

New discoveries at Sanam Temple and its surroundings: Sanam Temple Project, 2019-2020

Kathryn Howley

Since 2018, when the report on the first season of exploratory work at the Sanam temple of Taharqo was published in *Sudan & Nubia* (Howley 2018), there have been two further seasons of excavation at the temple and its environs. These two campaigns have expanded on the promising results of test trenching in 2018 and demonstrated that Sanam still has many undisturbed archaeological deposits with significant potential to offer continued archaeological insight. This report will summarise the major findings of the 2019 and 2020 seasons of work at the temple site.

As will be known to many readers, the site of Sanam was first excavated in 1912 by Francis Llewellyn Griffith and published in preliminary fashion in the *Liverpool Annals of Archaeology and Anthropology* in 1922. The archaeological remains at Sanam are extensive and varied, and Griffith was able to identify the temple site (established by King Taharqo in approximately 675 BC), an extensive cemetery, a large area of administrative architecture he referred to as the 'treasury', and the remains of a town site. Since he was only able to work at the site for a single season, much of the latter two areas remained unexplored, and an Italian team led by Irene Vincentelli has in recent years worked with interesting results at the Treasury (Vincentelli 2001; 2011). As the only standing architecture visible above the surface, however, the temple was extensively cleared by Griffith, and indeed his report gives the impression that he had fully excavated the structure. For this reason, there had been no archaeological work at the site in more than a century before the Sanam Temple Project began new excavations in 2018.

The first season's work confirmed not only that there were intact archaeological deposits in the areas surrounding the temple — an area Griffith does not appear to have explored according to his report — but that Griffith's work in the temple had also been less thorough than his publication suggested. In a single season of three months Griffith had undertaken to clear the entire 67m length of the temple in addition to the cemetery and other areas of the wider site, and it therefore appears that he did not clear the whole temple structure to floor level. We have thus been able to conduct excavations, rather than just clearance, in the temple over the last two seasons, with results that enrich our understanding of the long use-life of the temple and the ritual activity that took place within it. A richer picture of ritual at Sanam also permits links to be made between the activities taking place at different Napatan Amun temples in Nubia, and helps to determine whether the manner of worship in these temples reflected the Egyptian appearance of the architecture.

An area of key interest to the project was the possibility of uncovering remains of production activity at the temple, some small traces of which Griffith found in the form of a number of out-of-context ceramic faience moulds (Griffith 1922, 87-89; pl. XVII). The sites and methods of production in Napatan Nubia are poorly known, though the question is of profound importance for understanding the cultural exchange that was taking place between Nubia and Egypt at the time: were the Egyptian-style objects that are so prevalent in the royal tombs locally manufactured or imported from Egypt? Were Egyptian-style objects made in the same way at Sanam as objects from, for example, Thebes? A test trench to the rear of the temple in the first

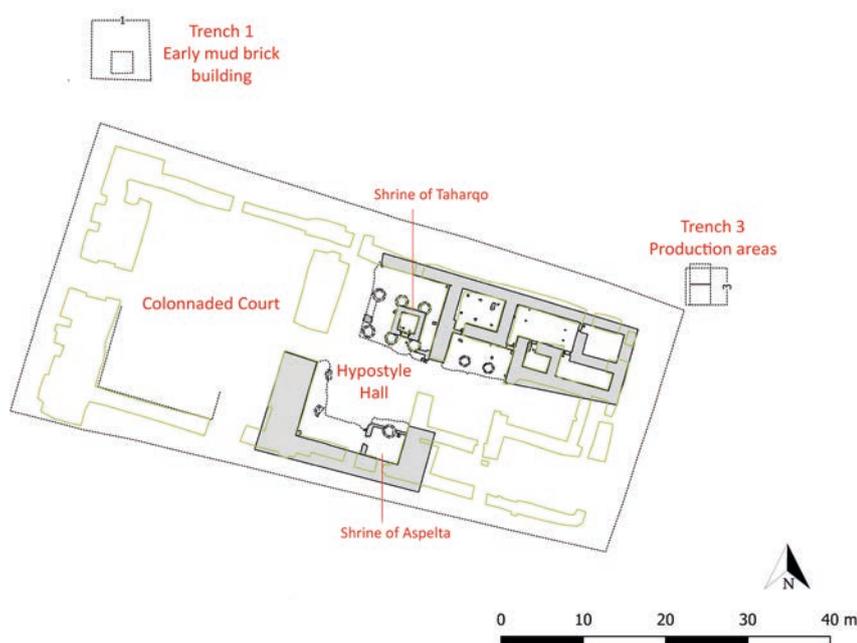


Figure 1. Plan of Sanam Temple showing areas of excavation in 2019 and 2020 seasons (prepared by Martin Uildriks).

season of work in 2018 uncovered a concentration of artefacts that suggested the presence of production activity, including large quantities of beads, grinders and grinding stones, faience wasters and Nile mollusc shells (Howley 2018, 85–86). Work has continued in this area in both the 2019 and 2020 seasons, and has uncovered more production debris and working surfaces that suggest several different types of production were taking place at a fairly large scale at the temple.

Work in 2018 demonstrated that deep archaeological deposits survived near the front of the temple, sealed by a cemented layer and thus undisturbed by modern activity. The 2019 and 2020 seasons greatly expanded work in this area and produced the biggest surprise of the project so far, uncovering a monumental mud brick building at a depth that underlies the foundation of the temple. The scale of the building means that work will continue for years to come, but so far the character of the remains found is domestic, with potential production activity. Preliminary ceramic analysis confirms the suspected date of the building in the early 1st millennium BC, prior to the foundation of the temple by Taharqo, and therefore offers an insight into the poorly-understood beginnings of the Napatan state. The plan in Figure 1 gives an overview of the areas of the project's activity over the last two seasons.

