

Excavations at Samahij, Bahrain, and the implications for Christianity, Islamisation and settlement in Bahrain

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Abstract

The episcopal seat of Meshmahig or Mašmahig is referred to in various historical sources, such as the synods of the Church of the East of 410 and 576. These sources have been extensively explored, and it is suggested that Mašmahig can be linked to the village of Samahij in north-east Muharraq Island, Bahrain. However, archaeological evidence for a Christian presence in Samahij, or elsewhere in Bahrain, was lacking. Excavations completed within the village cemetery at Samahij uncovered part of a large building complex. Based on the architecture, associated material culture and chronology, it is suggested this building was occupied by a Christian community, perhaps as part of a monastery or even the episcopal palace itself. This was abandoned after Islamisation, seemingly in the eighth century. The results of the first season of excavations are described, and the implications for Christianity, Islamisation and settlement in Bahrain are considered.

KEYWORDS

Bahrain, Christianity, Islamisation, Samahij, Church of the East, archaeology

1 | INTRODUCTION

The episcopal seat of Meshmahig or Mašmahig is referred to in various historical sources, such as the synods of the Nestorian Church, or, more properly, the Church of the East, of 410 and 576 (all dates are CE unless otherwise specified), where it was described as forming part of the geographical region known as ‘the islands’, and from the mid-seventh century as Beth Qatraye. This covered the western Gulf and was in turn under the control of Rev-Ardashir, the Persian ecclesiastical province (Beaucamp & Robin, 1983: 178; Potts, 1990: 124, 153; Langfeldt, 1994: 54; Carter, 2008). Mašmahig was considered a place of ‘heresy and revolt’ (Potts, 1990: 150), with Bishop Batai excommunicated in 410, and in the mid-seventh century, Bishop Abraham became the target of verbal attack by the *catholicos* Išo‘yahb III for seeking to separate from the Church of the East (Potts, 1990: 150, 261; Bin Seray, 1996: 320, 322–323). The existence of a Bishop in Mašmahig in the early fifth century suggests that Christianity had been established there for some time (Bin Seray, 1997: 208), but from when exactly is unknown (cf. Potts, 1990: 150; Bin Seray, 1997: 208).

The relevant Syriac and less comprehensive Arabic historical sources have been extensively explored (Beaucamp & Robin, 1983; Potts, 1990; Langfeldt, 1994; Bin Seray, 1996, 1997; Payne, 2011; Carter 2013), and it has been suggested that the Bishopric of Mašmahig can be linked with the village of Samahij in north-east Muharraq Island, Bahrain (Potts, 1990: 150; Langfeldt, 1994: 54; Bin Seray, 1997: 217; Carter, 2008: 101). However, archaeological evidence for a Christian presence in Samahij, or elsewhere in Bahrain, was lacking. Excavations completed on a mound (26.28234°N, 050.63433°E) within the village cemetery at Samahij in November 2019 (Fig. 1) redress this fact. Part of a large building complex was uncovered, which, based on the architecture, associated material culture and chronology, it is suggested was occupied by a Christian community, perhaps as part of a monastery or even the episcopal palace itself. This was abandoned after Islamisation, seemingly in the eighth century. The results of this first season of excavations are described, and the implications for Christianity, Islamisation and settlement in Bahrain considered.

The initial exploratory work in Samahij was completed by a team from the Bahrain Authority for Culture and

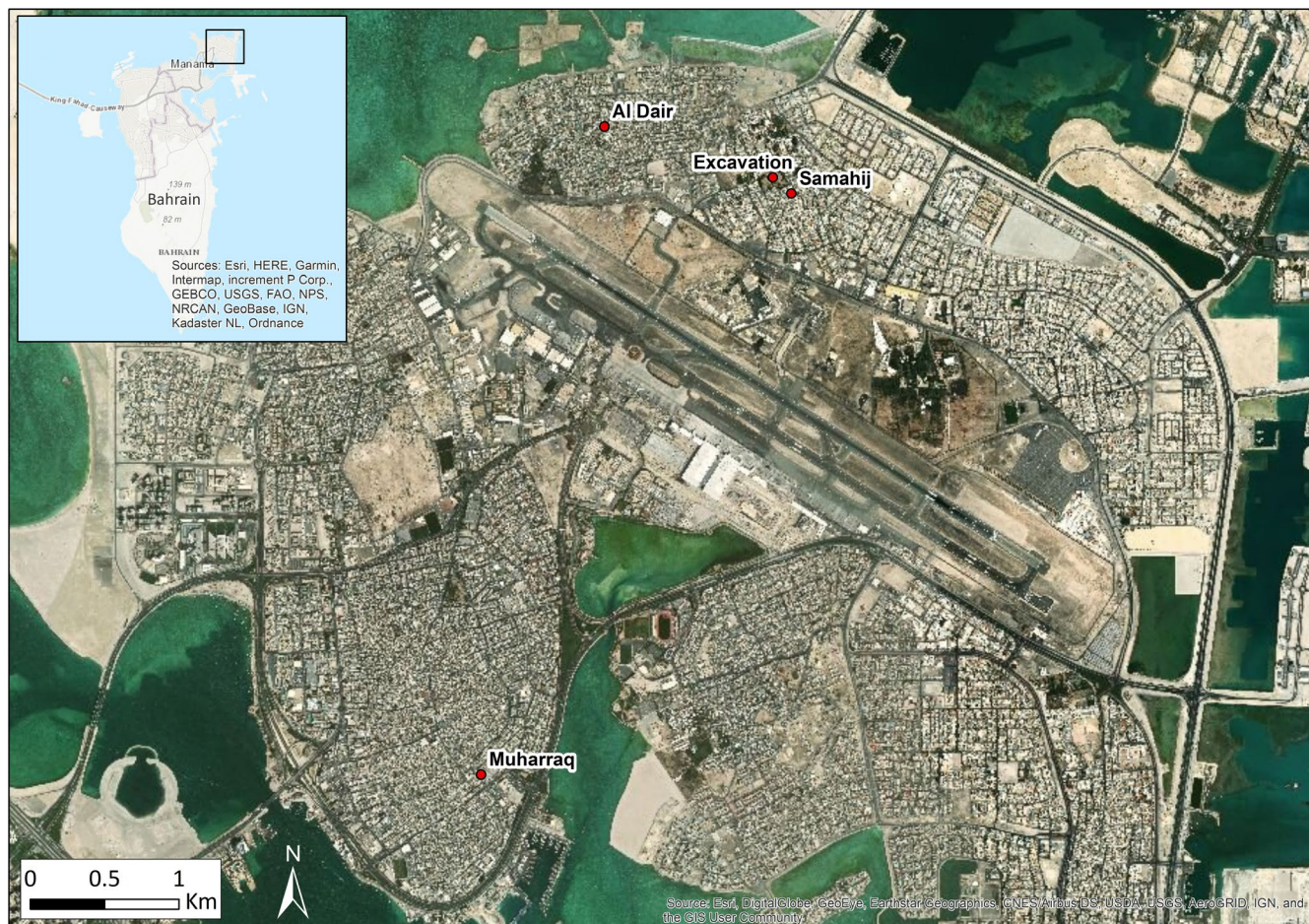


FIGURE 1 Location of the excavation site in Samahij Cemetery and of Samahij in Bahrain. Image: N. Khalaf

Antiquities (BACA), directed by one of the authors, Dr Salman Almahari. The trial excavations beneath an abandoned mosque and shrine on the top of the mound (Building 2) uncovered part of a lower and, larger, building (Building 1). Limited time and resources precluded detailed investigations, and the function and chronology of this building remained unknown. In November 2019, as part of the Early Islamic Bahrain research project, which has investigated various areas of Bahrain since its inception in 2001 (e.g., Insoll, 2005; Insoll et al., 2016, 2019), excavation was recommenced to examine both buildings. Permission to complete the research was obtained from three levels: BACA, the responsible government cultural authority; the Shi'a Jaffaria, the religious authority responsible for the cemetery; and the local community in Samahij. The renewed fieldwork involved rapid large-scale area investigations to assess the potential of the building for further full-scale research excavation, including sieving of all deposits and a full programme of ^{14}C dating and environmental sampling, which were not included in the excavations described here. The exception were two test units (A and B) excavated inside Building 1 (and initially cutting through the floor of Building 2) where full sieving was completed, and a ^{14}C sample obtained from each so as to begin to understand the chronology. Otherwise,

the chronology was reconstructed based on the ceramics recovered. The research excavations will be initiated in the next fieldwork season, and this article is presented to outline the results of the first stage of exploratory work.

2 | AREA EXCAVATION

The central surface of the mound was occupied by Building 2. This was an abandoned mosque/shrine, referred to locally as the Shaikh Malik Mosque. The date of Building 2 was described as unknown, but suggested as no more than 200–300 years (Fig. 2).¹ The plan of Building 2 was slightly off rectangular in shape, and measured 690×620 by 715×618 cm (Figs. 2 and 3). The existing structure was unroofed and had walls that survived to a maximum height of 50 cm, giving only an outline of the form of the building. Cement had been used to render parts of the walls and for consolidating some of the masonry, indicating repairs of comparatively recent date. The interior was empty except for subsurface graves (discussed below), a plaster basin or bowl, possibly used as a lamp or as a container for water (Fig. 4), and a cement column base on a rubble pedestal. Building 2 is representative of similar structures found in cemetery contexts across

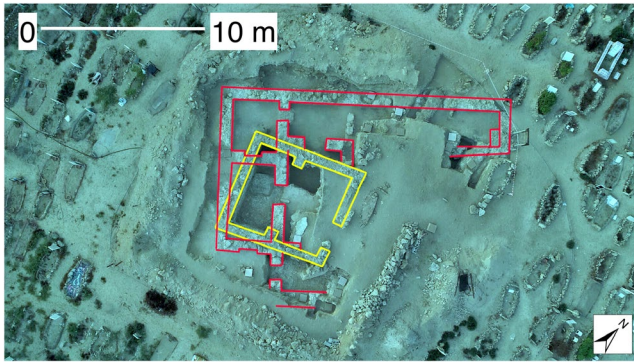


FIGURE 2 Excavated building complex at Samahij. Building 1 (red), the earlier, is probably a Christian structure; and Building 2 (yellow), the later, is an abandoned mosque and shrine

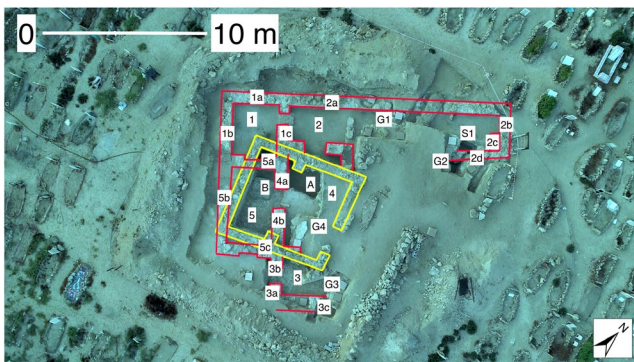


FIGURE 3 Plan of the codes assigned to the walls, rooms, test units, graves and sondage within the excavated building complex at Samahij. Building 1 rooms are numbered 1–5; 'a' and 'b' indicate the locations of the test excavations. G1–G3 are the groups of Muslim graves; S1 is the sondage; and the letter and number combinations are the positions of the walls

the north of Bahrain. The condition of these structures varies, with Building 2 moderately well preserved. Others are wholly or partially collapsed, such as Karranah Cemetery mosque, Abu Anbra Cemetery shrine or Al-Khamis Mosque cemetery shrine (cf. Insoll et al., 2019: 28–33, 263). More rarely, they are still standing, as with the Al-Maqsha funerary mosque (Insoll, 2005: 36).

The area excavation of Building 1 was completed using 10 reference codes relating to the cardinal direction of the area being investigated (Fig. 5). These were used to track the progress of the excavation and do not refer to chronology or phasing, but do indicate the areas where some of the ceramics and other finds were recovered. Because of the scale and preliminary investigative nature of the area excavation, the deposits were not sieved, and artefacts were retrieved by hand. Excavation commenced on the exterior of the north-western wall of Building 2 (Northwest Corner Wall Cleaning (NWCWC), Northwest Wall Cleaning (NWWC)). This uncovered a doorway and stone threshold with a concentration of corroded unidentifiable iron fragments (see below), which may once have been door fittings, in a dark brown organic sandy soil to the north-west of the door in



FIGURE 4 Plaster basin inside Building 2, the mosque and shrine. Scale (on north arrow) = 10 cm. Photo: N. Anderson

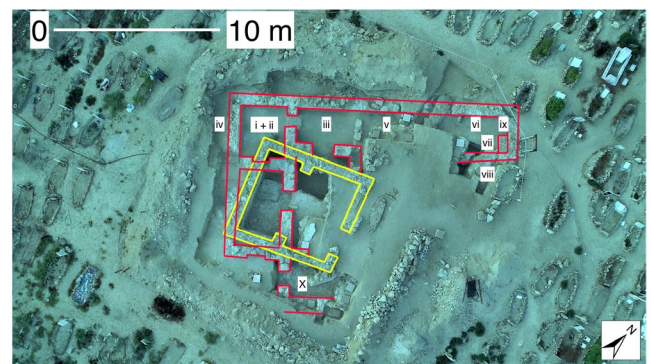


FIGURE 5 Location of the cardinal reference codes used in the area excavation of Building 1 (red), the probable Christian structure, Samahij: i + ii = Northwest Corner Wall Cleaning (NWCWC) and Northwest Wall Cleaning (NWWC); iii = Northern Wall Cleaning (NWC); iv = Northwest Wall Cleaning Exterior (NWWCE); v = Northeast Wall Cleaning (NEWC); vi = Northeast Cleaning (NEC); vii = North East 2 (NE2); viii = Northeast Grave Wall (NEGW); ix = Northeast Wall Extension Cleaning (NEWEC); and x = Southeast Wall Cleaning (SEWC)

room 1. On the opposite side of the threshold, a dusty white, almost sterile matrix in room 2 was found (Fig. 3). As these deposits constituted the original floor level of Building 1, they were left untouched. All floor level deposits subsequently encountered, except those in the test excavations which were partially excavated (see below), were also left intact for investigation in the next season. Excavation of the interior of room 2 was extended to the north (Northern Wall Cleaning (NWC)). The interior of the long north-western wall (wall 2a) in room 2 was found to have various peg holes in the plaster, probably for wooden partitions or fittings (Fig. 6). The above floor deposits of yellow brown sand were filled with plaster fragments and rubble where the walls had collapsed, leaving between approximately 110 and 40 cm height of surviving wall.

