 2011.

4.2. Record groups

The scientific documentation in the Sudan Archaeological Archive has been divided recently into several distinct record groups on the basis of their specificities in time and personnel. The first record group comprises the 1950s to 1980s, when research took place under the leadership of Fritz Hintze. Records on the Butana Expedition (1958), the Musawwarat Project (1960-1970), the establishment of the Meroitic Studies Conference and the founding of the Meroitica monograph series are contained in

⁴⁴ Wenig 1978: 222-223.

⁴⁵ Priese 1996: 278-279.

⁴⁶ Hintze 1962: 185-186; Priese 1996: 278-279. A similar interpretation is assigned to the nearly identical Triple Protome exhibited at the Sudan National Museum (Ali Mohamed and Anderson 2013: 75). In view of these diverging views a re-evaluation of the piece and its iconography is currently being undertaken by the author.

⁴⁷ Wenig 1978: 222-223; Wenig 2000a: 72.

⁴⁸ Rondot 2010: 190.

Buschendorf-Otto 1993; I. Gerullat in Fitzenreiter, Seiler and Gerullat 1999: 79-103.

⁵⁰ Gerullat 1999, efforts are underway to publish this cata-

⁵¹ Billig 2001; Gerullat 2001; Helmbold 2001, Nowotnick 2001.

⁵² Fitzenreiter and Wenig 1994; Wenig 1996.





Fig. 13: Documentation on the architecture and architectural decoration of room 101 of the Great Enclosure, i.e. the cella of the Central Temple, sorted according to document size by Karl-Heinz Priese (photo: Julia Steinmetz).



Fig. 14: Ursula Hintze doing paperwork in the camp at Musawwarat es-Sufra (photo: Ursula Hintze (?), 1970, 70-1).

this group.⁵³ The second group comprises the 1990s to mid-2000s, when Steffen Wenig headed Sudan Archaeological research at Humboldt-Universität. These records relate to the Meroe Joint Excavations with its 1992 field season, the Musawwarat Project with its excavation seasons from 1995 to 2004 and the German Archaeological Mission to Eritrea with its field seasons in 1996 and 1997. The third group contains records relating to the Humboldt University Nubian Expedition at the Fourth Nile Cataract, headed by Frank Kammerzell and Claudia Näser from 2004 to 2008. The fourth group encompasses documentation relating to the Musawwarat Project between 2005 and 2015, when it was led by Claudia Näser. The fifth group comprises the documentation of the Musawwarat Project since 2016, when Cornelia Kleinitz and Alexandra Verbovsek took over the responsibility for this long-term project of Humboldt-Universität.

A sixth, seventh and eighth record group were defined in 2017 and 2018, when the Sudan Archaeological Collection & Archive received three extensive new sets of archival material, two of which were immediately fully inventoried and to a large part digitized. The sixth record group encompasses Karl-Heinz Priese's research materials relating to the building history and architecture of the Great Enclosure at Musawwarat. Apart from numerous architectural drawings, this group contains originals and (annotated) copies of documents that cut across the first and second record groups of the archive. They had been incorporated into an ongoing personal research archive organized according to the individual rooms of the Great Enclosure (Fig. 13). Karl-Heinz Priese's research archive is kept intact and provides a base for ongoing work on the study and preservation of the architecture of the Great Enclosure of Musawwarat.⁵⁴

The seventh record group contains numerous documents from Ursula Hintze's estate. It complements other archival materials authored by Hintze - a scholar of African Studies and wife of Fritz Hintze - in the Sudan Archaeological Archive. This 'personal archive' underlines Ursula Hintze's roles as manager and documentarian of the GDR's archaeological projects in Sudan (Fig. 14). It contains materials relating to the Butana Expedition, the Musawwarat Project and the Epigraphic Expedition to Sudanese Nubia, i.e. all the field projects run by Humboldt-Universität between 1958 and 1970. Among the many documents and items donated to the archive by the Hintze family are 8mm-films, sound recordings, slides, photographs, books, letters, notes, scripts, and various personal documents.⁵⁵ Film footage, for example, captures the progress of the Butana Expedition, impressions from Nubia before its flooding or the re-building of the Apedemak Temple of Musawwarat.

⁵³ Most records concerning the Epigraphic Expedition to Sudanese Nubia from 1961 to 1963 were transferred to the Berlin-Brandenburg Academy of Sciences in 2008. They are today kept at the Friedrich-Hinkel-Archive at the German Archaeological Institute (DAI).

⁵⁴ Deepest thanks are due to the family of the late Prof. Priese, especially Mrs. Ruth Priese, who supported the Musawwarat Project at a difficult time by facilitating the swift transferal of the Musawwarat-related documents to the Sudan Archaeological Collection & Archive in the early part of 2017.

⁵⁵ The children of Fritz and Ursula Hintze – Barbara Barsch, Werner and Wolfgang Hintze and Eberhard Fischel – are most deeply thanked for their readiness and help in transferring Ursula Hintze's personal archive, which they had guarded since her untimely passing in 1989, to the Sudan Archaeological Collection & Archive.





Fig. 15: Fritz Hintze taking pollen samples in the Great Hafir, an example from the 'camp and work' sequence of photographs (photo: Ursula Hintze, 1962, III 9/70).

An eighth record group was defined for a second large part of Karl-Heinz Priese's scientific estate, which was donated to the Sudan Archaeological Collection & Archive in 2018. These materials concern Priese's long-term research on the languages and geography of ancient Sudan. They comprise numerous folders and boxes with published sources and photocopies thereof, handwritten notes, manuscripts and lists, many with annotations, as well as card catalogues, drawings and photographic negatives and prints. In accordance with the wishes of the Priese family, this record group is made accessible immediately for study.

4.3. Document types and materials

The different record groups vary considerably in document types and materials. Those relating to the work of Fritz and Ursula Hintze from the 1950s to 1980s are the most diverse. They comprise various kinds of photographic materials (black and white negatives in different formats, prints of various sizes, colour slides, glass plates), which document archaeological finds and findings, as well as the context of the fieldwork in Sudan. The latter is reflected, for example, in the photo series 'camp and work' (Fig. 15) and 'country and people' (Figs. 16-17).



Fig. 16: Sudanese visitors to the archaeological site of Musawwarat were often photographed by Ursula Hintze for the series 'country and people' (photo: Ursula Hintze, 1963, NP II 7/16).