Work inside the temple

Although we expected work in the temple to consist only of clearance of windblown sand for the purpose of recording what Griffith had not, the 2018 season demonstrated that Griffith's excavation had been far from thorough and both intact contexts and small finds remained within the temple walls. Excavation has therefore been able to shed far more light on ancient activity in the temple than Griffith's generally pessimistic summary had suggested was possible. In particular, Griffith does not seem to have considered it worthwhile in most places to clear the temple all the way down to the flagstone floor, usually stopping a few centimetres above this level, perhaps when it became clear that all wall decoration had been uncovered and no large artefacts were still to be found. In addition to floor level contexts, areas that were challenging to excavate – normally where large blocks from the collapsed walls could not easily be moved – produced the most evidence of ancient activity, presumably as Griffith tried quickly to complete his excavation in a single season.

In the interests of conservation, our work within the temple proceeds in particular areas per season, as defined by the architecture of the temple. Exposures are completely backfilled at the end of each season to protect the extremely friable sandstone from which the temple is constructed. Work in 2019 took place in the hypostyle hall, particularly focused around the secondary chapels of Taharqo and Aspelta, and in 2020 in certain rooms at the rear of the temple and in the colonnaded (first) court at the front of the temple.

In addition to new finds, one of the opportunities offered by the re-excavation of the temple is to reconsider the temple and its meaning in the context of contemporary scholarship as opposed to that of the early 20th century, famously bedevilled (especially in Nubia) by racist and colonialist discourse. While excavating the temple, we have therefore had in mind questions such as the ritual activity that would have taken place there and the experiential environment of the temple, particularly in light of the temple's location in Nubia. It is here, at the level of behaviour rather than appearance, that the Egyptian-style temple's role within Nubian society can be more fully appreciated.

Colour and sensory experience in the temple

Though now mostly eroded back to bare and drably coloured sandstone, in common with Egyptian temples the temple would have been painted in antiquity. Griffith noted some traces of colour in the interior of the temple in his publication, mainly in the horizontal stripes which underlay the figural decoration in the internal decorative schemes (Griffith 1922, 102, 105, 106, 114, pl. VI); he occasionally mentions that a scene was painted, but gives no information about which colours were used (Griffith 1922, 110). Our investigations have uncovered many more examples of colour on the temple, which underlines how brightly the structure would originally have been painted and the vibrant impact that it must have had on the visual landscape in the region.

Griffith describes the fallen ceiling of the Taharqo chapel in the hypostyle hall as being 'painted beneath with yellow stars having red centres on a blue ground' (Griffith 1922, 107) but does not further illustrate the decoration. We found the collapsed ceiling blocks still in place on the ground within the chapel (exactly as shown in Griffith's sketch: Griffith 1922, pl. XLIII.3), and therefore were able to find numerous examples of this decoration still remaining in the

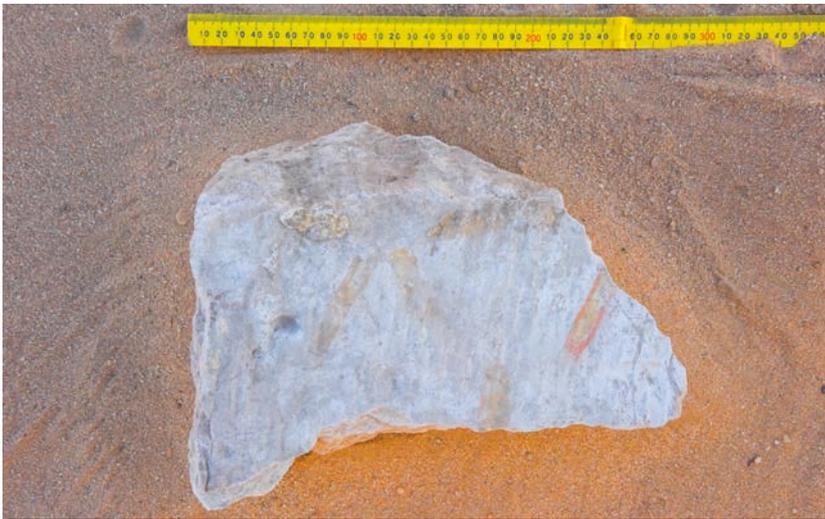


Figure 2. Fragment of painted ceiling from Taharqo's chapel (colour enhanced).

chapel, which must have originally covered the whole ceiling in the same manner as in Qalhata's tomb at el-Kurru (Dunham 1950, 38). The painted ceiling would have emphasised the darkness of the small, enclosed space and its sacred atmosphere (Figure 2).

Aspelta's shrine in the hypostyle hall also provided evidence of pigment, with traces of yellow being found on the engaged columns on the facade of the structure. A painted block that can be assumed to have originally derived from the Aspelta chapel because of its bright white stone was also recovered, having been reused as a threshold for a secondary mud brick enclosure next to the

chapel: this block is notable in that the figurative decoration of a royal and some hieroglyphic signs were delineated only in paint, and not carved (Figure 3). The block (and whatever larger decorative scheme of which it formed part) therefore relied entirely on colour for its visual impact, rather than on the modelling and shadow of relief.

The columns in the temple have fared particularly badly from erosion and therefore most have lost all of their original surface: in fact, the only column decoration recorded by Griffith is four hieroglyphic signs in a single column from a column in the small hypostyle hall at the rear of the temple (Griffith 1922, pl. XXVI.10). Although Griffith states that he found no evidence of the columns in the hypostyle hall having been decorated (Griffith 1922, 106), one fallen drum in the hypostyle hall found in 2019 does in fact preserve the busy decoration of painted cartouches on one side (Figure 4). The use of carved and painted decoration on the columns as well as on the walls in the hypostyle hall would have made the experience of being in the temple a visually overwhelming one, especially in a Kushite context where stone-built architecture and relief was rare.