Three of the interior walls of room 1 (walls 1a–c) had not been plastered, or the plaster had not survived. Traces



FIGURE 6 (left) Threshold between rooms 1 and 2, viewed from room 2, Building 1; and (right) peg hole marks, probably for wooden fittings, wall 2a, Building 1. Scale = 100 cm. Photos: Timothy Insoll

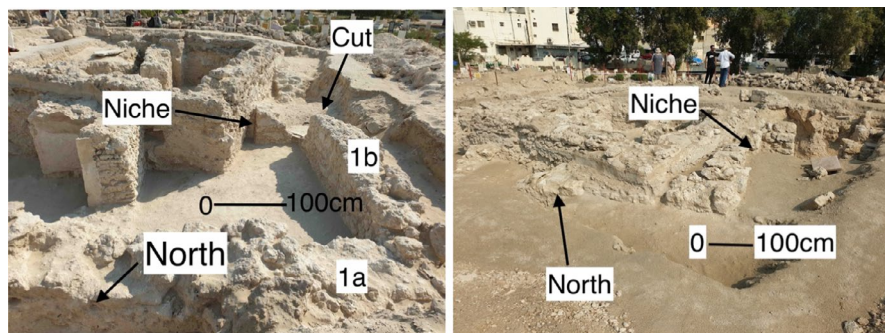


FIGURE 7 (left) Interior of room 1 in Building 1 with a niche and a wall cut in the vicinity of the *mihrab* of Building 2; traces of plaster are to the immediate right of the niche. Photo: Author; and (right) corresponding niche in wall 5c on the opposite side of Building 1. Photos: N. Anderson



FIGURE 8 Undated Muslim grave, part of group 1 (G1) cutting through wall 2a, Building 1. Scale = 50 cm. Photo: Timothy Insoll

of plaster were found on the fourth wall, which also had a niche built into it (wall 5a) (Fig. 7). Wall 1b and the contiguous wall 5b were cut through by a grave behind where the *mihrab* for Building 2 would have been. A matching niche was recorded on the opposite side of the building in wall 5c (Figs. 3 and 7). The rubble-filled deposits inside rooms 1 and 2 were largely sterile, with the artefacts found mostly obtained from the top of the floor levels where these had been scraped during exposure. The exterior to the north-west of room 2 (wall 2a) and exterior to the north-west and south-west of room 1 (walls 1a–b) were investigated by clearing the deposits that had built up against them (Northwest Wall

Cleaning Exterior (NWWCE)). These were composed of rubble-filled sand and were largely sterile.

As excavation of the internal rubble-filled deposits in room 2 progressed to the north-east (Northeast Wall Cleaning (NEWC), Northeast Wall Extension Cleaning (NEWEC)), a cluster of at least six Muslim burials (G1) was encountered (Fig. 3), one of which was covered by a large *faroush* slab, oriented north–south across the centre of the room. These cut down into the rubble-filled deposits and directly through wall 2a, indicating the burials post-dated Building 1 (Fig. 8). All burials were left untouched and were covered with paving slabs as they were found, so as to avoid further disturbance. Excavation of the end of room 2 (Northeast Cleaning (NEC), North East 2 (NE2)), north-east of burials G1, indicated that it appeared to have been reused after the primary function of Building 1 ceased. This was indicated by an area of burnt deposits filled with plaster and ceramics, and a hearth (Fig. 9), and had served a domestic purpose. A test pit (S1) was dug through the deposits in this area of the building to assess their depth (Fig. 3). This recorded just over 60 cm of deposits before a sterile orangey-brown beach sand was encountered. Two significant lenses of charcoal and ash may represent destruction levels or dumping of waste and appeared to post-date the primary use of Building 1 (Fig. 10). These charcoal lenses extended into the adjacent unexcavated area and will be sampled for ^{14}C dating in the next season. A raised stone platform (2c) of unknown function was built against wall 2b (Fig. 9). The internal south-eastern wall of room 2 (2d) also partially survived and was traced for approximately 3 m (Northeast Grave Wall (NEGW)) before it was broken by another cluster of at least four Muslim graves cutting through it (G2) (Fig. 3).

FIGURE 9 (left) Hearth in the north-east of room 2 in Building 1. Scale = 50 cm; and (right) stone platform built against wall 2b in Building 1. Scale = 50 cm. Photos: Timothy Insoll



Additional area excavation was completed to the south-east of Building 2 (Southeast Wall Cleaning (SEWC)), where a small room (room 3) (Fig. 3), was partly cleared of its rubble fill. Left in-situ were several large chunks of masonry with stucco stepped decoration (Fig. 11), and which likely formed part of the upper courses of walls from Building 1. (Stucco is defined here, following Lic (2017: 151), as any ‘mouldable material used for decorative purposes, irrespective of whether it is lime-based, gypsum-based, or of mixed composition’.) These were similar to smaller stepped stucco fragments retrieved after resorting the rubble following its removal from the area excavation (Figs. 19: 7 and 20: 6). These formed part of a small assemblage of 11 decorated stucco fragments retrieved, seven from rubble clearance and four from room 2, and which are discussed further below (see also Table 6 and Fig. 20). As the presence of decorated stucco is now confirmed, all plaster will be checked in-situ before removal and the distribution plotted in the next season as part of the research excavations. Another doorway and threshold were exposed in room 3 between walls 3a and 3b. This was damaged but matched the position of the doorway connecting rooms 1 and 2 (Fig. 11). Traces of plaster were found on the inner face and adjacent doorway on wall 3b. A limestone block, possibly intaglio carved with a cross symbol, was recovered from the rubble within room 3 (Fig. 20: 10). The south-eastern wall of room 3, wall 3c, was also cut by another group of Muslim burials (G3) (Fig. 3), further indicating that the cemetery post-dated Building 1. The area excavations were then suspended because of lack of time, but had exposed part of a building measuring 17.5 m north-east to south-west \times 10 m north-west to south-east. This formed an element of a much larger structural complex extending under the cemetery for an as-yet-unknown distance both to the north and the east (Fig. 5).

3 | TEST EXCAVATION: SAM19-A

The chronology and stratigraphy of building 1 were simultaneously investigated through two test excavations. The first unit, SAM19-A, was placed so as to incorporate the top of wall 4a of Building 1 that had been exposed by the BACA excavation (Fig. 3). The dimensions of the unit were 3 \times 2 m, but the working area was subsequently reduced by having to leave pedestals to support the Building 2 wall above

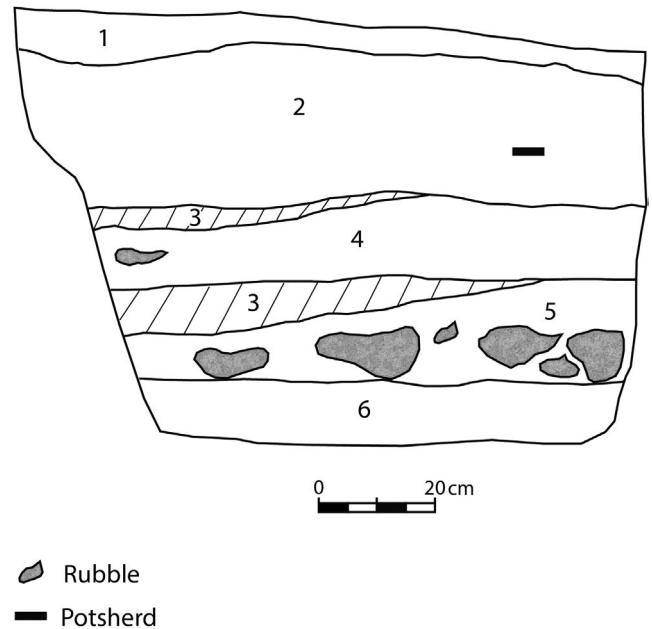


FIGURE 10 Stratigraphic profile of the north-facing section of the sondage (S1) in room 2, Building 1: 1, orangey-brown fine-to-medium sand containing some plaster, shell, and *faroush* and limestone fragments; 2, pale grey-brown silty sand containing some plaster inclusions and ash; 3, dark grey compacted fine sand containing copious charcoal and ash; 4, pale yellow brown sand containing some plaster and charcoal; 5, orangey-brown fine sand containing large pebble to cobble-sized pieces of *faroush* and limestone rubble and some degraded plaster; and 6, orangey-brown fine beach-type sand

the north-western side, and to make the working area safe because of the quantity of rubble in the north-eastern and south-eastern sides of the unit. This also precluded the effective drawing of a stratigraphic profile. Arbitrary levels were used in the excavation where stratigraphy was not apparent. All the deposits from both test excavations were sieved through 3 mm mesh and all finds kept.

Beneath an initial thin layer of modern debris and sand, the first 10 cm of deposits removed (SAM19-A-1) was composed of flooring shell from the Building 2 floor mixed with sand. This continued in the next 5 cm (SAM19-A-2), and the top of a spread of fragments of *faroush*, a natural seabed crust composed of sand, lime muds, shells and carbonate cement (Judd & Hovland, 2009: 88), and limestone rubble, was exposed in the north-west section of the unit.



FIGURE 11 (left) Stepped decorated rubble inside room 3, Building 1. Scale = 100 cm; and (right) damaged threshold in room 3, Building 1. Photos: Timothy Insoll



FIGURE 12 (left) Foundation trench for wall 4a, Building 1. Scale (on north arrow) = 30 cm; and (right) sterile beach sand at the base of SAM19-A-18. Scale (on north arrow) = 20 cm. Photos: Timothy Insoll

Context	Date; laboratory no.	D13c	Without D13c correction
SAM19-A-17	Cal. 528–623 CE (two-sigma calibration); Beta—559846	IRMS $\delta^{13}\text{C} = -26.1\text{‰}$	1530 \pm 30 BP
SAM19-B-12	Cal. 552–648 CE (two-sigma calibration); Beta—559847	IRMS $\delta^{13}\text{C} = -21.8\text{‰}$	1410 \pm 30 BP

TABLE 1 Radiocarbon dates from the Samahij 2019 excavations

Note: Calibration was by BetaCal. 3.21. HPD method INTCAL 13.

A pale yellowish-brown sand was found beneath the flooring shell, and 15 cm depth of this deposit was excavated (SAM19-A-3). The rubble was found to extend across the unit at a depth of 40 cm (SAM19-A-4), and was removed (SAM19-A-5–6). The rubble finished at a depth of 58 cm below the ground surface and was replaced by a pale orangey-brown fine-to-medium silty sand containing some pebble and cobble-sized inclusions which was excavated to a depth of 70 cm (SAM19-A-7). This was succeeded by a more compact pale orangey-brown sand 40 cm deep, which was removed in two 15 cm and one 10 cm levels (SAM19-A-8–10). Beneath this, at 110 cm below the ground surface, was a new deposit of light brown sandy soil. Two 10 cm levels of this were removed (SAM19-A-11–12). A similar fill continued in the next 10 cm excavated (SAM19-A-13), but was replaced by a pale, yellow sandy silt with frequent small pebble inclusions to a depth of 150 cm (SAM19-A-14). A distinct area of ash, initially thought to be a hearth, was recorded in the north-eastern corner of the unit.

The deposits then split into two, with a lime plaster and rubble-filled layer recorded across the unit, except in the south-west, adjacent to wall 4a, where a narrow strip of darker brown looser soil was removed (SAM19-A-15–16). This was a trench associated with the foundations for wall 4a (Fig. 12). The rubble in the remainder of the unit appeared to be collapsed material from the walls of Building 1, and was found to be of uneven depth (SAM19-A-17), varying between 4 and 21 cm. The rubble included a chunk of plaster with sherds from a turquoise glazed vessel and an unglazed storage vessel or torpedo jar embedded in it (see below), which was recovered from the base of the northern face of the unit. A ^{14}C date from charcoal, too small for species identification, was obtained from this level of cal. 528–623 CE (Table 1). The rubble and associated radiocarbon date appear to be linked with an episode of remodelling or rebuilding in Building 1. The final layer of deposits encountered was an orangey-brown sandy soil containing charcoal flecks and shell. This was removed to a depth of between 171 and 175

cm below the ground surface (SAM19-A-18), when a sterile moist orangey light brown loose beach soil of seemingly natural origin was found, and excavation was halted (Fig. 12).

4 | TEST EXCAVATION: SAM19-B

The second test unit was placed south-west of SAM19-A so as to investigate a contiguous east–west strip of interior space enclosed by the walls of Building 2 (Fig. 3). The initial unit dimensions were 350 cm east–west × 310 cm north–south. Following surface sweeping, the plaster basin was emptied and removed for safe storage. A strip of green silk-type cloth was found in the basin, with another strip of identical cloth recorded in layer SAM19-B-2 (Fig. 18: 2). Both had likely been left in Building 2 for devotional purposes (cf. Betteridge, 1992: 203–204; Insoll et al., 2019: 459). The top 5 cm of loose silt, wind-blown sand and modern debris were removed (SAM19-B-1). Beneath this a layer of flooring shell was recorded to a depth of between 23 and 25 cm below the ground surface (SAM19-B-2). The flooring shell was replaced by an orangey-brown loose sand containing almost no shell, but some small pieces of *faroush* and limestone rubble. This was present across the unit except in the south where the top of a wall (wall 4b) was identified aligned with Building 1 wall 4a. The sand fill was removed to a depth of 42 cm below the ground surface (SAM19-B-3). A Muslim burial, G4, was recorded under a large *faroush* slab in the south-eastern quadrant of the unit (Fig. 3). This was left untouched and the excavated area reduced in size. The same orangey-brown sandy deposits continued to 50 cm depth (SAM19-B-4).

To compensate for the reduction in excavation area, the unit boundaries were extended south-west by about 200 cm to incorporate the remainder of the deposits up to the *qibla* wall of Building 2 (Fig. 3). The fill in the unit extension was removed to the same level as the base of SAM19-B-4, at 50 cm below the ground surface. Excavation was then continued across the whole unit, excluding the burial which remained on its pedestal. The fill removed to a variable depth of between 67 and 75 cm below the ground surface (SAM19-B-5) was a similar orangey-brown sand, but with less rubble. It is possible that these sand deposits indicated a period of disuse of the area before Building 2 was built. The deposits then

changed in composition, with orangey-brown sand found containing large pieces of rubble east of wall 4a–b, and to the west, the same sand fill, but with little rubble present. These deposits were excavated to a depth of between 82 and 87 cm below the ground surface (SAM19-B-6). The contexts were then differentiated, with those west of wall 4a designated as SAM19-B-7. This was composed of further orangey-brown sand and removed to a depth of 100 cm. The deposits east of wall 4a were assigned context number SAM19-B-8, but were left unexcavated because of the increasingly restricted working area and focus was instead given to the western part of the unit.

The same orangey-brown sand continued in the next 15 cm excavated (SAM19-B-9). A fine mottled silty sand containing a spread of significant quantities of charcoal and ash was then encountered. A stone threshold between walls 4a and 4b of similar type to that connecting rooms 1 and 2, and in room 3, was found. The Building 2 rubble pedestal with the cement column base on top was removed. This revealed a length of the stone door surround lying where it had fallen, with next to it a surviving section of the surround in-situ where it met the threshold at the base of the door frame. The ashy deposits were removed (SAM19-B-10), revealing five circular hearth features, the best preserved of which in the north of the group, was of 20 cm in diameter (Fig. 13). These were not sampled for ^{14}C dating as it was decided to obtain a ^{14}C date from lower down the sequence. The hearths cut into a compacted earthen floor that ran across the unit at between 115 and 120 cm below the ground surface. These earthen floor deposits of about 10 cm depth were excavated (SAM19-B-11). Underneath was a compacted rubble packing layer composed of a mix of large flat pieces of plaster, laid flat-side up, and smaller chunks of limestone and *faroush* (Fig. 13). Some of the plaster may have originally been from walls 4a–b and 5a in room 5, all of which were unplastered. This suggests there was an episode of partial collapse, demolition or remodelling of Building 1.

