

Qatar–Sudan Archaeological Project Excavations at the Ghazali monastery from 2014 to 2016



Abstract: The excavation report covers eight months of fieldwork at the site of Ghazali, which resulted in the clearing of the entire monastery and the discovery of three annexes located on the north and west of the complex. The spiritual part of the monastery included two churches located in the southeastern corner of the complex, a household compound on the west side and a refectory and dormitory in between. Conservation work focused on the reconstruction and restoration of water storage installations in Room Y, as well as north of the North Church. Excavation outside the monastic walls brought the discovery of an iron smelting area with several well-preserved furnaces. Exploration of the monks' cemetery uncovered regular box superstructures and an intriguing variety of substructures from simple vertical pit tombs to elaborate vaulted chambers.

Keywords: monasticism, Nubia, el-Ghazali, archaeology of religion, iron smelting, Sudan, medieval Africa

The first of the reported seasons, 2014/2015, which was the third season at the site, concerned an area of approximately 2200 m² between the north and west enclosure walls of the monastery and the North Church and Rooms Y, T, R and AA on the south, and the dormitory and rooms attached to it on the east side. The excavations, generously funded from a Qatar–Sudan Archaeological Project grant, lasted altogether four months. In the following season, which lasted four months as well, the remaining parts of the monastery were cleared off debris and piles of stones left from the excavations in the 1950s. The task was undertaken to complement the general view of the site. Despite funding problems, we

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were able to complete the excavations of the interior of the monastery and the four annexes. The excavated area lies between the dormitory on the north and the North Church on the east, and the west and south monastery enclosure walls. The annexes are located along the west wall

of the monastery and the western part of the north wall.

The following is a brief overview of the work undertaken over the course of the two seasons, presented building by building, discussing the most important results.

THE MONASTIC COMPLEX

BUILDING 5

Building 5 consisted of ten rooms [Fig. 1]. The walls are preserved no higher than 0.70 m above the walking level and are cut almost at the same height. This area was most probably badly damaged by people digging Nile mud to fertilize fields in Wadi Abu Dom. The fill of the rooms consisted of windblown sand and pottery finds were scarce. In the last phase of occupation, the building was entered through an entrance leading into Room 48, aligned with the north entrance to the monastery. Room 48 was a big hall with benches along the walls, which brings to mind a guest room or a waiting hall. The room could be exited through a passage in the east wall via a short corridor connecting it with Room 38 and the rest of the building. Room 38 was furnished with two mastabas: one along the south wall and the other, twice as wide, in the north-eastern corner. The latter was filled with sand containing some animal bones and pottery. A doorway in the southeastern corner led to Room 35/35A, a big room with a central pillar bringing to mind the main monastic refectory. This room preserved a terracotta tile flooring. The rest of the rooms in Building 5 probably had similar paved floors as no traces of pug floors were found (apart from Room 37,

see below). It is less likely that there was no flooring at all. Being the chamber in the center, Room 35/35A gave onto four other rooms: 62 and 63 on the west, 34 on the east and 33 on the south. The passage to Room 62 was blocked at some point. Room 33 was an elongated rectangle with mastabas running along the walls. Rooms 62 and 63 were small spaces connected by a passage (subsequently blocked) in the western part of the wall that divided them. Room 62 also retained a terracotta tile flooring. An entrance in the south-western corner (later blocked) led to Room 56; another doorway in the west wall led to a passage that ended in Room 61, cutting through the east wall of the dormitory.

East of Room 35/35A was another big hall divided into two spaces: a smaller Room 34 and a larger Room 36. The south part of Room 34 was partitioned off from the rest of the chamber and benches were built against the east, south and west walls. In Room 36, which lacks such benches, remains of an earlier structure lined the east wall: evidence of a wall made of fired brick was traced, lining the west side of a flat, lime plaster surface. In the southwestern corner of Room 36, in its west wall, there was an entrance to Room 37. No furnishings were found in