One block found at the rear of the colonnaded court in 2020 demonstrates the impact that the polychrome decoration could have had in its original state. The block bears parts of a large cartouche, royal title and emblem, and the scale of the decorative elements and the depth of the relief suggests that the block originated from the facade of the Second Pylon. Traces of five different pigments – blue, white, green, yellow and black – can be seen on the block, which gives an indication of the almost garish colour scheme of this prominent part of the temple (Figure 5).

More unusually, the project has also found a surprising amount of evidence of the painting process within the temple. The most obvious trace of this colouring in progress was the discovery in 2019 of the base of a small, red-slipped bowl with a large quantity of adhered blue pigment in the corner of the Aspelta chapel in the hypostyle hall (Figure 6). In addition, numerous lumps of blue and yellow pigment were found in the temple, with large amounts of blue coming from the rear rooms (Figure 7). The considerable quantities found raise the question of whether the pigment was itself manufactured or processed at the production areas of the temple, the possibility of which is raised by the large quantities of shell uncovered at the rear of the temple (see further below).

To complement the large amount of evidence of the temple's visual impact, the 2020 season also provided an insight into how the temple would also have engaged worshippers' other senses. The rear rooms of the temple provided several nuggets of a dark, resinous material, found *in situ* embedded in gaps between flagstones and in the rubbish pits. One lump was selected for burning in the name of experimental archaeology, and it produced a heavy, sweet smell comparable to the *bakhuur*-incense in use in modern Sudan. The temple must have been a sensorially overwhelming place to be in the Napatan period.

Votive offerings at the chapels in the hypostyle hall

With finds within the temple being made in the areas where Griffith did not dig, the spaces around the two internal shrines built by Kings Taharqo and Aspelta did not seem promising areas for study (Griffith 1922, 107–110). However,



Figure 3. Painted block from Aspelta's chapel, reused as threshold.



Figure 4. Carved and painted column, south side of hypostyle hall.



Left: Figure 5. Decorated block from Second Pylon, with schematic diagram showing traces of pigment still remaining.

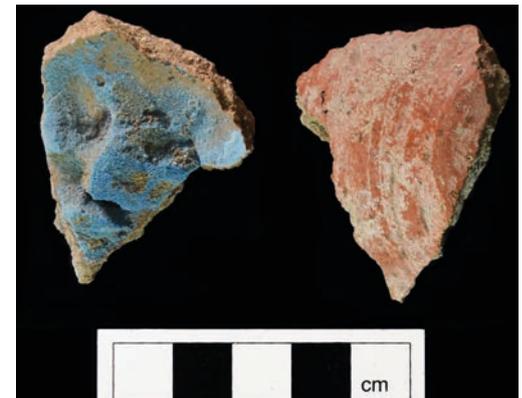


Figure 6. Fragment of painter's palette with blue pigment, found in Aspelta's chapel.

forgotten and fiddly areas such as gaps between flagstones and within mud brick walls have produced some of the most appealing small finds within the temple, providing material evidence that these two spaces were focuses for ritual activity within the temple. The shrine of Aspelta, in the southern half of the hypostyle hall (Figure 8), is secondary in construction to the temple founded by Taharqo. This can be ascertained not only from historical considerations but also from its construction, which consists of a single thin wall of bright white, chalky stone that is far more friable (and therefore more poorly preserved) than the rest of the temple. The shrine walls abut the original temple walls and columns with little attempt to mould them to the preceding architecture. Aspelta built an almost identical shrine at Kawa (Macadam 1949, 89ff.). Also almost identical to its counterpart at Kawa is the shrine of Taharqo in the northern half of the hypostyle hall (Figure 9), whose position wedged between the original columns of the second court also suggests that it is secondary construction, despite its attribution to the founder of the temple.



Figure 7. Nuggets of blue pigment from rear rooms of temple.

Embedded into the several-centimetre gaps between the flagstones directly in front of the doorway of the Taharqo

shrine were fragments of at least eight large, blue faience amulets, representing lotus flowers, sun discs, a reclining lion, the god Amun and a *nefer*-sign (Figure 10). The concentration of the objects directly in front of the shrine and the religious significance of their imagery would suggest that they were placed there deliberately as votive offerings. Many of the amulets were pierced at the edges, which would have facilitated the amulets' attachment as appliqués, perhaps to a piece of clothing. The most striking aspect of the find is that the size, style and very particular iconography of the amulets is matched exactly by a cache of amulets found by Macadam at Taharqo's Kawa temple (Macadam 1949, vol. II pl. XCVIII; though these amulets were not pierced). The find therefore demonstrates that there was a shared community of practice across multiple temple sites in Kush, with perhaps exactly the same rituals being repeated at sites that were at considerable distances from one another.

The shrine of Aspelta was also a focus of offering activity, and Griffith noted in his original publication that an unusual number of small bronze Osiris figurines were found in its vicinity, recovering 21 of them (Griffith 1922, 85, 89). Excavation around the shrine in 2019 recovered a couple more of these statuettes in the fill of the rubbish pits (see below) and embedded into the gaps between flagstones, but it was when scraping back the later secondary mud brick walls (Griffith 1922, 75, 85; Howley 2018, 83) that many more were found. We usually came across the figurines with their legs poking out from the mud bricks, as they formed part of the fabric of the bricks themselves: presumably the makers of the secondary walls had made their bricks on the spot, and gathered all the detritus of temple occupation into the mud fabric. Griffith's interpretation that the Osiris figurines he found were to be sold in shops demarcated by the secondary mud brick walls is now surely to be discounted – but the discovery of figures in the walls certainly



Figure 8. Aspelta's chapel after excavation.



