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The dawn of the Islamic era? The excavation of Yughbī in the Crowded Desert of Qatar

Jose C. Carvajal López, Kirk Roberts, Laura Morabito, Gareth Rees, Frank Stremke, Anke Marsh, David M. Freire-Lista, Robert Carter & Faiṣal ʻAbd Allāh al-Naʻīmī

Summary
This paper introduces the main results of the excavation at the site of Yughbī during the last season of fieldwork of The Crowded Desert Project in the north-west of Qatar between March and April 2018. While the area of Yughbī was occupied for a long period of time, this paper focuses on a small number of stone buildings that dated mainly to the Umayyad period (AD 661–750), but also with reference to a more extended occupation that may be dated as early as the late Sasanian-Rāshidūn caliphate period (AD 498–661), and perhaps even earlier, to the early ʻAbbāsid period (*c.* AD 750–900). The Umayyad phase includes stone buildings that served as a permanent or semi-permanent base for a nomadic group in the process of sedentarization, or recently settled at the site. The finds of pottery, glass, metals, and other materials indicate that the community living at the site was well integrated within a wider landscape that included economic interests in the desert and the sea, and even long-distance connections.

Keywords: Qatar, desert archaeology, archaeology of the nomads, sedentarization, early Islamic archaeology

Introduction

This paper introduces the main results of the excavation at the site of Yughbī[1] during the last season of fieldwork of The Crowded Desert Project in the north-west of Qatar between March and April 2018. The site has a long chronology, but the phase in which we are interested for this paper includes a set of stone buildings that served as a permanent or semi-permanent base for a recently sedentarized group of nomadic background (what we will call post-nomadic in this paper), that was well integrated within a wider landscape, including economic interests in the desert and in the sea.

The Crowded Desert Project and the archaeological site of Yughbī

What is called Yughbī nowadays is a large, abandoned campsite area located around a silt depression, with at least one well and the remains of another, either closed or never finished. The depression is only 3 km south-west from the larger and better-known site of Murwab, in north-west Qatar (Fig. 1). The remains found in the wider campsite, mostly ceramics and, to a lesser extent, glass and metal, indicate an extensive range of chronologies for the occupation of the area, from at least the late Sasanian period to the twentieth century. Within the wider site, however, our attention in this paper is on the remains of several stone buildings erected to the south-west of the depression, which is clearly the centre of a dispersion of materials from a more concentrated and earlier chronology that will be discussed below. It is this particular concentration that we refer to as the site of Yughbī in this paper.

Yughbī was first listed as an archaeological site in Beatrice de Cardi's Gazetteer in the 1970s (de Cardi 1978), which led to the location and protection of the site under Qatari law. No further research was undertaken until The Crowded Desert Project (TCDP), launched in 2015, started a new investigation under its own theoretical and methodological programme. TCDP is a collaboration between UCL Qatar and Qatar Museums that aims to document the history of relations between nomadic and sedentary communities in an area in north-west Qatar with clear archaeological remains of this history in the landscape. These include temporary camps and larger, more permanent settlements, like Murwab itself, which

[1] The name of the site frequently appears written as Yoghbi or Al-Yaghbi in modern documents and maps.

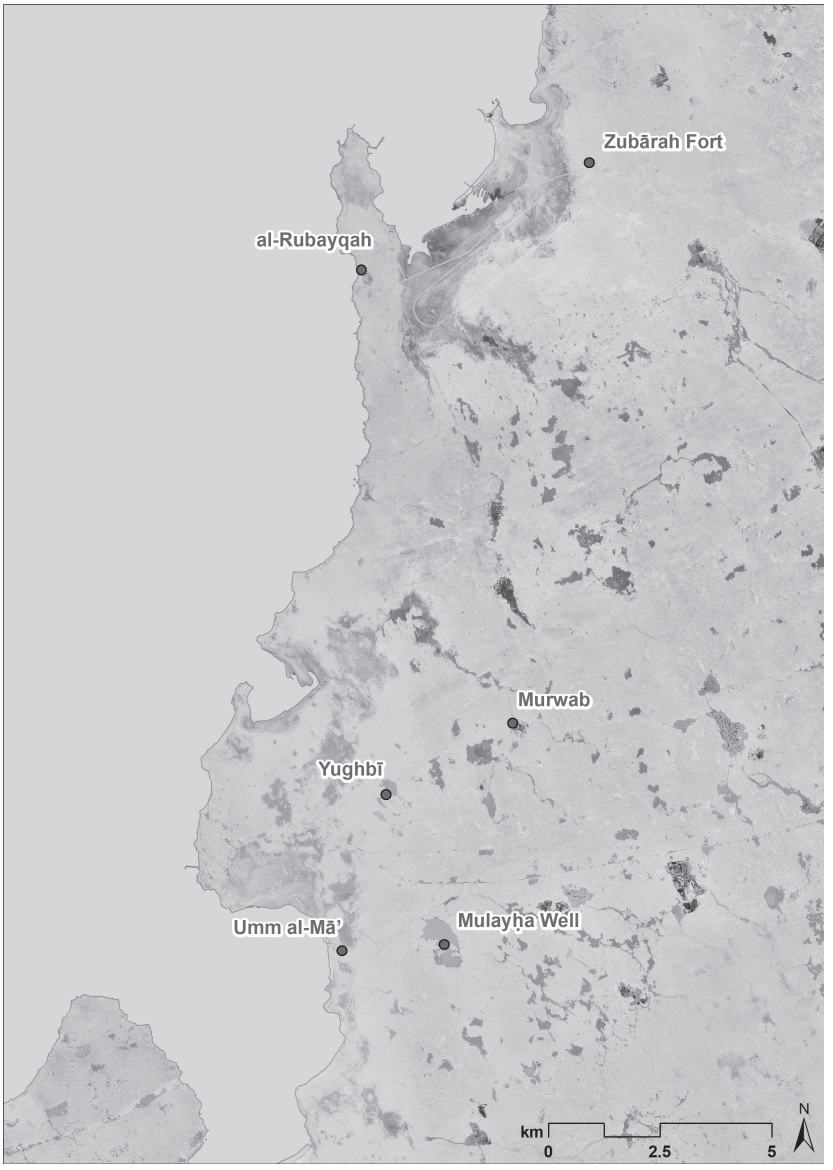

Figure 1. A *map of north-west Qatar, including the survey area of TCDP, relevant settlements, and the location of Yughbī.*

is a large concentration of houses around a fort, all dated to the ninth century AD (Guérin & Al-Naimi 2009; 2010). The fieldwork of TCDP aimed to document the intertwined history of nomads and sedentary by means of a multi-scale survey with strategic excavations. It started as a small pilot project in 2015 and had three seasons between 2016 and 2018 (Carvajal López et al. 2016; 2017; 2018) with a subsequent season for the study of materials.

There are two main reasons why TCDP focused its last field season on the excavation of Yughbī. The first is its early chronology, which directly relates to one of the main aims of the project: the focus on the early Islamic period. In fact, when de Cardi found the site, she dated it to the Sasanian period because of the finds of turquoise blue glazed wares on the surface, in accordance with the knowledge of Gulf ceramics in that decade. When we approached the site in 2017, we were able to offer a more accurate dating in the early Islamic period (seventh to ninth century AD), mostly thanks to the work of Derek Kennet (2004; 2007), Seth Priestman (2005; 2013), and Robert Carter (2008).[2]

[2] Our thanks also to Derek Kennet for his suggestion to date the site

The second reason, and the most relevant, is that Yughbī is a site that perfectly fits the model of spatial organization that we have documented in the nomadic campsites studied in TCDP and yet it is also a permanent site, a fact that strongly suggests that it is related to the sedentarization of a nomadic group. The spatial model observed in nomadic campsites of the study area in north-west Qatar is based on an organic relation between campsites and water sources in the desert depressions, meaning that the depression is considered integral to the campsite and gives the whole assemblage a fairly stable set of characteristics that are visible in their orientation, the relative position of tents, and even models of expansion in the future. The model is fossilized in the distribution of settlements that were the result of a process of sedentarization (Carvajal López et al. 2018), as suggested for Murwab (Guérin & Al-Naimi 2009) and other sites located in the north of Qatar, including the linear sites documented by Phillip Macumber (2016) and Stephen McPhillips, Sandra Rosendahl, and Victoria Morgan (2015). In the analysis of TCDP, Yughbī appears as a perfect example of this, and it can therefore be used to link the theoretical foundations of TDCP with an emerging field of data relating to possible sedentarization of nomads identified in the early Islamic period in the Gulf. The excavation of the site aimed to test this assumption.