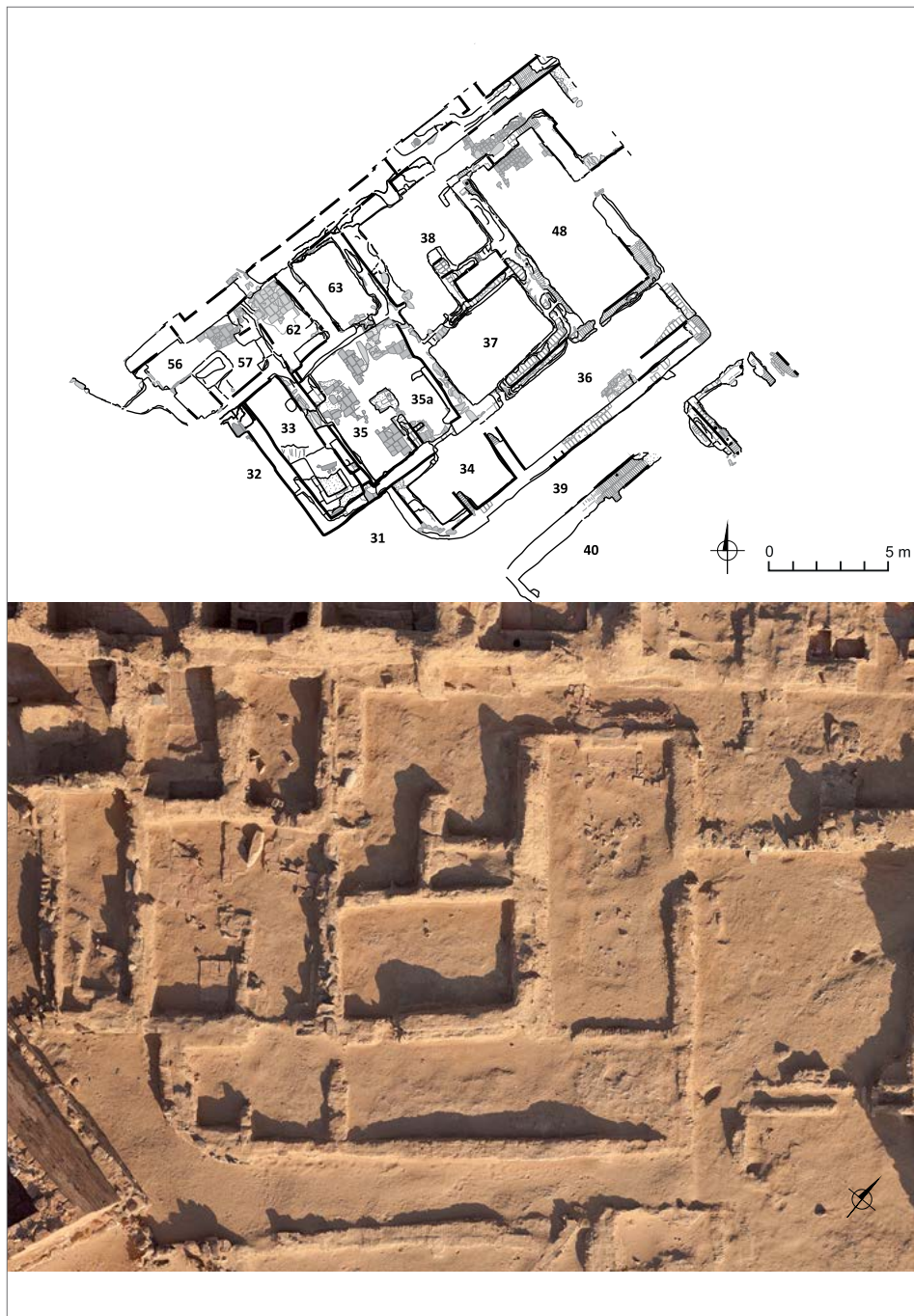


Fig. 1. Building 5, top view and plan (G.A.S.P./photo M. Bogacki, drawing S. Maślak)

this chamber and it is the only one with preserved parts of a pug floor. These features as well as the location—the hardest room to reach in the building—implies its function as storage.

Building 5 apparently adjoined the dormitory (see below) and was subsequently enlarged by the addition of consecutive chambers. The earliest part consisted of Rooms 56, 57, 62, 63, 33 and 35/35A. The lower parts of the walls were built of stone, a technique abandoned in the later additions. In Phase 2, Rooms 37 and 38 were added and in that phase they were just a single, undivided space. In Phase 3, Room 48 was built at the northern end and in Phase 4, the latest eastern extension (Rooms 34 and 36) was constructed. Organic samples were collected from the walls and floors for radiocarbon analyses to establish the chronology of occupation of the monastery. Based on the architectural sequence, Building 5 should be dated not earlier than the late period of occupation.

BUILDING 1: CHAMBERS A AND C

Re-excavated Rooms A and C flank the entrance to the monastery [Figs 2, 3]. The original excavator Peter Shinnie suggested a waiting or guest function for both of them (Shinnie and Chittick 1961: 21–22). The first, which he partly excavated, turned out to be a monastery storeroom for liquids. Almost all the sherds found there were of big bottles, but, intriguingly, no amphorae. Room C proved to be a grain storeroom. Remnants of three containers made of unfired clay were found there, as well as the bottoms of four other ceramic containers. Both of the rooms were plastered with

mud. Room C was divided in two by an arcade supporting the east–west vaults in the middle of the width of the chamber. In turn, Room A was roofed with a fairly wide vault running north–south. West of Room A was a space, Room 84, sectioned off from a corridor (Room 82) by three pillars; an east–west vault, now destroyed, covered this chamber [Figs 2, 3]. Two entrances from Corridor 82 led to the northwestern part of the monastery.

BUILDING 4: DORMITORY

The monastic dormitory was located south of Corridor 82 [Fig. 4]. It was a big building consisting of Rooms 59, 61, 64–70, 75 and 76. In the first phase, this building had six rooms, three on each side of a central corridor. The building was subsequently enlarged to 12 rooms, six on each side of the corridor. At this time a perpendicular corridor (Room 55) and a staircase (Room 53) were added to the dormitory. The latter suggests that the dormitory could have been a two-storey building in Phase 2. No tumbled walls, vaults or roofs were found on the spot of Building 4. These remains could have been taken to be used elsewhere, as was the case with fired bricks which were salvaged to construct the upper parts of the North Church. The absence of dried brick rubble in some of the cells indicates intensive *sebakh* digging activity, perhaps even dismantling of the still standing walls. The dormitory walls were preserved not higher than approximately 1.50 m above the ground. In the third phase, Building 4 shrank to eight cells on the south side and the north side of the building was converted into a storage

facility with at least three big ceramic containers; the room in the northwest corner (Room 79) was turned into storage with a set of 14 containers made of

sun-dried brick lining the walls of the room. Complementary furnishings in this chamber included two grinding stones.



Fig. 2. Building 1: top, top view of Chambers A and C; bottom, top view of the adjoining Rooms 82 and 84 (G.A.S.P./photos M. Bogacki)