Figure 9. Taharqo's chapel after excavation.

puts paid to his idea that 'the floor was clean and unencumbered by rubbish when the irregular brick walls were built in the larger chambers' (Griffith 1922, 85)! Most of the figurines were under 100mm tall and fairly crudely modelled; one had a suspension hole attached to its back so that it could be worn, in another example of a votive offering at Sanam that was designed to be worn on the body. The finest and largest figurine we have found so far (150mm) was not in fact found in a secondary wall like the majority of the rest of the figures, but under it, again a sign that the secondary wall builders cared little for the sacred leftovers of the temple's religious function. The added interest of this find was that, having been protected by the wall above it, it was discovered lying on a surviving section of the original white plaster floor of the temple (Figure 11). In total, 13 figurines were recovered during the 2019 season to add to Griffith's 21, all in the vicinity of the Aspelta chapel; although two more Osiris figurines were found during the 2020 season in the rear rooms of the temple, it is clear that this particular type of votive offering was used especially at the later, Middle Napatan shrine rather than during the earlier history of the temple. Since Osiris figurines such as these are found in Egypt



Figure 10. Votive deposit of faience amulets, found at threshold of Taharqo's chapel.

perhaps in imitation of rope (Figure 13). The beads are often found in the rubbish pits in the temple floor (see below), suggesting that they had been discarded or lost on the floor and then swept into the pits. The sheer number recovered within the temple walls means that it is logical to suggest that beads (or rather, the jewellery of which they formed part) could have been used as common offerings in the temple.

The beads, then, would form part of a corpus of offerings in the temple that include Osiris figurines, the faience appliqués, and beaded necklaces (or similar). All three could be worn on the body, and would have been left in particular concentrations in front of the small shrines in the hypostyle hall. Such ritual practice using small, intimate objects that could be worn on the body may have allowed the worshipper to create the feeling of a personal connection between themselves and the god.



Figure 11. Bronze Osiris votive figurine from Aspelta's chapel, *in situ* and after conservation.

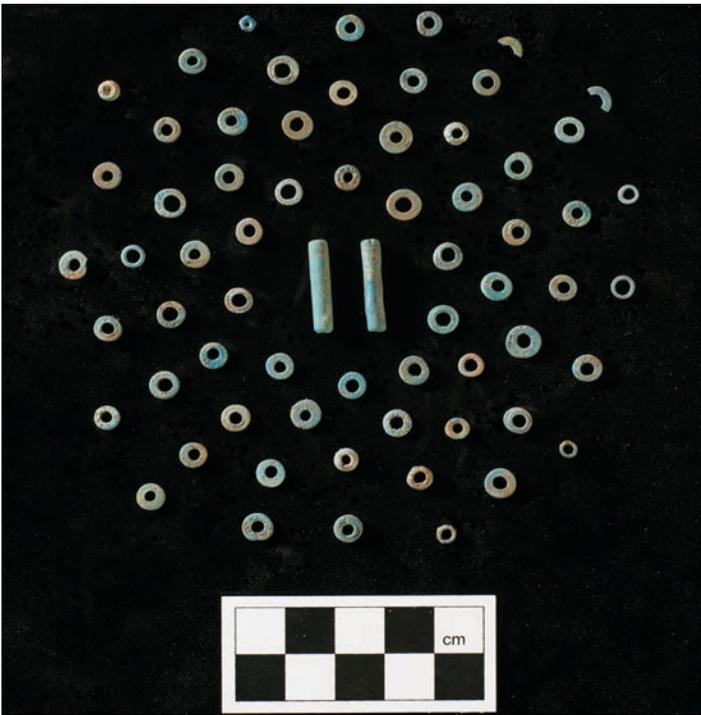
dating mostly from the 26th dynasty onwards, this may suggest that Aspelta was keeping up with the latest trends from Egypt when it came to his temple offerings. Osiris figurines were also an important type of small find at Kawa temple, and represent another shared class of votive offering between the two Amun temples (Macadam 1949, vol. I 145-8).

Beads and bodily adornment

The number of beads discovered in the temple, given that the structure had been excavated before, is quite astonishing. In areas that were comparatively little touched by Griffith, concentrations of beads could be very heavy, with up to 100 beads found in a single context (Figure 12). While most of the beads are small faience annular or cylindrical examples, the 2020 season did supply two beautiful examples of large beads, found embedded into the crevice between two flagstones in the rear rooms of the temple: one a lenticular blue faience bead, and the other a carved, barrel-shaped, red stone bead, with ridges along its length which have been notched,

Rubbish pits

One repeated feature found in the temple over the last two seasons of work that was not noted by Griffith in his report is a series of large holes cut into the floor of the hypostyle hall and the rear rooms of the temple. These holes were generally made by completely removing one of the flagstones from the floor, and then digging down into the sand on which the temple was laid. The holes could be considerably deep, and in the largest examples could be excavated to a depth of at least a metre



Left: Figure 12. Beads from a single context in the rear rooms of the temple.



Figure 13. Large beads from temple floor, rear rooms of the temple.

before sterile sand was reached (Figure 14). The pits in general contained large amounts of broken ceramic, faience beads and, surprisingly commonly, traces of gold leaf. Although the function of these pits is not entirely clear, the concentration of small, broken material within leads us to suspect that they are rubbish pits which facilitated the cleaning of the temple in a heavily trafficked, extremely dusty place.

The rubbish pits also allow us a window into the archaeology underneath the temple, which would otherwise be inaccessible. Although the temple is immediately underlaid by sand, beneath this is a layer of white rubble between approximately 50-100mm deep. This layer can be seen in pits in the colonnaded court, hypostyle hall and rear rooms of the temple, as well as in Trenches 1 and 3 to the front and rear of the temple (see further below). The layer therefore appears to underlie the whole temple and beyond the walls, and may represent a phase of initial construction.

