Church 3-J-18

Location

The church and its associated cemetery were located a little to the east from the centre of the island. The site was set on an incline sloping gently down from the centre of the island. The surface was composed of a mixture of Nile silts and sand lying over bedrock. The site was surrounded on all sides by bedrock outcrops protruding by various amounts. This had the effect of imposing physical limits to the extent of the site. The limits imposed by the underlying geology thus produced a site of very irregular shape. Its maximum dimension was 70m north north east-south south west, its east-west dimensions varied considerably from about 5m up to 35m.

Description of the church prior to excavation

The church was located within the southern half of the site, in the area of greatest east-west dimension. Prior to excavation, much of the architectural detail of the church was obscured by wind-blown silts and rubble from its demolition/collapse. Weathering processes in action upon the surviving structure and against the rubble and wind-blown silts resulted in the church remains forming a small mound/*kom* (Plate 1). This mound had a depressed central area with the highest parts being straight ridges along the east and the west sides. The base of the mound was a sub-square shape on account of the presence of an outer face of large stones maintaining the original shape of the underlying structure. Surviving structural elements protruding from the mound, and the composition of the mound itself revealed the underlying building to be constructed primarily of mud brick. The external faces of the visible walls were seen to be of red bricks. The large stones comprising the boundary of the mound were outside the brick walls.

Plate 1. Site 3-J-18 at the start of the archaeological excavation.

The excavation of the church was conducted in December 2005. Clearance of the loose rubble, wind-blown material and mud-brick 'melt' from across the top of the mound made the identification of the architectural elements comprising the building possible. Individual rooms and areas were then emptied of their fills of wind-blown silts and building rubble revealing the ground-plan of the church and its architectural details. The structural history of the church consisted of a single main phase with a later episode of internal reinforcement and one of external embellishment. An extended period of activity synchronous with the church becoming filled with aeolian silts after the de-roofing of the structure was also evident.

Period I - Activity Predating Church Construction

Inhumations

Prior to the construction of the church, the site had been used as a cemetery. Predating the building were two largely complete burials, a third burial that had been disturbed and fragmentary bones belonging to a fourth were also recovered. The four burials are described in order from north to south:-

Grave 1201 (Burial 216) [Skeleton (1154), Grave cut L: 1.8m+, W: 360mm, Depth: 220mm. Monument – none] A long narrow grave cut, the sides were straight and vertical. Into this, the body of an adult was laid in a supine position, the legs were extended with the feet together (Figure 1). This grave had suffered vertical truncation, particularly across its western half where the original cut had been removed. The skull and mandible had been shifted from their original locations. The cervical and thoracic vertebrae, the ribs, scapulae and sternum, and the bones of the arms had been removed from the grave. This vertical truncation was seemingly the result of a levelling of the surrounding terrain prior to construction of the church. The northern wall of the church was above the tibiae and feet of this burial. No blocking stones or ceramic vessels were present, but its location near to grave 1179 and the shared orientation with it implied it may have had similar characteristics prior to the disturbance it suffered.
SF - beads 2519

Grave 1179 (Burial 217**)** [Skeleton (1183), Grave cut L: 1.94m, W: 470mm, Depth: 470mm. Monument – none] A long narrow grave cut with stepped sides. The ends were rounded with the east end being of greater width than the rest of the cut. Into this grave cut, the body of an adult was laid in a supine position (Figure 1). The arms were folded across the waist. The legs were extended with the left foot over the right. Within the enlarged east end of the grave was placed a large ceramic vessel (1178) upside down. Large flat stone slabs were placed over the body and ceramic vessel, thereby leaving them in a void. The stones rested on ledges along the sides of the grave. At some point after burial, the grave suffered an intrusion which cut into its western end under the blocking stones. This intrusion, seemingly the result of animal activity, dislodged the scapulae and various ribs and vertebrae from the burial. It also left the skull in an upside down position. No disturbance took place to the skeletal elements of the lower body.

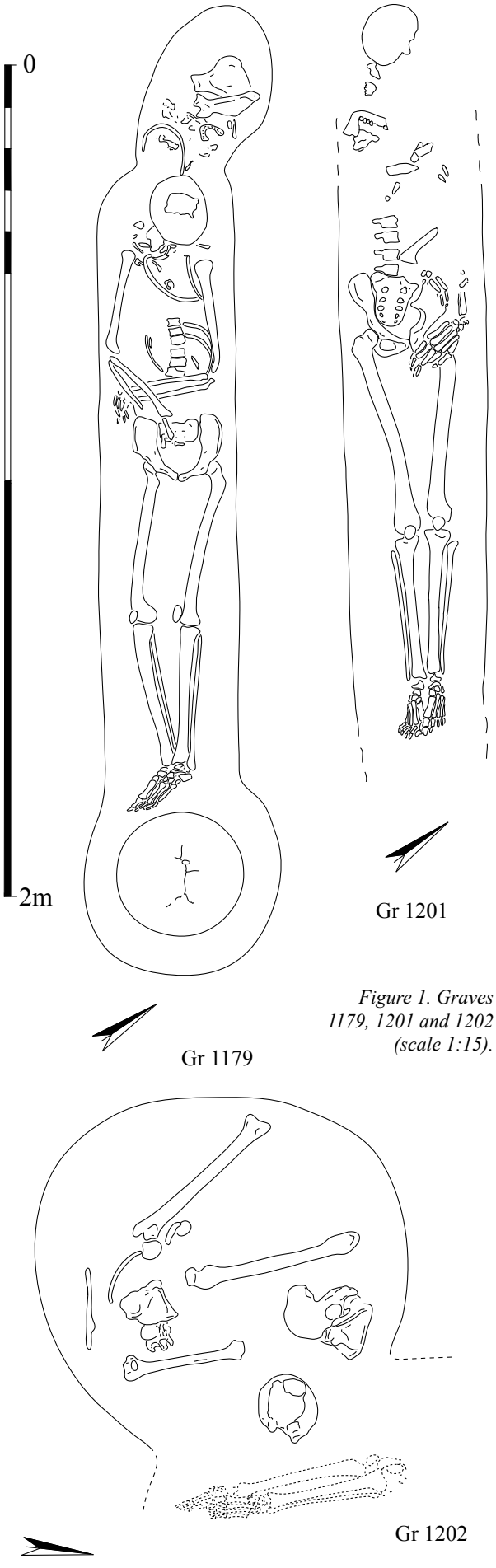

Figure 1. Graves 1179, 1201 and 1202 (scale 1:15).

SF - beads 2518
Pottery - (1178)

Grave 1202 (Burial 219**)** [Skeleton (1180), Pit cut L: 880mm, W: 840mm, Depth: 240mm. Monument – none]
A disturbed burial of an adult (Figure 1), the original extent and precise location of the grave cut was unclear. Most of the skeletal elements were not present. The remaining ones, including bones of the legs, pelvis, spine and the skull, had been dislodged from their original location. The burial had been truncated vertically, probably the result of a terrain levelling episode prior to the construction of the church. The remnants of the inhumation were thus left in a shallow round pit. A further episode of disturbance is likely to have occurred during the burial of skeleton (1157), possibly shifting the skull a second time and removing any skeletal elements that may have been left in the location of where that burial was to be placed.

Grave 1204 (Burial 223**)** [Skeleton (1199). Monument – none]
A disturbed burial of an adult, the original extent and precise location of the grave cut was unclear. Very few of the skeletal elements were present. The remaining ones were broken and included fragments of xxxxxx, dislodged from their original locations. The burial had been truncated vertically, almost entirely destroying the remains of the inhumation. This was probably on account of a terrain levelling episode prior to the construction of the church.

Plate 2. Post-holes and pits within the nave, looking east.

The small number of burials under and predating the church's construction indicates a cemetery area of not overly intensive use. This is in marked contrast to the cemetery area surrounding the church which displayed a very dense arrangement of burials. The majority of the inhumations within the surrounding cemetery were,

therefore, almost certainly interred after the construction of the church.

Post-holes

Cut into the silt/sand natural horizon onto which the church was built were a total of 16 post-holes (Figure 2). Excepting two of the post-holes, they were concentrated in the nave of the church (Plate 2). The post-holes in the nave of the church were of two distinct sizes. The larger ones (1117), (1118), (1119) and (1120) averaged 260mm diameter and 160mm deep, they had vertical sides and flat bases. They were positioned closely together next to the south-eastern pier. The smaller post-holes (1123), (1125), (1126), (1127), (1128), (1129), (1130), (1131), (1132) and (1134) averaged 120mm diameter and 140mm deep. The positions of the post-holes relative to each other did not produce any patterns which made sense with them forming structural entities. The post-holes may perhaps have simply held temporary posts in place during the construction of the church. The two post-holes not in the nave were located in the north aisle. (1138) was of the smaller size and was located in the south-western part of the aisle. (1166) was of larger size and was positioned in the north-eastern part of the aisle. Its position was such that it may have had some sort of association with the small partition wall and the vertical wall slot. No finds or wood remains were present in any of the post-holes.

Pits

Seemingly contemporary with the post-holes was an episode of pitting (Figure 2). Seven pits each with vertical or steep sides, abrupt breaks of slope and flat bases were cut into the sand/silt natural horizon. Similar to the post-holes, their locations did not form any patterns from which to draw firm conclusions as to what their purposes were. Of note is the fact that most of them are next to walls and none of them have walls running over them, the implication being that they were cut after the walls were at least partially constructed. Pit (1150) was cut with a right-angled corner where it was against the north-eastern pier and pit (1136) was cut 'wrapping' around the north-eastern corner of the newel. The pits ranged in size from 500mm diameter and 360mm depth (1205), to 1.2m length and 500mm depth (1115). They had been filled with a semi-compacted sand/silt, i.e. backfilled with the natural. No pits of the same form as these were present outside of the church and no finds were present within them. Like the post-holes, the pits may be the result of some form of construction process.

Period II, Phase I - The Church Construction

Architectural description

The church was constructed throughout of mud bricks that measured 300 × 150 × 70mm size. Fired bricks of the same dimension were used to construct the external faces of the outer walls and were used within in the pier constructions. The outer walls averaged about 800mm in width, the dimension equal to two headers and one stretcher. The bricks were generally laid in alternating courses of headers and stretchers, although often a single course could change at points along its length. The outer face of red bricks alternated between courses of single headers and single stretchers, the mud bricks of the wall, therefore, providing the majority of the mass and structural strength.

The main walls formed an almost square structure (Figure 3) which measured 13.5m east-west and 11.25m north-south. The north-eastern corner of the building was a right angle, the south-eastern corner was slightly obtuse on account of the southern wall curving northwards at its eastern end. The western wall was markedly skewed in relation to the eastern wall, its orientation deviating almost 10° from that which would have given right angled corners to the western end of the building. The walls were preserved to an average of 1m in height, with their lowest height being a little over 400mm at the doorways and the greatest height being a little over 1.2m at the north-western corner. All the rooms of the building were located within the sub-rectangular shape formed by the outer walls, none protruded beyond the building line. The internal arrangement of the rooms and of other structural components displayed characteristics in common with Later Nubian ecclesiastical architecture.

The internal walls were built solely of mud brick and were constructed to differing thicknesses. The walls of greater thickness were those running from the central piers to the outer walls. They were the width of two headers, about 600mm. The western walls of the eastern-corner rooms and the altar screening walls were the thickness of a header combined with a stretcher, averaging 450mm. The internal walls were preserved to a minimum height of a little over 700mm and a maximum height of over 1.4m, averaging about 1m in height.

The faces of all the internal walls and the internal faces of the outer walls were coated in a thick layer of mud plaster. It is likely that a very thin layer of white lime plaster was applied over the mud plaster throughout the church. Remnants of this white plaster survived in patches in several locations within the building, the larger areas being within the southern room and on the western wall in the vicinity of the stairs. Painted plaster decoration was not found *in situ*, probably on account of painted decoration being applied at a height above that to which the walls survived. However, two small fragments of plaster bearing painted decoration were evidence of what may have been extensive interior decoration. One piece, recovered from the lower silt build-up layers at the east end of the northern aisle had strong orange, yellow and red colours applied over the white plaster (SF:2445). The other piece, recovered from silt build-up layers in the southern room bore a representation of a human eye (SF:2457) (Plate 3). The eye measured approximately 30mm across, the correct scale for a life-sized representation of a saint or other holy figure.

The walls were generally constructed directly onto the silt/sand natural. Exceptions to this were the eastern and western outer walls. The foundation under the western wall was a layer of gravel 130mm thick with a width of up to 1.6m in places (Figure 9). The need for a foundation for

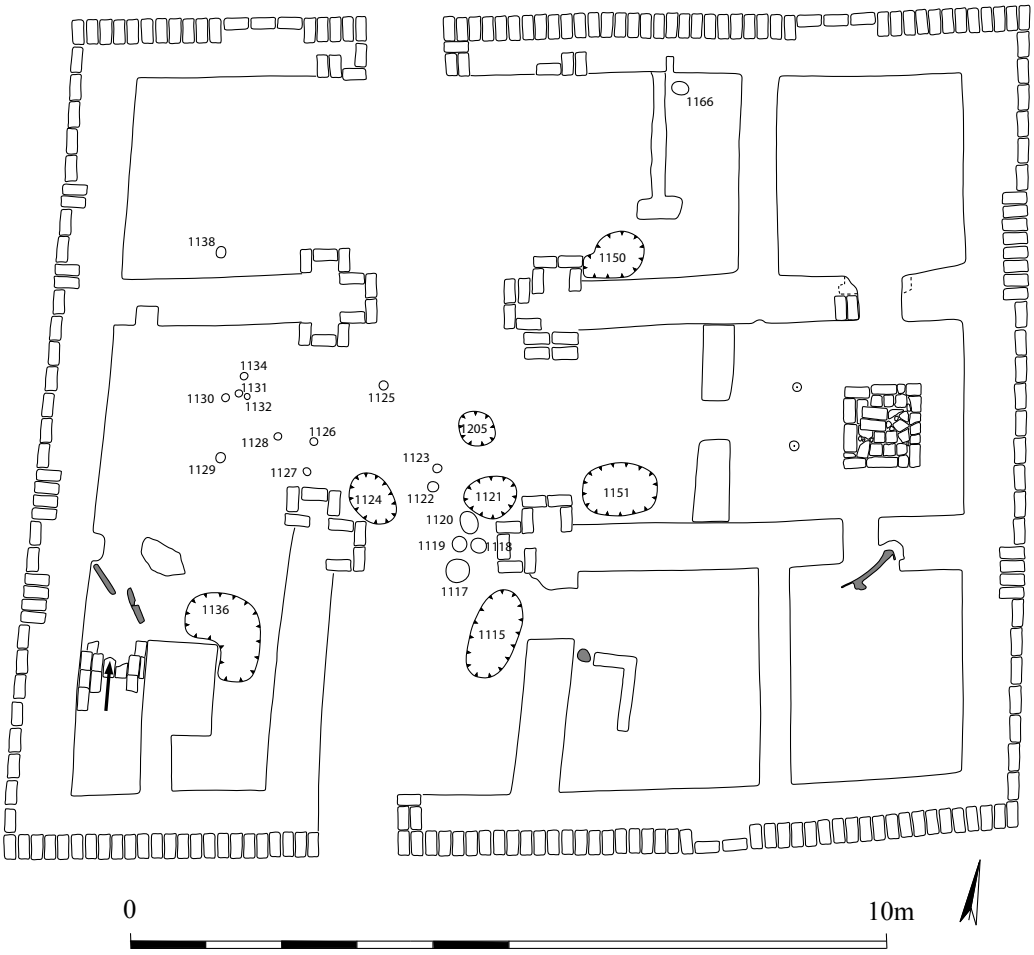

Figure 2. Location plan of the post-holes and pits (scale 1:100).

that wall may be the due to the unevenness of the ground prior to construction of the church. The foundations of the eastern wall were complicated by a change in design during the construction of the church. The orientation of the eastern wall was changed after it had been constructed to a height of at least three courses. The original orientation was the same as that of the western wall, this would have given a skewed shapes to the eastern rooms of the church. The remains of this original wall (1184) were represented by the external face only for most of its length, this was one course of red brick headers. The northern third of (1184), within the north-eastern corner room, survived to three courses in height and had a width of 650mm, equivalent to two headers (Figure 4). The later wall of the amended orientation was built over that first wall and, therefore, required gravel foundations where its position diverged from that of (1184) (Figure 14). Throughout the church, the floor surface was simply the silt/sand natural layer (1159) that the church was constructed on, no additional floor surface was added and no paving of any kind was used.