Fig. 17: Apart from many photographs of local workmen and their families, some photos document the actual encounters between the East German team and the local community (photo: Ursula Hintze, 1961, 234/13 A).





Fig. 18: Personal diaries and note books of Ursula Hintze (photo: Julia Steinmetz).

Written and graphic documentation includes numerous personal and field diaries (Fig. 18), note books, drawings and drawing books, photo lists and books, finds books, documentation books for individual buildings or sections of buildings, payment books for the local workmen (Fig. 19) as well as various record cards, registers and reports. Audio-visual media comprise 8mm and 16mm-films as well as tape recordings, the latter including spoken diaries.

Hundreds of latex casts were produced during the Butana Expediton and the work at Musawwarat, providing 3D-information on relief decoration and inscriptions, and textual graffiti. As some of the latex

Fig. 19: Payment records from different work groups at Musawwarat es-Sufra (photo: Julia Steinmetz).

casts document reliefs and graffiti that are today less well preserved or have even been destroyed, the latex cast archive constitutes a valuable source for research.

Contextual documentation relating to the social, political and economic settings of the research endeavors in East Germany during the 1950s and 1960s comprises various sets of correspondence on different types of paper. This includes correspondence with colleagues, with higher authorities at the university and with state agencies, but also communication with companies that furnished the Sudan projects with equipment. The latter include, for example, the Robur lorry factory in the city of Zittau or the VEB Fettchemie, which supplied a lorry and insect repellent, respectively (Fig. 20). Some materials were tested by the archaeological project under field conditions, such as the above mentioned insect repellent or newly developed photographic materials. Reports of the successful employment of GDR-produced products and machinery in difficult conditions in Sudan were subsequently published in a range of magazines and newspaper articles, copies of which are held at the archive.

Indeed, the presentation of Humboldt-Universität's research in Sudan to a GDR and international public was quite obviously of special concern to Fritz and Ursula Hintze. This is represented by a broad range of media in the archive, such as print media



Fig. 20: Folder containing the written communication with the Robur lorry factory (photo: Julia Steinmetz).







Fig. 21: Two published versions of the same photo, one with prehistorian Karl-Heinz Otto holding a colour latex cast of a giraffe and one with a Sudanese team member - in all likelihood Zakaria Saleh - holding the latex cast (published in different print media).

(e.g. daily and weekly newspapers, and magazines), audio and film materials (e.g. radio interviews and documentary films), and collections of materials meant for later publication (e.g. manuscripts and image collections). In some instances, photographs were staged with different 'actors' for publication in different contexts (Fig. 21).

In addition to scientific and contextual documentation of field research in Sudan during the 1950s and 1960s, the early record group also contains materials relating to the systematic organization of the extensive archaeological documentation. Since the late 1960s, the documentation of the complex site of Musawwarat was systematized by Fritz and Ursula Hintze, and transferred into a machine-readable format. Thousands of punch cards testify to this endeavor, which aimed at finding machine-aided solutions to working with large data sets in archaeology.⁵⁶ The information encoded in the punch cards is today no longer accessible due to the lack of appropriate readers. However, as hand or machine written information was also noted on the face of the punch cards and as photos or drawings were attached, the cards still provide a valuable source of systematic information for the ongoing work at and on Musawwarat (Fig. 22).

In respect to scientific exchange and publication, archival materials include materials as diverse as audio tapes documenting the first Meroitic Studies conference in 1971 or paper-based correspondence documenting the foundation of the Meroitica publication series in 1973. The process of publishing parts of the research at Musawwarat is represented in the archive by various documents relating to the publication of the Apedemak Temple in four volumes,

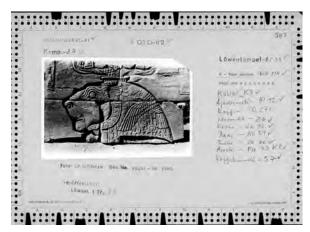


Fig. 22: Punch card dedicated to part of a relief from the Apedemak Temple (HU-SUDAN_H_MUS_LK_507, scan: Antje Loka & Florian Kirschner).

among them glass plates with negatives of the drawings published in the first volume of image plates.⁵⁷

Field research in Sudan resumed in the early 1990s, shortly after German reunification. Steffen Wenig initiated the Meroe Joint Excavations (MJE) in cooperation with the Roemer und Pelizaeus Museum in Hildesheim and the University of Khartoum. Archival materials include documents relating to the planning, logistics and reporting of the project as well as various sets of documentation compiled during field research in 1992, such as photos and photo lists, finds lists and cards, field diaries, drawings, plans and maps. After the premature end of this project, Musawwarat es-Sufra again became a focus of research from 1993 onwards. With funding primarily from the German Science Foundation, a decade of research took place between the mid-

⁵⁷ Hintze 1962b, 1971b; Hintze et al 1993 with additional volume of plans.

⁵⁸ Wenig 1994.

⁵⁶ Hintze 1973.





Fig. 23: Documentation on the decorated columns of the Great Enclosure as compiled by Karl-Heinz Priese, digitized for use in ongoing conservation work. (photo: Julia Steinmetz).

108 Löwe Nord



X 698 mm Y 636 mm Z 479 mm Volumen: 0.15 m³ Oberfläche: 1.42 m²

Fig. 24: 3D-model of the northern column base in room 108 of the Central Terrace showing an unfinished lion figure (image: Thomas Bauer, TrigonArt).

1990s and mid-2000s, and extensive documentation was assembled during this second phase of excavations by Humboldt-Universität in Musawwarat.⁵⁹ This includes thousands of colour slides and dozens of ortho photos, coloured drawings on millimeter

paper, field, dig and trench diaries, building-related and sand removal books, finds and findings cards, aluminium foil impressions of graffiti from the Great Enclosure, scientific and conservation reports as well as a range of administrative documents and correspondence related to the running of the project.