Production areas to the rear of the temple

In the first season of work a test trench ('Trench 3') at the rear of the temple, north east of the walls, produced large concentrations of material that was suggestive of production debris. Faience fragments and wasters, beads, small Nile mollusc shells, and grinders and grinding stones were all found in large quantities (Howley 2018, 85-86). Small mud brick features in the upper layers had cuts in the top surface where unusual concentrations of shells were found, suggesting that they could have been used for the processing or grinding of these shells. The purpose of these shells is not immediately obvious, and in our previous article in *Sudan & Nubia* faience was suggested as one possibility (Howley 2018, 86): another potential use is in the production of pigment, as chemical analysis on white pigment from the Napatan tomb of Queen Yeturow at Nuri has demonstrated that shell was one ingredient used (Meghan Strong, pers. comm.).

In 2019, the edges of two large hemispherical structures just under a metre each in diameter with roughly flattened surfaces were found emerging from the trench section, adjoining each other and embedded into a layer of windblown sand. Further investigation in 2020 confirmed that the surfaces of these objects were intentionally flattened, perhaps to act as a working surface, and that they were made of mud that had been heated to a high enough temperature that the fabric was an orange-red colour throughout (Figure 15). The fabric was highly friable and had small potsherds embedded into the surface. Overlying the occupational level, including the surfaces, was a thick layer of Napatan pottery sherds (red-rimmed beakers and red burnished wares), which had later been used as the basis for a further surface. Many of these sherds had not been properly fired, suggesting that they were wasters. The round shape of the structures, the fact that they had been heated to a high temperature, and the presence of large quantities of poorly-



Figure 14. North half of hypostyle hall, with pits marked.

fired sherds around and above the structures indicates that they were used as a surface for the firing of ceramics in the Napatan period. The structure is quite different from other firing structures known from the Napatan period (Salah el-Din 1992a; 1992b; 1994; 1999, 43; Maillot 2016), and, interestingly for pottery production at a temple, from the wasters it does not seem that the production here included bread moulds.

To the south of the mud structures in the 2020 exposure, a working surface of compacted mud was identified. Several circular pits about 300mm in diameter were found cut into this surface, filled with fine Nile river silt. Again, these pits appear to be working areas where water from the river would have been used, perhaps for the processing of clay (as at the pottery workshop at Kerma: Salah el-Din 1999, 43).

The small finds from this working surface and the sand above were consistent with faience production activity. Large quantities of beads, fragments of moulded faience, shells, and large wasters and cores that could conceivably derive from the production of faience figurines were discovered (Figure 16). A small piece of slag was also found, along with chunks of quartz and lime. The area behind the temple was therefore a busy production area during the Napatan period, used for the making of various types of objects: pottery, faience, and perhaps pigment as well. The manufacture of different types of materials in the same area is particularly notable.

An early 1st millennium BC monumental mud brick building

One research question for the project has been to investigate why Sanam temple was built where it is. Other Kushite temples of the Napatan period, such as Kawa and Jebel Barkal, were built on the sites of New Kingdom Egyptian temples, and indeed this has also been assumed for Sanam (Pope 2014, 85; Griffith 1922, 85). However, Griffith did not find any evidence of Egyptian New Kingdom material or structures at the site. One of our test trenches from the 2018 season ('Trench 1'), close to the First Pylon at the north west side of the temple, discovered cultural deposits at least 1.8m deep (Howley 2018, 84-85), which suggested that there were still archaeological levels accessible below the foundation level of the temple. Reopening and expanding the test trench in 2019 quickly revealed the top of a well-preserved and well-constructed wall, c. 650mm wide. Further excavation has shown the wall to be part of a substantial structure made up of numerous rooms, with walls still standing to an average height of c. 1m. Most excitingly, the building stratigraphically underlies the foundations of the temple, and a date prior to the 25th dynasty in the early 1st millennium BC is also supported by preliminary ceramic analysis. The building therefore provides evidence of a poorly attested period in the Nubian archaeological record, and will hopefully offer insight into the period in which the Napatan kings consolidated their power.



Figure 15. Hemispherical fired mud surfaces, possibly for firing pottery and/or faience, production areas to rear of temple (trench 3).



Figure 16. Production debris from rear of temple.

be accounted for by differences in the amount of mortar used rather than to signify intentional differences in scale. The walls delineate a number of rooms, the most well-defined of which in the current exposure is Room 'A', with three walls exposed (Figure 18). It measures 6.5m across (the length of the room is still unknown) and therefore represents a sizable space: the scale of the building is far larger, for example, than the (later) Napatan houses discovered at Kerma (Salah el-Din 1992b; 1999, 41). The walls stand to approximately 1m high, with a maximum height of 1.3m, and in places where no pitting is present have a flat top with little sign of collapse (see further below). The surviving height of the walls is extremely surprising, given the almost complete denudation of other mud brick architecture in the area, especially at the adjacent Treasury (Griffith 1922, 115-116).

The plan of the building is as yet unclear: the wall that is central in the trench has walls emanating from both sides. We designated the spaces enclosed within these walls as 'rooms' for convenience, but have as yet uncovered no traces of doorways (quite remarkable given the length of wall uncovered) or external corners, making it impossible yet to determine whether any of the spaces are interior or exterior. Because the walls appear to have been deliberately flattened or dismantled to a certain height (see further below), it is also difficult to assess whether any of the spaces could have been roofed over. We found no material evidence of roofing.

