

The excavations at site 3-J-5: a multiphase settlement on Umm Muri Island

John Payne

Location of site 3-J-5

The excavations described in this report were located on the island of Umm Muri, which lay within the SARS concession. This island was uninhabited during the survey and excavation.

Although normally uninhabited, at certain times in the year (during the period of low water) the island of Umm Muri was connected to the inhabited island of Mis, a factor that allowed Umm Muri Island to be used for sheep grazing and periodic cultivation. These activities were generally concentrated around topographically lower areas of the island, where the soil was richer, although some of the higher elevations also showed evidence of having been recently farmed. However, at the time of the excavation, the higher field systems had been abandoned, probably because their viability was dependent upon the cost of the fuel required to power the mechanical pumps needed for their irrigation. Evidence of other modern horticultural activity was witnessed by the presence of four threshing floors (*taiga*) within, or immediately adjacent to, the site.

Much of the subsequently excavated area had escaped direct cultivation. This was probably due to the presence of large areas of outcropping bedrock and the shallowness of the natural soils within the excavation area; factors that would have made cultivation difficult.

Survey

The site was first discovered and surveyed by SARS during its 1999 field season. This initial survey identified an area littered with ceramic sherds, loose stones, degraded stone walls and wall foundations of mud and fired brick. These clear remains of a settlement were seen to extend over an area of at least 200 x 150m. However, beyond the identification of these archaeological remains, much of the actual layout of the site was obscured by a covering of windblown sand (Welsby 2003, 5-7).

Evaluation

The initial survey was followed in 2003-2004 by a small scale evaluation of the site, aimed at determining the depth of the archaeological deposits and the nature of the remains preserved (Fuller 2004). Evidence from this evaluation suggested that the thickness of the surviving archaeological stratigraphy was likely to be relatively thin, probably not more than 1m; a conclusion borne out by the subsequent excavation.

Excavation

The thickness of the preserved archaeological deposits was, as suggested by the evaluation, relatively shallow.

However, despite this they proved to be of a fairly complex nature, with numerous phases or sub-phases being recognised.

The excavation eventually extended over approximately 2000m² and was sub-divided into four separate areas, each under the supervision of a designated archaeologist. These were identified in the written record by the use of the unique number blocks beginning with 1000, 3000, 4000 and 6000. However, as all the areas eventually joined, for the bulk of this report the whole site will be described in phased sequence.

Recording methodology

The recording system employed on the Umm Muri excavation was closely based on the Context System widely used throughout the UK, which employs a unique numbering system for every deposit, cut or structure encountered during excavation. Additional numbers, each separate from the main numbering system, were allocated to environmental samples, special or unusual finds and to drawn sections and plans.

All these additional numbers are linked directly to the main context number blocks through the pro-forma sheets employed. The inherent flexibility of the context system itself allowed for context numbers to be used as either group or space numbers and in such cases they are allocated an index or content sheet which included many similar or related features. The main examples from the Umm Muri excavation are the post-hole 'groups' and room 'spaces' which will be the main references used during the phased description.

It is hoped that the use of these space and group numbers in the subsequent report will improve the coherence of the narrative, as well as making the phased discussion easier to achieve.

All the sections were drawn at a scale of either 1:10 or 1:20, while the plans were drawn at a scale of 1:50. The excavation recorded 1,115 contexts and more than 30 sections and several multi-phased base plans were drawn, from which the presented phased plans have been taken. In addition to this large numbers of non-scale sketches were drawn on separate sheets and attached to individual context numbers. Draft matrices were produced in the field, while the finished versions were completed as a part of the post-excavation record check.

The site grid was established to allow for the easier recording of the visible archaeological remains, with Site North being closer to a true north-west alignment. All subsequent descriptions concerning alignment of the archaeological remains are orientated on Site North, as are the associated plans.

Key to the plans and sections.

<>	wall
[]	cut
()	deposit or surface
0000	room or space

The phasing sequence

It was possible, for much of the archaeology encountered, to assign a phase within the overall sequence of development. This is especially true of the mud-brick phases of the settlement, where it was possible to produce a detailed model which clearly showed the development over time. These mud-brick phases represent the bulk of the archaeology encountered during the Umm Muri excavation (phases 4-9). Additionally clear stratigraphic evidence was seen for a precursor to these mud-brick phases, in which stone and clay-silt were used as the main construction materials (phase 3).

More problematic in the phasing sequence was an extensive series of pits and post-holes that were identified within the western part of the site. Of these only a few were seen to be beneath mud-brick walls, or within rooms, with the remainder being physically unrelated to the main mud-brick structural phases. Their location gives little indication as to their relationship with other features in the settlement, but is likely to reflect the increased depth of the underlying natural sediments within the area in which they were located and the lack of more substantial structures, which, if present would have destroyed or hidden such ephemeral remains. However, if one assumes that the post-holes represent the remains of ephemeral structures, the presence of numerous pits within the same area would suggest that at least two phases are represented here.

For the purposes of this report, therefore, the majority of the post-holes have been assigned to the earliest phase of occupation and most of the pits to the later, post-mud-brick settlement phases. This phasing has been decided upon because, within the mud-brick phases, there is clear evidence for extensive destruction and robbing of the structures through pitting, but little evidence of truncation by smaller features that could be interpreted as post-holes.

The post-hole groups themselves have been sub-divided into two phases, with most falling into phase 2, while, for reasons that will become apparent later, post-hole group [4496] has been assigned into the phase 3 occupation.

Additionally, due to time constraints during excavation, it proved impossible to allocate individual context numbers to each post-hole, of which there were well over 200. It was, therefore, decided to allocate overarching 'group' numbers for what appeared to be possible post alignments. The remainder of the post-holes were recorded in plan only, unless during the excavation of individual features anthropogenic material was recovered.

Umm Muri excavation phased description

Phase 1

This phase includes both the solid geology and the overlying naturally derived drift geology as encountered within the excavation area. The earliest were the underlying and outcropping areas of igneous and metamorphic bedrock (contexts (1250), (3008), (4515) and (6139)). Where it was visible, this rock appeared as large rounded, boulder-like outcrops, with widened and eroded joints. Where the rock was covered by overlying deposits, the weathering was less apparent, although even here small stone fragments within these overlying deposits attested to the continued weathering process.

This bedrock was, in places overlain by a distinct layer of fine sandy silt containing small fragments of degraded stone (contexts (3081), (4006), (6163) and (6196)). This sandy silt contained no anthropogenic material, but was extensively truncated by later pitting. The full extent and depth of this deposit was not recorded as part of the excavation strategy, although a very rough model could be created from the stratigraphic matrices. These indicate that this underlying sediment was absent within the area designated by the 1000 context block and almost completely absent within the area designated by the 3000 context block. Within the remaining two areas (4000 and 6000) the sediment was seen to underlie most of the archaeological deposits. This indicates that the underlying deposit lessens in thickness with elevation, as both of the areas where the sediment was absent were located on the highest part of the site.

Although visually this deposit appears to be alluvial in origin, the height at which it was encountered within the excavation area leaves the possibility that it may in part represent aeolian deposition, originally derived from an alluvial or fluvial sediment and subsequently re-worked by aeolian processes. This, however, was not proved during the excavation.

Phase 2: Figure 1

This represents the first recognised phase of human activity and comprises the main concentration of post-holes, as well as five pits, which lay beneath the Phase 3 archaeology. All of this activity was recognised within the western part of the 4000 number block, which lay centrally within the excavation area.

Post-holes

As mentioned more than 200 post-holes were recorded during the excavation. These usually ranged in diameter from 130-50mm, while within the post groups themselves a minimum diameter of 100mm was recorded. The depths of the individual cuts varied from 190mm to 160mm. Although the post groups are likely to represent driven posts, it is clear that many of the smaller cuts must either be stake holes or possibly even root or animal disturbance.

All of the post groups and other associated cuts were located within a relatively small area measuring approximately 8 x 15m, while within this area was a second, more

distinct concentration that measured around 7 x 3.5m (Plate 1). This concentration includes post groups 4499, 4500 and 4501, which, when combined with several more of the excavated individual post-holes, appear to form a roughly sub-rectangular structure, within which a central partition could be imagined.

If this hypothetical structure is accepted as real, it consisted of two adjoining, enclosed spaces measuring around 3 x 3m and 3.2 x 3.5m. Interestingly these dimensions correspond well with the size of two adjoining phase 3 spaces (see Phase 3, spaces 4444 and 4445).



Plate 1. Phase 2 post groups 4497-4501. View from the west.

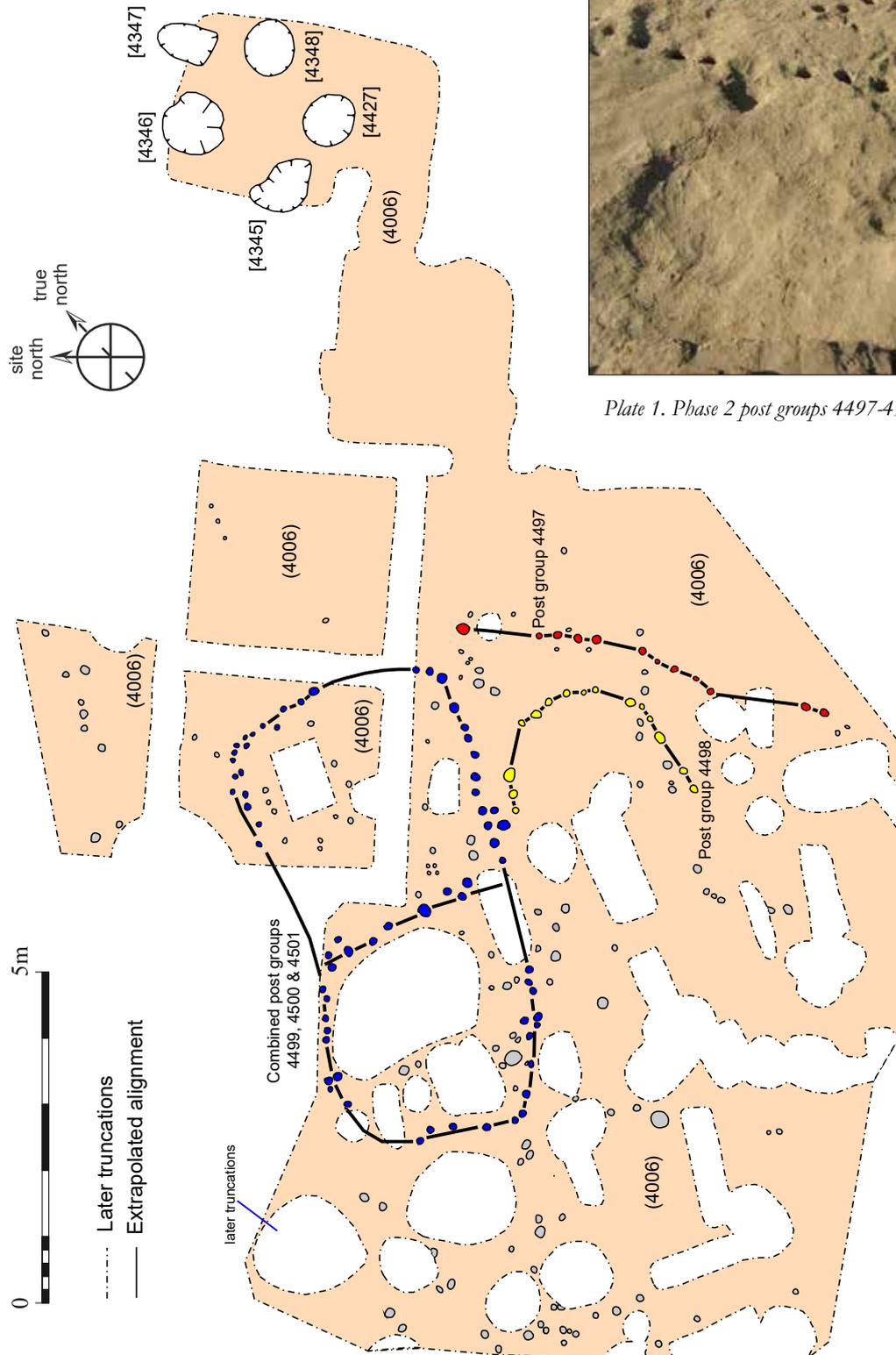


Figure 1, Phase 2 plan (scale 1:100).

Possibly associated with this hypothetical structure are the two remaining post groups 4497 and 4498, which have also been allocated to this phase. These are both located to the south of the sub-rectangular post arrangement discussed above. The first of these (group 4497) forms a distinct north-south linear alignment which extends for a total length of around 6m. Its northern extent terminates approximately 800mm from post group 4501, while its southern extent terminates adjacent to a concentration of intercutting pits. The second (post group 4498) forms a roughly semi-circular arrangement, measuring around 2.5 x 2m, open to the west.

Aside from the post-holes themselves no archaeological evidence was seen that would give an indication as to whether these spaces could represent areas of human habitation or enclosures associated with livestock management. A date for these structures is also lacking, as unfortunately none of the post-holes contained any artefacts.

Pits

Of the numerous pits recorded during the excavation, five were sealed beneath a phase 3 floor surface. These pits were recognised within the confines of the later phase room **4112**, with three of the cuts partly beneath its walls. Each pit contained a single fill, thought to have formed through natural erosional processes, and two of the pits contained pottery sherds (pits [4345] and [4347], fills (4473) and (4472)). The function of these cuts remains uncertain, although the possibility of a use as storage pits cannot be discounted.

Pit [4345] was an irregularly-shaped cut, which measured 800mm north-south x 700mm east-west x 440mm deep and contained a single fill. The side profile was steep to undercutting, merging into a concave base. The fill (4473) was a yellowish-brown sand.

Pit [4346] was an irregularly-shaped cut, measuring 800mm north-south x 950mm east-west x 290mm deep, and extended partly beneath wall <4110>. The side profile was irregular and varied from moderate to steep, the base was concave. It contained a single fill (4471); a yellowish-brown sand.

Pit [4347] was an irregularly-shaped cut, measuring 650mm north-south x 900mm east-west x 280mm deep, partly sealed beneath wall <4110>. The side profile was irregular and varied from moderate to steep, while the base was concave. It contained a single fill (4472); a yellowish-brown sand.

Pit [4348] was roughly oval in plan and measured 800mm north-south x 950mm east-west x 150mm deep. It was partly sealed by wall <4111>. The side profile was irregular and varied from moderate to undercutting, while the base was concave. It contained a single fill (4474); a brownish-yellow sand.

Pit [4427] was roughly circular in plan and measured 800mm north-south x 750mm east-west x 350mm deep, with steep to undercutting sides and a concave base. It contained a single fill (4475); a brownish-yellow sand.

Phase summary

The evidence for human activity during this phase was limited to numerous post-holes, which may define ephem-

eral structures, plus the five pits of uncertain function. It remains unclear whether the possible structures, defined by the post-holes, represent areas of human habitation or enclosures associated with livestock management.

Despite this, it is of interest that the marked concentration of post-holes defined by the groups 4499, 4500 and 4501 form a roughly sub-rectangular structure. The delineation of the structure by a relatively large number of post-holes may indicate that it had undergone some repair during its use. Of additional interest is the possibility of an internal division within this space, which may indicate a segregation of different activities inside the structure.

Although the remains are of interest in themselves, the lack of artefactual evidence to assist in the dating of the post groups within this phase of archaeology remains problematic, although the ceramics from the pits could be a possible date indicator for the phase 2 occupation.

Phase 3: Figures 2 and 3

Phase 3 represents the transition from the more ephemeral evidence of human occupation to the clear remains of settled habitation in the form of stone and clay-silt structures. This phase of occupation was only witnessed within the area designated by the 4000 number block.

The phase 3 structure comprised a suite of three or possibly four adjoining rooms which together covered an area of approximately 10.5m north-south x 7.5m east-west.

Walls

The construction of this structure is thought to have begun with the building of walls forming room (**4112**), although the fact that an additional wall, bonded into this structure, was seen to extend from the northern face of wall <4110>,



Plate 2. Phase 3 structure, partly excavated, with space 4112 in centre of frame. View from the east.

indicates a more extensive construction phase (Plates 2 and 3). Room was defined by the walls <4109>, <4110>, <4111> <4108>, the latter in-turned at the single entrance-way, which was located in the south-west corner of the room. The in-turned wall extended into the room for approximately 750mm, while the internal room dimensions were 3.85m north-south x 2.75m east-west.

No construction cuts were noted for the walls and pre-

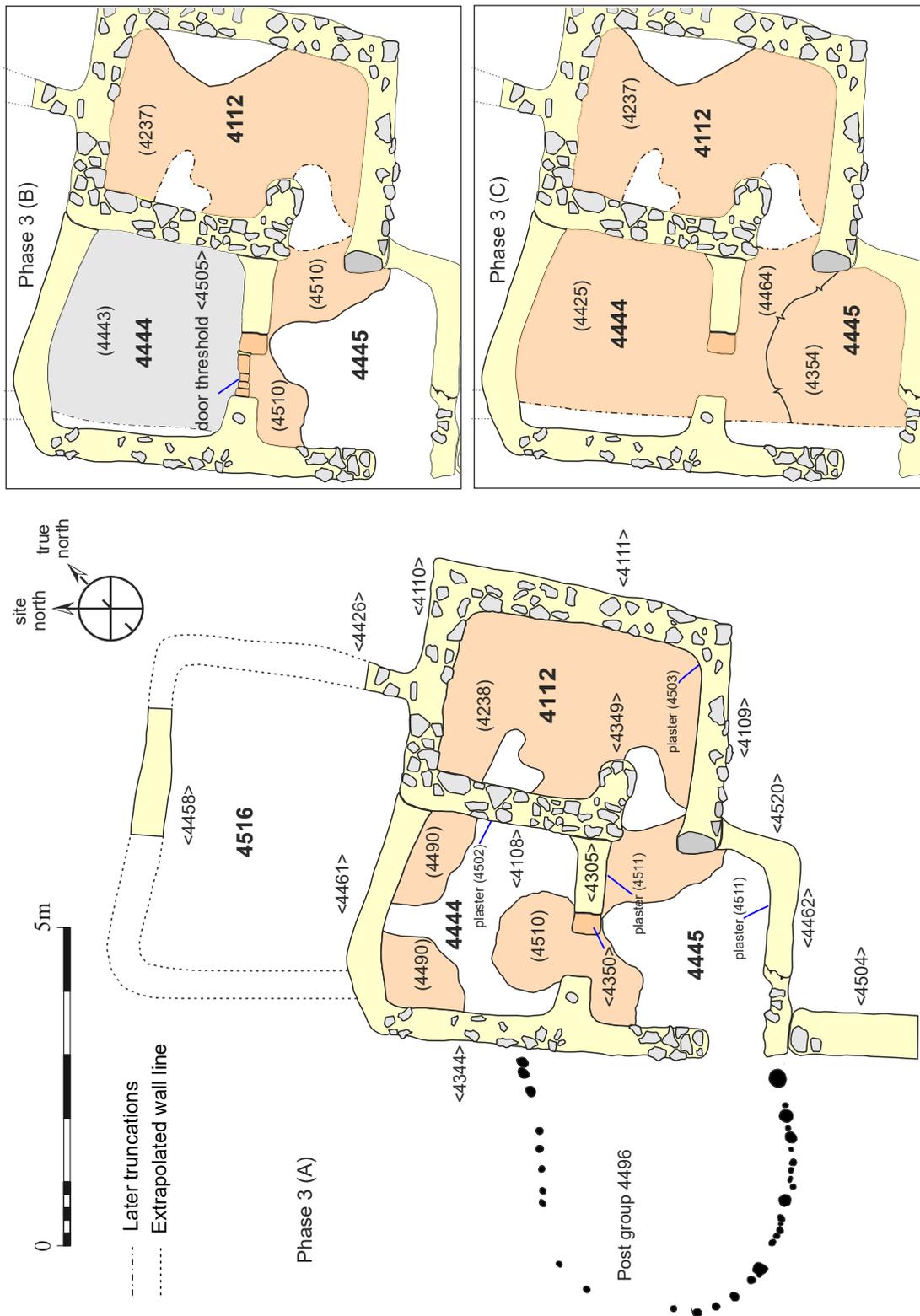


Figure 2. Phase 3 plan (scale 1:100).

sumably an extensive area was cleaned of aeolian sand and levelled prior to commencement of building.

All the walls were constructed of large flat subangular stones in a matrix of compact sandy-silt mortar and together formed an integral phase of construction. The surviving height of the walls ranged from 250mm to 400mm, while their widths varied from 400mm to 750mm, with a tendency to thicken towards the wall junctions, creating a slightly rounded appearance to the internal space.

Phase 3, defining walls

West wall <4108> measured 3.5m long x 0.55-0.65m wide x 300mm high. Its northern extent was defined by an integral junction with east-west wall <4110>, while the wall's southern end was defined by the in-turned east-west buttress <4349>, which together formed the north side of the entranceway into the internal space.

North wall <4110> measured 3.75m long x 0.50-0.70m wide x 350mm high. Both its eastern and western extents

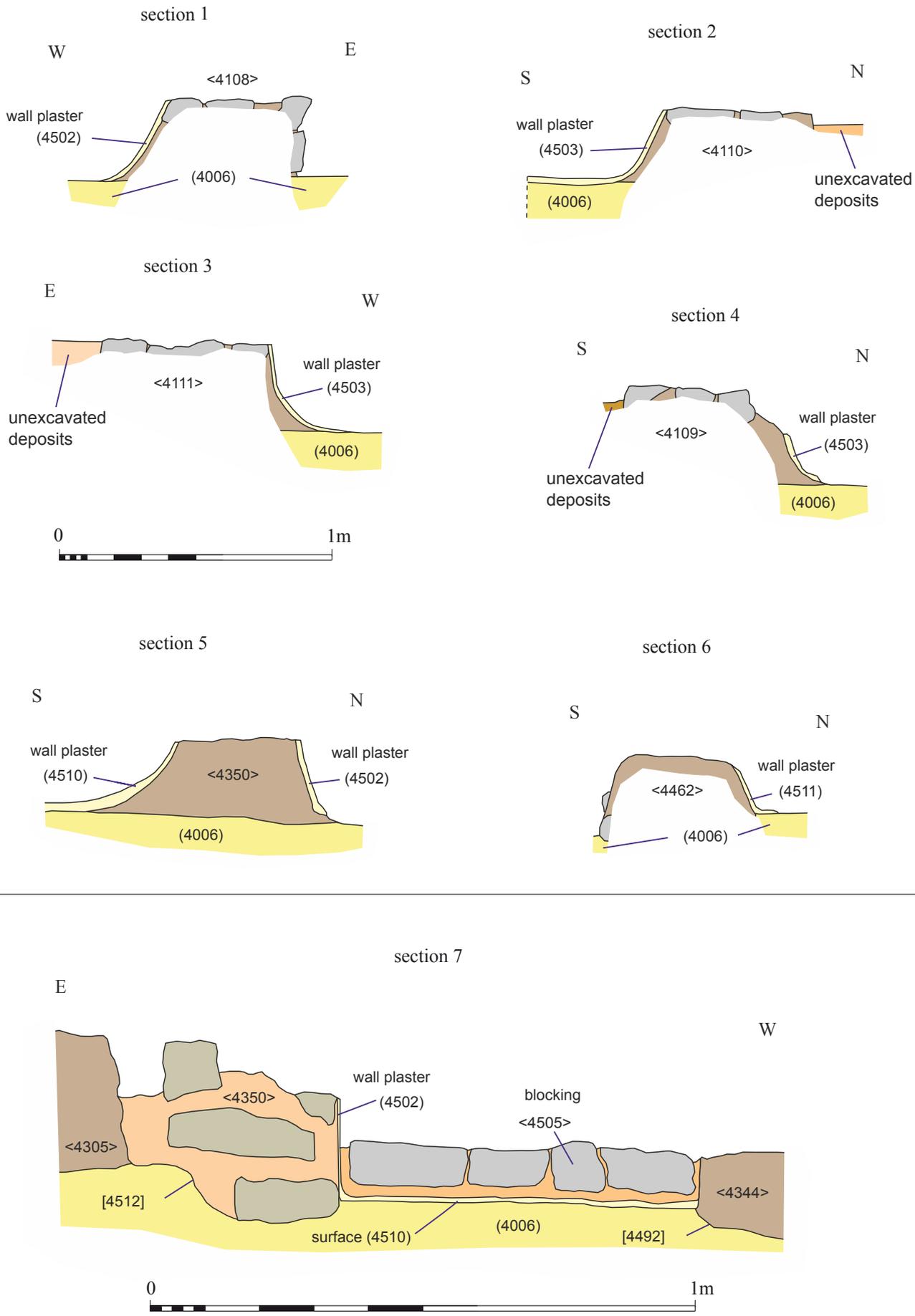


Figure 3, Sections 1-6 (scale 1:20) and 7 (scale 1:10).



Plate 3. Phase 3 structure, partly excavated, with space 4112 in the centre of the frame. View from the east.

were bonded to the west by the previously described wall <4108> and to the east by wall <4111>.

East wall <4111> measured 4.7m long x 0.62-0.75m wide x 300mm high. Its northern and southern extents were bonded to the north with wall <4110> and to the south with wall <4109>.

South wall <4109> measured 3.75m long x 0.40-0.70m wide x 400mm high. The wall's eastern end was bonded with wall <4111>, while to the west the wall was defined by a regular curved ending, which formed the southern side of the entranceway into the space.

Additional rooms were identified to the north and west of room 4112. These were delimited by wall <4426>, which is bonded into the north face of wall <4110> and a series of abutting walls which are thought to be contemporary, reflecting a constructional technique, rather than a later phase of development. This was confirmed by the presence of only a single layer of external wall plaster, applied to the completed structure, which did not continue across where walls abutted. Two of the three new rooms were completely revealed during excavation (rooms 4444 and 4445), while the third (room 4516) was only partly seen and has been completed by extrapolation (Plate 4).

Both of the two completely revealed rooms were located to the west of room 4112, with the western limit of both being formed by a single north-south wall (<4344>). This wall contained a small buttress, roughly midway along its length which was bonded into the wall itself and is described with the wall below.

During the construction of these walls it seems likely that two shallow construction cuts were made. The first of these was cut [4492] which was excavated to accom-



Plate 4. Phase 3 structure, looking north east, with space 4445 in the foreground (with blackboard).

modate wall <4344>. It extended the whole length of the wall measured 5.4m north-south x 0.70m east-west and had a maximum depth of 120mm.

The second cut [4512] was for wall extension <4350> and appeared as simple terracing, which levelled an undulation in the underlying natural topography. As seen, it measured 300mm long x 60mm wide and was around 130mm deep. The cut only had a southern and an eastern edge as the area to the north and west of [4512] was level with the base of the cut.

North wall <4461> of room 4444 measured 3.1m long x 0.40-0.55m wide x 350mm high. It was bonded at its western end with wall <4344>, while at its eastern end it abutted the northern end of wall <4108>, on its western face.

Wall <4344>, as mentioned above, formed the western side of spaces 4444 and 4445. It measured 5.4m long x 0.50m wide and survived to a maximum height of 200mm. The wall's northern end was bonded with wall <4461>, described previously, while to the south the wall was defined by a regular curved ending, which formed the northern side of the entranceway into the space. Additionally, located roughly centrally along the wall's length, was an integral wall that extended eastwards from the wall eastern face for approximately 750mm. The eastern face of this wall was defined by a squared end which formed the western side of an entranceway between spaces 4444 and 4445.

East wall <4520> of room 4445 abutted the southern face of wall <4109> at its western end. The wall measured 1.25m long and was around 400mm wide and survived to a height of 350mm. Its southern extent formed a bonded junction with east-west wall <4462>. Wall <4462> formed the southern side of room 4445 and measured approximately 3.2m long and was between 350mm to 550mm in width. This wall also survived to a maximum height of 350mm. The western end of this wall was defined by a slightly squared ending, which formed the southern side of an external entranceway into the room.

Wall <4305>, when combined with the east-west wall associated with <4344>, measured 2.85m, although a 1m wide opening divided the two, meaning no direct stratigraphic link existed. The eastern end of this wall abutted

the western face of wall <4108>, while to the west it was defined by a regular squared ending, which formed the eastern side of the entranceway. This wall survived to a height of 230mm and was approximately 500mm in width.

Mud-brick wall <4350> represents a narrowing of the entranceway between rooms **4444** and **4445**. It was constructed using mud bricks that measured 300 x 180 x 80mm, which were bonded by a clay-silt mortar. The overall extent of this structure measured 400mm long x 500mm wide x 300mm high. Its eastern end abutted the western side of the squared ending of the previously described wall <4305>, while the western face of this wall was also defined by a regular squared ending, which now formed a remodelled entranceway between the two rooms. Its insertion effectively narrowed the entrance between the two room spaces from 1m down to 700mm. Although clearly added during the main construction phase, it was constructed using slightly irregularly shaped mud bricks, rather than the stone and clay-silt used elsewhere.

The third room, **4516**, is also associated with this phase of activity and was located to the north of both the original room **4112** and the newly created rooms **4444** and **4445**. Only a part of its eastern and northern walls were revealed during excavation, with the remaining extent being extrapolated.

Wall <4426>, defined the eastern side of the new space and was revealed for a length of around 700mm. The exposed segment of wall was bonded into the northern face of east-west wall <4110>, roughly halfway along its length and was seen to continue northwards beneath later phase wall <4428>.

Wall <4458> is believed to have defined the northern limit of the room and was also constructed using stone and clay-silt. It was only partly revealed beneath the phase 4 wall <4429> and, as seen, measured 2.1m in length x 0.50m wide.

It is clear that the later phase 4 walls <4428> and <4429> were built directly upon the earlier stone and clay-silt walls described above and this would suggest the presence of a third stone and clay-silt wall beneath phase 4 wall <4513> that would have formed the western wall of room **4516**. However, due to limited time, this hypothesis was not confirmed by excavation.

One further wall, described below, is believed to be associated with this phase of activity and was revealed to the south of room **4445**.

Wall <4504>, aligned north-south, measured 650mm in width and abutted the western end of wall <4462>, on its southern face. It extended southwards for at least 2m, beyond which its continuation was obscured by later, unexcavated archaeological deposits.

The walls of this construction phase, with the exception of <4350>, were all constructed of the same large flat subangular stones in a matrix of compact sandy-silt mortar as were the walls of room **4112**. The surviving height of the walls ranged from 230mm to 350mm, while the wall widths varied, although slightly narrower than previously at between 400mm to 550mm. These also displayed the same tendency to thicken towards the corners, creating the slightly rounded internal spaces.

Internal spaces

The three internal spaces described below contained a sequence of depositional events which suggest the structure underwent some alterations and repairs during its use. These changes have been divided into a simple sequence of sub-phases, which with the aid of the associated plans should add clarity to the narrative.

Sub-phase A

Room 4112 – measured 3.85m north-south x 2.75m east-west. The earliest deposit here comprised the remains of a heavily degraded floor surface or levelling deposit (4238), which covered the whole of the internal area of space **4112**. It comprised a loose silty-clay with frequent stone and clay-silt fragments and varied in thickness from between 50-150mm. The highest surviving fragment was against wall <4111> where the deposit appeared more flattened, preserving what was likely to be its original surface.

Wall Plaster (4503) covered three of the internal wall faces of space **4112** (Plate 5), the exception being against wall <4108>, which was only partly plastered at its north-



Plate 5. Phase 3 wall plaster (4503), with remnants of painted surface visible.

ern end as a continuation of the plaster adhering to wall <4110>. The plaster as seen comprised a smooth, hard, very light brown silty-clay which was approximately 10mm in thickness. Upon this there appeared to be the remains of a cream-white painted or lime-washed surface. Evidence of applied painted decoration was also visible in the form of two parallel vertical lines each measuring around 80mm long x 15mm wide. The upper edge of the plaster was irregular and broken, while the lower edge extended virtually to the base of the walls, which had a marked tendency to flare outwards and merge into the surviving fragment of floor surfacing. Buttress <4349> was completely devoid of plaster.

Room 4444 – Floor surface (4490) only survived within the north-east and north-west corners of room **4444** and was a hard, thin, mid-grey silty-clay around 10mm in thickness. The surface was believed to be contemporary with, and possibly applied at the same time as, wall plaster (4502), described below. It appeared to overlie directly the naturally derived phase 1 aeolian silts. This surface is likely to be contemporary with surface (4510), which is found at the entrance into this room, extending into adjacent room **4445**.

Wall Plaster (4502) covered all four of the internal wall faces of the room as well as the wall which narrowed the doorway <4350>, although with wall <4344> the plaster only partly covered the northern end. The plaster appeared to be the same smooth, hard, very light brown silty-clay which was seen within room **4112** and was also approximately 10mm in thickness. Another similarity was the application of a cream-white painted or lime-washed surface as well as the applied painted decoration witnessed previously. This decoration also survived as two parallel vertical lines each measuring around 80mm long x 15mm wide. The upper edge of the plaster was irregular and broken, while the lower edge extended virtually to the base of the walls, which had a marked tendency to flare outwards and merge into the surviving fragment of floor surfacing.

Room 4445 – Wall plaster (4511) covered part of the internal face of wall <4462>, extending onto and over its junction with wall <4109>. Additionally it also covered the mud-brick doorway narrowing <4350>. The plaster appeared to be the same, 10mm thick, smooth, hard, very light brown silty-clay with a cream-white painted or lime washed surface, as seen within space **4444** and had the same relationship to its adjacent floor surface.

Floor surface (4510) only survived within the north and eastern part of space **4445**, around the entrances into spaces **4112** and **4445**. The surface comprised a hard, thin, mid-grey silty-clay of around 10-20mm in thickness. The surface was believed to be contemporary with, and possibly applied at the same time as, wall plaster (4511). It appeared to overlie directly the naturally derived phase 1 aeolian silts, with no evidence of levelling deposits. This surface is likely to be contemporary with surface [4490].

Sub-phase B

Room 4112 – Floor surface (4237) overlay deposit (4238) and comprised a loose greyish-brown silty sand which covered most of the internal area of room **4112**. Although its upper surface appeared fairly level its thickness varied from between 10-150mm, dependent upon unevenness of the underlying deposit (4238). It seems probable that surface (4237) represents a later resurfacing, which had been laid to level-up undulating areas of the underlying deposit, possibly caused by wear to the earlier surface.

Room 4444 – Door threshold <4505> abutted wall plaster (4502) and overlay the phase 3A floor surface (4510). The threshold comprised a single line of slightly irregularly shaped mud bricks that varied in length from 100-300mm and in width from between 150-250mm. They were loosely bonded in a sandy silt mortar.

Deposit (4443) covered all of room **4444** and comprised a loose silty-sand with frequent stone and clay-silt fragments, as well as occasional fragments of the same hard, thin, mid-grey silty-clay which comprised the earlier floor surface (4490). The deposit partly abutted wall plaster (4502) and door threshold <4505> as well as completely overlying the earlier surface (4490). It was partly truncated along its western side by later phase 5 construction cut [4491], which accounted for the variation in thickness from 30mm to 180mm. This deposit, which was directly overlain by a second floor surface, almost certainly represents a levelling deposit laid down in preparation for the later floor.

Room 4445 – No contemporary deposits were recognised within this room.

Sub-phase C

Room 4112 – No additional deposits were recorded for this phase in room **4112**.

Room 4444 – Floor surface (4425) covered most of room **4444**, with the exception of its western edge, where it was completely truncated by later phase construction cut [4491]. The deposit was a slightly compacted, greyish-brown silty-sand which, as well as abutting wall plaster (4502), also directly overlay levelling deposit (4443) and door threshold <4505>. The surface extended into adjacent room **4445**, where it was allocated context (4464).

Room 4445 – Surface (4464) covered the northern half of room **4445** and was a continuation of deposit (4425), seen in room **4444**. It comprised a slightly compacted silty-sand with moderate amounts of small clay-silt fragments and sloped down towards the south, decreasing in thickness from a maximum of 150mm to 10mm. It partly abutted wall plaster (4511) and overlay door threshold <4505>, as well as the earlier surface (4510). This deposit, which is believed to represent the remains of a degraded floor surface, was partly overlain to the south by surface [4354], described below.

Surface (4354) covered the southern half of room **4445** and comprised a fairly loose silty-sand with occasional small clay-silt fragments. The deposit increased in thickness, as the underlying deposit (4464) decreased, giving the upper surface of the two deposits a level appearance. The thickness varied from 110mm, where it abutted wall plaster (4511) at the southern extent, down to 10mm at its northern limit. Although stratigraphically later than surface (4464) it is believed that both deposits functioned as a single surface within this room.

Room 4516 – Excavation in this room effectively ended at the top of the phase 4 remains, with only parts of the phase 3 walls being revealed and none of the associated internal deposits.

Post Group 4496 – Possibly associated with this period of activity is post group [4496] of 31 individual post-holes. The post-holes formed a roughly semi-circular arrangement that enclosed the west-facing entrance from room **4445**. The final posts within this semi-circular arrangement abutted the western side of north-south wall <4344> and the western end of east-west wall <4462> and effectively enclosed, or protected, the only access into rooms **4112**, **4444** and **4445**. The post alignment appeared to have a 1.3m wide opening through its western side to allow access into it and the above mentioned rooms. The majority of the post-holes had diameters of around 140mm, although the two westernmost post-holes, directly adjacent to the phase 3 walls, were larger and measured around 200-250mm in diameter and 300mm in depth.

Phase summary

This represents the remains of the phase 3 archaeology as revealed, although it is certain that the full extent of this phase of settlement was larger. The function of the indi-

remained unexcavated, but, because it is relatively small and has a completely open southern side, its identification as a room is uncertain. One possibility is that it functioned as a screen, perhaps for an entranceway through wall <4513>. However, it must be noted that clear evidence of the entranceway through wall <4513> was lacking, although the area of brickwork where an entrance might have been, did show signs of additional wear, and was slightly narrower than the remainder of the wall.

Wall <4207> was the second of the structural elements allocated to this phase of development although both in function and phase it remains poorly understood. It comprised two small sections of mud-brick wall partly revealed beneath the phase 10 collapse and destruction material (4517) and phase 6 wall <4130>.

Walls <4207> and <4521> formed the second structure included in this phase of development. Wall <4207> was orientated east-west and survived as a 550mm long x 300mm wide fragment of mud-brick wall. The second, wall <4521> was oriented north-south and was only revealed as the western face of a wall which protruded from beneath the western face of overlying phase 6 wall <4130>. The north-south extent of this fragment measured around 700mm long, beyond which it became obscured by both the latter wall and other unexcavated archaeological deposits. It is suggested that because of their close proximity to each other and the similarity in levels, these two wall fragments may represent part of the same structure. Stratigraphically they are certainly earlier than phase 6 and as phase 4 represents the first phase to use mud brick, they have been included here. Due to the limited extent revealed, their function is difficult to understand.

Of the three spaces allocated to this phase, one was excavated to expose internal features, while the others, due to time constraints, remained largely unexcavated.

Room 4202 – This room was also largely unexcavated and no internal features were recorded. The room measured 3.2m north-south x 4.8m east-west and contained one definite entranceway through wall <4429> which provided access into the adjoining room **4132**. A second entranceway may also have existed through wall <4513> that allowed access into the space from outside, via the semi-open structure **4125** mentioned previously and described below.

Structure 4125 – This was a small semi-enclosed area immediately to the west of room **4202** measuring 1.6m north-south x 1.75m east-west. It remained largely unexcavated, with no internal features recorded. It could clearly be accessed via its open southern end and may also have a second entrance through wall <4513> into the main building.

Room 4132 – This room measured 3.5m north-south x 4.8m east-west. The contexts associated with its construction and use were; mud-brick levelling deposit (4301), internal mud-brick walls <4430> and <4431>, abutting floor surfaces (4234), (4300) and (4441), plus two remaining fragments of wall plaster (4507) and (4518).

Context (4301) was only partly revealed within a small exploratory intervention excavated through the overlying surface (4300). The extent as seen measured 2.1m east-

west x 0.15m north-south and was located adjacent to wall <4229>. The revealed archaeology comprised a double row of mud bricks laid flat, abutting the earlier stone and clay-silt wall <4458>, which itself lay directly beneath wall <4229>. Due to the limited extent of this context revealed, its function remains uncertain.

As the newly constructed exterior walls sit directly upon the earlier stone and clay-silt walls, a direct stratigraphic link between wall and levelling deposit is lacking. It is, therefore, unclear whether the new walls were lain first, followed by the infilling and levelling of the underlying space, or vice-versa; both are equally possible. Either way, it merely represents the building sequence and is all encompassed within the phase 4 construction.

The levelling of the interior surface and the construction of the exterior walls was followed by the insertion of two internal partition walls. These comprised;

Mud-brick wall <4430>, which was oriented east-west and measured 3.55m long x 0.40m wide and survived to a height of 330mm. The eastern end of this wall abutted exterior wall <4428>, while its western end was bonded with north-south wall <4431>.

Mud-brick wall <4431> measured 1.1m long x 0.4m wide and also survived to a height of 330mm. Its northern end abutted exterior wall <4429>.

The construction of these two walls created an elongated rectangular structure in the north-east corner of the room. Abutting the walls inside this rectangular structure, and extending over levelling deposit (4301), was a hard clay-silt (4300), which became more granular with depth. This context was complete in the western part of the structure, measuring 1.3m north-south x 0.7m east-west, while the underlying more granular part of this deposit extended a further 1.8m to the east. The combined thickness of the smoother upper surface and the granular base layer was 170mm.

Extending over the remaining area of room **4132** and separated from the previously described context by walls <4429> and <4430> was another area of hard clay-silt surfacing.

Context (4234/ 4441) abutted all of the walls within this room and measured 3.35m north-south x 4.65m east-west and had a similar granular base to that seen beneath (4300). The combined thickness of finished surface and base layer was between 10-100mm.

Wall plaster (4507) covered part of the internal face of wall <4428> and was one of two surviving fragments of interior wall plaster within space **4132**. It measured 800mm north-south, while the surviving height reached a maximum of 160mm. The plaster was a hard, greyish-brown clay-silt around 10mm thick. Its preservation was due in part to the fact that it was abutted by phase 5 wall <4493>, although it did extend beyond this and was contemporary with surface (4234).

Wall plaster (4518) was the second area of plaster to survive in room **4132**. It covered part of the west face of wall <4431> at its junction with wall <4430> and overlapped slightly onto the southern face of that wall. It measured 500mm north-south, with a surviving maximum height of 160mm. The plaster appeared identical to (4507). Also, as with (4507), its preservation was due in

part to the fact that it was abutted by a later phase wall and was contemporary with surface (4441).

Phase summary

The new spaces created, must, for a short period at least, have co-existed with the phase 3 structures formed by rooms **4112**, **4444** and **4445**.

As room **4202** remained unexcavated, its function is uncertain. Room **4132** could be accessed either from room **4202** or from the east via the entranceway located at its south-east corner. Architectural elements within the room were limited to the elongated rectangular structure located in the northern part, the function of which is uncertain.

Phase 5: Figure 5

Phase 5 represents the completion of the transition from the earlier stone and clay-silt building tradition into that of mud brick. As previously mentioned, this phase of occupation was only identified within the area of the site designated by the 4000 number block.