The subfloor rubble packing, which was between 15 and 19 cm thick, was removed from the northern half of the unit (SAM19-B-12), leaving the southern part intact. A hearth, indicated by a spread of charcoal and ash, was found underneath the packing, associated with a thin plaster floor. These features were below the top of the foundations of walls 4a

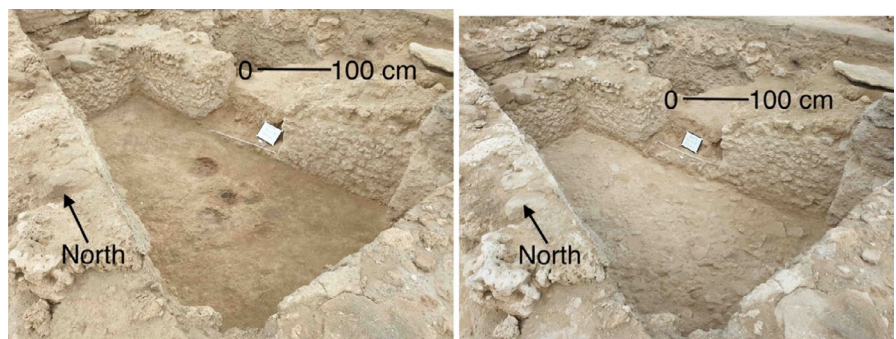


FIGURE 13 (left) Circular hearth cut into the compacted earthen floor, SAM19-B-10; and (right) rubble packing layer below the earthen floor in room 5, Building 1, SAM19-B-11. Photos: Timothy Insoll

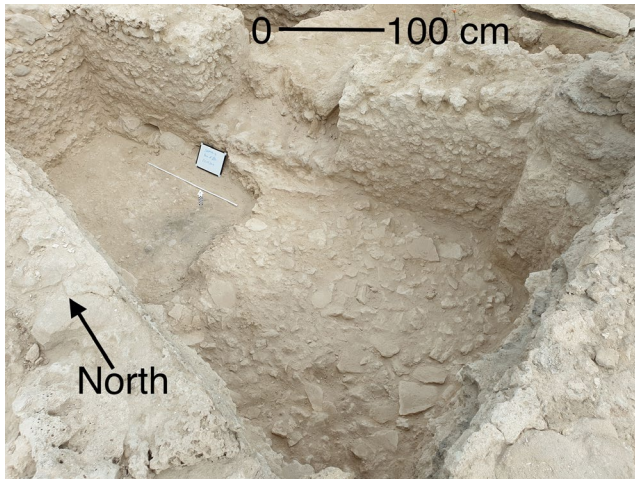


FIGURE 14 Hearth and associated plaster floor below the foundations of walls 4a and 5a, Building 1, SAM19-B-12. Photo: Timothy Insoll

and 5a, indicating they were earlier than the standing walls in this part of Building 1, and which may have been built as part of the remodelling, previously described (Fig. 14). A ^{14}C date from charcoal, again too small for species identification, was obtained from this level of cal. 552–648 CE (Table 1). A strip 50 cm wide extending along wall 4a and the adjacent threshold was dug to assess the deposits beneath (SAM19-B-13). This found that the plaster floor and a thin layer of packing beneath were only 3–5 cm thick, with a sterile sandy soil underneath. Excavation was halted at a depth of 151 cm below the ground surface. As two sides of the unit were formed by walls 4a–b and 5a, and the others by undifferentiated blocks of deposits, drawing the stratigraphy was irrelevant.

5 | THE CERAMICS (ROBERT CARTER)

Most of the contexts in SAM19-A and some of the contexts in SAM19-B were recorded in full, that is, all sherds in the context were classified, quantified and entered into a database. Altogether 382 sherds from these contexts were registered (241 from SAM19-A, 141 from SAM19-B). Material from selected cleaning or overburden contexts was also examined and selectively recorded. Bag labels indicated Northern Wall Cleaning (NWC), Northeast Wall Cleaning (NEWC), North East 2 (NE2), Northwest Corner Wall Cleaning (NWCWC), Rubble Pedestal, Northeast Wall Extension Cleaning (NEWEC), and Southeast Wall Cleaning (SEWC), among other designations. Many of the sherds from these were still wet or unwashed during the recording process, but some sherds were registered from the first three, which were assigned context codes SAM19-N-Wall (i.e., NWC), SAM19-NE-Wall (i.e., NEWC), SAM19-NE2 in the database. Sixteen

sherds were registered from these bags, taking the total to 398. Table 2 shows the breakdown.

Provisionally, it appears that two consecutive chronological horizons are present at Samahij, one of the sixth–seventh centuries characterised by turquoise glaze bowl Type 64, and another of the eighth century (possibly starting in the late seventh century) characterised by turquoise glaze bowl Type 72.

5.1 | Area assemblages and chronology

5.1.1 | SAM19-A

Every context from context 6 to 18 was fully recorded, except for contexts 15 and 16. Only Late Sasanian or very Early Islamic period pottery was identified in the studied contexts; the radiocarbon dates indicate that Late Sasanian is an appropriate designation. Torpedo jar sherds were the commonest type, followed by buff ware. Turquoise glaze was reasonably common and included a large bowl of the seventh or eighth centuries (Fig. 15: 1), but eighth-century carinated bowls (Kennet, 2004: Type 72) were not observed; these dominate the late seventh–eighth-centuries assemblage at Sir Bani Yas and Hulayla D in the United Arab Emirates (UAE), and elsewhere, and their absence implies a slightly earlier date for this Samahij assemblage. This remains provisional because the quantity of turquoise glaze sherds was not high (16 sherds in SAM19-A out of 241, equalling 7% of the area assemblage). However, the ceramics from lower levels of SAM19-B are also lacking in late seventh–eighth-centuries types, and moreover contain a type considered to be earlier in date (Type 64, see below). Taken together, the material from areas A and B therefore suggests a date in the sixth or seventh centuries, probably the seventh century, according to close similarities to the late seventh–eighth-centuries Sir Bani Yas assemblage. These similarities include dominance of buff ware, torpedo jars and dense gritty earthenwares (some of which bear incised decoration, indicating parity with Kennet's category large incised storage vessels (LISV)), as well as parallels in form.

Notable sherds from SAM19-A include a piece of TORP (torpedo jar) with black-painted symbols (Fig. 15: 2); this appears to be a partial inscription (see below), which may have identified the supplier, contents or origin of the contents (probably wine). Another TORP sherd from the same trench also shows a small part of a black-painted letter.

Indian pottery was moderately common in the SAM19-A assemblage (eight sherds). These were cooking pot fragments in various fabrics, usually with burnished exteriors. They are grouped in Table 1 under the temporary code 'Indian Misc' (miscellaneous) and would mainly fall into Kennet's category soft black burnished ware (SBBW). A very small fine sherd with a burnished red exterior was tentatively identified as Indian red polished ware (Kennet's IRPW). Another fine reddish sherd from context 18 had traces of black paint, and it could have been either an Indian ware or

TABLE 2 Key early Islamic glazed and unglazed earthenwares and codes recorded on the database and mentioned in the discussion

	Century	Dating and comments	Key references
BW: buff ware	7th–8th	Buff or pale brown fabric with sand inclusions and dark slip, used for basins and medium-sized jars. Common at Sir Bani Yas. Not the same as Priestman's or Kennet's BUFF categories. Possibly manufactured in Bahrain, and a precursor to the 'common ware' of Bilad Al-Qadim	Carter (2008: 79–81)
TORP: torpedo jar	6th–10th	Brown, buff or cream-coloured sandy ware, sometimes ribbed, lined internally with bitumen. Used for 'torpedo jars', a kind of amphora (probably wine jars) with a pointed foot and a simple rolled rim	Priestman (2013: 496–497 (TORP.S)); Kennet (2004: 63 (TORP))
Red gritty	7th–8th and probably later	Fabric category designed for SAM19 body sherds and isolated diagnostics. May be split or combined as analysis and excavation progresses. Moderately hard reddish or pinkish earthenware with frequent angular grits, sometimes whitish inclusions. Usually medium to large vessels. Early, Middle and Late Islamic varieties are hard to distinguish. Probably an LISV fabric	
TURQ: turquoise glaze ware	5th–10th (7th and 8th for Samahij assemblage)	Includes olive and greenish glazes as well as turquoise examples. Vessel and rim forms are chronologically distinct, most notably Kennet's Type 64 in a greenish glaze (5th–7th centuries) and Type 72 (late 7th–8th centuries). Type 64 is better illustrated by Priestman (2013, pl. 61) than Kennet. Three fabrics observed at Muharraq (combined for the purposes of this report)	Priestman (2013: 553–554 (TURQ.YG, TURQ.T)); Kennet (2004: 29–31 (TURQ))
Hard dense LISV-clinky	6th–10th	Includes sherds that fall into both of Kennet's Clinky and LISV categories, mainly too thick to be conventional clinky, yet with a clinky-like fabric, but no surviving signs of incised decoration (cf. LISV)	See LISV and CLINKY below
CLINKY: clinky fired earthenware	6th–8th	Dense, hard earthenware with reddish, purple or grey-brown fabric and grit inclusions used for small jars	Priestman (2013: 471–473 (HARLIM)); Kennet (2004: 62 (clinky fired earthenware))
LISV: large incised storage vessels	7th–10th	Hard fired gritty ware(s) used for storage jars, bearing incised and punctuate decoration, often with a dark slip. Can sometimes resemble pale gritty ware (Late Islamic)	Priestman (2013: 471–473 (HARLIM)); Kennet (2004: 58 (LISV))
Indian misc. (miscellaneous)	7th–8th	Broad category designed for various categories of soft brown, reddish and grey earthenwares, usually with external burnishing, often identifiable as cooking pots. May be refined or divided as analysis and excavation progresses. Includes sherds that could be categorised as SBBW (see below)	
SBBW: soft black burnished ware	7th–9th	Black, soft, black medium-fine fabric, sometimes brown, burnished exterior. Used for cooking pots. Often considered Indian, but burnished wares also found in Africa	Priestman (2013: 545 (SBBW)); Kennet (2004: 66 (SBBW))
Abrasive speckled		Fabric category designed for SAM19 body sherds and isolated diagnostics. May be refined or combined as analysis and excavation progresses. Thick grey earthenware with abrasive feel and speckling, sometimes larger limy inclusions. Probably an LISV fabric	
Fine red speckled		Fabric category designed for SAM19 body sherds and isolated diagnostics. May be refined or combined as analysis and excavation progresses. Fine reddish or orange-brown fabric with fine white speckling	
Brown gritty		Fabric category designed for SAM19 body sherds and isolated diagnostics. May be refined or combined as analysis and excavation progresses. Similar to red gritty, but brown or pale brown fabric, perhaps more obvious whitish inclusions. Hard to distinguish from Late Islamic gritty earthenwares. Probably an LISV fabric	
Cream ware		Fabric category designed for SAM19 body sherds and isolated diagnostics. May be refined or combined as analysis and excavation progresses. A sandy cream-coloured ware, fine or medium fine. Perhaps a fine, unslipped variant of buff ware?	

(Continues)

TABLE 2 (Continued)

	Century	Dating and comments	Key references
Abrasive red and grey		Fabric category designed for SAM19 body sherds and isolated diagnostics. May be refined or combined as analysis and excavation progresses. Grey exterior, red core. Abrasive, rough texture, quartz sand, sometimes with fine white particles and speckling	May equate to the Sir Bani Yas type 'thin torp-like ware' (Carter, 2008)
Grey sandy		Fabric category designed for SAM19 body sherds and isolated diagnostics. May be refined or combined as analysis and excavation progresses. Grey fabric with coarse quartz sand and whitish inclusions. Could be a very grey version of buff ware?	
SMAG: small grey vessels	7th–9th	Medium-fine grey gritty fabric with 'dry' appearance used for small jars with complex rims	Priestman (2005: 175–176 (SMAG.B)); Priestman (2013: 471–473 (HARLIM)); Kennet (2004: 63 (SMAG))
Thick red with quartz		Fabric category designed for SAM19 body sherds. May be refined or combined as analysis and excavation progresses. Thick, dense earthenware with large, rounded quartz sand inclusions and some limy inclusion. Probably an LISV fabric	
IRPW: Indian red polished ware		Fine red or red brown fabric with a burnished exterior slip	Kennet (2004: 88–89)
Fine brown ware		Fabric category designed for SAM19 body sherds. May be refined or combined as analysis and excavation progresses. Fine brown earthenware with occasional or moderate whitish particles	
WHITE: white ware	8th–12th	Broad category of fine whitish to pale buff wares used for medium-sized and small jars. Finest varieties can be highly decorated using a variety of techniques, including moulding and rouletting, as well as incised, punctuate and appliqué decoration	Priestman (2013: 486–468, 507–508 (WHITE.PI, WHITE.A, WHITE.M)); Kennet (2004: 57)
HONEY: honeycomb ware	7th–8th/9th	Distinctive ware with yellow or buff sandy fabric covered in finger and thumb impressions used for storage jars.	Priestman (2013: 499–500); Kennet (2004: 59)
FRIT-TB	12th and later	In this case turquoise and black underglaze-painted frit. Bright turquoise glaze over black paint on a whitish stone-paste body	Kennet (2004: 50)
JULFAR: Julfar ware	12th–mid-20th	Gritty earthenware, sometimes slipped, painted, usually cooking pots and multipurpose globular jars, barrel-shaped vessels, spouted pouring jars and, more rarely, small bowls. Made in Ras Al-Khaimah, United Arab Emirates (UAE)	Kennet (2004: 53–56)

fine orange painted ware (Kennet's FOPW), usually identified as Sasanian in date. It was not securely identified, so was registered as unidentified.

5.1.2 | SAM19-B

Contexts 3, 7, 8, 10 and 11 were fully recorded, along with selected sherds from contexts 2 and 12. All contained Late Sasanian pottery comparable with the studied levels from SAM19-A, with the assemblage dominated by buff ware, torpedo jars, dense gritty earthenwares (including LISV) and turquoise glaze. Carinated bowls typical of the eighth century (Kennet, 2004: Type 72) were not seen among the eight turquoise glaze sherds, but Kennet and Priestman's Type 64 (large basin with bifurcated rim) was found in context 11 (Fig. 15: 3). This type occurs in a greenish alkaline glaze (included in the category turquoise glaze) and is assigned to the fifth–seventh centuries (Priestman, 2013: 553–554, pl. 61). Significantly, Type 64 appears to predate the

carinated bowl Type 72, being stratigraphically separated at Kush (Periods II and III, respectively), with the latter being well dated to the eighth century (and perhaps the late seventh century) by occurrences at Sir Bani Yas and Hulayla D (Kennet, 2004: 36, tab. 15; Carter, 2008; Priestman, 2013: 93). The occurrence of Type 64 in context 11, which appears to represent a reoccupation, implies that Building 1 had been built, remodelled or partly collapsed and was reoccupied before the late seventh–eighth-centuries horizon known from similar sites in the region (Sir Bani Yas, Al-Qusur, Kuwait; Kharg Island, Iran; Hulayla D, United Arab Emirates etc.). Wider excavation and a bigger assemblage are required to confirm this hypothesis.