Excavation process and results

The site of Yughbī appears to have been composed of around ten different buildings, five of which have been totally or partially excavated. The buildings were constructed with mortared walls made from stone boulders of the local dolomitic limestone — the Umm Bab member of the Dammam formation — most of them showing no or minimal dressing. This stone could have been quarried at the site itself, as there is evidence of rock-cutting in an outcrop within its limits. A secondary stone used is a Quaternary lumachel (shelly limestone) that was brought from the coast, which is at least 2.5 km away.[3] The buildings are composed of at least one central cell, and in some of them there are secondary cells adjoining the first ones. Each cell was laid out in an almost square shape with rounded corners formed when the walls curve in on themselves. Entrances were made simply by interrupting the wall line and placing a stone threshold, better preserved in some buildings than in others. The walls were generally quite well preserved, with a height ranging between 0.2 and 0.4 m, and in some cases up to 0.6 m. Judging from the limited quantity of collapsed boulders found inside the cells, the walls would not have been much higher, and the upper parts of the building could have been made with rammed earth, wood, and perhaps palm fronds (*ʿarīsh*) or textiles. All these stone buildings probably belonged to a single phase of the occupation of the site, which was relatively short-lived. As explained below, there is evidence of earlier and later occupation of the same spaces, although with different intensity and, probably, less permanence.

A total of four trenches (27, 28, 29, and 30)[4] were opened to investigate several buildings in Yughbī (Fig. 2). Of these four, Trench 30 was the last to be opened and the first to be closed, and deserves only a short mention. The trench was the southernmost of the excavation and its aim was to inspect a stone feature detected in aerial photography that looked like a mihrab. It turned out to be a false indication created by the distribution of the stones after the collapse of the wall towards the west. No permanent mosques were identified in Yughbī.

Trench 27 was planned as a long cut to explore the archaeological levels of a variety of different structures (Fig. 3). There were two different domestic structures in this trench, Building 1 to the west and Building 2 to the east. Building 2 was centred on the half-excavated Space 2, to which are attached two other cells: Space 3 to the east, and Space 7 to the south-east, directly attached to the southernmost wall of Space 3. Space 2 featured a beaten earth floor and two structures, a platform in the south-west corner and a hearth in the south-east corner. They were both delimited by stones, and the remains of a large turquoise-green glazed jar were found in the hearth (the glaze degraded to white). All this was covered by a collapse of walls and roof, as

using the surface finds.

[3] The classification of these two rocks is as follows: the Umm Bab member of the Damman formation is a wackestone (Dunham 1962)/biomicrite (Folk 1962) composed of calcite and dolomite, with fossils of nummulites, echinoderms, and molluscs. The lumachel is a packstone (Dunham 1962)/biomicrite (Folk 1962) composed mostly of gastropods.

[4] The numbering of the trenches follows that of previous seasons of TCDP.

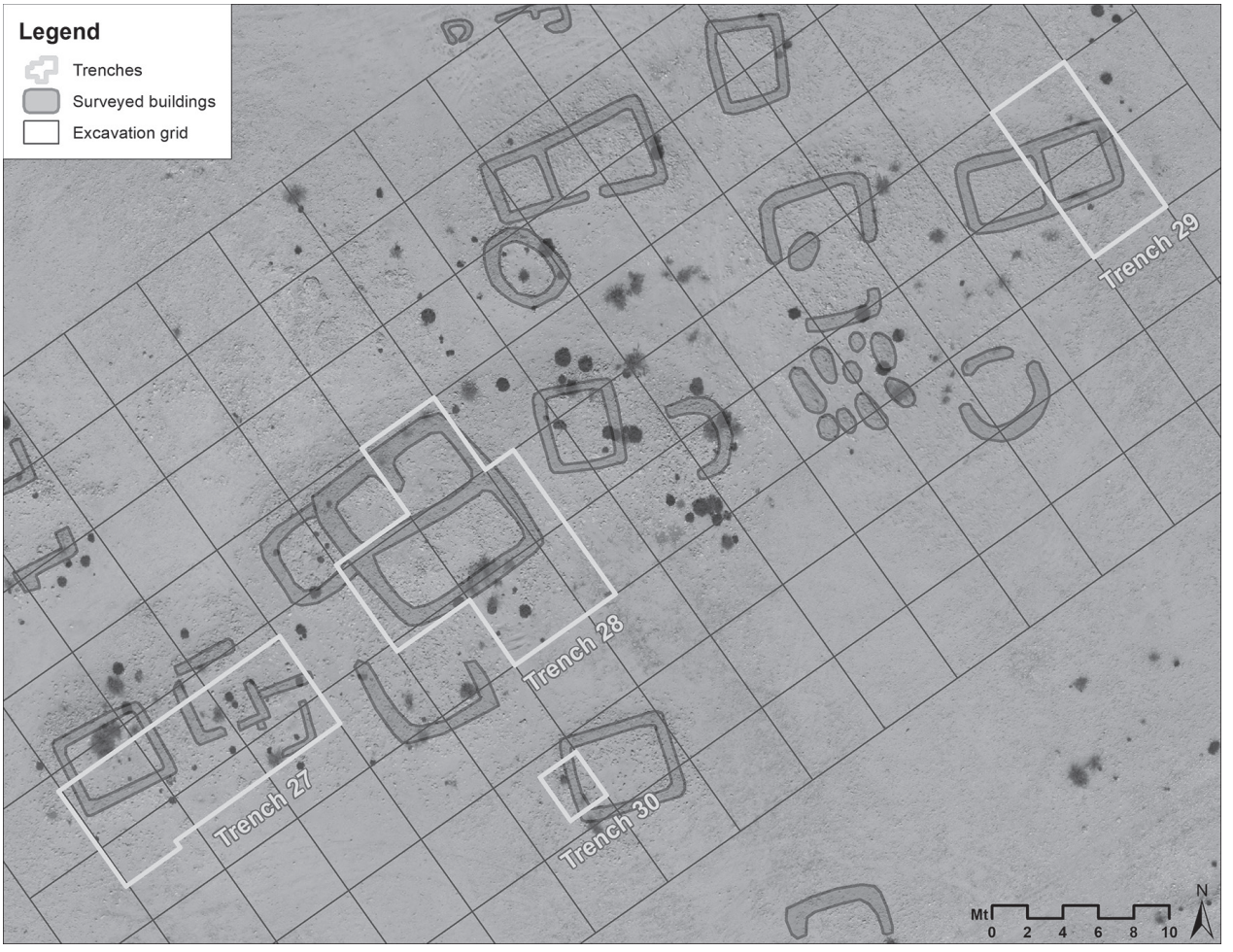

Figure 2. *A plan showing the layout of Yughbī as obtained by digital terrain model (DTM) and ground truth survey, over an aerial picture. The layout of the site as presented in this image was established before excavation and it is therefore not entirely accurate in comparison with actual excavation plans. The location of the 2018 trenches is indicated.*