The phase 5 structure comprised the addition of eight adjoining rooms that together covered an area of 14m north-south x 8.5m east-west. These were constructed to the south of the earlier phase 4 mud-brick building, which was now incorporated into phase 5. The new structure was built directly upon the remaining part of the stone and clay-silt phase 3 building which had survived into phase 4. This remnant of the earlier architectural style must now have been demolished as part of the phase 5 construction process. Also, within the earlier mud-brick building the storage bin located in room **4132** was expanded, with the creation of an additional compartment.

Walls

The construction of the phase 5 building seems to have begun with the demolition of the remaining part of the phase 3 structure comprising rooms **4112**, **4444** and **4445**, followed by the levelling and partial infilling of these rooms in preparation for the new building. Four levelling deposits were recorded, all of which extended beneath some of the new phase 5 walls, indicating their stratigraphically early date within the phase 5 construction. However, two at least abutted north-south exterior wall <4200> suggesting a very tight construction sequence. These levelling deposits are described after wall <4200>, indicating their place in the construction sequence.

The new construction comprised 13 main walls, all of mud brick, plus a further four internal constructions which included an expansion of the storage bin of phase 4. The new building contained nine rooms, six of which were excavated. The exterior walls of the phase 5 structure comprised two north-south walls, one of which abutted the earlier phase 4 building, plus an east-west wall that defined the southern limit of the building. The northern limit of the phase 5 building had no new exterior wall as here it was integrated into the earlier phase 4 structure.

All of the walls appear to have been founded directly upon the existing, levelled ground surface, with the exception of the west wall <4200>, where some evidence of a construction cut was seen. This was also the only wall against which abutted some of the levelling deposits

associated with the construction.

North-south construction cut [4491] is believed to represent the beginning of the construction process for phase 5, after the demolition of the phase 3 building. The cut appeared sporadically along the line of wall <4200> and seems to represent an attempt to level high spots on demolished phase 3 wall <4344>. This extended over a length of 5.4m, which equates to the length of the underlying wall <4344>. The width did not exceed 650mm and the maximum depth was 150mm.

Wall <4200>, part of the west side of the new structure, measured 8.4m long x 0.6m wide x 0.45m high. Its northern end is thought to have abutted phase 4 wall <4513>, although the relationship was destroyed by a later cut and, although both walls were aligned north-south, the new wall did not follow exactly the same line as the earlier wall, but rather its exterior face was set 400mm to the west. The reasoning behind this is explained by the presence of the earlier phase 3 wall <4344> lying directly beneath wall <4200>, and serving as a solid foundation for the new wall. The southern limit of the wall was integral with east-west wall <4030>, although the line of the wall does continue with north-south oriented wall fragment <4028>, located a further 700mm to the south. Abutting the eastern face of this wall, at its northern end, was a low wall or step (see <4031>). The wall contained two entranceways, each around 1.35m wide, allowing access into the phase 5 structure from the west.

Levelling deposit (4343) partly abutted the eastern face of wall <4200>, sealing construction cut [4491]. It directly overlay the phase 3 surfaces associated with 'room' **4445**, bringing the ground level up to the highest part of the now-demolished phase 3 walls. To the south, where the demolished wall was lower, the deposit extended over and beyond the boundary of 'room' **4445**, while to the north, this levelling continued into adjoining room **4444** and here was allocated context number (4351). The deposit, which measured 3.3m north-south x 3.1m east-west, reached a maximum thickness of 150mm and comprised a greyish-brown silty-sand with moderate amounts of clay-silt fragments.

As mentioned above, levelling deposit (4351) represents the northward continuation of deposit (4343). This deposit also partly abutted the eastern face of wall <4200>, as well as sealing construction cut [4491]. As with the previous deposit, it directly overlay the phase 3 surfaces associated with room **4444** and infilled the earlier room up to the highest part of the now-demolished phase 3 walls. The deposit measured 3m north-south x 3m east-west with a maximum thickness of 100mm. It also comprised the same greyish-brown silty-sand as deposit (4343), although here there was a greater concentration of larger clay-silt fragments, some of which appeared to have been fired or burnt.

Levelling deposit (4224) was contained within phase 3 of room **4112**, where it directly overlay the floor surfaces associated with that phase. The deposit only reached the top of the demolished phase 3 walls in the southern half of the room, being around 200mm lower to the north, where the demolished walls still remained proud of the levelling. The deposit, a greyish-brown clay-silt with moderate amounts of clay-silt fragments, some of which had been

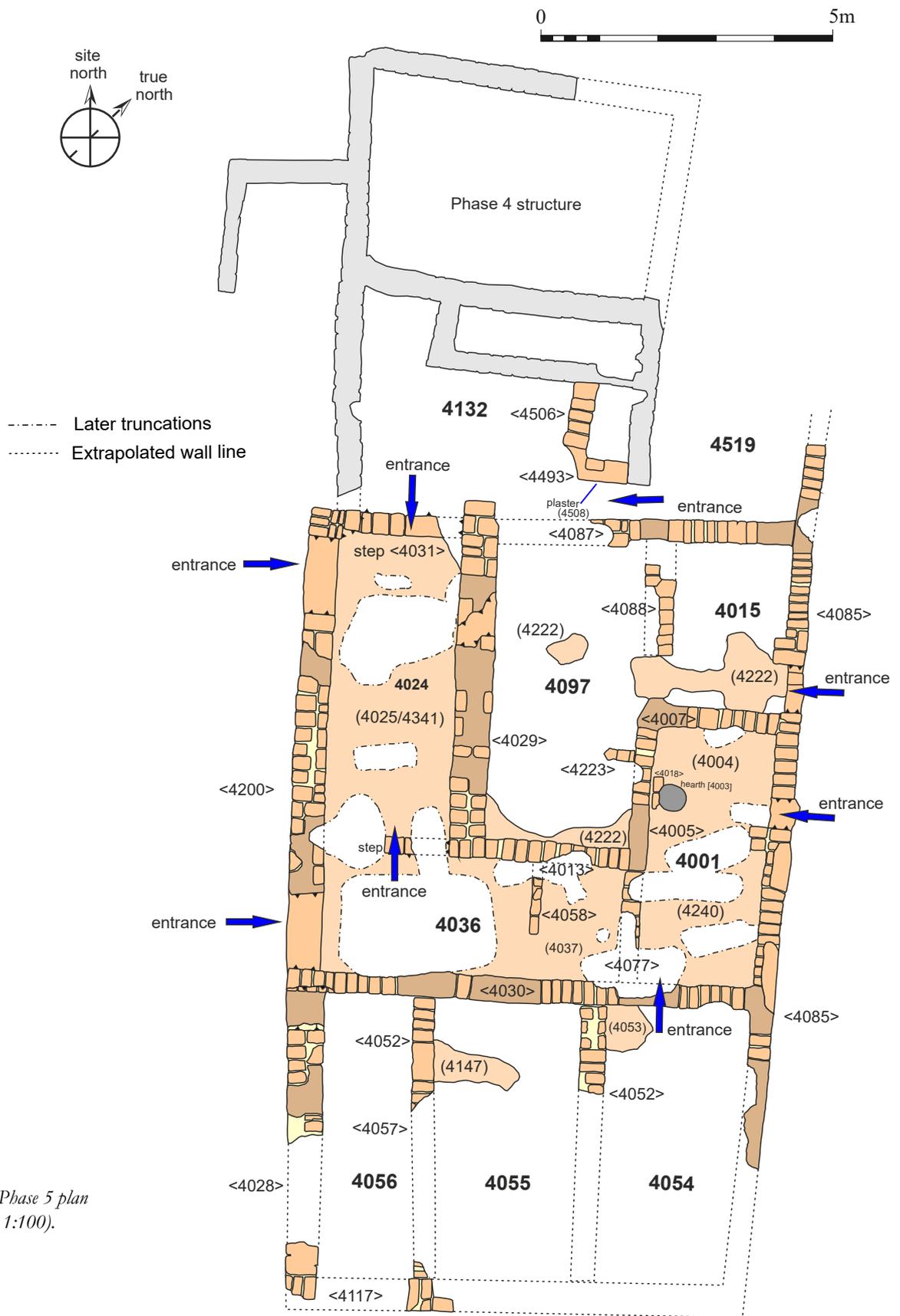


Figure 5, Phase 5 plan (scale 1:100).

fired or burnt, measured 3.95m north-south x 2.75m east-west and had a maximum thickness of 260mm. It was overlaid by a final episode of levelling (see (4221) below).

Levelling deposit (4221) directly overlay levelling deposit (4224), bringing the ground level up to the high-

est part of the now-demolished phase 3 walls. To the east, where the demolished wall was lower, the deposit extended over and beyond the boundary of room 4112. The deposit was a greyish-brown silty-sand with frequent clay-silt fragments and measured approximately 3m

north-south x 5.5m east-west with a maximum thickness of 150mm.

North-south wall <4028> represents the southwards continuation of the alignment of wall <4200>. It extended into an area of the site that had suffered much from later pitting, partially truncating wall <4028>. The wall survived as two disjointed fragments located around 2m apart. The northernmost, which abutted the southern face of east-west wall <4030> measured 2.65m long x 0.6m wide, while the second fragment measured 600mm long, was 600mm wide, and abutted the building's south wall <4117>. The maximum height seen was 490mm, while the original length of the wall, prior to truncation, would have measured 5m.

South wall <4117> of the phase 5 structure, like wall <4028>, had suffered much from later pitting. Two small fragments survived located 1.5m apart. The westernmost measured 600mm long x 600mm wide and abutted wall <4028>, forming a right-angled corner, while the second fragment measured 850mm long x 600mm wide and was abutted by internal wall <4057>. The maximum height remaining was 400mm; the original length was around 7.9m, assuming that the now absent eastern end of wall <4117> formed a corner with the southern end of wall <4085>, which was also truncated in this area.

East wall <4085> of the new structure, surviving in length for more than 12.5m, was 0.4m wide x 0.35m high. However, as mentioned above, its southern end was heavily pitted, ending approximately 2.8m short of its assumed junction with wall <4117>.

Abutting or bonded with the western face of this wall were three east-west cross walls. The southernmost was wall <4030>, which was located around 5.5m to the north of the hypothetical junction of walls <4085> and <4117>. The second, wall <4007>, was located a further 4.4m to the north, while the third, wall <4087>, was located another 2.85m to the north again. Walls <4007> and <4030> were bonded with wall <4085>, while wall <4087> abutted its western face. Beyond this junction, wall <4085> continued for a further 1.4m before disappearing into the section created by the excavation limits.

Wall <4085> contained two entranceways, each with an associated buttress on the internal side. Both buttresses extended 250mm beyond the wall face and were 400mm in length. The northernmost of the two entrances, context 4095, provided access into room **4015** and here the buttress was located to the north of the entrance. The second entrance, (context 4049) provided access into room **4001** and here the buttress was located to the south of entranceway. Both entranceways measured approximately 850mm in width.

Wall <4030> extended the complete width of the phase 5 structure, measuring 7.95m long x 0.45m wide. It survived to a height of 300mm and was bonded with both exterior walls <4200> and <4085>. It is likely that north-south wall <4077> abutted it on its north side, however this relationship is uncertain as wall <4077> had suffered extensively from later pitting, destroying this stratigraphic link. The southern face of wall <4030> was abutted by three north-south walls (<4028>, <4052> and <4057>), which created three of the individual rooms within the

new structure. Wall <4052> was the easternmost of these, measuring 350mm wide x 250mm high, and survived for a length of 1.6m. Presumably it would have originally extended a further 3.3m to the south and abutted exterior wall <4117>.

Wall <4057> was located 2.5m to the west of wall <4052>. It was also truncated by later pit cutting and, as seen, comprised two disjointed wall fragments located around 2.75m apart. The northern, which abutted the southern face of wall <4030>, measured 2m long x 0.35m wide, while the second fragment measured 320mm long x 350mm wide and abutted wall <4117>. The maximum height surviving was 340mm, while the original length of the wall would have been 4.9m.

Wall <4013> was located approximately 2m to the north of wall <4030>, forming the northern side of room **4036** and the southern side of rooms **4024** and **4097**. This wall, which did not extend the complete width of the phase 5 structure, measured 5.5m long x 0.4m wide and survived to a maximum height of 320mm. The western end of this wall abutted exterior wall <4200>, while approximately 2.1m to the east of this, it was abutted by the north-south wall <4029> on its northern face. At the eastern end of wall <4013> it was bonded with north-south wall <4005>. However, at the same right-angled junction created by these two walls, a second north-south wall (<4077>) abutted <4013> and extended southwards. Although no definite entranceways through wall <4013> were recognised, it is possible that the western part of this wall, up to its junction with wall <4029> originally formed a small step, rather than a solid wall (for explanation, see rooms **4024** and **4036**).

As mentioned above, the northern end of wall <4077> abutted the east end of wall <4013>. It only partly survived, having suffered extensively from later pitting. As seen, it measured 1.3m long x 0.35m wide and survived to a height of 300mm. However it is likely to have extended a further 700mm to the south to abut wall <4030>.

Wall <4005> was of one build with wall <4013> at its southern end and with wall <4007> to the northern end. The wall measured 3.5m long x 0.4m wide x 0.32m high and had suffered from later pitting. It was abutted on either side by internal features associated with the use of the adjacent rooms, discussed below (see rooms **4001** and **4097**).

Wall <4007> was of one build with wall <4005> at its western end and with wall <4085> at the eastern end. The wall measured 2.75m long x 0.35m wide and survived to a height of 350mm.

Wall <4029> abutted the northern face of wall <4013> roughly midway along its length, while its northern extent was defined by a squared end. Approximately 300mm to the south of the wall's northern end, two east-west walls abutted either side (see <4031> and <4087>). The wall measured 5.85m long x 0.7m wide and survived to a height of 100mm. The width of this wall, for reasons which remained unclear, was substantially wider than all of the other walls in this phase of construction, with the exception of the adjacent exterior wall <4200>.

Wall <4031> abutted the east face of wall <4200>, while its western limit was truncated. However, it is prob-

able that it originally continued for a further 350mm and abutted the west face of wall <4029>. It measured 1.7m long x 0.35m wide x 0.10m high and is believed to have been a shallow mud-brick step that linked the adjoining phase 4 and phase 5 rooms.

Internal spaces

The phase 5 development created 10 new rooms. Of these, nine were excavated to expose internal features (although due to time constraints these internal features themselves remained largely unexcavated); the remaining room was partly excavated down to the top of the abandonment phase deposits (see room 4519).

Some alterations which were observed within phase 4 room 4132 have been included within this phase of activity.

Room 4024 was the north-westernmost of the new rooms. It measured 5.5m north-south x 2.1m east-west and had two, possibly three entranceways. The first provided access into adjoining phase 4 room 4132, via a small mud-brick step (<4031>), while a second passed through exterior wall <4200>, allowing access from the outside of the building. A possible third was seen at the southern end of the room providing access into room 4036 also via a small step, passing through wall <4013>. The deposits associated with the construction and use of this room were limited to a single floor surface (contexts (4025) and (4341)).

Floor surface (4025/4341) was composed of a compact mid-brown sand-silt around 100mm thick that had suffered much from extensive later pitting. The surviving floor surface extended throughout the whole of the room and lay directly upon the previously described levelling deposits. It abutted all of the walls, although at both its northern and southern extents, the surface was level with the top of the walls themselves (see <4013> and <4031>). This suggests the possibility that these walls represent steps, rather than dividing walls.

Room 4097 measured 5.1m north-south x 2.5m east-west and was entered through a single opening from room [4015]. The deposits associated with the construction and use of this room, were limited to fragmented floor surface (4222) and heavily eroded mud-brick structure <4223>.

Floor surface (4222) comprised a compact greyish-brown silt around 100mm thick that appeared as a series of three disjointed fragments within this and the adjoining room 4015. Within this room the surface was limited to one small circular patch, roughly centrally within the space, plus a second fragment located at the southern end of the space and abutting the southernmost defining wall. The third fragment extended from the entranceway between this and room 4015 continuing into that room and extending eastwards to entranceway 4095, which provided access through exterior wall <4085>.

Structure <4223> made of mud brick within a matrix of clay-silt mortar that abutted the western face of wall <4005> and was only one brick width thick. It extended 600mm from the wall, measured 200mm wide and survived to a height of 120mm above underlying levelling deposit (4224). The function of this structure remains

unclear although it may be the remains of a narrow internal partition wall.

Structure <4088> divided rooms 4097 and 4015. As seen the structure comprised a heavily worn, single line of mud bricks, which at its northern end doubled in width for a short distance. This structure measured 1.8m long, was between 200-350mm wide and survived to a maximum height of 200mm. It seems likely that it originally abutted east-west wall <4087>, although this relationship had been destroyed by later truncation. It is probable that this structure represents the initial course of a destroyed dividing wall, which would have originally been 350mm wide and two bricks wide, along its whole length. As the surviving bricks appear so worn, it is possible that the wall was at some point deliberately removed as part of an internal alteration to the rooms and, because of a height difference between the floor surfaces, the wall foundation then functioned as a step between the two rooms.

Space 4015, located immediately to the east of room 4097, measured 2.75m north-south x 1.95m east-west and contained two entranceways. One provided access into room 4097, while the second was through exterior wall <4085>. The deposits associated with the construction and use of this space were limited to the fragmented floor surface (4222) and partition wall <4088>, both of which have been described as part of room 4097.

Room 4036 was located immediately to the south of rooms 4024 and 4097, measured 2m north-south x 5.15m east-west, and is believed to have contained two entranceways. The first of these provided access into room 4024, via a small step, the second allowed access from the outside, through exterior wall <4200>. It is also possible that a third may have existed at the eastern end of the room, providing access into room 4001. However, as the dividing wall here was extensively pitted, the evidence remained ambiguous. The deposits associated with the construction and use of this room, were limited to a single floor surface (4037) and a narrow wall <4058>.

Wall <4058> was located approximately 1.35m from the eastern end of room 4036. It comprised a single row of mud bricks, which at its southern end terminated in a squared end, while its northern end was truncated by later pitting. It measured 1m long x 0.2m wide and survived to a maximum height of 250mm. This wall is believed to be the remains of an internal partition wall which subdivided room 4036.

Probable floor surface (4037) comprised a compact mid-brown sandy-silt of around 160mm thickness that extended throughout room 4036, abutting its walls. It had suffered extensively from later pitting, which had probably destroyed around 50% of the original surface. The deposit is believed to overlie levelling deposit (4343), although as the surface remained unexcavated this is uncertain.

Room 4001, located to the south of room 4015 and immediately to the east of rooms 4036 and 4097, measured 4.5m north-south x 2m east-west and contained one entrance, to the east through wall <4085>, which provided access from outside. Additionally the excavator believed that a second possible entrance might have existed in the south-west

corner of the room, providing access into room **4054**. It must be noted that the extensive areas or truncation might have destroyed others. The deposits associated with the construction and use of this room, were; levelling deposit (4048), floor surface (4004/4240), hearth pit [4003] filled by (4002), and associated mud-brick structure <4018>. Additionally evidence remained of an internal partition (wall [4008]), plus a possible second phase of floor surfacing or gradual decay/slumping of wall render (deposits (4009/4241)). These stratigraphically later features are included in the phase 6 description.

Levelling deposit (4048), unlike the initial levelling deposits seen in this phase, was contained within the phase 5 room **4001**. Its eastern limit abutted wall <4085>, while part of its western limit abutted walls <4005> and <4007>. However, the deposit also abutted phase 3 walls <4109> and <4111>. As seen, the deposit measured 3.95m north-south x 2.25m east-west and had a maximum thickness of 150mm. It comprised a greyish-brown sandy-silt with many mud-brick fragments.

Surface (4004) covered the northern half of room **4001** and was a light brown slightly compacted silty-clay. It was extensively pitted, so much so that a second context number was allocated for a separate area of surfacing to the south, which was probably the same depositional event (see context (4240)). The surviving extent measured 2.5m north-south x 2m east-west and had a maximum thickness of 80mm.

Mud-brick structure <4018> abutted the eastern face of wall <4005> approximately 850mm from its northern end. It comprised two heavily degraded and burnt mud bricks that filled the space between wall <4004> and hearth pit [4003], measuring 600mm north-south x 150mm east-west. They are believed to be associated with the adjacent hearth pit, possibly laid as protection for wall <4005> or to serve as a stable, flat area upon which cooking vessels could be placed.

Hearth [4003] was set upon surface [4004], close to wall <4005>. It was a shallow, circular depression filled by deposit (4002) a dark blackish-grey soil that contained large amounts of fragmented charcoal. The base and sides of the cut showed clear evidence of *in-situ* burning, which had partly affected the underlying surface.

Surface (4240) covered the southern half of room **4001** and is believed to represent a continuation of surface (4004). As with surface (4004), it comprised a light brown slightly compacted silty-clay that was also extensively pitted. The deposit measured around 2.35m north-south x 2m east-west and had a maximum thickness of 80mm.

Room 4054, located to the south of room **4001**, defined by the walls <4030>, <4052>, <4085> and <4117>, measured 4.95m north-south x 2.4m east-west. Deposits associated with the use of this room were limited to a small fragment of possible floor surface, located in its north-west corner. This surface (4053) abutted walls <4030> and <4052> and consisted of an irregular fragment of mid brown, slightly compacted, sandy-silt measuring around 700mm north-south x 750mm east-west with a maximum thickness of 100mm.

The remainder of the space, as well as a considerable proportion of the walls, was extensively pitted. Evidence

for the location of entranceways into this space was vague, although the excavator believed one possible location was in the north-west corner, adjacent to the remaining floor surface, which could have provided access into room **4001**.

Room 4055 was located immediately to the west of room **4054** and to the south of room **4036** and measured 4.85m north-south x 2.45m east-west. As with room **4054**, deposits associated with the use of this room were limited to a small fragment of possible floor surface, with the remainder of the room, as well as a considerable proportion of its walls, having been heavily damaged by later pits. No evidence was seen for the location of entranceways into this room, although it could be said with some certainty that an entrance could not have been from the north, from room **4036**.

Possible surface (4147) abutted the eastern face of wall <4057> and comprised a mid-brown, slightly compacted sandy-silt of irregular shape that measured around 1m north-south x 1.6m east-west with a maximum thickness of 100mm.

Room 4056 was located to the south of room **4036** and measured 4.85m north-south x 1.6m east-west. Deposits associated with the use of this room were absent, as the whole of the room, as well as a considerable proportion of its walls, had been extensively pitted. Because of the extensive damage to the walls no evidence was seen for the location of entranceways. However, as with the previous room it is clear that there was no entranceway from the north, from room **4036**.

Room 4132 was constructed in phase 4 and discussed as part of the phase 4 development. However, evidence remained of continued alterations to this room and for the purpose of a coherent narrative each alteration within this space has been added to subsequent phases. This separates the changes which occurred within the room, both in the text and in the illustrations. However, it must be borne in mind that, beyond the initial phase of construction, the phases into which the subsequent changes are added is only a sequential division of constructional events.

The main alterations to room **4132** which have been allocated to this phase comprised the addition of another rectangular structure. This abutted the already existing storage bin dating to phase 4, (formed by walls <4430> and <4431>) with the construction of walls <4493> and <4506> as well as wall plaster (4508).

Mud-brick wall <4493> was oriented east-west and measured 850mm long x 400mm wide and survived to a height of 160mm. Its eastern end abutted the plaster face of exterior wall <4428> (plaster (4507)), while its western end was of one build with wall <4506>. Mud-brick wall <4506> measured 1.5m long x 0.4m wide and also survived to a height of 160mm. Its northern end abutted the south side <4430> of the earlier storage bin. Its southern end was integral with east-west wall <4493>. Both walls were set directly upon plastered floor surface (4234). The construction of these two walls created a second rectangular structure within room **4132**.

Wall plaster (4508) covered part of the external face of wall <4493> and measured 850mm north-south, while the

surviving height reached a maximum of around 110mm. The plaster was a hard, greyish-brown clay-silt around 10mm thick. Its preservation was due in part to the fact that it was abutted by a later phase step <4494> and surface (4509).

Room 4519 is a largely extrapolated space that may have formed the north-east corner of the phase 5 structure. It is delimited by phase 4 wall <4428> and phase 5 walls <4085> and <4087>, plus an extrapolated extension to the phase 4 wall <4201>. Much of the space lay beyond the excavation limits and remained largely unexcavated with no internal features being recorded. The 'room', if it actually existed, measured 6.85m north-south x 2.65m east-west and contained one definite entranceway through wall <4228> which provided access into room **4132**.

Phase summary

The eight, possibly nine, new rooms created in phase 5, co-existed with the phase 4 structures defined by rooms **4202** and **4132**, creating a building with 11 individual rooms.

Unfortunately the areas of intact stratigraphy gave little evidence as to the function of individual rooms. The exception to this was room **4001** which contained the remains of a small hearth, as well as considerable areas of flooring. Aside from this, rooms **4024** and **4036** preserved evidence of internal steps between rooms, while room **4036** also preserved evidence of internal partitioning. This partition wall only survived to base level; as it is only roughly half the width of the main walls, it seems unlikely that it reached the full height of the room.

Phase 6: Figures 6 and 7

Phase 6 is represented within areas of the site designated by the 4000 and 6000 number blocks and comprised the addition of three adjoining spaces which together covered an area of 11.6m north-south x 8.2m east-west. Also allocated to this phase are four pits that were partly revealed beneath phase 7 walls. These pits may, however, relate to an even earlier phase of activity.

The phase 6 development comprised a north-west extension of the existing building, as it is thought to have appeared during phase 5. This addition comprised an enclosed courtyard plus a suite of two rooms that is separated from the phase 5 building by this new courtyard. These phase 6 additions abutted the part of the building first constructed in phase 4. Because of the ambiguity created by this stratigraphic link of phase 6 abutting phase 4, there is a possibility that the phase 5 and the phase 6 structures were constructed in reverse sequence to that presented in this report. However, the sequence as presented is probably correct, simply because the north-south phase 6 wall <4069> appears to serve no other function than to continue the straight façade formed by phase 5 wall <4200>, implying its pre-existence. Within this phase have also been inserted some small internal alterations to the phase 4 and 5 buildings, which comprise two small steps, located at the entranceway into rooms **4132** (<4432> and <4494>) and the building of what appears to be a small partition wall in room **4001** (wall <4008>).

Walls

The construction of the phase 6 structure seems to have begun with the building of four substantial external walls of mud brick that formed the outline of the new courtyard, followed by the insertion of a suite of two rooms within it. The new building contained three spaces, all of which remained largely unexcavated. Additionally a small ancillary structure, similar to that seen in the phase 4 development, was added to the north wall of the courtyard. It is likely that at this point the similar structure of phase 4 defined by walls <4129> and <4220>, which now lay inside the courtyard, was demolished, or possibly remodelled with the insertion of an entranceway through wall <4129>.

All of the walls appear to have been built directly upon the levelled ground surface, as no evidence of construction cuts was seen.

Wall <4069> is an 'L'-shaped wall that forms the southernmost of the new walls in the phase 6 structure. The most substantial part of the wall is aligned east-west and measured 5.45m long x 0.55m wide x 0.25m high. At its western extent it was of one build with wall <4127>, while at its eastern end it made a right-angled turn to the south and continued for a further 2.45m. Here the wall ran parallel with, and abutted, the west face of phase 4 wall <4513>. This section of wall measured only 350mm in width, with the result that the west face of the wall appeared as a continuation of phase 5 wall <4200> by producing a flush façade for this part of the building. Abutting the north face of the wall, roughly half way along its length, was north-south wall <4130>, which formed the eastern side of the newly created rooms.

Wall <4127> was only partly revealed during the excavation and, as seen, measured 1.35m long x 0.55m wide and survived to a height of 250mm. At its southern end it was bonded with wall <4069>, while its northern extent continued beneath unexcavated collapse deposit (4210) as mud-brick wall <4211>. This continuation measured 7.6m long x 0.55m wide and survived to a height of 250mm. The wall's northern end was of one build with east-west wall <6164>, while abutting the wall's eastern face were two east-west walls (<4209> and <4514>), the north and south walls of room 4208.

Wall <6164> forms the northern side of the courtyard. At its western end it was of one build with wall <4211>. To the east the superstructure of the wall had been almost completely removed, exposing an underlying stone and clay-silt foundation, which formed an irregular linear base. This foundation had a maximum width of 750mm and increased in thickness towards the west as a compensation for the downwards sloping topography. The surviving length of wall measured 10m and the maximum height was 350mm. The southern face of the wall had suffered much from later pitting, which extended into the courtyard. Abutting the northern face of this wall, mid-way along its length, was north-south wall <6125>, which is considered to be contemporary and probably indicates the position of an entranceway through the wall.

Wall <4204> formed the eastern side of the phase 6 courtyard and survived as a 1.7m long x 0.6m wide fragment of wall that abutted the north phase 4 wall <4201>.

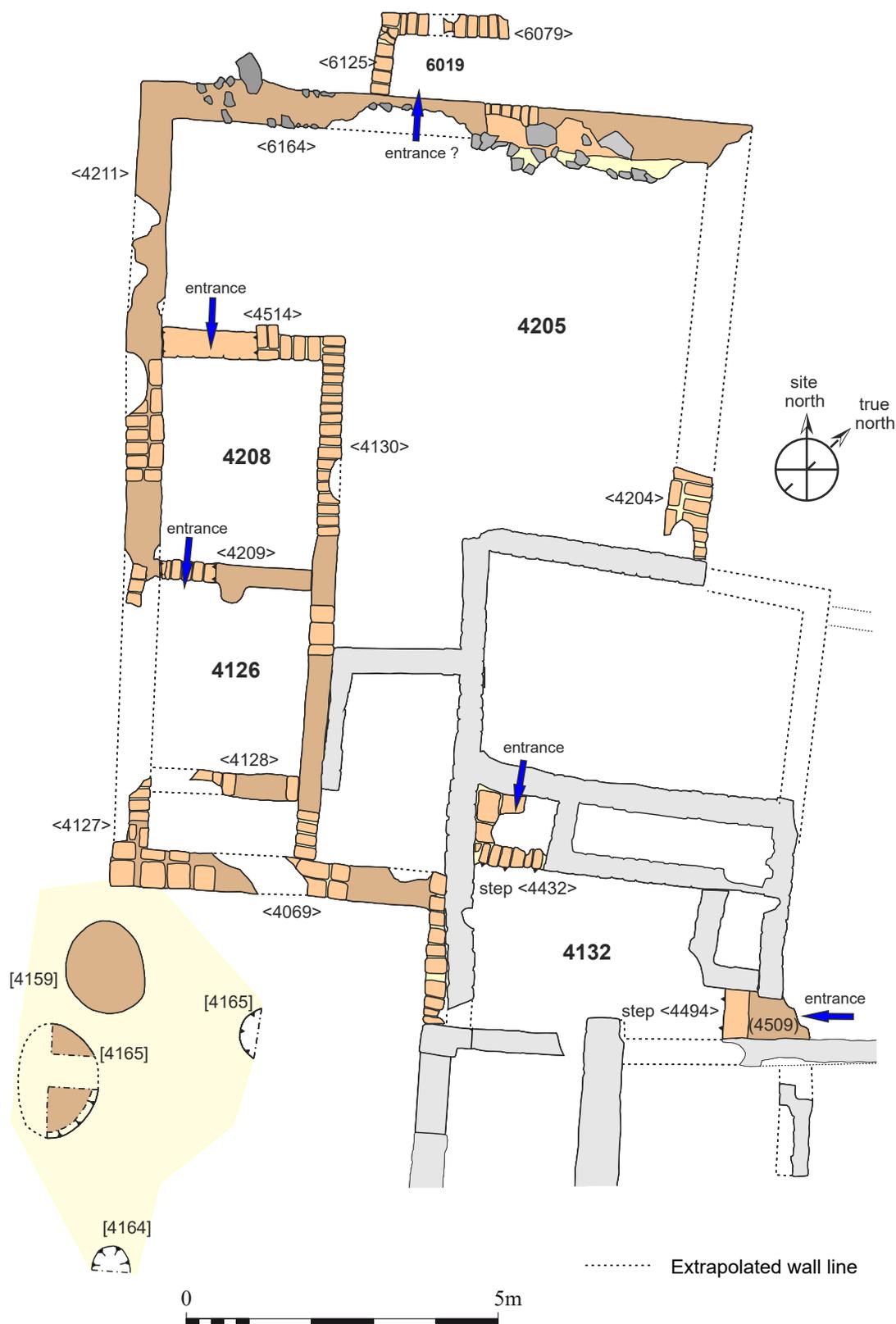


Figure 6. Phase 6a, plan (scale 1-100).

To the north the wall was truncated, but is likely to have originally continued northward for a further 5.5m and formed a junction with wall <6164>. Only around 50mm of the wall's height was seen, as this area of the site remained largely unexcavated.

Wall <4130> was 8.4m long x 0.35m wide. At its northern end it was bonded with wall <4514>, while its

southern end abutted wall <4069>. The deposits surrounding the wall were partly excavated to reveal a surviving height for the wall of 310mm. Phase 6 walls <4128> and <4209> abutted the western face of this wall to create two rooms (see 4126 and 4208).

Wall <4514> delineated the northern side of room 4208 and measured 2.9m long x 0.45m wide. Its eastern end

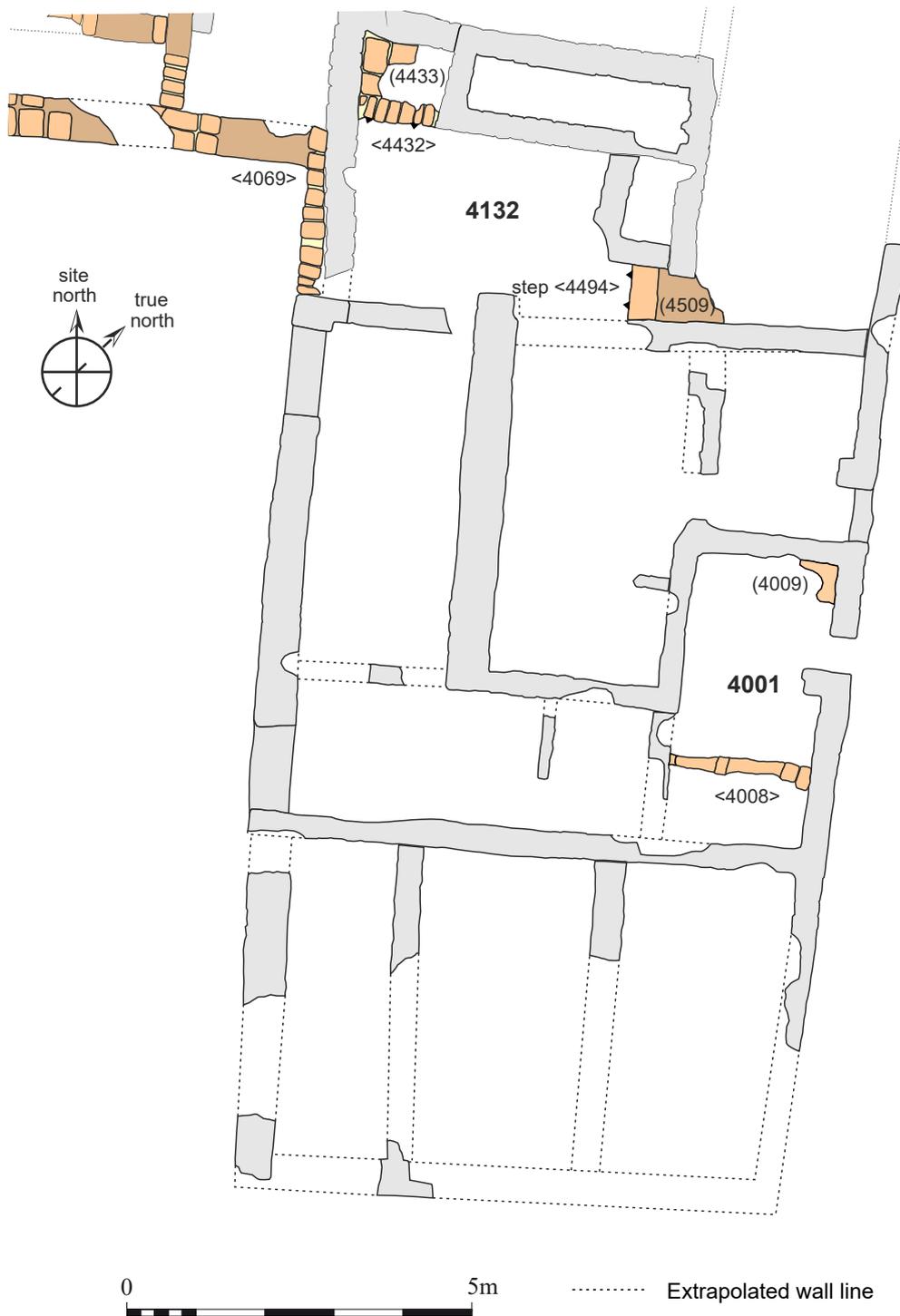


Figure 7. Phase 6b, plan (scale 1-100).

is thought to have been of one build with wall <4130>, while the wall's western end abutted the building's west wall <4211>. Here a 1m wide entranceway was located, which was furnished with a buttress on the eastern side of the entrance's north face. The buttress extended 100mm beyond the face of the wall and was 350mm in length.

Wall <4209> was located 3.25m to the south of wall <4514> and separated rooms 4208 and 4126. This wall measured 2.45m long x 0.35m wide and abutted wall <4130> at its eastern end and wall <4211> at its western end. As with wall <4514>, this wall also contained an entranceway at its western end, although here it was only

900mm wide. The associated buttress was also on the eastern side of the entrance but on the southern face of the wall. The buttress extended 250mm beyond the wall face and was 450mm in length. As the deposits within this space were only partly excavated, the wall's full height was not revealed.

Wall <4128> was located 2.95m south of wall <4209> and measured 2.35m long x 0.4m wide. It abutted wall <4130> at its eastern end, while to the east its relationship with wall <4127> was obscured by largely unexcavated archaeological deposits, with only 90mm of the wall's height being revealed. The internal space created by this

wall measured approximately 800mm wide, which bears a close similarity to the rectangular constructions seen within phase 4 space **4132**. Additionally no entranceway or buttress was seen in this wall, suggesting it was not meant to be easily accessed. It is possible, of course, that an entranceway might have existed within the unseen wall fragment, although if this were so it would have to have been less than 550mm in width and without an associated buttress.

The five walls <4069>, <4127>, <4211>, <6164> and <4204>, combined with the phase 4 walls <4201> and <4513> define the limits of the phase 6 structure. Additionally included in this phase of the settlement's development are two walls which formed a right-angled structure that abutted the northern face of wall <6164> (walls <6125> and <6079> and space **6019** below). Also included in this phase are partition wall <4008> and step features <4432> and <4494> which represent alterations within the phase 4 and phase 5 structures.

Wall <6079> defined the northern side of the right-angled structure and measured 2.2m long x 0.35m wide and survived to a height of 200mm. Its western end was of one build with wall <6125>, while the wall's western extent terminated in a squared ending.

Wall <6125> defined the western side of the right-angled structure. It measured 1.25m long x 0.25m wide and survived to a height of 200mm. At the wall's northern end it was bonded with wall <6079>, its southern end abutted wall <6164>. The semi-open space created by these two walls is believed to have functioned as a porch that protected an entranceway through wall <6164>. Clear evidence of this entranceway was lacking, probably due to the extensive horizontal truncation wall <6164> had suffered.

External features (pits)

Of the numerous pits recorded during the excavation four were sealed beneath the phase 7 archaeology, indicating their earlier date. These pits were located to the south of the phase 6 structure, but within the confines of phase 7 spaces **4080** and **4107**, with three partly beneath phase 7 walls.

This area of the site was included within the 2003/4 joint SARS/UCL evaluation of the site, in which these features were revealed. Of the four pits, two were at least partly excavated during the evaluation, while two remained unexcavated. The function of these pits remains uncertain.

Pit [4154] was partly revealed, with the remainder continuing beneath phase 7 wall <4068>. As seen, the cut was semi-circular in plan and measured 800mm north-south x 250mm east-west, with the full east-west extent likely to have been around 750mm. The unexcavated fill (4297) comprised a yellowish brown silty sand.

Pit [4159] was oval in plan and although partly obscured by phase 7 deposit (4166) the overall dimensions of 1.45m north west-south east x 1.25m north east-south west could be ascertained. Both the pit and overlying deposit remained unexcavated. Its unexcavated fill (4296) comprised a yellowish brown silty sand.

Pit [4164] was partly revealed, the remainder continuing beneath a phase 7 wall. The incomplete cut was

semi-circular in plan and measured 400mm north-south x 650mm east-west. This cut is believed to have been partly excavated as a part of the previous season's evaluation of the site. Its fill (4298) comprised a brownish-yellow sand, which is believed to represent modern infilling from the previous evaluation.

Pit [4165] was also only partly revealed, extending beneath the phase 7 walls <4067> and <4071>. As seen, the cut was semi-circular in plan and measured 1.9m north-south x 0.8m east-west. This cut is believed to have been partly excavated as a part of the previous season's evaluation of the site.

The unexcavated remnant of fill (4173) comprised a yellowish brown silty sand.

Internal spaces

Owing to time constraints only two of the three new phase 6 spaces were partly excavated down to the top of the abandonment-phase deposits. The third remained almost completely unexcavated, with the bulk of the aeolian sand left *in situ*.

Some alterations were seen within the phase 4 room **4132** and phase 5 room **4001**, which survived into phase 6.

The deposits within space **4025** remained largely unexcavated with no internal features recorded. The space formed a large irregular area that measured 11.75m north-south x 8.5m east-west and formed a courtyard. It contained one definite entranceway through wall <4514> which provided access into room **4208**, although it is clear that another, unidentified, access way must have existed in antiquity.

Room 4208 was the northernmost of two rooms located to the west of the courtyard. It remained largely unexcavated, although evidence was seen for a possible oven against wall <4130>, which, due to time constraints, remained unexcavated. The room measured 3.35m north-south x 3.5m east-west and had two entranceways, one through wall [4209] which provided access into room **4126**, the second through wall <4514> that allowed access from courtyard **4205**.

Room 4126 was the southernmost of two rooms located to the west of the courtyard. Due to time constraints this space remained largely unexcavated, although as with room **4208** there was evidence for a possible oven against wall <4130>. Located at the southern end of the space was a small compartment created by cross wall <4128>. This compartment measured 0.9m north-south x 2.4m east-west and was visually similar to the structures seen within phase 4 room **4132**. The overall dimensions of the space were 4.25m north-south x 3.5m east-west, with a single entranceway through wall <4209>, which provided access from the adjoining space **4208**.

Space 6019 was the small, semi enclosed, area immediately to the north of courtyard **4205**. The space measured 1m north-south x 2m east-west and was accessed via its open eastern end. It probably allowed access through wall <6164>, from the outside into the main building via courtyard **4205**.

The final rooms to be briefly discussed as part of this phase are **4001** and **4132**. Although these were constructed

and discussed in detail as part of the phase 4 and phase 5 developments, evidence remained of continued alterations. It must be borne in mind that beyond the initial phase of construction the phases into which the subsequent changes are added is simply a sequential division of constructional events.

Room 4001 – Assigned to this phase are an internal partition (wall <4008>), plus a possible secondary phase of floor surfacing or gradual decay/slumping of wall render (deposits (4009/4241)). Mud-brick wall <4008> was oriented east-west and set directly upon phase 5 surface (4240). It was located approximately 1m from the south wall of the room and at its eastern end abutted the west face of phase 5 wall <4085>. It extended across the whole width of the room and abutted the east face of phase 5 wall <4077>. In plan, the structure comprised three mud bricks, one of which was at the extreme eastern end against wall <4085>, with the second abutting this. The third was located approximately 750mm further to the west, while the intervening spaces between the bricks and the walls were infilled with a clay-silt mortar, which is likely to have been a bedding deposit for now degraded or removed mud bricks. The structure survived to a height of 120mm at its eastern end (two brick courses) and is believed to represent the destroyed remains of an internal partition. The fact that it extends across the whole width of the room suggests that it must have also contained a door threshold.