Also found in SAM19-B was a twisted handle in white ware, which is otherwise absent from the assemblages of both areas A and B. This is another difference between the lower Samahij assemblage and that the late seventh–eighth-centuries sites in the Gulf, where white ware is relatively common. White ware is also common at ninth-century sites in Bahrain (e.g., Bilad Al-Qadim) and elsewhere. Given that the single

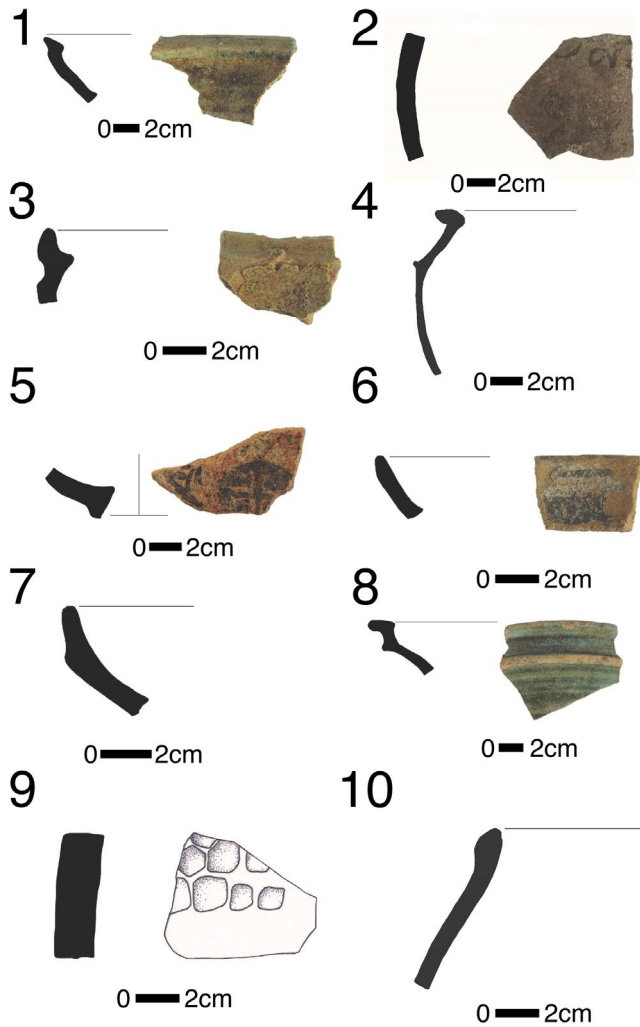


FIGURE 15 Diagnostic ceramics from SAM-19: (1) TURQ rim (SAM19-A-10.5); (2) TORP body sherd with inscription (SAM19-A-10.4); (3) Type 64 TURQ rim (SAM19-B-11.1); (4) Indian cooking pot rim (SAM19-B-12.1); (5) YGF/Coptic glazed ware/Hijazi ware base sherd (SAM19-NE-Wall.1); (6) YGF/Coptic glazed ware/Hijazi ware bowl rim (SAM19-NE-Wall.4); (7) Type 72 TURQ carinated bowl rim (SAM19-NE-Wall.3); (8) TURQ flattened extended bowl rim (SAM19-NE.2.1); (9) honeycomb ware body sherd (SAM19-NE2.7); and (10) TORP rim (SAM19-NE2.2). Photos: Timothy Insoll

example from Samahij was found high in the sequence (context 3), its absence from lower levels of SAM19-B and from SAM19-A probably has a chronological significance. Also notable in SAM19-B was an Indian cooking pot from context 12 (Fig. 15: 4), in a brown/grey fabric with fine grits and white particles, but without obvious burnish. Indian cooking pot fragments were also found in trench A (Table 3).

5.1.3 | Pottery from cleaning and clearance contexts

- *Northeast Wall Cleaning (NEWC)* was not fully recorded but contained mixed Early and Middle Islamic pottery, including a sherd with a painted cross, likely of the eighth

century (see below); along with an eighth-century carinated turquoise glaze bowl; possibly an earlier Type 64 turquoise glaze vessel (damaged); a turquoise frit sherd, likely of the twelfth century or later; and abundant material typical of the Early Islamic period (torpedo jar, buff ware and gritty earthenwares).

- *North East 2 (NE2)* mainly contained material diagnostic of the sixth–seventh and/or eighth centuries (honeycomb, torpedo jar, turquoise glaze and buff ware, Indian cooking pots) as well as a small amount of Middle or Late Islamic pottery (Julfar).
- *Northern Wall Cleaning (NWC)* contained ceramics of the sixth–seventh and/or eighth centuries: torpedo jar, Early Islamic gritty wares, a typical buff ware basin and possibly a small amount of later material (Julfar).
- *Southeast Wall Cleaning (SEWC)* contained an eighth-century carinated (Type 72) turquoise glaze bowl, among other material of similar and later date.
- *Northeast Wall Extension Cleaning (NEWEC)* contained two eighth-century carinated (Type 72) turquoise glaze bowls, among other material of similar and later date.

Of particular note was a base sherd from NEWC with an interior underglaze painted cross within a quartered circle motif, beneath a degraded whitish glaze (Fig. 15: 5). This was recorded under the category ‘Unique and Non-ID’. The paint of the most visible motifs was black, but there was also a red-brown line and perhaps other red-brown panels and motifs outside and inside the cross circle. Patches in the glaze hinted that it may have included splashes of yellow or green. Both painted and glazed decoration therefore appears to include bi- or polychrome elements. The fabric was medium coarse, soft and brown, and not dissimilar to the buff ware fabrics found in the local assemblage. This sherd most closely resembles Watson’s yellow glaze family from Syria (YGF), as well as Coptic glazed ware and Hijazi ware(s), all of which are considered to appear in the eighth century (Watson, 2014; Tite et al., 2015; Whitcomb, 1989). Similar wares are also reported closer to Bahrain, at Samarra (ninth century) and Susa (eighth or ninth centuries) (Watson, 2014: figs. 15–16).

Also found was a bowl rim with a similar or identical fabric, and eroded black painted decoration internally, beneath a degraded glaze, and a band of black/brown paint externally at the rim (Fig. 15: 6). It is likely that this is from the same vessel as the base with the cross. The cross-hatched decoration finds parallels with bowls from Aqaba, Jordan, with cross-hatched interior motifs in brown paint on a whitish slip, under a clear or yellow glaze, considered to be related to Coptic glazed ware, and referred to as Hijazi ware (Whitcomb, 1989: fig. 6: a–c; Watson, 2014: 127).

YGF was manufactured across Syria in the second half of the eighth century, while Coptic glazed ware may have developed as early as the first half of the eighth century (Watson, 2014: 127; Tite et al., 2015: 81). The eighth-century date is consistent with other unstratified pottery from Samahij, including a carinated eighth-century bowl from

TABLE 3 Ware occurrences.

Context	Buff	Torpedo jar	Red gritty	Turquoise glaze	Hard dense LISV-clinky	Indian misc. (miscellaneous)	Abrasive speckled	Fine red speckled	Brown gritty
SAM19-A-6	2	2		1					
SAM19-A-7	6	12	1	1					
SAM19-A-8	5	16	2	1		1			
SAM19-A-9	8	12	2		4	2			
SAM19-A-10	13	14	6	5	2	2		4	
SAM19-A-11	21	13	3	1		1	1		
SAM19-A-12	10	12	3	4	1	2	3		
SAM19-A-13	1	4		1					
SAM19-A-14	1	1			1				
SAM19-A-17				1					
SAM19-A-18	6			1					
SAM19-B-3	5	3	4		2				
SAM19-B-7	12	2	1	2	1		2		
SAM19-B-8	1	17		3			1		
SAM19-B-10	8		5	1				1	
SAM19-B-11	27	2	3	2	1				5
SUM (fully recorded contexts only)	126	110	30	24	12	8	7	5	5
SAM19-B-2	1	1							
SAM19-B-12						2			
SAM19-NE2	1	1		1		1			
SAM19-NE-WALL				1					
SAM19-N-WALL	1								
SUM (purposive selection only)	3	2	2			3			

the same cleaning context (Fig. 15: 7). Other examples of turquoise glaze carinated bowls (Type 72) were found in a collection from SWC, and two more from NEWEC. Further examples of seventh- and eighth-century pottery include turquoise glaze bowl rims with flattened extended rims (Fig. 15: 8), honeycomb ware (Fig. 15: 9), typical torpedo jar rims (Fig. 15: 10) and buff ware rims comparable with forms at Sir Bani Yas and Al-Qusur (flat-bottomed basins with rolled rims, small water jars with ribbed shoulders and vertical necks and rims). All these could also relate to either the earlier sixth–seventh-century assemblage or the late seventh–eighth-century assemblage.

The mixed nature of the cleaning contexts is underlined by the presence of a fritware sherd with a bright turquoise glaze and black underglaze paint, also from NEWC. This equates to Kennet's Frit.TB (Turquoise and Black Underglazed-Painted Frit), also from NEWC, dated to the twelfth century and later (Kennet, 2004: 50).

5.1.4 | Chronological summary

According to current information, the early assemblage at Samahij, which is associated with the lower levels of the building as well as a reoccupation in trench B, is slightly earlier than the well-known late seventh–eighth-centuries horizon of Sir Bani Yas, Hulayla D, Kharg and the main period of occupation at Al-Qusur, and is therefore likely to relate to the sixth and/or seventh centuries. The radiocarbon dates allow this range to be narrowed down to the sixth and first half of the seventh centuries, thus the Late Sasanian period.

Also present is a late seventh–eighth-centuries ceramic horizon, currently attested only in mixed layers, mainly from cleaning and overburden clearance. This indicates ongoing occupation or use as a midden area. The sherd with a cross is likely associated with this horizon; whether it indicates that the Christian faith was still extant at Samahij in the eighth

Cream ware	Abrasive red and grey	Grey sandy	SMAG	Thick red with quartz	IRPW	Fine brown ware	White ware	Honeycomb	Fritware	Julfar	Unique and non-ID	Sum
												5
											2	22
											1	26
											5	33
1	1										3	51
				1	1							42
												35
2	2	1										11
											2	5
											2	3
											1	8
1						1	1				9	26
			1								2	22
												23
											11	26
											4	44
4	3	1	1	1	1	1	1	0	0	0	42	382
												2
												2
								1		1	1	7
									1		2	4
												1
								1	1	1	3	16

century is unclear, but it is feasible. Small quantities of later pottery are also attested (twelfth–twentieth centuries).

5.2 | Other artefacts

A range of other artefacts was recovered, the majority associated with Building 1. They support a Christian identity, indicate that the occupants were involved in varied activities, and concur with the ceramics and ¹⁴C chronology.

5.2.1 | Glass

A total of 174 glass vessel fragments were found (SAM19-A = 59; SAM19-B = 48; SAM19-Area Excavations = 67) (Figs. 16 and 17 and Table 4). Most of the glass was degraded and discoloured, often with substantial lime

deposits adhering to it, making identification of the original colour difficult. Green, light green, light blue and light bluey green glass colours were present. The identifiable vessel forms were bowls and possible bowls or beakers (five examples), bottles (four examples), small flasks or bottles (three examples), a single wine drinking glass, and a gaming piece, weight or stopper. These forms concur with what Simpson (2014: 206) has described as constituting a ‘Sasanian’ assemblage: bowls, beakers, small bottles, stemmed goblets and small unguentaria. Fragments from larger bottles, usually absent in Sasanian assemblages, were from cleaning contexts in the area excavations, and are likely later in date. Most fragments were undecorated, but the trailing applied to the most-complete flask or bottle (SAM19-NWCE.1) is also a characteristic of some Sasanian glass, as is the associated ‘blob’ which might be a so-called ‘wart’ found on some Sasanian bottles (cf. Simpson, 2014: 213, 221). A very similar example, dated



FIGURE 16 Glass from SAM19: (1) SAM19-A-4.1; (2) SAM19-A-7.1; (3) SAM19-A-8.1; (4) SAM19-A-9.1; (5) SAM19-B-2.1; (6) SAM19-B-9.1; (7) SAM19-B-10.1; (8) SAM19-B-12.1; (9) SAM19-NWC.1; (10) SAM19-NWCE.1; and (11, 12) SAM19-SEWC.1. Photos: Timothy Insoll

to the sixth–seventh centuries, is described by Andersen (2007: 85–86, cat. no. 44.2) from the Al-Maqsha cemetery in Bahrain. A stemmed goblet, almost identical to the example from SAM19-SEWC.1, was also recovered from site 7 on Sir Bani Yas (King, 1997: 230), where the church has been dated to the late seventh–mid-eighth centuries (Carter, 2008: 72).

5.2.2 | Miscellaneous small finds

A small number of miscellaneous artefacts and materials were recovered (Table 5 and Fig. 18). Their paucity suggests that most materials of value were removed from Building 1 before or after its abandonment. In addition to a modern black plastic bead, a *Pinctada radiata* shell that had been pierced (Fig. 18: 1), probably for suspension, and a degraded green-blue glass long-faceted bi-cone bead (Fig. 18: 3) were items of personal adornment. An Abbasid

period lusterware sherd shaped into a disc (Fig. 18: 5), correlating with the later phase of reuse of part of Building 1, attested at the north-east end of room 2, and may have been a gaming piece or vessel stopper. The piece of mat or cord-impressed bitumen possible boat caulking (Fig. 18: 6), if the identification is correct, would suggest maritime activities, as does the presence of the varied shell species recovered, described below. The ring, if ivory (Fig. 18: 4), is significant because of the limited occurrences of this material and potential for indicating African or Indian trade, but the identification awaits confirmation. The knapped pink granite pebble (Fig. 18: 8) is an import because it is not a feature of the geology of Bahrain (Brunsdon et al., 1979: 14). The function of a single limestone block that had been cut into a square shape, suggestive of a mosaic tessera, but cruder (Fig. 18: 7) is unknown. Four objects, two strips of green silk-type textile (Fig. 18: 2), and two Shi'a *turbah*, or prayer tablets (Fig. 18: 9 and 10), were connected with the mosque/shrine function of Building 2 and the surrounding cemetery. *Turbah* were one category of grave goods found in some of the burials in a cemetery excavated at Qala'at al-Bahrain, and which were ascribed a date range of the fourteenth–sixteenth centuries (Kervran, 1996: 66).

5.2.3 | Metal artefacts

A limited range of metal artefacts was recovered (SAM19-A = 12; SAM19-B = 12; SAM19-NWWC = 8) (Table 6 and Fig. 19). One very small fragment of copper slag is the only evidence for metallurgy; it was recovered from the top of the sequence in SAM19-A. Miscellaneous artefacts included two corroded copper coins and a probable copper coin fragment from SAM19-B (Fig. 19: 1–3), two lengths of copper wire from SAM19-A (Fig. 19: 5 and 6), one seemingly flattened at one end possibly for use as a spatula (Fig. 19: 6), and a small copper ring from SAM19-B (Fig. 19: 4). Four round and one flat-iron nail heads were also recovered (Fig. 19: 7–11) and likely used for fixing wooden fittings, the former presence of which is also suggested by the doorways, and the peg marks in the plaster in room 2. Large quantities of iron nails found in the refectory south-west of Church A1 at Al-Qusur, Kuwait, were similarly interpreted as being an indication of the use of wooden panels, themselves no longer surviving (Bonnéric, 2019: 129).

5.2.4 | Stucco and carved stone

Twelve fragments of impressed and decorated stucco and one carved stone were documented, all associated with Building 1 (Table 7 and Fig. 20). The block of limestone from room 3 appears to be carved in intaglio with the eroded remains of a cross design (Fig. 20: 10). The likelihood that it is a cross is strengthened by the coincidental discovery in

FIGURE 17 Glass from SAM-19: (1) SAM19-NWWCE.1; (2) SAM19-NWWC.2; (3) SAM19-NWCWC.1; (4) SAM19-NWCWC.2; and (5) SAM19-NWCWC.1. Photos: Timothy Insoll



Bahrain, also in November 2019, of another stone block with a cross carved in relief on it (Fig. 21). This was associated with a building complex, possibly another church or monastery (discussed below), but in a location that, for security reasons, it is not yet permitted to disclose. Crosses of identical form have also been reported rendered in stucco at various Christian buildings in the Gulf including: Sir Bani Yas, Abu Dhabi (late seventh–mid-eighth centuries) (King, 1997: 226); Al-Qusur, Kuwait (eighth–ninth centuries) (Bernard & Salles, 1991: 10); Akkaz, Kuwait (fourth/fifth–eighth/ninth centuries) (Gachet-Bizollon, 2011: 136, 139, pl. 4); Kharg Island, Iran (late eighth–ninth centuries) (Hardy-Guilbert & Rougeulle, 2003: pls 9, 10); and Jubail, eastern Saudi Arabia (undated, but suggested as about fifth–ninth centuries) (Langfeldt, 1994: 36, 57). Two smaller portable bronze crosses and a single mother-of-pearl cross have also been reported from the Jabal Barri region, 10 km south-south-west of Jubail (Potts, 1994).