evidenced by remains of organic materials, perhaps palm fronds, mixed in the rubble. Above the collapse, but covered with wind-blown aeolian deposits, an almost complete jar was found. This jar has its closest parallel in shape and decoration (but not in size) with another documented at Murwab (and now exhibited at the newly opened National Museum of Qatar). As we will see below, the documented chronology of Murwab is later than the occupation at Yughbī. This, combined with the stratigraphic position of the jar above a collapsed roof, suggests that it is indicating a later, squatter phase of occupation, possibly a reoccupation after Building 2 collapsed. Space 7, completely excavated and with a very poorly preserved floor, was an auxiliary room of the whole building, or perhaps another domestic unit attached to it. It featured two hearths. Space 3, again with a poorly preserved floor, was an ancillary room to Space 2, in which no hearths were found, but which contained an auxiliary stone structure that could have supported some kind of work or storage space. Space 3 was probably accessed from Space 2, although we cannot be sure, because the entrance may still be uncovered in the unexcavated northern part of the wall in between the two spaces. Another alternative, supported by an uneven alignment of some of the stones in the wall between the two spaces, is that Space 2 and Space 3

communicated when they were built and that at some point and for some reason, in a later architectural phase of the building, the entrance between them was blocked. This is supported by the existence of the preparation of a common floor running under the wall that separates both spaces. Finally, Space 8, located at the entrance of Spaces 2 and 7, is defined by a single wall running parallel to Space 7. The remains found inside Space 8 suggest that it could have been roofed.

Building 1, also discovered in Trench 27, is the simplest in plan but the more complex in stratigraphic terms. The structure is divided into two rooms by an internal wall. The largest one, to the east, is Space 1 and is only half excavated. It has a beaten earth floor that contained two hearths. The internal wall defined a small room to the west, Space 12. No communication between Spaces 1 and 12 can be observed in this wall, but it may still be in the unexcavated part of the building. Whatever the case, Space 12 appears to have an exit to the south although this is not entirely clear. The stratigraphy suggests that the separation between Spaces 1 and 12 is later than the construction of the wall that defines Building 1, and therefore it seems that both spaces sit above an earlier, unique Space 17, a first phase of construction. Moreover, the whole of Building 1 seems to have been built over a layer with signs of occupation, rather than directly on top of the bedrock, as the rest of the structures of the site. This layer with archaeological remains was covering a phase of construction with post-holes and excavated features on the bedrock, visible in Space 11 (south of Space 1 and Space 12). All this implies that in Trench 27, and possibly in other parts of the site, there was an earlier phase of occupation with tents or barasti-type structures. The dating of these phases (explained below) indicates a direct succession between the post-hole phase documented in Space 11 and Building 1 with Spaces 1 and 12, but there are still questions about the chronological and physical relationships between Space 17 and Space 11. As the stratigraphy of the building was so eroded, it was not possible to determine if Space 17

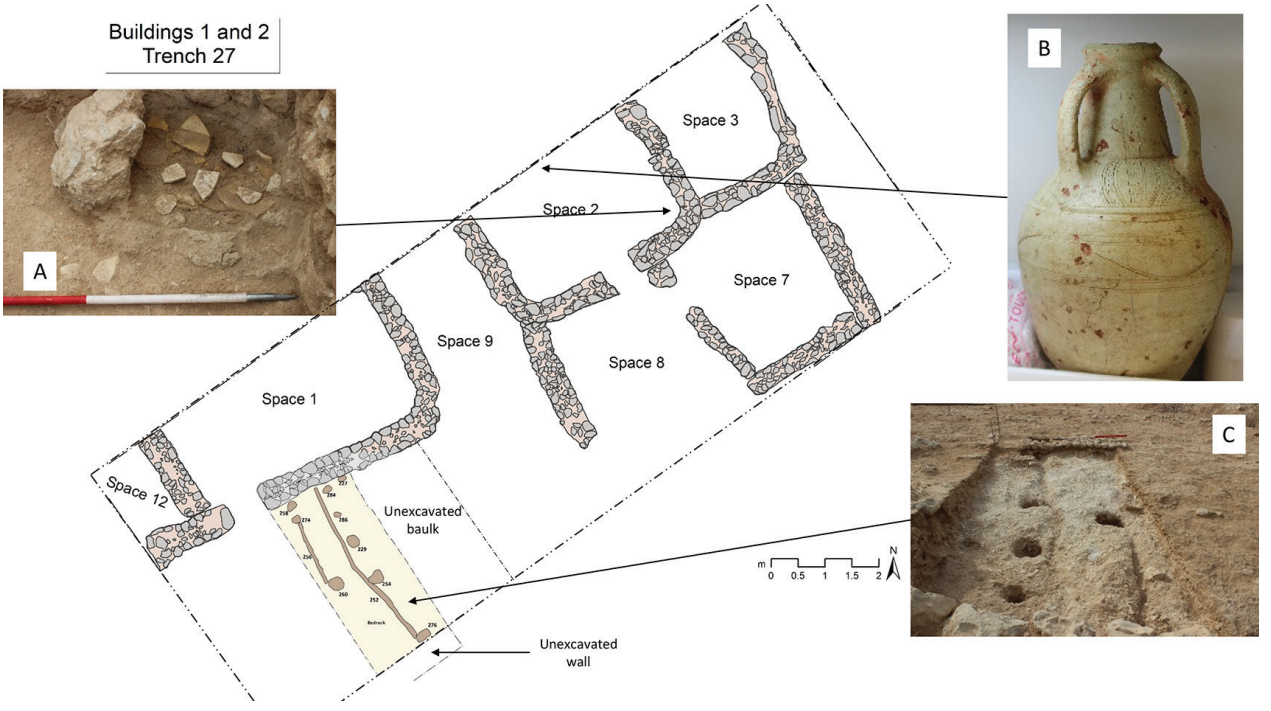

Figure 3. *A plan showing the layout of Buildings 1 and 2 in Trench 27. Inset:* **A.** *view from the north of the south-eastern hearth in Space 2, with remains of a turquoise-green glazed jar;* **B.** *incised jar recovered in a squatter occupation in Space 2, after restoration;* **C.** *view from the north of Space 11 after excavation, showing cut features.*

was built after the post-hole phase (and therefore would represent an earlier phase of Building 1, erected between the post-hole phase and the phase of the building with two spaces), or if it was a space contemporaneous with the post-hole phase (which would indicate that Space 17 predated the construction of Building 1 itself, and therefore defined its layout).

Trench 28 uncovered Building 3, which has three cells (Fig. 4). The focus of the excavation was on the eastern part of the building, leaving aside the westernmost cell and focusing on Space 4 and Space 5, respectively to the south and north. Both spaces would have been roofed and were probably erected at the same time. They had beaten earth floors and were connected via a door with a polished Dammam stone threshold. A post-hole in the northern edge (in Space 5), to the left-hand side (west), is possibly a pivot socket for a door. Space 4 contained the main entrance to the building to the south. A niche can be seen in the western part of the wall in this space, possibly an elevated door or a window to the other space to the west. Up to three hearths, one of them with at least two phases, were identified in Space 4. No hearths were found in Space 5, but this room contained the most interesting finds of the excavation: abundant remains of glass and metals and a set of fishnets, suggesting that this room was used as a storage area for valuable and delicate objects,