Deposit (4009) was located in the north-east corner of the room, directly over surface (4004), and abutted phase 5 walls <4007> and <4085>. It comprised a mid yellow-brown sandy silt over an area measuring 550mm north-south x 650mm east-west. The thickness varied from around 20mm at the edge to 100mm against the walls. A second context number (4241) was allocated for a separate area of identical material located just south of the entranceway through phase 5 wall <4085>, abutting this wall and extending against partition wall <4008>. It directly overlay surface (4240) and measured 1m north-south x 0.3m east-west. As with (4009) the thickness varied from around 20mm at the edge, up to 100mm against the wall faces.

Room 4132. The alterations to the room allocated to this phase comprised the addition of two small steps <4432> and <4494>, with associated infilling deposits (4433) and (4509), located at each of the entranceways. These abutted the plastered faces of the storage bins that were initially built in phase 4 and added to in phase 5. East-west oriented mud-brick step <4432> abutted plaster (4518), which adhered to the west face of wall <4431>, while to the west it abutted wall <4513>. The structure measured 0.35m north-south x 1.15m east-west x 0.11m high and was placed directly upon earlier floor surface (4441).

Mud-brick floor (4433) abutted the north side of step <4432> and partly infilled the area created by the step and the surrounding walls <4429>, <4431> and <4513>, effectively raising the original surface level to the north of the step. This deposit had clearly suffered from some post-depositional destruction as much of the southern extent of the deposit had been completely removed,

exposing the underlying phase 4 floor surface (4441). The surviving fragment measured 850mm north-south x 800mm east-west x 110mm thick.

North-south oriented mud-brick step <4494> abutted wall plaster (4508), which was adhering to the south face of wall <4493>, while to the south it abutted the face of wall <4087>. The structure measured 950mm north-south x 350mm east-west x 110mm high and was placed directly upon earlier floor surface (4234).

Deposit (4509) infilled the area between wall <4493> to the north and wall <4087> to the south, extending eastwards to continue over, and slightly beyond, the door threshold which straddled exterior wall <4085>. It comprised a greyish-brown compacted clay-silt that measured 950mm north-south x 800mm east-west. Although the surface of the deposit appeared fairly level, because of a slope to the underlying floor surface (4234), its actual thickness varied from a maximum of 110mm at its western end to 10mm at its eastern limit.

Phase summary

The two new rooms and associated courtyard space co-existed with both the remaining phase 4 and phase 5 structures, creating a building with 14 separate areas, measuring a total of 28.5m north-south x 14m east-west.

Excavation within the new spaces was limited, making any interpretation of the rooms' function difficult. However, it seems probable that the large irregularly shaped space **4205** is likely to have been an open courtyard which could be accessed from the newly constructed phase 6 rooms. No definitive direct access way from the phase 6 structure into the earlier phase 4 structure was identified.

An entranceway through east-west wall <6164> was suggested by the excavator, although as the wall only survived at foundation level in many places, this cannot be stated with certainty. However, if the assumption was correct, the addition of the walls <6079> and <6125>, may have served as a screen, to interrupt any direct line of sight into the courtyard.

Although visually, the earlier phase 4 and 5 spaces appear to have remained largely unchanged, it seems likely that the new phase 6 structure had some effect on the function of individual spaces within the earlier building. Aside from the probable demolition of space **4125**, evidence of change is preserved with the addition of an internal partition within room **4001** and the insertion of steps within room **4132**.

Within room **4001** the new partition wall only survived to base level, making its original height unclear. As it was roughly half the width of the main walls, it seems unlikely that it would have reached the full height of the room. The insertion of the steps within room **4132** at either entrance is interesting, although the reasoning behind this remains unclear.

The four pits have been allocated to this phase of activity, as they were sealed beneath the phase 7 archaeology. The function of these pits remains uncertain, although the possibility of a use for storage cannot be discounted. However, the location of these pits adjacent to the entranceway into the phase 5 building, does seem strange and may indicate an earlier date for them. The possibility

of them being contemporary with the pits seen in phase 2 cannot be discounted. Late Meroitic material discovered in a nearby pit (phase 7 pit [4194]), may only be indicative of when the pits were infilled for the last time, not of when they were dug.

Phase 7

Phase 7 is represented by three separate areas of expansion. Only three of the new structures have clear stratigraphic links with either the phase 5 or phase 6 buildings and can clearly be seen to represent an expansion of the already existing structure. However, the remaining structures within this phase have no stratigraphic links with the earlier phases and may represent separate periods of time. The insertion within this phase is, therefore, tenuous.

Because of the complete separation of the three areas highlighted above, phase 7 has been subdivided into north, west and south. The stratigraphic sequence of each will be presented in its entirety, including the sub-phase summary, before moving to the next sub-phase. This should improve the coherence of the narrative and make it easier to highlight specific parts of phase 7 which may be of interest.

Phase 7 North: Figure 8

Walls

West wall <6014> of the new building, at its southern end, it abutted the north side of phase 6 wall <6164> towards its eastern end, while at its northern end, wall <6014> was of one build with wall <3024>. Approximately 3.1m to the south of this corner, a second east-west wall, <3027> abutted the east face of <6014>. The wall measured 11.3m long x 0.55m wide and survived to a maximum height of 350mm.

North wall <3024> of the new building survived as a 180mm high fragment measuring 4m long x 0.60m wide. At its western end it was bonded with wall <6014>, while to the east it was eroded away. This erosion was enhanced by the underlying, steeply sloping bedrock that increased in height towards the east and left the higher archaeological deposits more exposed to the weathering process.

Wall <3027> formed the southern side of room **3071** and abutted the eastern face of wall <6014>. It measured 3.1m long x 0.55m wide. The wall was constructed directly upon the same area of steeply sloping bedrock described above and as a consequence, had suffered from the severe horizontal truncation as previously. As a result of this the surviving height of the wall varied from 580mm at its western end to 10mm at the eastern limit, beyond which exposed and weathered bedrock was visible.

North-south mud-brick structure <3066> defined the eastern side of space **3071** and comprised a heavily worn, single line of mud bricks, which at its southern end abutted north-south wall <3027>. This structure measured 2.4m long x 0.35m wide and survived to a maximum height of 290mm. It seems probable that it represents the lowest course of a largely destroyed internal partition within a larger room space. The partition stops short of the north wall, leaving a doorway 900mm wide.

Wall <3064> comprised a heavily worn, single line of mud bricks set upon a larger expanse of clay-silt, interpreted as bedding matrix. The structure sat directly upon the underlying bedrock, with no other stratigraphic link. The surviving section of mud brick measured 800mm long x 250mm wide, while the underlying clay-silt mass measured around 1.95m north-south x 1m east-west. The alignment of this structure was similar to, but not the same as, that of wall <6014> which was located around 11.35m to the west.

Internal spaces

The development of phase 7 north created one new internal space. However, evidence emerged of depositional events around the outside of the new building, which were overlaid by later phases of development. These will be included here and described in their correct stratigraphic sequence.

Room 3071 was within the north-west corner of the new building. The room measured 3.45m north-south x 2.75m east-west but if wall <3066> is correctly identified as a partition it will have extended further to the east. Deposits associated with the use of this room were absent, as the whole of the room and many of its walls were extensively eroded.

External deposition

Located to both the north and west of the phase 7 wall <6014> and sealed beneath the phase 8 archaeology was a series of deposits that range from naturally derived sands, through to possible levelling or surfacing events. These are described below, beginning with the most westerly and, where they are directly linked together, in stratigraphic sequence.

Context (6161) was located approximately 8.5m to the west of wall <6014> and comprised a clean, loose brownish yellow sand which showed clear evidence of laminated deposition. The measured extent was largely extrapolated from various sections and irregular truncations and is believed to have extended for approximately 12m north-south x 4m east-west, with a thickness of between 30mm to 200mm. This deposit clearly represents natural aeolian deposition, with the laminated formation indicating both high and low energy depositional events. The noted lack of anthropogenic material, possibly indicates rapid accumulation.

Context (6234), a loose brownish yellow sand, was located to the north east of the previously described deposit and approximately 4m to the north west of the junction between walls <6014> and <3024>. As previously, this deposit was also largely extrapolated from various sections and irregular truncations and measured approximately 5m north-south x 4.5m east-west, with a maximum thickness of 200mm. This deposit is believed to represent a natural accumulation of aeolian sand, which has been preserved beneath two further layers of sand (contexts (6149) and (6148)), although these appeared to contain more anthropogenic material and are believed to have formed after the construction of the phase 8 structures.

Context (6307) was two separate areas of sand, which have been grouped together because they are both sealed

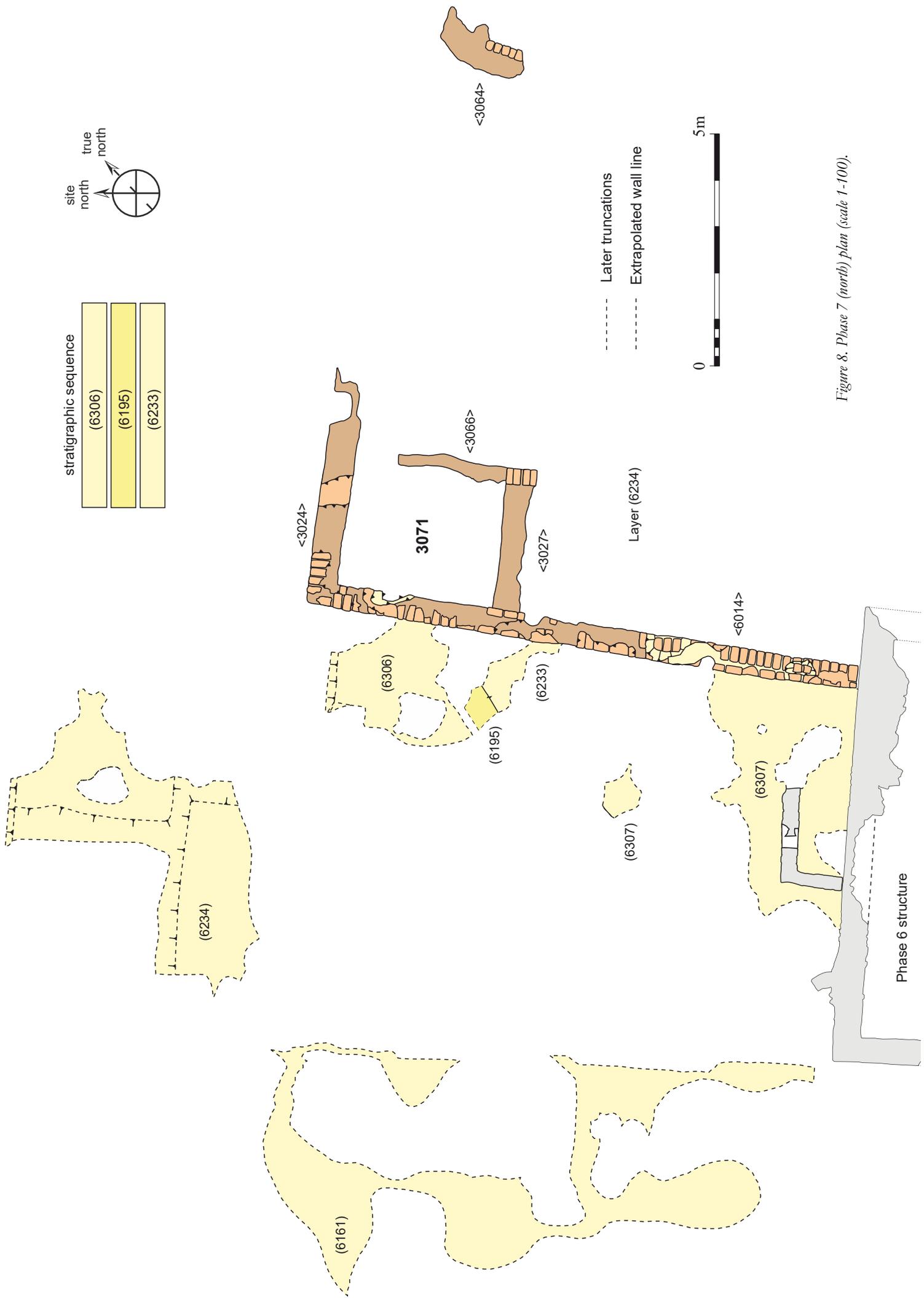


Figure 8. Phase 7 (north) plan (scale 1-100).

beneath phase 8 structures. The first abutted the western face of exterior wall <6014> and comprised loose sand. The deposit extended southwards to about the face of phase 6 exterior wall <6164> and encroached into phase 6 space **6019**, via its open eastern side. The deposit, which measured 3.25m north-south x 5.1m east-west, reached a maximum thickness of 50mm. It was sealed beneath phase 8 walls <6018> and <6079> as well as associated surface (6249). This deposit is believed to represent a natural accumulation of aeolian sand, preserved beneath the later phase deposits. The second was located approximately 1.4m to the north and measured around 0.8m north-south x 1.1m east-west and was sealed beneath phase 8 wall <6078>.

Context (6233) was located towards the northern end of wall <6014> and abutted its western, exterior face. The deposit was partly sealed beneath levelling deposit (6195) as well as the phase 8 walls <6013> and <6015>. The deposit comprised a loose sand, the extent of which was largely extrapolated from various sections and irregular truncations and is believed to have measured approximately 3.5m north-south x 1.5m east-west with a maximum thickness of 190mm. This deposit is a natural accumulation of aeolian sand, which has been preserved beneath the later phase deposits (not shown on plan).

Context (6195) abutted the western face of wall <6014> and overlay the western limit of the previously described context (6233). The deposit comprised a mixture of fragmented mud brick within a matrix of fine-grained sand, the extent of which was only revealed within various sections and irregular truncations. The extrapolated extent measured approximately 3.72m north-south x 1.65m east-west and had a maximum thickness of 140mm (not shown on plan). The deposit appears to represent a deliberate levelling deposit and was overlaid by a fine sandy silt, which contained quantities of decayed organic material (see (6306) below).

Context (6306) directly overlay levelling deposit (6195), measured 2.5m north-south x 2m east-west and varied in thickness from 40-60mm. It comprised a mixture of fine sandy silt intermixed with laminated organic material that may have been decayed wood or reed. Stratigraphically the deposit abutted the western face of wall <6014>, but was truncated by phase 8 construction cut [6273] as well as being beneath the eastern part of phase 8 wall <6013>.

Phase summary

Although only a single new room was documented, it is clear that this new structure must have originally represented a larger expansion to the north of the earlier phases.

The extensive truncation within this area makes any interpretation difficult, but despite this, it does seem probable that although the new structure and the adjacent phase 6 construction abutted, there was no direct access between the two. This suggests that they each represent entirely separate or functionally unrelated buildings.

The function of the single surviving room **3071** remains unclear as does the location of an entranceway into the structure. Suffice to say that it cannot have been on the west side where the wall survives in its entirety

The preserved deposits to the west of the new structure comprised mainly naturally derived aeolian sands. These sands, because of their loose structure, are prone to the associated problem of post-depositional intrusion, making the accuracy of artefactual dating doubtful. Therefore, there is a possibility that the deposition of these sands, could have occurred, and probably did occur, before this phase of occupation. Their inclusion here reflects the latest stratigraphic position to which they could belong, rather than the earliest.

Although the reasoning behind the deposition of the levelling deposit (6195) and the associated organic deposit (6307) is not well understood, they both abutted the western face of wall <6014>. This stratigraphic link provides evidence of activity occurring outside the building complex and could represent an exterior surface. Whether the decayed organics represent *in-situ* surface matting, or the remains of collapsed lightweight roofing material is unclear.

Phase 7 West: Figure 9

Phase 7 West was located to the west of the phase 6 building and is contained entirely within the area of site designated by the 4000 number block. It comprised the addition of four adjoining rooms which together covered an area of 7.35m north-south x 6.4m east-west. These rooms were almost totally excavated as a part of the 2003/4 joint SARS/UCL evaluation of the site. An outline of their findings, taken from the evaluation report, is included in the subsequent descriptions, although direct access to the primary record was not possible. Six pits and four post-holes have also been included with this phase, located to the south and west of the main structure, which probably relate to this or an earlier phase of activity.

Walls

The construction of Phase 7 West seems to have begun with the construction of three external walls that abutted both the phase 5 and phase 6 structures. These walls formed the outline of the space, which enclosed the northernmost entrance into the phase 5 building from the west. This entrance was then completely blocked in preparation for the insertion of an east-west internal wall which abuts the blocked entranceway. Finally two north-south walls were inserted on either side of the central east-west wall, to create a suite of four, roughly square rooms.

All of the walls, which were of mud brick, were constructed of one row of headers and one of stretchers to the course. They appear to have been built directly upon the levelled ground surface, as no evidence of construction cuts was seen.

South wall <4064> measured 6.4m long x 0.55m wide x 0.56m high. Its western end was bonded with wall <4079>, while the wall's eastern end abutted the western face of exterior phase 5 wall <4200>. It was abutted on its northern face by wall <4066>.

West wall <4079> measured 7.35m long x 0.55m wide x 0.55m high. Its southern end was bonded with wall <4064> and its northern end was bonded with wall <4278>. Against the wall's eastern face, roughly centrally

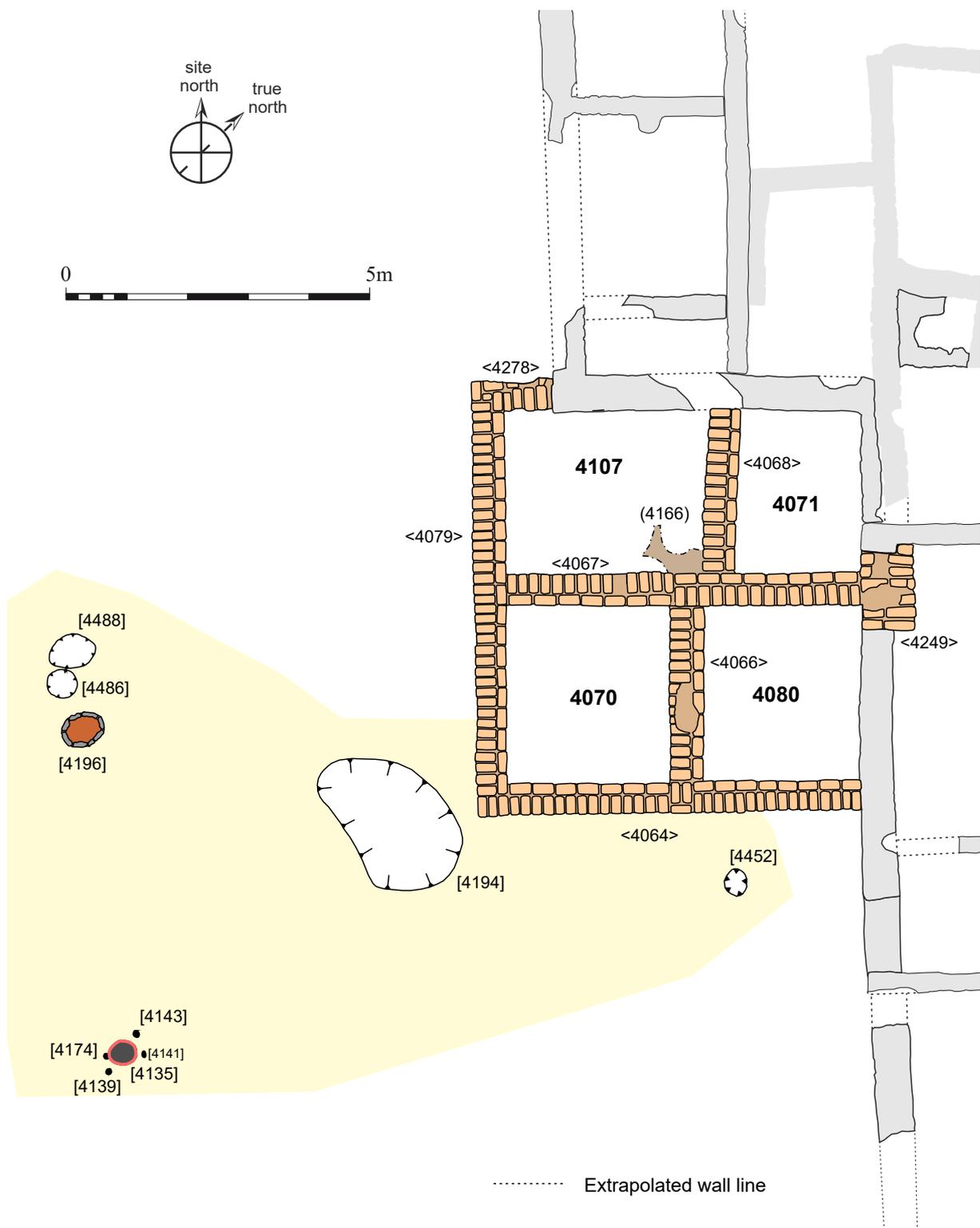


Figure 9. Phase 7 (west), plan (scale 1-100).

along its length, it was abutted by cross wall <4067>.

Wall <4278> defined part of the northern side of the structure and measured 1.3m long x 0.55m wide x 0.32m high. Its western end was bonded with wall <4079>, while the eastern end abutted the western face of exterior phase 6 wall <4127> at its junction with wall <4069>. Beyond this junction, around 5m of the southern face of wall <4069> was incorporated into the new structure.

Wall <4249> (section 12) infilled the entranceway,

which had provided access through the phase 5 building's west wall <4200>. The blocking, constructed of two rows of headers to the course, measured 1.4m long x 0.85m wide x 0.18m high. Its western face was abutted by cross wall <4067>, whilst its eastern face extended a little into the phase 5 room 4024.

Wall <4067> was located roughly centrally within the boundary of the new phase 7 west exterior walls and measured 5.9m long x 0.55m wide x 0.48 high. Its western

end abutted wall <4079>, while the wall's eastern end abutted the door blocking wall <4249>.

Wall <4066> was located roughly centrally within the boundary of the new phase 7 exterior walls, to the south of cross wall <4067> and measured 2.7m long x 0.55m wide x 0.38 high. Its northern end abutted cross wall <4067>, while the wall's southern end abutted the building's south wall <4064>.

Wall <4068> was also located roughly centrally within the boundary of the new phase 7 exterior walls, to the north of cross wall <4067>. This wall measured 2.9m long x 0.55m wide x 0.48 high and abutted cross wall <4067> at its southern end, while at its northern end it abutted the exterior face of east-west, phase 6 wall <4069>.

Internal spaces

In phase 7 west four new rooms were created. As noted previously, these rooms were excavated as part of the 2003/4 evaluation of the site and, as the findings from the evaluation are not room specific, a generic stratigraphic sequence has been included here at the end of the room descriptions.

Room 4107 was located in the north-west corner of the phase 7 west structure and measured 2.75m north-south x 3.25m east-west. Deposits associated with the use of this room were limited to a fragment of compacted clay-silt, plus an underlying sand.

Context (4166) comprised a 90mm thick, irregularly shaped fragment of clay-silt, which measured 1.5m north-south x 2.9m east-west. This deposit was interpreted as a floor surface during the previous season's evaluation and overlay a sandy deposit for which no context number was assigned. Both deposits survived only within the north east and unexcavated corner of the space.

In the other three rooms deposits associated with their use were absent, having been completely removed during the previous archaeological evaluation.

Room 4071 was located to the east of room 4107 and measured 2m north-south x 3.25m east-west.

Room 4080 was located immediately to the south of room 4107 and measured 2.9m north-south x 2.65m east-west.

Room 4070 was located in the south-east corner of the phase 7 west space, to the south of room 4107 and measured 2.9m north-south x 2.65m east-west.

External features (pit and post-holes)

Of the numerous pits recorded during the excavation, stratigraphic and artefactual evidence from some has allowed for a possible phase association. Of the six pits within this phase, two contained artefactual material dated to the Late Meroitic period and two were sealed beneath the phase 8 archaeology.

Pit [4452] was located approximately 1m to the south of the new phase 7 building, towards its eastern end. It was circular in plan, with a diameter of 360mm, while the depth was 450mm. The single fill (4453), which comprised a mid brownish yellow sand, was overlaid by phase 8 surface (4171).

Pit [4194] was located approximately 350mm from the south-west corner of the new phase 7 building and was

roughly oval in plan. The cut measured 2.75m north west-south east x 1.65m north east-south west and survived to a depth of 980mm. The pit contained a single fill (4229) of light brown sand with occasional stone and charcoal fragments. Intermixed with this material were quantities of fragmentary mud brick, mostly concentrated towards the top of the deposit, as well as more than 50 complete or fragmentary tear-drop-shaped loom weights (SF:1417, 1424-1447, 1496-1499, 1501-1509 and 1532), randomly spaced throughout the fill, of Late Meroitic date (Plate 9).

Pit [4135] was located towards the south-west corner of the area designated 4000, approximately 5m to the south east of pit [4194]. The cut survived to a depth of 360mm and had a diameter of around 460mm within which was set a ceramic vessel (4137). Perhaps associated with this feature were four possible post-holes, which were placed around the edge of the cut (see [4139], [4141], [4143] and [4174] below). All were filled with a brownish-yellow aeolian deposited sand. Vessel (4137) measured 360mm in diameter and survived to a height of 360mm; the rim and upper part were missing, possibly through truncation. The vessel was filled by deposit (4138), a loose yellowish-brown sand that contained around 20% charcoal fragments. The composition of this deposit suggests that it represents a disturbed mixture of both use-phase and abandonment-phase material. The small area remaining between the vessel and the pit edges was infilled with deposit (4136), a mid greyish-brown sand with charcoal inclusions. The deposit was around 50mm in width and extended for the full depth of the cut. It is likely to represent a deliberate infilling, associated with the construction of the installation. This vessel almost certainly represents an oven set into the ground, probably associated with domestic activity.

Details of the four post-holes are as follows:

Post-hole	Dia. (mm)	L: (mm)	W: (mm)	Depth (mm)	Fill
4139	100			20	4140
4141	100			70	4142
4143	160			90	4144
4174		130 N-S	100 E-W	160	4175



Plate 9. Phase 7, collection of tear-drop-shaped loom weights from pit [4194].

Pit [4196] was located approximately 6m to the west of the new phase 7 building, towards the western limit of the excavation. The pit was slightly polygonal in plan and measured approximately 600mm north-south x 640mm east-west x 500mm deep. The profile comprised a flat base with vertical edges, which were consolidated using roughly worked stone slabs, bonded together with a compacted clay-silt mortar. The stones on average measured around 80mm thick and were set upright against the sides of the cut, completely covering all the pit edges to a height of 500mm. The visible face of the stones and clay-silt mortar, showed clear evidence of burning. This evidence was supported by the single fill deposit (4198) a brownish-yellow sand, intermixed with around 30% charcoal fragments. This charcoal was more concentrated towards the base of the deposit, where it accounted for more than half the soil matrix. The charcoal in this deposit seems likely to represent use-phase hearth debris, while the sand content is probably a secondary infilling event associated with natural processes of erosion and deposition, deposited after the abandonment of the feature. Whether this hearth or oven was associated with domestic or industrial activity is unclear. Two further pits, both of which contained burnt material, were located immediately to the north and seem likely to be associated.

Pit [4486], located approximately 250mm to the north of [4196], measured 400mm in diameter and survived to a depth of 250mm. The edges of the cut appeared orange in colour, indicative of *in-situ* burning, while the single fill of mid greyish-brown sand, intermixed with fired clay fragments and around 30% charcoal, concentrated towards the south-eastern edge of the cut (deposit (4487)). This deposit is likely to represent a combination of hearth debris in the form of charcoal and a secondary infilling event, represented by the sand. Pit [4488] was located immediately to the north of the previously described cut and measured 550mm north-south x 700mm east-west and survived to a depth of 250mm. As previously the single fill deposit (4489) comprised a mid brownish-grey sand, intermixed with around 20% charcoal and fired clay fragments, although here the concentration was noticeably less and evidence of *in-situ* burning was absent.

Phase summary

The four new rooms co-existed with the phase 5 and 6 structures and possibly the other phase 7 buildings.

Evidence for the location of entranceways into any of these rooms was lacking, which is surprising when one considers that the surviving height of the walls ranged from between 180mm to 480mm. It is also interesting to note that the walls were all over 500mm in width and the rooms were relatively small and roughly square, possibly indicating a specialised function.

Evidence from the previous evaluation suggests that the stratigraphic sequence for these four rooms comprised an underlying build-up of sandy deposits, overlaid by a compacted floor surface.

During the evaluation it was believed that the underlying sand might have pre-dated the structure. However, as no similar deposit was recorded on the outside of these spaces during the excavation, it is postulated that the sand

build-up represents a use-phase deposit and the overlying compacted clay-silt represents either a second phase of re-surfacing or an abandonment-phase erosional collapse deposit, the latter of which is more likely.

Within the underlying sand deposit Late Meroitic ceramics and tear-drop-shaped loom weights were found, as well as evidence of charred plant remains. The slightly unusual nature of the structural remains, which apparently lacked any direct access ways, combined with the thickness of the walls, suggests that the primary function of these spaces may have been for storage.

The earlier phase structure appears to have remained largely unchanged, with the exception of the blocking of one of the western entranceways into the building.

Of the six pits assigned to this phase of activity, two were sealed beneath the phase 8 archaeology, giving a good *terminus ante quem* for these features. Of these two cuts, pit [4194] also contained quantities of Late Meroitic material, indicating a probable date. However, despite the fact that artefactual dating evidence was abundant, the function of the pit itself remains uncertain. Its location so close to the phase 7 west structure does seem strange and may indicate that the pit pre-dates the phase 7 archaeology and is possibly contemporary with the pits seen in phase 6. Additionally it is possible that the Late Meroitic material discovered within this pit may only be indicative of when the cut was infilled, not of when it was dug.

The remaining five pits all appear to be associated with either domestic or small-scale industrial processes as indicated by evidence either of *in-situ* burning or the secondary deposition of burnt residue.

The stone-lined oven [4196], dated by Late Meroitic ceramics, was of a type unique to the Umm Muri excavation, although whether it and the two adjacent pits [4486] and [4488] were associated with domestic or small scale industrial activity is unclear. Subsequent analysis of the environmental samples collected during excavation may shed some light on the function of this group of features.

Only one oven, set into the ground, was recognised, while the four surviving post-holes, appear to have been placed directly around this oven, possibly supporting an above ground structure.

Phase 7 South: Figure 10

Within this area generally the archaeological remains were slightly less truncated than those seen in phase 7 north, although unfortunately only one of the eight structures represented by this phase had a direct stratigraphic link to the earlier phase structures. This single link was the heavily fragmented and partial remains of a north-south wall plus an adjoining east-west wall, which abutted the already-existing phase 6 building.

The problem of phasing the remaining structures in this area is exacerbated by the fact that the buildings appear dispersed and may represent several individual buildings. However, within the overall site phasing, the use of specific materials for construction has been of assistance, as the phases have moved from post-holes, to stone and clay-silt, through to the mud brick encountered in phases 4 to 9. Even here, phases 7 to 9 can be differentiated from the

earlier phases by the use of a more consistent brick size.

The evidence from the previously-discussed mud-brick phases indicates that irregular and inconsistently shaped mud bricks were occasionally utilised. These range in size from 300 x 250 x 50mm up to 500 x 250 x 50mm, with other irregular sizes in between. This inconsistency becomes noticeably less from phase 7 and beyond, where the use of a more standardised individual brick, measuring around 350 x 180 x 60mm, is most frequently used.

This consistency in brick size associated with the later phases applies well to the isolated structures which make up the phase 7 south archaeology, while an additional factor for the insertion of the disparate structures that characterise this area into this phase, is their similarity with the single structure which does have a direct stratigraphic link with the earlier archaeology (room **1268**).

Because of the stratigraphic separation between the structures encountered in this phase the following descriptions will be ordered; defining walls followed immediately by the internal space descriptions for the separate structures, building by building, from west to east across the area, with a final phase summary of all the structures encountered in phase 7 south at the end. For the purpose of the phase summary, the individual room/structure numbers will be used.

Isolated wall fragments

Aside from the remains allocated to spaces, two isolated wall fragments that are located within the area have been included in this phase.

North-south mud-brick wall <4116> (see Figure 10) was located 650mm to the south of phase 5 wall <4117> and, as with the majority of the walls within this area, was truncated by later pits. As seen, it comprised a single wall fragment, which measured 850mm in length, and was truncated at both ends. An east-west width of 450mm represents the original dimension, while the revealed height of around 200mm reflects the depth at which excavation ceased in this area.

North-south mud-brick wall <1075> was located approximately 6.5m to the east of structure <1132> (see Figure 10) and comprised a single, isolated wall fragment that measured 1m long x 0.35m wide and 300mm high. The wall was built directly upon a deposit of aeolian sand, which was here allocated a unique context number for finds reference (context (1243)).

Structural elements defining space 1268:

Figure 11

North-south wall <1150> is thought to represent the remains of a wall foundation, which is believed to have been integral with the base deposit of east-west wall <1149>. It comprised only compacted clay-silt, with no mud brick, which measured 350mm long x 300mm wide and survived to a height of 150mm. If it is correctly identified as a wall foundation, it represents the only surviving fragment of the western side of this structure.

North-south mud-brick wall <1145> was the only fragment of wall to survive on the eastern side of the structure. It comprised a 1.7m long x 0.6m wide, heavily degraded, wall which reached a maximum height of 120mm. Its

southern extent was truncated, while to the north it had a squared end, abutted on its western side by the previously discussed east-west orientated wall <1146>, which together formed the north-east corner of the hypothetical building **1268**.

Space 1268 – Deposits directly associated with the use of this structure were absent, with the stratigraphic sequence comprising; bedrock (1250), phase 7 walls and phase 13 destruction horizon (1157). The east-west extent of the space measured 6.2m, the north-south extent is unknown.

Structural elements defining space 1132:

Figure 12

Mud-brick wall fragment <1126/1127> is believed to represent the eastern side of a heavily truncated structure. It comprised a narrow, 150mm to 200mm wide, line of mud brick, with a straight western face and irregular southern, western and northern edges. The irregular edges were clearly a result of later truncation which had completely destroyed much of the original wall (destruction cut [1266]). The surviving fragment measured 2.5m long and survived to a height of 150mm.

North-south wall <1129> was located immediately to the north of, and adjoined part of, the robbed wall fragment <1127>. This comprised a rectangular (1.8m long x 1m wide x 0.15m high) arrangement of roughly squared and worn stones, which are believed to form part of the same structure as walls <1126/1127>. The southern limit of this structure was defined by the northern extent of robber cut [1266], while its northern end abutted the east-west wall foundation <1131>. As this fragment of the structure differs from the remaining wall fragments in width, and as the surface of the stones which comprise this wall appeared worn, it is thought to be the remains of a door threshold.

East-west wall <1131> was located immediately to the north of possible door threshold <1129> and formed a part of the northern side of structure **1132**. It measured 3.1m long x 0.8m wide and survived to a height of 150mm. It comprised a fairly level platform of roughly-hewn stone fragments in a clay-silt bonding matrix with a few mud bricks. Its western extent was defined by an irregular edge that coincided with a rise in the height of the underlying bedrock, while its eastern extent was truncated. It is interesting to note that the eastern limit extended beyond the eastern limit of the hypothesised door threshold, although it is possible that the width of the wall narrows down to around 350mm at this point. This narrow continuation of walling may represent the remains of a second, now destroyed, room or protective entranceway, possibly similar to that seen in structure **1191** (see below), which is located to the south.

Space 1132, probably because of the truncated and disturbed condition of the remains, contained no evidence of deposits directly associated with its use. The stratigraphic sequence comprised; bedrock [1250], structural elements which define space **1132** and robber cut [1266]. Neither the full north-south nor the full east-west extent was preserved.

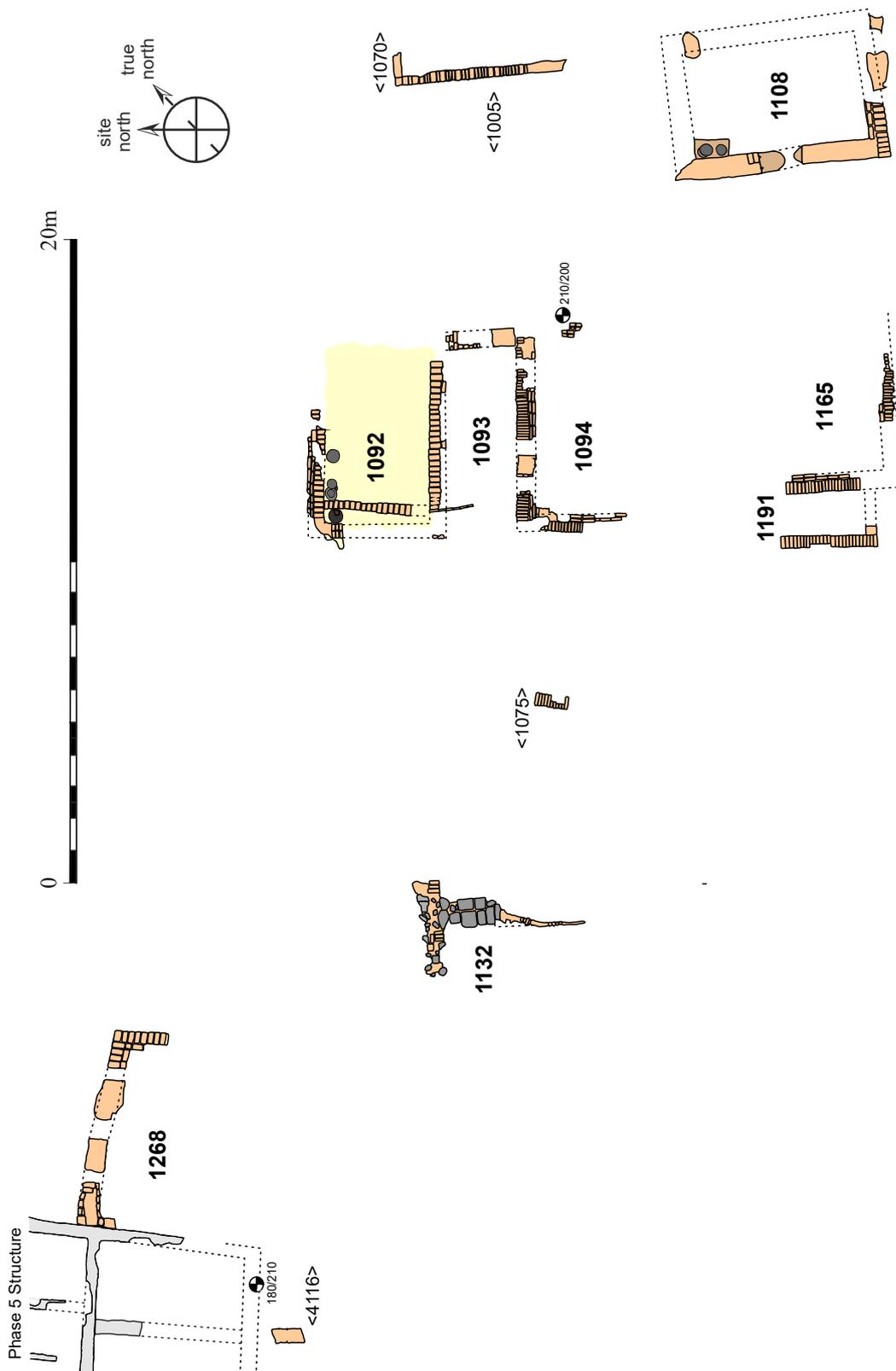


Figure 10. Phase 7 (south), plan (scale 1-200).

Structural elements defining space 1092:

Figure 13

East-west wall <1030> represents the main surviving fragment of wall that forms the north side of structure **1092**. It comprised a truncated mud-brick wall measuring 2.8m long x 0.55m wide x 0.25m high. The western end of the wall formed an integral relationship with the bedding matrix of east-west wall <1197>, while at its eastern end it terminated against an area of outcropping bedrock.

A further 200mm to the east, the wall continued as wall <1031>, described below. The wall was built directly upon a deposit of aeolian sand, here allocated a unique context number for finds reference (context (1221), although in reality this sand extended into space **1092**, where it was designated context (1201).

East-west wall <1031> also represents a part of the northern side of structure **1092** and here comprised a truncated fragment of mud-brick wall that measured

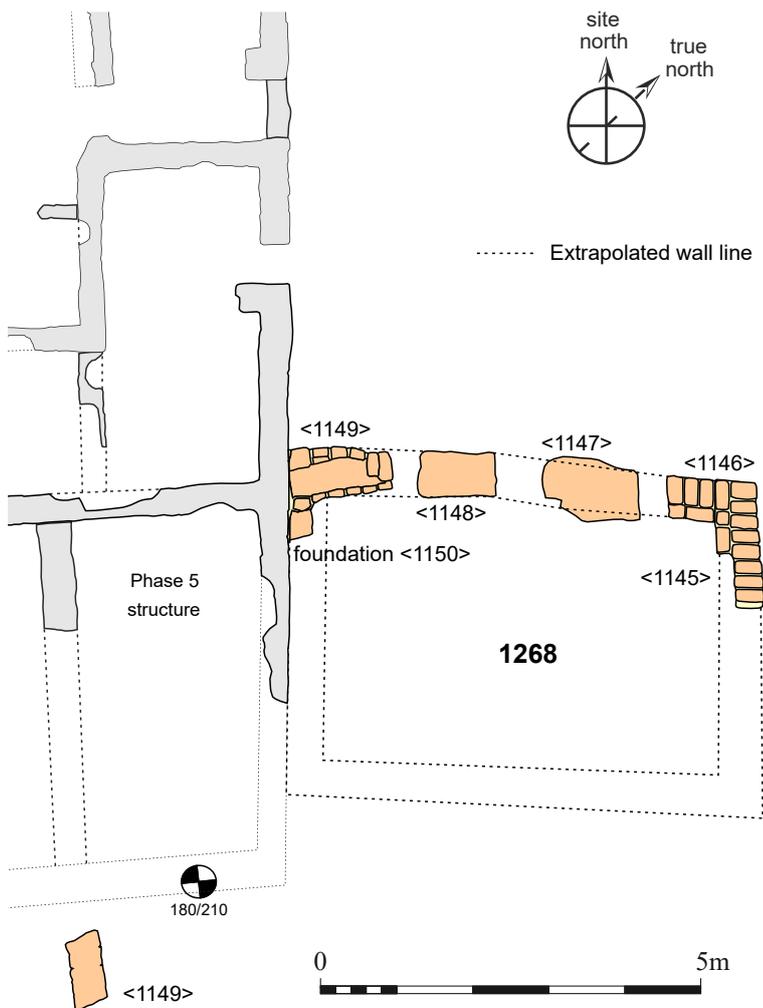


Figure 11. Phase 7 (south), plan of Room 1268 (scale 1-100).

450mm long x 300mm wide x 150mm high. The western end of the wall abuts the same fragment of outcropping bedrock as previously described, while its eastern end is truncated. As with the previously described wall, this also directly overlay a deposit of aeolian sand (context 1222).