Plate 3. Painted plaster fragment (SF:2457).

The entrances

The building was entered via doorways in its northern and southern walls. The entrances were positioned slightly to the west of centre of these walls. The northern entrance led into the north aisle, central to that aisle's east-west axis. The southern entrance led into the much smaller south aisle, its position opposing the north entrance. Both doorways were 1m in width, their original heights obviously being unknown. Their original thresholds were not preserved due to later modifications/repairs. The sides to the entrances were lined with red bricks, in common with the outer faces of the main walls. No remains of the original door jambs or sockets were present. However, remnants from an original door (Plate 6) survived buried under the later modifications made to the north entrance. This was composed of an iron hinge (SF:246) and a parallel length of disintegrated wood. The door must have

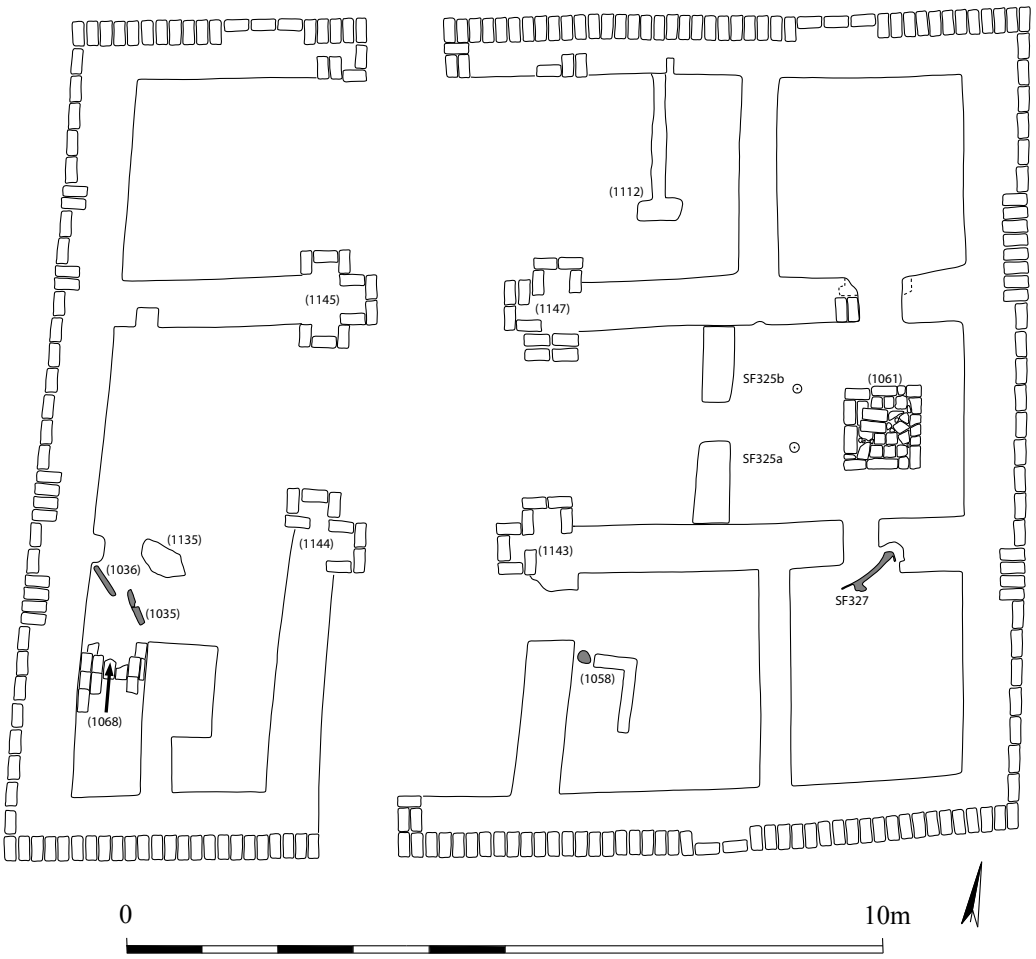

Figure 3. Plan of the church, phase I (scale 1:100).

been attached to a wooden jamb set against the western side of the entrance. It was in line with the inner face of the north wall. It is not known if this was part of a single leaf door or if the door was of two leaves. Although no door remains were present at the east side of the entrance, the entrance width of 1m is approaching a size where two doors may have been used.

The sanctuary chamber

Central to the east end of the church was the sanctuary chamber containing the altar. This room was almost square in shape measuring 3.1m east-west by 2.6m north-south. No apse was provided and the small size of the church resulted in the altar being constructed with only 550mm between it and the back wall of the sanctuary chamber. The altar was built on a raised foundation (1192) of red brick and mud-brick pieces bonded with a thick mud mortar (Figure 5). Above this foundation was a layer of grey ash 40mm thick (1181), it seemingly had a religious significance and it may have been associated with the founding of the church. The altar (1061) was built over the ash layer. It was constructed of both red bricks and mud

Plate 4. The interior of the church, looking east.

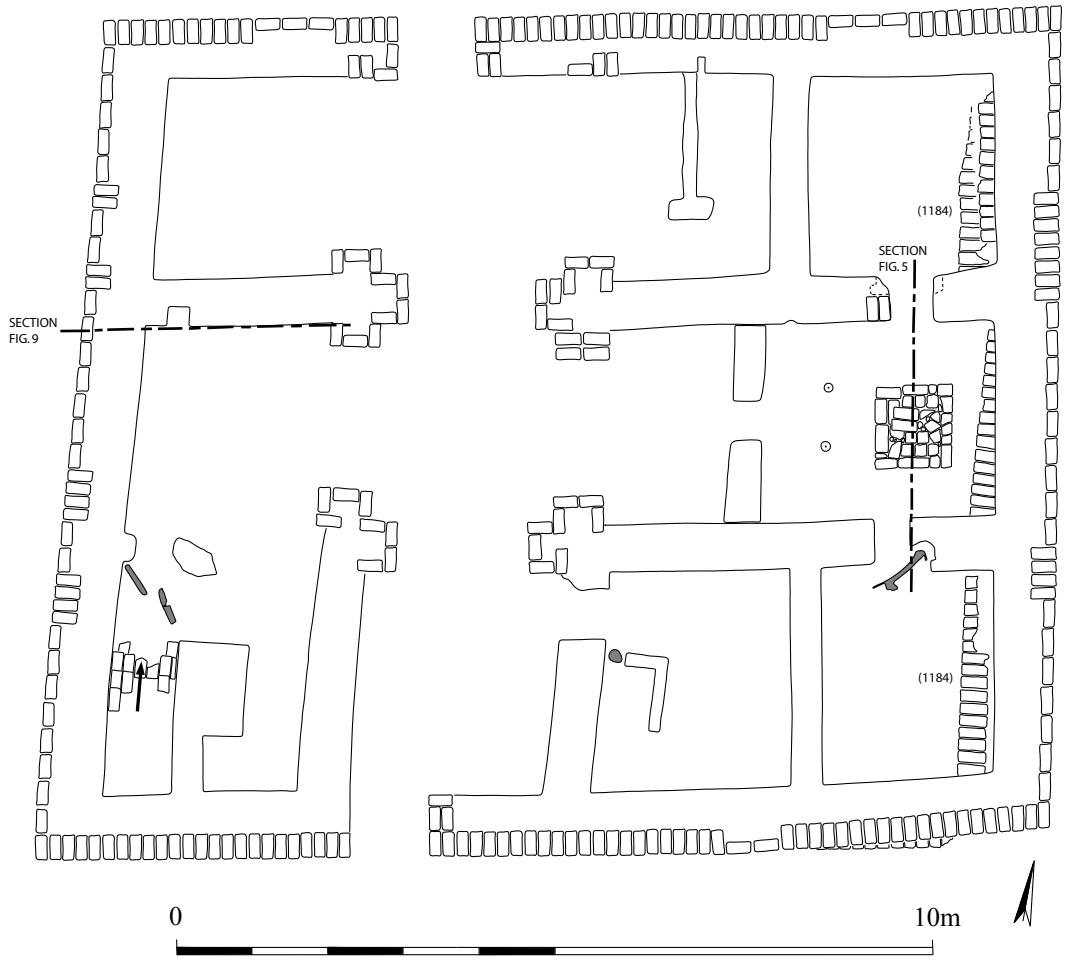

Figure 4. Plan of the church showing the difference in orientation of wall (1184) to that of the eastern church wall (scale 1:100).

bricks of the same type as used in the rest of the church's construction. Generally, whole bricks were used for its outer faces with half bricks and brick fragments used within its core. Three complete courses survived with the fourth course represented by just two bricks. The lower two courses were of mud brick, the upper ones red brick. The altar survived to a height of 400mm, its original height probably being in the region of 1m. The sides of the altar had been coated with mud plaster.

Located a little more than 500mm west/in front of the altar, were the broken bases of two ceramic columns (SF:2520, 2521) (Figures 3 & 4). These column bases had been visibly shifted somewhat from their original positions, the larger of them (SF:2521) being upside down. They had diameters of 120mm with individual heights of 160mm and 70mm. They were present below the level of the altar so must have been set into foundation pits. The pits' extents were unclear on account of previous pitting in the area prior to or during the construction of the church. The column bases remained in the ground after the columns had become broken. The larger of the bases had a small central hollow which could have accommodated a

Plate 5. The interior of the church, looking west.

Plate 6. Iron hinge (SF:246) and disintegrated wood comprising the remains of the north entrance's door.

metal dowel or some other aid to bonding.

The north-eastern corner room

Flanking the sanctuary chamber on either side were the sacristies. They were both entered via the sanctuary chamber, with no access directly into the body of the church. The entrances to both of the rooms were designed to accommodate doors. Rebates for door jambs built into one side of each of the entrances attest to this. Both of the doors opened into the sacristy rooms.

The northern sacristy or prothesis measured 2.7m

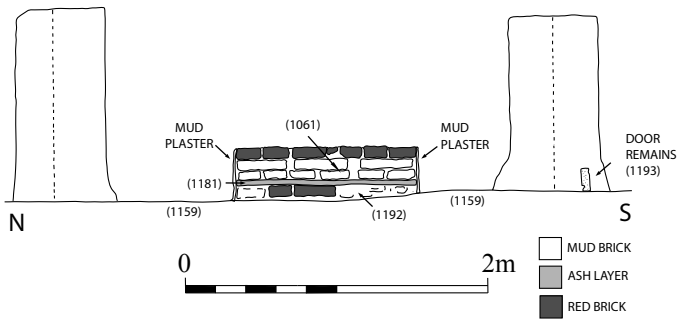

Figure 5. Cross-section of the sanctuary chamber and altar (scale 1:50).

north-south by 2.5m east-west (Figure 6, Plate 7). Immediately to the north of its entrance was a single line of bricks. As the tops of these bricks were flush with the mud-floor surface, their purpose was unclear. It is probable that they had an association to wall (1184), being the base of an east-west wall which was later moved due to a design change made to the eastern end of the church. The remnants of wall (1184) within this room seem to have performed some function. They were above the level of the floor surface and protruded to a maximum of 500mm into the room from its eastern wall. White plaster present on the outer faces of the lowest course of bricks indicated that the wall remains had seemingly been incorporated in a mastaba construction. This structural feature was mirrored by bricks (1168) laid as headers in a single row against the western wall of this room. The northern wall of the room was also provided with a row bricks laid as headers (1169), the room therefore, having mastaba against three of its sides. These mastaba survived to a maximum height of two courses and were constructed of bricks of the standard size. The northern and western mastaba had lower courses of mud brick and second courses of red brick. Small remnants of white plaster on the walls behind the northern and western mastaba indicated that the walls were whitewashed prior to the mastaba being constructed.

The eastern end of the northern mastaba (1169) displayed a marked difference in its form. Fired bricks were laid on their sides to form two square cavities each measuring 300mm north-south by 200mm east-west. Abutting the south side of these a flat rock had been placed. The function of these cavities is unclear, they had the appearance of drains but didn't possess any associated drainage paraphernalia. Also, there was no difference between the compositions of the fills they contained with that of the deposits external to them. A possible interpretation of their function could be as soak-a-ways, alternatively they may have simply been small cupboards. It has been suggested that the northern sacristy was sometimes the residence of the sacristan (Monneret de Villard 1957, 8, 14). The presence of soak-a-ways or cupboards as well as mastabae in this room could make more sense if this was the case.

In the south-east corner of the room, on the red bricks flush with the mud floor was an area where the bricks had been stained. This staining occurred over an area 300mm in diameter and was seemingly caused by some sort of oil or incense. This can be compared with similar deposits noted elsewhere formed by the dripping of an incense burner or oil lamp over a long length of time. These have been noted in the Church of the Granite Columns at Old Dongola (Gartkiewicz 1990, 260), the Church on the Point (Kjølbye-Biddle 1994, 22) and the Cathedral at Qasr Ibrim, and the Us Island church (Näser 2005, 49-68).

The highest surviving course on the wall comprising the west side of the entrance was represented by two red bricks. Excepting the piers and the main entrances, red bricks were not used within the internal structure of the church. As such, these bricks seem to hold some significance. They were not aligned in the correct direction to form the lowest course of an arch spanning the doorway and also they were below the height of mud bricks on the opposing side of the entrance making their

Plate 7. North sacristy interior with later phase mastaba (1062). Note the staining on the bricks near the south-eastern corner of the room.

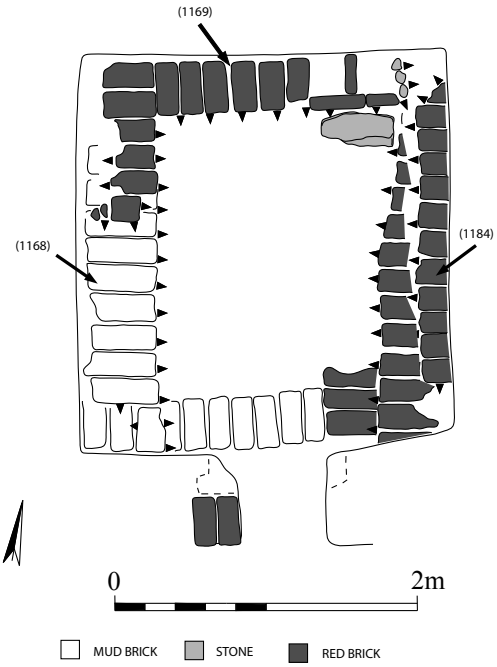

Figure 6. Plan of brick mastaba and drain? within the northern sacristy (scale 1:50).

association with an arch unlikely. It is more likely that they were intended to provide additional strength to a door component (the timber door jamb or hinge) placed against them.