Between 2004 and 2008, Humboldt-Universität was engaged in salvage archaeological work at the Fourth Nile Cataract, led by Frank Kammerzell (H.U.N.E. Mainland Concession) and Claudia Näser (H.U.N.E. Island Concession). This record group comprises scientific documentation of the work of the H.U.N.E. Mainland Concession, primarily documentation

sheets and notes, archaeological drawings of finds and findings, colour slides as well as a range of digital data stored on CDs.⁶⁰ Of the scientific documentation of the H.U.N.E. Island Concession, the digital and physical documentation of the rock art of the islands of Us and Sur is stored at the archive, including hundreds of meters of transparent plastic sheets with 1:1 tracings of petroglyphs.⁶¹

Current fieldwork at Musawwarat es-Sufra, from excavations to conservation-restoration to public presentation work, heavily relies on the use of archival materials from the Sudan Archaeological Collection & Archive, which are digitized as needed (Fig. 23). Recent and present work generates new research data, some analogue and others digital, the latter posing new challenges in terms of long-term archiving. Different kinds of data types include text and image data as well as 3D-models⁶² (Fig. 24) and electronic databases, such as those for

the Musawwarat Graffiti Project headed since 2007

⁵⁹ See Wenig 2008 for a summary.

⁶⁰ See https://www2.hu-berlin.de/aknoa/hune/hune-en. htm for an overview of the H.U.N.E. project (last accessed on 30/08/2018).

⁶¹ See footnote above.

⁶² Kleinitz, Bauer and Näser 2009; Kleinitz, Rüther and Näser 2010; and see Kleinitz, this volume.



by the author.⁶³ These data are stored in digital storage media at the archive as well as off-site.

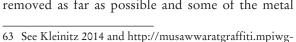
5. Working with the Sudan Archaeological Collection & Archive SINCE 2015

5.1. Revising, inventorying and assessing the collection and archive

Since 2015, two years before new depot and study rooms for the Sudan Archaeological Collection & Archive finally became available, the collection had undergone a process of revision. The content of all in all

52 storage boxes was inventoried at its storage location, and the packaging situation and condition of each object was photographed and noted (Fig. 25).⁶⁴ Finds and inventory numbers were checked against an existing electronic collections database and a range of discrepancies and gaps were noted in numbering as well as in the naming and description of the objects and object groups. A revised list of objects was drafted, which forms the foundation for a new collections database.

Conservation assessments revealed that the objects had been stored in their air-tight transport packaging in less than ideal climatic conditions for more than a decade and that many of the objects were in need of conservation-restoration treatments before they could be handled or exhibited again. As an immediate response, transport packaging was removed as far as possible and some of the metal



berlin.mpg.de/ (last accessed on 30/08/2018).



became available, the collection Fig. 25: Revising the Sudan Archaeological Collection in its storage situation in 2016: had undergone a process of re- Julia Steinmetz and Maximilian Breu (photo: Cornelia Kleinitz).



Fig. 26: The iron trumpet from Musawwarat in its inadequate packaging situation in silk paper and bubble wrap during storage (photo: Cornelia Kleinitz).

objects – especially those made of iron – were repacked in airtight polyethylene boxes in which the humidity is strictly controlled (Figs. 26-27a-b).⁶⁶

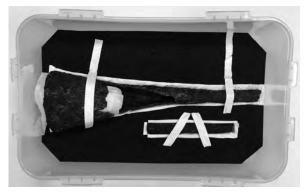
At the same time, the archive was also begun to be re-inventoried, a process that was only completed in mid-2018 (Fig. 28). It quickly became clear that record groups needed to be clearly defined and a system of unambiguous accession numbers for the entire collection and archive needed to be developed (see above).

⁶⁴ This exercise was funded by the Faculty of Cultural, Social and Educational Studies (KSBF) and undertaken from November 2015 to November 2017 by Cornelia Kleinitz and Julia Steinmetz with the occasional help of Jan Aschmoneit, Maximilian Breu and Theresa Mader.

⁶⁵ Assessments of the packaging situation were undertaken in 2015 and 2016 by conservation students from the University of Applied Sciences (HTW) under the supervision of Alexandra Jeberien in the framework of a cooperation agreement between the two universities, while a condition report funded by a special grant from the Collections Fund at Humboldt-Universität zu Berlin documents the evaluation of stone objects from the Sudan Archaeological Collection by Jan Hamann, Restaurierung am Oberbaum (RaO).

⁶⁶ These preventive conservation measures were first executed by Maximilian Breu (HTW) with funding provided by a special grant from the Collections Fund at Humboldt-Universität zu Berlin and have since been significantly extended by Annika Böger.





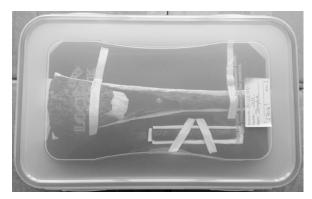


Fig. 27a and b: The iron trumpet in its new polyethylene box with the drying agent silica gel. The trumpet is embedded in layers of polyethylene foam and polyethylene cloth (photos: Annika Böger).

The re-packing of some of the archival materials in acid-free archive boxes, adhering to archival standards for preventive conservation, was also part of the revision process. Press materials dating to the late 1950s to the early 1970s, for example, were among the first to be inventoried and re-packed as they were used in teaching and research at the time.



Fig. 28: Parts of the archive as well as some archaeological objects in crowded conditions before the move to the main building of the university (photo: Cornelia Kleinitz).

5.2. Evaluating the new exhibition room

In 2014 an exhibition space of 73 m² had become available for the Sudan Archaeological Collection & Archive in the West wing of the main building of Humboldt-Universität, close to AKNOA's premises and in the vicinity of the exhibition spaces of the collection of the Department of Classical Archaeology (Fig. 29). In preparation for the re-exhibition of archaeological objects and archival materials a one year-long preventive conservation study under the supervision of Alexandra Jeberien was undertaken. During the winter term 2015/16 and the summer term 2016 the properties of the exhibition room were evaluated in respect to climate, light, pollutants and pests. Undergraduate and graduate students of the conservation course at the University of Applied Sciences (HTW) measured the room's temperature, the light intake and the effects of pollutants (as the building is located in the centre of Berlin) and pests (as the Mensa canteen is located in the same part of the building). This study was summarized in a BA dissertation that also outlines a catalogue of adequate measures.⁶⁷ Light exposure, for example, must be controlled by keeping the blinds in the exhibition room shut for most of the time and by arranging showcases accordingly so they avoid direct sunlight. After an appropriate exhibition concept is developed taking into account the chances and limitations imposed by the properties of the exhibition room, selected objects and archival materials from the Sudan Archaeological Collection & Archive can be exhibited again to a wider public.

⁶⁷ Maximilian Breu, Die konservatorische Betrachtung der zukünftigen Raumsituation der sudanarchäologischen Studiensammlung der Humboldt Universität zu Berlin. Erstellen eines Maßnahmenkonzepts, unpublished BAthesis in Conservation, HTW, 2017.