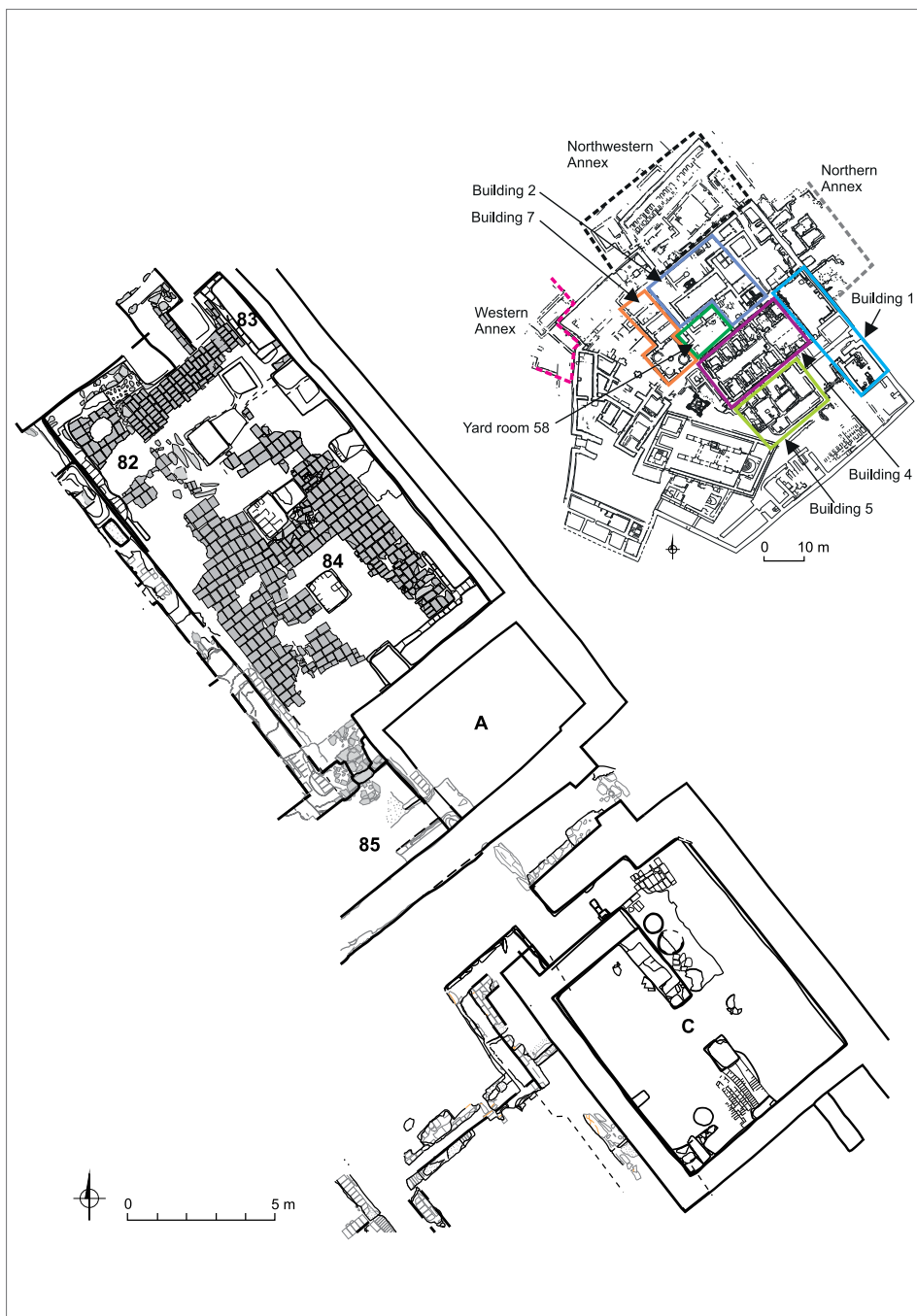


Fig. 3. Building 1; inset, plan of the Ghazali monastery with the location of all buildings discussed in the text (G.A.S.P./drawing S. Maślak, A. Misiurny)



Fig. 4. Building 4: dormitory (G.A.S.P./photo M. Bogacki)



Fig. 5. Building 7: dining compound (G.A.S.P./photo M. Bogacki)

A typical monks' cell at Ghazali was small, approximately 20 m² in size, furnished with three benches with bed-heads built against the walls of the room and a set of niches above. The benches were well made and coated with lime plaster. The floors of the rooms and also the corridor were paved with terracotta tiles of different sizes, from brick-size tiles approximately 35 cm by 17 cm to huge square tiles about 70 cm to the side. The cells must have been cleared of everything before being deserted as very little finds were recorded. Nonetheless, a string of beads was found in a hole in the mastaba in Room 70 and two almost complete pots remained in Room 64 (Then-Obluska and Wagner 2018).

BUILDING 7: DINING COMPOUND

Building 7 consisted of four rooms excavated formerly by Shinnie and Chittick (Rooms J, K, L, M) (Shinnie and Chittick 1961: 21) [Fig. 5]. Two of them were refectories: the primary one in Room K and the secondary one in Room L. Room K was one of the finest in the entire monastery. It had four domes or sail vaults spanning arches running along the walls of the room and springing between a central cross-shaped pillar and engaged pilasters in the walls. Monks dined sitting on circular benches around tables mounted in the center. Room K was paved with terracotta tiles. A passage in the northwestern corner led to Room L. Initially, it was a narrow arched entrance (0.57 m wide); in Phase 2, it was turned into a large archway (2.08 m wide). This change plausibly marks the heyday of the monastery when a second refectory was arranged in Room L.

Room L may have served as a monastic kitchen at first. When the number of monks increased considerably, it was converted into a dining room. It was roofed with two vaults running north-south springing between the east and west walls, and a double-arch arcade in the middle of the room (similar to the one in Room C). There was another exit from the room, located in its northeastern corner, leading to a corridor between Buildings 2 and 7. Ceramic tiles were used for the floor of Room L. Traces of four circular benches that once stood in this refectory are still visible in the pattern of the floor tiling, although Peter Shinnie found them already destroyed. Demolition of the benches marks the moment when the number of monks shrank, the second dining room became redundant and its function changed once again.

Room M does not stand out from the other rooms of the monastery and its function remains obscure. Traces of the stone pavement were preserved scattered around the room. There was a cuboid structure (1.10 m by 1.16 m) made of sun-dried brick, entirely lime-plastered, attached to the east wall not far from the southeastern corner. The walls of the room were mud-plastered. The west wall is almost completely destroyed and only traces of an entrance, which was a secondary cut in this wall approximately a meter wide, were found 1.48 m from the northwestern corner.

BUILDING 8 AND YARD (ROOM 58)

Room Y in Building 8 was cleared of accumulated sand and debris. A water-pot (*zir*) stand was reconstructed in Room Y [Fig. 6]. A food-processing yard (Room



Fig. 6. Building 8: Room Y, water-pot stand: top, before restoration; bottom, after restoration (G.A.S.P./ photos A. Obłuski, M. Żelechowski-Stoń)

58) west of the dormitories was excavated, yielding an oil press as well as a grinding stone, which must have been mounted there [Fig. 7].

BUILDING 2

A household quarter was discovered in the western part of the monastery. It consisted of five rooms with various installations [Fig. 8]. The complex had two separate entries: one in the east wall of Room H and the other in the southwestern corner of Room E. Room H contained a rare find in late antique and medieval archaeology in the Nile Valley: a mill and silos for storing grain. Only a small part of the stone pavement in the southwestern corner of the room was preserved. An arched doorway in the southeastern corner of the chamber led to Room I, which was a small space probably used for

storage. Benches ran against the east and west walls of the room, but not for the entire length. Three silos stood in Room H: a huge one in the southern part, associated with two big millstones, and two smaller ones in the middle and in the northern part of the room. A pseudo-Pompeian millstone was found next to the latter. An entry in the north wall gave way to Room E, where two shallow basins were located in the northwestern corner. Their walls were covered with hydraulic plaster. Subsequently, the basins were divided by a partition made of sun-dried brick into four containers and the east part of the room was cut off from the rest of it by a wall also made of sun-dried brick. On Shinnie's plan it is marked as F. It was probably contemporary with changes made in Room G. Room G was initially furnished with three basins for



Fig. 7. Food-processing yard (Room 58), looking northeast (G.A.S.P./photo A. Obluski)



Fig. 8. Building 2 (G.A.S.P./photo M. Bogacki)

liquids, two huge ones on both sides of the entrance, filling up about 80% of the room space. The last was a lime-plastered ceramic container that was placed against the east wall, opposite the entrance to the room, in the space left by the big basins. All the basins were about 0.40 m high. When the eastern part of Room E was separated from the rest of it, an entrance was opened in the northeastern corner of Room G. At the same time the function of the space changed from activities requiring large quantities of liquids to a storage facility furnished with at least one huge vat. The vat was found shattered into pieces by stones tumbled from the walls in the northwestern corner [Fig. 9].