West wall <1197> of the structure, a mixture of mud brick and an underlying clay-silt, measured 950mm long

x 450mm wide x 200mm high. Its northern extent had suffered from horizontal truncation, which had removed the lowest mud-brick course to expose the underlying clay-silt bedding matrix. This bedding matrix seemed to be integral with east-west wall <1030>, together forming the north-west corner of the structure. To the south the wall was truncated by robber cut [1264], which had

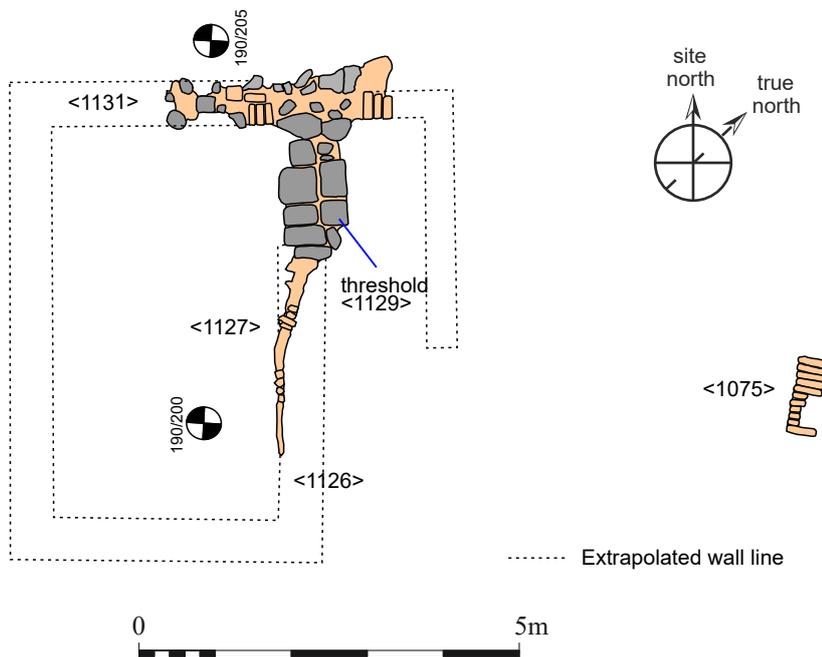


Figure 12. Phase 7 (south) plan Room 1132 (scale 1-100).

removed it and the associated clay-silt bedding deposit.

Wall <1060> represents the remaining part of the southern wall of structure **1092**, and was a truncated fragment of mud-brick wall measuring 5.6m long x 0.35m wide x 0.25m high. The western end of the wall forms the south-west corner of space **1092**, whilst the eastern end is truncated by robber cut [1260]. The wall was built directly above an aeolian sand deposit (context 1218).

North-south wall <1028> was located within structure **1092**, approximately 450mm to the east of exterior wall <1197>. The wall was different from the main exterior walls, being only a single brick wide. At the wall's northern end it abutted the southern face of exterior wall <1030>, while the southern end was truncated by robber cut [1264]. The surviving fragment measured 2.7m long x 0.35m wide and reached a maximum height of 250mm at its southern end – two brick courses. The wall was built directly upon a deposit of aeolian sand (context 1254).

Space **1092** measured 4.4m north-south; the east-west extent and the location of an entranceway remain unknown.

Although this space appeared to have undergone much latter disturbance in the form of wall truncations, ovens did survive within it. Additionally it is believed that some of the disturbed sand deposits contained within the space, may represent use-phase accumulation. The exception to this is sand deposit (1201), which although recorded within the space, is believed to equate directly to similar deposits sealed beneath the walls which define the space and so represent an earlier phase of deposition. As with

the other sealed deposits, it comprised a loose, brownish yellow, poorly sorted sand, which here measured around 3.3m north-south x 4m east-west and was between 20mm and 250mm in thickness.

Context (1200) infilled the space between walls <1028> and <1197> and comprised a heavily truncated loose sand containing few inclusions. The formation process for this deposit is uncertain but, as the intervening space between walls <1028> and <1197> measures only 450mm in width, it is possible that the deposit represents deliberate infill in order to create a step or higher level platform within the space. The sand itself was partly truncated by pit [1032], which contained ceramic vessel (1033). This internal oven type feature is believed to be associated with the use of the structure and is described below.

Deposit (1203) was also located within the structure and filled all of the area to the east of wall <1028>. It comprised a loose sand which is believed to represent the internal occupation horizon. The deposit had suffered much from later truncation, although pit [1045], which housed ceramic vessel (1046) is believed to be associated with the use of this structure. Interestingly this vessel formed one in a series of ovens set into the ground, some of which partly overlay and partly truncated the internal cross wall of this space. This series of ceramic ovens was located exclusively alongside the southern edge of wall <1030> and comprised three concentrations totalling seven vessels (Plates 6-8). These are described below, from west to east.

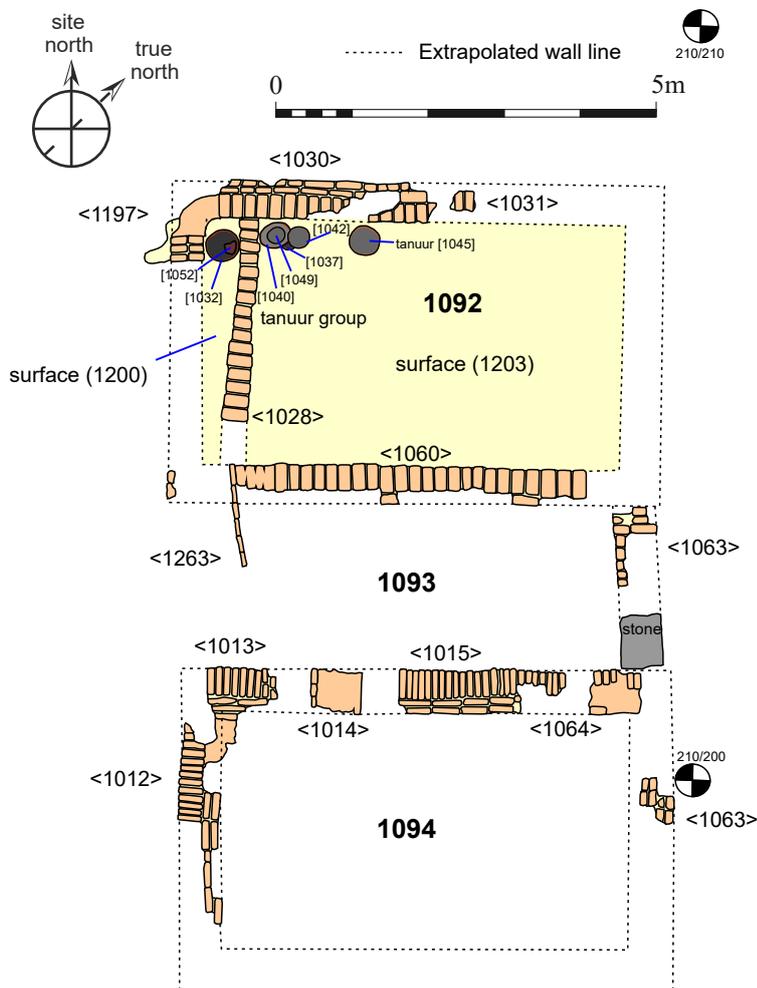


Figure 13. Phase 7 (south)
plan Room 1132
(scale 1-100).

Circular pit [1032] contained the earliest of the vessels which comprise the westernmost of the three concentrations and was located in the extreme north-west corner of space **1092**, between walls <1028> and <1197>. The cut partly truncated sand deposit (1200) and mirrors the shape of the vessel (1033) (typex) within it, measuring 400mm in diameter and surviving to a depth of 200mm.

Ceramic vessel (1033) (typex) was placed upside-down within pit [1032] and measured 390mm in diameter and was 200mm high. The base of the vessel was missing, creating in effect a ceramic tube, which was partly filled by disuse phase deposit (1034). Deposit (1034) comprised a loose mid greyish-brown sand, which appeared to contain little or no charcoal suggesting no *in-situ* burning and is, therefore, likely to represent a secondary infilling, possible associated with the placing of a second ceramic vessel within the cut (see (1035) below).

Circular cut [1052] partly truncated the fill of ceramic vessel (1033) and survived as a 20mm deep cut with a diameter of 420mm. Within this cut lay the fragmented remains of ceramic vessel (1035) (typex). The cut and associated vessel had clearly suffered extensively from later truncation and disturbance, possibly associated with the destruction of structure **1092**.

Ceramic vessel (1035) (typex) survived as a heavily fragmented concentration of pottery which measured around 20mm in thickness, lying flat within cut [1052]. Its degraded condition makes a definitive interpretation difficult, however it seems probable that it represents a replacement for the earlier vessel (1033) and performed the same function. Deposit (1036) filled the surviving *in-situ* fragments and comprised a loose mid greyish-brown sand, which appeared to contain little or no charcoal to suggest *in-situ* burning and is, therefore, likely to represent a secondary infilling, probably associated with the disuse phase of this feature.

Cut [1037] contained the earliest of the vessels which comprise the second group of ceramic ovens mentioned above. It was located approximately 250mm to the east of the previously described oven group and had been severely truncated by two later pits. The surviving fragment measured only 100mm north-south x 150mm east-west, with a depth of 250mm and, although crescent-shaped in plan, was almost certainly circular originally. Within the surviving segment of the cut were the fragmentary remains of ceramic vessel (1038).

Ceramic vessel (1038) had also suffered from truncation by the later pits. As with the cut, it too only measured 100mm north-south x 150mm east-west and was 250mm high. Although much of the upper and side of the vessel was missing, the remainder included part of the base, indicating that the vessel was originally placed upright. The cut contained deposit (1039), which comprised a loose mid greyish-brown sand, containing around 10% charcoal fragments, which probably represents remnants of use-phase material. However, it seems probable that the bulk of the deposit is a secondary infilling event, possibly associated with the insertion of the later oven features, described below.

Cut [1040] was the second within this sequential concentration and partly truncated the north-east edge of cut



Plate 6. Phase 7 (south), oven group, partly excavated; vessel (1042) removed, with (1049), (1040) and (1037) still in-situ. View from the south.



Plate 7. Phase 7, stone lined oven pit [4196], pre-excitation shot. View from the west.



Plate 8. Phase 7 (south), oven group, pre-excitation; vessels (1042) and (1040) and partly truncating mud-brick wall <1028>. View from the north.

[1037], as well as partly truncating the phase 7 mud-brick wall <1028>. It too had suffered from truncation by a later pit and so, although originally circular, remained incomplete. The surviving part measured 400mm north-south x 350mm east-west and was 200mm in depth. Within the

cut were the remains of ceramic vessel (1041) (typex).

Ceramic vessel (1041) had also suffered from some truncation along its eastern side by the later pit [1043]. The surviving fragment measured 400mm north-south x 390mm east-west and was 200mm high, which represents almost the entire diameter of the vessel. Although much of the upper portion of the vessel, including the rim, was missing, the remainder included the base, indicating that the vessel was originally placed upright. The cut contained a single fill (1042), a loose mid greyish-brown sand containing around 5% charcoal fragments. It seems probable that the charcoal represents remnants of use-phase material, while the bulk of the deposit is a secondary infilling that is probably associated with the insertion of additional oven features. Aside from the truncation by pit [1043], the deposit was also truncated centrally by pit [1049], described shortly.

Pit [1043] partly truncated the eastern side of cut [1040] and ceramic vessel (1041) and was circular, with a diameter of 370mm. It survived to a depth of 190mm and contained ceramic vessel (1044), 370mm in diameter and also surviving to a height of 190mm high. Much of the upper portion of the vessel, including the rim, was missing, although the remainder including the base survived, indicating that the vessel had been originally placed upright. The cut contained a single fill (1048), which comprised a loose mid greyish-brown sandy silt, containing around 5% charcoal fragments. The charcoal content probably represents remnants of use-phase material, while the remainder probably represents a secondary infill associated with the disuse-phase of this feature.

Circular cut [1049] partly truncated the fill of ceramic vessel (1041) and survived to a depth of 170mm, with a diameter of 250mm. The cut contained the remains of ceramic vessel (1050).

Ceramic vessel (1050) measured 250mm in diameter x 170mm in height. The upper portion of the vessel was missing, while the remainder, which included the base, indicated that the vessel was originally placed upright. It seems probable that it represents a replacement for the earlier vessel (1041) and performed the same function. The vessel was filled by deposit (1051), a loose mid greyish-brown sand, which appeared to contain little charcoal to suggest *in-situ* burning and is, therefore, likely to represent a secondary infilling event, probably associated with the disuse-phase of this feature.

Cut [1045] was the third of the oven concentrations and was located approximately 600mm to the east of the previously described oven group and close to the north wall of space **1092**. It partly truncated the sand deposit (1203) and was circular with a diameter of 370mm and a depth of 400mm. Ceramic vessel (1046) was placed upside-down within and measured 370mm in diameter and was 400mm in height. The base of the vessel was missing, creating in effect a ceramic tube. The single fill (1047) comprised a loose mid greyish-brown sand, containing around 5% charcoal fragments, which probably represents remnants of use-phase material. However it seems probable that the bulk of the deposit is a secondary infilling event, probably associated with the disuse-phase of this feature.

Structural elements defining space **1094**:

Figure 13

Structure **1094** was located around 2.2m south of structure **1092** and was defined to the north by the fragmentary remnants of an east-west mud-brick wall. These fragments because they were not physically linked, were allocated four separate contexts during excavation (<1014> <1015>, <1016>, and <1064>). Their combined extent measured 5.75m, while the surviving height reached a maximum of 180mm. The fragments were all built directly upon an aeolian sand deposit, allocated unique context numbers for finds reference ((1211), (1212), (1213) and (1214)).

Space **1094**, probably because of the truncated and disturbed condition of the remains, contained no evidence of deposits directly associated with its use. The stratigraphic sequence within this space comprised; bedrock (1250), aeolian sands, followed by structure **1094** itself. Overlying this was abandonment-phase deposits or activity, which comprised both robber cuts and collapse deposits. The original southern limit of the space was not preserved; it extended 6.5m east-west. As with the preceding space, the location of an entrance is unclear.

Structural elements defining space **1093**:

Figure 13

Structure **1093** was the intervening space between structures **1092** and **1094**, which was then enclosed by the construction of two north-south cross-walls, described below. These walls, combined with the southern wall of space **1092** and the northern wall of space **1094** form space **1093**.

West wall <1263> was extensively truncated by later robbing. The fragment measured 1m long x 0.1m wide x 0.25m high and abutted the south wall <1060> of structure **1092**. To the south the wall was partly obscured by abandonment-phase deposit (1066), although it is clear that truncation had destroyed any relationship with structure **1094**.

North-south wall <1061> was the only surviving fragment of wall to preserve the eastern side of space **1093** and measured 1.1m long x 0.55m wide x 0.2m high. As previously, both ends of the wall were truncated, although here by a single robber cut [1260]. The wall was directly above an aeolian sand deposit (context (1219)).

Space **1093**, probably because of the truncated and disturbed condition of the remains, contained no evidence of deposits directly associated with the structure's use. The utilisation of the adjacent structures **1092** and **1094** created a space with an internal measurement of 2.1m north-south x 5m east-west. Whether **1093** represents a later additional to already existing structures, or merely represents a constructional technique within a single construction phase is uncertain. The location of any entrance is also problematic, as the relationship with this space and the two adjoining spaces would clearly influence entranceway location. If unrelated, it seems obvious that an entrance must have been either from the east or west. However, if all three spaces functioned as a single structure then entranceways from north, south, east or west are possible.

Structural elements defining space 1165:

Figure 14

Wall <1164> was the only surviving remnant of the southern side of possible structure **1165**. It comprised a fragment of mud-brick wall that measured 2.1m long x 0.4m wide x 0.2m high. Although not recorded in detail, both the western and eastern ends and the southern face of this wall were defined by either erosional or anthropogenic truncation. The wall's northern face was abutted by collapse deposits (1170) and (1175). The wall was directly above an aeolian sand deposit, context (1239).

West wall <1193> of space **1165** also formed the eastern side of associated space **1191**. The wall measured 2.35m long x 0.6m wide x 0.2m high. Both the northern and southern ends of this wall were again defined either by unrecorded erosional or anthropogenic truncation. The wall was built directly upon a deposit of aeolian sand context (1240).

Space 1165 – Deposits directly associated with the use of this space were absent and truncation was so severe that neither its north-south and east-west extent is known. The location to the west of what is believed to be an associated, partly enclosed space (see **1191** below), may indicate the position of the entranceway into this space.

Structural elements defining space 1191:

Figure 14

Structure **1191** was located immediately to the west of space **1165**, utilising wall <1193> as its eastern defining wall. All its walls were of mud brick.

North-south wall <1195> was located approximately 1.4m to the east of wall <1193> and formed the western side of space **1191**. It measured 3m long x 0.35m wide and survived to a height of 350mm. Both the northern and southern limits of the wall had squared ends, with the southern end being abutted on the east side by east-west wall <1194>. These together formed the south-west corner of the space. The wall was directly above an aeolian sand deposit, which was allocated context number (1242).

Wall <1194> was the only surviving part of the southern side of space **1191** and comprised a truncated fragment measuring 300mm long x 350mm wide x 200mm high. As mentioned above, the western end of this wall abutted wall <1195>, while its eastern limit was truncated. The wall was also built upon the same aeolian sand as wall <1195>.

Space 1191 had dimensions of 2.65m north-south x 1.4m east-west and represents a small space with a narrow 350mm wide wall that was probably attached onto the west side of space **1165**. No deposits directly associated with its use were recorded, although it is clear that this small partly enclosed area would have been accessed via its open northern end. It is also possible that a further opening existed through its eastern side into the adjacent space 1165.

Structural elements defining space 1108:

Figure 15

Mud-brick wall <1104>/< 1105> defined the western extent of space 1108 and had a centrally placed door threshold <1180/1181>. The overall length of the wall,

was approximately 6.75m and it ranged in height from 220mm up to a maximum of 330mm; the width was 600mm. The wall's northern limit abutted an outcrop of the underlying bedrock, which rose steeply at this point, while to the south the wall was bonded with east-west wall <1103>.

Mud-brick wall <1103> formed part of the southern wall of the structure and measured 1.7m long x 0.6m wide x 0.22m high. The wall's eastern end it abutted the western face of an outcropping boulder, which rose steeply at this point and beyond which the line of the wall continued as <1102>. This continuation comprised a compacted clay-silt matrix, which is thought to be the bedding or foundation for a mud-brick wall. The surviving fragment measured 1.25m long x 0.7m wide and reached a maximum thickness of 150mm. The deposit's western limit abutted the eastern face of the same outcropping boulder mentioned above, while to the east it abutted a second large boulder that is believed to have been incorporated into the original structure. Wall <1103> was built directly upon a deposit of aeolian sand, context (1225).

Context (1168) is believed to be a surviving fragment of heavily eroded bedding or foundation material for a now destroyed mud-brick wall. The isolated fragment, which would have formed a part of the eastern side of space 1108 comprised a compacted clay-silt measuring 500mm long x 800mm wide x 50mm thick. To the north it abutted a rise in the underlying geology, while the remaining edges were slightly irregular in plan.

Space 1108 had internal dimensions of around 5.5m north-south by 3m east-west and despite its truncated and disturbed condition, did contain *in-situ* archaeological deposits, which are believed to be associated with its use.

Door threshold <1180/1181> comprised two separate fragments of compacted clay-silt and stones which formed the entranceway into space 1108. The north part abutted wall <1104> and measured 200mm north-south x 550mm east-west, while the southern fragment abutted the southern end of the previously described wall <1105> and measured 750mm north-south x 600mm east-west. The overall thickness ranged from around 50mm against the walls, becoming thinner towards the centre of the entranceway and eventually disappearing. The overall width of the door opening was 1.3m.

Deposit (1110) was located in the north-west corner of room **1108**, 1.1m north-south x 0.6m east-west, and survived as a very regular, rectangular shaped area of compacted sandy silt into which a series of ceramic vessels had been set. The sequence of insertion for the ceramics does suggest that this deposit must have undergone some repairs, although this was not visible during excavation. To the west, the deposit abutted wall <1105>, while to the north it abutted a large outcropping boulder, which is believed to represent the line of the now destroyed north wall. To the east and south, the deposit was abutted by abandonment-phase collapse material (1111), which obscured the full height of the platform.

Circular pit [1112] was located within the southern part of deposit <1110>, and was 310mm in diameter, surviving to a depth of 300mm. The diameter of the cut here

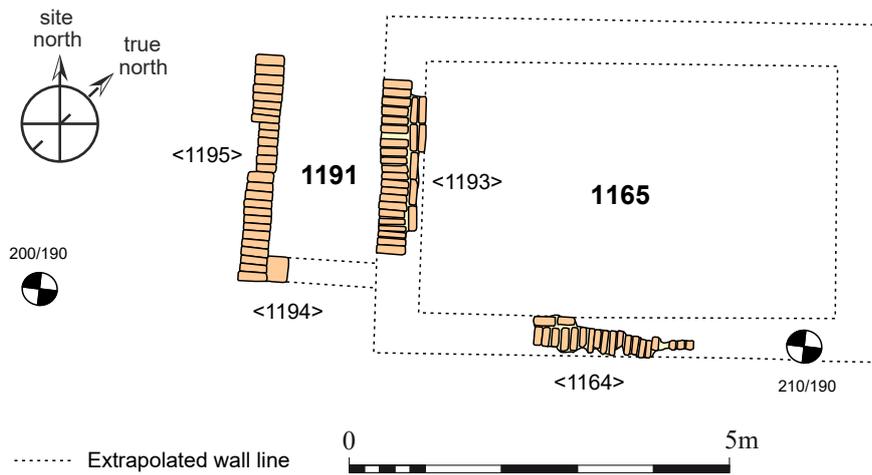


Figure 14. Phase 7 (south) plan Room 1165 (scale 1:100).

mirrored that of ceramic vessel (1113), set within. This in reality seems unlikely and it is probable that a reverse sequence of events occurred, where the cut was excavated into a softer underlying deposit (unrecorded), the vessel was placed into the cut and deposit <1110> was then packed around the side of the vessel to secure it.

Ceramic vessel (1113) measured 310mm in diameter and was 290mm high. The rim of the vessel was missing, although the remainder, including the base, was intact. The single fill, deposit (1114), comprised a loose mid greyish-brown sand intermixed with around 40% charcoal, which is likely to represent hearth debris, indicative of *in-situ* burning, while the presence of the accompanying sand does suggest some secondary infilling event, probably natural erosional processes associated with the abandonment phase of the room.

Circular pit [1236] was located immediately to the north of pit [1112], also within the same rectangular sandy silt structure described previously. Although it had, almost certainly, originally been circular with a depth of 340mm, it had been partly truncated by a second pit and so had survived as a crescent shape that measured only 70mm north-south x 350mm east-west. As with the previously described cut, it is likely that a reverse sequence of events occurred, where the cut was excavated into a softer underlying deposit and vessel (1237) was placed within and finally deposit <1110> was packed around to secure it.

Ceramic vessel (1237) had also suffered from truncation by the later pit and and only measured 70mm north-south x 530mm east-west and was 340mm high. It had been placed upside-down within the cut, creating a ceramic tube, which functioned as a domestic oven. The single fill, deposit (1238), comprised a loose mid greyish-brown sand intermixed with around 60% charcoal. Although heavily truncated by the later pit, it is possible to suggest that the bulk of the deposit represents hearth debris, indicative of *in-situ* burning, although the presence of the accompanying sand does suggest some secondary infilling event, which was probably accidental after its final use.

Circular pit [1116] was also located within the northern part of structure 1110, had a diameter of 370mm and was 220mm in depth. It partly truncated pit [1236] as well

as accompanying ceramic vessel (1237). The shape of the cut closely mirrored the shape of the infilling ceramic vessel (1117), while the surrounding deposit <1110> was close to the vessel (1237), suggesting that deposit <1110> must have been repaired after the vessel's insertion, although this repair was not readily visible.

Ceramic vessel (1117) was placed upside-down within pit [1116], measured 350mm in diameter and was 210mm high. The base of the vessel was missing, creating a ceramic tube, while the single fill, deposit (1118) comprised a loose mid greyish-brown sand inter-

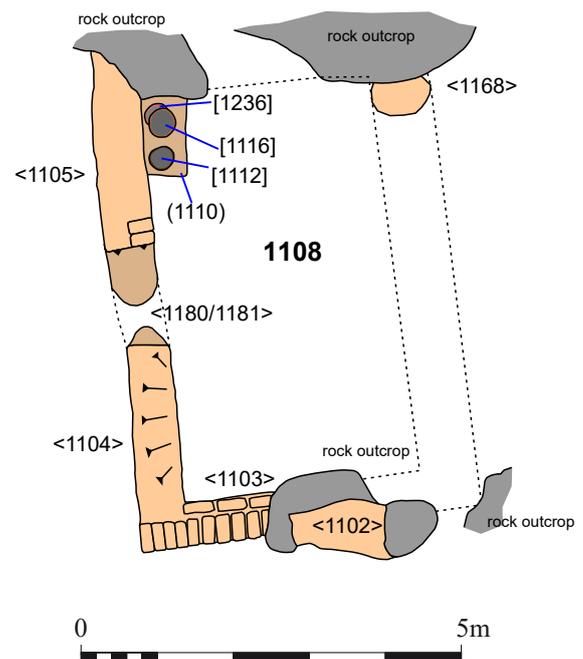
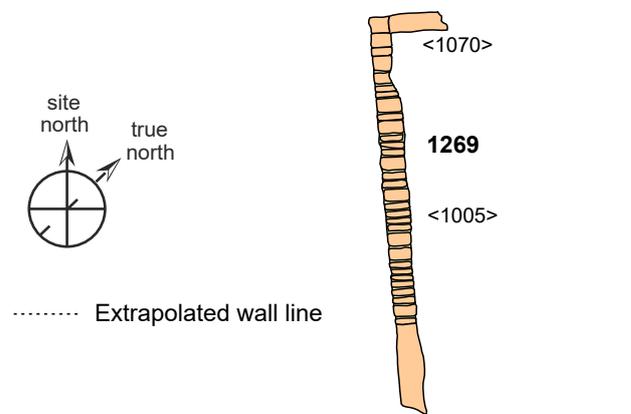


Figure 15. Phase 7 (south) plan Room 1108 (scale 1:100).

mixed with around 50% charcoal. The charcoal content is likely to represent hearth debris, indicative of *in-situ* burning, while the presence of the accompanying sand does suggest some secondary infilling event, probably natural erosional processes associated with the abandonment of the room.

Structural elements defining space 1269:

Figure 15

West wall <1005> measured 5.3m long x 0.35m wide x 0.3m high. The wall's northern end abutted east-west wall <1070>, while its southern limit was defined by horizontal truncation, which coincided with a rise in the underlying bedrock. The wall was directly above a deposit of aeolian sand, which was allocated context number (1209).

North wall <1070> measured 700mm long x 350mm wide x 300mm high. Its western end abutted north-south wall <1005>, while to the east it was completely truncated by later phase stone wall <1003>.

Space 1269 was only partly revealed during excavation and only excavated down to the top of the destruction phase deposits (see Phase 10 context (1062)). The extent revealed measured 5m north-south x 0.7m east-west, which equates only to the area located to the west of later phase stone wall <1003>. The narrowness of the wall itself, at only 350mm wide, distinguishes this structure from the others encountered within this area, making interpretation difficult. Whether the narrowness of the wall indicates that this was an enclosure wall, rather than a roofed structure, cannot be stated with certainty.

Phase summary

The remains of the phase 7 south archaeology seem to differ from the previously encountered mud-brick structures, as here we have what may have been isolated spaces. The area produced evidence of eight new spaces although the survival of most of these was extremely poor. Within spaces **1092** and **1108** evidence survived of domestic activity in the form of ovens, some of which had been replaced, suggesting some longevity in use and presumably occupation of the associated spaces.

The location of entranceways into the individual structures was unclear in seven out of the eight spaces discussed. Only space **1108** contained a definite entranceway.

Little can be said about disconnected wall fragments <4116> and <1075>, although the latter, in view of its narrowness, may be part of an enclosure (as was proposed for space **1269**), rather than an additional building.

Phase 8

Phase 8 includes four separate areas of expansion and of these, three had clear stratigraphic links with the earlier phase buildings, whilst the other was isolated. As with the preceding phase description and because of the complete separation of the four areas highlighted above, this phase has been subdivided here into a North, North-west, West and South. As previously detailed, the stratigraphic sequence of each is presented in its entirety, including the sub-phase summary, before moving to the next sub-phase.

Phase 8 North: Figure 16

This phase comprised the fragmentary remains of three mud-brick walls, unconnected to the earlier phase structures and containing no definitive spaces.

Walls

Mud-brick wall <3034>, possibly defined the northern side of a structure and comprised heavily degraded brick set within an underlying clay silt bedding deposit. The surviving extent of the mud brick measured 500mm north-south x 600mm east-west, while the underlying bedding deposit extended a little further to the south.

Mud-brick wall <3044>, possibly represents the south-west corner of a structure and again comprised heavily degraded brick fragments set within an underlying clay silt bedding deposit, measuring 1.5m north-south x 0.75m east-west. It appears to abut a wall to the south.

Mud-brick wall <3053> comprised a fragment of heavily degraded mud bricks set within an underlying clay silt bedding deposit. The surviving extent of the mud brick measured 750mm north-south x 650mm east-west, while the underlying bedding deposit extended a little further to both the north and east.

Internal spaces

Because of the disjointed nature of the remains which constitute phase 8 north, no internal spaces were recognised.

Phase summary

The three fragments of mud-brick wall could represent the remains of a single building, although this hypothesis is extremely tenuous.

Phase 8 North west: Figures 17 and 18

This phase comprised the addition of six adjoining spaces which together covered an area of 12m north-south x 9.15m east-west. Believed to be associated with this phase of occupation was a series of external deposits located both to the north and west of the new structure, which have, therefore, been included in this phase under the sub-heading; External Deposits.

The new mud-brick structure abutted the north side of the phase 6 building and the west side of the phase 7 North building, utilising the external walls of the earlier phases to create two sides of the new building. The semi-enclosed phase 6 space **6019**, which was now within the new phase 8 building was also incorporated into the structure.

Two construction cuts were noted for the walls in this phase and, although described below, are not represented on the associated plan.

Walls (including construction cuts and associated fills)

Prior to the construction of the walls for this phase, two foundation trenches were excavated for the main exterior walls of the new building and these are believed to represent the beginning of the construction process for this area of the phase 8. All the walls were of mud brick.

Construction cut [6265] was excavated to accommodate the western exterior wall <6016> and truncated the east-

ern edge of the phase 7 aeolian sand deposit (6161). The overall extent of this cut was largely extrapolated from evidence acquired from various sections and irregular truncations, and these suggest that the cut originally measured approximately 12.5m north-south x 1.25m east-west, with a maximum depth of around 150mm. The profile of the cut varied along its length, probably in response to variations in the underlying solid geology, which began to outcrop towards the south. This outcrop finally produced a cut profile that comprised a single sloping edge, with the opposing edge formed by the slope of the rock itself (section 8). The cut's northern end was a more regular shape and continued to the east as cut [6273]. Aside from the wall itself, the cut contained a single fill (6259).

Mud-brick wall <6016> defined the western side of the new building. At its southern end, it abutted the north side of phase 6 wall <6164> at its western corner, while at its northern end, wall <6016> was bonded with east-west wall <6012>. Approximately 6m to the south of this junction, a second east-west wall, (<6017>) abutted its eastern

face. Wall <6016> measured 12m long x 0.55-0.65m wide and survived to a maximum height of 220mm.

Deposit (6259) abutted the western face of wall <6016>, infilling the remainder of construction cut [6265]. It comprised a moderately compacted mixture of sand and small clay-silt fragments. The deposit was only observed in a single section, where it measured 200mm east-west x 150mm thick. The north-south extent is extrapolated at 11.65m.

Construction cut [6273] represents the eastwards continuation of previously described cut [6265] and here accommodated east-west wall <6012>. It partly truncated organic deposit (6306) as well as underlying levelling deposit (6195) (Phase 7 North). As previously, the cut's dimensions were largely extrapolated from evidence acquired from sections and truncations. This gave an approximate extent of around 1.35m north-south x 9.25m east-west and a maximum depth of around 520mm. The cut was dug across a topography which sloped down towards the north, resulting in the top of the cut being higher on the southern edge than the northern edge by up to 300mm (section 9). The cut contained three fills, (6142), (6275) and (6314), along with the wall.

Wall <6012> formed the northern side of the new building. At its eastern end, it abutted the west side of phase 7 wall <6014>, at its north-west corner, while at its western end, wall <6012> was bonded with north-south wall <6016>. Abutting the southern face of the wall were north-south interior walls <6013> and <6057>. The wall measured 9.05m long x 0.6m wide and survived to a maximum height of 640mm.

Deposit (6275) comprised a loosely compacted sand with small stone fragments and abutted the northern face of wall <6012>. It was the first of two deposits which infilled the northern side of construction cut [6273] and was only observed in a single section (see section 9) where it measured 380mm north-south x 260mm thick. Its east-west extent is extrapolated at 9m. Directly overlying this deposit was fill deposit (6142).

Deposit (6142) also abutted the western face of wall <6016> and overlay deposit (6275). It comprised a moderately compacted mixture of sand and small clay-silt or mud-brick fragments. The recorded dimensions measured 100mm north-south x 260mm thick, while the east-west extent of 300mm merely represents the extent of the excavated area in which the deposit was revealed, an original length of 9m is hypothesised.

Deposit (6314) abutted the southern face of wall <6012> infilling the remainder of the southern side of construction cut [6273]. It comprised a moderately compacted mixture of sand and small clay-silt and mud-brick fragments. The deposit was only observed in a single section (see section 9) where it measured 280mm north-south x 260mm thick; an east-west extent of 11.65m is extrapolated.

North-south mud-brick wall <6057> was located roughly centrally along the length of the north exterior wall <6012> and measured 5.95m long x 0.55m wide x 0.25-0.56m high. Its northern end abutted wall <6012>, while the wall's southern extent was defined by an irregular edge that coincided with a rise in the height of the underlying bedrock. A further 1.6m beyond the rock

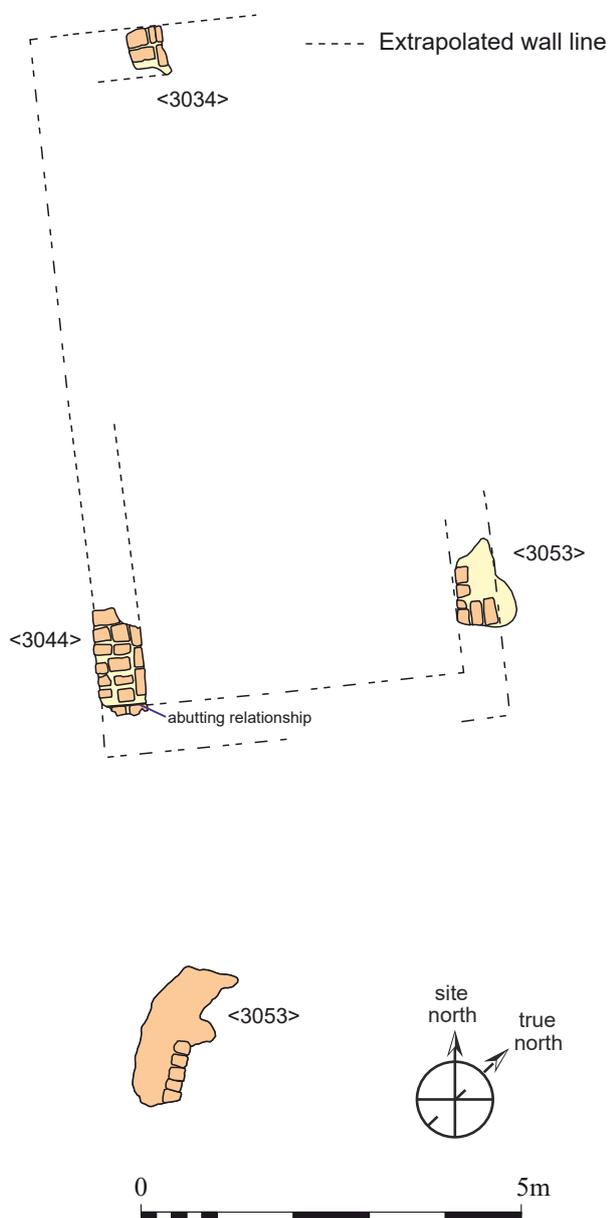


Figure 16. Phase 8 (north) plan (scale 1:100).

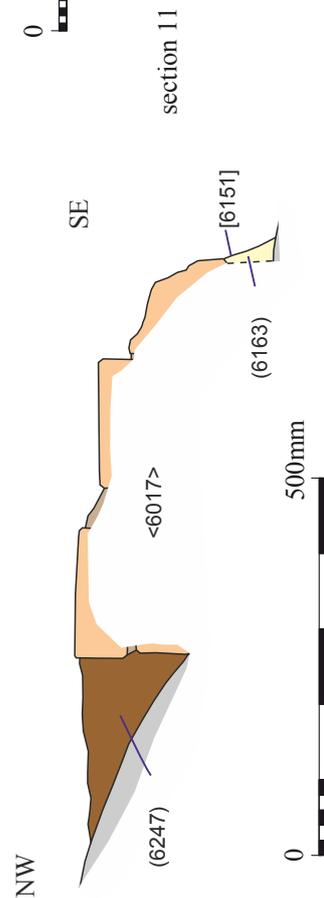
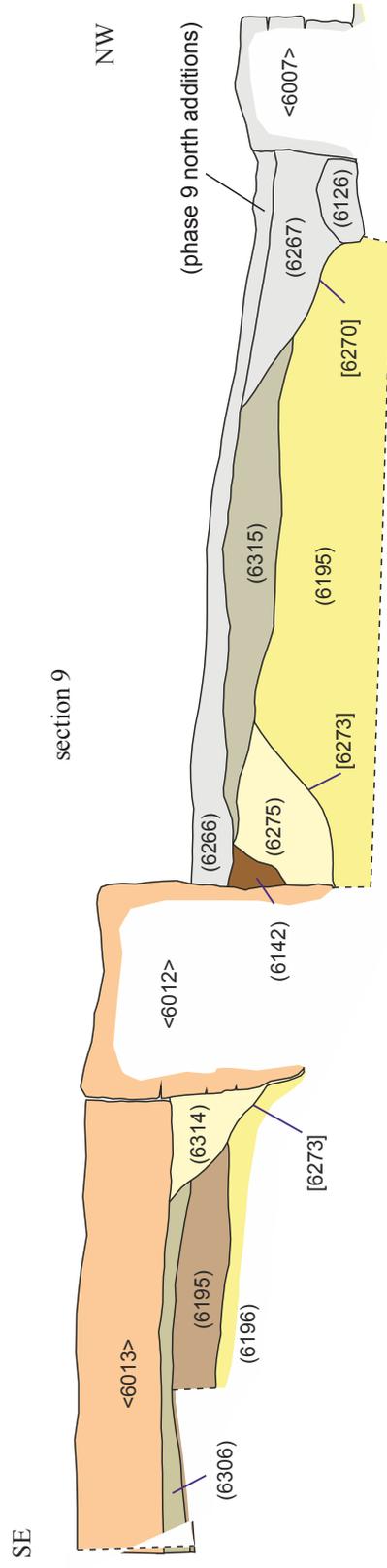
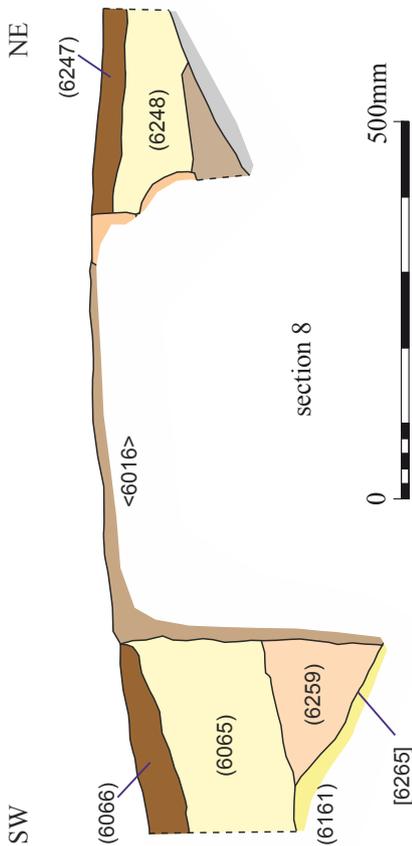
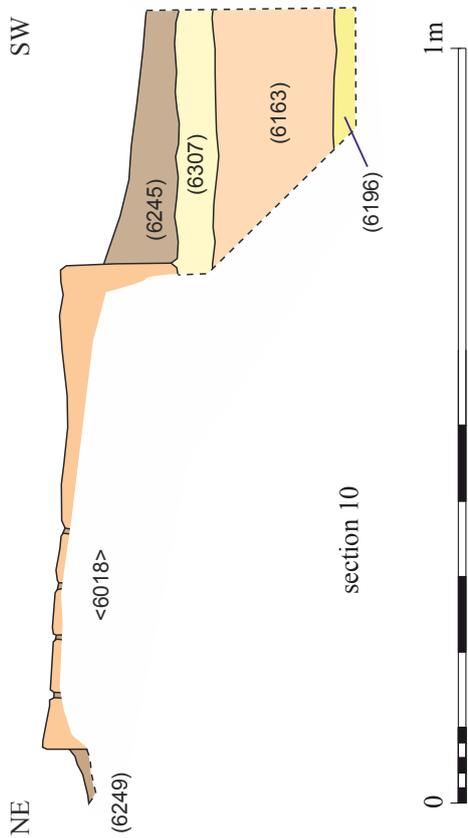


Figure 17. Phase 8 (north west) sections 8, 10 and 11 (scale 1:10), section 9 (scale 1:20).