Fig. 29: The new exhibition room for the Sudan Archaeological Collection & Archive in the main building of Humboldt-Universität with a temporary poster exhibition (photo: Cornelia Kleinitz).

5.3. Acquiring and equipping new depot and study rooms

After intense negotiations in 2017, two depot and study rooms of 27 m² and 29 m² were made available for the Sudan Archaeological Collection & Archive by the Institute of Archaeology close to AKNOA's departmental rooms. Additionally, an off-site dark room of 37m² was provided by the Technical Section of the university, in which exhibition furniture and packaging containers and materials are now stored.⁶⁸

As archaeological objects and materials as well as archival materials were to be stored together in the same depot and study rooms, and as these rooms would also be used in teaching and research, a preventive conservation concept was developed that found a compromise between the needs of the various materials and the human users in terms of

room temperature, humidity and exposure to light.⁶⁹ UV protection foil was subsequently applied to the windows, reducing UV radiation and benefitting all objects and archival materials.⁷⁰ For the storage of most of the archaeological objects high-quality depot furniture in form of closed steel cabinets, produced by the company Otto Kind, was installed.⁷¹ Several work spaces were created in the depot and study rooms. They are equipped with conservation-approved lab furniture as well as extensive sets of documentation tools for archaeological study and conservation.⁷² For security reasons access to the depot and study rooms is strictly regulated.⁷³

⁶⁹ This work was led by Annika Böger.

⁷⁰ Torsten Bennewitz of the Technical Section is thanked for adapting the depot and study rooms to the needs of the Sudan Archaeological Collection & Archive.

⁷¹ Funding for the cost intensive depot furniture was kindly provided by a generous grant from the Faculty of Cultural, Social and Educational Studies (KSBF). Many thanks are due to its then Dean, Julia von Blumenthal.

⁷² Lab furniture and work space equipment was funded by a special grant from the Faculty of Cultural, Social and Educational Studies (KSBF).

⁷³ For access to the Sudan Archaeological Collection & Archive contact: cornelia.kleinitz@hu-berlin.de.

⁶⁸ I wish to thank all colleagues for their support in making available adequate depot and study rooms for the Sudan Archaeological Collection & Archive. Special acknowledgment also goes to Jochen Hennig, Julia von Blumenthal and Kerstin Hinrichs for their support at the levels of the executive committee of Humboldt-Universität, the Faculty of Cultural, Social and Educational Studies and the Technical Section of the university, respectively.









Fig. 30a-c: Unpacking one of the goddesses from the Central Temple of the Great Enclosure from its transport packaging, in which it had spent more than a decade (photo: Cornelia Kleinitz).

In December 2017 the Sudan Archaeological Collection & Archive finally moved to its new premises. After an extended period of unpacking, re-packing and allocating the objects to their new storage cabinets and the archival materials to their shelves, the collection and archive are now available again for use in teaching and research (Fig. 30a-c and 31). On their shelves or in drawers and packed in acid free cardboard boxes or – where special requirements in terms of humidity apply – in airtight polyethylene boxes, the archaeological objects are readily accessible and can easily and safely be transported (Figs. 32 and 33a-b).⁷⁴

In 2018/19, preventive conservation was extended to re-inventorying and re-packing the fragile latex casts from the 1950s and 1960s held in the Sudan Archaeological Collection & Archive. The latexes are being transferred into acid-free cardboard storage boxes, where they are packed in a 'sandwich system'. This involves creating alternating layers of heavy museums' paper and polyethylene cloth, in which the latex casts are placed. 75 Applied conservation treatments at the same time concerned a first set of archaeological objects, i.e. the metal objects made from bronze, iron, lead and gilded silver.⁷⁶ After treatment, these objects are now ready for use in teaching and research, and for their public presentation. Conservation treatments concerning fragments of gold foil as well as ceramic vessels are planned for the near future.

5.4. Developing protocols for managing and using the collection and archive

As part of the collection and archive's management, several protocols have been established for working with the Sudan Archaeological Collection & Archive since 2015. This includes accession guidelines and the development of a new accession system for analogue as well as digital documentation and data, and the development of digitization guidelines.⁷⁷ Most recently, new cataloguing guidelines for the archaeological objects were drafted including an adjusted thesaurus for the systematic naming and description of objects, and cataloguing forms with a section for conservation assessments were developed.⁷⁸

⁷⁴ The re-packing of the collection's archaeological objects according to principles of preventive conservation was overseen by conservator Annika Böger.

⁷⁵ This re-packing project was funded by a special grant from the Collections Fund at Humboldt-Universität zu Berlin and conducted by Annika Böger, Julia Steinmetz and Jasmin Lapajne.

⁷⁶ Applied conservation work on the metal objects was funded by the professorial allowance of Alexandra Verbovsek and conducted by conservator Tatjana Held.

⁷⁷ The accession system and the various guidelines and forms were developed by the author together with the student assistants Julia Steinmetz, Annika Böger and Jasmin Petschner. The accession system and the digitization strategy owe much to Solveig Lawrenz and Martina Düntzer of the German Archaeological Institute (DAI). Both colleagues readily shared their experiences from systematizing and digitizing the Friedrich-Hinkel- Archive and are wholeheartedly thanked for their advice.

⁷⁸ Student assistants as well as participants of the MA seminar 'The Sudan Archaeological Collection at Humboldt-Universität zu Berlin' led by the author in the summer term 2018 actively participated in developing the new cataloguing system: Flora Andersch, Annika Böger, Kristina Hülk, Jasmin Petschner and Ilse Wohlbühr.





Fig. 31: The goddesses as well as other pieces of architectural decoration and sculpture as well as faience and ceramic objects in their new steel storage cabinet and placed on a layer of polyethylene foam (photo: Cornelia Kleinitz).





Fig. 32: Where appropriate, objects are placed also in drawers in the steel cabinets for easy access (photo: Julia Steinmetz).





Fig. 33a and b: Sherds of painted and stamped Meroitic pottery in an acid free cardboard box, where they are embedded in a layer of polyethylene foam lined with polyethylene cloth. Placed normally in a drawer in a steel cabinet, they are easy to handle and transport in their box (photos: Annika Böger).