The south-eastern corner room

The southern sacristy or *diaconicon* measured 2.9m north-south by 2.3m east-west. Unlike the *prothesis* it did not contain any internal fittings. Their absence could be explained by the possibility that some of the practices which had been carried out in the *diaconicon* in other Nubian churches, had been carried out in the extra southern room in this church. With access to the *diaconicon* in this church not permitted to the congregation it may have been used solely to store the vestments.

Deposited at the foot of the eastern wall of this room, midway along its length, was a collection of beads (SF:2506, 2507) (Plate 8). This assemblage, of over 200 beads, contained many different types made from a variety of materials. A large number were still strung on the preserved string of the necklace(s) they comprised. Their quality and obvious worth imply that the deposition of them may have been an intentional act akin to making a foundation deposit rather than them simply being lost. A not too dissimilar foundation deposit was found beneath the flooring in Church ED at Old Dongola. This was a jar which contained 100 beads (Jakobielski and Medeksza 1990, 170).

Remains of a door survived buried under later modifications made to the entrance of this room. This was composed of an iron hinge (SF:2522) and a parallel length of disintegrated wood (Figure 4, Plates 9 and 10). The door had seemingly been attached to a jamb set within the rebate on the western side of the entrance. The iron hinge was 750mm in length and will have extended across the entire width of the single door of the entrance. The door remains had been left in a partially opened position. It

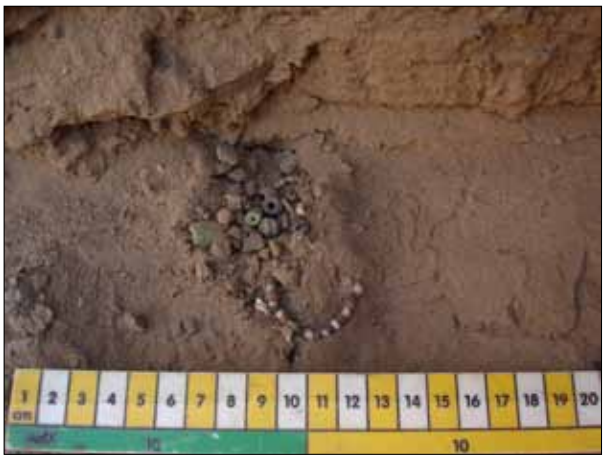

Plate 8. Assemblage of beads (SF:2506, 2507) deposited at the foot of the eastern wall of the south sacristy.

seems that when the door was replaced, the bottom part of it was simply left *in situ*. Perhaps immediately after the majority of this door had been removed, the remaining part had been built over with mud bricks forming a raised threshold.

The nave

The nave was separated from the sanctuary chamber by screening walls, it occupied the area between the screen walls and the western end of the church. For much of its length it was bounded by the internal walls running from the piers. Access to the northern aisle was between the two northern piers only, the south aisle also could only be accessed from between the two south piers. The nave measured 7.9m in length and had a width of 2.7m.

Plate 9. Door remains (SF:2522).

The screen walls or *hijab* differed from every other internal wall within the church on account of them being built as separate entities from the overall church structure. Their brickwork was not bonded with that of the walls they ran from, this is comparable with the other examples of Nubian churches with mud-brick screen walls. These screen walls were constructed from mud bricks of the same type as that used elsewhere in the church and the walls were built onto the same silt/sand horizon as the rest of the church. The screen walls were, therefore, an original feature. They both measured slightly more than a metre

Plate 10. Door remains (SF:2522) with the later raised threshold (removed during excavation where it directly overlay the door remains).

in length, and with a 500mm wide entrance in the centre, spanned the 2.7m width of the nave. They survived to a height of 900mm and had widths of 450mm, the width of a single header and stretcher. In common with the other internal walls of the church, a thick mud-plaster coating had been applied to their faces.

Within the north wall of the nave, situated 300mm from the nave's north-western corner was a small recess. The recess occupied the full height of the surviving wall (950mm) and its horizontal dimensions formed a square 300 x 300mm. The recess is clearly an original feature, the purpose of which is unclear. No other structural elements were associated with it.

The piers

In the centre of the church were four piers which, with their adjoined walls, formed the northern and southern limits of the nave. Their cores were of mud bricks and their outer faces were made of red bricks. Their nature and shape imply that they were designed to support arches running between them. The 'L'-shaped southern piers (1143) (Plate 11) and (1144) supported a brick arch running from one to the other as well as arches running to the two northern piers. The northern piers (1145) (Plate 12) and (1147) were 'T'-shaped, indicating that as well as an arch running between them and arches running to the southern piers, they supported arches running to the north wall. The northern responds to these north arches are represented by the north wall in those places having its interior face constructed of red bricks (Plate 13). The average span of the central arches was 1.8m and the span of the two northern arches averaged 2.3m. Using the pier bases as a guide, the arches had widths of 600mm. The preservation of the piers ranged from three to eight courses or 300mm to 800mm in height. With arches spanning the central area of the nave, it is probable that they supported a central cupola. The two arches over the northern aisle perhaps aided the support of its roof. A roof across the southern side of the church would have obtained structural support from the internal walls it rested upon.

The aisles

The northern aisle was the larger of the two. Its length, east-west was 8.1m and its width was 2.7m. As mentioned previously, the only opening from the north aisle into the nave was between the two piers. As such, that aisle would have afforded limited visibility of the central area of the church to any persons within it. The only original features within the northern aisle were a small partition wall (1112) and a vertical wall slot. The partition wall was located 1m west of the eastern end of the aisle (Plate 14). It was orientated north-south and abutted the

Plate 11. South-eastern pier (1143).

Plate 12. North-western pier (1145).

Plate 13. The fired-brick respond to the north-eastern arch. Note the lowest course of the (removed) later mud-brick reinforcement (1186) abutting the respond.

northern wall of the aisle. It was made from a single row of mud-brick stretchers giving a width of 150mm. It had a length of 1.95m and a maximum surviving height of 350mm (four courses) where it abutted the northern wall of the aisle. At its southern end it had a width of 550mm, its terminus seemingly being formed as a small buttress to provide support to the wall. This would suggest that the wall originally attained a greater height than that which was observed. Small walls of similar form to this have been noted in the east ends of the north aisles in several churches excavated in Nubia. They have been interpreted as screen walls enclosing a vestibule and providing a screened passage to the north-eastern corner room, which in those cases were entered from the north aisle (Adams 1965, 97). However, in the case of the Mis church, the north-eastern corner room was entered via the sanctuary chamber, so that interpretation cannot be applied in this instance. It is, therefore, unclear as to what the function of this wall could have been. A single example of a comparable church is the Kidinkoing Church at Sonqi East (Maystre 1980).

Possibly directly associated with the partition wall was a small slot in the north-western corner of the enclosure formed by that wall. The slot occupied the full height of the surviving northern wall of the aisle, it was 990mm high. The horizontal dimensions of the slot were small, being 10mm wide and penetrating 25mm into the wall. The purpose of the slot is unclear, it could have held a timber upright supporting some kind of internal fitting.

Plate 14. The eastern end of the northern aisle with partition wall (1112). The wall in the background dates to a later phase.

With the south side of the church containing a stairwell as well as an additional room to the west of the south sacristy, the south aisle was necessarily small. It measured only 2.6m east-west by 2.9m north-south. Its characteristics had more in common with it being an ante-room than an aisle. Its purpose may simply have been to provide a link from the south entrance to the nave and the additional southern room.

The southern room

Located between the south sacristy and the southern aisle was a small room, the inclusion of which into the church plan reduced the size of the southern aisle. The provision of a room in this location was not a standard feature of Nubian church design. It may have been intended that practices such as baptisms, often conducted in the south sacristy were in this church conducted in this additional room. The room was almost square in shape, measuring 2.9m north-south. The east-west dimension was 2.4m at the northern end of the room and 2.8m at the southern end, the shape of the room being a result of the difference in orientations of the main eastern and western walls of the church.

Within the west side of this room was an L-shaped section of mud-brick wall (1058) (Figure 4) surviving to four courses, 300mm height. It was constructed of single rows of bricks laid as stretchers. Overall it measured 600mm east-west by 1m north-south. The brickwork did not abut the western wall of the room, a gap of 200mm existed between the two, within which was a wooden post which may have been part of the structure. The modest nature of the structure was such that it probably did not extend to a great height. It may instead have comprised the north and east faces of a *mastaba* or the supports of a table or font.

Situated immediately inside the entrance to the room was a large rectangular piece of wood (1079) (Plate 31). It measured 660 × 190 × 100mm and in its end a square socket measuring 60mm×60mm and 30mm deep had been cut. Clearly structural, it was most likely a door lintel with the socket originally accepting the tenon of a jamb. The entrance to this room differed from those of the sacristies in that it had always had a raised threshold, that threshold being three courses, 300mm high.

The south-western corner room

The south-western corner of the church was occupied by the remains of the staircase. These included fragmentary brick steps and a substantial, rectangular newel. The newel was 1.3m in length north-south, 900mm wide east-west and survived to a height of 1.05m. To the west of the newel were the steps (1068), remains of the first four being present (Figure 7). Each of the steps were originally constructed of five red bricks laid as headers lying over five mud bricks also placed as headers. The steps were laid onto a foundation of compacted silt/sand and gravel (1028). That foundation material was contained by the main west and south walls of the building, by the newel and by the section of wall running from the newel to the main south wall. The staircase would have ascended towards the east after the first five or six steps with the third flight ascending northwards. Those steps of the upper half of the staircase would have necessarily been to the east of the north-south central axis of the newel. The

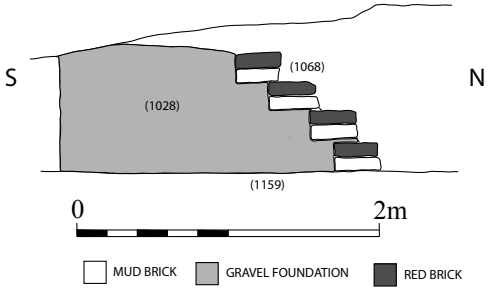

Figure 7. Steps (1068) cross-section (scale 1:50).

Plate 15. Steps (1066) with door (1035), door (1036) and very faint traces of white plaster on the wall behind it.

absence of any foundation containing wall to the east of the newel indicates that those steps would have been supported on wooden beams running from the newel to the adjacent wall or by a raking barrel vault. The resulting space to the east of the newel was 'L'-shaped and had a length of almost 2m north-south. The space would have been suitable as a cupboard or storage area but whether it was ever utilized as such is unknown.

Associated with the steps and a little to the north of them were the remains of a door (1036) (Plate 15, Figure 4). A hinge on it would have been attached to a jamb which in its turn would have been attached to the small engaged pier on the main western wall of the building. The door was 50mm thickness and survived to its full width of 500mm, it was preserved to a height of 950mm. It had been left in a half opened position. Located 500mm east of the small engaged pier and 900mm north of the newel was an eroded mass of mud brick (1135). Of indistinct shape, it measured approximately 500mm north-south by 500mm east-west and survived to three courses in height. This was seemingly the remains of the east-west orientated wall which had run from pier (1134) and had enclosed the staircase and the 'L'-shaped space.

Located next to door (1036) was door (1035), this was present in two pieces, both of which had been shifted from their original position. The larger of the pieces was 1.15m in length, the width and thickness were as original, being 370mm and 70mm respectively. This larger piece lay roughly horizontal on 650mm of post-collapse silts. The smaller of the two pieces represented the lower part of the door and survived to 500mm height. It was in an upright position and directly over the original floor of the building. Its position was such that it was not connected to anything structural. It is unclear if (1035) was a second door within the entrance to the stairs or was a door to close off the 'L'-shaped space, the first seems the more likely.

With the maximum height of the church remains being only 1.4m, it is unknown whether the church had a second storey, galleries, or was of a single storey only with the stairs leading directly onto the roof. The small size of this church would not necessarily preclude a second storey or galleries. An example of a church of not too dissimilar ground floor layout is that of the Central Church at Serra East (Mileham 1910). The preservation of that church was such that its second storey survived prior to the 1960s yet its dimensions were even smaller than those of the Mis church. However, that is the only example of a church with a fully formed second storey while the presence of galleries in Nubian churches is confined to those of early date. It is thus likely that the Mis church, being of the Late period, was a single storey building with the stairs leading to the roof.

Inhumations

Contemporary with the religious use of the church were two burials, both within graves cut under the western church wall.

Grave 1190 (Burial 221**)** [Skeleton (1110), Grave cut L: 2.18m, W: 540mm, Depth: 450mm]

Plate 16. Grave 1190.

Plate 17. Brick blocking of Grave 1190, looking west.

A long, moderately wide grave cut, the sides were straight and vertical, the ends were rounded. The grave cut was dug underneath the western wall of the church, undercutting it from the internal side so that the body could be placed fully under the wall. The body of an adult was laid on its right side with the head facing west (Plate 16). It was orientated in line with the wall it underlay with the head to the north and the feet to the south. The right arm was under the body, the left arm was along the side of the body. The legs were extended with the left leg over the right. Half a red brick, originally 360 × 180 × 50mm in size was positioned leaning into the centre of the upper back, thereby stopping the body from rolling into a supine position. The entrance to the grave was then blocked with red bricks of both 300 × 150 × 70mm and 360 × 180 × 50mm size (Plate 17). A number of the bricks had lime rendering attached to them, they had obviously been reused. The bricks were deposited within the eastern side of the grave cut in a rudimentary fashion, piled up to reach the base of the wall, thereby leaving the body in a void. The remaining space within the grave cut, above the bricks, was then backfilled. The body was preserved to a partly mummified state with desiccated soft tissue holding the skeletal elements together. The body was covered from the shoulders to the feet in a very finely woven, dark blue and red banded, fabric. Fragments of beige leather were preserved about the pelvic region. Under the body were large fragments of a red and black chequered blanket. The burial was not marked by a monument.

Grave 1158 (Burial 218**)** [Skeleton (1157), Grave cut L: 1.84m, W: 530mm, Depth: 420mm]
A long, moderately wide grave cut, the sides were straight and vertical, the ends were rounded. The grave cut was dug underneath the western wall of the church, undercutting it from the external side so that the body could be placed fully under the wall (Figure 9). The body of an adult was laid in an extended supine position with the head facing west (Figure 9). It was orientated in line with the wall it underlay with the head to the north and the feet to the south. The right arm was extended alongside the body, the left arm was folded across the waist. The legs were slightly contracted with the left leg partially over the right. The grave was sealed with red bricks 300 × 150 × 70mm in size (Plate 18), thereby leaving the body in a void. These bricks were arranged as a single line of headers leant at 45º against the base of the church wall. The remaining space within the grave cut, above the bricks, was then backfilled. This grave cut the remains of the burial of skeleton (1180). Desiccated skin was

Plate 18. Brick blocking of grave 1158, looking east.

present over the facial bones, the cervical vertebrae and the ribcage. Remains of skin and ligament were present on the left arm, the pelvic region and the left knee. The burial was not marked by a monument.

Within the church's associated cemetery containing over 200 inhumations, graves dug underneath the walls of the church were unusual. The relative rarity of under-wall burials would have given an intrinsic exclusivity to them. These burial locations thus imply a higher than normal social standing of the individuals contained within them. The textiles present about the body of skeleton (1110) also imply a degree of importance. It is probable that individuals buried in locations such as these would have had significant associations with the church, conceivably being priests, patrons or local leaders.

