Offprint from

Proceedings of the
Second International Conference
on the Archaeology of the
Fourth Nile Cataract

Berlin, August 4th–6th, 2005

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2007

Harrassowitz Verlag · Wiesbaden
The church US022.A at the Fourth Nile Cataract

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The site US022 was first recorded by the Humboldt University Nubian Expedition (H.U.N.E.) during its field season in spring 2004. It lies on the east bank of Us island, about 300 m downstream of the modern village Umm Hisai. The site is situated at the edge of the desert island interior, on a rocky hill with an excellent view over the cultivation zone (pl. 1). It is remarkable not only for its position, but also for its size and complexity. The site comprises three main features on the plateau-like summit of the hill. The first, US022.B, is an area of roughly 700 m² littered with stones and fragments of red bricks and plaster. US022.C has the badly disturbed remains of a substantial building constructed of small to large sized stones comprising an area of about 450 m². On a small terrace southeast of these features, a separate kom, US022.A, marks the remains of a mudbrick building sheltering between two rocky ridges. The kom US022.A measured about 11 x 13 m. It displayed part of the ground-plan of a structure with a central corridor, about 1.4 m wide and oriented east-west, from which sequences of rooms led off on either side. Fragments of red brick, stone slabs and Christian period pottery were found at the edges of the kom. As this was one of the only two substantial brick buildings so far discovered on the islands of the H.U.N.E. concession area and its state of preservation seemed promising, it was decided to return for closer inspection. In March 2005 in little less than three weeks the entire structure was excavated. It proved to be a small church in a remarkably good state of preservation.

1 Cf. Näser 2004: 123, fig. 6; ead. 2005a: 80, fig. 5. The authors thank David Edwards for many helpful comments and for improvements he made to the English of this text.
2 The second one is the church SR022 in the village al-Marcha at the upstream end of Sur (Näser 2004: 127f.; ead. 2005a: 85f., fig. 11), which still awaits detailed investigation. On the site surface, it has a higher percentage of red bricks than US022. To complete the list of sites with evidences for the usage of brick as building material: unburnt as well as red bricks were also present in the nearby fortress of Umm Kieb, UK001 (Näser 2004: 128f., fig. 13; ead. 2005a: 86f., fig. 14).
Description of the architecture and the main finds

The church US022.A has a cruciform ground-plan with an apse at the east end i.e., magnetic southeast (fig. 1). In the following, directions are always indicated according to this ideal orientation. The spandrels of the cross are filled with four small rooms (fig. 1: A, C, F, H). The outer outline of the building has the shape of a square from which the tips of the four cross beams slightly project giving it a stepped appearance. The maximum outer extensions of the building are 8.8 m (north – south)x 9.4 m (east – west).

The foundations were investigated only at some points at the outer side of the building. At the northeastern corner, they consist of three courses of mudbricks which had been set in an extremely narrow foundation trench. They project 5 to 12 cm from under the rising walls. As far as the limited exploration can tell, the number of brick courses differs with the height of the terrain.

Likewise, all standing walls of the building are of mudbrick. They are up to 1.0 m thick, and still stand to a maximum height of 1.2 m in the north of aisle B (pl. 2). The mudbricks measure 33 x 18 x 8 cm. On the interior, the walls carried a layer of mud plaster with a whitewash, which is preserved in the lower parts of many walls (colour pl. 39). A few fragments of
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Pl. 2: Aisle B, north wall.

Pl. 3: Room D, entrance with the remaining steps seen from the inside.
wall painting were found in the fill of room H (colour pl. 40). They are too small for the nature of any design to be recognized.

The entrance to the church is situated in the southern arm of the cross. In this area, the natural rock outside the building is circa 0.7 m higher than the inner floor level. Probably three steps of big stone slabs, two of which were still in situ, led down into the interior of the church (fig. 1, pl. 3). The ancient outer ground surface is marked by a setting of stone slabs in front of the entrance (cf. below p. 153).

To the left hand side of the entrance, a foundation brick was found. It slightly protruded from under the western wall of room D on pavement level (fig. 1, colour pl. 41). The burnt brick, measuring 15.5 x 8.0 x 5.9 cm carries two lines of Greek writing in black ink, which are preceded by a sketchily drawn cross sign:

1. ΙΑΚΩΒΟΥ (Jacob)
2. ΜΑΡΙΑ ΜΗΤΗΡ ΘΕΟΥ (Mary, Mother of God).