While a number of objects from the collection have seen conservation assessments and treatments as well as more or less drastic restoration in the past, for a long time there was no systematic conservation care for the collection and no concise documentation of such treatments. Documentation on conservation treatments is available for some of the objects and lacking for many others, and a comprehensive conservation history still remains to be written. The systematic re-cataloguing of the collection of archaeological objects has now been started including the collection of all available data on the conservation history of each object as well as the preparation of new conservation assessments.⁷⁹

For external users terms and conditions of use of the Sudan Archaeological Collection & Archive (Benutzungsordnung) were drafted together with guidelines for handling objects and archival materials. In addition, standardized application forms for use and publication requests were developed.

A growing number of requests from national and international authors and institutions show that the Sudan Archaeological Collection & Archive is an important source of research on ancient Sudan.

⁷⁹ This work was begun to be undertaken in the framework of the above mentioned MA-seminar and continued by Flora Andersch and Kristina Hülk for sets of archaeological objects and samples, and by Annika Böger for the conservation assessments.



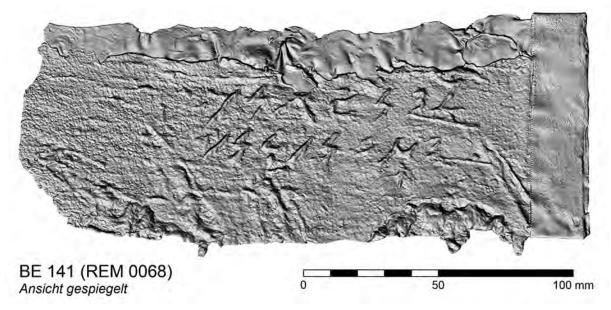


Fig. 34: Orthophoto of a 3D-model of a latex cast documenting a Meroitic inscription from the pyramids of Meroe, BE141/REM0068 (image: Thomas Bauer, TrigonArt).

5.5. Digitization

The preservation and accessibility of the Sudan Archaeological Collection & Archive will be ensured in the long term by measures of preventive and applied conservation, but also by its gradual digitization. Objects and archival materials are digitized on the basis of need, using digitization guidelines adequate for collections and archives. ⁸⁰ At the moment digitization accompanies teaching or practical classes, requests for publication or concerns for conservation.

Documents relating to the Butana Expedition, for example, were scanned and transcribed for use in class work dedicated to archival research on the beginnings of Sudan Archaeology at Humboldt-Universität (1957-1958) in 2017. Numerous drawings of architectural decoration from Musawwarat were scanned in 2018 and 2019 for use on information panels that form part of a new visitor guidance system presenting the site of Musawwarat es-Sufra to a Sudanese and global public.

Concerns for preservation also inform priorities in digitization: In 2016, for example, hundreds of colour negatives in different formats, dating from the late 1950s and 1960s, were digitized because of concerns for their preservation.⁸¹ Similar concerns

also led to the urgent digitization of 8mm and 16mm film footage as well as of audio tapes in 2017, which are now available again for teaching and research in their digital versions. 82 Several latex casts were successfully digitized using structured light scanning in a pilot project which aimed at establishing if and how 3D-information documented in the fragile latex casts could be digitally preserved (Fig. 34). 83

5.6 Teaching, internships and research

The Sudan Archaeological Collection & Archive is regularly and intensively used in teaching and research, especially so since its move to its new depot and study rooms, where the objects and archival materials are readily available for consultation. Working with the collection and archive begins already in the first terms of study, when students are made aware of the history of research on ancient Sudan at Humboldt-Universität. The collection and archive are used to illustrate different approaches

⁸⁰ For the digitization guidelines and recommendations of the German Research Foundation (DFG) see http://www.dfg.de/formulare/12_151/12_151_de.pdf.

⁸¹ Internship Lutz Matschke (HTW, summer term 2016): "Erfassung des Bestands an aus konservatorischer Sicht gefährdeten Farbfilmen aus den Jahren 1958-2005 und

Erstellung eines Maßnahmenkatalogs im Rahmen eines Praktikums zur Fotorestaurierung'. Digitization was outsourced to the company "Mikrounivers' in Berlin.

⁸² Digitization was outsourced to the company 'Medienrettung' in Berlin: https://www.medienrettung.de/.

⁸³ This work was successfully undertaken by TrigonArt (http://www.trigonart.com/) and funded by the QMPS project at the German Archaeological Institute (DAI), led by Alexandra Riedel. The latex casts concerned were relevant to a study of the Meroitic inscriptional graffiti from the pyramids of Meroe undertaken by Jochen Hallof as part of a study of the pyramid graffiti led by the author.





Fig. 35: Alexandra Jeberien, professor of conservation at the HTW, teaching a graduate class on conservation in the exhibition room of the Sudan Archaeological Collection & Archive in early 2017 using objects from the collection (photo: Cornelia Kleinitz).

to research 'abroad' and to highlight the various political and economic settings in which research on ancient Sudan was anchored over time. At the same time, students are introduced to archaeological materials and objects from Sudan for the first time, learning basic principles of object handling and study. 84

Advanced courses at the undergraduate level as well as at the graduate level involve visits to the collection and archive and/or the handling of specific object and record groups. ⁸⁵ Some courses are dedicated to the Sudan Archaeological Collection & Archive itself. They involve students in collections and archive management, the development of exhibition approaches, the development of technical skills or guide them in researching one or another object or object group, or aspect of the archive. ⁸⁶ Individual

84 This concerns the mandatory first term BA-course, Introduction to (African) Archaeology and the mandatory second term BA-course 'Introduction to the Archaeology of Sudan', both taught by the author.

lectures on the Sudan Archaeological Collection & Archive are offered by the author beyond the level of the department and even the university, addressing students from a wide variety of fields, such as Cultural Studies, History, or Conservation.⁸⁷

As part of a cooperation agreement with the Program 'Conservation of Archaeological Heritage' at the University of Applied Sciences (HTW), conservation students are being trained by HTW staff in the rooms of the Sudan Archaeological Collection & Archive, focusing primarily on various aspects of preventive conservation (Fig. 35-37).