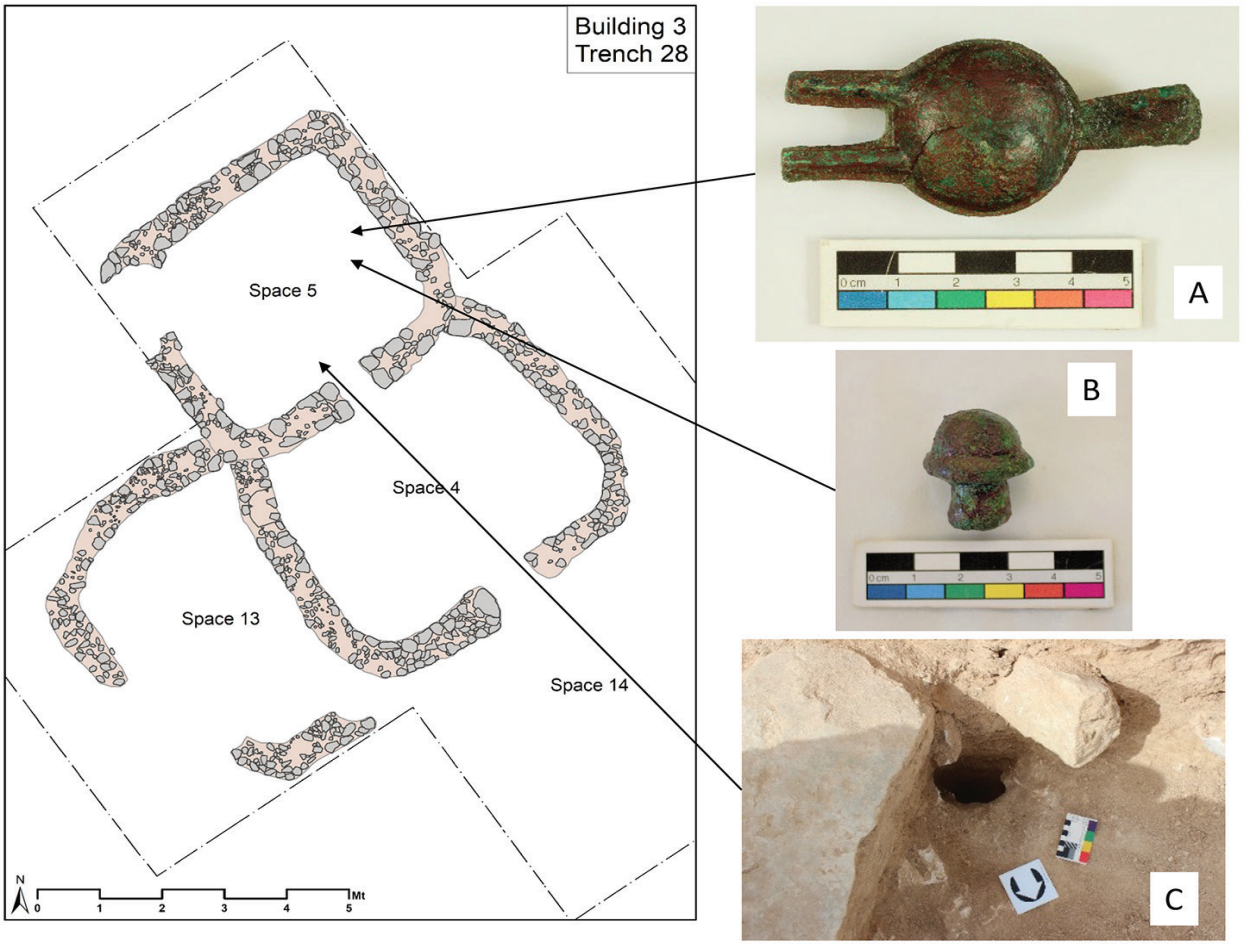

Figure 4. *A plan showing the layout of Building 3 in Trench 28. Inset:* **A.** *copper alloy lamp or cosmetic mortar recovered in Space 5, after restoration;* **B.** *possible copper alloy handle recovered in Space 5, after restoration;* **C.** *view from the north of the post-hole near the threshold in Space 5, a possible pivot socket for a door.*

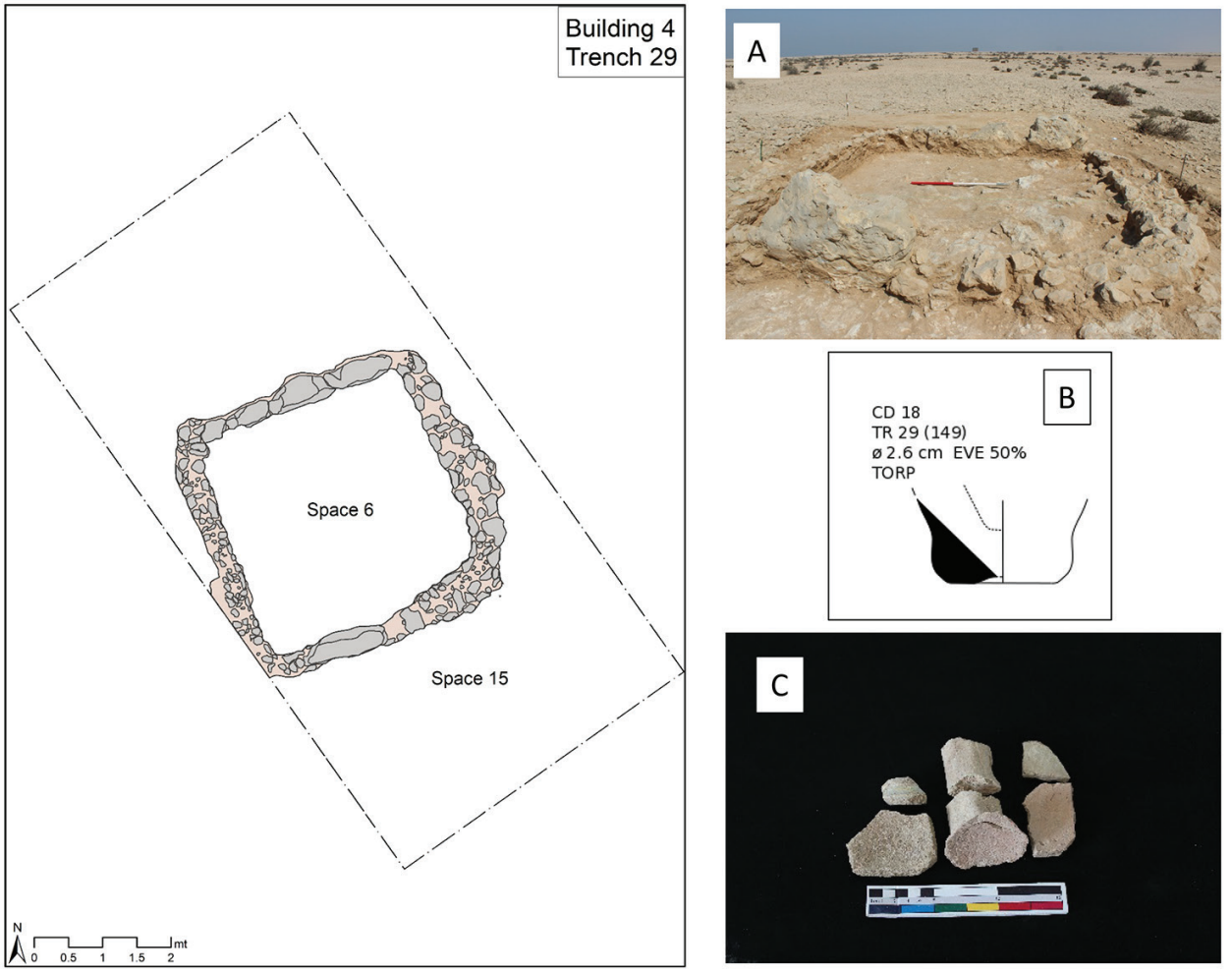

Figure 5. *A plan showing the layout of Building 4 in Trench 29. Inset:* **A.** *view from the north of the whole building after excavation;* **B.** *drawing of the bottom of a torpedo amphora found in the trench (drawing Mikel Herrán Subiñas);* **C.** *photograph of three possible fragments of white wares recovered in the trench.*

with its only access possibly protected with a door. The fishnet set is remarkable because the position of the individual weights suggests that they were attached together with a string, probably held by a nail or hook in the wall, before they fell to the floor and were covered by the collapse of the building. Two of the metal elements found in the room, made of a copper alloy, are also very compelling. One of them seems to be a very small oil lamp or cosmetic mortar with a double nozzle, and the other could be a small handle for a lid or a small box.