Period II, Phase II - Internal Reinforcements

The early reinforcements

Associated with the two arches running across the northern aisle were two mud-brick constructions built against the red brick responds within the northern wall of the

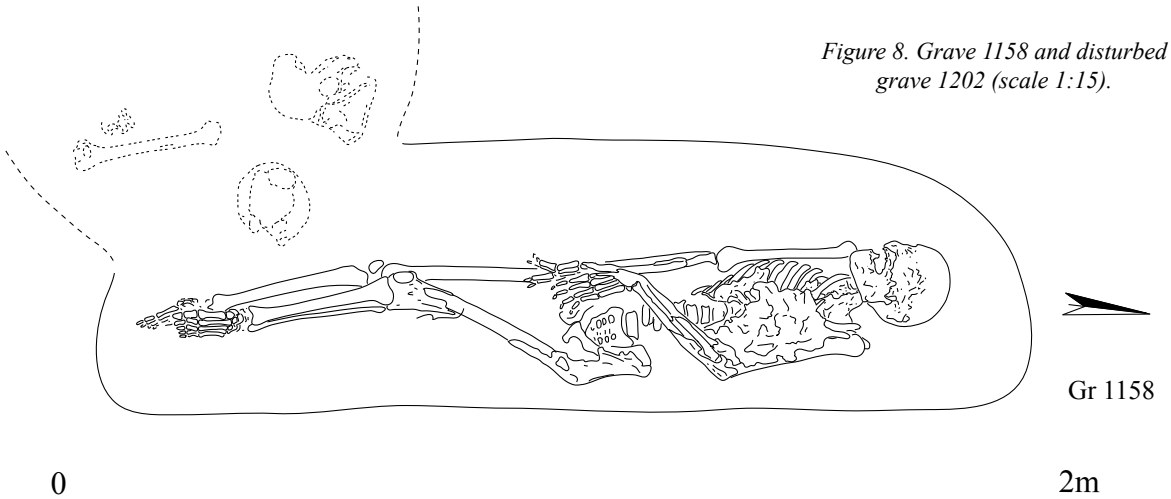

Figure 8. Grave 1158 and disturbed grave 1202 (scale 1:15).

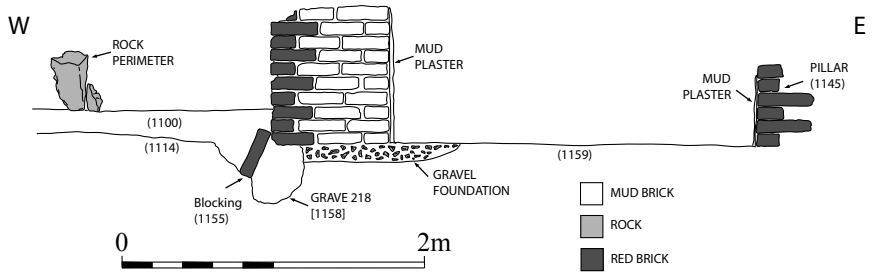

Figure 9. Section showing the western wall of the church, its foundation and grave 1158 (scale 1:50).

church (Figure 10). Construction (1186) associated with the north-eastern respond was 600mm east-west and 400mm north-south, it survived to seven courses (600mm) in height. The north-western respond's construction (1200) was the same dimensions in plan but survived to only two courses height. These constructions had been built onto the same sand/silt horizon as the original church and were formed of the same standard size of brick (300 × 150 × 70mm). This therefore implies that these constructions were contemporary with the original church construction (phase I) and had been part of the responds to the northern arches. However, with the outer faces of the piers and seemingly the arches also being of red brick, it is debateable as to why these would be constructed of mud brick if they were part of the original building phase. Also, these constructions had not been bonded into the northern wall but simply abutted it. Therefore (1186) and (1200) may represent either an alteration/amendment to the church mid construction or an episode of reinforcing the northern arches soon after the completion of the original church construction. If indeed an episode of reinforcing is represented, it would imply that the church had inherent structural problems which became manifest soon after the completion of the building. It was noted during the excavation of the church that although many of the red bricks had retained their integrity, a great many were very friable. It may, therefore, be on account of the poor quality of red bricks used in the construction of the building as well as a lack of adequate foundations that structural problems existed.

Another early structural addition (1207) was built against the northern side of the south-eastern pier. It consisted of only a single course of four mud bricks and abutted the base of the pier which in that place had a layer of stones instead of being brick.

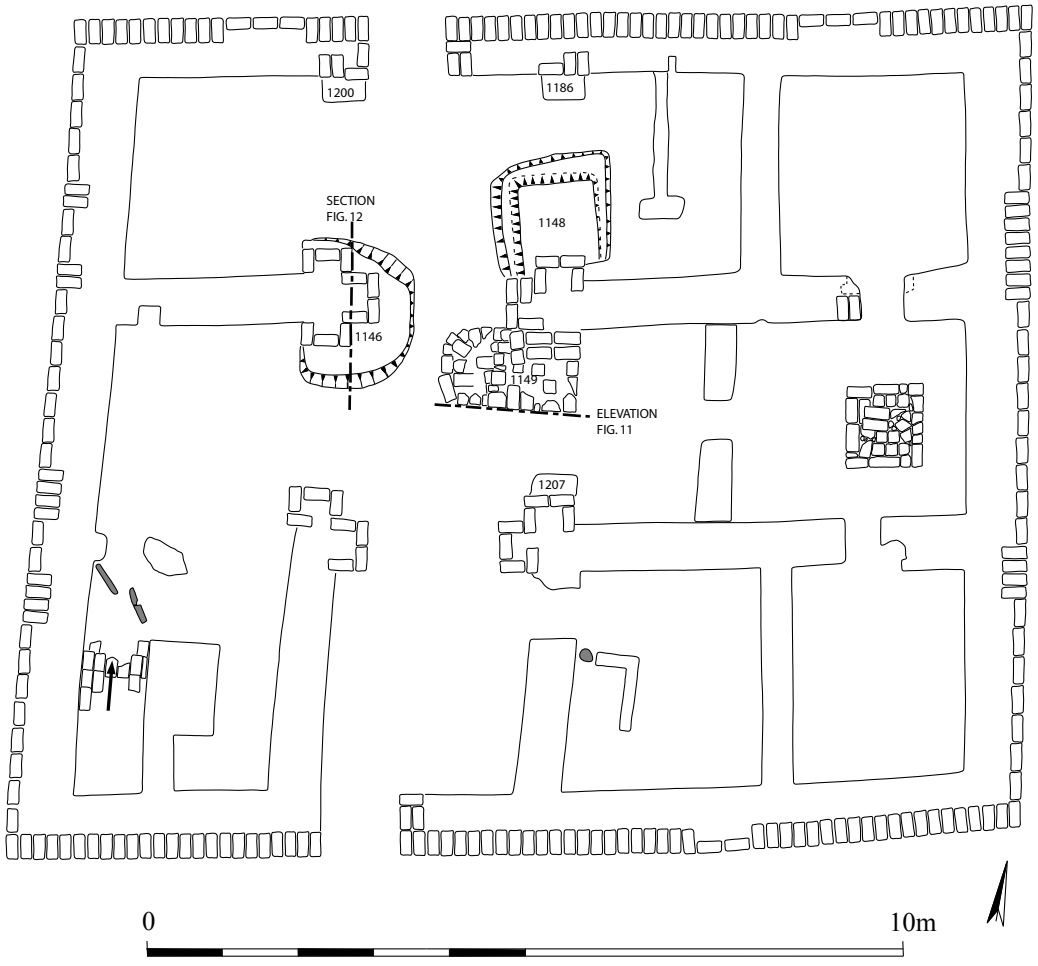

Figure 10. Plan of church with interior reinforcements (scale 1:100).

Period II, Phase III - Internal and External Additions

The silt/sand build-up layer

As mentioned previously, the original floor surface of the building was simply the silt/sand natural horizon levelled to provide a horizontal surface. On account of this, the slow build up of sand and silt deposits (1083) within the church would not have been immediately noticeable. These compacted deposits were on average 100mm thick. It was on the top of these deposits that the larger pier reinforcements and the pulpit were constructed. The phase II early reinforcements previously mentioned preceded it.

The pulpit

A second phase of construction within the interior of the church saw the addition of a pulpit (1149) and the strengthening of the internal structure. The pulpit (Figure 11, Plate 19) was constructed against the south side of the

Plate 19. The pulpit.

north-eastern pier. It was built of both red bricks and mud bricks with most of the brickwork consisting of broken or half bricks. The outer faces were mainly of red bricks, the interior a mixture of red brick and mud brick. The west end of the pulpit was a single course of bricks arranged in a semicircular shape, the east half of the structure was a rectangular shape five courses high. The dimensions were 1.85m east-west by 750mm north-south and 500mm surviving height. On the exterior faces were patches of thick mud, the remains of the mud plaster coating. The shape of the pulpit indicated that it had steps leading up from the west to a small platform at its eastern end. The preponderance of broken bricks used in its construction and the haphazard quality of the build contrasted with

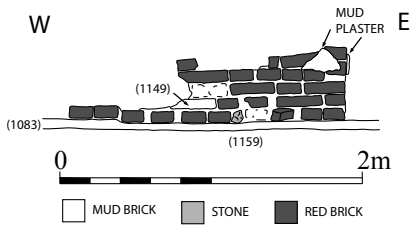

Figure 11. The pulpit (scale 1:50).

the rest of the church. The uneven base of the pulpit was 50-100mm above the level of the base of the pier it abutted. No remains of an earlier pulpit were present. As less than a quarter of Late Nubian churches have pulpits (Adams 2009, 000), this pulpit did not necessarily replace an earlier one.

The large pier reinforcements

To make good an apparent weakness in the structure of the building, the two northern piers were reinforced. The original piers were seemingly unable to support the weight they had to bear, perhaps because of failures of their constituent red bricks.

The north-western pier had a reinforcing addition (1146) which was a sub-semicircular shape encasing the original pier on its north, east and south sides (Plate 20, Figure 12). With a wall running from the pier's west side, no further buttressing was required there. The bulk of the pier's reinforcement was on its south and east sides. The reinforcing addition was constructed mainly of mud bricks of the standard size with the occasional red brick. The outer, circular face was constructed primarily using stretchers. Construction of the interior utilised complete bricks, half bricks and brick fragments to create a solid mass. The dimensions were 2.05m north-south, 1.5m east-west and 550mm surviving height. The base of it was constructed over a silt build-up layer (1086/1083) which was 100mm thick. The reinforcement, therefore, was added some time after the original building was constructed.

Plate 20. The north-western pier reinforcement (1146).

The position of the reinforcement, having the majority of its mass on the south and east sides of the pier implies that the structural problems were either with the arches spanning the areas southwards and eastwards from that pier or the pier itself was being forced to the south east. Whatever the case, the consequence of it was a reduction of space within the nave. The pulpit was less than half a metre from the reinforcement, the access between the nave and the north aisle very much reduced in size.

The reinforcing addition (1148) to the north-eastern pier was built in a different form (Plate 21). It only reinforced the north side of that pier. This may have been on account of the location of the pulpit on the south side of the pier prohibiting further structure being built there, or it may

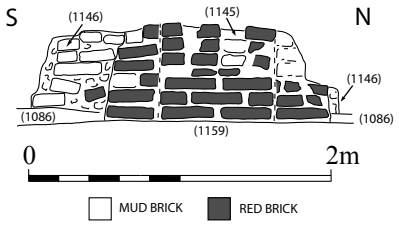

Figure 12. Section of the north-western pier (1145) and the later reinforcing addition (1146) (scale 1:50).

have been that this reinforcement was only intended to provide support to the arch spanning northwards from the pier.

Similar to the north-western pier reinforcement, this addition was also constructed some time after the original building. It was constructed over a silt build up layer (1095/1083) that was up to 150mm thick. The reinforcement was a sub-rectangular shape with a reduction in its dimensions halfway up its surviving height. The lower portion was 1.6m north-south and 1.6m east-west, the outer faces were constructed with the standard type of mud bricks and were three courses high. The core of the lower part was of red brick and mud-brick fragments with loose silt. The upper portion was 1.3m north-south and 1.1m east-west, it had been constructed in large part from mud-brick pieces with a large amount of mud mortar to bond them. The bricks were 360 × 180 × 50mm in size, these were the same type of brick as that used in the majority of the mud-brick grave monuments in the surrounding cemetery. The location of this reinforcement resulted in the separation of the east end from the main body of the aisle. The quality of build of the two pier reinforcements was of a lesser standard than seen in the Phase I church construction, suggestive of them being hastily manufactured.

The north-eastern corner room

A secondary phase of internal fittings construction within the northern sacristy was represented by *mastaba* (1062) built against its west wall (Figure 13). It was not built along the entire length of the wall and as such did not abut either the north or south walls of the room. It was built mainly of mud bricks of the standard size with the occasional red brick and pieces of broken mud brick and coated in a thick mud plaster. It had a length of 900mm, a width of 600mm and a height of 350mm, surviving to four courses. It was built over the existing platform, running along the western edge of the room and was constructed after a build up of 100mm of deposit (1173/1083) (Figure 14).

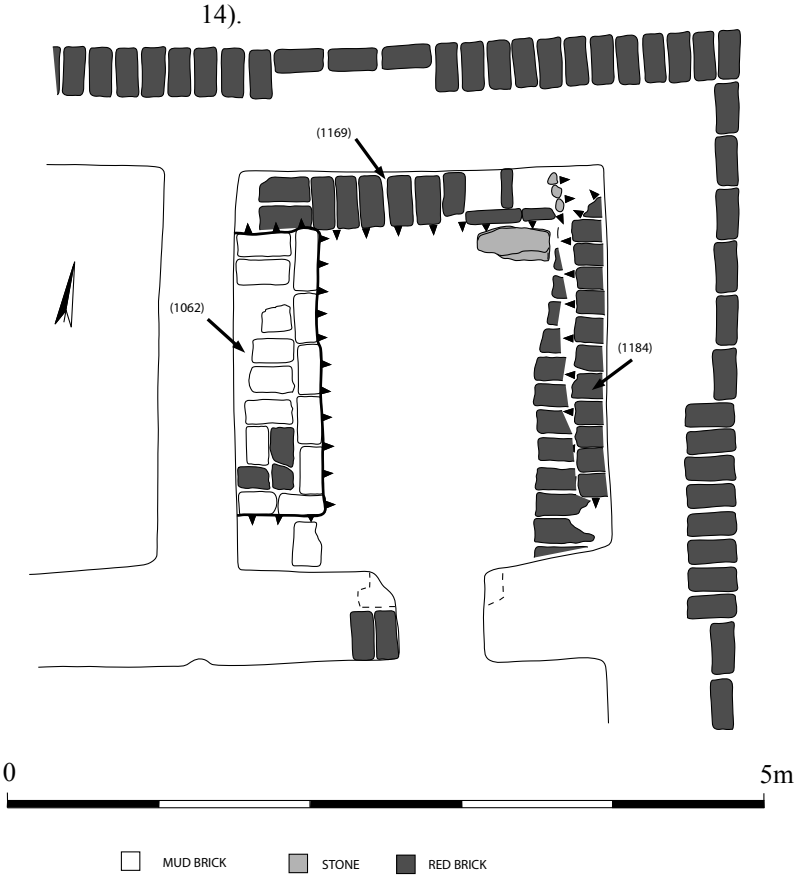

Figure 13. North sacristy interior with the added mastaba (1062) (scale 1:50).