Throughout the entire building, the floor was covered with a pavement of small stone slabs, which is intact in most parts (fig. 1, pl. 4). It is missing in the southeast part of room D, where its absence may be due to stone plundering or the secondary introduction of a burial. There, the gap in the paving revealed a compact sandy material mixed with much gravel and shattered stone (pl. 5). Unfortunately time did not suffice to further investigate this feature. The stone pavement is also missing in the north and east part of room E, where the excavation revealed a thin layer of stone shatter on top of the natural rock (cf. below p. 148).

In some parts of the building, especially in the apse behind the altar and in room A, the pavement was covered with a layer of smoothed mud (colour pl. 42, pl. 7). Whether this mud

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4 For a detailed discussion see the contribution of Alexandros Tsakos in the present volume.
floor had been applied to the entire building remains uncertain. Likewise it is uncertain whether it had been part of the original construction or a later addition. It covers areas of apparently intact stone pavement, so that – notwithstanding its fragile nature in contrast to the much more durable flagstones – it cannot easily be regarded as a secondary “restoration”.

The main, west-east aisle of the church is 8.0 m long and has a maximum width of 1.5 m (fig. 1). Its west part, designated B, has a thicker layer of mud and fragments of mudbricks on top of the stone pavement, preserved in the western area. It seems to have been the material from a collapsed wall hardened for later use (pl. 6). On top of this layer, next to the wall in the southwest corner of room B, a miniature pottery dish of a polished black handmade ware (colour pl. 50: centre bottom) was found *in situ* upside down next to a shell of Etheria elliptica.

From the west part of the main aisle, room A can be accessed through a doorway with a raised threshold, which is paved with a single big stone slab (fig. 1, pl. 7). The lower parts of the walls within the thickness of the doorway still preserve their original whitewashed mud plaster, which also draws over the edges of the paving slab. Room A contains a fragmentary mudbrick feature at its south wall (pl. 7). Rather than a *mastaba* – as the installations in the sanctuaries (cf. below p. 151) – this could be the base of a staircase, which originally led to the roof of the building. The solid brickwork formed by a projection of the east wall into the room may have supported the upper parts of this installation. Though the architectural remains in room A do not give any definite evidence for this reconstruction, it is substantiated by the fact that such staircases are commonly found in the southwestern room of Nubian churches of every period.5 The projection of the east wall creates a small niche in the northeast corner of the room (fig. 1, pl. 8). Its pavement had been broken through, apparently in the search for buried treasure. The mud plaster on the walls of this niche is relatively well

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5 Clarke 1912: 31f., pl. IV fig. 1, pl. X fig. 2, pl. XII fig. 2A, pl. XV fig. 1, pl. XVII, pl. XX fig.; Deichmann and Grossmann 1988: fig. 7, fig. 10, fig. 14, fig. 23, fig. 25; Gartkiewicz 1980: fig. 17 a2, b2, c1, d2.
preserved, in parts up to 0.6 m above floor level. The original whitewash is gone.

The north-south oriented aisle of the church is 7.7 m long and has a maximum width of 1.5 m (fig. 1). Its southern part, designated D, containing the entrance to the church has already been described. The northern end of the aisle is partitioned off by a comparatively flimsy mudbrick wall, constructed in a single row of stretchers (pl. 4). It abuts the corner to room C and then turns in a right angle towards the east. It seems to have been plastered at the same time as the chamber behind it, and thus apparently belongs to the primary building phase.

The small wall leaves a passage of about 0.56 m width into the northern end of room E. Within this confined space, there is no stone pavement. As the natural rock comes close to the surface here, the mud floor may have been applied directly onto this ground. The preserved portions in the corners of the room indeed show that the mud plaster of the walls had been extended onto the floor. It is lost in the centre of the room which displayed a thin layer of stone shatter on top of the natural rock.
The northwest corner between the two aisles is occupied by room C (fig. 1). It is the only one of the four corner rooms of the church which did not contain any special architectural installations and which was not partitioned off by a proper doorway. Rather it extends as a corridor of about 1.3 m width and 2.0 m length from room E. Its west part was disturbed by a pit which appeared to have been dug quite recently to extract building material. Thus, of the west outer wall only the lowest courses were partially intact. Room C is the only area of the church which was not fully excavated. A block of its fill was left standing at the south wall, in order to preserve some of the stratigraphy for future study.