ANNEXES

Three annexes associated with the mon-

astery have also been excavated [Figs 10–12]. Two of them, the Northwestern and Western, were manifested on the ground surface before the excavation of the Northern one. The relation of the Western and Northern Annexes with the monastic community has yet to be determined as there is no direct communication between them and the interior of the monastery.

The Northwestern Annex is the largest of all the extensions of the monastery [see Fig. 10]. It was a huge sanitary complex, constructed at the end of the 10th or the beginning of the 11th century. Its main feature is a row of 18 toilets and several associated rooms with vats probably used for washing. The toilet compartment was divided into two parts, the northern one consisting of 12 and the southern



Fig. 9. Room 77-80, looking north (G.A.S.P./photo A. Obluski)



Fig. 10. Northwestern Annex (G.A.S.P./photo M. Bogacki)



Fig. 11. Northern Annex (G.A.S.P./photo M. Bogacki)



Fig. 12. Western Annex (G.A.S.P./photo M. Bogacki)

one of six facilities. These compartments point to the annex users being separated into two groups. The proximity and easy communication with the refectory and dormitory spaces suggest that the monks used the southern part, while visitors, monastic servants, or to put it simply anyone not wearing a monastic habit, used the northern part.

An interesting find from the very end of the field season consisted of a cubic statue from the Twenty-fifth/Twenty-sixth Dynasty reused by the monastic community, the inscription on the back very worn.

DOCUMENTATION AND VIRTUAL TOUR

Topographical measurements taken at the site of the Christian monastery in Ghazali followed the coordinate reference system WGS 84/UTM 36N, EPSG: 32636. The instrument used was a Leica TS06 FlexLine plus model total station/laser tachymeter. The recorded points were used primarily for sketch drawings with accurate coordinates, rendering a base plan for detailed archaeological documentation, such as drafts, sections, plans and leveling (error not exceeding 2 cm). Once the various areas were cleared of sand, the architecture was measured anew, leveled and the general site plan updated. The end result was a terrain model (including the cemeteries and slag heaps), based on the interpolation method. The photogrammetry technique, which calls for creating three-dimensional models based on two-dimensional photographic images, was widely used for the documentation of individual monuments, graves and furnaces, as well as entire rooms. During the two seasons in question, 386 walls in the mon-

astery were recorded. The number shows the sheer scale of the work. The results will be presented in catalogue form, with every wall separate with a rectified photo, scale and basic information including dimensions, data on structural features, etc. The technique was also useful for recording the pavements, allowing drawings of the features to be fitted precisely in the general plan of the monastery.

A virtual tour of the monastery was created by Tomasz Tymiąski using Easy-Pano software (i.e., Panoweaver and Tourweaver). Over 150 points were picked up in the monastery to serve as the stepping-stones in the virtual tour. Twelve photos were taken in each spot and then stitched into 360° panoramas. These images were strung together to create a walk through the monastery. The virtual tour may be accessed online at <http://nubianmonasteries.uw.edu.pl/virtual-tour/>.

RESTORATION

The main cause of damage to the monastic structures is weather. Heavy rains happening on a seasonal basis wash out grain filler and adhesive particles, thereby reducing the strength of the adhesive and causing the disintegration of particular layers. Winds, carrying abrasive sand particles, accelerate the process of destruction, creating micro-fractures facilitating rainwater penetration. Further destruction resulted from inappropriate technology used during the reconstruction carried out in Room Y. The use of cement had a negative impact on the condition of the neighboring fragments of the structure (plaster, red brick, sandstone). Rainwater triggered the process of crystallization, causing migration

of molecules within the layers. During this process salt particles significantly increased their volume resulting in the deterioration of the original layers.

The aim of the work in the North Church and water tank was to protect the wall plaster from falling off and to reduce the destruction process caused by adverse weather conditions. The actions listed below were designed to increase internal cohesion of the plaster and stabilize its adhesion to the surface. These were:

- ▶ supplementary injections on the outside of the south wall of the church (injections of Primal AC-33, Ledan Z1),
- ▶ consolidation of plaster layers inside the church in its northeastern part (injections of Primal AC-33, border),
- ▶ consolidation of plaster covering the floors, steps and walls of the staircase in the southwestern part of the church (casein for consolidation, injections of Primal AC-33, border),
- ▶ consolidation of plaster in the central part of the west wall inside the church (injections of Primal AC-33, border),
- ▶ consolidation of surviving fragments of paint layers inside the church (KSE 300),
- ▶ consolidation of plaster inside the water tank (casein for consolidation, injections of Primal AC-33, border),

- ▶ consolidation of plaster in the monks' cells (casein for consolidation, injections of Primal AC-33, Paraloid B72, border)

In Room Y, the following steps were taken to secure the remaining parts of the monument:

- ▶ removal of the previously reconstructed structures in Room Y,
- ▶ strengthening the burnt bricks (casein and ash, Primal AC-33, Paraloid B72 in acetone),
- ▶ filling the gaps and voids in order to support the brick wall (lime mortar, fragments of pottery, fired bricks),
- ▶ cleaning and consolidating the original plaster layers (water, Contrad 2000, Primal AC-33 injections, casein),
- ▶ filling the gaps and voids in the lime mortar, as well as surface treatment of the plaster (lime mortar, Primal AC-33),
- ▶ increasing the cohesion of fragments of the sandstone water tank foundations preserved in Room Y (KSE 300, Primal AC-33, Paraloid B72),
- ▶ reconstruction of the central stone supporting the water tanks (lime mortar, Primal AC-33, fragments of pottery),
- ▶ reconstruction, filling the voids and making a protective band,
- ▶ aestheticizing with mineral pigments in a water dispersion of Primal AC-33.