Function of the building

Though the impressive scale of the building would suggest that it was connected with high elite or royal activity, no inscribed material has been recovered that could confirm this interpretation. Given the suspected early date of the structure, at a time when writing was not in use in Kushite cultures, this is not surprising. Though the limited amount of excavation restricts what can be said about the character of the occupation at this stage, some general comments can be made. The general character appears to be domestic, with some evidence of production activity. Numerous

Remains uncovered

Over the course of two seasons, an area of approximately 12.5x10m was uncovered. Progress was slowed by the depth of the deposits and the number of large fallen blocks from the temple in the upper layers of the area: because of the scale of the structure, remote sensing techniques will have to be used in future seasons to determine its full extent. Over most of the area an extremely hard concreted layer was found underneath the modern windblown sand, which effectively sealed the earlier deposits. We can therefore be sure that this area was not previously archaeologically investigated, by Griffith or anyone else.

Within the excavation area, parts of five walls were uncovered (Figure 17). We were unable to determine the full extent of any of these walls, as no external corners were found: the wall with the largest area exposed ran almost directly diagonally across the trench at a length of 14.5m. Although this wall was also the widest at 650mm, all walls were constructed with bricks of the same size laid in a similar pattern, and the difference in width between walls seems to



Figure 17. Trench 1 in 2019 and 2020, showing walls of mud brick building.

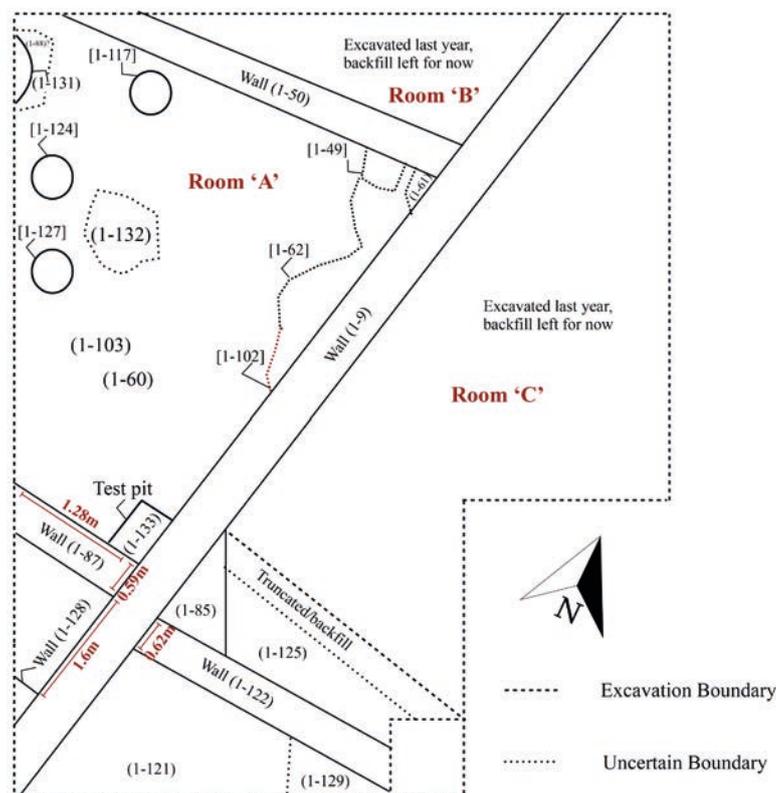


Figure 18. Sketch plan of Trench 1, showing walls, rooms, and features in Room A (prepared by Chloë Ward).

pot emplacements and oven features have been found in Room A; these occur at different levels and demonstrate different occupational phases. Two large ‘tandoor’ style pot ovens were found sunk into the floor surface next to each other at the earliest occupational level in the south east corner of Room B, at the very edge of the trench (Figure 19); an area for extensive food preparation is therefore assumed here.

The lowest recognisable surface in Room A is a compacted sand surface, with signs of domestic use including animal bone, charcoal and ceramic embedded into its surface. Into the surface were cut four relatively small ash pits, all with similar concave bases and relatively baked sides (Figure 18). They may have been associated with manufacture of some kind: one contained a pot sherd with adhering slag, which may have been a crucible used for metal manufacture. Charcoal samples were taken from three of these pits and will be sent for C¹⁴ dating analysis. In several places within Room A, intentionally flattened though irregularly shaped rocks had been embedded into the surface, apparently functioning as a sort of paved floor (Figure 17). This does not appear to have covered the entire room, but rather was only intended to pave certain areas; it may be possible that the paving acted as a ‘pathway’ between the various features within the room. Lying in the middle of Room A, an unusual oval mud brick structure almost a metre in diameter was uncovered. This enclosed a relatively large pit, which was surrounded by one course of mud bricks and mud brick material, lying directly on the sand. The cut of the pit was filled with very compact dark mud brick material which contained a significant amount of large animal bone and ceramic, though no traces of burning. This could potentially have been a shallow basin or specific work area which was outlined by the bricks. A final, as-yet unexcavated structure was found at the end of the season emerging from the north of the east facing section of Trench 1. It appears to be the edge of a curved mud brick structure at least five courses high and one course deep.

Above the original occupational layer in Room A, the building filled with a layer of windblown



Figure 19. Pot ovens in Room B of mud brick building, facing west.

2013, 334). Although the tokens at Sanam were not found at the original floor level of the structure, their location within the fill of the room, underneath the foundation level of the 25th dynasty temple, would therefore represent the earliest occurrence of these tokens. The results of dating from the ovens at higher levels may help to suggest a more accurate date.

Ceramic forms from the area include some storage jars and cooking pots, with the most common forms being cups and bowls (eating and drinking vessels): some plates and platters are also found. The ceramics also therefore support a domestic character for the building.