One of the remarkable features of US022.A is the good preservation of the ecclesiastical installations. A stepped structure of mudbricks, with at least one red brick incorporated, at the northeast corner of the intersection of the aisles represents the remains of the ambo (fig. 1, pl. 9). It consists of a small staircase abutting the east wall of room E and a narrowed supporting wall projecting into the central aisle B/G. As the top of the structure is lost, the dimensions and the constructional details of its upper part, presumably a small platform, are uncertain. It may have extended towards the east and incorporated the northern one of the two small partition walls which separate the sanctuary from the main aisle (fig. 1, pls. 9-11). This construction would be unusual; all comparisons from Nubia show the platform in one axis with the stairs. It would have been the restricted space in US022.A which led to a deviating solution – as well as to the overall small dimensions of the installation: the stepped part of the ambo is only 0.43 m wide. It is preserved to a height of 0.77 m.

There is a conspicuous empty space between the northern partition wall and the supporting wall of the ambo (fig. 1, pls. 9f.). The three walls enclosing this space to the west, north

Pl. 9: The ambo.

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6 Clarke 1912: pl. X fig. 2, pl. XI fig. 2; Deichmann and Grossmann 1988: fig. 12, fig. 17, fig. 27; Monneret de Villard 1957: vol. 4, tab. CXVIII.
and east are coated with the usual mud plaster, which is also drawn onto the floor of the enclosed space. Likewise, it extends over what remains from a small mud wall which closed off this space against the aisle. This screening wall is preserved to a maximum height of 0.14 m. Its original dimensions are uncertain. It may well have been confined to the lower part of the opening, thus creating a small storage cabinet. Interestingly, its plaster floor was almost completely destroyed, revealing a loose sandy fill beneath it. It looked as if the screening wall had been pulled down and the floor broken through deliberately at some point in antiquity in search for buried treasure under the ambo.

The two partition walls separating the sanctuary from the main aisle are preserved up to a height of 0.4 m, which probably comes close to their original dimensions (fig. 1, pl. 11). They correspond to the higāb of the Coptic or the ikonostasis of the Greek Church.

Within the sanctuary, the altar was still in situ (fig. 1, pl. 11, colour pl. 42). It was built mainly of mudbricks with a few red bricks in between. It was also plastered and whitewashed. A test trench in the apse revealed a remarkable finding: the altar had been founded
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directly on a loose layer of sand and gravel which underlay the stone pavement of the apse and sat directly on the natural rock. It could not be ascertained whether this layer represents the natural ground underneath the church, but given its rocky surroundings, it seems much more probable that it was an artificial layer applied to level the building site. However, it is certain that the pavement of stone slabs was then constructed around and against the altar. Since this floor seems to have been part of the original layout of the church and not a later addition, this observation implies a building sequence which – possibly for liturgical reasons – started with the erection of the altar, while the paving of the interior rooms followed only later.

The apse preserves the largest portion of the layer of crudely smoothed mud which was found in several parts of the church directly on top of the stone pavement (colour pl. 42; cf. above p. 151).

In the northwest corner of the sanctuary, at the base of the north partition wall, a small mound of a compacted, sticky dark brown matter was found (fig. 1, colour pl. 43). It sat directly on the stone pavement and also contained pieces of charcoal as well as minute fragments of wood and seeds. Samples were taken, but are not yet analyzed. Similar features in the Church on the Point and the Cathedral at Qasr Ibrim as well as in the Church of Granite Columns at Old Dongola were identified as resulting from “persistent dripping from an incense burner and/or oil lamp”.

The two sacristies, rooms F and H, are accessed from the sanctuary (fig. 1, pl. 11). Both doorways have raised thresholds paved with stone slabs, which are still in situ (pls. 11f., colour pl. 44). The north sacristy, room H, measures 1.6 x 1.7 m (fig. 1, pl. 12). It is equipped with two mastabas of mudbrick which were coated with plaster and whitewash. Functionally, room H may have corresponded to the prothesis of the Greek Church. Within

Pl. 12: Room H.