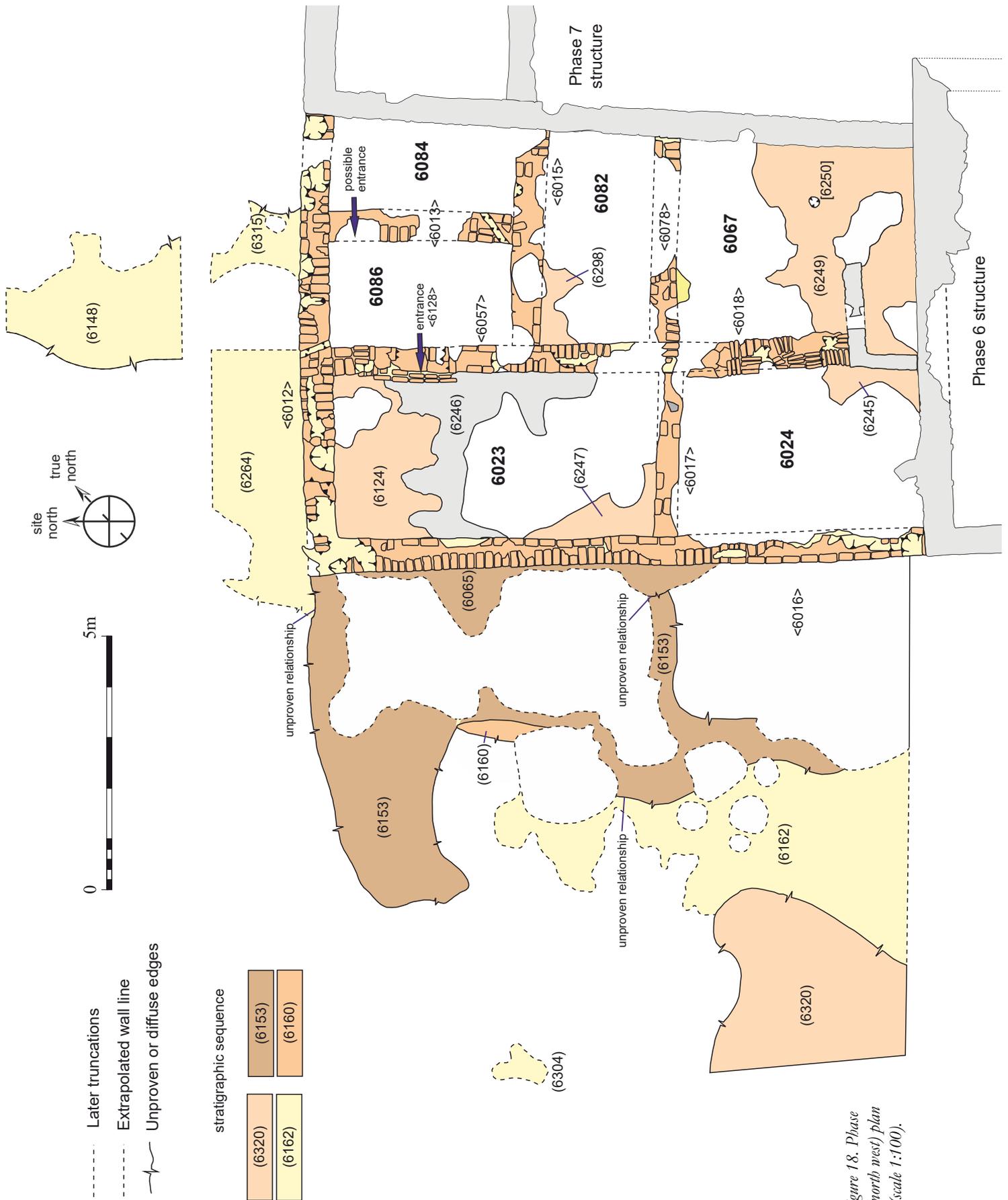


Figure 18. Phase 8 (north west) plan (scale 1:100).

outcrop, the wall continued as wall <6018>.

North-south wall <6018> represents the southwards continuation of the previously described wall and comprised two fragments located 700mm apart. The northernmost comprised two mud bricks, laid in a conventional manner (largest surface downwards), within an irregularly shaped clay-silt bedding matrix that was abutted on its eastern side by east-west wall <6078>. The second fragment comprised a similar mixture of clay-silt bedding within areas of mud bricks set on-edge. Its northern end formed an irregular edge that coincided with the rise in the height of the underlying bedrock, while to the south it abutted the northern face of phase 6 wall <6079> at its north-west corner. The overall length of the two combined fragments measured 3.75m long, with a height of 150mm and a width of up to 700mm. Interestingly, this 700mm width is clearly wider than the surviving walls for this structure, suggesting that it would have originally served as a stepped foundation (section 10).

East-west wall <6017> was located roughly centrally along the length of exterior wall <6016> and measured 3.5m long x 0.45m wide x 0.2m high. Its western end abutted wall <6016>, while the wall's eastern extent was defined by a narrowing of the wall and a change in composition from mud brick to clay-silt bonding. This change coincided with a rise in the height of the underlying bedrock which resulted in a termination of the mud-brick course, to compensate for this rise. The bonding matrix then continued eastwards and joined the previously described foundation wall <6018> (section 11).

East-west wall <6078> abutted the eastern face of wall <6018> and comprised two wall fragments, truncated centrally by phase 13 robber pit [6253]. The overall dimensions measured 4m long x 0.6m wide x 0.35m high. Its eastern end abutted phase 7 north-south wall <6014>.

East-west wall <6015> was located roughly half way along the north-south dividing wall <6057>. Although the wall had suffered much from later truncation, it had a total length of 4.2m and width of 650mm, while a height of 250mm represents the maximum seen. The wall's western end abutted wall <6057>; its eastern end abutted phase 7 exterior wall <6014>.

North-south wall <6013> was located approximately 1.8m from the eastern end of the phase 8 exterior wall <6012> and was partly truncated by later robber cuts. Its northern end abutted the southern face of wall <6012>, while its southern end abutted east-west cross wall <6015>. The wall measured 3.5m long x 0.6m wide and survived to a height of between 0.24-0.44m.

Internal spaces

The development of Phase 8 North west created six new rooms, all of which were excavated. However, despite this, use-phase deposits were encountered in only four of the spaces and comprised the fragmentary remains of possible areas of surfacing and a single, small, circular cut of uncertain function. The remaining areas were extensively disturbed by later truncation.

Space 6023 (Plate 11) was the north-westernmost of the new spaces and was defined by the walls <6012>, <6016>, <6017> and <6057>. It measured 6.2m north-south x

3.25m east-west and was entered through one doorway in wall <6057>, providing access into space **6086**. The deposits associated with the construction and use of this space were separated centrally by an area of horizontal truncation, producing double context numbers for deposits to the north and south of the truncated area, which although not physically linked, are likely to represent the same depositional event. These comprised; levelling deposits (6246) and (6248), surfaces (6124) and (6247) plus context <6128> (also numbered as context [6152]) allocated for the doorway through wall <6057>.

Door threshold <6128> was located approximately 1.25m from the north end of interior wall <6057> and comprised the remains of a heavily worn threshold plus a surviving fragment of a door jamb, which was located on the eastern side of the entrance. The entrance measured 1.1m wide on the western side, narrowing, via a small step, to 850mm within the confines of the narrowest part of the door jamb itself. The threshold comprised a compacted layer of clay silt render that extended over the northern half of the sill, while to the south this render had clearly been worn through onto the mud brick of the underlying wall. To the west of the entrance two lines of mud bricks, set on edge were visible and although these were initially thought to be part of an associated step, their similarity to parts of the wall foundation seen on corresponding north-south wall <6018>, suggests the same function.

Possible levelling deposit (6246) was located within the northern half of space **6023**. It abutted the walls of the space on the north, east and western sides; its southern limit was defined by an irregular edge that followed a level contour of the underlying bedrock, which rose towards the south. This level contour effectively demarcated the point where the top of the rock outcrop and the top of the levelling deposit reached the same height. The outcropping bedrock fell away again within the south-west corner of the space where a similar levelling deposit was recorded as context (6248). The deposit comprised coarse-grained sand with small fragments of degraded stone, which measured 5m north-south x 3.25m east-west x 0.06m thick. The northern half of the deposit was overlain by possible floor surface (6124).

Levelling deposit (6248) was located within the south-west corner space **6023**, abutting walls <6016> and <6017>. Its north-east limit was defined by the same underlying rock outcrop discussed previously and, as with context (6246), it was a coarse-grained sand, which here measured 2.5m north-south x 1.45m east-west x 0.1m thick. This was overlaid by possible floor surface (6247).

Possible floor surface (6124) directly overlay part of levelling deposit (6246), which extended throughout the northern half of space **6023**. It comprised a compact mid-brown sandy-silt that measured 2.1m north-south x 3.2m east-west x 0.13m thick. To the north, east and west the deposit abutted the walls, while to the south its limit was defined by an irregular, eroded edge. Within the north-east corner of the space, later pit [6058] had truncated this and the underlying levelling deposit (6246).

Possible floor surface (6247) directly overlay part of levelling deposit (6248), which was located within the south-west corner. Its western and southern extent abutted



Plate 11. Phase 8 (north west), with spaces 6023 and 6024 in foreground. View from the west.

walls <6016> and <6017> respectively, while its north-east limit was defined by an irregular, eroded edge. The deposit comprised a compact mid-brown sandy-silt that measured 2.5m north-south x 1.45m east-west x 0.11m thick.

Space 6086 was located immediately to the east and was defined by walls <6012>, <6013>, <6015> and <6057>. The space measured 3.4m north-south x 2m east-west and contained one entranceway through wall <6057> into space **6023**. Any deposits definitively associated with the construction and use of this space appeared to be lacking, although it is possible that the underlying bedrock, which here lay directly beneath the walls, served as its surface.

Space 6084 was located to the east of space **6086** in the north-east corner of the new building. It was formed by walls <6012>, <6013> and <6015> plus phase 7 wall <6014>. The space measured 3.5m north-south x 1.85m east-west and contained one possible entranceway, although tenuous, through the northern end of wall <6013>, where what was recorded as the eastern edge of a robber cut [6140], may in fact have been the original wall profile. Deposits associated with the construction and use of this space appeared to be absent as the space had suffered much from later pitting, over around 40% of the total area. However, the preservation of the phase 7 organic deposit (6306) and associated levelling deposit (6195) suggests that a remnant surface did exist, but was not recognised during excavation. The overlying destruction phase deposit (6313) comprised mainly mud-brick rubble, although sand lenses were also present. It is, therefore, possible that the original surface comprised only loose sand, removed during the excavation of deposit (6313).

Space 6082 was located immediately to the south of rooms **6084** and **6086** and was defined by walls <6015>, <6057>

<6078> and phase 7 wall <6014>. The space measured 2.1m north-south x 4.1m east-west. Deposits associated with the use of this space were limited to a small fragment of possible floor surface (6298), located in the north-west corner of the room. Otherwise the remainder of the space, as well as a considerable proportion of the defining walls had been extensively truncated by later pit [6253]. Evidence for the location of doorways into this space was absent, although east-west wall <6078> would appear to be the most probable place for a doorway as here the wall was almost completely truncated by the later robber cut.

Possible surface (6298) was located in the north-west corner of the room. It abutted walls <6015> and <6057> to the north and west, while to the south and east its extent was defined by an irregular broken edge, caused by truncation from later pit [6253]. The surviving fragment comprised a mid-brown compacted sandy silt that measured 0.75m north-south x 1.75m east-west x 0.06m thick.

Space 6024 (Plates 11 and 12) was located in the south-west corner of the new building, being defined by walls <6016>, <6017> and <6018>, plus phase 6 walls <6164> and <6125>. The space measured 4.6m north-south x 3.1m east-west. Deposits associated with the use of this space were limited to a small fragment of possible floor surface (6245), located in the south-east corner of the room, while the remainder of the space had been extensively truncated by later pit [6151]. Evidence for the location of doorways into this space was absent, although north-south wall <6018> would appear to be the most probable location as here the wall only survived at foundation level.

Possible surface (6245) was located in the south-east corner of the room and abutted walls <6018>, <6125> and <6164> to the south and east, while to the north and west it was defined by an irregular broken edge profile, caused by truncation from robber cut [6151]. The surface lay directly upon phase 7 aeolian sand deposit (6307) and comprised a mid-brown compacted sandy silt that measured 3m north-south x 0.75m east-west x 0.04-0.09m thick.

Space 6067 was in the south-east corner of the new building. It was defined by walls <6018> and <6078>, plus phase 6 walls <6164> and <6125>, as well as phase 7 wall <6014>. The space measured 4.65m north-south x 3.85m east-west and included the earlier phase 6 partly enclosed space **6019**. Deposits associated with the use of this space were limited to the fragmentary remains of

a possible floor surface (context (6249)) into which the shallow remains of a possible post-hole were cut (context [6250]). The remainder of the space had been horizontally truncated onto the underlying bedrock. Evidence for a possible entrance was also not obvious, although, as discussed previously, walls <6018> and <6057>, because of their poor preservation, may have been pierced by doorways.

Possible floor surface (6249) comprised two disjointed fragments of compacted mid-brown sandy-silt, which had a maximum thickness of 70mm. Both fragments abutted the walls of the space, with the largest fragment located in the southern half of the space and measuring 4m north-south x 3.5m east-west, while a second smaller piece that measured only 350mm north-south x 350mm east-west was located in the north-west corner. Both the northern limit of the largest fragment and the south-eastern limit of the smaller were defined by irregular, eroded edges, caused by horizontal truncation. Beyond the eroded edges the remainder of the space comprised exposed and weathered bedrock.

Cut [6250] was located approximately 1.85m to the north of wall <6164> and 1m to the west of wall <6014> and partly truncated possible surface (6249). It was circular in plan, with a diameter of 120mm and a depth of 130mm. The cut was filled by context (6254), a loosely compacted mid yellowish brown sand. The formation process is probably accidental infilling, possibly associated with the removal of a post or ceramic vessel from the original cut.

External deposition

Located to both the north and west of the Phase 8 North-west structure and sealed beneath the phase 9 archaeology was a series of deposits that range from naturally derived sands, through to possible levelling or surfacing events. These are described below, beginning with the deposits encountered in the west of the excavation and where directly linked, in stratigraphic sequence.

Context (6162) was a loose yellowish grey, poorly sorted sand, which was located close to the western limit of excavation and immediately to the east of context (6320) (described below). The deposit appeared to have filled a large natural hollow within the underlying bedrock and measured approximately 5m north-south x 4m east-west and had a maximum thickness of 100mm. It is believed to represent a natural accumulation of aeolian sand, although the lack of sorting, plus the presence of charcoal fragments, does suggest some post-depositional disturbance. The deposit was directly overlain by phase 9 walls, as well as being truncated by ovens [6042] and [6045]. These ovens may explain the presence of charcoal within the deposit.

Context (6320) was located at the south-west corner of the excavated area and extended beyond the excavation limits to both the south and west. This peripheral area of the site was not recorded in any detail and indeed this context represents the lightly cleaned, but largely unexcavated, pre-excavation ground surface. The deposit, which comprised loose yellowish brown, poorly sorted sand, is thought to overlay the previously described deposit (6162), which itself represents the first horizon



Plate 12. Phase 8 (north west), with space 6024 in centre of frame. View from the south west.

upon which archaeological features were encountered within this area. Because both deposits were virtually indistinguishable visually, it is believed that context (6320) represents the upper part of the adjacent deposit (6162), or at least represents the same depositional process. As seen, the deposit measured approximately 3.85m north-south x 3.5m east-west and is believed to represent natural, probably aeolian, deposition that has undergone much post-depositional disturbance, as suggested by the lack of sediment sorting within the soil matrix. The deposit was directly overlaid by aeolian sand deposit (6000), which represents the existing ground surface prior to excavation.

Context (6304) was a localised area of loose yellowish brown, poorly sorted sand, sealed beneath phase 9 wall <6303> and probably represents an isolated remnant of deposit (6162), which lies approximately 4m to the east. The extent of deposit (6304) is equivalent to the dimensions of the overlying wall at 1.1m north-south x 0.8m east-west x 0.05m thick.

Context (6160) comprised an un-bonded mixture of mud-brick rubble, sand and stone fragments located approximately 3m to the west of wall <6016>, close to its northern end. The deposit appeared localised, measuring only 1.5m north-south x 0.45m east-west, with a maximum thickness of 180mm. To the west it directly overlay phase 7 deposit (6161), which at this point sloped steeply to the east, reflecting the underlying solid geology. This steeply sloping edge was also present on the eastern edge of deposit (6160), against which sand deposit (6153) (described below) abutted. However, it is interesting to note that directly above this deposit the phase 9 wall (<6070>) had been placed, strongly suggesting some link between the two. Deposit (6160) probably represents a crude foundation or consolidation horizon for the overlying phase 9 wall. If this hypothesis is correct, and because the adjacent deposit (6153) extends over a considerable distance, it seems unlikely that deposit (6153) is later than this context, as originally believed, but rather, because of its localised nature, context (6160), does in fact represent the later deliberate infilling of an unidentified pit which had been cut into deposit (6153) and was infilled prior to the construction of the phase 9 structures.

Context (6153), a mid-yellowish brown, poorly sorted

sand, contained quantities of charcoal as well as abraded ceramic fragments. The southern limit of the deposit was irregular and defined by a rise in the underlying bedrock, while the northern limit was defined by an extended area of horizontal truncation, which had also destroyed part of adjacent deposit (6264) (described below). Later pits had cut the deposit centrally, while to the east the surviving remnants abutted the western face of phase 8 wall <6016>, overlying the associated construction cut. An isolated fragment of the same deposit was allocated context number (6065) (see below), but in reality represents the same depositional event. The stratigraphic location between this deposit and (6160), described previously, appeared to indicate that (6065) is the later of the two. However as highlighted above, it does seem far more likely that this deposit is earlier, with (6160) representing the remains of an unidentified pit. The formation process for this deposit is believed to be natural, probably aeolian deposition, with much post-depositional disturbance, as suggested by the lack of sediment sorting and the abraded ceramics. The deposit was directly overlaid by the phase 9 walls.

Context (6065) is, as mentioned above, likely to represent the same depositional episode as the previously described deposit and also comprised a mid-yellowish brown, poorly sorted sand containing ceramic fragments. The eastern extent of this context abutted the western face of phase 8 wall <6016>, while the other limits of the deposit were truncated by the later pitting mentioned above. The deposit measured 6m north-south x 1.6m east-west x 0.17m thick.

Context (6264) comprised a mid-yellowish brown poorly sorted sand with stone inclusions located to the north of the phase 8 building. Its southern extent abutted phase 8 wall <6012>, while its northern extent was defined by truncation from phase 9 construction cut [6269]. Its eastern extent was not recorded in detail, but is believed to have been directly beneath wall <6009> or truncated by the wall's construction cut [6271], while to the west the deposit was defined by the same area of horizontal truncation which had affected deposit (6153). The measured extent has been largely extrapolated from various sections and irregular truncations, but it is believed to have extended for approximately 1.9m north-south x 5m east-west and had a thickness of around 60mm. This deposit is likely to represent natural aeolian deposition, although its close proximity to the phase 8 building must surely account for much post-depositional disturbance, resulting in the poorly sorted, mixed deposit recorded here.

Context (6315) was a mid-yellowish brown coarse-grained sand. Its southern extent abutted phase 8 wall <6012>, while its northern extent was defined by truncation from phase 9 construction cut [6270]. To the north of this construction cut the deposit was believed to continue, although here it was allocated context number (6148) (see below). To the west the deposit was cut by pit [6106], while its eastern extent was not recorded in detail, but was roughly defined by an extensive area of truncation. The overall extent of the deposit has been extrapolated from sections and the surrounding limit of truncations and is believed to have measured approximately 1.4m north-south x 1.5m east-west, with a thickness of between

20-160mm. It is likely to be a natural aeolian deposit, with the coarse grain size indicative of higher energy processes that are likely to indicate rapid deposition.

Context (6148) was located immediately to the north of context (6315) and was the same mid-yellowish brown coarse-grained sand. Both the northern and southern limit of the deposit were truncated by phase 9 construction cuts, to the north by [6239], to the south by [6270]. To the east the limits of the deposit were defined by a combination of truncations which included phase 9 construction cut [6272] as well as phase 13 pit [6056]. The western limit was largely extrapolated from associated context information, while the remainder of the deposit's eastern extent was defined by the same extensive area of truncation that had defined the previously described context. The overall extent of the deposit has been extrapolated from sections and the surrounding limit of truncations and is thought have measured approximately 3.5m north-south x 2.7m east-west, with a thickness of between 120-240mm. The formation process is believed to represent the same as for context (6315), namely high energy aeolian processes, which are likely to represent a rapid depositional event.

Phase summary

This represents the remains of the Phase 8 North west archaeology, as revealed during the excavation. The six new spaces created are likely to have co-existed with the earlier phase structures as defined by the two earlier phase walls that were incorporated into the new building (walls <6014> and <6164>).

Unfortunately the areas of intact stratigraphy gave little evidence as to the function of individual spaces, thus little can be said about many of the rooms' functions.

Evidence for the location of doorways, either within or into the building, was also sadly lacking, with only one definite entrance identified within the whole of the new structure (door threshold <6128>, wall <6057>). No exterior entrance was located and it is possible that direct access to the structure was via the earlier phase buildings.

It is clear that the earlier partly enclosed external space **6019** was incorporated into the new structure, although how this would have functioned is unclear.

The preserved deposits to the north and west of the new structure comprised mainly naturally derived aeolian sand deposits, which because of their loose structure and the associated problem of post-depositional intrusions, could have been deposited before this phase of occupation. Their inclusion here reflects the latest stratigraphic position in which they could be, rather than the earliest.

The complexities of excavating loose sand deposits is highlighted by deposit (6160), which, although not recorded as such during excavation, is likely to represent the deliberate infilling of an unidentified pit, probably dug in preparation for the construction of the phase 9 structures.

Phase 8 West: Figure 19

Phase 8 West is likely to have comprised the addition of at least three new spaces, two of which abutted the western face of the earlier phase 6 building. Preservation of this structure was particularly poor, as the area generally had

suffered much from later pitting. The structures covered an area of 6m north-south x 6.5m east-west, although it is likely that the original structure would have been slightly larger.

Walls (including construction cuts)

The construction sequence for Phase 8 West comprised the building of at least four new walls and while only one wall abutted the earlier phase 6 structure, it is clear that prior to truncation two other walls would also have had the same relationship.

With the exception of wall <4120>, all the walls appear to have been built directly upon the existing, levelled ground surface, as no other evidence of construction cuts was seen.

Mud-brick wall <4124> formed the northern side of the new building. It was completely truncated at both the eastern and western ends, although at its eastern end it is clear that it would have originally abutted the west side of the north-west corner of wall <4079>. The wall measured 6m long x 0.5m wide and only survived as the initial levelling layer of brickwork, a single course of rowlock headers that reached a maximum height of 120mm. Abutting the southern face of the wall, roughly midway along its length, was north-south interior wall <4120>.

Mud-brick wall <4121> defined the southern side of the new building. At its eastern end, it abutted the west side of phase 7 wall <4079>, while the western end was truncated by later pitting. Abutting the northern face of the wall, near to the truncated western end, was the southern end of north-south construction cut [4284]. The wall measured 3.65m long x 0.55m wide and survived to a maximum height of 250mm.

Cut [4284] was oriented north-south and is believed to represent the construction cut for mud-brick wall <4120>. However, the cut was only revealed within the area where the wall was absent, extending for 1.7m from the wall's southern, truncated end. A further 3m of the cut is thought to lie beneath the surviving wall fragment, although this is only conjectured. This leaves the possibility that the cut in fact represents evidence of later activity, possibly associated with a phase of robbing and destruction.

North-south mud-brick wall <4120> abutted the southern face of east-west wall <4124> to the north, while the southern limit was truncated, beyond which the previously described cut [4284] was seen to continue. The surviving fragment of wall measured 3m long x 0.3m wide and only survived as the initial levelling layer of brickwork, a single course of rowlock headers that reached a maximum height of 120mm. Although its southern end had been robbed, the original course of the wall is believed to have been preserved by the survival of the associated construction cut, described previously. The eastern face of the wall was abutted, mid way along its length, by the remains of cross wall <4122>.

East-west wall <4122> had suffered much from later pit cutting and appeared as two small disjointed fragments. The westernmost survived as a 250mm long fragment, which abutted the eastern face of wall <4120>. Located 1.25m to the east was the second fragment, which was also only 250mm in length. Both only survived to a height

of 120mm. It is conjectured that the original length of the wall would have been around 3.2m, with the eastern end abutting phase 6 wall <4079>.

Internal spaces

The development of Phase 8 West created three new internal spaces of which only two preserved enough of their defining walls to allow their sizes to be calculated. With the remaining space **4123** only the minimum east-west dimension was preserved.

Space 4119 was located in the north-east corner of the new building, defined by the walls, <4120>, <4122> and <4124> plus phase 6 wall <4079>. It measured 2.1m north-south x 3.35m east-west. Deposits associated with the use of this space were absent as the area was extensively truncated by later pitting. Additionally, because of the shallowness of the walls, no evidence survived for the location of doorways into this space.

Space 4118 (Plate 10) was located immediately to the south of space **4119** and defined by walls <4120>, <4121> and <4122>, as well as phase 6 wall <4079>. The space measured 2.25m north-south x 3.2m east-west. Deposits associated with the use of this space were limited to a single small fragment of possible floor surface (context (4191)), which abutted the northern wall <4122> and extended across the central area of the space. The remainder of the space was impacted by later pitting. As previously, the shallowness of the walls preserved no evidence for the location of doorways.

Possible surface (4191) was a small fragment of compacted brown sandy-silt, which abutted the central remaining fragment of the north wall <4122>. The deposit measured 900mm north-south x 600mm east-west and, aside from the abutting northern edge, was defined by irregular, eroded or truncated edges, caused by the pit cutting mentioned previously. Because the deposit was only recorded in plan, its thickness remained unknown.

Space 4123 was located immediately to the west and was defined by walls <4120> and <4124>, plus a 250mm long fragment of wall <4121>. No western wall survived to define the exact east-west limit of the space and as the area was so extensively truncated by later pitting, both doorways and deposits associated with the use of this space were absent.

Phase summary

This represents the remains of the Phase 8 West archaeology as revealed during excavation. However, whether this represents the overall size and shape of the building, is unclear.

Evidence for the location of doorways into any of the spaces was lacking, which is understandable given the extent of the later truncation and the relatively shallow height of the surviving walls.

Phase 8 South: Figure 19

Phase 8 South was located to the south and east of the Phase 8 West archaeology and comprised the addition of at least three new spaces. The construction of these involved the blocking of the doorway into the earlier phase

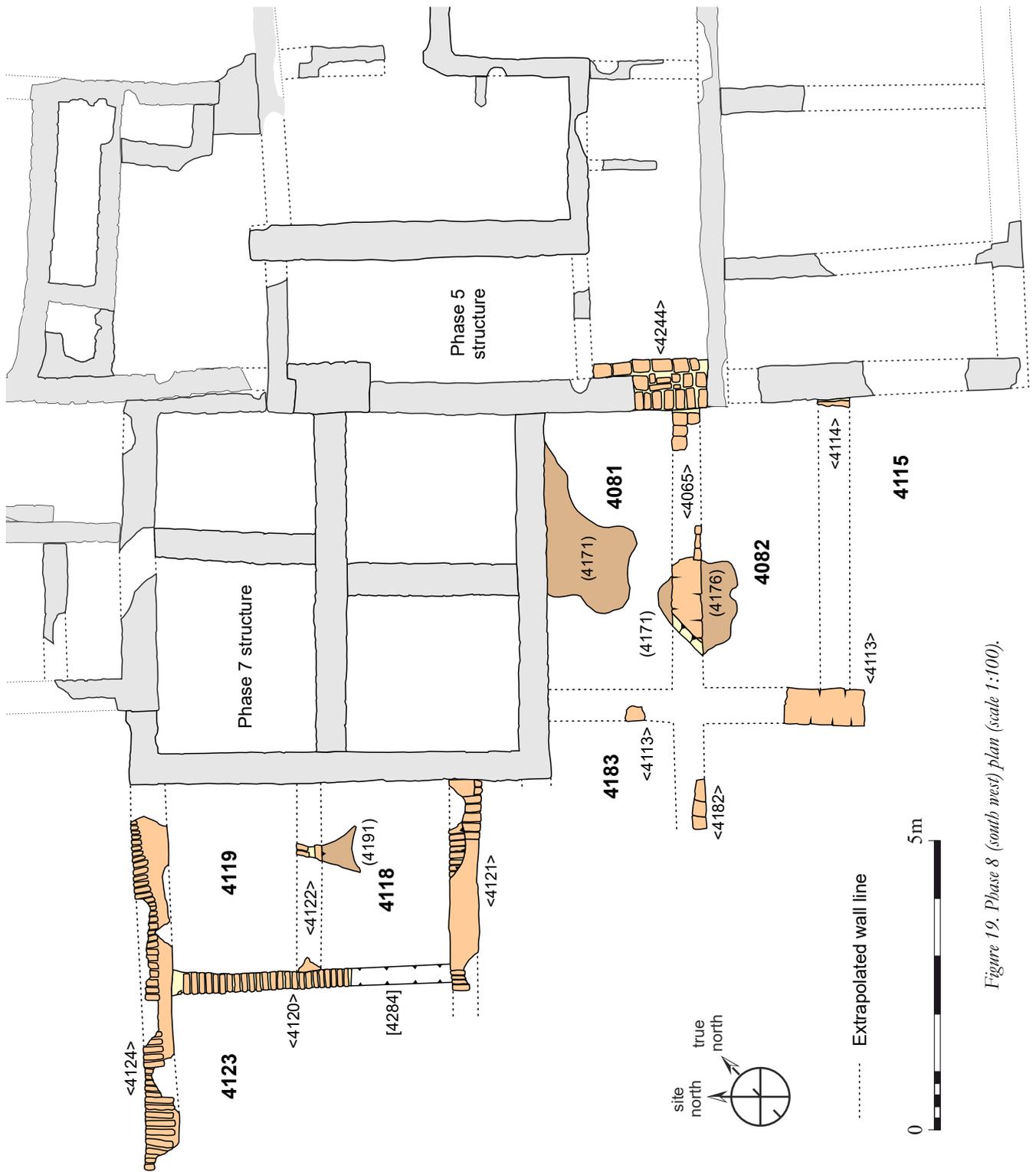


Figure 19. Phase 8 (south west) plan (scale 1:100).

5 building from the west. Preservation of the building was particularly poor, as the area generally had suffered much from later pitting. The structures covered an area of 5m north-south x 7m east-west, although it is believed to have originally extended over a wider area.

Walls

The construction sequence for this phase probably began with the blocking of the only remaining doorway from the west into the phase 5 building. This appears to have been followed by the laying of a localised levelling deposit that

abuted the new blocked doorway and is likely to have been closely followed by the construction of the walls, which defined the new spaces. Of the new walls, one abuted the phase 5 structure, while one abuted the wall in the newly blocked doorway and overlay the previously mentioned levelling deposit.

With the exception of wall <4065>, which overlay the levelling, all the remaining walls appear to have been built directly upon the existing, levelled ground surface. No evidence of construction cuts was seen.

Mud-brick blocking <4244> infilled the Phase 5 door-

way which had provided access through north-south wall <4200> into space 4036. The western face of this infilling was then abutted by the new cross wall <4065> whilst the eastern face now formed a new interior wall face for the above-mentioned phase 5 space. The blocking itself was constructed using a range of rectangular and squared brick and as seen measured 2m long x 0.85m wide x 0.16m high (Figure 21, section 13).

Context (4275) comprised two localised fragments of compacted sandy silt each around 100mm thick, which lay partly beneath the surviving fragments of east-west wall <4065> and associated surfaces (4171) and (4176). The westernmost of these fragments was preserved beneath the central fragment of wall <4065> and the associated surfaces and measured approximately 1.35m north-south x 1.5m east-west, while further to the east, abutting the western face of the previously described blocking wall <4244> and sealed beneath wall <4065> was the second fragment that measured around 500mm north-south x 700mm east-west. Whether this deposit does represent a deliberate levelling deposit associated with the construction of wall <4065>, or evidence of an earlier surface is



Plate 10. Phase 8 (west) spaces 4118 and 4183 in foreground, with better preserved phase 7 (west) spaces 4070, 4071, 4080 and 4107 in background. View from the west.

unclear, however its survival beyond the limit of the wall, beneath surfaces (4171) and (4176), suggests that it once extended over a greater area.

Mud-brick wall <4065> was oriented east-west. It had suffered much from later pitting and survived as two small fragments 1.9m apart. The westernmost measured 1.6m long x 0.5m wide; the other measured 550mm long x 500mm wide and abutted the western face of blocking wall <4244>. The wall survived to a maximum height of only 180mm; the original length is uncertain.

North-south wall <4113> had also suffered much from later pitting and appeared as two disjointed fragments located around 2.4m apart. The northernmost was a small isolated fragment, with only its western face preserved. This measured only 200mm long x 160mm wide x 50mm high, the second fragment measured 1.4m long x 0.55m wide x 0.05m high. The original length of the wall is uncertain although at its northern extent it probably abutted phase 6 wall <4069>, while to the south no east-west adjoining wall survived.

Mud-brick wall <4114> was oriented east-west and had been almost completely destroyed by later pitting. It comprised a single fragment measuring only 150mm long x 500mm wide that abutted the western face of phase 5 wall <4200> and survived to a maximum height of 100mm. Its original length, if it extended as far as north-south wall <4113>, would have been around 4.85m.

Mud-brick wall <4182> was also oriented east-west and had been almost completely destroyed by later pitting. As seen, it comprised a single fragment, which only preserved the wall's southern face. The surviving extent measured 850mm long x 250mm wide x 120mm high. To the east the wall may have formed a junction with north-south wall <4113>, while to the west no north-south delineating wall survived, making the wall's overall length uncertain.

Internal spaces

The structures forming Phase 8 South created possibly three or four new spaces. Of these only two can be delineated with any degree of certainty.

Space 4081 was located in the north-east corner of the new building and was defined by walls <4065>, <4113> and doorway blocking <4244>, plus phase 5 wall <4200> and phase 6 wall <4069>. The space measured 2m north-south x 5m east-west. Deposits associated with the use of this space were limited to two small fragments of possible floor surface. No evidence survived for the location of doorways.

Possible floor surface (4171) comprised two disjointed fragments, both of which abutted the walls of the space. The largest fragment was located centrally in the northern half of the space, abutting wall <4069> and measuring 1.5m north-south x 2.25m east-west, while a second smaller piece, that measured only 150mm north-south x 850mm east-west, was located in the southern half of the space abutting wall <4065>. Where the surviving fragments were not abutting the defining walls, their edges were irregular and eroded. This is likely to be the result of truncation by the extensive later pit mentioned above. The deposit comprised a compacted brown slightly, sandy-silt, which had a maximum thickness of 100mm. It directly overlay the phase 7 pit [4452].

Space 4082 was located immediately to the south of space [4081] and was defined by walls, <4065>, <4113>, <4114>, doorway blocking <4244> and phase 5 wall <4200>. The space measured 1.9m north-south x 4.9m east-west. Deposits associated with the use of this space were limited to a single fragment of possible floor surface. Because of the extensive truncation from later pitting, both to the remainder of the space and the defining walls, no evidence survived for the location of doorways into it.

Possible surface (4176) comprised a small fragment of compacted brown slightly, sandy-silt, which abutted the central remaining fragment of the north wall <4065>. The deposit measured 0.55m north-south x 1.5m east-west x 0.1m thick and aside from its northern edge, was defined by irregular, eroded or truncated edges, from the pit mentioned previously. Part of the upper surface of the deposit appeared to show evidence of *in-situ* burning.

Space 4115 was located immediately to the south of

space 4082 and was defined by walls, <4113>, <4114> and phase 5 wall <4028>. No southern wall survived to define the exact north-south limit of the space, although an east-west extent of 5m seems likely. Deposits associated with the use of this space were absent as the area was extensively truncated by later pits.

Space 4183 was located immediately to the west of space [4081] and was defined by wall fragments <4113> and <4182> on the eastern and southern sides, while to the north approximately 1m of the phase 6 wall <4069> defined the extent here. Beyond the south-west corner of wall <4069> no continuation of this alignment was seen and no western wall survived to define the exact limits of the space there. Because the area was extensively truncated by later pitting, deposits associated with the use of this space were absent.

Phase summary

This represents the remains of the Phase 8 South archaeology as revealed during the excavation. Evidence for the location of doorways into any of the spaces was lacking, which is understandable given the extent of the later truncation and the relatively shallow height of the surviving walls. Aside from the remnant floor surfaces and the small area of *in-situ* burning, no detail survived to suggest a function for these spaces.

Phase 9

Phase 9 includes two separate areas of expansion, with both of the new areas having clear stratigraphic links with the earlier phase buildings, one abutting the walls of the phase 6 and 8 structures and one abutting the walls of the phase 7 and phase 8 buildings. As with the preceding phase description the phase is subdivided into a North and West.

Phase 9 North: Figure 20

This phase of expansion saw the addition of five adjoining spaces which together covered an area of 6.6m north-south x 9.25m east-west. The new structure abutted the north side of the Phase 8 North building, utilising the external wall of the earlier structure to create its southern wall. Six construction cuts were noted for walls in this phase and although these are not represented on the accompanying plan they are described below, followed immediately by their associated wall.

Walls (including construction cuts and associated fills)

Prior to the construction of the walls for this phase, a series of cuts was excavated to accommodate them.

Construction cut [6239] was oriented east-west and truncated the northern edge of the phase 8 sand deposit (6148). It contained foundation <6038>, associated mud-brick wall <6003> and a single infilling deposit (6040). The extent of the cut was largely extrapolated from evidence acquired from various sections and irregular truncations, which suggested it would have measured approximately 0.85m north-south x 8.5m east-west, with a

maximum depth of around 200mm. The upper surface of the underlying soft deposit (6148) sloped down towards the north here and this in turn produced an uneven cut profile which had an edge that was higher on the south; a height difference of around 80mm, although the base of the cut remained horizontal. The cut's eastern end was not defined either because of horizontal truncation or possibly it became increasingly shallow deliberately, while the western end is believed to have formed a right angle corner and then continued southwards as construction cut [6268], described shortly.

East-west foundation <6038> was overlaid by mud-brick wall <6003>. Its western end was integral with north-south foundation <6317>, while its eastern extent was truncated horizontally. This truncation had completely removed the overlying mud-brick wall <6003>, to expose the irregular linear base of the stone and clay-silt structure of the foundation. The surviving length of the foundation was 9m with a maximum width of 700mm and a thickness of between 100-250mm. Abutting the southern face of this foundation was the construction cut fill, deposit (6040), which infilled the remainder of the southern side of construction cut [6239]. It comprised a moderately compacted mixture of sand and small clay-silt and mud-brick fragments. The deposit was only observed in a single section, where it measured 160mm north-south x 120mm thick. The excavated east-west extent was 1m.

Mud-brick wall <6003> was oriented east-west and was built upon foundation <6038>. It defined the northern side of the new building and was horizontally truncated at its eastern end, while its western end was bonded with north-south wall <6005>. The wall measured 6m long x 0.60-0.65m wide and survived to a height of between 120-300mm (see section 14).

Construction trench [6268] was dug for north-south foundation <6317> of mud-brick wall <6005>. It represents the presumed southwards continuation of east-west construction cut [6239], although only the previously described east-west part of this cut was seen during excavation.

Foundation <6317> was oriented north-south. Its northern end was bonded with east-west foundation <6038>, while its southern limit was not seen, being hidden beneath mud-brick wall <6005>. The construction comprised a compacted mixture of stone and clay-silt, which formed an irregular linear base. The visible extent of this foundation measured only 650mm long x 250mm thick, although as it was seen to continue beneath wall <6005>, the full extent was undoubtedly greater.

Mud-brick wall <6005> directly overlay foundation <6317>, was oriented north-south and defined the western side of the new building. At its northern end the wall was bonded with east-west wall <6003>, while its southern limit, although partly truncated, preserved enough evidence to indicate that the wall would have originally terminated in a squared end. This formed the north jamb of a doorway into the new structure from outside. The wall measured 5.5m long x 0.65m wide and survived to a maximum height of 300mm. Abutting the eastern face of the wall, towards its southern end, was east-west interior wall <6006>.

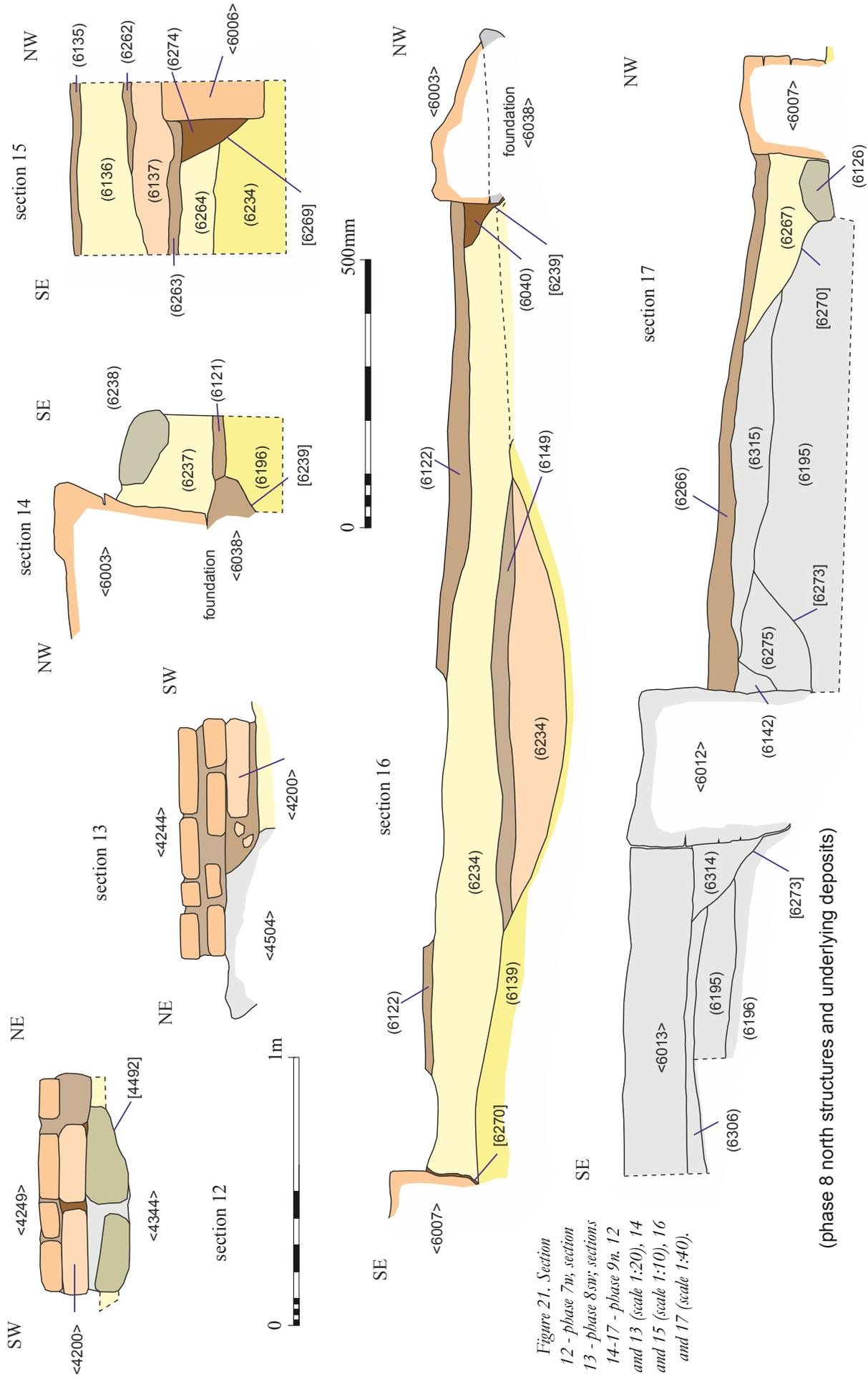


Figure 21. Section 12 - phase 7n; section 13 - phase 8sv; sections 14-17 - phase 9n. 12 and 13 (scale 1:20), 14 and 15 (scale 1:10), 16 and 17 (scale 1:40).