Seven of the 12 fragments of stucco (SAM19 Stucco 1–5) were identified within rubble which was rechecked for decoration or impression after it had been removed from Building 1 as part of the large-scale building clearance (Fig. 20: 5–9). Four other fragments of stucco were recovered from within room 2. One fragment was decorated with rush or palm impression (Fig. 20: 4). The moulded stucco from the monastery on Kharg Island (cf. Hardy-Guilbert & Rougeulle, 2003: pls 11, 12) provides parallels for three of the designs: a pointed central boss (Fig. 20: 2) and roundel edging (Fig. 20: 3) from room 2, and a stepped pointed pyramid stucco fragment retrieved from the rubble sorting (Fig. 20: 6 and 7). Similar roundel edging is also present in the stucco decoration in the church at Jubail (Langfeldt,

1994).² It is possible, but unproven, that the roundel edging with its double-ledge form could be part of a niche similar to those described by Lic (2017: 153–154) from Al-Qusur and Sir Bani Yas. A fragment of undecorated plaster from SAM19-A-17 was also chronologically useful, as two sherds had been incorporated into the plaster when it was mixed or applied (Fig. 20: 1). These were a sherd from a turquoise glazed vessel and another from an unglazed storage vessel or torpedo jar of seventh–eighth-century date. Four fragments of fire-damaged stucco from the rubble sorting, two with roundel edging (Fig. 20: 8) and two moulding fragments (Fig. 20: 9), further attested fire damage to the building, supplementing the layers of ash and charcoal recorded in S1.

5.2.5 | Shell

Marine shell was present in many contexts and was only sampled rather than systematically collected in these preliminary excavations. A full programme of recovery and analysis will be implemented in the next research phase of excavation. In Building 2 this was predominantly as flooring material (Fig. 22: 1); and in Building 1 it represented food residue, processing activities, and loss or discard of shell used for decoration. Identification of type specimens indicates several species were used that were either locally sourced or from longer distances (Table 8 and Fig. 22). Cowries were obtained from both. *Cypraea caurica* (Fig. 22: 8) was available in the north-western Gulf, defined by Bosch et al. (1995: 23, 73) as encompassing the strip of sea off eastern Arabia from west of the Qatar peninsula

TABLE 4 Glass from SAM19

Context	Location	Description	Dimensions (mm) (recorded for diagnostic fragments)
SAM19-A-3	Test excavation A	1 small fragment of discoloured vessel glass	
SAM19-A-4.1	Test excavation A	1 small fragment of a semi-circular section-degraded monochrome glass bangle (Fig. 16: 1)	21.2 (length = <i>l</i>) × 7.4 (width = <i>w</i>) × 4.3 (depth = <i>d</i>)
SAM19-A-6	Test excavation A	1 small fragment of discoloured vessel glass	
SAM19-A-7	Test excavation A	4 small fragments of degraded light green vessel glass	
SAM19-A-7.1	Test excavation A	1 degraded light green glass bottle neck with off-centre aperture (Fig. 16: 2)	25.5 (<i>l</i>) × 30.6 (diameter = diam.) at rim × 18 (diam.) at aperture × 5.6 at rim tapering to 2.3 (<i>d</i>)
SAM19-A-8	Test excavation A	1 small, discoloured glass vessel rim fragment	
SAM19-A-8.1	Test excavation A	1 small, light blue transparent glass bowl body fragment (Fig. 16: 3)	51.8 (<i>l</i>) × 54 (<i>w</i>) × 1.9 (<i>d</i>)
SAM19-A-9	Test excavation A	14 small, discoloured glass vessel fragments	
SAM19-A-9.1	Test excavation A	3 discoloured light green glass bowl rim fragments (Fig. 16: 4)	70 (diam.) × 1.7 (<i>d</i>)
SAM19-A-10	Test excavation A	20 small, discoloured glass vessel fragments	
SAM19-A-10	Test excavation A	8 small, light green glass vessel fragments	
SAM19-A-13	Test excavation A	2 small, discoloured glass vessel fragments	
SAM19-A-15	Test excavation A	1 small, discoloured glass vessel fragment	
SAM19-A-17	Test excavation A	1 large, discoloured glass vessel fragment	
SAM19-B-2.1	Test excavation B	1 fragment of a glass bangle with a semi-circular flattened section. Discoloured bicolor glass with multiple lighter trails inlaid across the bangle (Fig. 16: 5)	34 (<i>l</i>) × 5.6 (<i>w</i>) × 4.1 (<i>d</i>)
SAM19-B-2	Test excavation B	1 small fragment of discoloured vessel glass	
SAM19-B-5	Test excavation B	1 small fragment of discoloured vessel glass	
SAM19-B-6	Test excavation B	2 small fragments of discoloured vessel glass	
SAM19-B-7	Test excavation B	2 small, discoloured glass fragments (1 rim, 1 body) from the same vessel	
SAM19-B-7	Test excavation B	6 small, discoloured glass vessel fragments	
SAM19-B-9	Test excavation B	1 thick, discoloured glass vessel rim fragment from a small flask or bottle. Possible ribbing on the exterior	19.2 (<i>l</i>) × 20.6 (diam.) × 4.4 (<i>d</i>) at rim tapering to 2.8
SAM19-B-9	Test excavation B	1 small section of a discoloured glass vessel rim	120 diam.
SAM19-B-9	Test excavation B	1 small, degraded glass vessel rim	55 diam.
SAM19-B-9	Test excavation B	22 small, discoloured glass vessel fragments	
SAM19-B-9	Test excavation B	4 small glass trail fragments: 3 discoloured and 1 light green glass	
SAM19-B-9	Test excavation B	1 small, light green glass vessel rim fragment, possibly from a bowl or beaker	Diameter not measurable
SAM19-B-9.1	Test excavation B	1 discoloured glass vessel rim fragment. Simple flat rim from a bowl (Fig. 16: 6)	67.3 (<i>l</i>) × 31.8 (<i>w</i>) × 120 (diam.) × 3.7 (<i>d</i>) at rim tapering to 2 (<i>d</i>)
SAM19-B-9	Test excavation B	1 discoloured glass vessel fragment with vertical ridging on interior and exterior	
SAM19-B-9	Test excavation B	1 small, discoloured glass vessel rim fragment	Diameter not measurable
SAM19-B-10.1	Test excavation B	1 small, discoloured glass stopper, gaming piece or weight (Fig. 16: 7)	15.6 (<i>l</i>) × 14.2 (diam.) at base × 7 (diam.) at top
SAM19-B-12.1	Test excavation B	1 discoloured glass vessel rim fragment possibly from a small bowl (Fig. 16: 8)	30.4 (<i>l</i>) × 20.6 (<i>w</i>) × 3.2 (<i>d</i>) at rim tapering to 2.2
SAM19-NWC	Building 1, room 2	6 fragments of discoloured glass vessel	
SAM19-NWC.1	Building 1, room 2	1 small, discoloured glass bottle or flask neck (Fig. 16: 9)	25 (<i>l</i>) × 1.8 (<i>d</i>) at rim tapering to 1.1 × 18 (diam.)
SAM19-NWCE.1	Exterior of Building 1	Half a small, discoloured glass bottle with trailed decoration (Fig. 16: 10)	53.5 (<i>l</i>) × 41.6 (<i>w</i>) × 1.8 (<i>d</i>) at rim tapering to 3 at base × 31 (diam.)

(Continues)

TABLE 4 (Continued)

Context	Location	Description	Dimensions (mm) (recorded for diagnostic fragments)
SAM19-Rubble Pedestal	Mixed Buildings 2 and 1	12 small and 1 larger degraded light green glass vessel fragments	
SAM19-SEWC.1	Building 1, room 3	1 discoloured glass vessel base and stem fragment from a small wine drinking-type glass (Fig. 16: 11)	23.5 (<i>l</i>) × 3.3 (<i>d</i>) at stem and 7.8 (<i>d</i>) at base × 11 (diam.) at stem and 30 (diam.) at base
SAM19-SEWC	Building 1, room 3	1 small, degraded light bluey green glass vessel fragment	
SAM19-NEWC	Building 1, room 2	1 small, discoloured glass vessel fragment	
SAM19-NE2	Building 1, room 2	4 small, discoloured light green glass vessel fragments	
SAM19-NE2	Building 1, room 2	1 small, discoloured opaque glass vessel fragment	
SAM19-NEGW	Building 1, room 2	3 small, discoloured glass vessel rim fragments	Diameter not measurable
SAM19-NEGW	Building 1, room 2	4 small, discoloured glass vessel fragments	
SAM19-NWWC.1	Building 1, room 1	1 discoloured glass vessel base with dimple and pontil mark on the underneath (Fig. 17: 1)	37.3 (<i>l</i>) × 12.3 (<i>w</i>) × 0.9 (<i>d</i>)
SAM19-NWWC.2	Building 1, room 1	1 discoloured glass vessel fragment with trailed decoration on the exterior (Fig. 17: 2)	28.3 (<i>l</i>) × 23 (<i>w</i>) × 0.8 (<i>d</i>)
SAM19-NWWC	Building 1, room 1	3 small, discoloured glass vessel rim fragments	Diameter not measurable
SAM19-NWWC	Building 1, room 1	14 small, discoloured glass vessel fragments	
SAM19-NWCWC	Building 1, room 1	3 discoloured glass vessel base fragments with pontil marks	
SAM19-NWCWC	Building 1, room 1	2 large, discoloured glass vessel fragments	
SAM19-NWCWC	Building 1, room 1	4 small, discoloured glass vessel fragments	
SAM19-NWCWC.1	Building 1, room 1	1 large green glass bottle neck (Fig. 17: 3)	31.6 (<i>l</i>) × 39.2 (<i>w</i>) × 2.6 (<i>d</i>) at shoulder × 29.4 (diam.) at rim and 17 (diam.) at aperture
SAM19-NWCWC.2	Building 1, room 1	1 small, discoloured glass flask or bottle neck with trailed decoration on the body below the neck (Fig. 17: 4)	21 (<i>l</i>) × 2.8 (<i>d</i>) at rim × 15 (diam.)
SAM19-NWCWC.3	Building 1, room 1	1 discoloured glass dimple base from a large bottle (Fig. 17: 5)	71 (<i>l</i>) × 52 (<i>w</i>) × 3.3 (<i>d</i>) tapering to 1.6

to Abadan. *Cypraea annulus* (Fig. 22: 10) was available east of the Qatar peninsula in the south-eastern Gulf, and further afield in the Indian Ocean (Burgess, 1970: 342; Bosch et al., 1995: 72). *Cypraea teres* (Fig. 22: 2) could be found on the Omani coast, and *Cypraea moneta* (Fig. 22: 9) from the Gulf of Oman and southern Oman (Bosch et al., 1995: 72), the Red Sea (Sharabati, 1984: pl. 11), and, famously, the Maldives Islands (e.g., Hogendorn & Johnson, 1986). The cowry shells were likely for decorative purposes, as indicated by three of four having their dorsum removed. This is a ubiquitous method of processing such shells for stringing and sewing or suspension (e.g., Haour & Christie, 2019: 305–306). On two of the cowries (Fig. 22: 9 and 10), the dorsum appears to have been removed by the so-called ‘popping the cap’ method where it is levered off after a single perforation is made leaving a characteristic straight edge. The third cowry (Fig. 22: 2) appears to have had the dorsum cut away by progressive perforation leaving a more ragged or scalloped edge (cf. Christie et al., 2019: 495–497).

Hexaplex kuestrianus had probably been collected as a food resource or, less likely, a source of dye (cf. Smith, 2005: 222), and is a species available throughout the Gulf (Bosch et al., 1995: 116). *Pinctada radiata* (Fig. 22: 3) represents pearl fishing, and the much larger *Pinctada margaritifera* (Fig. 22: 5) was likely used as a source of mother-of-pearl (Carter, 2012), and they were also both available locally (Bosch et al., 1995: 220). *Conidae* sp. was also present (Fig. 22: 6), with one example, unusually, having a section cut out of it for an unknown the purpose. Two species of *Conidae* were available in the north-western Gulf, with others found on the opposite Iranian side, and in the south-eastern Gulf (Bosch et al., 1995: 157–165). *Oliva bulbosa* (Fig. 22: 7) may also have been collected for decorative purposes with similar uses attested in medieval contexts in eastern Ethiopia (Insoll et al., in press). The nearest sources to Bahrain for *O. bulbosa* are the south-eastern Gulf (Bosch et al., 1995: 144), as well as the Red Sea (Sharabati, 1984: pl. 24), from where it was extensively traded (Insoll et al., in press).

TABLE 5 Miscellaneous small finds from SAM19

Context	Location	Description	Dimensions (mm) (unless otherwise specified)
SAM19-A-4	Test excavation A	1 black plastic bead. Medium barrel	7.4 (diam.)
SAM19-A-10	Test excavation A	1 <i>Pinctada radiata</i> shell with a hole pierced through it, probably for suspension (Fig. 18: 1)	34.6 (<i>l</i>) × 37.8 (<i>w</i>) × 6.2 (<i>d</i>)
SAM19-B-2	Test excavation B	1 strip of green textile cut and torn into a rectangular flag or banner (Fig. 18: 2)	102 cm (<i>l</i>) × 32 cm (<i>w</i>)
SAM19-B-9	Test excavation B	1 degraded green-blue glass bead. Long-faceted bi-cone (Fig. 18: 3)	16.6 (<i>l</i>) × 8.8 (<i>w</i>)
SAM19-B-10	Test excavation B	2 small fragments of bitumen	1.5 g total
SAM19-B-11	Test excavation B	2 small fragments of pink ochre	2.6 g total
SAM19-B-13	Test excavation B	1 nearly complete shell or ivory ring (Fig. 18: 4)	15.4 (diam.) × 2.4 (<i>w</i>) × 2.4 (<i>d</i>)
SAM19-NWC	Building 1, room 2	1 Abbasid lustre ware sherd chipped and ground into a disc (Fig. 18: 5)	22 (diam.) × 10.2 (<i>d</i>)
SAM19-Rubble Pedestal	Mixed Buildings 2 and 1	1 fragment of bitumen with mat or cord impressions. Possibly caulking from a boat (Fig. 18: 6)	37 (<i>l</i>) × 27.4 (<i>w</i>) × 21.4 (<i>d</i>)
SAM19-SEWC	Building 1, room 3	1 limestone block cut into a square shape (Fig. 18: 7)	16 (<i>l</i>) × 15.7 (<i>w</i>) × 8.3 (<i>d</i>)
SAM19-NE2	Building 1, room 2	1 knapped pink granite pebble. Split and worked on two surfaces to remove flakes (Fig. 18: 8)	82.2 (<i>l</i>) × 52.7 (<i>w</i>) × 44.6 (<i>d</i>)
SAM19-NEWC.1	Building 1, room 2	1 hexagonal shaped un-inscribed and undecorated prayer tablet (<i>turbah</i>) (Fig. 18: 9)	76 g, 60.3 (<i>l</i>) × 55.5 (<i>w</i>) × 17.8 (<i>d</i>)
SAM19-NEWC.2	Building 1, room 2	1 segment from a circular undecorated and un-inscribed <i>turbah</i> (Fig. 18: 10)	38 g, 55 (<i>l</i>) × 40.7 (<i>w</i>) × 16 (<i>d</i>)



FIGURE 18 Miscellaneous small finds from SAM19: (1) pierced *Pinctada radiata* shell (SAM19-A-10); (2) green silk-type cloth strip (SAM19-B-2); (3) green-blue glass long-faceted bi-cone bead (SAM19-B-9); (4) possible ivory ring (SAM19-B-13); (5) Abbasid lustre ware shaped into a disc (SAM19-NWC); (6) fragment of bitumen with mat or cord impressions; possibly caulking from a boat (SAM19-Rubble Pedestal); (7) limestone block cut into a square shape (SAM19-SEWC); (8) knapped pink granite pebble (SAM19-NE2); (9) *Turbah* or prayer tablet (SAM19-NEWC.1); and (10) fragment of *turbah* or prayer tablet (SAM19-NEWC.2). Photos: Timothy Insoll

TABLE 6 Metal artefacts from SAM19.