Kjølbye-Biddle 1994: 22, fig. 6 and Gartkiewicz 1990: 260, fig. 151. We thank David Edwards for drawing our attention to the former reference.
its fill, the two already mentioned fragments of mud plaster with whitewash and remains of wall painting came to light (colour pl. 40). They are the only evidence for this kind of decoration within the church US022.A.

The south sacristy or diakonikon, room F, is slightly smaller than the northern one (fig. 1). A red brick door hinge was found southwest of the doorway (colour pls. 44f.). Room F clearly displays a sequence of consecutive building episodes with regard to its architectural installations. The room is equipped with two mastabas of mudbrick coated with plaster in the southwest and the southeast corners (fig. 1, colour pl. 45). At the east wall, the remains of a basin of lime plaster constructed in a frame of small stone slabs were found (fig. 1, colour pls. 45f.). It sits on top of a thick stratum of mixed sediments containing a lot of rubble and rubbish, including animal bones. This stratum covered the entire floor of the room and ran against and over the two mastabas. Underneath it, layers of mud plaster and whitewash attached to the east wall attest the existence of an earlier construction, probably a low mastaba, in this place (colour pl. 46). The stratigraphical observations show that the basin had only been constructed after the accumulation of a considerable amount of rubbish in room F. The animal bones from this rubbish were all from sheep or goat. Their presence in the intermediate stratum hints towards the performance of domestic, non-ecclesiastical activities at some point in the use life of the church, the physical remains of which were left or dumped in the southern sacristy. The composition of the stratum differed notably from the fill in the other rooms of the building (cf. below 152).

The subsequent construction of the basin in room F may indicate that the south sacristy served as a baptistery. A similar function could be proved for the analogous rooms in the churches of Ikhmindi, ar-Ramal and probably also Sonqī. In contrast, the excavators of a church on Mis Island in the Fourth Cataract, which was investigated in winter 2005/06 and has not yet been published, suggest that comparable basins in their church did not have liturgical functions, but represent receptacles for the preparation of whitewash or plaster applied to the walls of the church. This being the case, the basin in room F would indicate a renewal of the coating of (some of) the walls after a certain period of use. However, in this case the position of the basin in one of the rear rooms would have to be explained: from a pragmatic point of view it would be much more sensible to have such a basin in an easily accessed central area of the building.

Considerations on the use of building materials and the roofing of the church

All preserved architectural elements of the church US022.A consist of mudbrick. With the exception of the altar and the ambo, not a single red brick was found built-in. The excavation showed a remarkably low quantity of rubble within the fill of the building that came mainly from a level close to the floor and on the other hand from the upper part of the fill close to the modern surface (colour pl. 47). It comprised small stone slabs and numerous fragments of red bricks. Their depositional height shows that they must have tumbled down from the upper parts of the building. The observation suggests that the upper parts of the walls and the roof had been dismantled immediately or soon after the abandonment of the church.

For the roofing, one would of course expect a cupola over the central square and vaults over the other rooms. This reconstruction is consistent with the massive lower parts of the walls, which are up to 1.0 m thick. As there was not a single piece of evidence for a red brick casing at the base of the walls – either inside or outside of the building – or for the use of red bricks in the foundation layers, the broken red bricks from the fill and the vicinity of the

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8 We thank Nadja Pöllath, Cologne, for the analysis of the bones.
9 Godlewski 1979: 22, 27.
10 Personal communication by Andrew Ginns.
church probably had been used in these constructions, being more durable than mudbricks. However, none of the bricks was of the specific vaulting type. On these grounds, another kind of roofing cannot be excluded. The sparsity of brick rubble might also result from the fact that at least parts of the roof had been constructed of wooden beams with a cover of unknown – possibly organic – material. Several large stone slabs of up to 0.8 m length, which were lying on the ground west of the church and further specimens which were found tumbled down into the rubble at the northwest corner of the building may have served as lintels or within the suggested kind of roofing.

The features outside of the church

The entire eastern half of the church is surrounded by a packing of large stones, loosely set in a single layer forming a wide semicircle (fig. 1, pl. 13). They correspond to the ancient ground surface and stratigraphically clearly belong to the primary building phase. The function of this packet is uncertain. It seems to have been built as an enforcement or a protection measure in this slightly sloping area, rather than serving a decorative or any other purpose. Only in front of the entrance on the south side of the church, the stones take the shape of a rough pavement.