Trench 29 was positioned to study Building 4, the easternmost of the longest line of houses (Fig. 5). Building 4 had a single cell, Space 6. The entrance is not very clear, but it is most likely located in the southern wall. The building would have been roofed, as indicated by the remains of a collapse deposit, and was notably devoid of any relevant occupation deposits apart from a floor preparation that served to level the gaps in the bedrock, and a basin in the north-eastern corner. It contained up to three fire pits, but these seem to belong to a later, squatter period. Building 4 is different from the rest because of the large size of the stones used in the northern and southern walls, measuring *c.*1 m^2 in surface. These stones — Umm Bab limestones of the

Damman formation — were quite possibly quarried from a natural rock outcrop found within the site itself, some 20 m away from the building. Building 4 is also significant in terms of the finds: it has less abundant pottery but a higher concentration of 'exotic' sherds. For instance, we have the only examples of what could be white wares and a representation of fine orange painted wares and torpedo jars, very scarce in the overall assemblage. As we will discuss below, there are reasons to think that this building has the longest history of any of the stone constructions of the site.

The excavations allowed for a better definition of the architectural style of the buildings, as previously observed. As noted above, the houses are based on one cell to which more can be added if more space is needed, but it is important to note that different solutions were used to create each ground plan. In the case of Building 2 in Trench 27, the ancillary cells (Spaces 3 and 7) respect the direct access from the exterior to the main room (Space 2),[5] whereas in Building 3 (Trench 28) the ancillary cell (Space 4) has to be crossed to access the central room (Space 5). In both cases all the parts of the building appear to have been built at the same time, as all the walls stand on the bedrock. Building 1 in Trench 27 offers a slightly different view: it features an internal division of the room (Space 1 and Space 12, both over Space 17), and it is not directly built on top of the bedrock, but on top of a 'cultured' layer that suggests an earlier occupation phase.[6] The most curious feature of this architecture is that the builders seem to have avoided bonding their walls together; in fact, the rounded corners and the cells abutting each other are a substitute for wall-bonding, which is found in the slightly later Murwab (Guérin & Al-Naimi 2009). All this suggests that, to a large extent, this type of architecture is unplanned and very pragmatic, very much determined by the necessities of a given moment, avoiding excessive technical complications. This is very similar to the technique documented in Area E in Kadhima (Kennet 2013: 25–28).

[5] It must be remembered that Space 3 was probably connected to Space 2 in the earliest design of Building 2, therefore it is possible that Space 3 had to be accessed via Space 2. This would be a very similar arrangement to Spaces 4 and 5 in Building 3.

[6] It is possible that this was also the case for Space 2 and Space 3 in Building 2.

Stratigraphic sequence and chronology

The stratigraphic sequence recovered at Yughbī suggests three main phases of occupation (YI–YIII) and one possible, if still very hypothetical, earlier phase (Phase Y0).[7] Phase YI, the earliest documented phase, is defined by evidence of occupation or frequentation related to the cutting of features in the ground, most clearly defined in Space 11 of Trench 27. The construction, use, and abandonment of the stone buildings belong to Phase YII. This second phase was not very long: all buildings show a single architectonic phase (possibly with minor modifications in Buildings 1 and 2), and there is no large accumulation of deposits. Finally, Phase YIII is defined by Space 2 in Building 2, which has evidence of a later modest reoccupation, or simply frequentation, probably not long after abandonment. The stratigraphy itself did not give any indication of Phase Y0 but it became a possibility after ^{14}C dates were obtained, as explained below.

Nine charcoal samples were selected from hearths and buried features in Building 1 (Trench 27), Building 3 (Trench 28), and Building 4 (Trench 29) and sent to Beta Analytics for accelerated mass spectrometry (AMS) ^{14}C dating. The calibrated results at 2σ are presented in Figure 6. One of the selected samples, in Building 3, was found to contain the remains of a substance that could have been a varnish, and Beta Analytics advised us to be particularly wary of the results obtained from it. This is discussed in more detail below.

The AMS ^{14}C dates strongly support the stratigraphic sequence proposed for the site. The statistical ranges of the dates also tend to match closely with established historical and archaeological chronologies, but this must be considered coincidental until more analysis can be undertaken and a Bayesian study allows for a more nuanced chronological profile. It is interesting to note, however, that the ranges of dates of YII match quite precisely the combined modelling of ^{14}C dates from Kush (Period II) and Ṣīr Banī Yās (SBY-9), respectively AD 630–730 (at 91.9 %) and AD 660–780 (at 93.9%) (Carter 2008: 90, fig. 17). Overall, the AMS ^{14}C dates of Phases YI–YIII Yughbī are also consistent with the wider radiocarbon

[7] The phases described in this paper refer exclusively to the excavation of Yughbī and do not involve other finds in TCDP. For this reason, the numbering of the phases has been presented accompanied by the preceding letter 'Y' (for 'Yughbī').

Sample No.	Comments on sample	Dates obtained 2σ (95.4%)	Historical-archaeological period	Archaeological phase in Yughbī
089	Hearth, Tr.28, 2018, *possibly covered in varnish*	AD 86–242	Tylos period (300 BC–AD 300)	Phase Y0 (frequentation?)
054	Possible floor, Tr.29, 2018	86.6% — AD 128–258 8.8% — AD 284–322		
067	Hearth, Tr.27, 2018	84.8% — AD 532–638 10.6% — AD 432–489	Late Sasanian (AD 498–622) — Rāshidūn caliphate (AD 622–661)	Phase YI (frequentation, cut features, perhaps layout of Building 1)
092	Possible early linear cut feature, Tr.27, 2018	AD 590–665		
093	Possible early post-hole, Tr.27, 2018	AD 597–670		
080	Possible early post-hole, Tr.27, 2018	AD 662–774	Umayyad caliphate (AD 661–750)	Phase YII (stone structures built)
083	Hearth, Tr.28, 2018	AD 662–774		
086	Floor surface, Tr.27, 2018	92.3% — AD 662–778 1.6% — AD 842–859 1.3% — AD 792–804 0.2% — AD 818–821		
125	Sub-sample of 52, hearth, Tr.29, 2018	62.7% — AD 760–882 32.7% — AD 688–751	Early ʻAbbāsid caliphate (AD 750–*c*.900)	Phase YIII (squatter occupation)

Figure 6. *AMS ^{14}C dates obtained from samples of charcoal collected during the excavation of Yughbī, as given by Beta Analytics.*

chronology of the seventh- to eighth-century horizon at al-Muḥarraq, Bahrain (AD 600–859 and AD 570–823 at 2σ) (Carter & Naranjo-Santana 2011: 35, table 1). These dates suggest a consistent level of contemporaneous activity in the Gulf around the time of the late Sasanian and early Islamic period.

The AMS ^{14}C results also open the possibility of an earlier phase not detected in the excavation (Phase Y0). This would mean that we can trace back the origins of the frequentation of Yughbī as far as the early Sasanian period. It must be noted, however, that the existence of this Phase Y0 is still based on questionable evidence, as the two key dates from this period need to be put on hold until they can be supported with stronger evidence. One of the dates belongs to a sample which was probably part of an object burnt in a hearth of Building 3, a space that is clearly dated to the Umayyad period. Although this stratigraphic position makes its early Sasanian chronology possible, it also indicates that the object was destroyed and burnt outside its original context of production. This could be an object that had survived a long period of time entangled in a web of human relations, or it could have been looted from a tomb in the vicinity of the site, where Tylos-period burials are abundant. This leaves a single sample to carry the weight of the evidence of occupation of the Tylos period, in Building 4, Trench 29. At first sight, it seems appropriate that this building, quite different from the rest, may have the longest history. However, due to the difficult stratigraphy of the building, it is not entirely clear that the building was standing when the sample was deposited. To complicate things, this is the very same building where a hearth contained the sample giving the latest date of the excavation, the early ʻAbbāsid period, possibly pointing to the period of reoccupation. While this does not serve completely to undercut the evidence, there is a clear need for corroborating data before a Tylos-period phase can be established.