Stratigraphy, dating and relation of the building to the temple

All the walls of the structure are preserved to similar heights, and have remarkably flat tops, suggesting that at some point the structure underwent intentional flattening. Directly over the flattened walls throughout Trench 1, a clear rubble layer was identified. The rubble layer, consisting of a distinctive lime-rich, white and friable stone, was also noted in Trench 3 (the production areas to the rear of the temple) and within the temple in areas where it was possible to excavate beneath the flagstone floor (Figure 22). It therefore seems likely that the layer extends underneath the whole of the temple building and beyond. It is very different to the naturally-occurring strata at Sanam of windblown sand and Nile silts, and is likely to be manmade. Its position underlying the temple foundations indicates that it may be connected with the construction of the temple. The use of a lime-rich stone may have had connotations of purification, making it suitable for the establishment of a religious building. This may

sand, and at least two subsequent stages of apparently domestic occupation can be identified through the presence of pot emplacements and oven features: since these features are quite significantly higher than the earliest floor level, at this point the walls of the structure may have been used simply as windbreaks.

Small finds were few in number, which contributes to difficulties in interpreting the use of the building. Two disc-shaped clay objects, approximately 70mm in diameter with a groove running around the edge, were found (Figure 20). The groove would have allowed for the discs to be tied to something, and they may represent loom weights or some other weaving equipment. Numerous examples were also found in the fill of the rooms of small, roughly circular clay tokens (Figure 21). All were approximately 30mm in diameter, but some appear to have been made for purpose while others, through their curved profile, can be identified as having been shaped from pot sherds. Some examples have crosses carved into the top of one side (and in one example painted), and others are plain. Similar tokens have also been found at Gala Abu Ahmed, Dorginarti, Meroe and Jebel Moya at mid-late 1st millennium BC sites, and have been identified as gaming tokens (Jesse

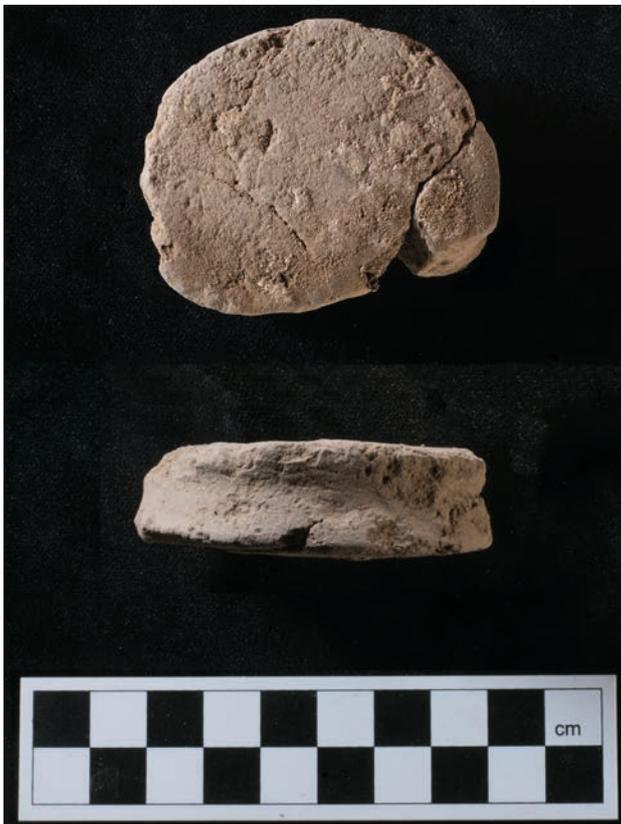


Figure 20. Mud spools from Trench 1.



Figure 21. Four clay tokens from Trench 1.

correspond to the ‘*dabsh*’ layer of stone chips that Griffith noted in passing while investigating the foundation layer of the temple (Griffith 1922, 80-81). Since the layer runs directly on top of the apparently flattened walls of the mud brick structure, it could be that the mud brick building was deliberately truncated in order to facilitate the construction of the temple.

It would seem unlikely that such a large structure would be isolated, and presumably even beyond its probably considerable limits there are more remains of earlier occupation at Sanam that predate the temple. In one particularly large hole in the floor of the first, colonnaded court of the temple (probably from later damage to the temple and not a rubbish pit), it was possible to excavate enough below the rubble layer and recover some small amounts of ceramic sherds and a small annular bead of ostrich shell that undoubtedly predate the temple and may correspond with occupation at the mud brick building. Unfortunately, none of the material was diagnostic.

There are several types of ceramic forms that occur in the building that suggest not only that it predates the temple, but that it could date to quite early in the 1st millennium BC before the 25th dynasty. These include deep bowls, parallels for which are dated at Kawa and Qasr Ibrim to the 10th to 8th centuries (Rose 2019), locally made red-slipped beakers that can be compared to examples in the tumuli at el-Kurru (pre-25th dynasty), black-top red ware that also occurs in the el-Kurru tumuli, and plates and platters with red rim bands in the earliest layers that are a continuation of an Egyptian New Kingdom tradition. The dating evidence from the ceramic analysis will hopefully in the near future be supplemented by C¹⁴ analysis of charcoal from the oven features in the earliest layer of the mud brick building and OSL analysis of samples from *in situ* pots and the mud brick of the walls, all taken during the course of the 2020 season.

Conclusions

The work of the previous three seasons has made clear that much archaeology remains to be done at Sanam, despite Griffith’s earlier activity. The site offers not just the opportunity to reconsider what the temple site might have to offer to our understanding of Napatan society, but also to add to our knowledge in the form of undisturbed ancient deposits, especially beyond the temple walls.

The early mud brick structure demonstrates that Sanam was a site of considerable activity before the foundation of the temple, and the scale of the building suggests that this activity was connected with royalty or high elite. The



Figure 22. Left, south section in trench 1 showing white rubble layer overlaying mud brick walls; right, section in colonnaded court of temple, showing white rubble layer under the temple floor.

occupation does not appear to be religious in character, but connected with domestic and production activity. No Egyptian-style objects have been found, as are so prominent in the later temple, and the ceramic assemblage is made up of a large percentage of local forms. Neither here nor beneath the temple have any traces of New Kingdom Egyptian presence been found, and there is therefore no reason to believe that Taharqo founded his temple on the site of an Egyptian predecessor, as was the case at Kawa and Jebel Barkal. The reason for his foundation at Sanam is presumably rather linked to its earlier importance as an elite centre, demonstrated by the mud brick structure. The date of the building in the early 1st millennium BC means that it is one of the few structures known from the immediately pre- and early 25th dynasty period in Nubia, and is therefore an important addition to discussion of a period that has in the past been considered as a ‘dark age’. The building requires much more work in the future to elucidate its extent and character, and to determine how many, if any, remains from this period are accessible in other areas of the site. Remote sensing will have an important role to play in this research.