Another puzzling installation was found on the northern outside of the church (fig. 1, colour pl. 48). Abutting the wall there was a large kidney-shaped basin, consisting of several thick layers of a very hard, white to light pink lime plaster which had been applied to a frame of several stone slabs set on edge. Despite its simple construction, the basin was of good

Pl. 13: Packing of stones east of the church.

11 In the field season 2006, detailed investigation of the nearby site US025 (pl. 1) proved its identification as a brick kiln. For a description of the site cf. forthcoming reports and already Näser 2005b: 59 and ead. 2006: 99, fig. 14.
12 For these cf. e.g. Gartkiewicz 1990: figs. 12f.
13 Visually and in its properties the plaster resembles that which is described by Gartkiewicz 1990: 43.
quality and almost completely preserved, measuring 1.26 x 1.00 m. Its function is uncertain. It may have served as an open air baptismal font. But as the specimen in room F, it may also have been a receptacle for the preparation of plaster (cf. above p. 152) or for another purpose. The basin was very solid, with its bottom being 14 cm thick at the maximum and consisting of several layers of plaster. They could represent the accumulated remnants which stayed behind during its repeated use. But on the other hand, the existing surface of the basin is well finished and probably intentionally smoothed. And more importantly, there are no remains of this kind of the plaster on the walls of the church. Thus, a final decision about the function of the basin cannot be reached. Scant remains of a second, probably smaller basin, which had been heavily disturbed, came to light west of the first one.

The stone frame of the first basin is aligned to the outer wall of the church on its original ground level and founded on a compact layer of shattered rock material, which we first took for the natural ground. However, a test trench revealed a layer of roughly smoothed mud underneath this stratum, which partially also drew under the basin. Further clearance produced the outlines of a feature, which proved to be the cover of a grave (fig. 1, pl. 14). It consisted of three large stone slabs placed side by side with further smaller slabs at the top and the foot end, sealed by the described layer of mud, which still displayed the smoothing finger marks. After the removal of the basin and the cover, a burial pit came to light which had been cut down into the natural rock. It had an oblong shape with a length of 2.3 m and a maximum width of 0.56 m at the bottom. The cavity had not been filled after the burial, but despite the careful sealing some sediment had seeped in.

The grave contained the intact burial of an adult individual, who had been laid on his back with the hands put together over the pelvis (pl. 15). Three mudbricks had been placed around the head. Anthropological analysis indicated that the dead was a male individual, who had died at about the age of sixty. He had a good health status apart from heavily abraded teeth and some deformations at the lower spine, the femurs and the knee joints, which point to heavy work during life.¹⁴

The described plaster basin was positioned over the top end of the grave, next to the head of the burial. Stratigraphical analysis showed that both features, grave and basin, had been constructed in one go, together with or shortly after the church itself.

¹⁴ We thank Doreen Richmann, Beatrix Gögel and Thomas Fellechner for the analysis of the skeleton.
Thus, their spatial relation seems to be intentional. Depending on its presumed function, the basin either marked or obscured the location of the grave, which had no other surface marker.

The use life of the church

Stratigraphical and architectural evidence suggests that the church was built in one go and experienced only a limited period of use. The grave outside was contemporary or slightly subsequent to the main building. Tangible later alterations are confined to the two sacristies where the mastabas had been re-plastered and – in the southern one – the basin was installeld.

While excavating the building, it soon became apparent that down to the original floor its fill consisted mainly of loose sand, interspersed with horizontally laminated silty layers (colour pl. 47), resulting from eolian and fluvial processes.

Apparently the church had simply been deserted after the end of its sacral functioning, and not experienced secular reuse or squatter occupation. The only problematic pieces of evidence in this respect are the layer of hardened mud and fragments of mudbricks in room B (cf. above p. 147) and the stratum containing the animal bones in room F (cf. above p. 152). However, as this stratum lays underneath the plaster basin which can either be interpreted as a baptismal font or an installation connected with a renovation of (part of) the church, this stratum should represent an episode prior to the abandonment of its ecclesiastical use – provided that the renewal of the whitewash, for which the basin may have served, did not take place during a subsequent secular reuse, which seems unlikely. Anyway, the other rooms of the building did not show any evidence for a squatter occupation or any other kind of later reuse.