Teaching has led to a steady stream of students applying for internships at the Sudan Archaeological Collection & Archive. They include students with a background in Northeast African Archaeology and Cultural Studies (AKNOA), Cultural Studies, History and Conservation. 88 Each of these students has contributed her

Humboldt-Universität zu Berlin (MA course, winter term 2016/17, C. Kleinitz); Archaeology at the Archive: The History of research on ancient Sudan during the time of the GDR (MA course, summer term 2017, C. Kleinitz & T. Gertzen); The Sudan Archaeological Collection at Humboldt-Universität zu Berlin (MA course, summer term 2018, C. Kleinitz); The Sudan Archaeological Collection & Archive: Communicating and (re)presenting research (MA course, summer term 2019, C. Kleinitz); Exhibition: 60 years at Musawwarat es-Sufra (1960-2020) – Research within the archaeological long-term project of Humboldt-Universität in Sudan (BA/MA course, winter term 2019/20, C. Kleinitz); Archaeological research at Musawwarat es-Sufra: Finds, findings, methods and interpretations (MA course, winter term 2019/20, C. Kleinitz).

- 87 Winter terms 2015/16, 2017/18, 2018/19, 2019/20: ,Preventive conservation' (BA conservation, HTW, A. Jeberien); Summer term 2016: 'Sensitive Objects'. Research on provenience in scientific collections (HU Berlin, C. Weber et al), ,Preventive conservation' (MA conservation, HTW, A. Jeberien); Winter term 2018/19: 'EXPONERE! Collecting, photographing, exhibiting in the context of science' (Bologna Lab, HU Berlin and TU Berlin, K. Klinger and F. Ritter).
- 88 Yvonne Reimers (MA Cultural Studies, 3-month internship 2016): Description and study of the diaries of Ursula Hintze; Lutz Matschke (BA HTW, photo conservation, 2-month internship 2016): Description, study and conservation evaluation of the photographic archive; Maximilian Breu (BA HTW, conservation, 3-month internship 2016/17): Evaluation of the storage situation

⁸⁵ Current Archaeologies of Sudan: From the Palaeolithic to the contemporary past (BA/MA lecture series, winter term 2015/16, C. Kleinitz et al); Archaeological drawing (BA/MA course, winter term 2016/17, E. Engel); The Meroitic period of the Kingdom of Kush: Material culture (MA course, winter term 2017/18, C. Kleinitz); The archaeology of ancient graffiti (MA course, winter term 2018/19, C. Kleinitz).

⁸⁶ The Sudan Archaeological Collection at Humboldt-Universität zu Berlin: History, Components, Perspectives (BA/MA course, summer term 2015, C. Kleinitz); The Sudan Archaeological Collection at Humboldt-Universität zu Berlin: Developing an Exhibition Concept (BA/MA course, winter term 2015/16, C. Kleinitz & A. Verbovsek); The Sudan Archaeological Archive at



or his part to the preservation, management or study of the collection and/or archive. Some of the internships resulted in submitted or ongoing dissertation projects at the BA and MA levels. 89

In 2017 the international conference ,BERLIN – SUDAN. Die Geschichte der Berliner Nordostafrikaforschung. Wandel, Kontinuität und wissenschaftlicher Zeitgeist vom Königreich Preußen bis in die DDR' (30.6.-1.7.2017) was organized at the department, in the framework of which the potentials of the Sudan Archaeological Collection & Archive were highlighted on the basis of an update on current research projects. 90 Students presented a range of posters on various aspects of the collection and archive, which came out of the teaching and research project: ,Archaeology at the Archive: Wissenschaftsgeschichte der Sudanforschung in der DDR'.91

of the collection and of the relevant parameters of the new exhibition space; Jasmin Petschner (MA AKNOA, 3-month internship 2017): Inventorying and digitization of the Sudan Archaeological Archive, Dora Ehrensperger (MA AKNOA, 2-month internship 2018): Archivebased development of content for the new exhibition in the Musawwarat Site Museum; Flora Andersch (MA AKNOA, 2-month internship 2019): Cataloguing of archaeological objects and samples; Henrike Aschmoneit (MA History, 2-month internship 2019): Archival research on the archaeological expedition as a lab space.

89 Yvonne Reimers (MA Cultural Studies, 2017): ,Visualisierte "Völkerfreundschaft". Die fotografische Dokumentation der archäologischen DDR-Sudan Expeditionen 1957-1970' and see Reimers 2017; Maximilian Breu (BA Conservation, HTW, 2018): Die konservatorische Betrachtung der zukünftigen Raumsituation der sudanarchäologischen Studiensammlung der Humboldt Universität zu Berlin. Erstellen eines Maßnahmenkonzepts'; Lutz Matschke (BA Conservation, HTW, 2018): ,Digitale Farbwiederherstellung der Agfacolor-Negative aus der Fotodokumentation Hintze, Sudanexpeditionen der Humboldt-Universität zu Berlin, 1958-68'; Florian Kirschner (BA AKNOA, 2018): ,Die Siedlungsplätze der Butanaexpedition 1958. Perspektiven der Aufarbeitung von Archivdaten mithilfe Satelliten gestützter Fernerkundung'; Vanessa Oppermann (BA AKNOA 2019): Die Ausstellungsgeschichte der Sudanarchäologischen Sammlung der Humboldt-Universität zu Berlin – Möglichkeiten, Grenzen und Perspektiven einer wissenschaftlichen Universitätssammlung'.

90 C. Kleinitz: ,The GDR-Expeditions to Sudan in the late 1950s and 1960s under Fritz Hintze. An exploration of the Sudanarchaeological Collection & Archive at Humboldt-Universität zu Berlin'; Y. Reimers: 'Visualisations of "Peoples' Friendship". Ursula Hintze's Photographic Documentation of the Archaeological GDR-Expeditions to Sudan (1958–1970)'; Al-Fatih Mohamed Ali Saeed + Zaroog Bakri Mohamed Ahmed: ,Workmen's Voices. An Oral History of the East German Excavations at Musawwarat es-Sufra in the 1960s'.

91 C. Graupner, 'Die Epigraphische Expedition in das sudanesische Nubien – Arbeiten im "Spirit of Nubia"; F. Kirschner, 'The path to Sudan – The emergence of Sudan

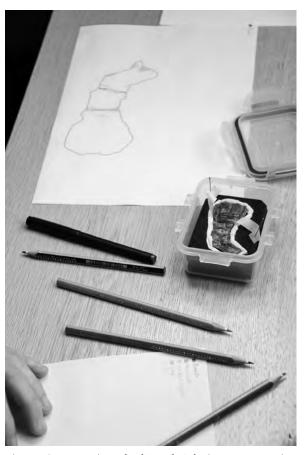


Fig. 36: Documenting a lead 'amulet' during a conservation assessment (photo: Cornelia Kleinitz).