IRON SMELTING AREA

Excavation of an iron smelting area located south of the settlement at Ghazali was carried out in November 2015. A trench approximately 8 m by 5 m was opened in the central part of the hollow between the slag heaps. Remains of furnaces were found during the removal of the first arbitrary layer. Furnaces 1 and 2 were located

about 4 m apart and were connected by a rectangular stone structure [Fig. 13 top] with a purple-colored powder and pieces of iron ore. Another two sets of two furnaces, connected by a container in each case, were found. All of the containers, made of rough stones, were rectangular in plan, being approximately 1.20 m long

and about 0.40–0.50 m wide. Remains of purple/dark brown dust and pieces of iron ore were found inside the furnaces.

All the furnaces were built structures with consecutive layers assembled onion-like around the hearth. These were made of stone, fragments of bricks, terracotta tiles and mud. The innermost part was intentionally made of stone to achieve the highest possible firing temperature

and high temperature resistance, while clay and mud and products made of them formed the external surfaces. The furnaces are preserved to a height of approximately 0.40–0.50 m, except for furnace 3, of which only the bottom part has survived. The air intake openings, approximately 3 cm in diameter, were located at a height of about 0.23 m [Fig. 13 bottom left]. The location of the openings is quite surpris-



Fig. 13. Iron smelting furnaces: top, stone structure between furnaces 1 and 2; bottom left, air intake openings in the furnace structure; bottom right, furnace 5 with remains of a grate (G.A.S.P./ photos A. Misiurny)

ing as they are usually reconstructed in the lower part of the furnace body. The air intake pipes were probably clogged with slag, pieces of which of a cylindrical shape were found in the excavation. The most intriguing aspect of the entire con-

struction are the terracotta tiles placed horizontally in the furnace structure [Fig. 13 bottom right]. Ash deposits were found under them. Samples of ore, slag and charcoal, collected at the site, are being analyzed by Jane Humphris.

CEMETERIES

The archaeological site of Ghazali consists of multiple components of varying purposes and nature. While the monastery itself is the core, thorough research into the other parts of the site has enabled a fuller reconstruction of the everyday life of Christian communities in medieval Nubia. In the course of the initial investigations, the burial grounds accompanying the monastic structures and a small settlement were recorded and mapped (Obluski 2014). Three distinctive cemeteries were demarcated: two (Cemeteries 1 and 3) possibly containing burials of members of the lay community inhabiting the area of Ghazali, and one (Cemetery 2) reserved for the local monastic community. The latter covers the area directly to the south of the monastery. Shinnie's figure of 2000 burials may be an overestimate (Shinnie and Chittick 1961: 23) considering that earlier aerial photographs showed no more than 100 tombs, but the density of tombs currently uncovered permits extrapolation of the original number of burials in excess of 800–1000 [Fig. 14]. Cemetery 1, containing approximately 150 burials, is located about 50 m west of the monastery buildings, on an elevation separated from the monastery by the bed of a small *wadi*. Cemetery 3 encompasses over 300 tombs, covering an area close

to a small village a few hundred meters east of the monastery.

No extensive study of the cemeteries at Ghazali has preceded the excavation under the current G.A.S.P. project. Working in the 1950s, Shinnie concentrated on the monastic enclosure, excavating only one tomb in Cemetery 2; the published data, however, does not clearly identify this tomb (Shinnie and Chittick 1961: 23–24). Following initial exploratory excavation of two tombs in Cemetery 2 in the 2013/2014 and 2014/2015 seasons, large-scale investigation of the Ghazali cemeteries was started in the fall of 2015. Over four months of fieldwork, 81 tombs were excavated, mostly in Cemetery 2; a small sample of tombs was also excavated in Cemetery 1 (Ciesielska, Obluski, and Stark 2018).

CEMETERY 1

Five tombs were excavated: three in the southern part of the cemetery and two in its northwestern part. Clearly organized in regular rows of grave shafts, Cemetery 1 is characterized by rather low box-grave structures, not exceeding about 0.40 m in height, constructed of small stones and gravel [Fig. 15:A]. Single burials in simple pits were the norm, although in one instance two individuals were buried together. A tomb in the western part of Cemetery 1 contained the remains of