Context	Location	Description	Dimensions (mm) (unless otherwise specified)
SAM19 S/C	Surface collection	Half a corroded copper coin	1.5 g, 20.4 (<i>l</i>) × 14.6 (<i>w</i>) × 1.3 (<i>d</i>)
SAM19-A-3	Test excavation A	2 small, corroded lumps of iron	12 (<i>l</i>) × 12 (<i>w</i>) × 9.2 (<i>d</i>) and 18.3 (<i>l</i>) × 11.2 (<i>w</i>) × 9 (<i>d</i>)
SAM19-A-4	Test excavation A	1 small, flat fragment of copper slag	1 g, 12 (<i>l</i>) × 12 (<i>w</i>) × 3 (<i>d</i>)
SAM19-A-4	Test excavation A	2 small, corroded pieces of iron rod	24.5 (<i>l</i>) × 5.6 (<i>w</i>) × 5 (<i>t</i>) and 13 (<i>l</i>) × 6 (<i>w</i>) × 4.3 (<i>d</i>)
SAM19-A-6	Test excavation A	1 small, corroded piece of iron	12.7 (<i>l</i>) × 7.8 (<i>w</i>) × 7.6 (<i>d</i>)
SAM19-A-8	Test excavation A	1 length of copper wire with a spatulate end (Fig. 19: 6)	0.6 g, 27.3 (<i>l</i>) × 2.6 diameter (diam.) round section × 4.7 (<i>w</i>) at spatulate end
SAM19-A-8	Test excavation A	1 length of circular-section copper wire with a rounded end (Fig. 19: 5)	1.1 g, 46.8 (<i>l</i>) × 3 (diam.)
SAM19-A-9	Test excavation A	1 large, corroded round iron nail head (Fig. 19: 10)	7.6 g, 22.4 (<i>d</i>) × 11.4 (<i>d</i>) × 9 (diam.) for nail shaft
SAM19-A-10	Test excavation A	Half a large, corroded round iron nail head (Fig. 19: 11)	4.4g, 23.6 (<i>l</i>) × 17.2 (<i>w</i>) × 7.8 (<i>d</i>)
SAM19-A-16	Test excavation A	2 unidentifiable lumps of iron encrusted with lime conglomerate	Not measurable
SAM19-B-6	Test excavation B	1 small copper ring formed from a length of coiled wire with two pointed ends (Fig. 19: 4)	0.8 g, 11.3 (<i>l</i>) × 10.4 (<i>w</i>) × 3.7 (diam.)
SAM19-B-6	Test excavation B	1 large, corroded round iron nail head (Fig. 19: 8)	8.6 g, 24.6 (<i>l</i>) × 23.2 (<i>w</i>) × 19.6 (<i>d</i>)
SAM19-B-7	Test excavation B	1 fragment, seemingly a quarter, of a corroded copper coin (Fig. 19: 1)	Below 0.3g, 9.3 (<i>l</i>) × 8.6 (<i>w</i>) × 2.2 (<i>d</i>)
SAM19-B-7	Test excavation B	1 large round iron nail head (Fig. 19: 9)	4.1 g, 22 (<i>l</i>) × 20 (<i>w</i>) × 7 (<i>d</i>)
SAM19-B-7	Test excavation B	1 corroded piece of iron	22 (<i>l</i>) × 7.2 (<i>w</i>) × 5.6 (<i>t</i>)
SAM19-B-9	Test excavation B	1 small copper coin. Appears to be intentionally hexagonally shaped but is damaged on two sides (Fig. 19: 2)	0.5 g, 11.2 (<i>l</i>) × 10.2 (<i>w</i>) × 2.5 (<i>d</i>)
SAM19-B-10	Test excavation B	1 copper coin with significant conglomerate encrustation (Fig. 19: 3)	1.5 g, 18.6 (<i>l</i>) × 18.2 (<i>w</i>) × 2.1 (<i>d</i>)
SAM19-B-11	Test excavation B	3 corroded unidentifiable iron fragments	Not measurable
SAM19-B-11	Test excavation B	1 flat-headed section of iron nail (Fig. 19: 7)	1.6 g, 15.8 (<i>l</i>) × 6.8 (<i>w</i>) × 6.6 (<i>d</i>) on square section shaft
SAM19-B-12	Test excavation B	1 corroded, unidentifiable iron fragment	Not measurable
SAM19-NWWC	Building 1, room 1	8 corroded, unidentifiable iron fragments	Largest piece: 62.3 (<i>l</i>) × 57.4 (<i>w</i>) × 19.7 (<i>d</i>)

5.2.6 | Faunal remains

Faunal remains were not kept from the area excavation and very little faunal material was recovered from the test excavations in units SAM19-A–B. Preliminary notes on the about 100 fragments found were provided by Dr Jane Gaastra. These indicate that the assemblage was predominately composed of fish remains, but these await identification as to the species, until a larger assemblage is available. Mammal remains were infrequent (about 10 fragments) and restricted to remains of goat. Goat remains were largely from adult animals; one fragment from a juvenile animal was also present. Systematic recovery of malacological, zooarchaeological and archaeobotanical remains will be undertaken as part of the next phase of research excavation.

6 | DISCUSSION: SAMAHIJ AND THE IMPLICATIONS FOR CHRISTIANITY, ISLAMISATION AND SETTLEMENT IN BAHRAIN

The ¹⁴C dates obtained from near the base of each test unit (SAM19-A–B) span the mid-sixth–mid-seventh centuries and are connected with the use of Building 1. These are correlated by the chronology of the ceramic assemblages from the lower levels of SAM19-A–B. Together they indicate pre-Islamic occupation and were very likely connected with a Christian population living in Samahij which built and occupied Building 1. This would concur with historical references, such as the Synod document of 410, referring to the excommunication of Batai, in indicating that the Bishopric of Mašmahig was the oldest in the region (Beaucamp & Robin, 1983: 180–181).



FIGURE 19 Metal artefacts from SAM19: (1) copper coin (SAM19-B-7); (2) copper coin (SAM19-B-9); (3) copper coin (SAM19-B-10); (4) copper ring (SAM19-B-6); (5, 6) two copper wires (SAM19-A-8); (7) flat-head iron nail (SAM19-B-11); (8) circular iron nail head (SAM19-B-6); (9) circular iron nail head (SAM19-B-7); (10) circular iron nail head (SAM19-A-9); and (11) half a circular iron nail head (SAM19-A-10). Photos: Timothy Insoll

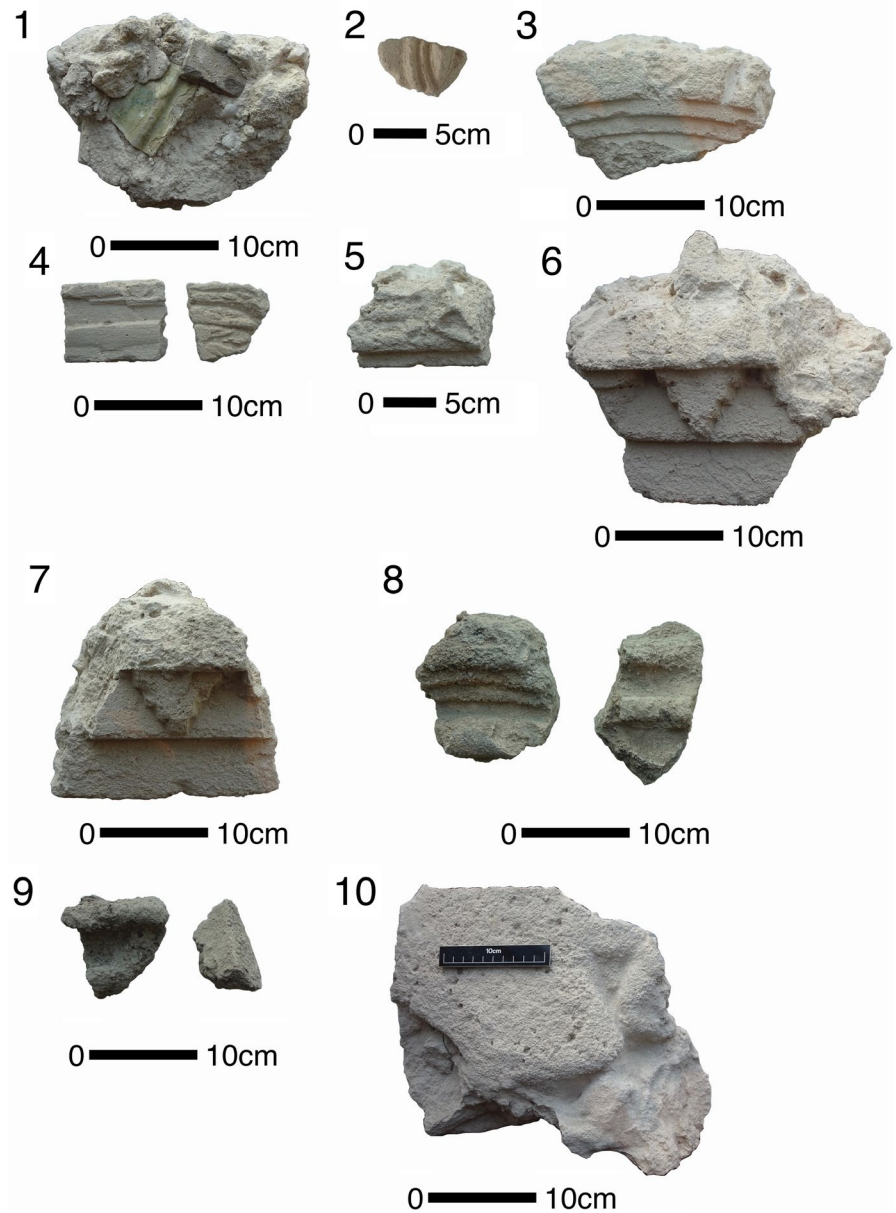
TABLE 7 Stucco and carved stone from SAM19

Context	Location	Description	Dimensions (mm) (unless otherwise specified)
SAM19-A-17	Test excavation A	1 fragment of plaster with two sherds embedded in the reverse (Fig. 20: 1)	~250 (<i>l</i>) × 180 (<i>w</i>)
SAM19-NEWC.1	Building 1, room 2	1 fragment of pointed central boss stucco architectural moulding (Fig. 20: 2)	83.8 (<i>l</i>) × 45 (<i>w</i>) × 31.7 (<i>d</i>)
SAM19-NE2.1	Building 1, room 2	1 fragment of roundel edging stucco architectural moulding (Fig. 20: 3)	~240 (<i>l</i>) × 150 (<i>w</i>)
SAM19-NWC.1	Building 1, room 2	2 fragments of plaster with rush or palm impression (Fig. 20: 4)	~100 (<i>l</i>) × 80 (<i>w</i>); ~30 (<i>l</i>) × 80 (<i>w</i>)
SAM19-Stucco 1	Rubble sorting	1 fragment of stucco architectural moulding (Fig. 20: 5)	~170 (<i>l</i>) × 100 (<i>w</i>)
SAM19-Stucco 2	Rubble sorting	1 fragment of stepped pointed pyramid decorated stucco architectural moulding (Fig. 20: 6)	~350 (<i>l</i>) × 250 (<i>w</i>)
SAM19-Stucco 3	Rubble sorting	1 fragment of stepped pointed pyramid decorated stucco architectural moulding (Fig. 20: 7)	~220 (<i>l</i>) × 220 (<i>w</i>)
SAM19-Stucco 4	Rubble sorting	2 fragments of fire-damaged roundel edging decorated stucco architectural moulding (Fig. 20: 8)	~140 (<i>l</i>) × 140 (<i>w</i>); ~90 (<i>l</i>) × 150 (<i>w</i>)
SAM19-Stucco 5	Rubble sorting	2 fragments of fire-damaged stucco architectural moulding (Fig. 20: 9)	~100 (<i>l</i>) × 90 (<i>w</i>); ~90 (<i>l</i>) × 40 (<i>w</i>)
SAM19-SEWC	Building 1, room 3	Limestone block possibly counter-relief carved with a Maltese cross (Fig. 20: 10)	~300 (<i>l</i>) × 280 (<i>w</i>)

Subsequent late seventh–eighth-century ceramics attest continued occupation, with a suggestion, based on the cross-decorated sherd, that there may have been a Christian community in residence at Samahij into the eighth century, but this remains to be proven. There is then a gap in the sequence until the twelfth century, with the small quantity of ceramics subsequently found dating through to the twentieth century, and linked with village-level occupation. At some point in this Middle to Late Islamic Horizon, likely in the latter, Building 2 was constructed and the cemetery

came to be used regularly by the villagers. Chronological discontinuity with Building 1 is indicated by the graves cutting through the walls, and the lack of structural connection with the walls of Building 2, which were built onto rubble and oriented east–west rather than the north-east to south-west orientation of Building 1 (Fig. 3). Besides divergent orientation and chronology, Building 1 was a much larger multi-roomed complex. The chronology and plan of Building 1 suggest it was used by a Christian community of the Church of the East, perhaps as a monastery or similar

FIGURE 20 Stucco and carved stone from SAM19: (1) plaster fragment with embedded sherds, area excavation A (SAM19-A-17); (2) pointed central boss, room 2 (SAM19-NEWC.1); (3) roundel edging, room 2 (SAM19-NE2.1); (4) palm or rush impressed, room 2 (SAM19-NWC.1); (5) architectural moulding, rubble sorting (SAM19-Stucco 1); (6) SAM19-Stucco 2; (7) SAM19-Stucco 3; (8) two fragments of fire-damaged roundel edging, rubble sorting (SAM19-Stucco 4); (9) two fragments of fire-damaged architectural moulding, rubble sorting (SAM19-Stucco 5); and (10) possible intaglio cross-carved limestone block, room 3 (SAM19-SEWC). Photos: Timothy Insoll



facility. Multifunctional complexes were often built around such churches and included buildings such as libraries, monasteries, hospitals and schools (Potts, 1990: 246). Building 1 likely formed part of such a complex that extends further under the cemetery mound.