Fig. 37: Studying the lead 'amulet' in its polyethylene box under the magnifying glass (photo: Cornelia Kleinitz).

Archaeology in the GDR'; C. Kleinitz & J. Petschner (2017), 'The Epigraphic Expedition to Sudanese Nubia: Encountering Nubia and Nubians during the UNESCO-Campaigns of the early 1960s'; A. Magliocchi & C. Kleinitz, 'The representation of the Epigraphic Expedition to Sudanese Nubia in the East German print media'; L. Seelau, 'Ursula Hintze and Sudan'.



6. Outlook

The Sudan Archaeological Collection & Archive functions successfully as a 'research infrastructure' in its current setting in the historic main building of Humboldt-Universität in the centre of Berlin, adjacent to the department's offices and teaching rooms. The collection and archive is actively curated and promoted, and it is used in teaching and research on a day-to-day basis. Users mainly include staff and students of Humboldt-Universität, but they also come from other teaching and research institutions in Berlin, Europe and beyond, including from Sudan. For the general public, aspects of the collection and archive are being presented in the framework of various events, such as the Humboldt-Festwoche in August 2019. Apart from shedding light on processes and contexts of research on ancient Sudan at Humboldt-Universität over the past 60+ years, the collection and archive are also playing a role again in the promotion of Sudan's cultural heritage in the heart of Berlin.

On the basis of several years of basic collections and archival work, as outlined above, objects and materials from the Sudan Archaeological Collection & Archive will be soon be presented again to a larger public. First, objects and archival materials related to research on the Apedemak Temple of Musawwarat will be shown as part of the exhibition 'Flechtwerk der Dinge - Sammlungsschaufenster' at the Tieranatomisches Theater, an exhibition space at Humboldt-Universität, from October 2019 onwards. Second, an exhibition on the 60th anniversary of the Musawwarat Project will be developed during the winter term 2019/20 and the summer term 2020 together with BA and MA students. The exhibition will focus on a selection of themes of research at Musawwarat and will open in the collection's exhibition room in the West wing of the main building of Humboldt-Universität in June 2020. Third, upon the opening of the Humboldt-Forum in the newly built city castle of Berlin in autumn 2020, a small selection of archaeological objects and archival materials from the Sudan Archaeological Collection & Archive will be exhibited in the exhibition space designated for Humboldt-Universität, the Humboldt-Labor.

While these developments are immensely encouraging, there is room for improvement. This concerns, for example, the equipment of the Sudan Archaeological Collection & Archive with student staff – there is no designated student staff supporting the curator in her duties – as well as the provision of regular basic funding for the upkeep of the collection and archive. As it is, much of the work on and with

the collection and archive has been possible due to successful applications to various funding sources at Humboldt-Universität und the procurement of substantial third party funding. Importantly, though, this work has been propelled by the dedication and enthusiasm of our staff and students and by the encouragement and support of external partners, and it is all of them who have to be thanked for helping to fill the Sudan Archaeological Collection & Archive with new life.

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Zusammenfassung

Die Sudanarchäologische Sammlung & Archivisteine von 33 aktiven wissenschaftlichen Sammlungen der Humboldt-Universität zu Berlin. Die Sammlungen repräsentieren ein breites Spektrum der Lehre und Forschung an der Universität, vom Arboretum mit seiner Sammlung lebender Pflanzen bis zur Zoologischen Lehrsammlung. Sie werden dezentral auf der Ebene der Bereiche oder Institute kuratiert, um ihre enge Verbindung zu ihren jeweiligen Forschungsumgebungen aufrechtzuerhalten. Unter den Sammlungen der Humboldt-Universität zu Berlin spiegelt die Sudanarchäologische Sammlung & Archiv die seit mehr als 60 Jahren andauernden Forschungen zum alten Sudan und die Entwicklung der Berliner Sudanarchäologie wieder. In seinen Empfehlungen aus dem Jahr 2011 hat der Deutsche Wissenschaftsrat das Potenzial wissenschaftlicher Sammlungen als ,Forschungsinfrastrukturen' herausgestellt und die aktive Einbindung von Universitätssammlungen in Lehre und Forschung gefordert. Kurz darauf, im Jahr 2014, veröffentlichte die Humboldt-Universität bereits ihre eigene Sammlungsordnung, die einen rechtlichen und administrativen Rahmen für die Sammlungen der Universität schaffte.

Auf der Basis dieser Initiativen zur Aufwertung universitärer Sammlungen widmet sich der vorliegende Artikel der Geschichte der Sudanarchäologischen Sammlung & Archiv, gibt einen Überblick über die archäologischen Objekte und Materialien sowie die Archivbestände, und berichtet über aktuelle Arbeiten seit dem Jahr 2015. Seit Ende 2017, nach einem Jahrzehnt der Magazinierung aufgrund fehlender Depot- und Ausstellungsräume, wird die Sudanarchäologische Sammlung & Archiv in neuen Räumen im historischen Hauptgebäude der Humboldt-Universität in der Berliner Innenstadt aufbewahrt. In diesen Räumen sind nun archäologische Objekte und Materialien - von Museumsstücken bis zu archäologischen Proben - sowie die archäologische Dokumentation und Dokumente zum Kontext und zum Prozess archäologischer Forschung auf dem afrikanischen Kontinent wieder für Lehre und Forschung zugänglich und die Sammlung fungiert erfolgreich als "Forschungsinfrastruktur". In naher Zukunft wird eine Auswahl an archäologischen Objekten und Archivmaterialien in verschiedenen öffentlichen Ausstellungen der Humboldt-Universität zu sehen sein und somit auch wieder eine aktive Rolle bei der Förderung des sudanesischen Kulturerbes im Herzen Berlins spielen.

Colour fig. 5: Section of missing plaster on the outer west wall of the Apedemak Temple (photo: Cornelia Kleinitz).



Colour fig. 6: 3D plan of the Natakamani temple at Abu Erteila (Made by M. Lebedev).