Plate 21. The north-eastern pier reinforcement (1148).

The south-eastern corner room

Remains of two wooden doors were present in a dislodged position, leant against the eastern wall of the room (Plate 22) on layers of mud-brick rubble and wind-blown silts (1020) 300mm thick, implying they were placed there after the roof of the church had been removed or had collapsed. These may not necessarily have dated to the first phase of the church. The fact that the entrance threshold to this room had been raised (Plate 10) indicates the continued use of this room and it is with this use that the doors are presumably to be associated. These later doors were possibly still performing their intended function until the time that the church fell into disrepair/collapse. They seemingly belonged to the entrances to the *prothesis* and the *diaconicon*, having been removed from those locations.

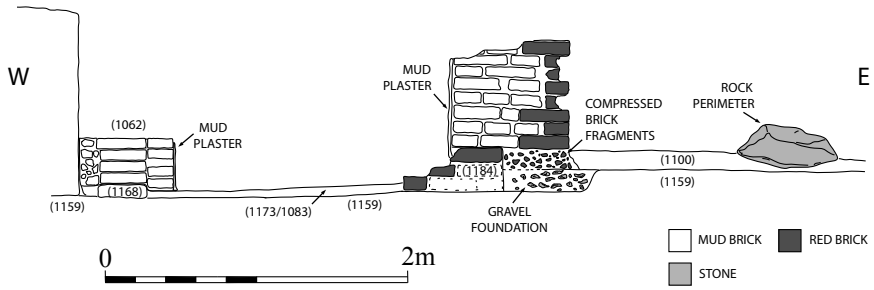

Figure 14. Section through the north sacristy with mastaba (1062), wall of original orientation (1184) and the eastern church wall and its foundation (scale 1:50).

Of the two doors, the one left in an upright position (1044) was the better preserved. Its height was 820mm, it was still of its original width of 490mm and of its original thickness of 50mm. Two examples of decorative studs were present on the door. These were shallow, convex dishes that had been attached to the door with single iron nails. One stud was of copper-alloy (SF:2352), the other was iron (1044). Similar iron studs (SF:251, SF:252) were recovered from post-collapse deposits (1030) outside the church. Another (SF:2109) was within the build-up deposits (1023) in the north sacristy. The second of the doors (1060) was found laid horizontally. It had the same

Plate 22. The south-eastern corner room, interior. Doors (1044) and (1060) with ceramic vessels below them stratigraphically.

thickness of 50mm but was not preserved to its original width, measuring just 340mm. It had a length of 1.73m, which may be approaching that of its original dimension.

Wooden posts

Cut through the silt/sand build up layer (1083) and into the natural layer (1159) were eight holes containing wooden posts (Figure 15). Of these, five were located in the western end of the northern aisle (Plate 23). Three of these were set close to the walls and were of larger diameter. The largest, (1042), was 280mm diameter and 1.01m height. (1108) was 200mm in diameter and 90mm high. (1109) was 210mm in diameter and 60mm high. Set at distances slightly further from their adjacent wall were two smaller diameter posts. (1106) was 150mm in diameter and 290mm high, (1107) was 140mm in diameter and 330mm high.

Contemporary with the posts within the northern aisle were three within the western end of the nave. Two of these were located adjacent to the northern wall of the nave and presumably performed the same function as the posts in the north aisle. (1105) was 150mm in diameter and 670mm height. (1206) was 200mm in diameter and 550m high. The third post (1090) in the nave was located equidistant between the mud-brick pillar remains (1135) and the wall abutment. This had a diameter of 140mm and a height of 910mm. Its location is suggestive of it

Plate 23. Wooden posts within the western end of the northern aisle.

having an association with the door to the stairwell. That may however be coincidental, with this post possibly performing the same function as the others.

Finds

Upon a make-up layer/surface (1083), within the small area bounded by the pulpit and the large pier reinforcements were the remains of three large ceramic vessels (Plate 24). Almost abutting the northern side of the pulpit was the flat base of thick-bodied vessel (1074). The

Plate 24. Ceramic vessels (1074), (1081) and (1082).

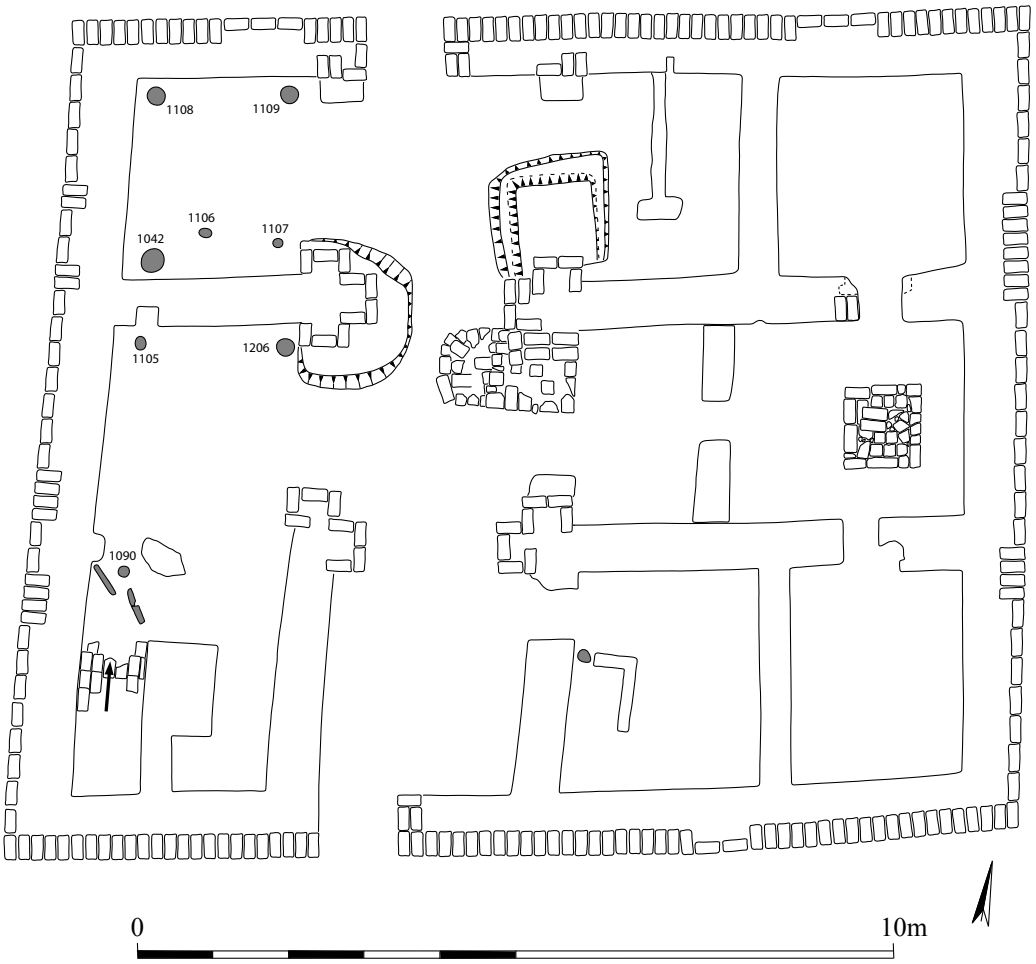

Figure 15. Location plan of wooden posts (scale 1:100).

underside of this base incorporated a large flat stud, the vessel had been intended to be fixed on a permanent basis in one position with the stud denying lateral movement. The nature of the vessel base is suggestive of it being the remains of a font, in which case possibly not in its original location. Sitting next to that vessel, the majority of a cross-shaped vessel (1081) was present. It had been discarded in a broken state with its other portion being found amongst the collapse deposits (1031) outside the church. Slightly to the north of these vessels were the broken remains of a complete bowl (1082). This was a concave shape with ridges on its inner surface which divided the bowl into quarters. The deposition of these ceramic vessels on layer/surface (1083) marks a point where the building ceases to function as a church in the traditional sense. The layers which formed over the vessels were wind-blown silts, indicative of the interior of the church no longer being sheltered from the wind.

Textile mat

Upon 200mm of build-up layer/surface (1067/1083), within the sanctuary chamber were the remains of mat (1066) (Figure 16). Its stratigraphic position was such that it was over the remains of the ceramic pillars (SF:2520, 2521) and roughly contemporary with ceramic vessels (1074), (1081) and (1082). It was not preserved in its entirety, what remained was of irregular shape

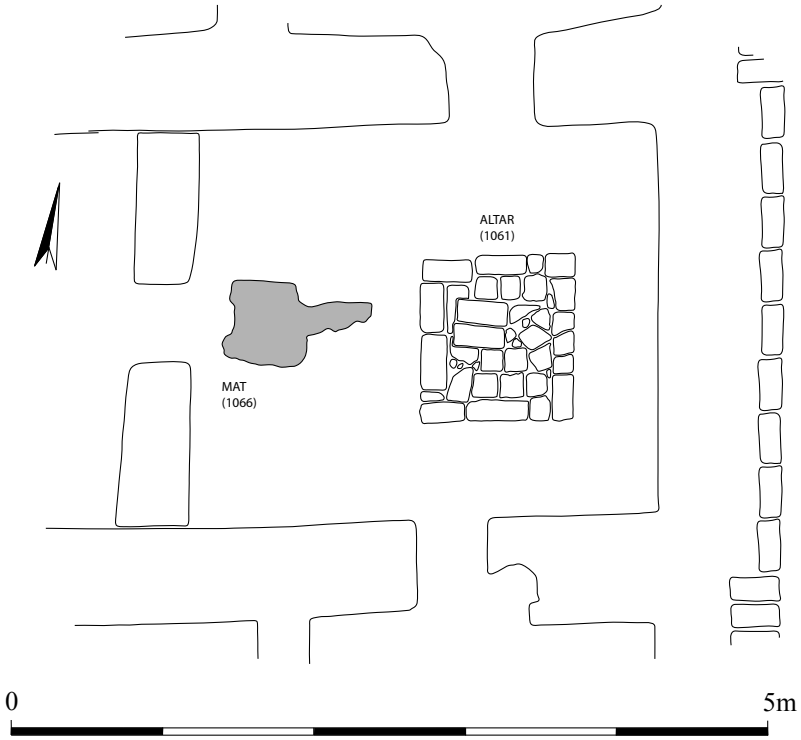

Figure 16. The sanctuary chamber and mat (1066) (scale 1:50).

measuring 950mm east-west and 550mm north-south. The mat, which has taken on the colour of the silts it was preserved within, is made from reed woven in a diagonal pattern (Plate 25).

Plate 25. Detail of mat (1066).

Stone perimeter

Over a period of time, silt/sand deposits (1100/1160) gradually built up against the exterior of the church. Constructed on top of 200-300mm of that deposit was a sub-square perimeter structure (Figures 17 & 18, Plate 26). The perimeter was constructed of angular and sub-rectangular rocks which were generally 400mm to 600mm in size, laid in a single line and a single course with the shape of the perimeter following the shape of the building. It enclosed an area of 15.6m east-west by 13.4m north-south. Openings as required allowed access to the two church entrances. The space bounded by the inner faces of the perimeter and the outer faces of the church walls was not in-filled with earth in order to create a mastaba type structure. The perimeter rocks were left as a detached feature, seemingly intended to restrict the build-up of aeolian silt/sand deposits against the sides and the entrances of the church. Due to the presence of the two entrance renovations which separated the internal build-up deposits from the external ones, there was no stratigraphic relationship between the Phase III internal and external additions.

The entrance repairs

Contemporaneously with the rock perimeter renovations were made to the entrance thresholds of the church. The original thresholds may have been nothing more than the silt/sand natural compacted by the tread of feet. This would have created problems as the wind-blown deposits built up against the exterior of the church. It may have been necessary to raise the thresholds to provide some protection against the wind-blown deposits entering the building. Whatever the reasoning for raising the thresholds, the presence of door remains (SF:246) under the northern entrance threshold renovation indicates that that entrance was raised and suggests the southern one was also. The renovation to the north entrance (Plate 27) consisted largely of red bricks but included a single sub-rectangular stone. The construction was four courses high (400mm) and two rows of stretchers wide north-south. It was built onto the original floor of the church, (which would have had to have been kept clear of silt/sand build up in order for the doors to function) its top was little higher than the external wind-blown deposits (1100).

The renovation to the southern entrance (Plate 28) consisted of a rudimentary arrangement of large flat stones and broken red bricks. The external portion took the form of a pavement which had been constructed over the silt/sand build-up layer (1100). The internal portion had partially collapsed but would seem to have once included a line of bricks perhaps three courses high and of the same style as that of the northern entrance's renovation. The base of the internal portion of this renovation was constructed of flat stones, the most northerly of which would have been used as a step. The renovation was 1m north-south, 1.1m east-west and 400mm high. The quality of build was to a lower standard than that seen throughout

Plate 26. General view of the church with its stone perimeter, looking north.

Plate 27. The northern entrance renovation.

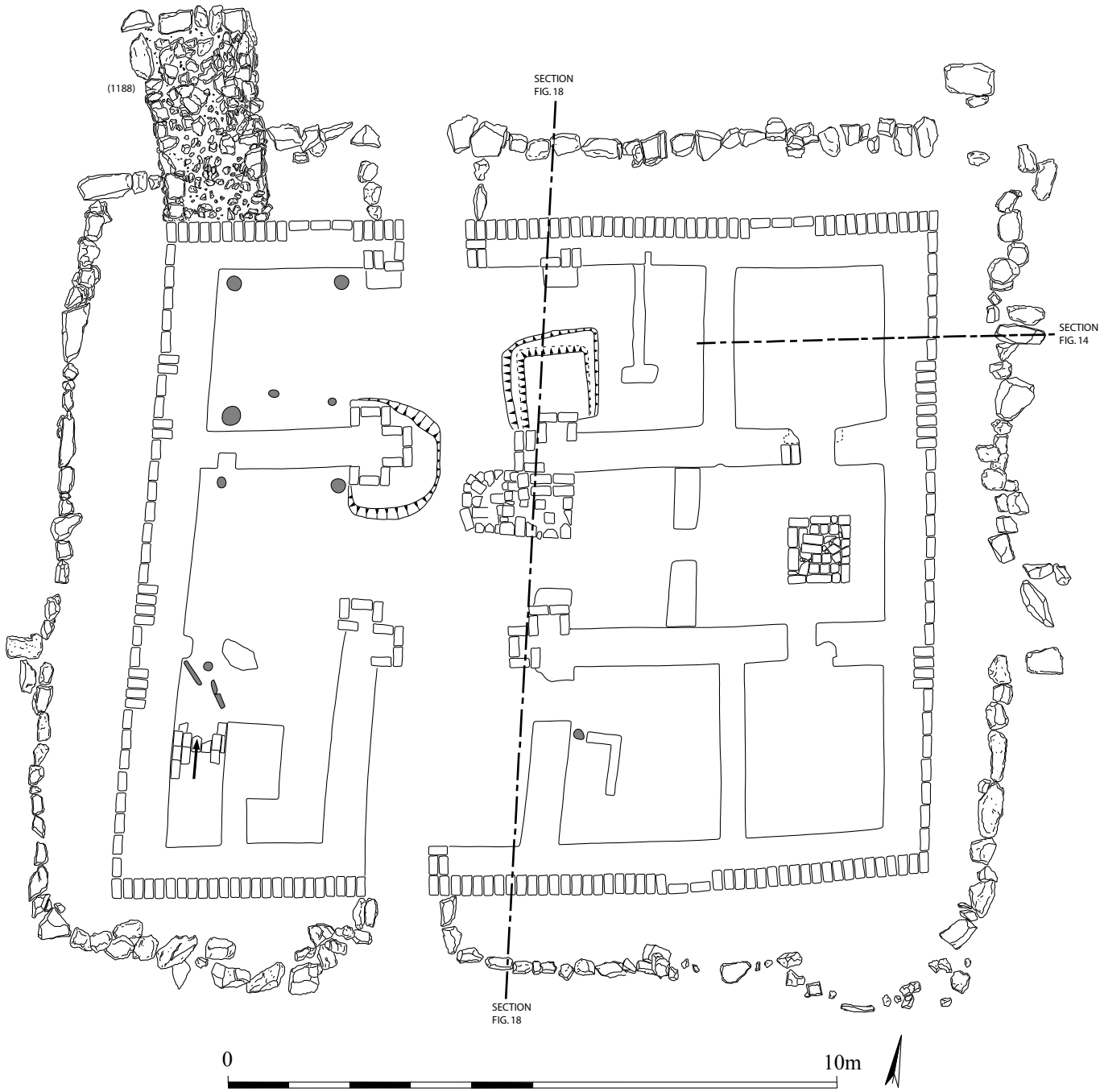

Figure 17. Plan of church with rock perimeter (scale 1:100).