The archaeological evidence confirms that, potentially, Samahij can be identified with the historically recorded location of the episcopal seat of Mašmahig, as originally proposed by Beaucamp and Robin (1983), and that Building 1 was associated with the bishopric itself. Such an identification is also supported by the traditions of folk memory, previously discussed. These are also apparent in the name of the neighbouring village to the west, Al-Dair, or Dayr, meaning ‘monastery’ or ‘cloister’ in Aramaic (Potts, 1990: 12). Moreover, Muharraq, like Sir Bani Yas and Kharg, would accord with Payne’s (2011: 99) observation that coenobitic monasticism in the Arabian Gulf emerged ‘on

islands whose topography invited a re-imagining of the deserts of Egypt’. A Christian identity for the occupants of Building 1 is suggested by the cross-painted yellow glaze family (YGF)/Coptic glazed ware/Hijazi ware sherd, limestone block engraved with a possible Cross, decorated stucco, glass vessel forms and chronology. Additionally, the inscription on the torpedo jar sherd (Fig. 15: 2) has been tentatively identified as Syriac, with two possible letter combinations present. Either the letter Het followed by an additional stroke,³ or the letter kaph followed by the letter dalet.⁴

There are also some similarities between aspects of the layout of Building 1 and published church plans at Sir Bani Yas (King, 1997: 222; Elders, 2003: 233), Al-Qusur (Bernard & Salles, 1991: 8; Bonnéric, 2019: 128), and Kharg Island (Carter, 2008: 72) (Fig. 23). At Al-Qusur, potential resemblances are with Church A1, which had a central



FIGURE 21 Limestone block with a relief carved cross. It was discovered in a location in Bahrain that is not currently permitted to be disclosed for security reasons. Photo: P. Openshaw

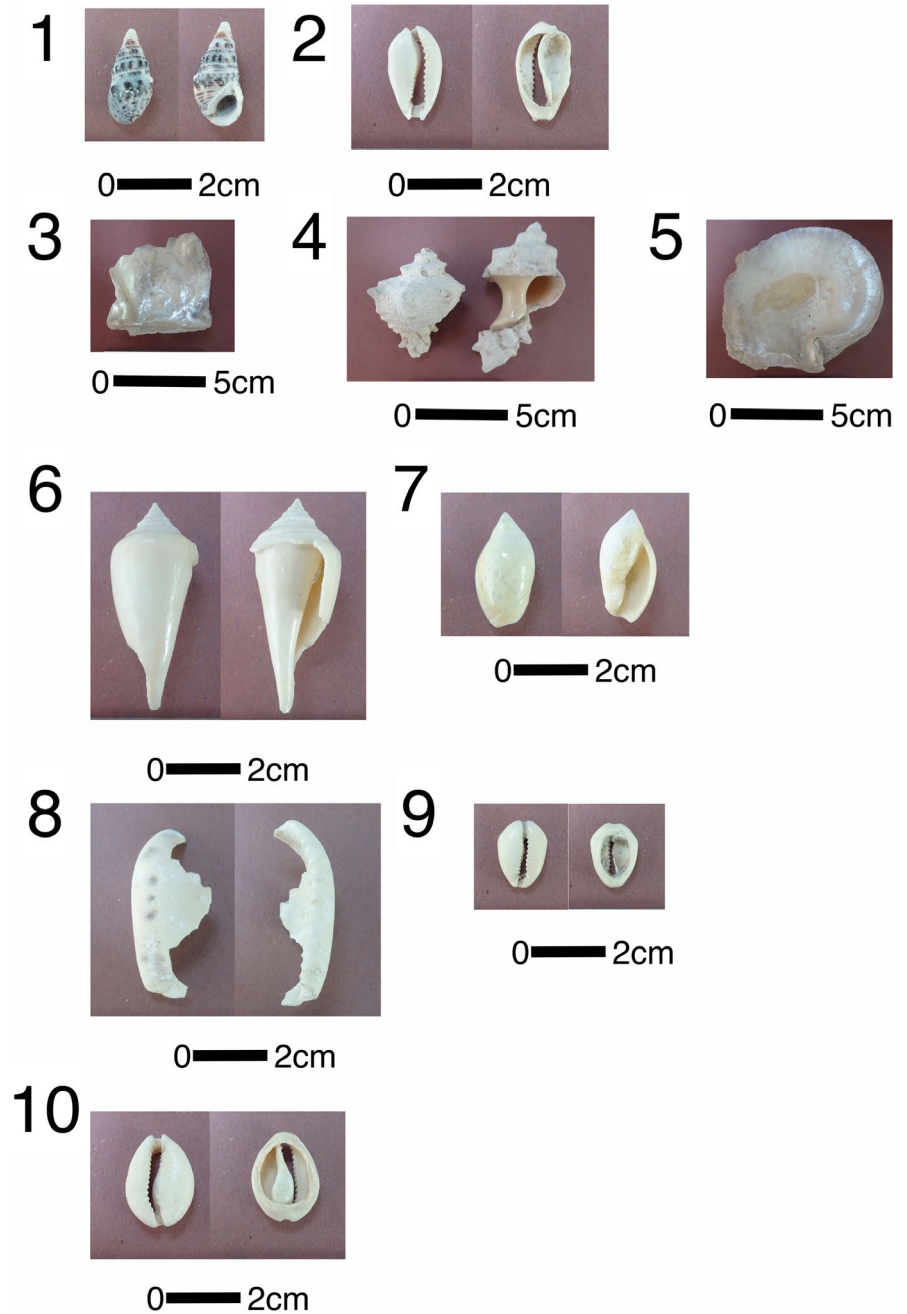
nave flanked by two aisles (Bonnéric, 2019: 128) (Fig. 23: 1), perhaps replicated by room 2 (aisle), room 4 (nave) and room 3 (aisle) in Building 1. The extent of the settlement revealed at Al-Qusur by recent survey work is also striking,⁵ and it will be interesting to see if there are similar satellite structures around Building 1 under the extended mound on which the cemetery was founded. Similarities also exist between Building 1 and the church at Sir Bani Yas, which also has two aisles flanking a central nave, and a narthex to the west (Elders, 2003: 233), and Building 1 (Fig. 23: 2). A narthex was not identified in Building 1, but the functions of rooms 1, 5 and the unexcavated area south-east of room 5, which are in the correct position, remain unknown (Fig. 23: 4). The church at Kharg has the same plan with aisles, nave and narthex (Fig. 23: 3). The layout of the church at Akkaz is also generically similar with a communal nave leading into a south aisle and chapel, possibly similar to the configuration of rooms 4, 1 and 5, respectively (Gachet-Bizollon, 2011: 136, fig. 10) (Fig. 23: 5). Although archaeological examples such as those discussed show that basilicas of the Church of the East were consistently oriented a few degrees off east–west (Fig. 23), the divergent orientation of Building 1 suggests that it is not a church. Thus, it remains unconfirmed if Building 1 was a church, but alternative interpretations can also be proposed based on architectural comparison. Room 2, for example,

at 12 m in length, was perhaps a small refectory, akin to refectory B23 at Al-Qusur, which was about 26 m in length (cf. Bonnéric, 2019: 129).

No material signifying a Muslim presence was recorded in the seventh–eighth-centuries levels at Samahij. A similar absence exists in all other seventh–eighth-centuries contexts on Muharraq so far excavated, with a lack of identifiable coins, Arabic-inscribed potsherds or seals, Muslim burials, or mosques dating from this period (cf. Carter & Naranjo-Santana, 2010, 2011; Insoll, 2018, 2019). It is in Bilad al-Qadim, on Awal, that the first archaeological evidence indicating the presence of Muslims is found. This settlement was likely established in the early Abbasid period (period 1: eighth–early ninth centuries), probably as the capital (Insoll, 2005: 55). Proof of Muslim identity is provided by a white earthenware, probably locally made A'ali ware-type sherd, marked in black ink with what appears to be the beginning of the *Basmalah* (cf. Farias, 2005: 515), and recovered from the remains of a palace or a rich merchant's house in a context (MOS 01E-5.1) dated to the ninth–early tenth centuries (Insoll, 2005: 76). Other evidence from Awal, such as the Umayyad date erroneously ascribed the Al-Khamis mosque, also in Bilad al-Qadim (Kervran & Kalus, 1990: 7), must be discounted (Insoll et al., 2016: 240).

Thus, until further material evidence is recovered, we remain reliant upon the historical narratives of Islamic conversion in Bahrain in the seventh century. These are limited in extent (cf. Beaucamp & Robin, 1983: 182), but indicate that significant conversion to Islam occurred after the Prophet Muhammad sent a letter to the Governor of Bahrain, Al-Munthir bin Sawa Al-Tamimi, in either 7 AH/629 CE (Vine, 1993: 75) or 8 AH/630 CE (Al-Doy, 1993: 162). The evidence from Samahij indicates that a Christian community continued after this date, at least until the eighth century, as the cross marked YGF/Coptic glazed ware/Hijazi ware sherd suggests. This would seem to further represent the Gulf-wide ‘burst of Christian activity’ (Carter, 2008: 105) that occurred in the later seventh century (Beaucamp & Robin, 1983: 186; Kennet, 2007), manifest also at Sir Bani Yas and al-Qusur (Carter, 2008: 106). It would also presumably have entailed paying the poll tax (*jizya*), which was collected from Jews and Christians who did not convert (Al-Doy, 1993: 162), as explicitly stated by the Prophet Muhammad in a reply to Al-Munthir, after his conversion to Islam, about how he should deal with non-Muslims (Bin Seray, 1996: 324). The anger expressed by Išo'yahb III against Bishop Abraham, as ‘the prince of evil who reigns in Mašmahig’, in the mid-seventh century (Potts, 1990: 261) may have been an expression of the changes that were taking place with increasing conversions to Islam. Reconciliation between Beth Qatrave and the Church of the East took place after a visit by the successor of Išo'yahb III as *catholicos*, George I to Beth Qatrave and a synod held on Tarut Island (Darin) in 676. However, Mašmahig was not mentioned in the list of dioceses represented (Potts, 1990: 262), perhaps portending the end of the

FIGURE 22 Identified examples of marine shell from SAM19: (1) *Cerithiinae* sp. (SAM19-A-2); (2) *Cypraea* sp. (SAM19-A-4.1); (3) *Pinctada radiata* (SAM19-A-4.2); (4) *Hexaplex kuestrianus* (SAM19-A-6); (5) *Pinctada margaritifera* (SAM19-NEWC); (6) *Conidae* sp. (SAM19-A-7.1); (7) *Oliva bulbosa* (SAM19-A-7.2); (8) *Cypraea caurica* (SAM19-A-11); (9) *Cypraea moneta* (SAM19-A-14); and (10) *Cypraea annulus* SAM19-SEWC. Photos: Timothy Insoll



Christian community in Samahij evident archaeologically in the eighth century.

It is also apparent that the Samahij community was not isolated. Although undated and unexplored, the site associated with the limestone block carved in relief with a cross indicates another Christian community in Bahrain. This will be the focus of investigation as soon as it is allowed. Regional contacts were also being maintained, potentially through into the eighth century by the Samahij Christians. Ceramics such as the torpedo jars and turquoise glazed wares were likely sourced from southern Iraq and adjacent regions of Iran (cf. Priestman, 2013). The YGF/Coptic glazed ware/Hijazi ware, depending on provenance, could be from either Syria, Egypt or north-western Arabia,

as described above, and the glass was likely from southern Iraq (Simpson, 2014: 203–204). The marine shell was also from varied sources, suggesting maritime activities were important. Whilst the pearl oysters correlate the report in the Babylonian Talmud (c.250–500 CE) that Mašmahig/Samahij was a port where pearls could be found (Potts, 1990: 150).

The excavation results from Samahij have also enhanced the understanding of more general settlement patterns across Bahrain. Occupation is confirmed by the Middle and Later Islamic ceramics found in the upper contexts of SAM19-A–B, and in clearance levels in the area excavation. These date from the twelfth–twentieth centuries, with a hiatus apparent between the ninth and eleventh centuries. In

TABLE 8 Marine shell species from SAM19

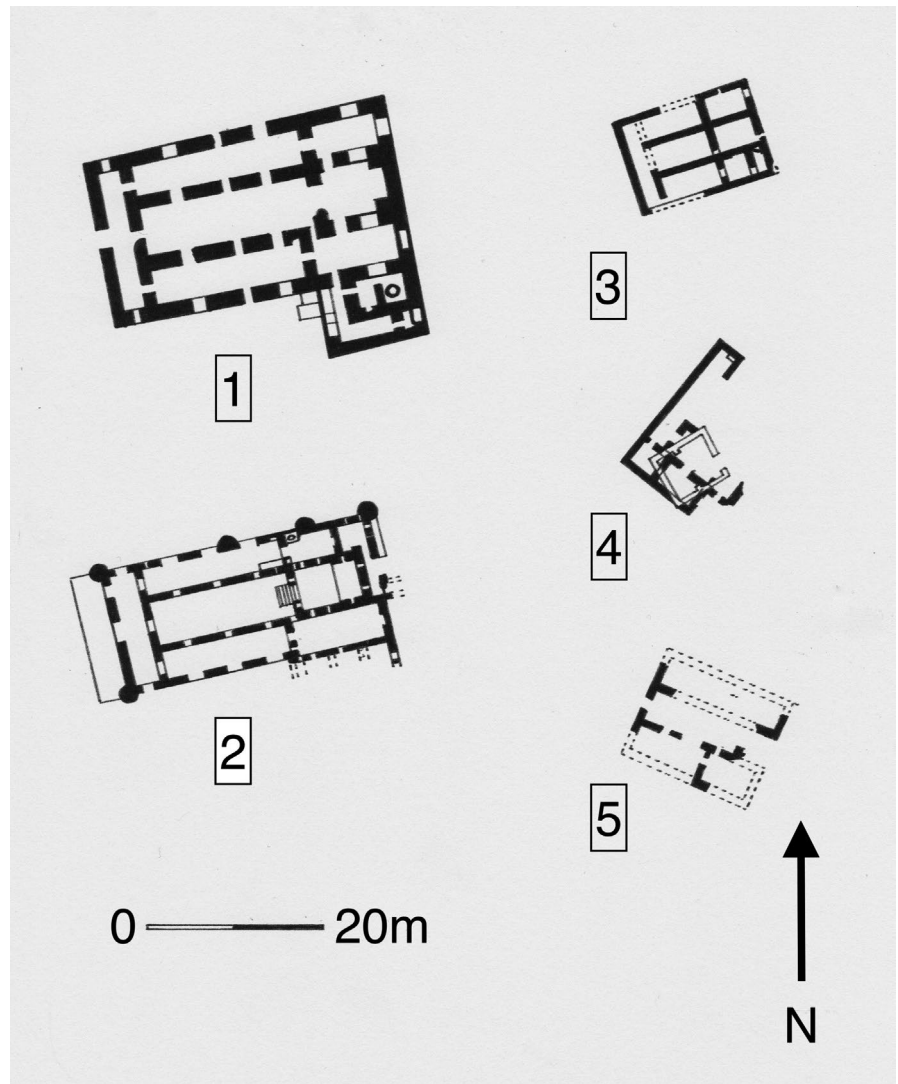
Context	Location	Description	Dimensions (mm) (unless otherwise specified)
SAM19-A-2	Test excavation A	<i>Cerithiinae</i> sp. either <i>Cerithium caeruleum</i> or <i>C. scabridum</i> (cf. Bosch et al., 1995: 51). Unmodified, and probably collected and inadvertently included as part of flooring shell (Fig. 22: 1)	26 (<i>l</i>) × 13.4 (<i>w</i>) × 10 (<i>d</i>)
SAM19-A-4.1	Test excavation A	<i>Cypraea</i> sp., possibly <i>C. annulus</i> or, less likely, <i>C. teres</i> (cf. Burgess, 1970: 341–342, pl. 41; Bosch et al., 1995: 80). A significant part of the back has been removed (Fig. 22: 2)	24.7 (<i>l</i>) × 14 (<i>w</i>) × 4.6 (<i>d</i>)
SAM19-A-4.2	Test excavation A	<i>Pinctada radiata</i> . Pearl oyster (cf. Bosch et al., 1995: 220) (Fig. 22: 3)	50.6 (<i>l</i>) × 52.1 (<i>w</i>) × 19.8 (<i>d</i>)
SAM19-A-6	Test excavation A	<i>Hexaplex kuestrianus</i> (cf. Bosch et al., 1995: 116). Both complete and processed specimens were found (Fig. 22: 4)	Complete = 56 (<i>l</i>) × 46 (<i>w</i>) × 35.2 (<i>d</i>); processed = 76 (<i>l</i>) × 39.6 (<i>w</i>) × 34 (<i>d</i>)
SAM19-NEWC	Building 1, room 2	<i>Pinctada margaritifera</i> (cf. Bosch et al., 1995: 220) (Fig. 22: 5). Collected mainly for mother-of-pearl (Carter, 2012: 184)	150 (<i>l</i>) × 182 (<i>w</i>) × 29 (<i>d</i>)
SAM19-A-7.1	Test excavation A	<i>Conidae</i> sp. (cf. Bosch et al., 1995: 157–165). Further identification is not possible as natural bleaching has removed the markings, and the basal side section, including the outer lip, has been removed (Fig. 22: 6)	49 (<i>l</i>) × 20.8 (<i>w</i>) × 19 (<i>d</i>)
SAM19-A-7.2	Test excavation A	<i>Oliva bulbosa</i> (cf. Bosch et al., 1995: 144). Juvenile specimen (Fig. 22: 7)	27.2 (<i>l</i>) × 13.7 (<i>w</i>) × 11.8 (<i>d</i>)
SAM19-A-11	Test excavation A	Fragment of <i>Cypraea caurica</i> (cf. Burgess, 1970: 297, pl. 32; Sharabati, 1984: pl. 11). The back has been removed (Fig. 22: 8)	42.8 (<i>l</i>). Other dimensions are not relevant
SAM19-A-14	Test excavation A	<i>Cypraea moneta</i> (cf. Sharabati, 1984: pl. 11). The back has been removed (Fig. 22: 9)	17.3 (<i>l</i>) × 12.8 (<i>w</i>) × 5 (<i>d</i>)
SAM19-SEWC	Building 1, room 3	<i>Cypraea annulus</i> (cf. Sharabati, 1984: pl. 11). The back has been removed (Fig. 22: 10)	24 (<i>l</i>) × 17.8 (<i>w</i>) × 7.7 (<i>d</i>)