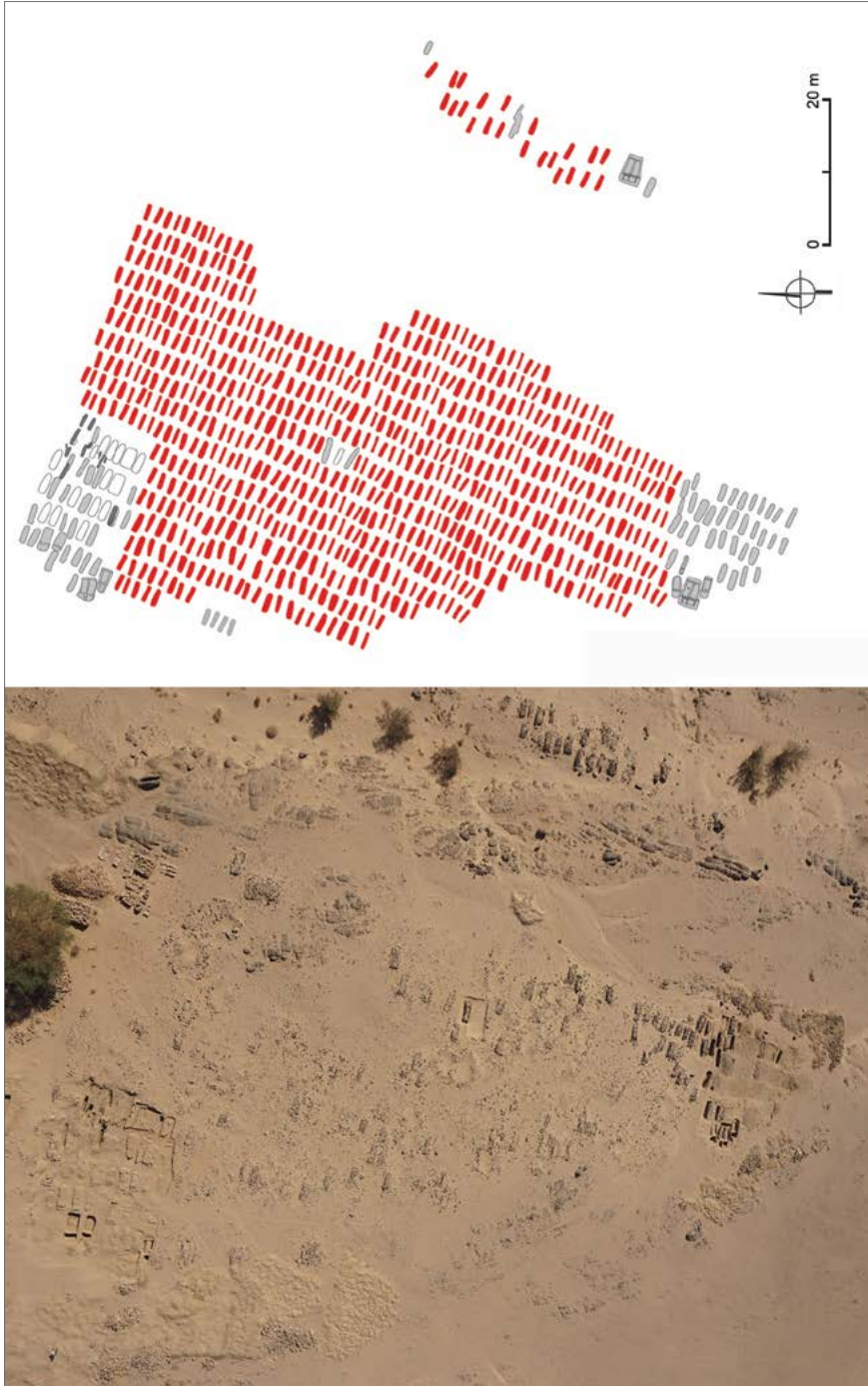


Fig. 14. Aerial view of Cemetery 2 next to the monastery compared with a plan of Cemetery 2 showing the excavated tombs indicated in grey and the unexcavated area tentatively filled with graves (in red) (G.A.S.P./photo S. Lenarczyk, drawing J. Ciesielska)

two adult males interred side by side in the same burial shaft [Fig. 15:B]. No use of mud brick was observed in any of the tombs excavated thus far in Cemetery 1. Flat pieces of local stone were employed to protect the head of the deceased. In accordance with Christian tradition, bodies were oriented roughly E–W, in extended position, with heads toward the west and hands on the pelvis or beside the hips. As Cemetery 1 is situated on a small elevation where rain water swiftly drains from the surface, human remains are very well preserved, including soft tissues and large pieces of textiles. The remains of a child, identified in burial Ghz-1-003, were wrapped in several pieces of textile sewn together using colorful purple and orange thread and then bound by black-

and-yellow cord (probably of mixed plant and animal origin), tied in a diamond pattern [Fig. 15:C].

CEMETERY 2

Due to its apparent connection to the monastery, Cemetery 2 was subjected to the most intense research. Located directly to the south of the monastic walls, it had from the start been alleged to hold the remains of monks from the monastery.

Most of the burials excavated in the northern and southern parts of the cemetery, which were chosen for testing in the 2015/2016 season, were provided with a superstructure covering the subterranean part of the tomb. The same NW–SE alignment was featured by both parts. However, some funerary monuments



Fig. 15. Cemetery 1 burials: A – stone box-grave type superstructure of tomb Ghz-1-007; B – double burial of two adult male individuals in tomb Ghz-1-004; C – burial of a child Ghz-1-003 with preserved pattern of cords binding the burial shrouds (G.A.S.P./photos J. Ciesielska and A. Obłuski)

were practically unrecognizable on the ground level. So-called box-graves [Fig. 16:A], taking the shape of a rectangular box of dry stones, dominate the southern part of Cemetery 2. Widespread all over Lower Nubia, they were also quite common in the Fourth Cataract region, classified by Borcowski and Welsby (2012) as types FF03c and FF03d. A large number of poorly preserved, flat mud-brick frame-like arrangements and pavements was also uncovered [Fig. 16:B]. In the northern part of Cemetery 2, these were replaced by mud-brick and red-brick mastabas, being significantly taller and provided with a niche in the western section for a funerary stela commemorating the deceased [Fig. 16:C]. Amongst

the superstructures uncovered in the northern part of the cemetery, 17 were left untouched due to their good state of preservation and the presence of funerary steles, which were at risk of being completely destroyed, if extraction was to be attempted.

Research conducted at Ghazali as well as multiple chance finds have yielded the second largest corpus of funerary inscriptions in medieval Nubia (see Van der Vliet 2003: 105–172; Łajtar 2003: 129–155, 158–167; Lepsius 1849/IV: Pls 99, 103; Donadoni 1986). Greek and Coptic inscriptions on the stelae are currently under study (Ochala 2014; 2016; Obłuski and Ochala 2016). Most of the fragments were found in secondary contexts, either

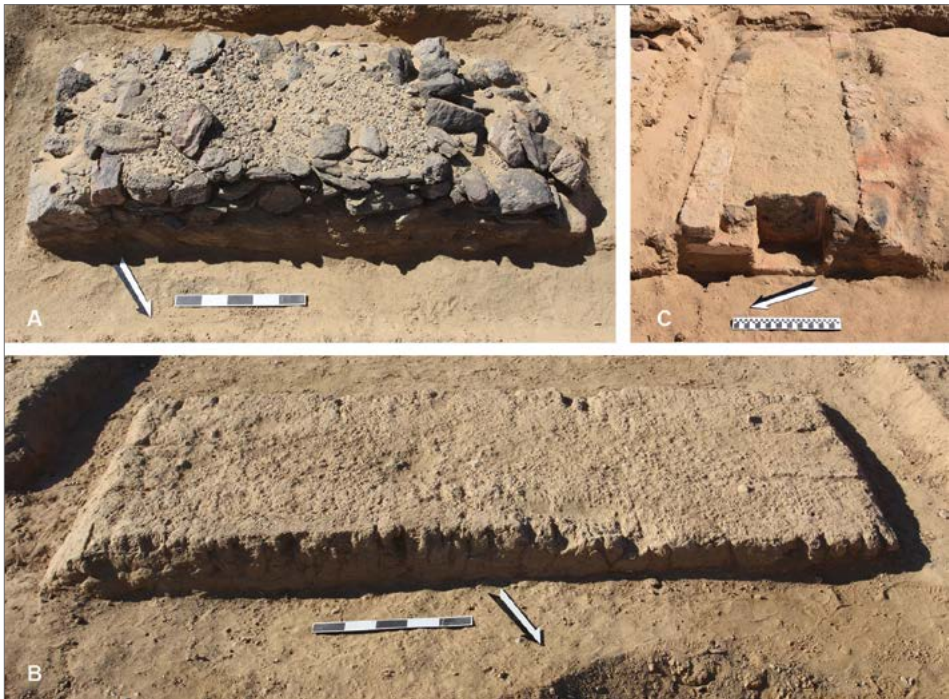


Fig. 16. Types of superstructures recorded in Cemetery 2: A – stone-box grave of tomb Ghz-2-012; B – mud-brick frame of tomb Ghz-2-016; C – red-brick mastaba of tomb Ghz-2-137 (G.A.S.P./photos J. Ciesielska)