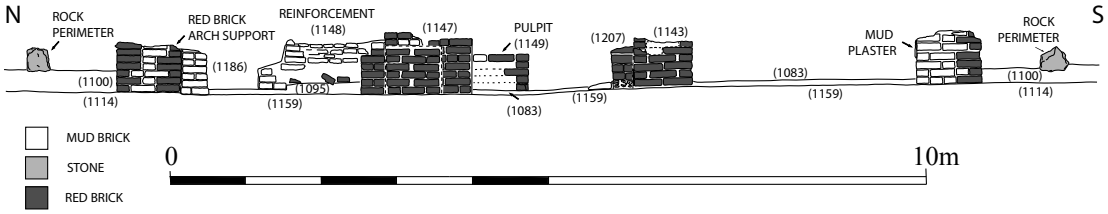

Figure 18. North-south section across the church (scale 1:100).

the original church building. As with the large pier reinforcements, the entrance renovations had the appearance of being hastily constructed with their functional attributes being of primary concern and their ascetic qualities being of lesser importance.

Lime basins

The space bounded by the inner face of the rock perimeter and the outer face of the southern church wall eastwards of the entrance contained four plaster basins (Plate 29, Figure 19). These were all constructed in the same manner, broken red bricks were arranged to create the required

Plate 28. The southern entrance renovation.

basin shape over which a thick layer of hard white lime plaster was then applied. The broken bricks may have been left over from the building of the church or from the construction of grave monuments rather than derived from an episode of church collapse. All of the basins bar one were broken, it is probable that only one or two basins were functioning at any one time, with replacements being made as required.

Plate 29. The external plaster basins.

The earliest basin was (1054). It was built on 200mm of silt/sand deposits (1100/1160) suggesting it was broadly contemporary with the rock perimeter. The interior of the basin was a well defined rectangular shape measuring 720mm north-south by 850mm east-west, its depth was 120mm. The south-eastern corner of the basin was missing. This basin differed from the other three in that it was not built against the wall of the church, and it differed in orientation from the church wall.

Plaster basins (1032), (1033) and (1053) were each constructed on top of a further 100mm of deposit (1064). That deposit was a build-up layer between the rock perimeter and the church walls. It was primarily composed of wind-blown silt/sand but contained the occasional rock or fired-brick debris. Its thickness varied between 100mm and 200mm. These basins, therefore, post-dated the rock perimeter and the plaster constituent of the basins had been applied over the rocks of the perimeter which they abutted. Basin (1032) survived largely complete with just its south-eastern corner missing. The basin interior was a sub-rectangular shape measuring 850mm north-south by 750mm east-west, its depth was 200mm. The only intact example was (1053), this was sub-oval in shape with internal dimensions of 1.05m north-south, 620mm east-west and 140mm deep. Built against (1053) was basin (1033). This was a narrow rectangular shape; a large part of its western side was missing. Its internal dimensions were 1.12m north-south, 410mm east-west and 200mm deep.

Basins (1032), (1033) and (1053) were each constructed against the wall of the church. The plaster used in the construction of the basins also coated the areas of the wall where each basin abutted it. The existence of a further basin was indicated by similar plaster remains present on the external face of the western wall midway along its length.

The fact that there were at least five external plaster basins is indicative of a continued need for the function which they fulfilled. They were receptacles in which plaster could be mixed, as is attested by the successive thin layers of plaster across their bases. One use for the plaster would have been as a whitewash for the interior of the church. That was seemingly only done once however, when the church was originally constructed. Another use for the plaster was for rendering of grave monuments within the surrounding cemetery. It is assumed that all of the brick-built grave monuments had been rendered in lime plaster. That would certainly have created an ongoing need for plaster to be produced.

Period III - Post Collapse Activity

Over time, the space between the walls of the church and the rock perimeter became filled with deposits. (1064) has already been mentioned as the layer underlying the basins. Above that layer was a deposit of a different nature, (1031). Half of the composition of this layer was red bricks and fired-brick pieces, with mud-brick fragments, mud-brick melt, stones and silt/sand accumulation accounting for the rest. The thickness of the layer was such that its top equalled or exceeded the height or the perimeter rocks. Where the layer's height exceeded that of the perimeter rocks, it 'spilled' over to the exterior. The layer was a minimum of 400mm and maximum 800mm thick, the thickness varying along the layer's lengths. The nature of the material comprising layer (1031), and the amount of that material indicates a collapse or purposeful demolition of a proportion if not the majority of the church walls.

<u>External structure/pulpit?</u>

Built against the western end of the northern wall of the church was a large rectangular structure (1188) (Plate 30). Its outer faces were formed of large sub-rectangular stones up to 700mm in length laid horizontally on top of each other. Smaller stones were used to fill the voids between the larger rocks, giving moderately neat, dry-stone faces to the structure. The core was of irregular stones averaging 150mm in size, fired-brick fragments and silt/sand. The length of the structure was 3.52m north-south and its width was 1.88m east-west. Where it abutted the church

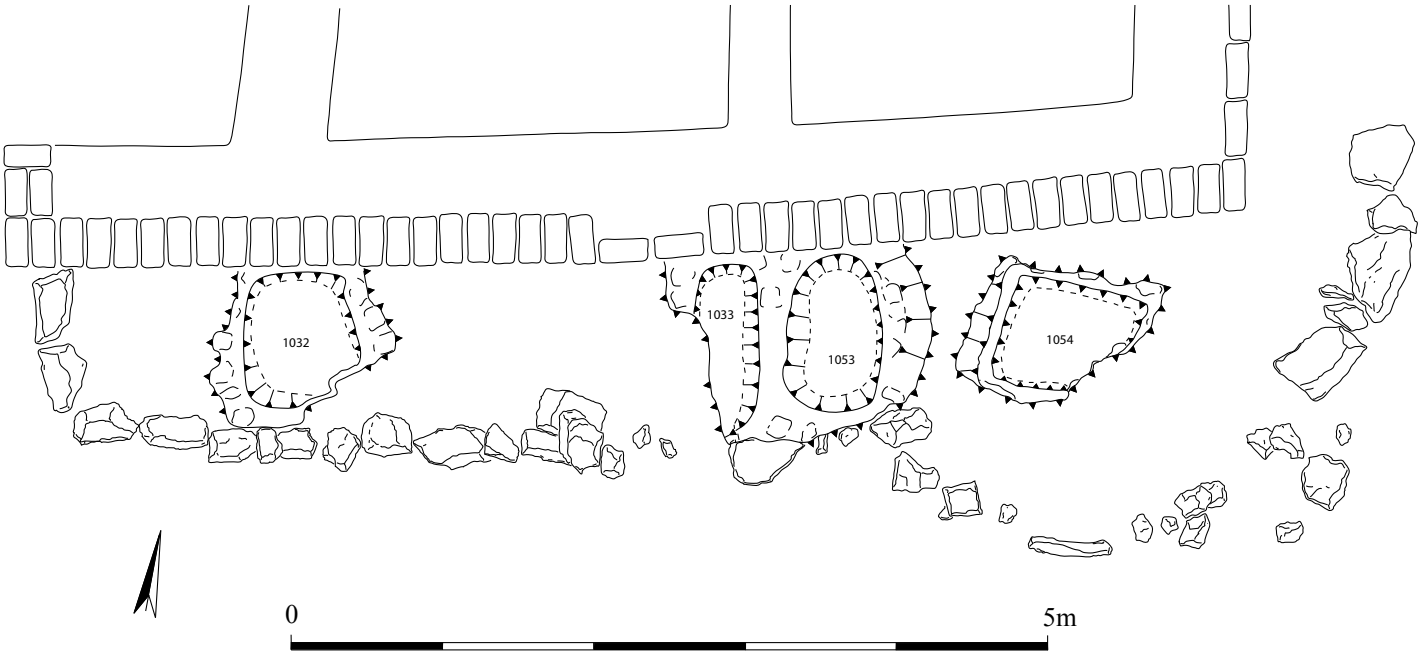

Figure 19. Location plan of the external plaster basins (scale 1:50).

wall it survived to a height of 840mm. The height at its northern end was 330mm, whether or not that was the original height at that point is unknown.

At its southern end, the structure was built over the top of the rock perimeter. It was also built over the collapse/demolition layer (1031) (Figure 20). It is of course unknown as to the degree of collapse/demolition that had taken place prior to this structure being built. If the collapse/demolition was exclusive to the upper portions of the building, repairs could have allowed its lower level to continue to function as a church. If that were the case, this structure could have been a staircase onto a second phase roof of the church or perhaps a buttress supporting what remained of this part of the building. Alternatively, it may have been a platform intended for a function outside of the church. External platforms of similar size at the Meinarti church (Adams 2003) have been tentatively interpreted as pulpits, this would certainly be plausible in this case. Given the small amount of interior space within the ground floor of the church, it may have been convenient to conduct certain religious services outside.

As already stated, it is unknown if the layer (1031) underlying this structure represents a partial collapse/demolition of the church or a more complete one. Therefore it is not known if the structure was built before or after the ultimate collapse/demolition of the church. If layer (1031) did represent the end of the religious use of the church, it did not necessarily represent the end of the

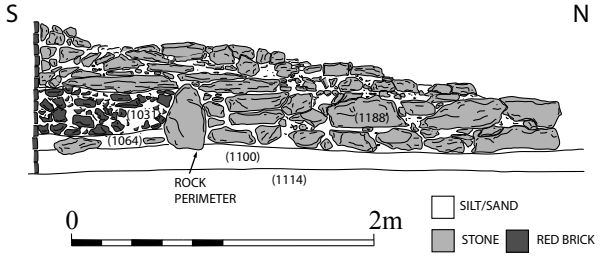

Figure 20. Elevation of external structure (1188) with cross-sectioned layers (1031) and (1064) (scale 1:50).

site's religious significance. If the external platform did post-date the church's functioning in a traditional sense it may have been used for religious practices held on the site thereafter. The cemetery was very probably still in use after the church had suffered collapse/demolition and the church itself was used for burials post collapse/demolition. The church site thus had a continuing religious significance and this structure may have performed a role within that.

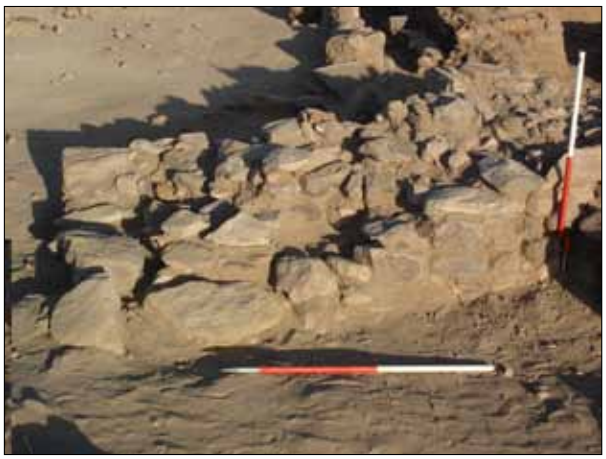

Plate 30. External structure (1188).

Internal deposits

After the church lost its roof and perhaps also the upper portions of the walls, the interior slowly filled with an accumulation of build-up deposits. Those deposits consisted of multiple thin layers of wind-blown silts and sands with occasional mud-brick fragments and infrequent fired-brick fragments. These deposits were up to 1.4m in thickness, thickest at the east and west ends of the building and of less thickness around the entrances and the central area. The difference in the composition of those deposits within the interior of the building to those outside

it were striking. The external deposit (1031) was primarily composed of brick rubble and the deposit beyond the rock perimeter (1030) also contained a high proportion of brick rubble. Clearly the interior of the church was kept free of collapse/demolition from the upper walls of the building, remaining in use after they had collapsed.

The southern room

The southern room contained a number of installations that had been placed on the build-up deposits within it (Plate 31). The installations were placed at various levels, reflecting the thickness of the deposits underlying them. With those deposits not changing in composition or characteristics, their nature of deposition must have been the same. The differences in elevations of the installations indicates a continuing use of the room as it gradually filled with wind-blown deposits.

The earliest installations were an unfired mud vessel (1077) and a large ceramic vessel (1057) (Figure 21). These both overlay 240mm of build-up. The mud vessel (1077) had been placed in the north-eastern corner of the room and had three mud bricks acting as props under it, these attested to its having remained *in situ*. All that remained of the mud vessel was its base, this had a diameter of 440mm and a thickness of 50mm. Over the surface of the base and across the mud-brick props was a layer of plaster powder. The ceramic vessel (1057) had been placed centrally within the room and unlike the mud vessel, it had survived complete. It had vertical sides and a flat base, the diameter varied from 510mm to 570mm, its height was 320mm and the heavy rim was 55mm thick. Its exterior faces were decorated with graffiti of animals. The vessel's location in the centre of the room and also its form hinted to its function as a font. It was however, on post collapse/demolition deposits implying that either the room was still being used as a baptistery or that the vessel was used for another purpose. Inside the vessel were deposits of plaster powder several centimetres thick, those however, could have been the result of a secondary use of the vessel.

At the same stratigraphic height as (1077) and (1057), was an unfired mud jug (1078). It had been deposited in an upright position within the north-western corner of the room, near the door. Its purpose was unclear, but the fact that it was made of unfired mud precluded it containing any liquid.

Positioned next to mud vessel (1077) and a little higher stratigraphically than it, was a second mud vessel (1045). This was placed onto 290mm of build-up deposits and was seemingly a replacement for vessel (1077). It had vertical sides and a flat base. Its diameter was 430mm, although truncated it survived to a height of 530mm and it had a wall thickness of 50mm.

Later than those three vessels, and built onto 370mm of build-up deposits, was a large basin (1056). The basin was semicircular in shape and was constructed in the south-eastern corner of the room. Its northern edge was constructed from complete and broken red bricks arranged in a haphazard manner to create a raised lip. Over this, and forming an interior surface was a thick application of white plaster. The walls of the room against which it was constructed formed the southern and eastern edges of the basin. The basin had a length of 2.05m east-west and a width of 950mm north-south. The concave interior of the basin had a maximum depth of 200mm, its height was 280mm. The basin appears to have had the same purpose as those basins which were outside the church although its stratigraphic position indicated it was later. It was very probably constructed as a direct replacement to the external basins after the collapse/demolition layers had covered them.