Finds and preliminary analysis

The material recovered in the excavation was surprisingly abundant for what would normally be expected of a site in the desert, but it is at the same time reduced in comparison with the assemblages that can be found in permanent sites with long histories of occupation, such as towns.

The pottery needs to be published in more detail in a future publication, but some general points can be made about it here. The number of sherds found is not large, as it includes less than 1000 sherds. Most of them

are found in contexts belonging to Phase YII,[8] and they can be dated without difficulty to the interval between the seventh and eighth centuries AD. The ceramics are mainly undecorated wares with little relevance for dating: utilitarian forms such as jars, bottles, juglets, and bowls (Fig. 7) with significant similarities to the assemblages documented in the mosque of Bilād al-Qadīm in Bahrain (Carter 2005), Ḥulayla (Sasaki T 1996; Sasaki & Sasaki 1996; 1998; 2000) and, more specifically, Ṣīr Banī Yās (Carter 2008). However, turquoise-green glazed ware is also very abundant (Fig. 8).[9] These sherds provide the best dates of all the recovered materials (leaving aside the ^{14}C samples, of course). Large turquoise-green glazed jars with handles and chain ridge appliqué (cf. Kennet 2004: 35–37; Priestman 2005: 107; 2013: 94–95, 555–556; 2016: 2–9), but without any significant barbotine or beehive decoration, are clearly dated between the seventh and eighth centuries AD, and before the ninth. The same dates are suggested by the profile of carinated green-glazed bowls (form 72) (cf. Carter 2008: 81, fig. 10/1–6; Kennet 2004: 36–37, 132, fig. 5; Priestman 2013: 93; Sasaki T 1996: 197, fig. 10/94-811 to 94-814; 94-817 to 94-820; 198, fig. 11/94-824 to 94-830; Sasaki & Sasaki 1996: 118, fig. 43/95-4 to 95.-6, 78, 100; 2000: 153, fig. 10/JHU98-21to JHU98-22, JHU98-27 to JHU98-29). The lack of any type of pottery of the Samarra horizon confirms that the contexts of Phase YII were formed before the ninth century AD. Some other ceramic types compatible with these dates (but not distinctive enough to offer more accurate dating) have been identified in individual sherds: hard lime spalled ware (HARLIM) (Kennet 2004: LISV, 78–79; Priestman 2013: 471–473), torpedo jars (TORP) (Kennet 2004: 85; Priestman 2005: TORP.3, 208–209; Priestman 2013: 93, TORP.S, 496–497), and imitations of white wares (Kennet 2004: WHITE, 77–78; Priestman WHITE.PI, 2013: 486–487) and of fine orange painted ware (closer to FOPW.2) (Kennet 2004: 83–84; Priestman 2005: 224–225; 2013: 516–517). Interestingly, two categories of pottery from the Indian coast were identified. In the spaces where hearths are located, large numbers of sherds of Indian soft black burnished ware (SBBW), thought to come from Gujarat (Kennet 2004: 89–90; Priestman 2005: 212–213; 2013: 545–546) have been found. There are also sherds of large Indian storage vessels (LINVES) distributed in different parts of the site and probably from the west coast of India (Priestman 2013: 548–549). This shows how far the network of contacts of Yughbī stretched, although of course this does not mean that this contact was direct. Unfortunately, there are only undiagnostic sherds of these wares, and therefore their forms in Yughbī cannot be illustrated.

Besides ceramics, other significant finds in this site are soapstone straight-sided bowls, probably made of chlorite, although this needs to be confirmed. In Yughbī they seem to have been used as cooking pots. This type of vessel is widely distributed in the medieval Middle East between Egypt and Central Asia (Simpson 2018: 183–216, table 9, figs 9–14), with more recent examples of the same period found in Area E at Kadhima, in Kuwait (Le Maguer 2013: 52). They appear as incomplete sherds, one of them showing what could be a repair hole. Glass and metal appear in significant amounts in the site.[10] The glass fragments show the existence of a variety of vessels of different sizes and some bangles, but there are not enough diagnostic sherds to reconstruct any particular shape. With regard to metals, the most valuable elements are the finds of Space 5 in Building 3, described above. It has not been possible so far to find a clear function or parallel for the handle, but the double nozzle container has some similarities with the cosmetic mortars documented in parts of Iran (Allan 1982: 37–38; nos. 79–82)[11] and in Uruk, Iraq (Pedde, Heinz & Müller-Neuhof 2000: no. 179, Taf. 15), although these were larger and more elongated in shape.

[8] The main exception to this is the large jar discovered in Phase YIII in Building 2. From Phase YI we only have a small number of sherds that do not offer any relevant information.

[9] They are in fact the most abundant category of pottery in terms of numbers of sherds, but this is a misleading perception. It is clear that most of the sherds of this category came from a few large jars (at least two, perhaps more) that were in different places around the site. The number of identifiable vessels glazed in turquoise green is smaller than those of utilitarian wares, but it is nonetheless significantly high in relative terms.

[10] The glass and metal fragments found in the excavation were in a very poor state of preservation, deeply affected by corrosion, and thus had to be treated and stabilized at the conservation laboratories of UCL Qatar before they could be sent for storage to Qatar Museums. Our thanks are due to Eleni Nodarou for her excellent work, to Qatar Museums for authorizing the treatment, and to UCL Qatar for providing the materials and space required for this activity.

[11] Our thanks to Scott Redford for his kind reference to this parallel. Allan indicates a number of parallels from Iran and suggests that the form originally came from Egypt.

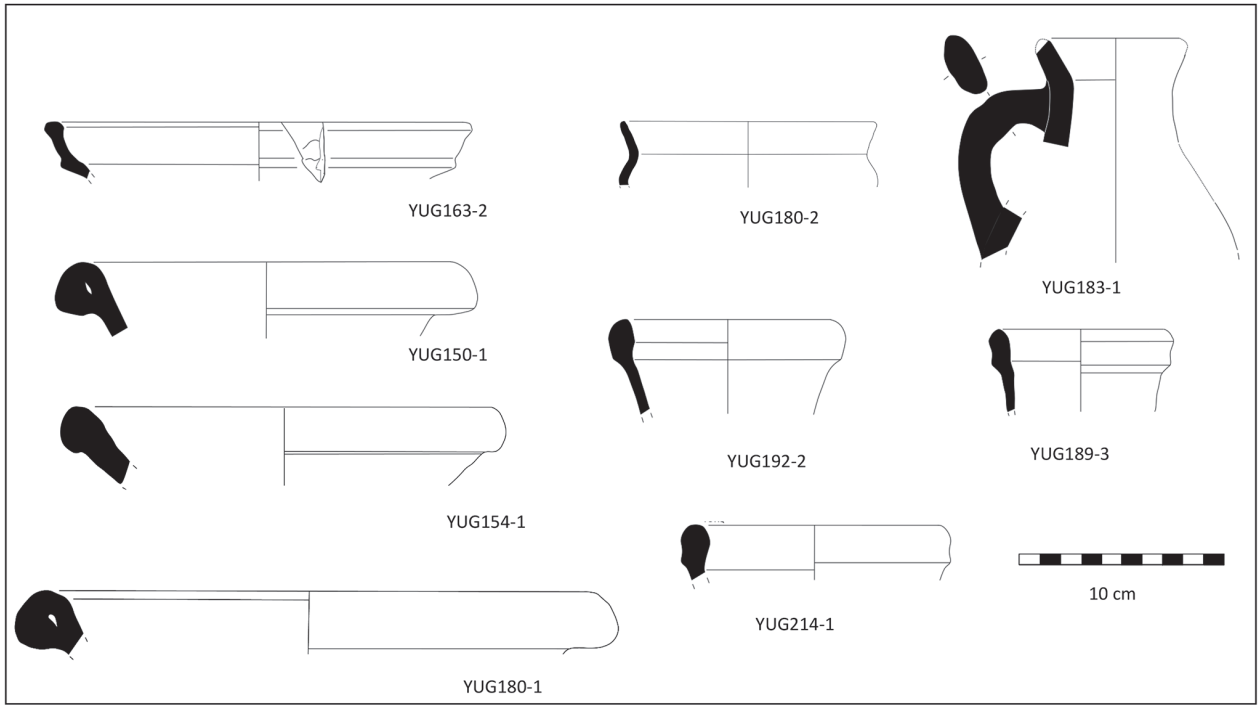

Figure 7. *Ceramics of common fabrics found in Yughbī (drawings Mikel Herrán Subiñas and Annabel Diong).*