(phase 8 north structures and underlying deposits)

is thought to represent the same infilling event, was seen further to the east abutting wall <6007>

Construction cut [6270] was also oriented east-west and represents the eastwards continuation of the previously described cut [6269]. It contained mud-brick wall <6007> and two infilling deposits (6126) and (6267) (see Figure 21, sections 16 and 17). The visible extent of the cut was 1.1m wide, with a maximum depth of around 260mm. The underlying sand deposits sloped down towards the north, indicating a slope in the underlying topography, prior to the construction of the phase 9 structure. This in turn produced a construction cut with an uneven profile, with a top edge that was around 240mm higher on the southern side, although the base of the cut remained horizontal. The cut's eastern end was not recorded, but was probably truncated, while to the west it is assumed that the cut extended as far as north-south wall <6009>, and hence became construction cut [6269].

Mud-brick wall <6007> was oriented east-west and appeared as two disjointed fragments around 150mm apart. The wall's western end was bonded with the southern end of north-south wall <6004> (described below), while to the east the wall was truncated. Despite this truncation it is clear that it would have originally formed a junction with north-south exterior wall <3025>. The wall measured 5.25m long x 0.4m wide and survived to a maximum height of 450mm. Abutting the northern face of the wall, approximately midway along its length, were the fragmentary remains of north-south wall <6011>, while to the south and abutting the southern face of the wall towards its western end, was north-south interior wall <6009>. Additionally, towards the wall's eastern end a small buttress, context <6010>, protruded from the wall.

This squared buttress <6010> extended 250mm from the southern face of the main wall. Although not recorded as such, it is likely that it was set within the construction cut for wall <6007> as it was abutted on its southern face by two deposits associated with the infilling of that cut (deposits (6126) and (6267)). Its presence is likely to indicate the position of a doorway through wall <6007>.

Deposit (6126) abutted the southern face of mud-brick wall <6007> and partially filled the southern side of construction cut [6270]. It was a moderately compacted mixture of small degraded stone and clay-silt with some fragmentary mud brick. The deposit was only observed in a single section (see Figure 21, section 17) where it measured 220mm north-south x 120mm thick, while an east-west extent of 1m, represents the excavated extent.

Deposit (6267) overlay the previously described deposit and also abutted the southern face of mud-brick wall <6007>. It comprised a fine yellow sand with some small clay-silt fragments. As previously, the deposit was only observed in a single section and here measured 700mm north-south x 200mm thick; the excavated east-west extent was 1m. This deposit is believed to represent the eastwards continuation of the previously described infilling deposit (6274).

Construction cut [6235] was oriented north-south and partly truncated the underlying phase 7 sand deposit (6234). The western side of the cut was itself truncated by later pitting, while the eastern side was not revealed

during excavation. Both the northern and southern ends of the cut are likely to have adjoined the previously discussed east-west construction cuts [6239] and [6269], although this relationship remained unproven. The single section indicated that the cut survived to a depth of around 100mm, while a width measurement of 0.7m represents an extrapolated dimension. Aside from wall <6004>, the cut contained a single fill (6236).

Mud-brick wall <6004>, oriented north-south, was an interior wall within the new structure. The southern end of the wall was bonded with the western end of east-west wall <6007>, while at the wall's northern end a buttressed end formed the jamb of a doorway between rooms **6020** and **6021**. However, in reality it is likely that the wall continued beneath the unexcavated door threshold <6118> and abutted east-west exterior wall <6003>. The visible part of the wall measured 2.9m long x 0.4m wide and survived to a maximum height of 570mm, while the associated buttress extended approximately 150mm beyond the wall's eastern face and measured 250mm north-south. The wall was abutted on its western side by construction cut fill (6236), a moderately compacted mixture of sand with mud brick, or clay-silt fragments. The deposit was only observed in a single section (see section 18) where it measured 140mm east-west x 180mm thick; the north-south extent was not revealed.

Construction cut [6272] was oriented north-south and was truncated at its northern end by later pitting, as was all of the eastern edge and part of the western edge. Although the southern limit of the cut was not seen, it is believed to have formed a junction with east-west construction cut [6270]. The single section indicated that the cut survived to a depth of around 150mm, while the remaining dimensions were not seen. Aside from mud-brick wall <6011>, the cut contained fills (6276) and (6277).

Mud-brick wall <6011>, oriented north-south, was an interior wall within the new structure. The southern end of the wall abutted the northern face of east-west wall <6007>, while to the north the wall was defined by later truncation. Both faces of the wall had also suffered much from later truncations, although the wall's full width was still preserved in places. The observed dimensions measured 1.75m long x 0.45m wide x between 0.17-0.33m high.

Deposit (6276) abutted the western face of mud-brick wall <6011> and partially filled the western side of construction cut [6272]. It comprised a moderately compacted mixture of sand and small degraded clay-silt or mud-brick fragments. The full extent of the deposit was not seen, being only observed in a single section (see section 19) where it measured 220mm east-west x 70mm thick.

Deposit (6277) overlay the previously described deposit and also abutted the western face of mud-brick wall <6011>. It comprised a fine yellow sand with some small clay-silt fragments. As previously, the deposit was only observed in a single section and here measured 120mm east-west x 130mm thick.

Mud-brick wall <6009> was a north-south oriented interior wall within the new structure. No construction trench was noted. To the south the wall abutted the northern face of east-west phase 8 wall <6012>, to the north it abutted

east-west wall <6007>. The western face of the wall was fairly well preserved, while the eastern face had suffered much from later truncations, leaving a surviving width of only 350mm. The length was 2m and the maximum height was 500mm.

North-south wall <3025> is the most easterly wall of the new structure to survive and appeared as two wall fragments 1.05m apart, with an unexcavated collapse deposit between. The northernmost of the fragments measured 500mm long x 350mm wide and was truncated at its northern end. The other fragment measured 850mm long x 350mm wide x 210mm high and at its southern end abutted phase 6 exterior wall <3024>. The central area of collapse which divided the two fragments, context (3051), is described as part the abandonment deposits allocated to phase 10. The original length of the wall is not certain although at its northern end it is likely to have met east-west wall <6003>.

Isolated wall fragments

Mud-brick wall <6002> was oriented east-west and was located near the northern limit of excavation. The wall was truncated on all sides and survived as an irregular-shaped fragment of mud bricks set in a clay-silt bedding mortar. The overall dimension measured 900mm east-west x 450mm north-south x 120mm high and seems likely to have been the remains of a structure that was located to the north, beyond the excavation limits. It was possibly related to adjacent wall fragment <6001>.

Mud-brick wall <6001> was also located at the extreme northern limit of the excavation, approximately 1.7m to the north of wall <6003>. It was oriented north-south and measured 960mm north-south x 600mm east-west x 300mm high. The western, southern and part of the eastern limits were truncated, while to the north the wall continued beyond the excavations. The surviving fragment is thought to have formed the south-west corner of a now destroyed structure and is possibly related to wall <6002>.

Internal spaces

The development of Phase 9 North created five new spaces. One of these spaces was excavated as part of the 2003/4 evaluation. All of the remaining spaces had suffered from some later truncation, but all preserved some evidence of use-phase deposits. One in particular (space **6088**) contained a fairly complex stratigraphic sequence that seemed to show at least one re-plastering event, which probably followed some fire damage to the space. This space has been subdivided into sub-phases A and B that are represented on the stratigraphic matrix, which accompanies the associated plan.

Space 6020 (Plates 14 and 15) was located in the north-west corner of the phase 9 structure and was defined by walls <6003>, <6004>, <6005> and <6006>. It measured 3.75m north-south x 2.8m east-west. Deposits associated with its use only survived against the walls; the remainder of the space had been completely truncated by intercutting pit sequence [6157]. The surviving use-phase deposits comprised a small fragment of possible floor surface (6121) that abutted walls <6003> and <6005>, a deposit of mixed sand (6237) which partly overlay surface (6121)

and abutted wall <6004>, and a fragment of clay-silt rendering that overlay (6237) as well as extending onto the face of wall <6004>. The space contained two doorways, one in the north-east corner through wall <6004>, with door threshold <6118> (discussed with adjoining space **6021**) and a second in the south-east corner through wall <6006> (see Figure 22, section 20), with door threshold <6138> (discussed with adjoining space **6088**).

Possible surface (6121) abutted the southern face of wall <6003> and the eastern face of wall <6005>. The non-abutting edges were defined by an irregular broken profile, indicative of truncation from the intercutting pit sequence [6157]. The surviving fragments of surface comprised a mid-brown compacted sandy silt that extended for approximately 600mm against the face of wall <6003> and for 3.5m against the face of wall <6005>. The widest fragment measured around 250mm, while the thickness varied from between 20mm and 80mm.

Context (6237) partly overlay the previously described surface (6121) and abutted the southern face of wall <6003> and the western face of wall <6004>. As previously, the non-abutting edges were defined by an irregular broken profile, indicative of truncation from intercutting pit sequence [6157]. The surviving fragment comprised a mid yellowish-brown mixed sand that extended for approximately 600mm along the face of wall <6003> and for 3.5m against the face of wall <6004>. The thickness varied between 50mm and 170mm and as it was partly overlaid by wall render (6240), it is believed to have formed during the use of space **6020**. Deposit (6137) which overlies door threshold <6138> and extends into adjacent space **6088** probably represents the southwards continuation of this deposit.

Context (6240) adhered to the western face of wall <6004> and extending away at its base to lie directly over mixed sand deposit (6237). The surviving fragment measured approximately 1m long and comprised a mid-yellowish-brown sandy silt of between 10-50mm thick. Its stratigraphic position above sand accumulation (6237) suggests that this episode of wall rendering is associated with repairs to the building and may be broadly contemporary with similar episodes of rendering within adjacent space **6088** (see contexts (6262), (6295) and (6296)).

Space 6021 was located immediately to the east of space **6020** and was defined by walls <6003>, <6004>, <6007> and <6011>. The space measured 3.6m north-south x 2.9m east-west. Deposits associated with its use were limited to the remains of a fragmented floor surface (6122) which abutted all of the walls and compacted door threshold <6118>, located in the north-west corner through wall <6004>. This formed the one definite doorway into the space.

Possible surface (6122) abutted all of the walls for space **6021** and comprised a mid brown compacted sandy silt that measured 3.7m north-south x 3m east-west x around 0.03m thick. The deposit had suffered from some shallow localised truncations centrally and from deeper more severe truncations along the eastern edge, which was defined by an irregular broken profile. The surface abutted door threshold <6118>, with which it was almost level. This may suggest some contemporaneity between the two.

Door threshold <6118> comprised a mid-brown compacted sandy silt measuring 940mm north-south x 460mm east-west. It survived to a height of around 30mm above surface (6122) and although only revealed in plan, probably overlay part of wall <6004>. To the north and west it was partly overlaid by abandonment-phase deposit (6238) (phase 10, space 6020).

Space 6321 was located immediately to the east of space 6021 and was defined by walls <6007>, <6011> and wall foundation <6038>, while to the east evidence for the location of the wall survived only as a linear edge to possible surface (3052). Using this edge as a guide, an extent 3.6m north-south x 1.95m east-west can be suggested. Because of the extensive truncation, both horizontally and from later pit cutting, deposits associated with the use of this space were limited to the remains of the fragmented floor surface (3052) and possibly a small circular cut [3056]. Evidence of a doorway into this room through wall <6007> is indicated by the presence of buttress <6010>.

Possible surface (3052) was located at the extreme eastern side of the space and comprised a mid-brown compacted clay silt that measured 0.85m north-south x 1.05m east-west. The northern, western and southern extents had suffered from later truncation and were irregular and broken, while the eastern side preserved a straight, linear edge, suggesting it had once abutted a now absent wall face.

Circular cut [3056] measured 80mm in diameter x 80mm deep and partly truncated deposit (3052), towards

its southern extent. The cut contained a single fill, a greyish-brown sand, which is believed to have formed through natural erosional processes. The small diameter



Plate 15. Phase 9 (north), with space 6020 in centre of frame. View from the north west.

of this cut suggests it might have accommodated a post. Aside from the likelihood of some horizontal truncation, its shallowness indicates that it was unlikely to have been freestanding.

Space 6088 (Plate 16) was located to the south of space 6020 and was defined by walls <6005>, <6006>, <6009> and the phase 8 wall <6012>. The space measured 2m north-south x 3.85m east-west. It was excavated down to the top of an abandonment phase deposit (phase 10, context (6135)), beyond which limited excavation continued only within the western half of the space. Within

this area, deposits associated with its use were fairly extensive and comprised surface (6263), upon which was localised area of *in-situ* burning (6278), 'L'-shaped pit [6285], and circular cut [6280], which partly truncated the burning. Further to the north, but still truncating surface (6263), was a second circular cut, [6282].

Additional to this was a second, more extensive, area of *in-situ* burning (context (6284)) against walls <6005>, <6006> and <6009>, as well as parts of surface (6263), possibly attesting to a less controlled episode of burning. Part of this burnt area was then overlaid by use-phase sand deposit (6137) and surfacing (6262), both of which were located within door threshold <6138>. These last two deposits probably represent the truncated remains



Plate 14. Phase 9 (north), with space 6020 in the right corner of frame. View from the north.

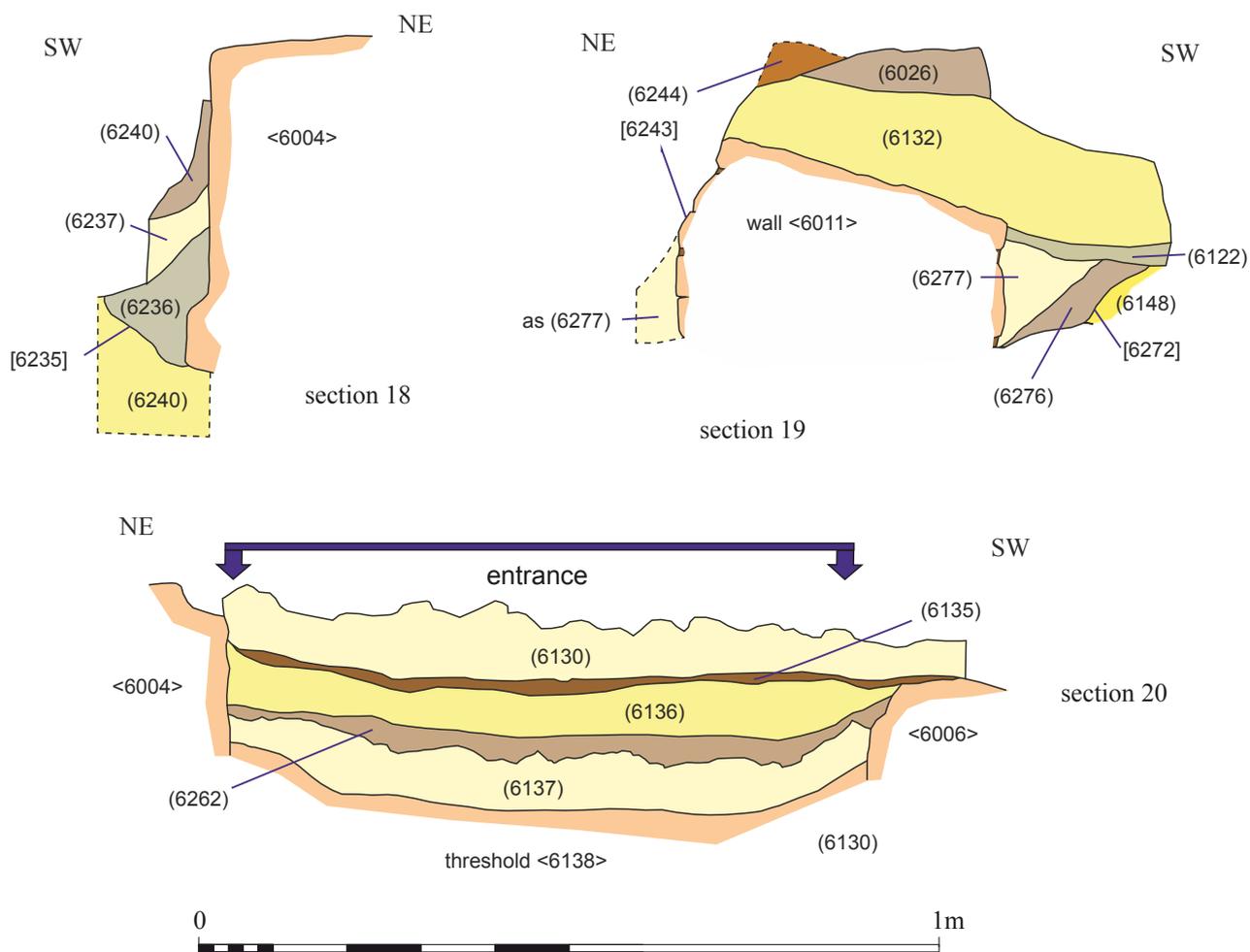


Figure 22. Phase 8 North; sections 18-20 (scale 1:10).



Plate 16. Phase 9 (north), with space 6088 in the right corner of frame. View from the west.

of more extensive deposits which would have originally filled adjacent space **6020**. Finally two isolated episodes of wall rendering, (6295) and (6296), were observed, one stratigraphically above sand deposit (6137) and the second above burning episode (6284). This seems to indicate the

continued use and refurbishment of the space after the burning episode (6284). The room contained two doorways; one to the north, through wall <6006> with threshold <6138>, the other to the west, through exterior wall <6005> which provided access to the outside.

As mentioned previously, the developments within this space have been subdivided into A and B to emphasise the break in continuity.

Space 6088 A – Possible surface (6263) was partly revealed during excavation and abutted walls <6006> to the north and <6012> to the south. To the west the extent was partly defined by an irregular broken profile, indicative of truncation from later pits and partly obscured by unexcavated abandonment phase deposit (6154). The relationship to the east with wall <6009> was not proven, as here the space was only excavated down to the overlying abandonment phase deposit (6135). The surface comprised a mid-brown compacted

sandy silt of which the revealed extent measured 2.1m north-south x 2.15m east-west. The surface showed evidence of use in the form of areas of *in-situ* burning and cut features, described below.

Burning episode (6278) was located approximately

700mm to the north of east-west wall <6012> and 1.6m to the west of the eastern wall <6009>. It survived as a roughly circular area of what appeared to have been fairly intense burning which had changed the underlying mid-brown surface into a dark terracotta-coloured circle that changed in colour towards the centre into a very light grey. The area measured approximately 400mm in diameter and had burned the underlying surface to a depth of around 100mm. Both the northern and southern edges of the burning were partly truncated by later features, (described below).

Cut [6285] was located approximately 100mm from southern wall <6012> and partly truncated the southern edge of burning deposit (6278). In plan it was a distinctive 'L'-shape and was aligned parallel with the adjacent walls. The two longest edges of the cut measured 600mm north-south x 750mm east-west, while the shorter ends measured 250mm. The single fill, context (6286), comprised a mixed, yellowish-brown sand with small degraded stone fragments. As the fill was not excavated, its thickness is uncertain.

Cut [6280] partly truncated the northern edge of burning deposit (6278). It was circular in shape, with a diameter of 200mm, while its depth was 140mm. The cut was filled by context (6281), a loosely compacted mid-yellowish brown sand 140mm thick. The formation process is probably accidental infilling, associated with the removal of either a post or ceramic vessel from the original cut.

Cut [6282] also truncated underlying surface (6263) and was circular in plan with a diameter of 200mm. It was 100mm deep and filled by context (6283), a loosely compacted mid yellowish brown sand. As previously, the formation process for this deposit is probably accidental infilling associated with the removal of either a post or ceramic vessel from the original cut.

Context (6284) was an extensive area of *in-situ* burning which extended onto walls <6005>, <6006> and <6009> as well as onto parts of surface (6263). Because of the diffuse nature of the burnt area, the exact dimensions were not recorded, although it covered around half of the total extent of the space. The colour appeared to indicate less intensive burning than the previously discussed hearth, being a light orange-red colour, which became lighter towards the edges.

Space 6088 B – Context (6137) was located within the doorway between this and adjoining space **6020** and comprised a fine compacted yellowish-brown sand. The deposit partly overlay the previously described area of *in-situ* burning, indicating continued use of the space after that event. The deposit extended through doorway <6138> into space **6020** where it was truncated by intercutting pit sequence [6157]. Towards the south and west, beyond the confines of the doorway, the deposit decreased in thickness from a maximum of 70mm within the doorway, until it finally disappeared. The eastern extent continued beneath the unexcavated remainder of abandonment phase deposit (6135), leaving a visible extent for (6137) of around 500mm north-south x 500mm east-west, while the extrapolated east-west extent is postulated at around 1m. It seems probable that this deposit equates to context

(6237), which was revealed within space **6020**.

Context (6262) partly overlay the previously described deposit and was also located within the doorway between this and adjoining space **6020**. It comprised a compacted mid-brown sandy silt of around 20mm thick that extended through doorway <6138> to the beginning of space **6020** where it was truncated by the same intercutting pit sequence described previously. Towards the south and west the deposit remained within the confines of the doorway, abutting wall <6006> to the west and decreasing in thickness towards the south from 20mm thick, down to nothing as the deposit finally disappeared. The deposit's eastern extent continued beneath the unexcavated part of abandonment phase deposit (6135), although the full east-west extent was revealed within the north facing section formed by truncation [6157] where it measured 870mm. The surviving north-south extent measured around 200mm.

Wall plaster (6295) adhered to east-west wall <6006> and comprised a 30mm thick layer of fairly hard, mid greyish-brown silty-clay. The surviving extent was only 140mm long x 170mm high with the edges appearing irregular and broken. (It should be noted that the burning episode (6284) continued beneath this plaster and plaster (6296), described below). At its base, the plaster overlay the compacted sand deposit (6137), described above.

Wall plaster (6296) adhered to north-south wall <6009> and also comprised a 30mm thick, fairly hard, mid greyish-brown silty-clay. The surviving extent measured 1.43m long x 0.18m high with the upper and side edges appearing irregular and broken. The base of the plastered face was not revealed during excavation, being abutted by the unexcavated abandonment phase deposit (6135).

Space 6022 (Plate 13) was located immediately to the east of space **6088**, being defined by walls <6007>, <6009>, and <3025>, as well as phase 8 wall <6012>. The space measured 2m north-south x 3.95m east-west. Deposits associated with its use were limited to the remains of a fragmented floor surface which abutted two of the walls. Much of the remainder of the space had been completely truncated either by a series of intercutting pits, or by the previous season's evaluation trench, although as the fill deposits were all very mixed, the boundary between the two remained uncertain.

Possible surface (6266) abutted walls <6007> and <6012> and comprised a mid-brown compacted sandy silt that measured 2m north-south x 1.2m east-west and varied in thickness between 40mm and 100mm. The deposit had suffered from extensive truncations, both to the east and west, with both of these edges having an irregular and broken profile.

External deposition

Possible surface (3085) was located immediately to the east of space **6022**, and abutted both the eastern face of wall <3025> and northern face of wall <3024> (Phase 7).

The northern and eastern edges of the deposit were defined by an irregular chamfered edge indicative of horizontal truncation by aeolian processes. The surviving extent measured 350mm north-south x 550mm east-west x around 20mm thick and comprised a compacted mid



Plate 13. Phase 9 (north), space 6022, looking west.

greyish-brown clay-silt which is believed to represent the remains of an area of surfacing.

Circular pit [3040] which cut deposit (3085), measured 250mm in diameter and had a depth of 110mm. The cut was mirrored in shape and size by ceramic vessel (3038), set within it. Although recorded as cut and fill during excavation, in reality it seems likely that a reverse sequence of events occurred, where the vessel was placed onto the underlying solid geology and deposit (3085) was then packed around the vessel to secure it. This hypothesis, if correct, effectively means that no real cutting event occurred.

Ceramic vessel (3038) measured 250mm in diameter and survived to a height of 110mm. It was placed upside-down within the cut, and the upturned base was missing, creating a ceramic tube. The vessel was filled by use phase deposit (3039), a dark blackish-grey mixture of charcoal dust and sand intermixed with larger fragments of charcoal. The charcoal and charcoal dust content is likely to represent hearth debris, indicative of *in-situ* burning, while the presence of the accompanying sand does suggest some secondary infilling event, probably natural erosional processes associated with the abandonment of the feature.

Phase summary

This represents the remains of the Phase 9 North archaeology, as revealed during the excavation. The five new spaces created are likely to have co-existed with the earlier phase structures as defined by the two earlier phase walls, which were incorporated into the new building (walls <6012> and <3024>). Unfortunately the areas of intact stratigraphy gave little evidence as to the function of individual spaces and although all of the spaces preserved some evidence of interior surfacing little can be said about many of the rooms' functions.

Within space **6088**, the clear evidence of burning and the presence of a single hearth placed directly upon the existing floor surface attests to the preparation of something, possibly food or the burning of incense. The two adjacent cuts, although devoid of associated material, may have originally contained ceramic vessels, which were subsequently removed for reuse.

The only surviving *in-situ* ceramic vessel (3038) was

located to the east of the space, but its location at the junction of two walls strongly suggests that it is broadly contemporary. Aside from speculating on the specific function of ceramic vessel <3038>, its apparent location to the east of the phase 9 structure, may in fact be misleading, as there is a possibility that it would have originally been within a now completely destroyed interior space, rather than on the outside of the building.

This suggestion is based on the fact that north-south wall <3025> measures 350mm in width, a dimension that more closely equates to that of the interior walls of the phase 9 building, rather than that of the two surviving exterior walls. Despite this, no real evidence exists for the location of a possible additional exterior wall for the phase 9 building to the east of wall <3025>, although this is hardly surprising given the degree of truncation and amount of later phase activity within the area.

Although the evidence for the location of doorways between adjoining internal spaces was incomplete, the two definite, and one possible, examples discovered, does indicate how the majority of the spaces were accessed.

The presence of construction cuts for all of the walls in this phase is likely to have been necessitated by an increase in the thickness of the underlying, less stable, loose aeolian sands in this part of the excavation area. These increasingly thick sands are clearly related to the naturally sloping topography, which here losses elevation towards the north and west.

The location of the two isolated mud-brick walls <6001> and <6002>, to the north of the main building attest to the presence of further structures extending northwards beyond the excavation limits. Although little can be said about these structures, it is clear that the Umm Muri settlement must have been far more extensive than the area of excavation.

Phase 9 West: Figures 23-25

Phase 9 West was located to the west of the existing phase 6 and phase 8 buildings and comprised the addition of at least six new spaces, four of which utilised the western face of the earlier phase buildings.

The archaeology within this area remained largely unexcavated, beyond the removal of the overlying aeolian sand to reveal the archaeological features in plan. Preservation of the walls was particularly poor, as the area generally had suffered much from later pitting and horizontal truncation.

As revealed, the walls extended over an area of 20m north-south x 10.5m east-west. However, any reconstruction of room spaces can only be achieved through extrapolation of wall alignments, some of which can be done with confidence, whilst others are clearly open to subsequent reinterpretation.

No construction cuts were noted for walls in this phase.

Walls

Mud-brick wall <6069> defined the northern extent of this phase of construction and was the north wall of space **6033**. It was oriented east-west and comprised a single course of mud brick set within a clay-silt bedding mortar.

The bricks were partly laid in the traditional manner at the eastern end of the wall and on edge for the remainder (one rowlock header and two stretchers to the course), which was clearly in response to undulations in the underlying topography. This effectively created a flat upper surface, suitable for the laying of conventional, coursed brickwork, which due to horizontal truncation was now absent. The wall's eastern end abutted the western face of phase 8 north-west wall <6016>, close to its northern end, while its western end was horizontally truncated. The wall survived as two disjointed fragments, the larger of which measured 2.5m long x 0.5m wide, while the smaller measured only 250mm long x 300mm wide. The overall length of the two combined fragments measured 3.1m, while the maximum height equated to a single brick width at 150mm. This structure clearly represents the remains of a wall foundation (see Figure 24, section 21).

Mud-brick wall <6070> was oriented north-south and located approximately 750mm to the south of wall <6069>, near to its western end. It formed the western side of space **6033** and the eastern side of adjoining space **6155** and also survived as two disjointed fragments that comprised mud bricks set within a clay-silt bedding mortar. The larger fragment measured 2.65m long x 0.35m wide, while the smaller fragment measured 1.5m long x 0.35m wide. The overall length of the two combined wall fragments was 4.35m, while the maximum height of 170mm equated to two brick courses (see section 22). The northern end of the wall was truncated, while the southern end was bonded with east-west wall fragment <6072>.

Mud-brick wall <6072> was oriented east-west and survived as two courses of mud brick set within a clay-silt bedding mortar. The western end of the wall was defined by truncation and collapse, having slumped into the eroded edge of a later robber cut, while the eastern end, although itself truncated, was bonded with the previously described north-south wall fragment <6070>. This junction formed the south-east corner of space **6155**, while wall <6072> also formed the northern limit of adjoining space **6090**. The surviving extent measured 950mm long x 280mm wide, the maximum height was 200mm.

Mud-brick wall <6077> defined the western side of space **6155** and comprised two disjointed fragments separated by an area of truncation. The larger fragment measured 1.4m long x 0.4m wide x 0.1m high, while the smaller fragment measured 400mm long x 300mm wide x 100mm high. Both comprised a single course of mud brick set in a clay-silt mortar (see section 23).

Mud-brick wall <6071> was oriented east-west and represents the southern extent of a space **6033**. It comprised two courses of mud brick set within a clay-silt mortar that measured 0.35m wide x 2.3m long (see Figure 25, section 24). The wall was truncated at its western end, while to the east it abutted the phase 8 north-west wall <6016>.

Mud-brick wall <6073> was oriented north-south and formed the party wall on the western side of space [6034] and the eastern side of space **6090**. The surviving wall fragment comprised two courses of mud brick set in a clay-silt mortar that measured 2.4m long x 0.15m high. The width of the wall itself measured 350mm, while an abutting fragment of mortar, (6165), interpreted as con-

struction debris extended beyond the western wall face for 250mm. Both the northern and southern ends of the wall had been removed by later pits (see Figure 25, section 25).

Mud-brick wall <6074> was oriented north-south and formed the eastern side of space **6090**. It survived as two disjointed fragments of mud brick set on clay-silt bedding mortar. The larger fragment measured 1.15m long x 0.45m wide, while the smaller fragment measured 950mm long x 450mm wide. The overall length of the two combined fragments was 2.4m, while the maximum height of 170mm equated to a single brick course with the associated bedding mortar (see Figure 25, section 26). The limits of the wall both to the north and the south were defined by truncation.

Mud-brick wall <6101> defined the southern limit of space **6090** and part of the northern limit of unexcavated space **4218**. It was aligned east-west, from which north-south wall fragment <4216>) projected to the south. The east-west oriented fragment comprised mud brick set within a clay-silt bedding mortar which measured 2.75m long x 0.5m wide and was 100mm high. Both the eastern and western limits of the wall were irregular and broken edges, indicative of the extensive truncation which extended over the whole area (see Figure 00, section 27).

Mud-brick wall <4216> was oriented north-south and located within a part of the site which remained largely unexcavated, beyond the removal of the overlying aeolian sand to reveal the archaeological features in plan. The wall defined the western limit of space **4218** and survived as two disjointed fragments of mud brick set in a clay-silt mortar. The larger fragment measured 600mm long x 500mm wide, while the smaller fragment measured 400mm long x 500mm wide. The overall length of the measured 3.15m. The northern end joined with the previously described east-west wall <6101>, while the wall's southern end was bonded with east-west wall <4215>.

Mud-brick wall <4215> represents the eastwards continuation of the previously described wall and formed the south side of space **4218**. It survived as two disjointed fragments that comprised mud bricks set in a clay-silt mortar. The westernmost of the two fragments measured 2.7m long x 0.5m wide, the smaller, easternmost fragment survived for a length of 950mm, while its width at 300mm appeared to be intentional, rather than later truncation and may indicate the location of a doorway. The wall abutted the western face of north-south phase 6 wall <4211>. The central area between the two wall fragments remained unexcavated, but is believed to contain an intercutting pit sequence.

Mud-brick wall <4214> was oriented north-south and remained largely unexcavated. It defined the western side of space **4212** and measured 1.65m long x 0.55m wide. It was truncated at its northern end and to the south bonded with east-west wall <4213>.

Mud-brick wall <4213> was oriented east-west and represents the eastwards continuation of the previously described wall <4214> and formed the southern limit of space **4212**. This wall survived as two disjointed fragments, the western measured 4.25m long x 0.6m wide, while the smaller, eastern fragment measured 500mm long

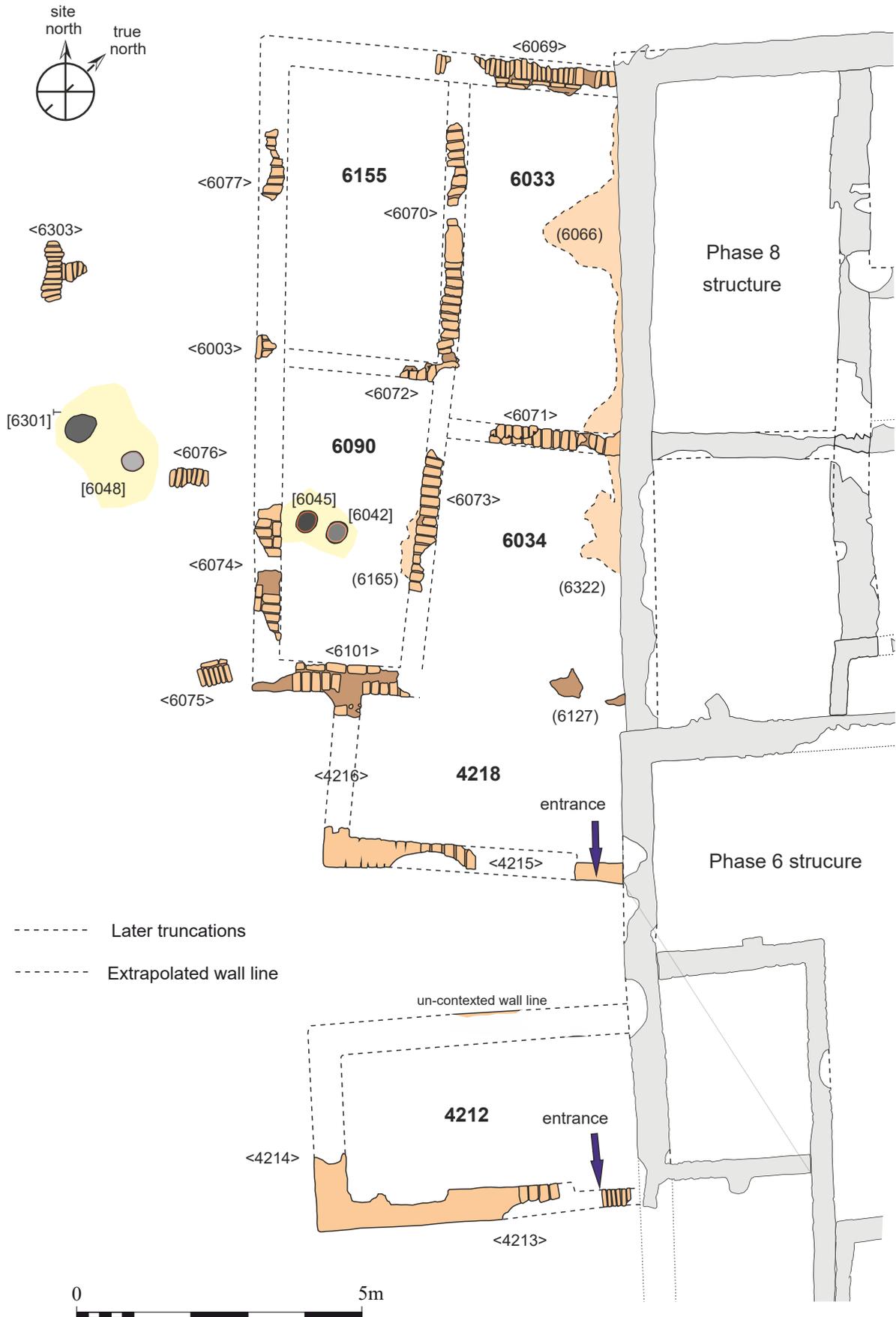


Figure 23. Phase 9 (west), plan (scale 1:100).

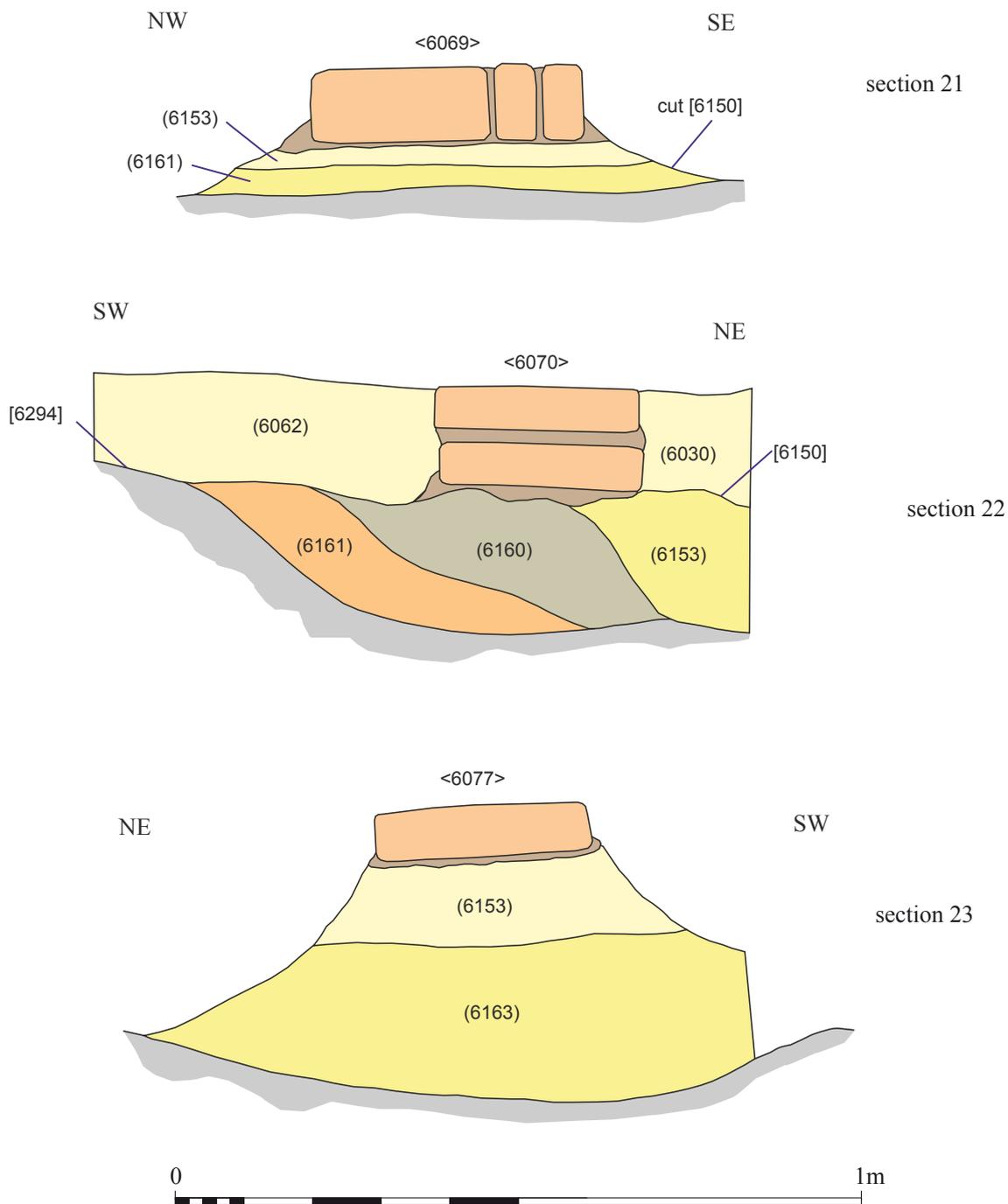


Figure 24. Phase 9 West; sections 21-23 (scale 1:10).

x 350mm wide and, although not seen during excavation, is likely to have abutted the western face of north-south phase 6 wall <4211>. This narrower part of the wall is constructed of rowlock headers presumably indicating the location of a doorway. The central area between the two wall fragments was obscured by an irregular mass of unexcavated stone and clay-silt.

Isolated wall fragments

Mud-brick wall <6075> was located to the west of wall <6101> and comprised a roughly east-west wall fragment constructed of mud bricks laid as one row of rowlock headers and one of rowlock stretchers and set within a clay-silt bedding mortar, which is indicative of the initial foundation or bedding course. The surviving extent

measured 600mm long x 450mm wide x 110mm high with both the eastern and western limits defined by broken and irregular edges indicative of horizontal truncation. The wall's alignment appeared markedly different from that of the adjacent walls <6075> and <6101>, which is likely to be the result of later pitting, which created very unstable soil beneath the walls.

Mud-brick wall <6076> was also oriented east-west and measured 800mm long x 350mm wide x 140mm high. It was constructed of mud brick set within a clay-silt bedding mortar and laid as rowlock headers and, therefore, also likely to represent a foundation or bedding course. Both the eastern and western limits of the wall were defined by broken and irregular edges indicative of horizontal truncation.

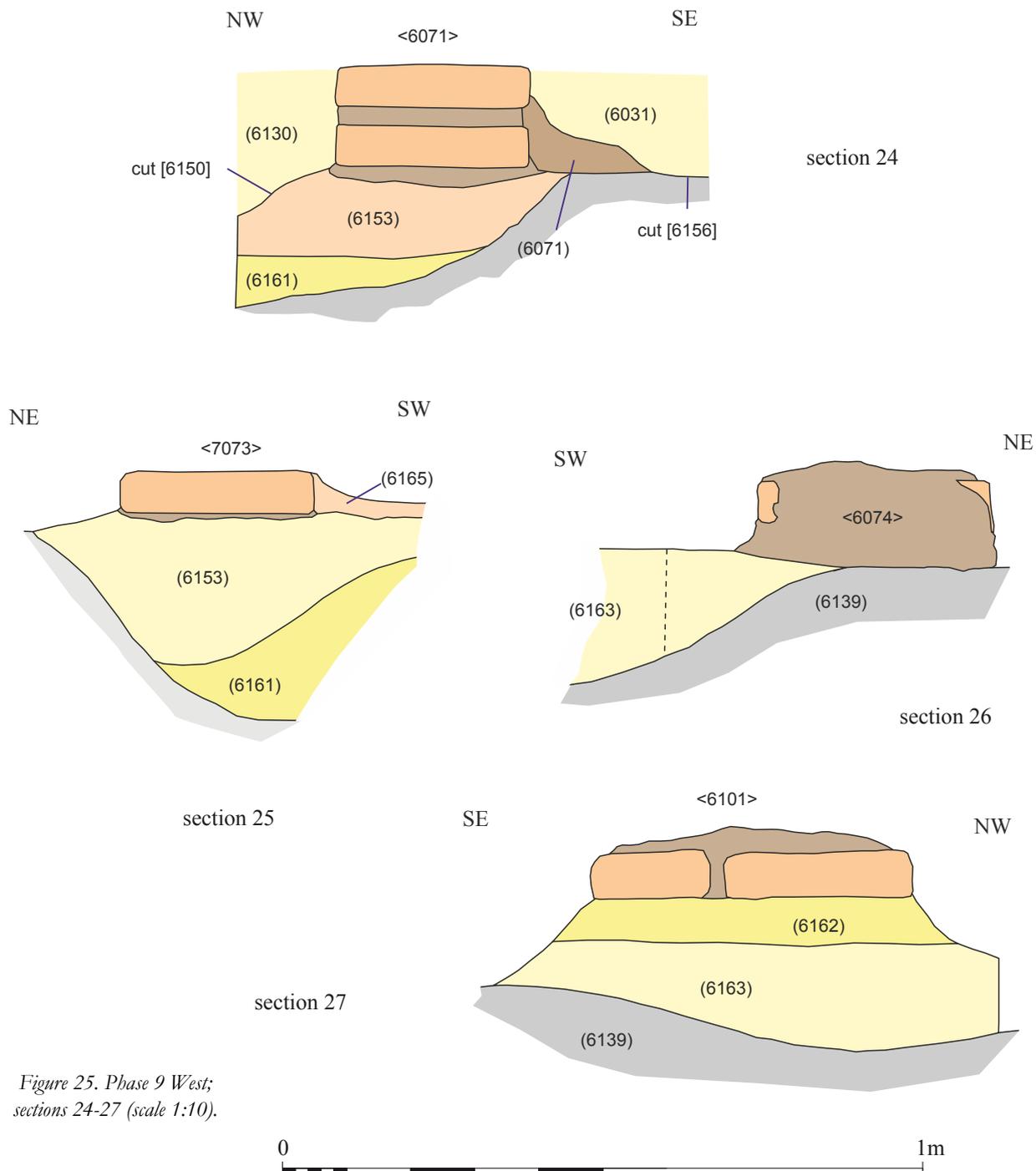


Figure 25. Phase 9 West; sections 24-27 (scale 1:10).