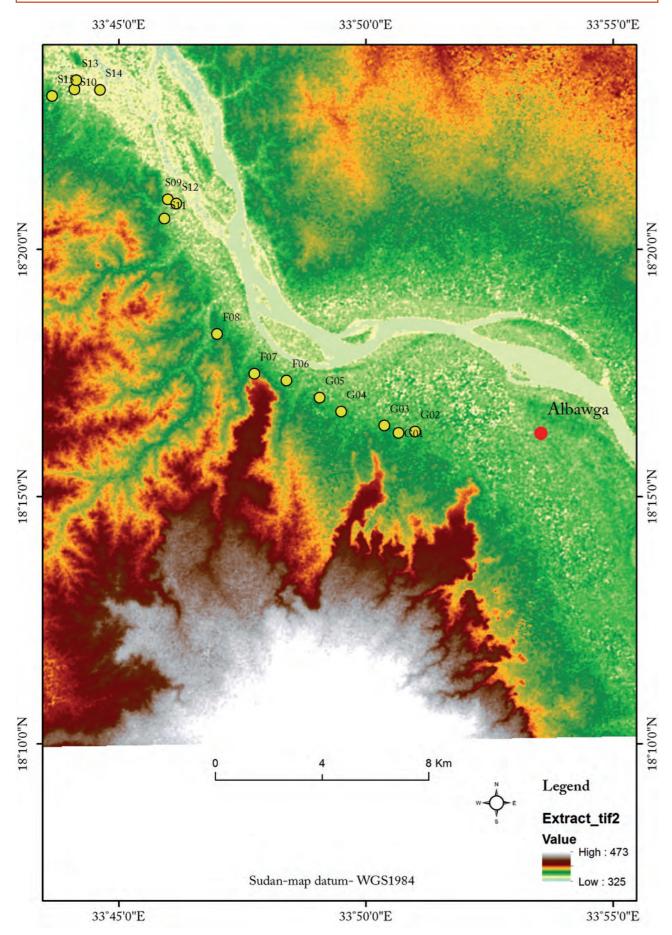
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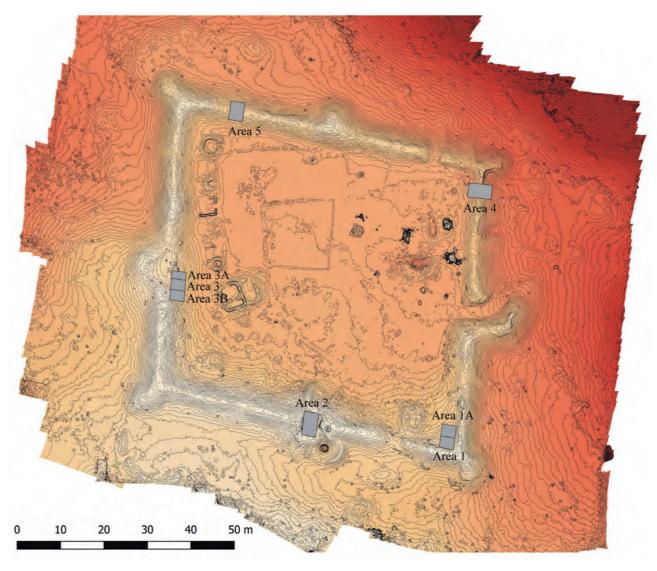




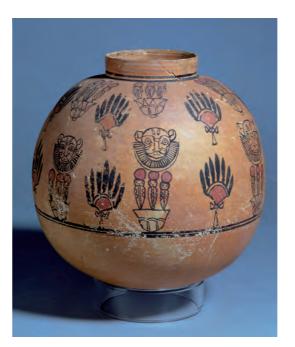
Cover picture: Early Meroitic column base from room 108 of the Great Enclosure after consolidation (photo: Cornelia Kleinitz).



Colour fig. 1: Distributions of late prehistoric sites in survey area, season 2015/16 (map M. A. Jadain, H. M. Alkhidir).



Colour fig. 2: Documentation of the surface of the site based on the three-dimentional modelling (prepared by Mariusz Drzewiecki).

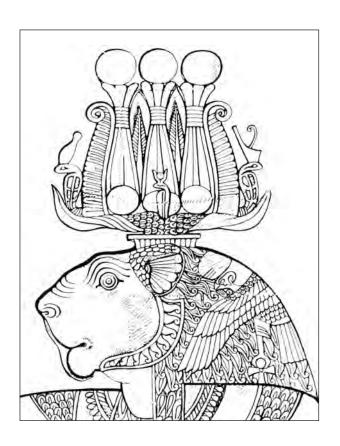


Colour fig. 3: Jar Ashmolean Mus. Oxford 1912.410. From Faras cemetery, grave 1090 © Bridgeman Images.



Colour fig. 4: Faience box with intricate decoration (photo: Heike Zappe, HU Berlin).

Mitteilungen der Sudanarchäologischen Gesellschaft zu Berlin e.V.



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Institut für Archäologie

Archäologie und Kulturgeschichte Nordostafrikas

Unter den Linden 6 | 10099 Berlin

VERANTWORTLICH FÜR DIE HERAUSGABE: Angelika Lohwasser

Wissenschaftlicher Beirat: Julia Budka, München | David Edwards, Leicester

Jochen Hallof, Würzburg | Friederike Jesse, Köln

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Sudanarchäologische Gesellschaft zu Berlin e.V.

Angesichts der Tatsache, dass die globalen wirtschaftlichen, politischen und ökologischen Probleme auch zu einer Gefährdung der kulturellen Hinterlassenschaften in aller Welt führen, ist es dringend geboten, gemeinsame Anstrengungen zu unternehmen, das der gesamten Menschheit gehörende Kulturerbe für künftige Generationen zu bewahren. Eine wesentliche Rolle bei dieser Aufgabe kommt der Archäologie zu. Ihre vornehmste Verpflichtung muss sie in der heutigen Zeit neben der Forschung darin sehen, bedrohte Kulturdenkmäler zu pflegen und für ihre Erhaltung zu wirken sowie ihr Wissen mit der Öffentlichkeit zu teilen.

Die Sudanarchäologische Gesellschaft zu Berlin e.V. setzt sich für den Kulturerhalt im Sudan ein, indem sie konservatorische Arbeiten fördert, archäologische Ausgrabungen unterstützt sowie die Dokumentation, Publikation und Präsentation von archäologischen Orten und Objekten ermöglicht. Wenn die Arbeit der Sudanarchäologischen Gesellschaft zu Berlin Ihr Interesse geweckt hat und Sie bei uns mitarbeiten möchten, werden Sie Mitglied! Wir sind aber auch für jede andere Unterstützung dankbar. Wir freuen uns über Ihr Interesse!

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