reused by the monks themselves, removed by robbers, or destroyed by natural causes. However, one fragment from the northern part of Cemetery 2, dated to the second half of the 8th century AD, suggested an early use for this part of the necropolis. The excavation in February 2015 of a tomb in the eastern, slightly isolated part of the cemetery yielded a date from the turn of the 7th century AD, suggesting an even earlier *terminus post quem*.

Underneath the superstructures, interments were usually in simple rectangular pits. In a select few graves, large stone slabs were set onto a ledge carved into the bedrock at the top of the grave shaft, effectively covering the body of the deceased. This type of body protection has also been documented at other contemporary cemeteries in the Fourth Cat-

aract region (El-Tayeb and Kolosowska 2005: 71; Baker 2014: 850). Along the northwestern edge of Cemetery 2 several so-called vaulted tombs [Fig. 17] were found, where burials were placed under a barrel-style, and in one case peaked, vault built of mud brick at the bottom of the shaft. Three single, and three double tombs of this type have been identified thus far. The architecture of such chamber-like installations, constructed to better cover and protect the bodily remains of the deceased, provides insights into burial style variation, and perhaps into elements of social position within the monastic community, although, as yet, no firm evidence of social variability in burial has been established for the monastic cemetery at Ghazali. Among these vaulted tombs only one structure, exca-



Fig. 17. Double-vaulted tomb Ghz-2-009/010 from Cemetery 2 (G.A.S.P./photo J. Ciesielska)

vated in February 2015, has been firmly dated based on the results of ^{14}C analysis, which yielded a date from the turn of the 7th century.¹

An arrangement of three bricks around the skull, two set on edge on either side of the skull and a third (or in several cases two) laid flat across to cover the face, was observed in most of the burials [Fig. 18]. Occasionally, bricks were replaced with similarly sized pieces of stone or, much less often, pottery sherds. No use of coffins was observed, although one

individual appears to have been placed on a wooden bier. The bodies of adults and children alike were wrapped in textiles (for comparison, see Geus, Lecoite, and Maureille 1995: 121), fragments of which were found in multiple burials in Cemetery 2. The state of preservation of organic remains was highly variable between burials, being largely determined by the location of a given burial within the cemetery. The northern part of Cemetery 2 is situated in a slight depression compared to the ground around it, rendering it more

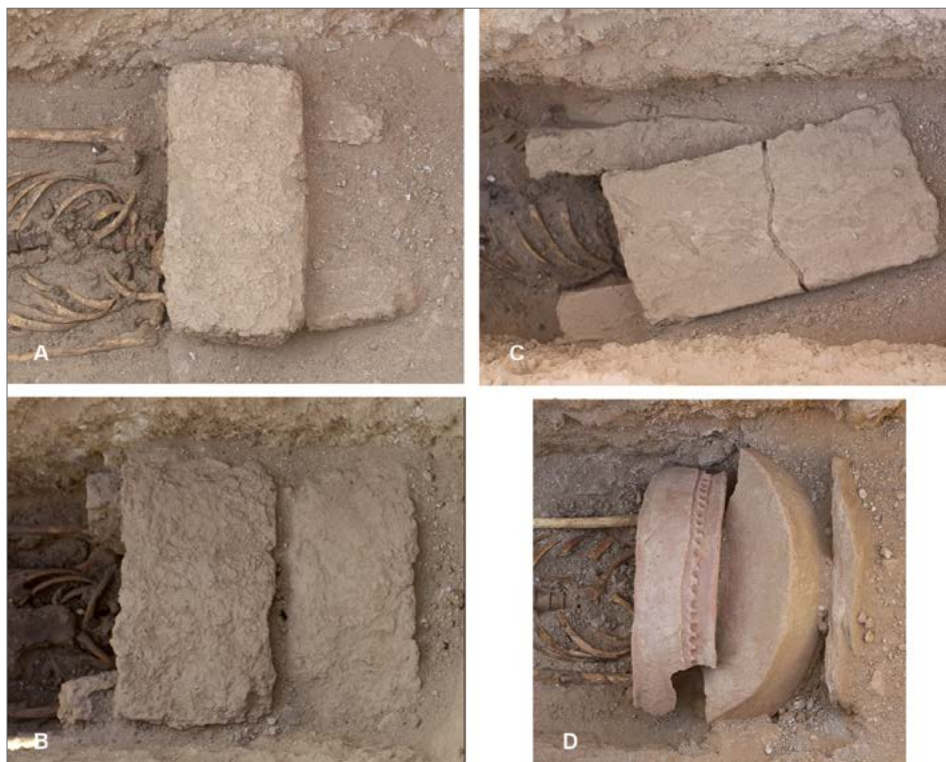


Fig. 18. Various types of head coverage: A – single perpendicular mud brick; B – two perpendicular mud bricks; C – single parallel mud brick; D – fragments of a large ceramic vessel (G.A.S.P./photos J. Ciesielska and R. Stark)

1 The sample was taken from the southern chamber of Ghz-2-001 and examined by the Gliwice Radiocarbon Laboratory, Institute of Physics, Silesian University of Technology.

susceptible to moisture inundation and retention during the rainy season. This results in poorer overall preservation. In the more elevated sections of Cemetery 2, preservation of skin, hair, fabric, and in one instance leather, was common.

The vast majority of burials excavated

in Cemetery 2 belonged to adult males, with an average age at death between 35 and 50. Overall, the skeletal remains appear generally healthful. Arthritic changes in the vertebral column, mostly connected with age, are the most consistently present pathological condition.