Wall foundation <6303> was located at the extreme western limit of the excavation area and comprised a north-south wall, from which an additional east-west wall fragment projected to the east. This formed a 'T'-shaped fragment of mud brick set within a clay-silt bedding mortar that measured 1.05m north-south x 0.67m east-west x 0.15m high. The bricks were laid as rowlock headers and are also likely to represent an initial bedding or foundation layer. The survival of this, and the previously described isolated wall foundations, is probably the result of undulations in the underlying topography, which these fragments have infilled and have, as a consequence survived destruction. The limits of this fragment were all defined by broken and irregular edges, indicative of the truncation which extended over the whole area.

Isolated features

Described below are two ovens located within the vicinity of the previous described isolated walls, which may have related to now destroyed internal spaces.

Oval-shaped pit [6301] was cut directly into the underlying solid geology (context (6139)) and preserved a concave base profile. Its measured 550mm north-south x 450mm east-west x 150mm deep and is believed to represent the truncated remains of an oven. Its fill, deposit (6300), comprised a fine brownish red silty soil with small charcoal fragments located within the base of the cut. The deposit was 70mm thick and is believed to represent a remnant of use-phase material, indicative of *in-situ* burning.

Context (6299) was the fragmentary remains of a

ceramic vessel, also located within pit [6301], overlying the previously described deposit. The surviving extent measured 300 x 30mm and had clearly suffered from both post-depositional disturbance and horizontal truncation and it is possible that the vessel has been completely up-turned, with underlying deposit (6300) representing part of the original fill. The fragment was directly overlaid by aeolian sand deposit (6000).

Circular pit [6048], also cut directly into the underlying solid geology, measured 310mm in diameter x 200mm deep and was filled with the sherds of ceramic vessel (6049). The cut and associated vessel had clearly suffered from extensive post-depositional horizontal truncation and disturbance.

Ceramic vessel (6049) measured 310mm in diameter and survived to a height 220mm. The vessel's rim and much of the body were missing, while the remainder, including the base, was intact. The single fill, deposit (6050) comprised a loose mixture of mid greyish-brown sand and charcoal, suggesting the vessel functioned as an oven.

Internal spaces

The development of the Phase 9 West created six fairly complete new spaces, plus three isolated wall fragments, which attest to possibly three additional ones. All of the spaces and much of the associated walling had suffered from later truncation and use phase deposits within the spaces were either absent or, in the case of spaces **4212** and **4218**, not revealed.

Space 6033 was located immediately to the west of the Phase 8 north-west building and was defined by walls <6069>, <6070>, <6071> and phase 8 wall <6016>. The space measured 5.9m north-south x 2.6m east-west. Deposits associated with its use were limited to a single deposit of sandy silt which abutted walls <6016> and <6071>. The remainder of the space, as well as a considerable proportion of the defining walls, was extensively truncated by later pitting. Perhaps because of the extensive truncation of the walls no evidence was seen for the location of doorways.

Deposit (6066) was located within the eastern part of space **6033** and comprised a fairly compacted deposit of yellowish brown sandy-silt. It measured approximately 5.9m north-south x 1.55m east-west and was around 40mm thick. Both to the east and south it abutted north-south wall <6016> and east-west wall <6071>. The western and northern limits were defined by irregular and broken edges indicative of truncation from later intercutting pit sequence [6150]. The formation process for this deposit seems likely to be largely natural, probably gradual weathering of the adjacent mud-brick walls. Thus this could be either a use-phase or an abandonment-phase deposit, although its stratigraphic location, lying directly upon phase 8 deposit (6065) does suggest its formation during this period.

Space 6155 was located immediately to the west of space **6033** and was defined by walls <6069>, <6070>, <6072> and <6077>. The space measured 5m north-south x 2.9m east-west. Deposits associated with its use were absent, as the whole of the space, as well as almost all of the

defining walls, were extensively truncated by later pits. The extensive truncation of the walls left no evidence for the location of doorways into this space.

Space 6034 was located immediately to the west of the phase 8 north-west building and to the south of space **6033**. It was defined by the walls <6071> to the north, <6073> to the west and phase 8 wall <6016> to the east, while to the south only a hint of what may have been the bedding matrix for a wall survived (see (6127)). The space measured 3.25m east-west, while the north-south dimension may have been around 4m, if deposit (6127) is accepted as the remnants of a bedding matrix for a now destroyed wall. Deposits definitely associated with the use phase were absent, although an isolated deposit (context (6322)) of sandy silt which abutted walls <6016> and <6071> is likely to represent either gradual decay or possibly surfacing. The remainder of the space, as well as a considerable proportion of the walls, was extensively truncated by later pits. Perhaps because of the extensive truncation to the walls no evidence was seen for the location of doorways.

Deposit (6127) comprised two small isolated fragments of compacted sandy-silt, which, as previously, were also yellowish brown in colour. The fragments were located approximately 300mm apart and separately measured approximately 600mm north-south x 500mm east-west and 400mm north-south x 250mm east-west respectively, while the thickness of each was around 40mm. The more easterly of the two deposits abutted north-south wall <6016>, while the remaining edges of each fragment were defined by irregular and broken edges indicative of truncation from the later intercutting pit sequence [6156]. These deposits seem likely to be largely natural, probably gradual weathering of the adjacent mud-brick walls.

Deposit (6322) was located in the north-east corner of space **6034** and comprised a fairly compact deposit of yellowish brown sandy-silt which measured approximately 2.15m north-south x 0.65m east-west, with a thickness of around 40mm. To the east, the deposit abutted north-south wall <6016>, while to the north it abutted east-west wall <6071>. Both the western and southern limits were defined by irregular and broken edges indicative of truncation from the later intercutting pit sequence [6156].

Space 6090 was located immediately to the west of space **6034** and was defined by walls <6072>, <6073>, <6074> and <6101>. The space measured 5.15m north-south x 2.3m east-west. Deposits with a clear stratigraphic link with the walls were limited to a single linear fragment of clay-silt which abutted the western face of wall <6073> (context (6165)). Aside from this, much of the remainder of the space, as well as most of the walls, was extensively truncated by later pits. This truncation left no other use-phase deposits and no evidence for the location of doorways.

Deposit (6165), a fairly compacted, yellowish brown sandy-silt which measured approximately 2.1m north-south x 0.25m east-west x around 0.04m thick, was located within the eastern part of space **6090** and abutted wall <6073>. Aside from the abutting eastern extent, the remaining limits had irregular and truncated edges. The

formation process for this deposit is uncertain, although it seems likely that the source material is derived from the adjacent mud-brick walls, either as a gradual weathering process or possibly as discarded construction debris

Circular pit [6042] was located within space **6090** and cut into the phase 8 sand deposit (6162). The cut mirrored the shape of infilling vessel (6043), with a diameter of 600mm and a depth of 340mm.

Ceramic vessel (6043) was placed upside-down within the pit and was 600mm in diameter and 300mm in height. The base of the vessel was missing, creating a ceramic tube. This was filled with a mixture of use- and disuse-phase material, while the small area remaining between the ceramic vessel and the pit edges was infilled with deposit (6063), a mid greyish-brown coarse grained sand. The deposit varied in width from 20mm to 60mm and is believed to have extended for the full depth of the cut at 340mm. This deposit is likely to represent a deliberate infilling, associated with the construction of the oven.

Deposit (6044) comprised a loose mid yellowish-brown sand with large quantities of charcoal, which measured 540mm north-south x 540mm east-west x 280mm thick. The composition of this deposit suggests that it represents a disturbed mixture of both use-phase and abandonment-phase material.

Circular pit [6045] was located approximately 200mm to the north west of the previously described cut and also cut into the phase 8 sand deposit. It was roughly circular in plan, measuring around 500mm in diameter and with a depth of 390mm.

Ceramic vessel (6046), placed upside-down within the pit, measured 530mm in diameter and 360mm in height. As previously, the base of the vessel was missing, creating a ceramic tube, infilled by a mixture of use- and disuse-phase material. The small area remaining between the ceramic vessel and the pit edges was infilled with deposit (6064), a mid greyish-brown coarse grained sand. The deposit varied in width from 20mm to 60mm and is believed to have extended for the full depth of the cut. This deposit is likely to represent a deliberate infilling deposit, associated with the construction of the oven.

Deposit (6047) comprised a loose mid yellowish-brown sand intermixed with fragmentary mud and fired brick, plus charcoal and bone fragments. It measured 530mm north-south x 530mm east-west x 360mm thick. The composition of this deposit suggests that it represents a disturbed mixture of both use-phase and abandonment-phase material.

Space 4218 was located to the west of the phase 8 building and was defined by the walls <4215>, <4216>, <6101>, as well as phase 6 wall <4211> and phase 8 wall <6016>. The space measured 4.85m east-west, while the north-south extent remained uncertain. The interior of this space remained largely unexcavated, with no internal features recorded and no context numbers allocated for the infilling soft deposits.

Space 4212 was located immediately to the west of the phase 6 building. It was defined by wall <4213> to the south, wall <4214> to the west and phase 6 wall <4211> to the east. The space measured 5m east-west, while a

north-south extent of 2.5m, could be proposed on the strength of what appears to be a single face of an east-west wall on the north side of the structure (see Figure 23). This space remained largely unexcavated, no internal features were recorded and no context numbers allocated for the infilling soft deposits.

Phase summary

This represents the remains of the Phase 9 West archaeology, as revealed during the excavation. The six new spaces created are likely to have co-existed with the earlier phase structures as defined by the two earlier walls that were incorporated into the new building (walls <6016> and <4211>).

Unfortunately the areas of intact stratigraphy gave little evidence as to the function of individual spaces, as definitive surfaces associated with this phase of activity were lacking. The attribution of the four ovens to this phase is tenuous, as there was no direct stratigraphic link between them and the phase 9 mud-brick walls.

To the west of spaces **6090** and **6155** it is clear from surviving wall fragments <6075>, <6076> and <6303> that structures were once present. Owing of the paucity of evidence no attempt has been made to allocated space numbers, or describe possible buildings.

Phase 9 represents the final mud-brick phase recognised during the excavations and it seems probable that all of these phases of mud-brick construction did, for a period, co-exist as a single area of occupation.

Phase 10: Figures 26-28

Phase 10 represents the grouping together all of the deposits and destruction events, which appear to post-date immediately the mud-brick construction phase. These deposits are represented within all of the designated number blocks and range from possible collapse deposits, in the form of poorly sorted clay-silt and fragmented mud brick, through to gradual decay in the form of fine sediment deposition. Additionally, because of stratigraphic necessity, some of the pit cutting events have been inserted, which were presumably dug to remove materials for reuse, although the bulk of these cuts have been included within the final phase of abandonment (Phase 13). Obviously the time frame for the disparate destruction events which define this phase could be either rapid or extended and so in reality they may represent an extensive time period, although it is assumed that by the end of these processes the mud-brick settlement no longer existed.

Because of the repetitious nature of the deposits which comprise this phase they are presented below in Table 1.

Phase summary

Unlike the preceding phases of the site, phase 10 does not represent any definitive or tangible development for the Umm Muri settlement, but, as noted above, is rather a grouping together of all the deposits, interpreted as destruction events, which appear to immediately post-date the mud-brick construction phase.

Although these deposits appear fairly extensive, with over 70 different contexts being allocated, it is clear that they must represent only a small fraction of the material

which had originally constituted the mud-brick settlement. However, this absence of more substantial quantities of material believed to be associated with the abandonment of the site need not be problematic and probably attests to the subsequent reuse of materials as well as highlighting the long term effects of erosion in the form of aeolian weathering.

The deposits which have survived have been interpreted in differing ways, using clast size and composition as a guide to interpretation. Therefore, collapse or rapidly formed deposits, take the form of poorly sorted clay-silt and fragmented mud brick, while gradual decay is likely to take the form of fine sediment deposition. Pit cutting events, possibly excavated to remove materials for re-use, also attest to the continued presence of people within the locality.

Additionally, as stratigraphic links between these disparate events are lacking, it is impossible to know whether the initial abandonment of the site represents a fairly rapid event, or whether it may in reality represent an extensive time period. It is, therefore, uncertain whether the end of the mud-brick settlement was a single event or whether parts of the settlement fell into disuse and were abandoned, while other parts were still thriving. Aside from this ambiguity in the rate of decay, it is assumed that by the end of these processes the mud-brick phase of the settlement no longer existed.

Phase 11: Figure 29

The archaeological remains which defined Phase 11 mark a clear change in construction technique, from the mainly mud-brick structures of the preceding phases to the exclusive use of stone (at foundation level at least).

Aside from the change in materials used, the visible remains appear to represent a completely different function, as here no definitive structures associated with habitation were recognised within the excavation area (although at least one stone building was recorded as part of the initial survey, which may be of comparable date).

The archaeology which constitutes this phase was limited almost exclusively to the south-eastern part of the site, although also to be included within this phase was an isolated fragment of wall located outside of the main excavation (wall <3082>).

Also incorporated where possible are parts of the stone structures, which either continued beyond the limit of excavation, or were located completely outside the excavation area, but were visible on the ground surface. These were recorded by members of the team at the most basic level, while the main excavation was in progress (1:200 scale plan, without context allocation). As no context numbers were allocated during excavation, they are here referenced by letter suffixes, beginning with 'A'. The structures themselves are described at the end of the main context descriptions and in summary when appropriate.

Because of the open nature of the structural

remains which define this phase, only two space numbers were allocated to large open areas.

All the walls appear to have been built directly upon the existing, levelled ground surface; no evidence of construction cuts was seen.

Walls

East-west stone wall <1004> (Plates 17 and 18) was located towards the southern limit of excavation and defined the northern extent of space **1271** and part of the southern extent of space **1270**. The full length of the wall lay within the excavation area and measured around 34m, while the width varied from between 350mm (in areas where truncation was present) up to 1.5m, although an average of around 1.25m is most representative. A maximum height of approximately 500mm was recorded. Both the eastern and western extent of the wall abutted a rise in the underlying bedrock, which was then incorporated into the wall's structure. At the wall's western end, beyond the outcrop-



Plate 17. Phase 11 detail of wall <1004>.



Plate 18. Phase 11 wall <1004>, view from the west (phase 7 mud-brick walls visible in left of frame).

TABLE 1. PHASE 10 DEPOSITS.

Context	Type	Phase	Description	Space number
1016	Deposit	7	Erosional decay, partly truncated by [1017]	n/a
1018	Deposit	7	Disturbed aeolian sand, beneath (1016)	n/a
1027	Deposit	7	Erosional decay	n/a
1029	Deposit	7	Erosional decay from adjacent mud-brick wall <1005>, within courtyard space 1095	1095
1062	Deposit	7	Degraded mud-brick fragments in clay-silt matrix:- probable collapse/abandonment phase deposit	n/a
1065	Deposit	7	Erosional decay abutting wall <1005>	1095
1066	Deposit	7	Compacted clay-silt matrix, abutting wall <1263>:- probable collapse/abandonment phase deposit	1093
1071	Deposit	7	Compacted clay-silt :- probable collapse/abandonment phase deposit	1093
1073	Deposit	7	Compacted clay-silt matrix:- probable collapse/abandonment phase deposit	1094
1074	Deposit	7	Compacted clay-silt matrix:- probable collapse/abandonment phase deposit	1094
1096	Deposit	7	Degraded mud-brick fragments:- possible collapse deposit from wall <1075>	n/a
1097	Deposit	7	Degraded mud-brick fragments:- possible collapse deposit from wall <1079>	n/a
1111	Deposit	7	Probable collapse/abandonment phase deposit, abutting wall <1105> and door threshold <1181>	1108
1167	Deposit	7	Collapse/erosional decay from adjacent mud-brick walls <1102> and <1103>	1108
1169	Deposit	7	Small fragment of probable collapse/abandonment phase deposit, abutting walls <1103> and <1104>	1108
1170	Deposit	7	Probable collapse/abandonment phase deposit derived from walls <1164> and <1193>	n/a
1171	Deposit	7	Probable collapse/abandonment phase deposit, abutting wall <1105>	1109
1172	Deposit	7	Localised patch of collapse/erosional decay upon [1186]	1109
1173	Deposit	7	Probable collapse/abandonment phase deposit, abutting wall <1105>	1109
1174	Deposit	7	Probable collapse/abandonment phase deposit, abutting wall <1105> and overlying (1173)	1109
1175	Deposit	7	Probable collapse/abandonment phase deposit derived from walls <1164> and <1193>	n/a
1186	Deposit	7	Probable collapse/abandonment phase deposit, abutting wall <1105> and overlain by (1172) and (1173)	1109
1187	Deposit	7	Localised erosional deposit, probably derived from adjacent walls	1109
1190	Deposit	7	Collapse/erosional decay, abutting mud-brick wall <1195>	1191
1196	Deposit	7	Erosional decay, abutting wall <1005> and overlying similar deposit (1065)	1095
3006	Cut	8	Sub-rectangular cut beneath wall <3002>. Filled by (3007)	n/a
3007	Deposit	8	Single fill of pit [3006], comprises loose aeolian sand	n/a
3029	Deposit	7	Low energy decay, impressed with human footprint [3032]	n/a
3033	Deposit	8	Fine-grained sediment, probably alluvium reworked by aeolian processes	n/a
3035	Deposit	8	Fine-grained sediment, probably alluvium reworked by aeolian processes	n/a
3036	Deposit	8	Fine-grained sediment, probably alluvium reworked by aeolian processes	n/a
3050	Deposit	8	Fine-grained sediment, probably alluvium reworked by aeolian processes	n/a
3051	Deposit	8	Probable disturbed collapse/destruction deposit abutting and partly overlying wall <3025>	n/a
3054	Deposit	8	Fine-grained sediment, probably alluvium reworked by aeolian processes	n/a
3067	Deposit	7	Probable collapse/destruction deposit	n/a
3068	Deposit	7	Probable collapse/destruction deposit	n/a
3069	Deposit	7	Probable collapse/destruction deposit, cut by pit [3084]	n/a
3074	Deposit	7	Probable collapse/destruction deposit abutting walls <6014> and <3024>	3071
3077	Deposit	7	Probable collapse/destruction deposit abutting wall <3066>	n/a
3080	Deposit	7	Gradual collapse deposit abutting walls <6014> and <3024>	n/a
3084	Cut	7	Irregular cut filled by (3028)	n/a

TABLE 1 (CONT.). PHASE 10 DEPOSITS.

Context	Type	Phase	Description	Space number
4014	Deposit	5	Probable collapse/destruction deposit abutting walls <4005> and <4007>. Same as (4017) and (4243)?	4001
4017	Deposit	5	Remnant of probable collapse/destruction deposit. Same as (4243)?	4001
4073	Deposit	5	Sand, fragmental clay-silt and charcoal, filling pit [4047]	4001
4105	Deposit	5	Degraded gritty clay silt:- possible collapse deposit, overlies wall <4087>	n/a
4172	Deposit	8	Degraded clay silt:- collapse or gradual degradation of surrounding structure, overlies [4171], abuts walls <4064> and <4200>	4081
4193	Deposit	8	Degraded sandy silt:- collapse/destruction phase deposit, abutts walls <4079> and <4121>	n/a
4210	Deposit	8	Compacted mass of stone in a clay-silt matrix, overlies wall <4213> and collapse deposit (4293).	4126
4217	Deposit	8	Compacted mass of stone in a clay-silt matrix, overlies wall <4127>. Same as (4210)	4219
4235	Deposit	5	Probable collapse/destruction deposit abutting walls <4493> and <4506>	4132
4239	Deposit	5	Probable collapse/destruction deposit overlying surface (4509)	n/a
4243	Deposit	5	Probable collapse/destruction deposit partly overlying walls <4007> and <4009>	4001
4293	Deposit	6	Probable collapse/gradual decay deposit, abuts walls <4128> and <4130>	4126
4294	Deposit	6	Probable collapse/destruction deposit partly, abuts walls <4130> and <4220>	4125
4313	Deposit	6	Compacted mass of stone in a clay-silt matrix, overlies wall <4201>	n/a
4314	Cut	8	Irregular pit	n/a
4315	Deposit	8	Unexcavated fill of pit [4314]	n/a
4340	Deposit	6	Aeolian sand, same as (4134) pre-excitation ground surface (same process as [4000] but contained within space 4132)	4132
4517	Deposit	6	Unexcavated deposits within space 4205	4205
6099	Deposit	8	Degraded deposit of clay-silt:- possible collapse deposit from adjacent wall <6014>, overlies [6100]	6067
6100	Deposit	8	Sand deposit within room 6086 (abandonment-phase deposit?).	6067
6129	Deposit	8	Degraded mud-brick fragments:- possible collapse/destruction deposit from adjacent walls	6021
6130	Deposit	8	Degraded mud-brick collapse/destruction deposit, abutting walls <6006>, <6009> and <6012>	6088
6131	Deposit	8	Degraded mud-brick collapse/destruction deposit, abutting walls <6012>, <6013>, <6015> and <6057>	6086
6132	Deposit	8	Aeolian sand, within room 6021 and sealed beneath destruction deposit (6129)	6021
6135	Deposit	8	Probable abandonment phase deposit, abutting walls <6006>, <6009> and <6012>	6088
6136	Deposit	8	Aeolian sand, beneath abandonment-phase deposit (6135)	6088
6154	Deposit	8	Degraded mud-brick collapse/destruction deposit, abutting walls <6005> and <6016>	n/a
6238	Deposit	8	Compacted sandy silt sealing threshold <6118>. Possible wall slump deposit	6020
6313	Deposit	8	Degraded mud-brick collapse/destruction deposit, abutting walls <6012>, <6013>, <6014> and <6015>.	6084

ping bedrock, a second small fragment of east-west wall, context <1125>, continued for a few metres before being truncated. At the wall's eastern end the incorporated out-cropping rock did form the wall's eastern limit, although at this point, extending both to the north and south, two north-south walls formed a clearly defined 'T'-junction (see walls <1101> and <1003> below).

The wall comprised two parallel and roughly linear exterior edges, constructed using irregularly-shaped stones, generally laid with their long axis across the wall's width, with a central core comprised of rubble and a limited amount of clay silt bonding matrix. The wall directly

overlay a deposit of loose aeolian sand, context (1207). The extent of this deposit, although not recorded in detail, would not have exceeded that of the overlying wall at 1.5m north-south x 34m east-west, while the maximum thickness recorded was around 100mm.

East-west stone wall <1125> was, located immediately to the west of wall <1004>. It also partly defined the southern extent of space **1270** and measured 1.5m x 1.5m, surviving to a maximum height of approximately 500mm. The eastern extent of the wall was irregular, abutting a rise in the underlying bedrock, which here divided this wall from wall <1004>. To the west, the wall ended abruptly

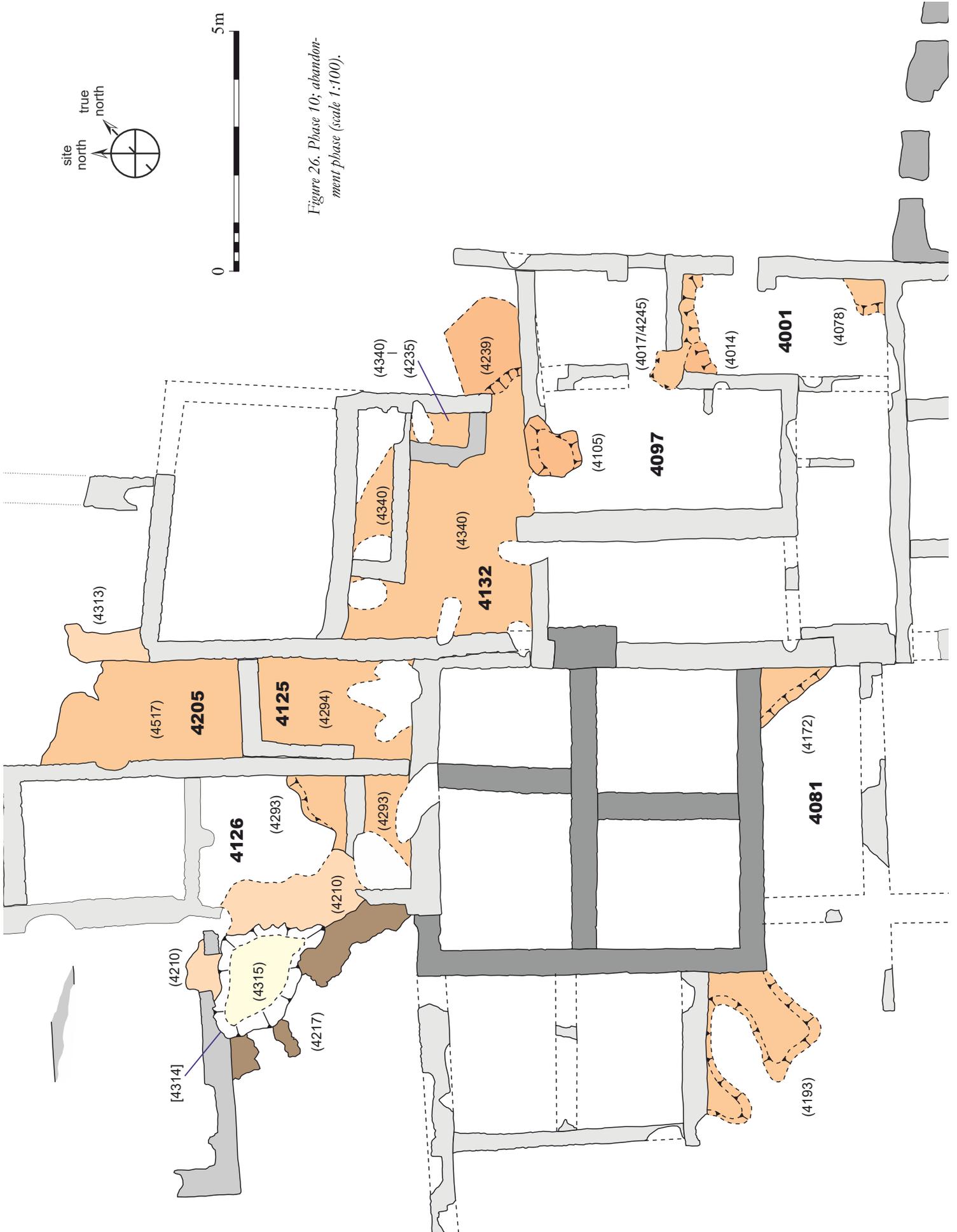


Figure 26. Phase 10; abandonment phase (scale 1:100).

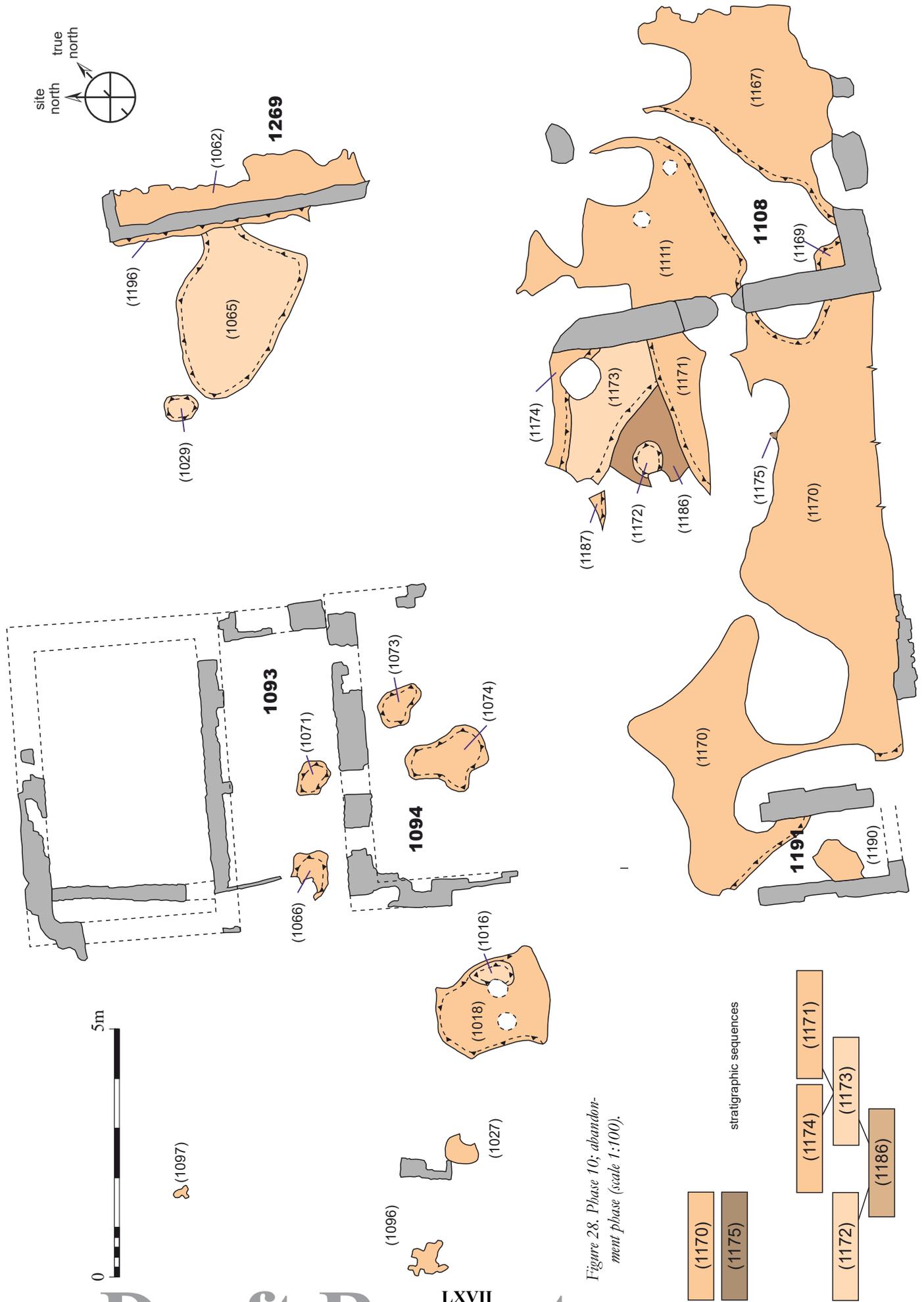


Figure 28. Phase 10; abandonment phase (scale 1:100).

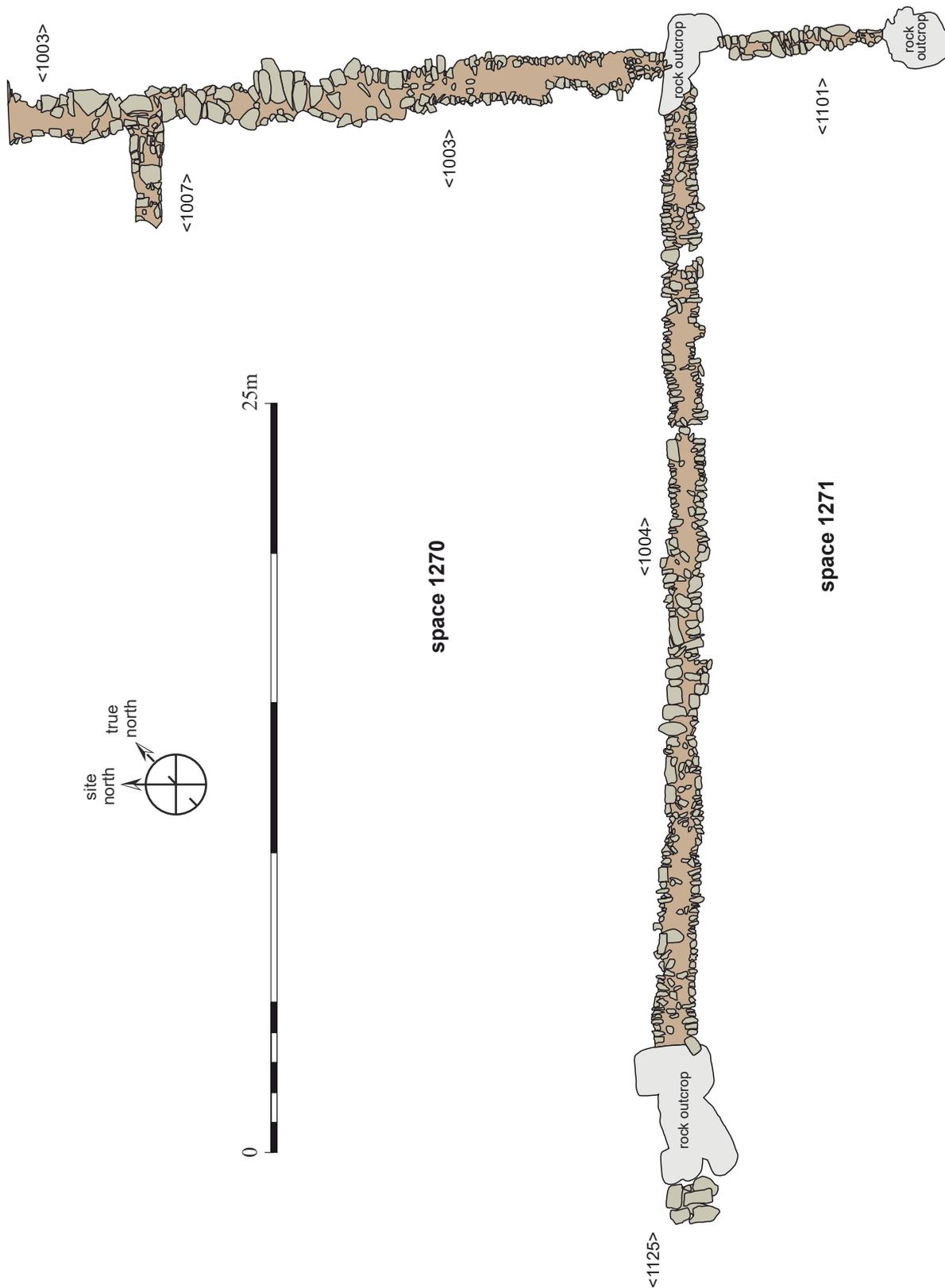


Figure 29. Phase 11; excavated area only (scale 1:200).

as a linear edge, which is thought to be the result of later robbing. The structure of the wall was quite different from that of wall <1004>, as it comprised only large, roughly-shaped stones, which abutted both lengthways and widthways leaving no space for a central rubble core. The wall directly overlay a deposit of loose aeolian sand, context (1249). Its extent was as that of the wall, while its thickness was not recorded.

North-south stone wall <1101> was located at the

south-east corner of the excavation and defined the eastern extent of space 1271. The full length of the wall lay within the excavation area and measured around 6.1m long x c. 0.75m wide, with a maximum height of approximately 400mm. The northern and southern extents of the wall were defined by irregular edges that abutted a rise in the underlying bedrock, which was then incorporated into the wall's structure. Beyond the outcropping bedrock at the wall's southern end no evidence remained of a

continuation, while to the north the same rock outcrop that had defined the eastern end of wall <1004> here defined the end of this wall. It also formed part of the previously mentioned 'T'-junction, with east-west wall <1004> and north-south wall <1003> (described below). The construction of this wall was quite similar to that of wall <1125>, as here the structure comprised only large roughly-shaped stones, which abutted both lengthways and widthways leaving no space for a central rubble core. The wall directly overlay a deposit of loose aeolian sand, context (1223). The extent of this sand deposit, although not recorded in detail, would not have exceeded that of the overlying wall, while a thickness of around 200mm represents the maximum.

North-south stone wall <1003> (Plate 19) defined the eastern limit of excavation and also represents the eastern extent of space **1270**. Within the excavation area the wall measured around 22m long, although it did continue for a further 2m to the north, where it was seen to abut against a rise in the underlying bedrock. To the south, the wall abutted the same rock outcrop described previously and formed the northern spur of the 'T'-junction, which included the walls <1004> and <1101>. The width of the wall varied from between 750mm (in areas of possible truncation) to 1.5m; a maximum height of 600mm was recorded. The construction style for this wall comprised a mixture of the two previously described techniques, with the southern half comprising the two parallel and roughly linear exterior edges that contained a central rubble core, while the northern part of the wall was constructed using



Plate 19. Phase 11 wall <1003>, view from the south (phase 7 mud-brick wall <1269> visible in left of frame).

mainly large, roughly-shaped stones, which abutted both lengthways and widthways, with no central rubble core. Abutting the wall's western face, towards its northern end was east-west stone wall <1007> (described below). The wall directly overlay a deposit of loose aeolian sand, context (1204). The extent of this deposit, although not recorded, would not have exceeded that of the overlying wall, while the maximum thickness was around 150mm.

East-west stone wall <1007> was only partly revealed within the excavation area and measured 3.5m long x 1.5m wide, surviving to a maximum height of a single course, approximately 200mm. As mentioned above, the eastern end of this wall abutted the western face of wall

<1003> and defined the northern extent of space **1270**. To the west the wall continued up to the excavation limit, beyond which it was obscured beneath the unexcavated modern ground surface. Again the structure of the wall comprised mainly large roughly-shaped stones, which abutted both lengthways and widthways, leaving no space for a central rubble core.

North-south stone wall <3082> was located outside the excavation area, approximately 38m to the north of wall <1003>. It was placed at the base of a narrow cleft or gully located within a more extensively exposed area of weathered bedrock. This gully would otherwise have provided easy access from the lower area of the island, located along the eastern edge of Umm Muri, into its centre, where the structural remains were visible. The dry-stone wall, as visible on the surface, was 5.8m long x 1.6m wide and attained a maximum height of approximately 390mm. Both the northern and southern ends of the wall were irregular where they abutted the bedrock which continued to rise above the surviving height of the wall, to form the sides of the gully. The structure of the wall comprised two parallel and roughly linear faces, constructed using irregularly-shaped stones, generally laid as headers, with a central core of rubble.

Adjacent stone walls: Figure 30

Wall A was located approximately 1m to the north and 4m to the west of the north end of wall <1103> and beyond the excavation limits. It measured approximately 10m north-south x c. 1m east-west and its ends abutted the exposed bedrock which outcropped extensively in this area. The outcrop to the north of the wall was extensive and in places had either very steep or vertical faces, especially towards the west, where the natural topography dropped away towards the river. This outcrop continued to the north as far as wall <3082> forming the southern face of the gully within which wall <3082> was set.

Structure B was located to the west of the same extensive rock outcrop, but closer to the excavation area. It was the only evidence of a stone building, which, because of stylistic similarity, is believed to be associated with this construction phase. It survived as a three sided, rectilinear structure, the fourth side having been formed by the extensive rock outcrop. The approximate external dimensions were 7m north-south x 5m east-west (from outside of west wall to rock outcrop), while each wall measured around 1m in width.

Wall C was oriented east-west with its eastern end located around 3m from the north-west corner of structure B. The wall here preserved a square end, which suggests the location of a doorway. It then continued westwards for around 8m, with an irregular truncated end. This wall was also around 1m wide; the height was not recorded.

Wall D was located approximately 24m to the north west of the previously described wall, beginning just beyond the northern limit of the 6000 excavation area. It was oriented north-south and was recorded for a length of approximately 10m. The wall was also around 1m in width and was truncated at both ends. Again the height was not recorded.

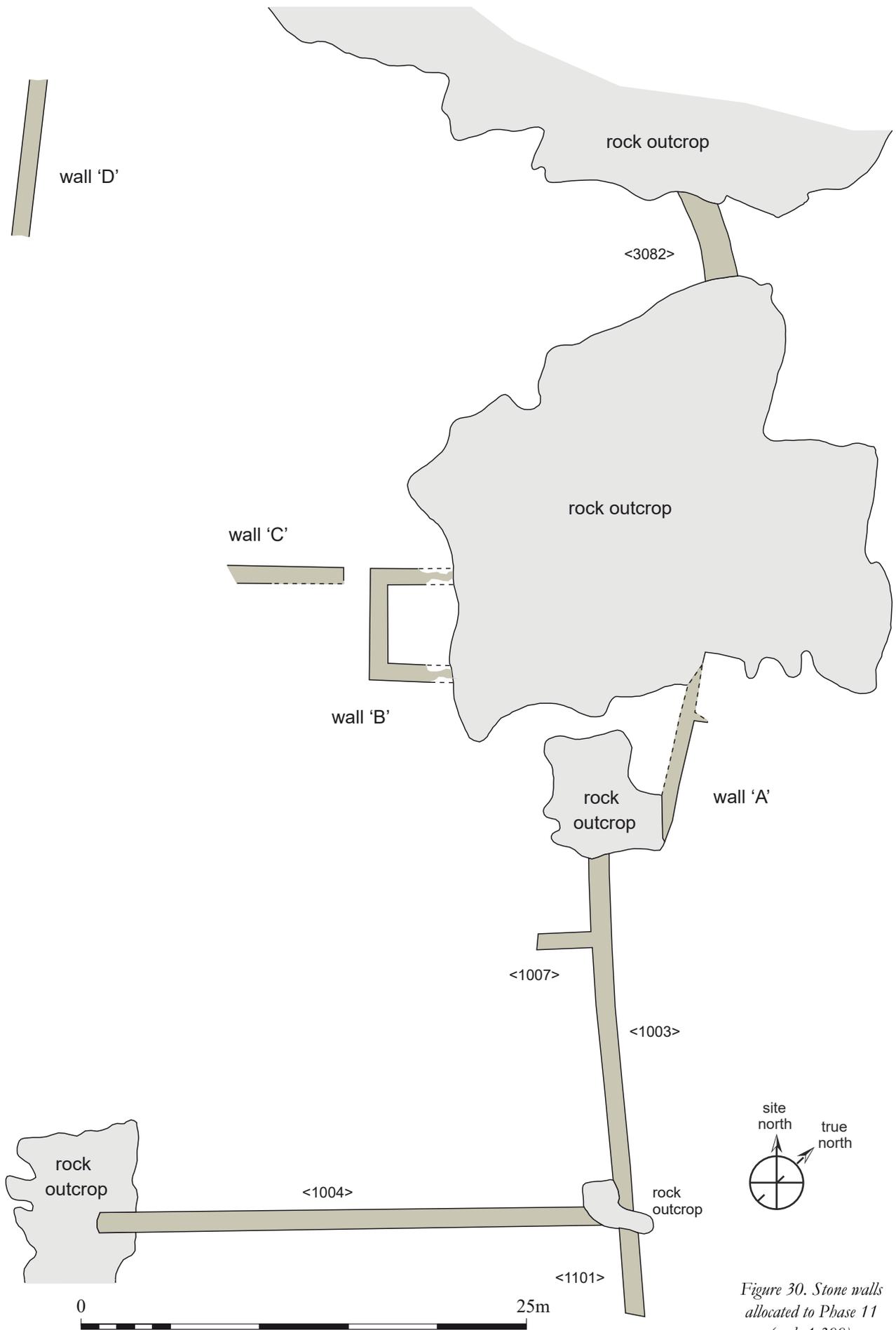


Figure 30. Stone walls allocated to Phase 11 (scale 1:300).