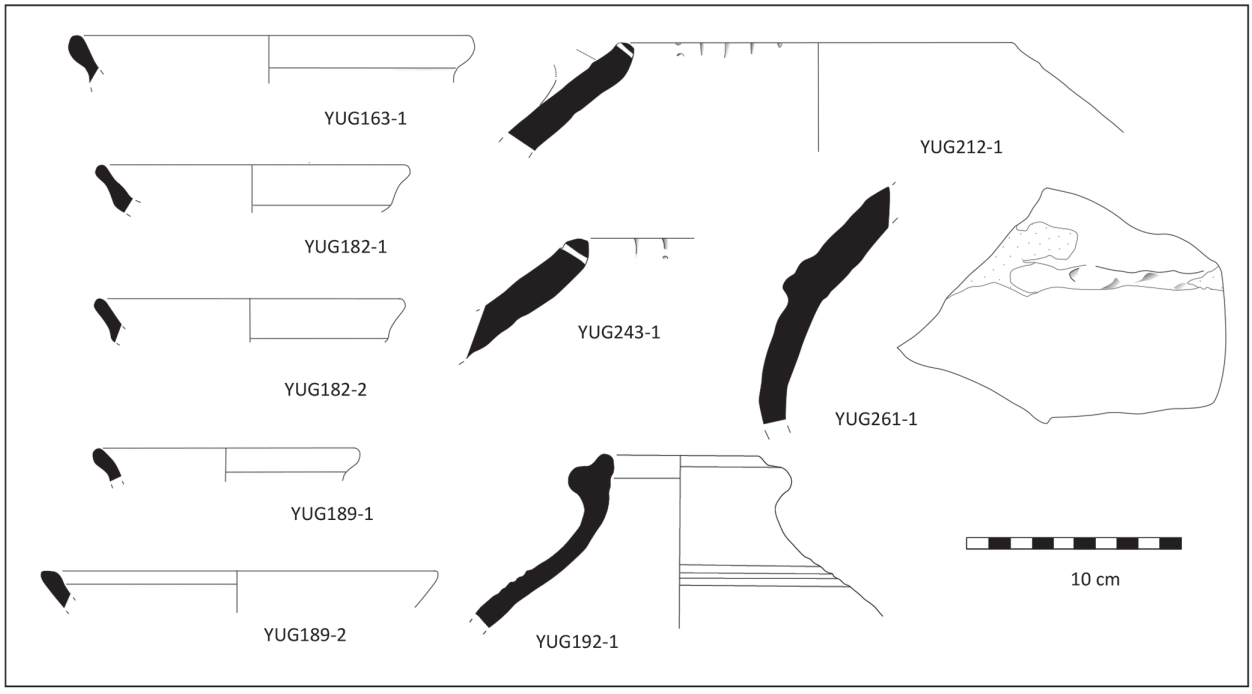

Figure 8. *Turquoise-green glazed ceramics found in Yughbī (drawings Mikel Herrán Subiñas and Annabel Diong).*

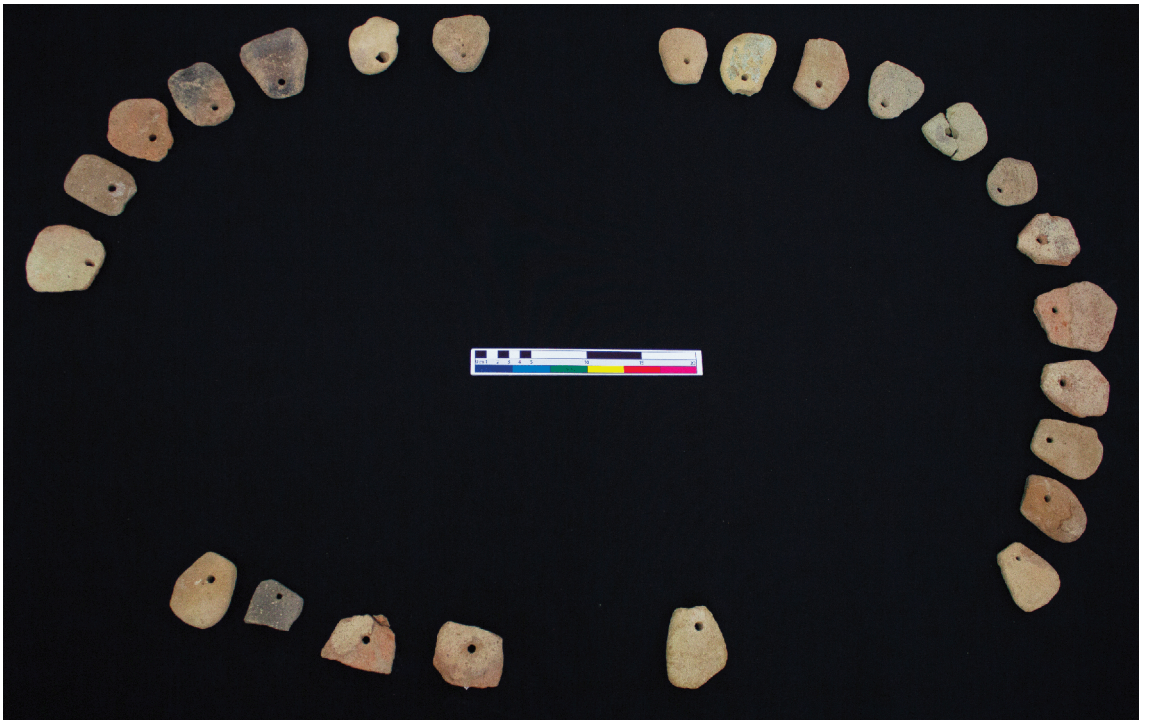

Figure 9. *Net weights found as a single set in Space 5 in Yughbī. The weights are in the same arrangement as when they were found, except for one. The position of the last weight could not be clarified and has therefore not been included in the image.*

Fishnet weights require special mention. Several of these elements have been documented in different spaces of the site. Fishnet weights have been documented ethnographically in several places of the Gulf (see Jansen van Rensburg 2016: 137–138 and references therein). In archaeological contexts, it is worth mentioning the examples found in Kadhima in Kuwait (Kennet 2013: 56), Ḥulayla in Ra's al-Khaima (Sasaki & Sasaki 1996: table 11/95-106; table 12/95-515,95-598, to 95600; pl. 77/94-273 to 94-280; 1998: table 4 and pl. 79/97-32,97-39,97-68; table 9 and pl. 82/97-28,97-43; 2000: pl. 7/98–187,98-190 to 98-200) and those found in Bahrain, in the Bū Māher Fort of al-Muḥarraq (Carter, Morley & Morse 2011: 106, fig. 50) and Tomb 87 of Mound A1 1996–1997 of the Shakhoura cemetery of Bahrain (Salman & Andersen 2009: table 38, figs 318–319).[12] The remarkable set of fishnet weights found *in situ* in Space 5, Building 2, is perhaps one of the most valuable finds of the excavation. It is composed of twenty-five weights made of pottery of different types or of stone (see Figs 9 and 10). The pottery weights are usually selected from fragments of large jars and with dense fabrics, similar to some common ones, torpedo jars, and even one turquoise-green glazed jar. It is interesting to note that three, maybe four, of the weights seem to have been made of some kind of very dense clay, with strongly standardized form and dimensions (see finds nos. 32, 11, and 22, perhaps also 30). This raises the question of whether there was some kind of manufacturing and trade of these items. Comparisons with ethnographic studies suggest that the Yughbī weights are similar in size to others used in Oman (Donaldson 1979: 120–132) or in Socotra (Jansen van Rensburg 2016: 127–133, 137–138) made in stone or lead, but they were probably only used in shallow waters, because they were too light (cf. Jansen van Rensburg 2016: 137), and perhaps the specifically made weights were better in this regard. These comparisons also suggest that the number of weights in the set is too small for a net. It may be that the weights were simply

[12] More weights from the Tylos period were introduced by Pierre Lombard in his presentation, 'Recent French excavations at Abu Saiba. New data on the Tylos phase of Bahrain (*c.*200 BC–300 AD)', at the 53rd Seminar of Arabian Studies in Leiden in 2019.