Installed at a similar time to the basin, upon 380mm of build-up deposits, was a third mud vessel (1059). This was placed towards the south-west corner of the room. Little more than its base remained. The vessel had a diameter of 590mm, the thickness of the base was 50mm and it survived to a height of 110mm.

The plaster basin has no place within a still functioning religious building and likewise the mud vessels may also not be associated with traditional church activities. Whether or not they were associated with the process of making plaster is unclear, two of them predated the basin and, therefore, were originally intended for something else. It may be that they simply provided a rudimentary storage facility.

A marked difference with the deposits which were contained within this room and those deposits elsewhere is that they contained multiple lenses composed entirely of rodent faeces. These lenses were under all of the ceramic and mud vessels and would probably indicate an extended period of food/grain storage in the southern room. The proportion of faeces present was such that the storage must have been on a large scale and continued over a long period of time and, therefore, was probably not solely connected with the ecclesiastical use of the building. Activities of a domestic/non-ecclesiastical nature were also hinted at by the deposits within the south sacristy of the Us Island church (Näser 2005, 49-68). In that case, in common with the Mis church, there was also a plaster basin constructed over those deposits.

Plate 31. The southern room interior, looking south. Note the earlier mud-brick installation (1058) and the section of door frame (1079).

Ritual/Religious deposits

The three eastern rooms each contained a number of

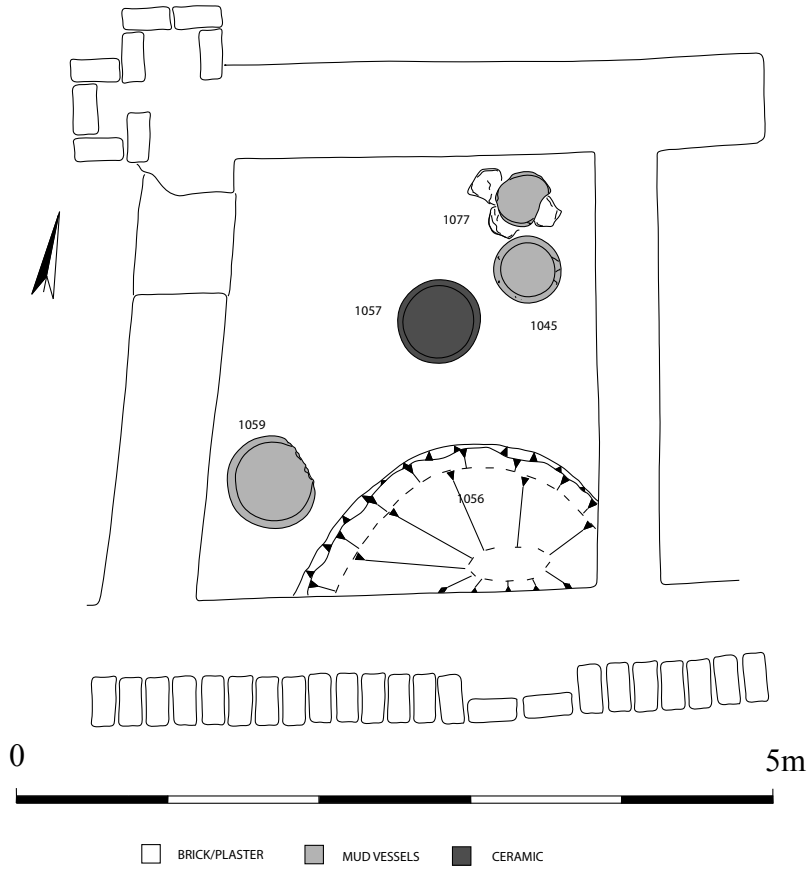

Figure 21. Plan of southern room installations (scale 1:50).

ceramic vessels which had been placed on the build-up deposits within them (Figure 23). The vessels had been placed at a variety of elevations relative to the original floor surface, reflecting the thickness of the deposits underlying them. The difference in the elevations of the various ceramic vessels indicates a continuing practice of the placing pots in the eastern rooms over the length of time that those rooms were being filled with wind-blown deposits.

Within the *diaconicon*, four ceramic vessels (Plate 22) had been placed upright at the same stratigraphic level on 300mm of build-up deposits. Two of these vessels were located towards the centre of the room, a shallow bowl (1069C) and a small crude cup (1069D). The cup had a portion of its rim missing which may have allowed it to function as a lamp. The other two vessels (1069A and B) were the broken off cylindrical necks from beer jars. They had seemingly been reused, perhaps as pot stands for small bowls or lamps. They stood upright next to each other in the eastern part of the room.

Within the sanctuary chamber, at a similar stratigraphic level to the vessels within the *diaconicon* was a single crudely-made cup (1073) (Plate 32). This had been placed against the eastern wall of the room on 400mm of build-up deposits. What remained of the altar had been buried by the build-up deposits by the time this cup was placed into its location. After an accumulation of a further 300mm of wind-blown deposits, a ceramic pedestal/cup stand (1072D) was placed next to the eastern wall of the room. While that remained *in situ*, a further 200mm of wind-blown deposits accumulated around it. Onto these further deposits and in the vicinity of the pedestal, a crudely-made bowl (1072C) and a lamp (1072B) were placed upright and a crudely-formed cup (1072A) was placed upside down. The remains of two small wooden stakes were also present in that location, but whether they were associated with the ceramic assemblage is debatable.

Further wooden stakes and posts (1195) were present in the north-western corner of the sanctuary chamber (Plate 33). There were six in total and their dimensions ranged from 80-190mm, they survived to an average height of 300mm. Similar to the ceramic vessels, they had been put in place after a build up of wind-blown deposits had accumulated. Their stratigraphic levels were similar to the earlier cup (1073) and so, therefore, predated the two stakes in the north-eastern corner of the room. No obvious explanation for their location here is evident.

Within the *prothesis*, the first vessel to be put in place was a crudely-formed bowl (1189). This had been placed in the south-eastern corner of the room,

Plate 32. Ceramic assemblage within the eastern end of the sanctuary chamber.

Plate 33. Wooden stakes and posts (1195) within the north-western corner of the sanctuary chamber.

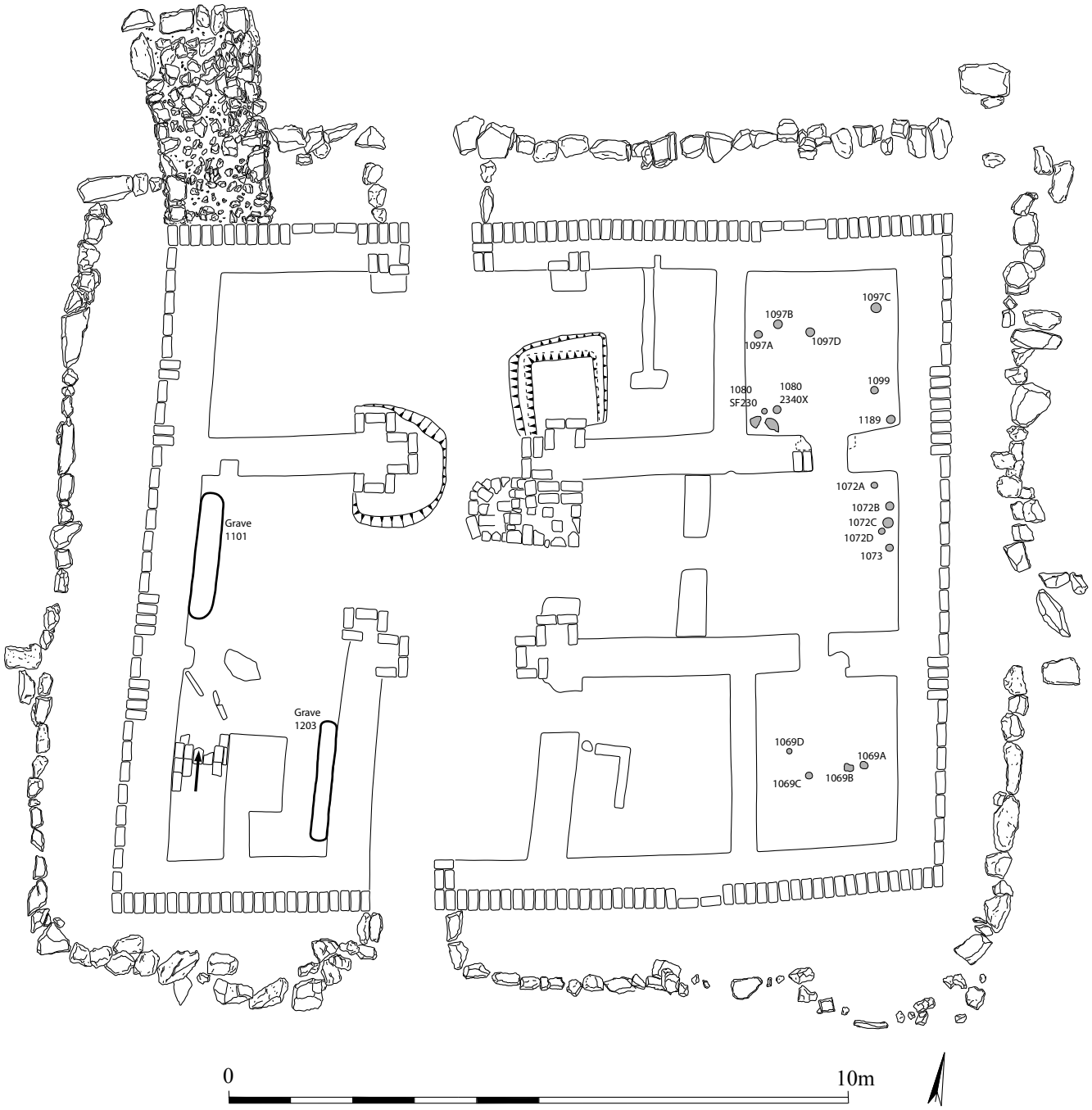

Figure 22. Location plan of in situ *ceramic vessels and graves 1101 and 1203 (scale 1:100).*

upside down onto 200mm of build-up deposits. After an accumulation of a further 100mm of wind-blown deposits, two vessels and two large potsherds were placed in the south-western corner of the room (Plate 34). One vessel was a ceramic cup with painted decoration (1080A) and was placed upright. The other vessel was the base of a rather crude mud bowl (1080B) also placed upright. The two large potsherds had been placed in such a way as to provide concave surfaces akin to bowls. After a further 100mm of wind-blown deposits accumulated, the *mastaba* (1062) had become completely buried. Onto these build-up layers, four vessels were placed within the northern side of the room. Cup (1097A) had been placed upright next to the western wall of the room. The other three vessels had been placed upside down, they were a small bowl (1097B) which had a slot cut into its rim so may have been used as a lamp, a shallow bowl (1097C) and the base of a bowl (1097D).

Although the exact function of these vessels which had been placed on build-up deposits within the church is unknown, they indicate that activities of a ritual/religious nature had been taking place within the confines of the building after it was no longer being used as a church. As well as the *in situ* vessels mentioned, similar vessels of crude form were present but not *in situ* within the build-up deposits. These were located throughout the church, hinting that although the activities associated with the vessels were focused within the eastern end of the church they were not limited to it. Many of the vessels were markedly burnt or contained burnt residues and were thus being used as lamps or incense burners, performing a ritual/religious function. A not too dissimilar practice perhaps was that

Plate 34. Ceramic assemblage in the south-western corner of the northern sacristy. The top of mastaba (1062) is visible in the foreground.

of putting lamps within niches at the west ends of some of the tomb monuments.

Inhumations

A further two burials within the church dated to a period after the collapse/demolition of the roof. The graves were both cut into the wind-blown deposits that had accumulated within the interior of the church (Figure 22). Both burials were aligned north-south, one being located against the inner face of the western wall, the other lying immediately east of the newel.

Grave 1101 (Burial 220**)** [Skeleton (1102), Grave cut L: 2.24m, W: 420mm, Depth: 480mm. Monument (1034) – L: 2.18m, W: 610mm, H: 90mm]

A long narrow grave cut, the sides were straight and vertical, the ends were rounded. It was cut against the inner face of the western wall of the church, into the wind-blown deposits that had accumulated in that place. The grave was cut after 630mm of wind-blown deposits had built up. Into this grave cut, the body of an adult was laid on its right side with the head facing west (Figure 23). The body was orientated with the head to the north and the feet to the south. The right arm was under the body, the left arm was along the side of the body with the forearm and hand in front of the waist. The legs were extended with the left foot over the right. Pieces of broken red brick originally 360 × 180 × 50mm in size were placed over the body, thus producing a rudimentary covering to the body prior to the filling of the grave. Several of the brick fragments had a thick plaster layer attached to them, indicating their original use was within a grave monument(s). The body was preserved to a partly mummified state with desiccated soft tissue holding the skeletal remains together. Fragments of yellow textile were present around the shoulders

Plate 35. Burial 222, cut into the wind-blown deposits within the south-western corner of the building.

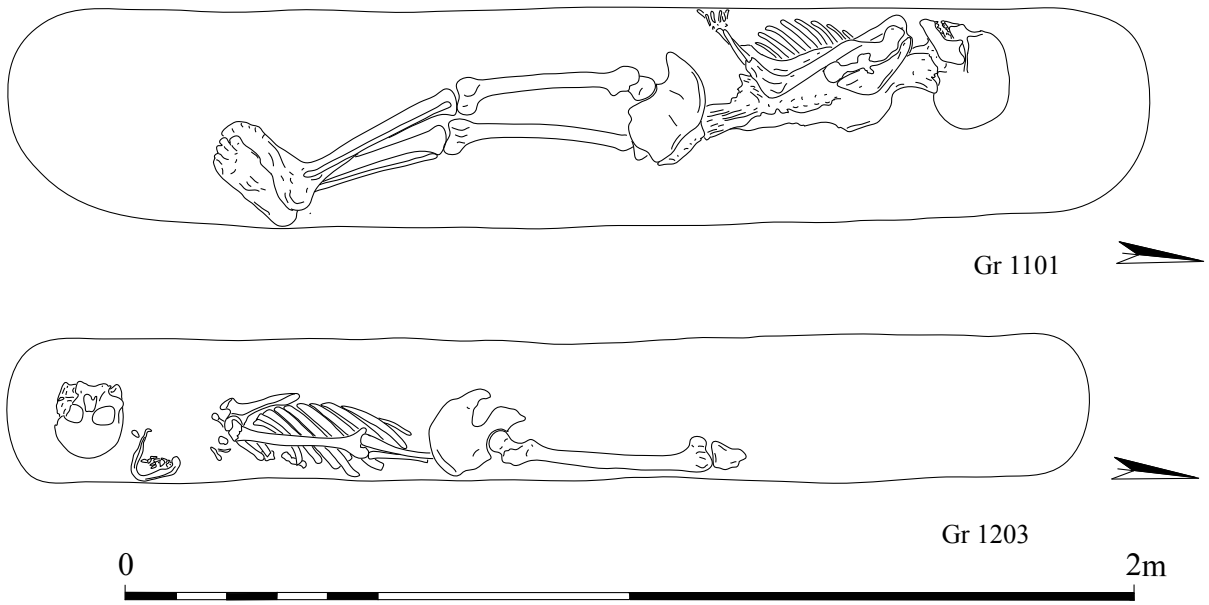

Figure 23. Graves 1101 and 1203 (scale 1:15).

and fragments of dark brown textile were present under the lower torso and legs.