DISCUSSION AND CONCLUSIONS

Research to date has identified five areas of everyday activities of the monastic community. The latrines, and probably the entire sanitary complex, were located in the eastern part of the monastery. The storage area was situated next to the main entrance to the monastery from the wadi in Room A (liquids) and Room C (grain) and also in Rooms 79 and 84. The kitchen was located next to the refectory, to the west of the open courtyard (Room 58). The refectories were excavated in the 1950s (Room K and Room L), but the present work has resulted in a more detailed occupation chronology, reflecting fluctuation of the monastic population during the three periods of use of these rooms. The dormitory at Ghazali first consisted of six cells and was located next to the kitchen area, refectories and the North Church. The dormitory was subsequently made twice as large so as to consist of 12 cells in total. Assuming the dormitory was a single-storey structure, the number of monks at the peak of the monastery's development can be estimated at between 24 and 36 monks.

Subjected to the most intense research, Cemetery 2 is believed to be the burial place of the monks inhabiting the Ghazali monastery. The data collected thus far seems to confirm this hypothesis.

This particular burial field is located in the immediate vicinity of the monastic edifices, having a separate doorway leading to the cemetery through the south wall and overwhelmingly contains the burials of adult male individuals. Meanwhile, Cemetery 3 was probably used by the community inhabiting the nearby village. The role of Cemetery 1 remains somewhat unclear, although the presence of regularly arranged rows of box graves belonging to both adults and children would suggest that it was a lay population. Since the residents of the village nearby were provided with their own burial field, it seems quite likely that Cemetery 1 belonged to members of communities inhabiting small villages along the Wadi Abu Dom, or settlements in the Nile Valley, who wanted to be buried *ad sanctos* near the monastery and its church.

The question of such high diversity in the architectural design of the tombs in Cemetery 2 remains unresolved. In contrast to Cemetery 1, where all funerary monuments are of the same type, in all of the excavated areas of Cemetery 2 various types of tombs, from the simplest pits without any superstructures to very elaborate vaulted mud-brick tombs, are located next to one another. Tombs of similar construction are not grouped to-

gether in any way, which would seemingly exclude their common dating. Another reason for the unusual diversity of forms might have been the different financial situation of the monks themselves.

Of course, the form of the tomb could have also depended on the individual's position within the monastic or church hierarchy.

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References

- Baker, B. (2014). Tracking transitions in the Fourth Cataract region of el-Ginefab: results of the Arizona State University fieldwork, 2007–2009. In J.R. Anderson and D.A. Welsby (eds), *The Fourth Cataract and beyond: Proceedings of the 12th International Conference for Nubian Studies* [=British Museum Publications on Egypt and Sudan 1] (pp. 841–855). Leuven: Peeters
- Borcowski, Z., and Welsby, D.A. (2012). *The Merowe Dam Archaeological Salvage Project. Provisional type series of monuments*. Retrieved from https://nubianstudiessociety.files.wordpress.com/2014/02/mdasp_ts_12-2012.pdf [accessed: 30.10.2018]
- Ciesielska, J.A., Obluski, A., and Stark, R.J. (2018). The cemeteries of Ghazali: season 2015/2016. In A. Lohwasser, T. Karberg, and J. Auenmüller (eds), *Bayuda studies: Proceedings of the First International Conference on the Archaeology of the Bayuda Desert in Sudan* [=Meroitica 27] (pp. 257–272). Wiesbaden: Harrassowitz Verlag
- Donadoni, S. (1986). Trois nouvelles steles de Ghazali. In M. Krause (ed.), *Nubische Studien: Tagungsakten der 5. Internationalen Konferenz der International Society for Nubian Studies, Heidelberg, 22.–25. September 1982* (pp. 223–230). Mainz am Rhein: Philipp von Zabern
- El-Tayeb, M. and Kołosowska, E. (2005). Burial traditions on the right bank of the Nile in the Fourth Cataract region. In H. Paner and S. Jakobielski (eds), *Proceedings of “The Archaeology of the Fourth Nile Cataract”, Gdańsk–Gniew, 23–25 July 2004* [=GAMAR 4] (pp. 51–74). Gdańsk: Muzeum Archeologiczne
- Geus, F., Lecoq, Y., and Maureille, B. (1995). Tombes napatéennes, méroïtiques et médiévales de la nécropole nord de l’île de Saï. *ANM*, 7, 99–141
- Lepsius, C.R. (ed.). (1849). *Denkmaeler aus Aegypten und Aethiopien: nach den Zeichnungen der von seiner Majestät dem Koenige von Preussen Friedrich Wilhelm IV nach diesen Ländern gesendeten und in den Jahren 1842–1845 ausgeführten wissenschaftlichen Expedition auf Befehl seiner Majestaet I–XII*. Berlin: Nicolaische Buchhandlung
- Łajtar, A. (2003). *Catalogue of the Greek inscriptions in the Sudan National Museum at Khartoum* (I. Khartoum Greek) [=OLA 122]. Leuven: Peeters
- Obluski, A. (2014). Ghazali Site Presentation Project 2012–2014 preliminary results. *Der Antike Sudan*, 25, 197–205
- Obluski, A. and Ochała, G. (2016). La redécouverte d’un monastère nubien: premiers résultats des fouilles polonaises à Ghazali, Ouadi Abu Dom. In A. Boud’hors and C. Louis (eds), *Etudes coptes XIV: seizième journée d’études (Gèneve, 19–21 juin 2013)* [=Cahiers de la Bibliothèque Copte 21] (pp. 63–79). Paris: De Boccard
- Ochała, G. (2014). Multilingualism in Christian Nubia: qualitative and quantitative approaches. *Dotawo: A Journal of Nubian Studies*, 1, 1–50

- Ochala, G. (2016). Multilingualism of Christian Nubia: a case study of the monastery of Ghazali (Wadi Abu Dom, Sudan). In T. Derda, A. Łajtar, and J. Urbanik (eds), *Proceedings of the 27th International Congress of Papyrology, Warsaw, 29 July–3 August 2013* [=JJP Supplement 28] (pp. 1265–1283). Warsaw: Raphael Taubenschlag Foundation
- Shinnie, P.L. and Chittick, H.N. (1961). *Ghazali, a monastery in the northern Sudan* [=Sudan Antiquities Service Occasional Papers 5]. Khartoum: Sudan Antiquities Service
- Then-Obluska, J. and Wagner, B. (2018). Beads for Nubian monks: an interdisciplinary assessment of a Ghazali find. *Der Antike Sudan*, 29, 65–70
- Van der Vliet, J. (2003). *Catalogue of the Coptic inscriptions in the Sudan National Museum at Khartoum* (I. Khartoum Copt) [=OLA 121]. Leuven: Peeters