Find no.	Shape	Material	Macroscopic fabric	Wgt	Th	Wdt	Lgt	Comments
23	Trapezoid	Pottery	Common	69	1.3	6.7	6.8	White slip outside
34	Short trapezoid	Pottery	Common	33	0.9	4.6	6.3	Half surface exterior gone, white slip
18	Rough pentagon	Pottery	Common	73	1.1	7.5	8.4	White slip outside
35	Square	Pottery	Common	44	1	5.3	6	White slip outside
17	Rough pentagonal trapezoid	Pottery	Common	45	1	5.9	7	White slip outside
25	Trapezoid	Pottery	Common	58	1.6	6	6.9	Remains of white slip outside
19	Trapezoid	Pottery	Common	57	1.2	6	7.2	White slip outside
26	Elongated square	Pottery	Common	43	0.9	5.2	7.2	Burn marks outside
27	Trapezoid	Pottery	Common	58	1.2	6.5	7.1	Burn marks outside
13	Rough pentagon	Pottery	Common	68	1.3	5.2	8.1	
31	Trapezoid	Pottery	Common	43	0.7	6.3	7.2	Broken in one corner
20	Inverted fusiform	Pottery	Common	46	0.9	5.5	7.2	
14	Inverted fusiform	Pottery	TORP	31	0.9	5.5	6.7	Weathered, darkened in both surfaces
16	Inverted fusiform	Pottery	TORP	27	1.2	5.1	5.6	Weathered, darkened on internal surface
29	Trapezoid	Pottery	TORP	61	1.7	5.7	6.2	Weathered, darkened on internal surface, remains of white slip outside
15	Square	Pottery	Common	51	1.3	5.5	6.5	
32	Inverted fusiform	Pottery	Specific	57	1.5	5.2	6.3	Standardized, burr around perforation indicates it is a purpose-made weight
11	Inverted fusiform	Pottery	Specific	56	1.8	4.9	6.2	Standardized, burr around perforation indicates it is a purpose-made weight
22	Inverted fusiform	Pottery	Specific	52	1.3	5	6.3	Standardized, burr around perforation indicates it is a purpose-made weight
21	Rounded and cut	Pottery	TORP	54	1.4	5.2	7.4	Remains of bitumen inside
33	Square (broken)	Pottery	LISV?	22	0.8	4	4.4	
12	Elongate square	Pottery	TURQ	67	1.6	5.1	7.1	Remains of green glaze on both sides
24	Elongate square	Pottery	TORP	47	1.2	4.7	6.7	
30	Trapezoid	Pottery	Specific	67	1.1	5.5	7.3	Purpose-made, burr around hole and inside it, probably fusiform originally, now with a lost corner
28	Irregular	Stone		81	1.5	5.2	6.3	Dammam limestone?

Figure 10. *Data on the fishnet weights retrieved in Space 5 of Yughbī. Key: Wgt = Weight in g; Th = Average thickness in cm; Wdt = Maximum width in cm; Lgt = Maximum length in cm.*

stored in Space 5 as spares for making or repairing nets, or that they belonged to a smaller net designed to catch birds.[13]

There are several other analyses to be performed with finds and samples taken from the site. Very little organic material has so far been documented in the houses, but it must be noted that analysis is still to be carried out on these. This material includes some fish bones; other small bones, probably from birds, have been found. Ceramic samples were taken for petrographic and geochemical analysis, and sediment samples from different contexts (hearths, floors, etc.) were taken for phytolith and other microfossil analysis. A stratigraphic column for micromorphological analysis was sampled

[13] Our thanks to John Cooper and Alessandro Ghidoni for their comments on the fishnets and for drawing attention to William Donaldson's work; and to Julian Jansen van Rensburg for his suggestion of the birds' cast net.

from Space 1, Building 1. All of these analyses will offer substantial additional insights into the lifestyle, trade, and consumption habits of the inhabitants of Yughbī, particularly from Phase YII, in the seventh and eighth centuries AD.

Other than that, the inhabitants of this site have left very few traces of their relation with animals and plants in the site itself. All the evidence depicts a community whose ways of life were intimately connected to the sea, as the fishnet weights and the numerous imported artefacts show. But they were also people of the desert, as their choice of habitation 2.5 km from the sea and next to a well in the interior indicates. The most likely possibility is that they exploited different economic resources, keeping their livestock in the desert and engaging in maritime activities and trade at the same time, much like the economy of communities during the pearl-fishing periods of Qatar.

A preliminary conclusion

The excavation of Yughbī was planned in the context of the larger TCDP, with the aim of undertaking research on what appeared to be one permanent settlement linked to a post-nomadic or semi-nomadic community. The precise chronology associated to the stone buildings of Yughbī matches the dates of many of the Christian monastic communities in the Gulf (Bonnéric 2018; Carter 2008; 2013; Payne 2011), but the archaeological remains excavated are not similar to the monastic cells known from these sites and there is no building that can be identified as a church (cf. Bonnéric 2018; Carter 2008). There are also no remains whatsoever of any kind of decoration associated with Christianity in the site (cf. Lic 2017). The recorded architecture is too similar to the cases of Kadhima (Kennet 2013) and Murwab (Guérin & Al-Naimi 2009), which are clearly related to post-nomadism or semi-nomadism. The stratigraphy of Yughbī, with at least two phases of frequentation before and after the phase of permanent occupation, and the range of materials found in the site also point in this direction. The permanent phase of Yughbī does not only have a similar spatial configuration to that of a nomadic campsite; it was formed and shaped in the context of a process of sedentarization that lasted no longer than a century and was later reversed or abandoned.

Much work remains to be done on the site and finds of Yughbī, particularly with regard to its relationship with other spaces documented in TCDP and with other sites of similar chronology found in Qatar and in other areas of the Gulf. However, at present it is possible to establish that the chronology of Yughbī, now firmly identified as the earliest documented site of the Islamic period in Qatar, and the relative wealth of its inhabitants, indicate that the history of the site is interlinked with the crucial developments of the Gulf in its time. In the seventh century, the period in which Yughbī was undergoing a process of sedentarization, Islam emerged in the Hijaz and spread fast over the Peninsula and Iran, and yet Christianity seemed to be thriving in eastern Arabia (Carter 2008; 2013; Payne 2011). The Iranian part of the Gulf would become the place where the Azraqī Kharijī anti-caliph, Qatarī ibn al-Fujā'a, challenged the Umayyad authority (*EI*: 752–753), and in which the foundation of trade emporia took place to directly connect the caliphate with the Far East (Carvajal López 2017). We must wonder where Yughbī fits within this historical and archaeological puzzle. The questions to address are many, but one takes precedence overall at this stage: is Yughbī a singular case, found by sheer luck, or should we expect to find other sites indicating a similar historical development in Qatar and in other parts of the Gulf?

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Siglum

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