The remains of the grave monument consisted of an L-shaped arrangement of red bricks 300 × 150 × 70mm in size over which a thick coating of lime rendering had been applied (Figure 24). It is likely that the original form of the grave monument was a raised, rectangle with a rendered surface. The remains of the rendering on this monument may indicate that the rectangular 'frame' fired-brick monuments within the associated cemetery originally also took the form of raised rectangular rendered structures.

Grave 1203 (Burial 222**)** [Skeleton (1050), Grave cut L: 2.13m, W: 300mm, Depth: 400mm. Monument – none] A long narrow grave cut, the sides were straight and vertical, the ends were rounded. It was cut against the western side of the wall running from the southern entrance to the south-western pier (Plate 35). Into this grave cut, the body of an adult was laid on its right side with the head facing east (Figure 23). The body was orientated with the head to the south and the feet to the north. The right arm was under the body and the left arm was along the side of the torso. Post burial, this grave had suffered disturbance. The skull and mandible had been dislodged from their original positions. The legs had been truncated below the knee. No grave monument was present, so the original depth of the grave cut was not known.
SF - bone 2440

Architectural Comparisons

The form of the structural components of the building displayed characteristics in common with Late Nubian church architecture, making a date of construction of AD 1200 or later likely. While conforming in many ways to Adams type 4d classification (Adams 2009, 312), this church also displayed several unique characteristics. The most striking divergence from the norm in respect to the arrangement of the internal layout, is the existence of an 'extra' room occupying the space usually forming the eastern half of the southern aisle. There is no other church known as yet with this arrangement. The majority of type 4d churches were of mud-brick construction, a handful were of rough stone or had rough stone exterior walls. The Mis church is thus far unique in being constructed of mud brick with its outer walls faced in red brick.

Summary of the Site Development

It has been possible to distinguish several distinct phases in the development of the site.

Period 1

The earliest physical remains are those of the post-Meroitic/Early Christian burials of skeleton (1183) and skeleton (1154) and the disturbed burials of skeleton (1180) and skeleton (1199). The site had thus been used as a cemetery prior to, but not necessarily up to, the construction of the church.

Period 2

The church was of a single main phase which underwent later architectural additions. The additions could be separated into two types, those of a functional nature and one for liturgical purposes. Of the former are the pier reinforcements, the entrance renovations and the outer stone perimeter. The pulpit had seemingly not replaced an earlier example so seems to have been added for liturgical reasons.

Period 3

The church continued use even when it was in a state of partial collapse, although exactly what the nature of that use was is not known.

During the use-life of the church, the associated cemetery had almost certainly been used continuously and continued in use after the church's collapse. Indeed, the collapse deposits of the church itself had the graves of skeleton (1050) and skeleton (1102) cut into them.

Finds

Southern Sacristy (Room 1)

Period II Phase I 1094/1159 natural surface
SF:2506 1175 bead assemblage
SF:2507 1175 bead assemblage
SF:2522 1193 iron door hinge

Period II Phase III 1091 build up deposit
SF:6114 ostrich egg-shell
SF:2629 ceramic
SF:2628 potsherd
SF:2627 beads

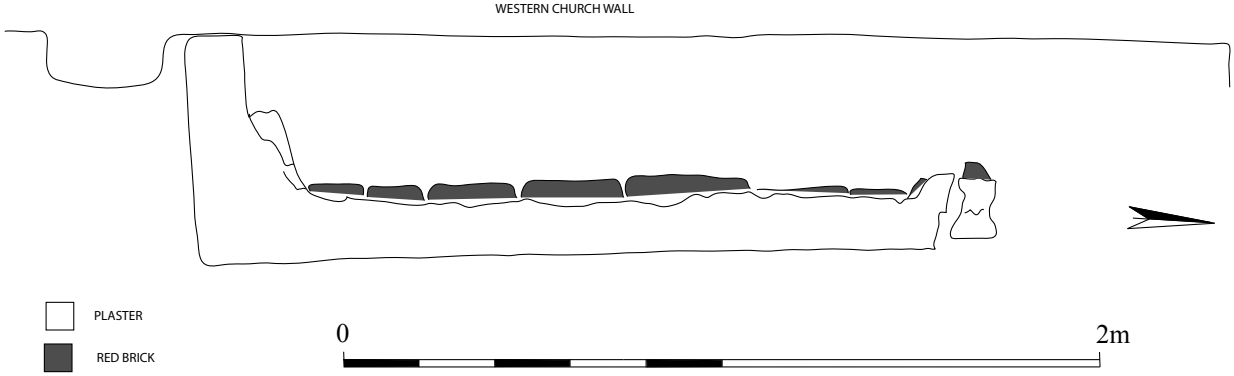

Figure 24. Monument (1034) of grave 1101 (scale 1:20).

SF:2195 iron nails
SF:2625 iron nail
SF:6099 resin

Period III 1020 post-collapse deposit
SF:2595 1020 ceramic
SF:2599 1020 ceramic
SF:2621 1020 spice dish
SF:2296 1020 bead
SF:2606 1020 yellow bead
SF:2104 1020 iron nail
SF:6113 1020 bone
SF:6112 1020 bone
SF:2597 1020 glass fragments
SF:2594 1020 glass slag
SF:2596 1020 leather pieces
SF:2610 1020 clay bead
SF:6107 1020 2 ostrich egg-shell fragments
SF:2609 1044 door
SF:2605 1060 door
SF:2352 1044 copper-alloy door stud

Altar Room (Room 2)

Period II Phase III 1093/10671083 build-up deposit
SF:2604 1093 lithic
SF:2520 1196 ceramic pillar base
SF:2521 1196 ceramic pillar base
SF:170 1093 iron door hinge fragment
SF:2592 1093 ceramic lamp
SF:2608 1067 beads
SF:6104 1093 bone
SF:2598 1093 glass fragment
SF:2206 1067 unfired mud spherical object
SF:6103 1093 ostrich egg-shell fragment
SF:6102 1067 oyster shell half

Period III 1022 post-collapse deposit
SF:2593 ceramic
SF:2616 ceramic
SF:2601 ceramic
SF:2614 ceramic
SF:2626 rim sherd
SF:2618 ceramic
SF:2620 ceramic
SF:2615 yellow bead
SF:2617 iron cross
SF:2155 iron bands from door
SF:6108 bone and tooth
SF:2624 coloured glass
SF:2619 green glass
SF:2613 1022/1066 woven mat
SF:6109 ostrich egg-shell fragment
SF:6032 organic sample
SF:6110 oyster
SF:6111 ostrich egg-shell fragments

Northern Sacristy (Room 3)

Period II Phase III 1098/1083 build-up deposit
SF:2622 1098 *ostraca*
SF:2584 1098 painted plaster fragment
SF:2623 1098 mud vessel
SF:2607 1098 ceramic architectural component
SF:2612 1098 counter?
SF:2602 1098 basin fragments
SF:2603 1098 basin fragments
SF:6105 1098 organic sample
SF:6106 1098 oyster shell fragment

Mastaba 1062
SF:2611 ceramic
SF:2589 ceramic

1173 layer under mastaba
SF:2600 1174 blue bead
SF:2591 1174 nail

Period III 1023 post-collapse deposit
SF:2590 ceramic
SF:2201 ceramic
SF:2213 ceramic
SF:2465 ceramic
SF:2156 ceramics
SF:6085 resin
SF:6054 brick sample
SF:2415 bowl
SF:2109 copper-alloy door stud
SF:6052 bone
SF:6055 bone
SF:2362 glass fragments
SF:2369 glass fragments
SF:6056 oyster shell half
SF:2384 lithic
SF:2419 hammer stone

1089 post-collapse deposit
SF:2449 1089 ceramic
SF:6065 1089 ostrich egg-shell fragment
SF:6073 1089 oyster shell
SF:6072 1089 bone
SF:2475 1089 glass fragment
SF:2329 1089 iron sickle/knife blade
SF:234 1089 iron door nail
SF:2183 1089 blue bead
SF:2478 1096 wooden object
SF:2477 1070 wooden object

SF:2482 1080B mud stopper
Xxxxx 1080A ceramic vessel

Southern room/baptistery (Room 4)

Period II Phase III 1088/1083 build up deposit
SF:2448 1088 ceramic architectural element
SF:2457 1088 painted plaster fragment
SF:6071 1088 bone
SF:6069 1088 bone
SF:2486 1079 worked wood
SF:6068 1088 organic sample

Period III 1021 post collapse deposit

SF:2434 ceramic
SF:2435 ceramic stopper
SF:2436 ceramic stopper
SF:2438 rim sherd
SF:2439 plastered pot sherd
SF:2423 spice dish fragment and potsherd
SF:2437 basin fragment
SF:1597 iron bracelet
SF:6064 egg-shell fragment, oyster shell fragment

1087 post-collapse deposit
SF:2468 1087 painted plaster fragment
SF:2503 1059 mud vessel base
SF:2504 1045 mud vessel

Eastern end of northern aisle (Room 5)

Period II Phase I 1111/1113 original floor surface
SF:2301 1113 green bead

Period II Phase III 1095/1083 build up deposit
SF:2450 1095 ceramic
SF:2484 1095 basin fragment
SF:2494 1095 faience bead
SF:2512 1095 faience object
SF:6079 1095
SF:6081 1095 oyster shells
SF:6082 1095 ostrich egg-shell fragment shell

Period III 1029 post collapse deposit
SF:2476 ceramic
SF:2243 ceramic, pot disc
SF:2197 ceramic, pot disc
SF:2416 ceramic
SF:2194 ceramic, pot disc
SF:2485 *doka*
SF:2487 sherd reused as lamp 2321X
SF:2445 painted plaster
SF:2444 bead
SF:2443 coloured glass fragments
SF:2357 coloured glass fragments
SF:2371 patterned glass
SF:2332 glass fragments
SF:2355 coloured glass fragments
SF:6086 oyster shells
SF:6080 ostrich egg-shell fragments
SF:6093 organic material
SF:6091 ostrich egg-shell fragments

Western end of nave (Room 6)

Period III 1026 post-collapse deposit
SF:2469 1026 mud vessel
SF:423 1026 iron nails
SF:2106 1034 iron nail
SF:2319 1026 glass fragment
SF:6092 1026 carbonised seeds

Western end of northern aisle (Room 7)

Period III 1025 post-collapse deposit
SF:2367 coloured glass fragments
SF:2422 pot sherd
SF:6087 bone

1065 post-collapse deposit
SF:2481 basin fragment
SF:2511 blue beads
SF:2461 green bead
SF:2425 green bead
SF:6050 plaster on mud brick
SF:6088 tooth
SF:6089 oyster shell half

Eastern end of nave (Room 8)

Period III 1046 post-collapse deposit
SF:87 iron door hinge piece
SF:2427 spice dish
SF:2466 mud vessel
SF:2447 basin fragments
SF:2317 iron door hinge piece
SF:2442 white bead
SF:2417 blue bead
SF:2189 iron bracelet
SF:1547 iron nails
SF:6066 bone
SF:2361 glass fragment
SF:2359 coloured glass fragments
SF:2321 coloured glass fragments
SF:2418 object
SF:2441 lithic

1092 post-collapse deposit
SF:2489 blue bead
SF:2462 yellow bead

Centre of northern aisle (Room 9)

Period III 1047 post-collapse deposit

1084 post-collapse deposit
SF:2474 ceramics
SF:2456 potsherd
SF:2472 spindle whorl
SF:6067 plaster fragment
SF:2286 beads
SF:2470 black bead
SF:2473 white bead
SF:2453 blue bead
SF:2454 white bead
SF:2455 white bead
SF:1593 iron nails
SF:1595 iron door staple
SF:246 door hinge piece
SF:2330 glass fragment
SF:6062 ostrich egg-shell fragments

Centre of nave (Room 10)

Period III 1048 post-collapse deposit

1086 post collapse deposit
SF:2308 blue beads
SF:6061 textile sample

Southern aisle (Room 11)

Period III 1049 post-collapse deposit
SF:2429 triangular tile
SF:2430 ceramic stopper
SF:2322 glass fragments

1052 post collapse deposit
SF:2264 glass fragments
SF:6059 oyster shells
SF:6058 3 oyster shell halves
SF:2421 pot sherds
SF:2323 yellow bead

1076 post-collapse deposit

Stair foundation deposit (Room 12)

Period II Phase I 1028 stair foundation deposit
SF:1585 iron nails
SF:6070 bone

Area beneath upper stairs east of newel (Room 13)

Period II Phase III 1183 phase 1 build-up layer
SF:6057 bone

Period III 1051 post-collapse deposit
SF:976 iron door component
SF:6060 bone
SF:2323 glass fragments

1153 post-collapse deposit

Architecture

Period II Phase III 1146 pier reinforcement
SF:2492 rim sherd
SF:2203 beads (faience?)

1148 pier reinforcement

Period III 1027/1162/1188 external pulpit
SF:2388 rim sherd
SF:2432 ceramic architectural component
SF:2446 basin fragments
SF:127 iron axe-head
SF:2368 glass fragment
SF:6063 ostrich egg-shell fragments
SF:6074 5 ostrich egg-shell fragments
SF:2433 hammer stone

External deposits

Period II Phase III 1064 build-up layer
SF:2467 mud vessel
SF:2451 mud vessel
SF:6053 ostrich egg-shell fragments, oyster shell
SF:2452 ceramic
SF:2488 rimsherd
SF:2463 pot sherd 4079Y
SF:2480 basin fragment
SF:2479 basin fragment
SF:2510 eggshell bead
SF:2345 iron sickle/knife blade
SF:2424 green bead
SF:1596 iron cross pendant
SF:6090 bone
SF:6075 horn/bone

Period III 1030 collapse deposit external to rock perimeter
SF:6084 1187 mud plastered cow horns
SF:2426 1030 clay object
SF:252 1030 iron door stud
SF:251 1030 iron bowl?
SF:6078 1030 bone fragment, oyster shell

1031 collapse deposit
SF:2502 spindle whorl
SF:2496 ceramic architectural component
SF:2193 ceramic
SF:2499 ceramic
SF:2431 ceramic architectural components
SF:2428 rim sherd
SF:2498 ceramic stopper
SF:2502 spindle whorl
SF:2331 iron sickle/knife blades
SF:6076 ostrich egg-shell fragments

Surface Finds

Period III
SF:2393 ceramic
SF:2391 ceramic
SF:2396 ceramic
SF:2395 ceramic
SF:2392 ceramic
SF:2397 ceramic
SF:2420 ceramic
SF:2464 pot fragments
SF:2394 ceramic
SF:2383 potsherd
SF:2380 ceramic drain/gutter
SF:2387 potsherd
SF:2389 worked pot
SF:2516 spice dish
SF:2381 ceramic architectural component
SF:2517 spindle whorl fragment
SF:2400 glass vessel base
SF:2464 ceramic object
SF:2333 metal fragment
SF:2185 bead
SF:368 iron axe
SF:2513 glass fragment
SF:2314 coloured glass
SF:2349 glass slag
SF:2385 coloured glass fragments
SF:6083 oyster shells

SF:2379 plaster coated stone
SF:2386 stone tool
SF:2382 quartz *tessera*

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