The general sparsity of rubble within the fill indicates that the upper parts of the walls and the roof had been dismantled immediately or soon after the abandonment (cf. above p. 152). This assumption is substantiated by the nature of the later infill: only a missing roof could have resulted in relatively quick and even natural accumulation of sand within the rooms of the building. Rubble within the upper parts of the fill derives from later episodes of limited collapse and / or robbery of building material. The church probably was the source for a number of red bricks which we noted in recent installations in the surrounding villages.

The architectural comparisons and the dating of the church

US022.A is a typical specimen of the small Late Nubian church, Adams’ type 4, dated by him between 1150 and 1400 AD.16 Because of quite some resemblance it seems reasonable to suppose that inspirations for the lay-out and the architectural elements of this type came directly from the Near East, ultimately probably from Syrian tombs and mortuary chapels, by-passing Egypt.17 Several other Nubian churches display strong similarities with US022.A.

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15 For a similar phenomenon cf. e.g. Gartkiewicz 1990: 69f., fig. 34.
17 Adams 1965: 123. Cf. also Monneret de Villard 1957: vol 3., fig. 33: tomb of Tabar-Bur (Transgiordania), fig. 34:
The South Church of Sonqi shares the cruciform lay-out with four corner rooms, partition walls in front of the sanctuary and mastabas in the sacristies (fig. 2).\textsuperscript{18} It measures c. 7 x 8 m. The most conspicuous differences are a second entrance from the north and the missing apse.

The North Church of Old Dongola has a cruciform design with an apse and four corner rooms (fig. 3). Its size is about 11.5 x 11.5 m. Jakobielski\textsuperscript{19} dated it not before the 13\textsuperscript{th} century AD.

The Church of Angels in Tamit equals US022. A in the ground-plan with the four tips of the cross projecting and a size of roughly 9 x 9 m (fig. 4).\textsuperscript{20} However, it has a second entrance in the north and a second apse in the west. Gartkiewicz\textsuperscript{21} classified it as his type C3b with a Greek-cross pattern, belonging to his third period of Nubian church architecture, which he dates between the 10\textsuperscript{th} and the 14\textsuperscript{th} centuries AD. With its strictly and well designed cross-over-square shape, US022.A conforms to the same type. It also fits well into the generally small dimensions of the Late Nubian churches.

A rather late date for US022.A is also suggested by the pottery.\textsuperscript{22} About 62\% of the sherd material from the church is handmade, only 31\% is wheelmade.\textsuperscript{23} Fine wares are extremely

\textsuperscript{18} Maystre 1970: 190ff., fig. 18.
\textsuperscript{19} 2001: 22, fig. 15.
\textsuperscript{20} Monneret de Villard 1935: vol. 1, 154ff., fig. 142.
\textsuperscript{21} 1982: 96ff., fig. 8.
\textsuperscript{22} The ceramic material is analyzed by Uwe Sievertsen, who at present prepares it for publication.
\textsuperscript{23} The remaining 7\% could not be classified due to bad preservation. For the chronological significance of these figures cf. Adams 1986: 49, 426: ware group D.III, figs. 9, 327 and Phillips in Żurawski 2003: 414.
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rare and mainly consist of different bowl types with straight walls and simple rim shapes (fig. 5, colour pl. 49). Less than 5% of the corpus is slipped – mainly in orange. As Phillips and Klimaszewska-Drabot suggested this prevalence may not only be a chronological indicator but could also reflect a regional preference. There is a conspicuous group of small handmade red- and black-burnised dishes and bowls. Some of them preserve residues of burnt material hinting towards their use as incense burners or lamps (colour pl. 50). Likewise remarkable are many fragments of large pottery objects in the shape of basins and boxes, which may have represented liturgical equipment.

Altogether, architectural and ceramological evidence suggest a date for US022.A not before the 12th or 13th century AD – and possibly even later.

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24 Cf. Phillips in Żurawski 2003: pls. 98.a, b, d.
Jakobielski, S.

Kjølbye-Biddle, B.

Maystre, C.

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Näser, C.

Phillips, J. and E. Klimaszewská-Drabot

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