During the Napatan period, extensive production activity was taking place at the temple, which was not specialised but probably related to several different sorts of material: we have found material that is suggestive of faience and ceramic production, and possibly pigment processing. This production was not only to manufacture objects related to the temple, but for royal activity more generally, as the shabti moulds for objects destined for the royal tombs at Nuri make clear. The location of the production areas at the temple, as well as the unspecialised nature of the production, differentiate Nubian production practices in use at Sanam from the Egyptian appearance of the temple.

Investigations within the temple provide material evidence of shared ritual practice between Taharqo’s temples at Sanam and Kawa. The caches of Osiris figurines, but most strikingly the faience amulets, match almost exactly the material found by Macadam at Kawa. The existence of a ‘network’ of Amun temples in Napatan Nubia was already known from textual evidence of ‘ambulatory’ coronation rituals (Török 1992), but the finds at Sanam allow us to demonstrate that these rituals were likely to be notably similar in different temples that were geographically far removed from one another. The use and role of temples in Nubia as demonstrated by these links is in contrast to their Egyptian architecture and decorative scheme. Material from Sanam can also perhaps deepen our knowledge of what this ritual might have consisted of: the discovery of incense in the temple provides evidence of a multi-sensorial atmosphere, and the large quantities of offerings that could be worn on the body suggests that worshippers established a personal connection with the god in leaving votives.

Acknowledgements

The Sanam Temple Project would like to thank all the team members from the 2019 and 2020 seasons whose hard work and expertise have contributed to the findings and interpretations discussed here: Martin Uildriks, Chloë Ward,

Siobhan Shinn, Rennan Lemos, Shadia Abdu Rabo, Hana'a Hafiz, Matteo Merlino, Carl Walsh, Peter Johnson, Marisa Henthorn, Celine de Ruiter, Waleed Arafat, and all our workmen from Karima and Merawi. We are grateful to the Egypt Exploration Society, the Explorers Club, and the Institute of Fine Arts at New York University for financial support. We offer our deepest appreciation to the National Corporation for Antiquities and Museums of Sudan for permission to conduct the work, and to our inspector el-Hassan Ahmed for so ably facilitating it.

References

- Dunham, D. 1950. *El Kurru*. Cambridge.
- Griffith, F. Ll. 1922. 'Oxford Excavations in Nubia VIII-XVII, Napata, Sanam Temple, Treasury and Town', *Liverpool Annals of Archaeology and Anthropology* 9, 67-124.
- Howley, K. 2018. 'Return to Taharqo's Temple at Sanam: the inaugural field season of the Sanam Temple Project', *Sudan and Nubia* 22, 81-88.
- Jesse, F. 2013. 'Far from the Nile: the Gala Abu Ahmed fortress in lower Wadi Howar (northern Sudan)', in C. Vogel and F. Jesse (eds), *The Power of Walls: Fortifications in Ancient Northeastern Africa. Proceedings of the international workshop held at the University of Cologne, 4th-7th August 2011*. Köln, 321-352.
- Macadam, M. F. L., 1949. *The temples of Kawa*. Oxford.
- Maillot, S. 2016. 'Two Firing Structures from Ancient Sudan: an archaeological note', *Dotawo: a Journal of Nubian Studies* 3, 41-56.
- Pope, J. 2014. *The Double Kingdom under Taharqo: studies in the history of Kush and Egypt, c. 690-664 BC*. Leiden.
- Rose, P. J. 2019. 'Early Kushite ceramics of the earlier 1st millennium BC in Lower and Upper Nubia', in D. Raue (ed.), *Handbook of ancient Nubia*. Berlin-Boston, 675-696.
- Salah el-Din Mohammed Ahmed 1992a. 'Kerma: un atelier de potiers de l'époque napatéenne', *Bulletin de liaison du groupe international d'étude de la céramique égyptienne* 16, 34-38.
- Salah el-Din Mohammed Ahmed 1992b. *L'agglomération napatéenne de Kerma. Enquête archéologique et ethnographique en milieu urbain*. Paris.
- Salah el-Din Mohammed Ahmed 1994. 'A Napatan pottery workshop at Kerma', in: C. Bonnet (ed.), *Études nubiennes. Conférence de Genève: actes du VIIe Congrès international d'études nubiennes, 3-8 septembre 1990*. Genève, 127-130.
- Salah el-Din Mohammed Ahmed 1999. 'The Napato-Meroitic Remains at Kerma', *Sudan & Nubia* 3, 39-47.
- Török, L. 1992. 'Ambulatory Kingship and Settlement History. A study on the contribution of archaeology to Meroitic history', in C. Bonnet (ed.), *Études Nubiennes: Conférence du Genève: actes du VIIe Congrès international d'études nubiennes, 3-8 septembre 1990*. Geneva, 111-126.
- Vincentelli, I. 2001. 'Il Tesoro' di Sanam (Sudan)', *Isimu* 4, 75-92.
- Vincentelli, I. 2011. 'The Treasury and other Buildings at Sanam', in V. Rondot, F. Alpi and F. Villeneuve (eds), *La pioche et la plume: autour du Sudan, du Liban et de la Jordanie. Hommages archéologiques à Patrice Lenoble*. Paris, 269-282.