Muharraq town, ceramics dating from between the ninth–tenth and eighteenth centuries are absent, though extensive occupation dating from between the seventh and ninth centuries has been recorded (Carter & Naranjo-Santana, 2010, 2011; Insoll, 2018, 2019). The extent of occupation on Muharraq between the twelfth and eighteenth centuries is unknown, but in Samahij may only have been at village or hamlet level, and around the ruins of Building 1. The major centres of settlement appear to have been on Awal, where there is a general lack of sixth–eighth-centuries ceramics, but significant assemblages from, and evidence for, occupation between the ninth and thirteenth–fourteenth centuries at Bilad al-Qadim (Insoll, 2005; Carter, 2005; Insoll et al., 2016), and thirteenth–late sixteenth centuries at Qala’at al-Bahrain (e.g., Frifelt, 2001; Kervran et al., 2005). The chronology of this material suggests that settlement in the Middle and Later Islamic periods was, until the nineteenth century, primarily restricted to Awal with, conversely, Early Islamic occupation largely confined to Muharraq. Settlement then expanded significantly on Muharraq in the nineteenth century, with occupation attested across Muharraq town (Carter & Naranjo-Santana, 2010, 2011; Insoll, 2018, 2019).

7 | CONCLUSIONS

The excavations at Samahij have provided significant new information, and the first probable archaeological evidence for a Christian community in Bahrain. Previously, this was lacking, and consisted of three limestone grave stelae, the Christian identity of which has been the subject of debate (Potts, 2008). The excavation results indicate that it is highly likely that a sizeable Christian community of the Church of the East was living in, and possibly around, Building 1 between the mid-sixth and eighth centuries. This building, probably part of a larger complex, can almost certainly be identified with the location of the historically recorded episcopal seat of Mašmahig. The Christian community was connected to wider networks in the Gulf, evidenced by ceramics, glass and architectural parallels. Sometime in the eighth century, the building was largely abandoned, presumably because there was no longer a requirement for it as conversion to Islam had occurred. Subsequently, for reasons unknown, primary settlement shifted in the ninth century from Muharraq, probably from where Muharraq town is today (Carter & Naranjo-Santana, 2010, 2011) to Awal, and Bilad al-Qadim. Further fieldwork will enhance the

FIGURE 23 Comparative church plans: 1, Church A1, Al-Qusur (after Bonn eric, 2019: fig. 1); 2, Sir Bani Yas (after Elders, 2003: fig. 5); 3, Kharg Island (after Steve, 2003); 4, Samahij Building 1 (black); and 5, Akkaz (after Gachet-Bizollon, 2011: 136, fig. 10)



understanding of Christianity, Islamisation and settlement in the as-yet-little-understood Late Antique to early Islamic transition, and this is planned for the immediate future.

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ENDNOTES

¹ Anonymous personal communication, 14 November 2019.

² See also <http://www.aina.org/ata/20080828165925.htm> (accessed 13 October 2020).

³ M. Moriggi personal communication, 18 June 2020.

⁴ G. Kiraz, personal communication, 11 June 2020.

⁵ See <https://mafkf.hypotheses.org/2019?fbclid=IwAR22M320SZWneZTTynldMHYg5x0DGniGjLkZXPbdwdrHJD5r9C-db7SUIk0>: figs. 3, 4 (accessed 23 October 2020).

REFERENCES

- Al-Doy, A. (1993). Bahrain According to Arab Geographers and Historians, from the Ninth Century AD to Ibn Battuta. In Al-Khalifa, A. K. & Rice, M. (Eds.), *Bahrain Through the Ages. The History*. Kegan Paul, pp. 158–167.
- Andersen, S. F. (2007). *The Tylos Period Burials in Bahrain. Volume 1. The Glass and Pottery Vessels*. Culture and National Heritage.
- Beaucamp, J., & Robin, C. (1983). L'Évêché Nestorien de Mâšmahîg dans l'archipel d' al-Bahrayn. In Potts, D. T. (Ed.), *Dilmun: New Studies in the Archaeology and Early History of Bahrain*. D. Reimer, pp. 171–196.
- Bernard, V., & Salles, J-F. (1991). Discovery of a Christian Church at Al-Qusur, Failaka (Kuwait). *Proceedings of the Seminar for Arabian Studies*, 21, 7–21.
- Betteridge, A. H. (1992). Specialists in Miraculous Action: Some Shrines in Shiraz. In Morinis, A. (Ed.), *Sacred Journeys. The Anthropology of Pilgrimage*. Greenwood Press, pp. 189–209.
- Bin Seray, H. M. (1996). Christianity in East Arabia. *Aram*, 8, 315–332.
- Bin Seray, H. M. (1997). The Arabian Gulf in Syriac Sources. *New Arabian Studies*, 4, 205–232.
- Bonnéric, J. (2019). Al-Qusur: Latest Results from the French–Kuwaiti Archaeological Mission in Failaka. In Ruttkay, M., Kovár, B., & Pieta, K. (Eds.), *Archaeology of Failaka and Kuwaiti Coast—Current Research*. Nitra, pp. 127–134.
- Bosch, D. T., Dance, S. P., Moolenbeek, R. G., & Oliver, P. G. (1995). *Seashells of Eastern Arabia*. Motivate Publishing.
- Brunsdn, D., Doornkamp, J. C., & Jones, D. K. C. (1979). The Bahrain Surface Materials Resources Survey and its Application to Regional Planning. *Geographical Journal*, 145, 1–35.
- Burgess, C. M. (1970). *The Living Cowries*. A. S. Barnes.
- Carter, R. A. (2005). Chapter 4. The Pottery. In Insoll, T. (Ed.), *The Land of Enki in the Islamic Era*. Kegan Paul, pp. 107–192.
- Carter, R. A. (2008). Christianity in the Gulf during the First Centuries of Islam. *Arabian Archaeology and Epigraphy*, 19, 71–108.
- Carter, R. A. (2012). *Sea of Pearls*. Arabian Publishing.
- Carter, R. A. (2013). Christianity in the Gulf after the coming of Islam: Redating the Churches and Monasteries of Bet Qatraye. In Robin, C. & Schiettecatte, J. (Eds.), *Les Préludes de l'Islam*. De Boccard, pp. 311–330.
- Carter, R. A., & Naranjo-Santana, J. (2010). *Amara Excavations 2009*. Unpublished Report. Oxford Brookes University.
- Carter, R. A., & Naranjo-Santana, J. (2011). *Muharraq Excavations 2010*. Unpublished Report. Oxford Brookes University.
- Christie, A. C., Grant, A., & Haour, A. (2019). Cataloguing Cowries: A Standardized Strategy to Record Six Key Species of Cowry Shell from the West African Archaeological Record. *African Archaeological Review*, 36, 479–505.
- Elders, J. (2003). The Nestorians in the Gulf: Just Passing Through? Recent Discoveries on the Island of Sir Bani Yas, Abu Dhabi Emirate, U.A.E. In Potts, D. T., Naboodah, H., & Hellyer, P. (Eds.), *Archaeology of the United Arab Emirates: Proceedings of the First International Conference on the Archaeology of the UAE*. Trident Press, pp. 229–236.
- Farias, P. (2005). Comments on the Sherds with Arabic Script. In Insoll, T. (Ed.), *The Land of Enki in the Islamic Era*. Kegan Paul, pp. 515–516.
- Frifelt, K. (2001). *Islamic Remains in Bahrain*. Jutland Archaeological Society.
- Gachet-Bizollon, J. (2011). *Le Tell d'Akkaz au Koweït—Tell Akkaz in Kuwait*. Travaux de la Maison de l'Orient et de la Méditerranée 57. Maison de l'Orient et de la Méditerranée.
- Haour, A., & Christie, A. (2019). Cowries in the Archaeology of West Africa: The Present Picture. *Azania*, 54, 287–321.
- Hardy-Guilbert, C., & Rougeulle, A. (2003). Les fragments de stucs décoratifs. In Steve, M-J. (Ed.), *L'Île de Khârg*. Civilisations du Proche-Orient, pp. 121–130.
- Hogendorn, J., & Johnson, M. (1986). *The Shell Money of the Slave Trade*. Cambridge University Press.
- Insoll, T. (Ed.). (2005). *The Land of Enki in the Islamic Era. Pearls, Palms, and Religious Identity in Bahrain*. Kegan Paul.
- Insoll, T. (2018). *Archaeological Excavations, Ain Abu Zaydan, Bilad al-Qadim, and Muharraq, Bahrain, November 2017. Fieldwork Report*. Unpublished report prepared for the Bahrain Authority for Culture and Antiquities, University of Exeter.
- Insoll, T. (2019). *Archaeological Excavations, Muharraq, Bahrain, November 2018. Fieldwork Report*. Unpublished report prepared for the Bahrain Authority for Culture and Antiquities, University of Exeter.
- Insoll, T., Almahari, S., & MacLean, R. (2019). *The Islamic Funerary Inscriptions of Bahrain, Pre-1317AH/1900 AD*. Brill.
- Insoll, T., Almahari, S., MacLean, R., Priestman, S., Al-Mearaj, M., & Overton, N. (2016). Bilad al-Qadim Revisited: Recent Archaeological Research at the Al-Khamis Mosque, Ain Abu Zaydan and Abu Anbra, Bahrain. *Arabian Archaeology and Epigraphy*, 27, 215–242.
- Insoll, T., Khalaf, N., MacLean, R., Parsons, H., Tait, N., Gastra, J., Beldados, A., Pryor, A.J.E., & Evis, L. In Press. Material Cosmopolitanism: The Entrepot of Harlaa as Islamic Gateway to Eastern Ethiopia. *Antiquity*.
- Judd, A., & Hovland, M. (2009). *Seabed Fluid Flow: The Impact on Geology, Biology and the Marine Environment*. Cambridge University Press.
- Kennet, D. (2004). *Sasanian and Islamic pottery from Ra's al-Khaimah: Classification, chronology and analysis of trade in the western Indian Ocean*. (British Archaeological Reports, International Series, 1248). Archaeopress.
- Kennet, D. (2007). The Decline of Eastern Arabia in the Sasanian Period. *Arabian Archaeology and Epigraphy*, 18, 86–122.
- Kervran, M. (1996). Cimitières Islamiques de Bahrain (I^{er}–X^e Siècles de l'Hégire/VII^e ou VIII–XVI^e Siècles de l'ère Chrétienne). In Bacqué-Grammont, J-L. & Tibet, A. (Eds.), *Cimitières et Traditions Funéraires dans le Monde Islamique*. Vol. 1. Türk Tarih Kurumu Basimevi, pp. 57–78.
- Kervran, M., Hiebert, F., & Rougeulle, A. (2005). *Qal'at Al-Bahrain. A Trading and Military Outpost*. Brepols.
- Kervran, M., & Kalus, L. (1990). La Mosquée al-Khamis à Bahrain: Son histoire et ses inscriptions. *Archéologie Islamique*, 1, 7–73.
- King, G. R. D. (1997). A Nestorian Monastic Settlement on the Island of Šir Banī Yās, Abu Dhabi: A Preliminary Report. *Bulletin of the School of Oriental and African Studies*, 60, 221–235.
- Langfeldt, J. A. (1994). Recently Discovered Early Christian Monuments in Northeastern Arabia. *Arabian Archaeology and Epigraphy*, 5, 32–60.
- Lic, A. (2017). Chronology of Stucco Production in the Gulf and Southern Mesopotamia in the Early Islamic Period. *Proceedings of the Seminar for Arabian Studies*, 47, 151–162.
- Payne, R. (2011). Monks, Dinars and Date Palms: Hagiographical Production and the Expansion of Monastic Institutions in the Early Islamic Persian Gulf. *Arabian Archaeology and Epigraphy*, 22, 97–111.
- Potts, D. T. (1990). *The Arabian Gulf in Antiquity. Volume II*. Clarendon Press.
- Potts, D. T. (1994). Nestorian Crosses from Jabal Berri. *Arabian Archaeology and Epigraphy*, 5, 61–65.
- Potts, D. T. (2008). The Deacon and the Dove: On some early Christian (?) Grave Stelae from al-Maqsha and Shakhura (Bahrain). *Arabian Archaeology and Epigraphy*, 19, 109–119.
- Priestman, S. (2013). *A Quantitative Archaeological Analysis of Ceramic Exchange in the Persian Gulf and Western Indian Ocean, AD c.400 – 1275*. PhD Thesis, Centre for Maritime Archaeology, Department of Archaeology, School of Humanities, University of Southampton.
- Sharabati, D. (1984). *Red Sea Shells*. KPI.

- Simpson, St J. (2014). Sasanian Glass: An Overview. In Keller, D., Price, J., & Jackson, C. (Eds.), *Traditions of Glass Production and use in Europe and the Middle East in the Later 1st Millennium AD*. Oxbow, pp. 200–231.
- Smith, I. (2005). The Mammal, Bird, Reptile, and Mollusc Remains from Bilad al-Qadim. In Insoll, T. (Ed.), *The Land of Enki in the Islamic Era*. Kegan Paul, pp. 193–232.
- Steve, M-J. (Ed.). (2003). *L'Île de Khārg*. Civilisations du Proche-Orient.
- Tite, M., Watson, O., Pradell, T., Matin, M., Molina, G., Domoney, K., & Bouquillon, A. (2015). Revisiting the beginnings of tin-opacified Islamic glazes. *Journal of Archaeological Science*, 57, 80–91.
- Vine, P. (1993). *Bahrain National Museum*. Immel.
- Watson, O. (2014). Revisiting Samarra: the rise of Islamic glazed pottery. *Beiträge zur islamischen Kunst und Archäologie*, 4, 123–142.
- Whitcomb, D. (1989). Coptic glazed ceramics from the excavations at Aqaba, Jordan. *Journal of the American Research Center in Egypt*, 26, 167–182.

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