Defined spaces

Within the excavation area, two substantial walls dominate this phase of activity, which, when combined with the lesser walls, form three right-angled corners that begin to define two spaces. Both of these were only partly defined by the stone walls described above, so, beyond the fact that they must represent open external areas, their functions are uncertain.

Space 1270, measured approximately 16m north-south x 38.5m east-west and represents the larger of the two spaces within this phase. It was defined to the north by wall <1007>, to the east by wall <1003> and to the south by wall <1004>, while the western extent is arbitrarily defined by the excavation limits. Within the space itself no other features, which could with any degree of certainty be associated with this phase of activity, were recognised.

Space 1271 was defined to the north by wall <1004> and to the east by wall <1101>, while the southern and western extents are arbitrarily defined by the excavation limits. The space measured a minimum of 7.5m north-south x 18.5m east-west and also contained no associated archaeological features.

Phase summary

This represents the remains of the Phase 11 archaeology, as revealed during the excavation. Unfortunately, aside from the walls themselves, no archaeological deposits definitively associated with this phase and which could assist in determining the function of the preserved structures were recognised.

Beyond the likelihood that the two new spaces created appear to represent a different function from the preceding archaeological remains, little can be said. However, combined evidence preserves an extensive east facing barrier which comprises both areas of walling and intervening areas of outcropping rock, which in themselves may have performed a similar function. The location of these is interesting as it seemed to mark the eastern limit of the area of higher elevation on the island, with the area to the east of this dropping away fairly sharply. The extent of this combination of wall and rock outcrop measured approximately 70m north-south.

The height of the original walls is difficult to assess as the apparent lack of collapsed material surrounding the walls themselves could be the results of either substantial robbing, or of the original walls not being high or even the possibility that the upper parts of the walls was in a more degradable material such as mud brick or *jalous*. This latter technique was observed within the existing villages located on the adjacent island of Mis, where walls of a similar thickness were constructed simply too house livestock. Although a defensive function was suggested during the original site evaluation in 2003-2004 (Fuller, 2004) no additional evidence emerged during excavation to support this.

Phase 12

Phase 12 represents the final phase of occupation recognised within the Umm Muri excavation and combines

a series of mainly ephemeral or poorly constructed features, apparently randomly dispersed over an extensive area. The common link between all these disparate archaeological remains is their apparent association with an occupation phase. Aside from isolated post-holes the remains comprised almost exclusively the '*tamuur*' type ovens, similar to those encountered in previous phases, plus crude curvilinear walls and single width stone alignments. Also included are some of the smaller pits as these seem unlikely to represent part of the extensive robbing and destruction horizon which comprises the final phase of activity (Phase 13). Although these disparate features have been included within a single phase it is likely that they represent many differing phases of activity and it is possible that they include archaeological remains that pre-date some of the previously described phases. However, as the majority of these isolated features lack any direct stratigraphic association with other archaeological remains, placing them within an earlier phase is difficult to do with any degree of certainty.

The archaeological remains assigned to this phase were represented within all of the designated number blocks, although the bulk of the above ground structural remains were located within the 1000 and 3000 number areas.

Because of the dispersed and incomplete nature of the structural remains which define this phase, they are described by area in their entirety, which, although different from the preceding format, will at least give some sense of area concentrations. Only two space numbers were allocated for this phase of activity, both within the 1000 context area.

Area 1000: Figure 31

The possible remains of one ephemeral space **1134**, with associated hearth and mud-brick settings. Two simple screen type features were noted adjacent to the above structure and one possible activity area (space **1109**) defined by linear arrangements of stone rubble and a phase 12 wall. There were also seven features set into the surface, closely concentrated within two areas of activity. Post-holes were noticeable by their absence.

Archaeological concentrations (possibly associated)

Structure 1098 was located towards the northern extent of the 1000 area, roughly midway between the eastern and western limits of excavation. The structure survived as a linear concentration of compacted clay-silt and mud-brick fragments which measured 0.5m north-south x 1.1m east-west x 0.2m in height. The function of this feature is unclear, although some association with ephemeral structure **1134**, which is located approximately 2.2m to the west, is possible (see **1134** below). The structure overlay a sand deposit around 50mm in thickness, designated context (1248) directly under the feature and elsewhere designated context (1000).

Structure 1079 was located approximately 5.5m to the south east of the previous structure and also survived as a linear concentration of compacted clay-silt and mud-brick

fragments. The structure measured approximately 200mm north east-south west x 700mm north west-south east and reached a maximum height of 150mm. The function of this feature is uncertain, although a screen for a hearth is a possibility. Its location may also indicate an association with the previously mentioned ephemeral structure **1134**, which is located around 5.2m to the west. This structure also overlay a 50mm thick aeolian sand, context (1244) directly under the feature, elsewhere designated context (1000).

Defined spaces

Within this phase of activity only two space numbers were allocated. One is believed to represent an area deliberately cleared of stone and debris, while the other is thought to be the remains of an ephemeral dwelling.

Space 1109 represents the largest space within this phase and was defined to the north and east by phase 11 walls <1004> and <1101>, while the southern and western extents are defined by two linear concentrations of rubble (contexts (1106) and (1107), described below). The space measured 6m north-south x 9.5m east-west and contained two ovens which may be associated with the use of this space.

Context (1106) comprised an irregular, roughly 'L'-shaped mass of unworked stones, which defined both a part of the southern and western limits of space **1109**. The linear extent of this mass measured 2.25m north-south x 5.4m east-west, while the width was between 0.25m and 1.25m. The maximum surviving height was c. 400mm and represents only a single course of stone rubble. Continuing beyond the deposit's northern extent was a similar deposit of unworked stones, which appears to represent a continuation of this deposit (see (1107) below). This stone directly overlay a 150mm thick deposit of loose aeolian sand, context (1255).

Context (1107) was a northward continuation of the previously described context and was of similar form. The linear extent of this mass measured 3m north-south x 1m east-west, with a maximum surviving height of approximately 400mm, which again represents a single course of stone. The northern extent of this deposit abutted against an outcrop, while to the south, east and west the deposit had irregular edges. As with context (1106), this stone also directly overlay a 100mm thick deposit of loose aeolian sand, context (1232).

Pit [1119] was located within the north-east part of space **1109** and partly truncated the phase 10 destruction deposit (1111). It was circular with a diameter of 380mm and a surviving depth of 200mm. Within the cut an upturned ceramic vessel, of similar dimensions to the cut, had been inserted.

Ceramic vessel (1120) measured 380mm in diameter and survived to a height of 200mm. The base of the vessel was missing, which in effect created a ceramic tube. This was filled by deposit (1121), a loose mid brownish yellow sand intermixed with around 10% of charcoal fragments. The deposit filled the whole of the vessel. The composition of this deposit suggests that it represents a mixture of both use-phase material, in the form of charcoal and abandonment-phase aeolian sand.

Circular pit [1122] was located approximately 850mm

to the south east of the previous pit and also cut into abandonment phase deposit (1111). It measured around 330mm in diameter and survived to a depth of 300mm. It also contained a ceramic vessel, of similar dimensions to the cut itself.

Ceramic vessel (1123) was placed base down within the pit, measured 330mm in diameter and survived to a height of 300mm. The rim and upper part of the vessel was missing, possibly through truncation, while the remainder, including the base, was filled by deposit (1124), a loose mid greyish brown sandy silt intermixed with around 30% charcoal fragments. Its composition suggests that it represents a mixture of both use-phase material, in the form of charcoal and abandonment-phase material in the form of aeolian sand.

Space 1134 was delineated by stones, (context <1135>). The space measured 3m north-south x 3.5m east-west and contained the remains of rough surfacing, a small hearth and ancillary features of uncertain function.

Structure <1135> comprised four irregular lines of unworked stones, oriented north-south and east-west, which formed a roughly square arrangement. The stones were widely spaced, the space between each averaging around 50mm, although a single, wider space was located in the north-east corner. This measured 500mm and may represent a doorway. The internal space measured 3m north-south x 3.5m east-west, with the maximum width of the stones recorded at 500mm and a height of 200mm. Surface (1137) covered the southern half of space **1134** and comprised a loose, brownish-grey, deposit of small stone fragments each measuring around 20-30mm in size. The context measured approximately 1m north-south x 3.75m east-west with a thickness of c. 20mm. The deposit abutted on its eastern, southern and western sides the stone structure <1135>, while to the north it continued beneath deposit (1142) (described below). Placed directly upon this surface, near to its northern and eastern limit, was <1136>.

Structure <1136> was set directly upon surface (1137) and located approximately 1m from its eastern edge and 500mm from its southern edges. It comprised three unworked stones placed together to form a 'C'-shape, open to the east. The interior faces of the stones and the surface enclosed by them showed clear evidence of having been burnt, appearing dark red in colour, although no associated hearth debris remained. The overall dimensions of the structure measured 500mm north-south x 400mm east-west x 200mm in height, while the interior dimensions measured around 200mm north-south x 150mm east-west. The structure was presumed to be a hearth, with the stones possibly placed as a protective screen or to serve as a raised support for the placing of cooking vessels.

Surface (1142) covered the northern half of space **1134** and measured approximately 2.1m north-south x 3.75m east-west x 0.04m thick. It comprised a yellowish brown silty sand which abutted on its eastern, northern and western sides structure <1135>, while to the south, the edge of the deposit overlay surface (1137). Towards its centre it abutted and secured in position three mud bricks (1138-1140) set on edge, the central one retaining some mud mortar 50mm thick. The bricks measured 350 x 150 x 100mm.



Figure 31. Phase 12 area 1000 (scale 1:150).

Isolated features

Possibly associated with this phase of activity is a series of ovens located to the south east of space **1134** and close to the phase 11 wall <1004>.

Pit [1017] was located approximately 250mm to the north of wall <1004> and partly truncated abandonment-phase deposit (1016). It was circular and measured around 370mm in diameter and around 250mm in depth. Within

the cut a ceramic vessel had been inserted.

Vessel (1019) (Plate 21) was placed upside-down within the pit and measured 370mm in diameter, surviving to a height of 250mm. The base of the vessel was missing, which in effect created a ceramic tube. It was infilled by deposit (1020), a loose mid brownish sand which, lacking any evidence of burnt material, may represent abandonment-phase, aeolian sand.

Pit [1021] was located approximately 350mm to the west of the previously described cut [1017] and approximately 200mm to the north of wall <1004>. It partly truncated abandonment-phase deposit (1018), and was circular in plan, with a diameter of around 380mm. The surviving depth was 320mm and the cut contained a ceramic vessel.

Vessel (1022) (Plate 21) was placed upside-down within the pit and measured 380mm in diameter and survived to a height of 370mm. The base of this vessel was also missing, which again effectively created a ceramic tube, here infilled by deposit (1023) a loose mid yellowish brown sandy silt, intermixed with around 10% charcoal fragments. Its composition suggests that it represents a mixture of both use-phase material, in the form of charcoal and an abandonment-phase aeolian sand.

Pit [1056] was the earliest in a series of intercutting pits, each containing ovens, located approximately 1.15m to the north of phase 11 wall <1004> and around 2m to the north west of the previously described pit [1021]. Only

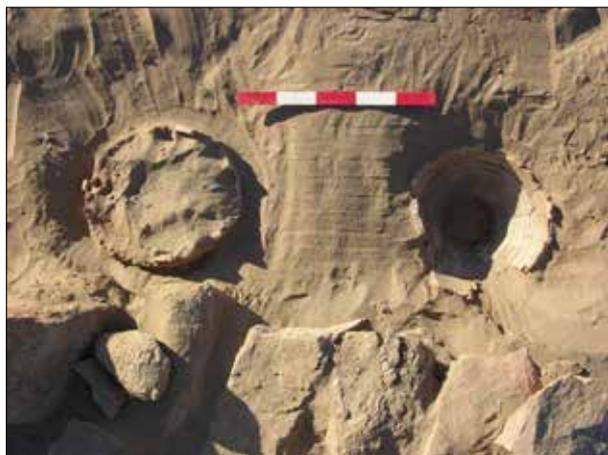


Plate 21. Phase 12 ceramic ovens, 1019 and 1022, with the edge of the phase 11 wall <1004> in the foreground.

the south-eastern edge of this cut survived, appearing as a narrow crescent, and measuring only 250mm north east-south west x 30mm north west-south east, while its depth was around 100mm. Within the surviving segment of the cut were the fragmentary remains of ceramic vessel (1057) which had also suffered truncation by the later pitting. As with the pit, only a small fragment survived, measuring 200mm north east-south west x 20mm north west-south east, while the height was around 100mm. Because of the fragmentary remains it was unclear how the vessel had been originally placed within the cut. The single fill [1058] comprised a greyish-brown sand, measuring approximately 250mm north east-south west x 10mm north west-south east, with a thickness not greater

than 100mm. As charcoal was absent it seems reasonable to assume that the deposit is a secondary infilling event, probably associated with the destruction of this feature.

Pit [1053] was the second cut within the sequence and truncated all but the south-east edge of the previously described cut [1056]. However, it too had suffered from truncation by a later cut and so also remained incomplete, with only its south-eastern edge surviving. This also appeared as a narrow crescent shape, which measured 350mm north east-south west x 30mm north west-south east, while its depth was around 150mm. Within the surviving segment of the cut were the fragmentary remains of ceramic vessel (1054) which had also suffered truncation by the later pitting. As with the cut, only a small fragment survived, measuring 350mm north east-south west x 20mm north west-south east, while its height was around 150mm. Despite this severe truncation it is likely that the vessel was originally placed within the cut upside down. The cut contained a single fill, (1055), a loose mid greyish-brown sandy silt, containing a small percentage of charcoal fragments. The extent of the deposit measured approximately 350mm north east-south west x 10mm north west-south east, with a thickness not greater than 150mm. However, as the charcoal percentage was so low it seems reasonable to assume that the bulk of deposit is a secondary infilling event, probably associated with the destruction of this feature.

Pit [1024] truncated all but the south-eastern edges of the previous two cuts and was circular with a diameter of 380mm and a depth of 300mm. Ceramic vessel (1025), was placed upside-down within it and measured 380mm in diameter and was 300mm in height. The base of the vessel was missing, creating a ceramic tube, which contained a single fill (1026).

Deposit (1026) comprised a loose mid greyish-brown silty sand, containing around 10% charcoal fragments. The charcoal content probably represents remnants of use phase material, while the remainder probably represents a secondary infilling event, associated with the disuse of this feature.

Phase summary (area 1000)

The evidence for human activity in this area comprised not only ovens, but also convincing evidence of a purpose built structure (context **1134**) as well as the area **1109**, which in part utilised the remains from earlier archaeological phases.

The linear stone arrangement which constitutes structure **1134** is believed to have been associated with either a tent or a lightweight reed or straw structure, which, because of the lack of post- or stake-holes, is assumed to have been anchored to the ground using the stones as weights. The hearth is likely to be associated with domestic activity, while the function of the mud-brick setting within the space is uncertain.

Immediately adjacent to this structure were the two linear features (contexts <1079> and <1098>), which, although crude in their construction, must have served a specific function.

The three ovens, located only 10m to the south east of structure **1134**, suggest the possibility that they are located

in an otherwise unrecognised area of activity, which may in part have utilised the remains of the earlier phase 10 wall <1004> as a windbreak.

Space **1109**, represents the largest space contained within this phase as it is believed to have utilised the phase 10 walls <1004> and <1101> to form its northern and eastern limits, while both the remaining southern and western limits of the space were defined by the two linear concentrations of rubble (1106) and (1107). This rubble may represent either a deliberately constructed barrier, or possibly evidence of the clearance of space **1109** of rubble collapse, which could easily have created the random mass of concentrated stone recorded. Within the cleared space, aside from two ovens, there was little evidence of human activity.

Area 3000: Figure 32

Within the area defined by the 3000 number block were; four wall fragments, two features set into the ground, one hearth pit and a single post-hole.

Walls

Wall <3002> (Plate 20) was located towards the north-west corner of the area. It was curvilinear in plan and oriented roughly north east-south west, with its outer arc facing the south east. The surviving extent measured around 11m long x 0.55m wide, with a maximum height of 550mm. Both the north-eastern and south-western ends of the wall were irregular and broken, indicative of either deliberate destruction or erosional collapse. Further evidence of erosional collapse was also seen along the length of the wall, in the form of concentrated masses of stone, mud brick and clay-silt, which abutted the wall at its north-east end and again towards the wall's south-east end and which must represent collapsed material (Phase 13, contexts (3014) and (3049)). Additionally, two further deposits of fine clay-silt, which also abutted the wall, may attest to lower energy cycles of decay (Phase 13 contexts

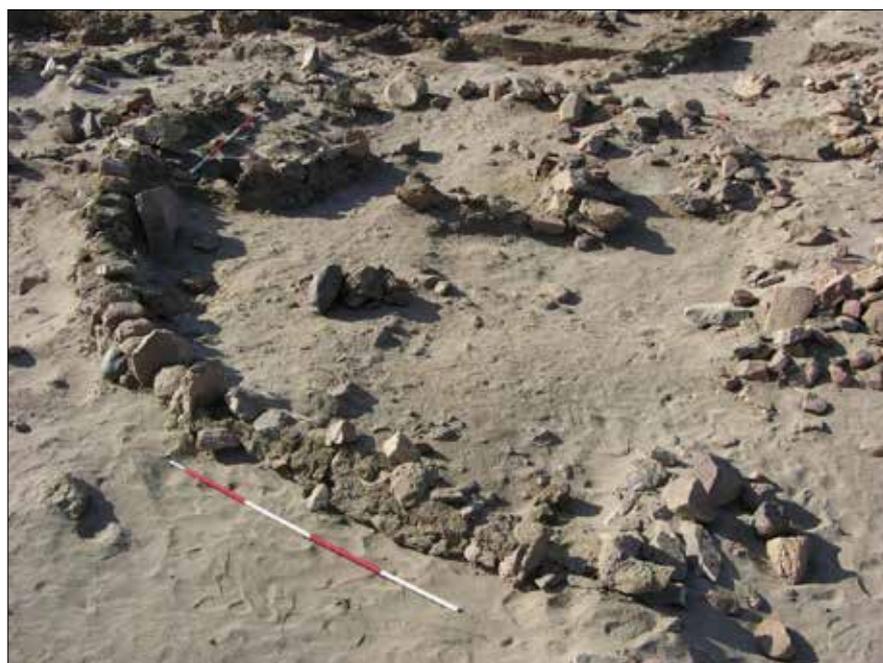


Plate 20. Phase 12 wall <3002>. View from the north east.

(3003) and (3009)). The surviving remains of the wall comprised a random mixture of unworked stone blocks, broken and complete mud bricks as well as fired-brick fragments bonded together with a mid brown clay-silt mortar. A single 500mm wide entranceway was located approximately 2.5m from the wall's north-east end and was defined on either side by two elongated roughly-worked stones, set as orthostats, while a roughly constructed 100mm high stone and clay-silt mass provided a crude threshold between the two.

Wall <3005> was located approximately 2.5m to the north of the south-west end of wall <3002>. It was oriented north-south and measured around 2.5m long x 0.4m wide, with a maximum height of around 360mm. The northern end of the wall was irregular and broken, while the southern end preserved evidence of a crudely constructed corner, as the wall here began to turn towards the west for a length of approximately 750mm, before it terminated in a broken and irregular edge indicative of either deliberate destruction or erosional collapse. Direct evidence of destruction was seen at both the northern and southern ends of the wall, in the form of concentrated masses of stone, mud brick and clay-silt, which abutted the wall and must represent collapse material (Phase 13, contexts (3046) and (3048)). The wall was similar to wall <3002>, being constructed of a random mixture of unworked stone blocks, broken and complete mud bricks as well as fired-brick fragments bonded together with a mid brown clay-silt mortar.

Wall <3013> was located midway between the two previously described walls and was oriented east-west. The surviving extent measured around 1.65m long x 0.25m wide, with a maximum height of c. 580mm. The western end of the wall was irregular and broken, while the eastern end preserved evidence of a crudely constructed corner, as the wall here began to turn towards the south for a length of approximately 500mm, before it was truncated. Despite this truncation, enough survived

to indicate that this southern wall spur would have continued for a further 850mm before joining the curvilinear wall <3002>. Direct evidence of the destruction of this wall was preserved against the wall's northern face in the form of concentrated masses of stone, mud brick and clay-silt, which must represent collapse material derived from the wall (Phase 13, contexts (3059) and (3060)). As previously, the wall was constructed of a random mixture of unworked stone blocks, broken and complete mud bricks as well as fired-brick fragments bonded together with a mid brown clay-silt mortar.

Wall <3023> was located approximately 1.1m to the south of wall <3002>, towards that wall's south-west end. It was oriented

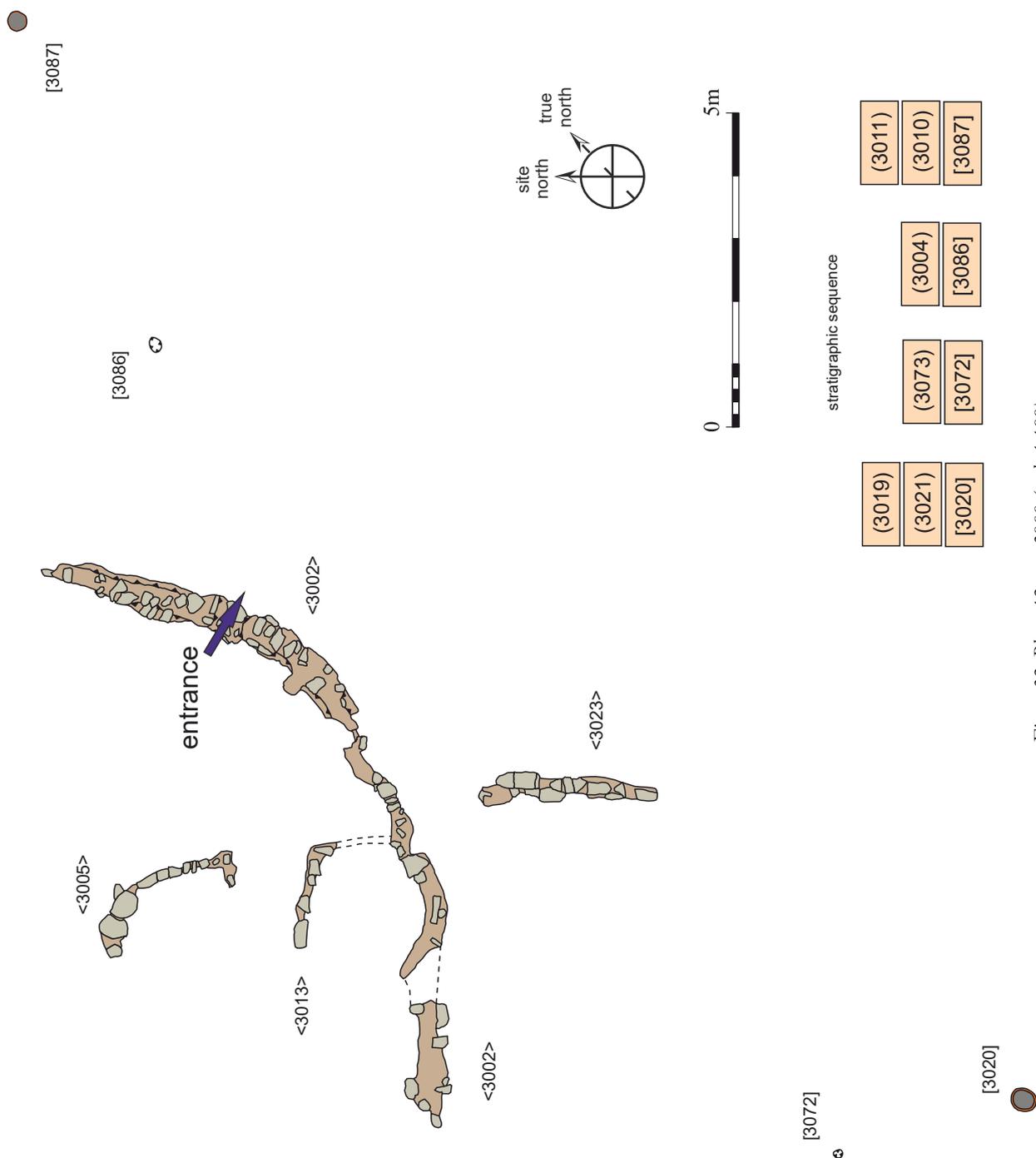


Figure 32. Phase 12 area 3000 (scale 1:100).

north-south and measured around 3m long x 0.3m wide, with a maximum height of 500mm. Both the northern and southern ends of the wall were irregular and broken, indicative of either deliberate destruction or erosional collapse, while the surviving remains of the wall comprised a random mixture of unworked stone blocks, and broken mud bricks, plus very occasional fired-brick fragments bonded together with a mid brown clay-silt mortar.

Isolated features

Possibly associated with this phase of activity is a series of features located within the vicinity of the previous described isolated wall <3023>.

Oval-shaped cut [3086] was located approximately 3.6m to the east of the north-eastern end of wall <3002> and cut directly into the underlying solid geology. The

cut, which had a concave base profile, measured 150mm north-south x 250mm east-west x 30mm deep, and contained a single fill. This cut is believed to represent the truncated remains of a shallow hearth pit.

Deposit (3004) comprised a fine dark greyish black deposit of charcoal and ash which filled the truncated remains of cut [3086]. It is likely to represent a remnant of use-phase material, indicative of *in-situ* burning.

Circular pit [3087] was located approximately 8.5m to the east of wall <3002> and 5.5m to the east of the previously described hearth pit [3086]. It also cut into the underlying solid geology and measured around 300mm in diameter with a depth of 350mm. Within the cut a ceramic vessel had been inserted.

Vessel (3010) was placed upside-down, measured 300mm in diameter and survived to a height of 350mm.

The base of the vessel was missing, which in effect created a ceramic tube. This was infilled by deposit (3011), a loose mid brownish yellow sand, intermixed with charcoal fragments. The composition of this deposit suggests that it represents a mixture of both use-phase material, in the form of charcoal fragments and abandonment-phase material in the form of aeolian sand.

Circular cut [3072] was located approximately 6m to the south of the south-west end of wall <3002> and measured 120mm in diameter x 60mm deep. The cut partly truncated the phase 10 abandonment deposit (3074) and contained a single fill. The small diameter of this cut suggests it may once have accommodated a post. Aside from the likelihood of some horizontal truncation, its shallowness indicates that it was unlikely to be freestanding. The fill (3073) was a brownish-yellow sand, which is believed to have formed through natural erosional processes.

Circular pit [3020] was located approximately 9m to the south of the south-west end of wall <3002> and 2.6m to the south of post-hole [3072]. It measured approximately 250mm in diameter x 120mm deep and partly truncated the phase 7 mud-brick wall <3066>. Within the cut was placed ceramic vessel (3021), which, like the pit, measured 250mm in diameter x 120mm in height. Much of the upper portion of the vessel was missing, although the remainder, including the base, was intact. The single fill (3019) contained large quantities of charcoal, suggesting the re-used vessel functioned as an oven.

Fill (3019) consisted of dark greyish-black charcoal, sand and ash intermixed with small quantities of burnt bone fragments. It is likely to represent hearth debris, indicative of *in-situ* burning. However, the presence of the accompanying sand does suggest some secondary infilling, probably natural erosional processes associated with the abandonment of the feature.

Phase summary (area 3000)

The archaeological remains within the area designated context 3000 included structural remains as well as the same type of ovens as seen within the 1000 context area.

The four surviving wall fragments are similar in style and it is likely that they represent either a single phase of construction, or at least a single overlapping phase of use. Because of their irregular arrangement, it is possible that they are the remains of small enclosures used to house livestock.

Located immediately to the east and west of these walls was evidence of human activity in the form of a shallow hearth, plus two ovens. Of the single post-hole little can be said.

Area 4000: Figure 33a

Within the area defined by the 4000 number block, archaeological features allocated to this phase comprised one pit and a possible post-hole.

Isolated cut features

Circular cut [4092] was located midway between the northern and southern extent of the 4000 area, at the eastern limit of excavation. It partly truncated phase 5 wall <4007> and had a diameter of 230mm x 190mm deep.

Its fill (4093) comprised a brownish-yellow sand, intermixed with around 30% charcoal fragments. This seems likely to represent a combination of hearth debris and a secondary infilling event, represented by the sand probably formed through natural erosional processes associated with the abandonment of the feature.

Circular cut [4225] was located roughly centrally within the area designated 4000 and measured approximately 110mm in diameter x 100mm deep. The cut contained a single fill. The small diameter of this cut suggests in may once have accommodated a post and aside from the likelihood of some horizontal truncation, its shallowness indicates that it was unlikely to be freestanding. The fill (4226) was a brownish-yellow sand, which is believed to represent natural aeolian processes associated with abandonment.

Phase summary (area 4000)

The paucity of archaeological features that comprise the phase 12 remains suggests that any domestic activity was concentrated elsewhere during this period. Although the shallow hearth pit must post-date phase 7, and probably all of the mud-brick archaeology, the post-hole could in fact be associated with either an earlier or later phase of activity.

Area 6000: Figure 33b

Located within the area defined by the 6000 number block were a low stone and clay-silt structure and 15 small, roughly circular cuts.

Archaeological features (possibly associated)

Circular cut [6213] was located approximately 4.5m from the western limit of excavation, very close to the excavation's northern extent. This cut forms the westernmost of a series of four similar cuts, which may be related (Table 2). All are of a similar, small diameter, which suggests that they may once have accommodated a series of posts.

Further to the south were a series of five more small circular cuts (Table 3), which form another loose association. Once again, all are of a similar small diameter, suggesting that they too may once have accommodated a series of posts.

Six further possible post-holes were identified within the 6000 context area (Table 4). Five were roughly circular, the sixth was oval. Two were around 1m apart ([6225] and [6287]), while the remaining four are isolated cuts.

Isolated features

Structure <6081> represents the only phase 12 positive feature identified within the 6000 context area. This comprised a compacted mass of stone and clay silt that formed a crude three-sided screen or barrier, open to the west. The southern side measured 1.05m long and was of one build with the eastern side, the junction between these two segments being around 45°. The eastern side measured around 750mm in length and was joined at its northern end by an east-west feature forming the third side of the structure. This extended for around 600mm to the west, with the junction between these two segments close to 90°. The thickness of the sides was around 200mm,

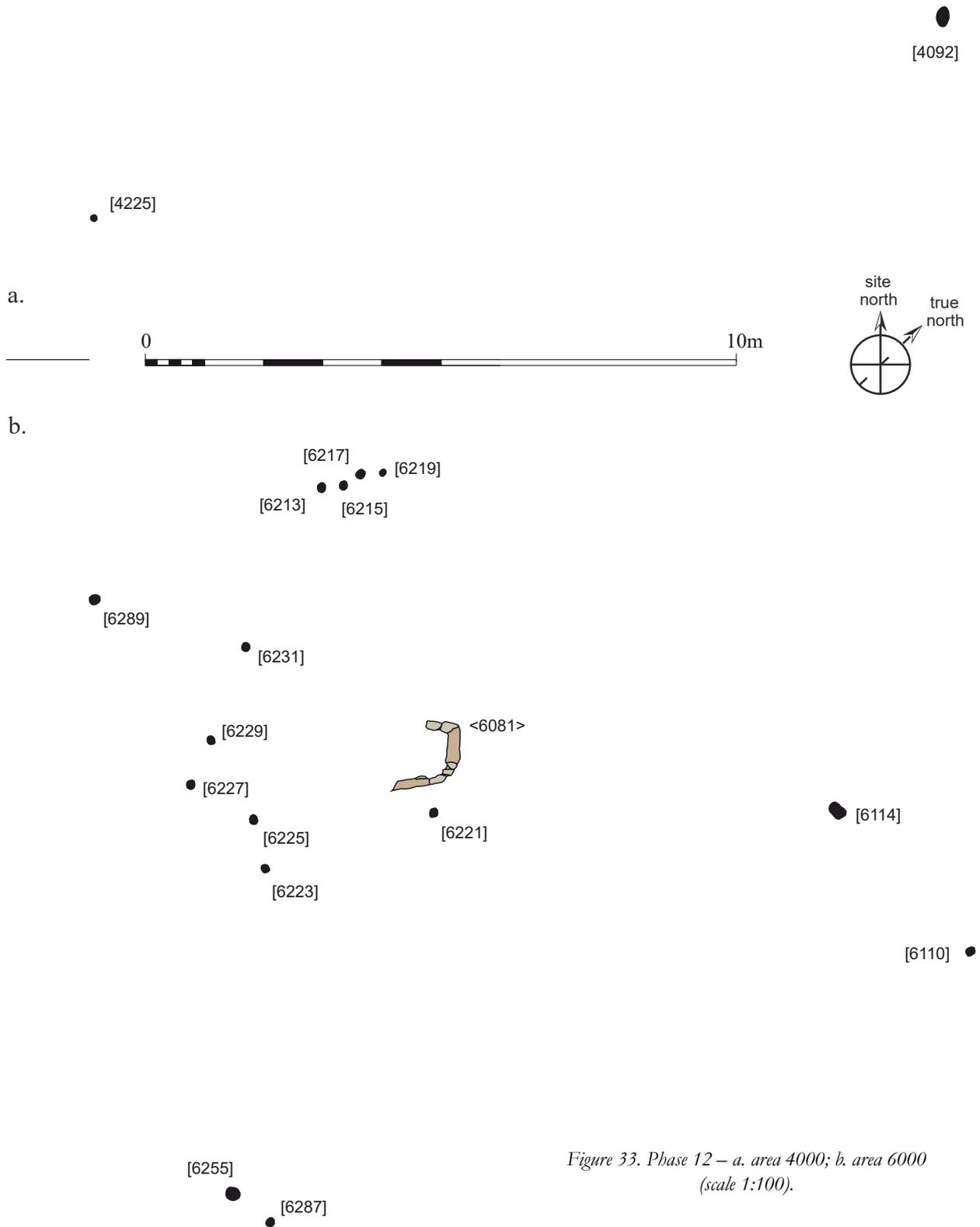


Figure 33. Phase 12 – a. area 4000; b. area 6000 (scale 1:100).

as was the surviving height. It seems highly likely that this structure was built to enclose or protect something and a hearth or fire pit would seem to be the most logical assumption, although no evidence of *in-situ* burning survived. This in itself is not problematic, as the area had suffered much from erosion, leaving the structure standing upon an isolated pedestal of sand (context (6302)), which effectively means that the surface associated with the use of this structure was absent.

Phase summary

The paucity of archaeological features that comprise the phase 12 remains suggests that if there was any domestic activity on the site it was concentrated elsewhere during this period as, within the area designated 6000, the evidence for human activity during this phase only comprised mainly small circular cuts, interpreted as post-holes, plus a three-sided screen type feature.

TABLE 2. CIRCULAR CUTS IN AREA 6000.

Post-hole	Dia. (mm)	Depth (mm)	Fill no.
6213	100	100	6214
6215	100	50	6216
6217	100	100	6218
6219	100	50	6220

TABLE 3. SMALL CIRCULAR CUTS IN AREA 6000.

Post-hole	Dia. (mm)	Depth (mm)	Fill no.
6231	100	70	6232
6229	100	100	6230
6227	120	140	6228
6225	120	150	6226
6223	120	70	6240

TABLE 4. POSSIBLE POST-HOLES WITHIN AREA 6000.

Post-hole	Dia. (mm)	Length (mm)	Width (mm)	Depth (mm)	Fill no.
6289	220			200	6290
6221	100			100	6222
6255	200			200	6256
6287	120			200	6288
6110	110			80	6111
6114		300	200	210	6115

Phase 13 Figure 34

Phase 13 is the final documented phase of activity within the excavation area and represents the grouping together all of the remaining destruction events, which appear to post-date phases 11 and 12. These events are represented within all of the designated number blocks and were either visible prior to the excavation, or were revealed upon the removal of the overlying aeolian sands which formed the pre-excavation ground surface. Some of these deposits comprised either possible collapse material, in the form of irregular masses of stone and clay-silt, or material derived from gradual decay, in the form of fine-grained deposits. However, the vast bulk of the features which comprised this phase are pits. These were, in the majority of cases, probably dug to remove materials for re-use, either in other structures or to improve the surrounding soils for cultivation.

Obviously the time frame for these disparate destruction events could be either rapid or extended and so, in reality, they represent a fairly elastic time period. Aside from this ambiguity, it is assumed that by the end of these processes the island of Umm Muri appeared very much as it did when the site was first surveyed in 1999. Because of the repetitious nature of the archaeology which comprises this phase the data has been presented in a tabular format.

Additionally, because the vast majority of the archaeology comprises pits, only the quantity of cut features per area are referenced within the text itself. This is augmented by an associated table, which presents the details of individual cuts and associated fills. Further detail can be

extracted from the associated phase plans, which include every cut within this phase.

Area 1000: Figure 35

Forty-five separate contexts were allocated within the area defined by the 1000 number block and these comprised either collapse/abandonment-phase deposits (22 contexts) or pits, with associated fills (23 contexts). The existing ground surface which comprised loose aeolian sand was here allocated context numbers (1000), (1001), (1002), (1006) and (1100).

Phase 13, area 1000 (depositional events)

The location of these disparate deposits (Table 5) is likely to indicate the structures from which the source material is derived, however, unlike the earlier abandonment phase (Phase 10), many of these deposits overlie material or structures of phases 11 and 12. This complicated stratigraphic sequence seems most likely to attest to a continuous process of gradual decay which has affected all of the archaeological remains over an extended time period.

Phase 13, area 1000 (pit cutting)

Within the area designated 1000 11 separate cuts were noted. Of these, eight were associated with the destruction and robbing of the phase 7 mud-brick structures, while the remaining three were cut directly into the phase 11 stone wall <1004> (see Table 6).

Phase summary (area 1000)

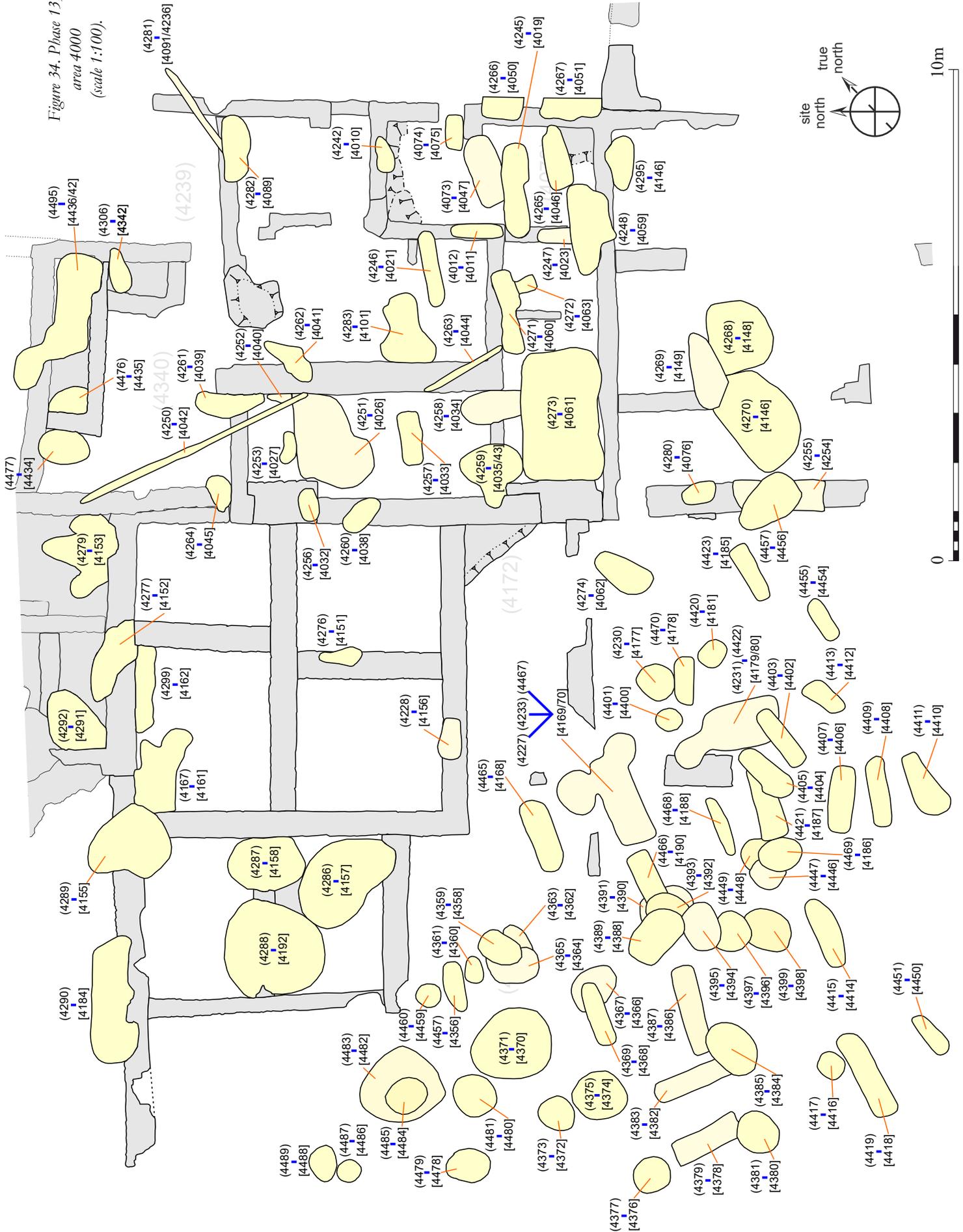
Within this area of the site, phase 13 survives as a combination of depositional events in the form of the collapse and decay of the more exposed fragments of the earlier structural remains, as well as localised robbing events as witnessed by the pit-cutting sequences. The erosion to this part of the site is extensive and it is clear that most of this area has suffered extensive deflation. This would help to explain the concentrated amount of ceramics and other heavier material preserved upon the surface of the area, prior to the commencement of the excavation. The full extent of erosion is likely to have been extensive, as the majority of the walls excavated were less than 400mm in height.

As stratigraphic links between these disparate archaeological events is generally lacking, it is impossible to know how they related directly to each other. But, aside from this ambiguity in the rate of decay and destruction, it is clear that the area itself was never completely disused or unvisited.

Area 3000: Figure 36

Nineteen contexts were allocated within the area defined by the 3000 number block and comprised either collapse/abandonment-phase deposits or pits, with associated fills. These were either located upon exposed bedrock or overlain by a loose aeolian sand, which formed the existing ground surface. This sand was here allocated context numbers (3000), (3001), (3017), (3018), (3022), (3042), (3045), (3061) and (3083).

Figure 34. Phase 13,
area 4000
(scale 1:100).



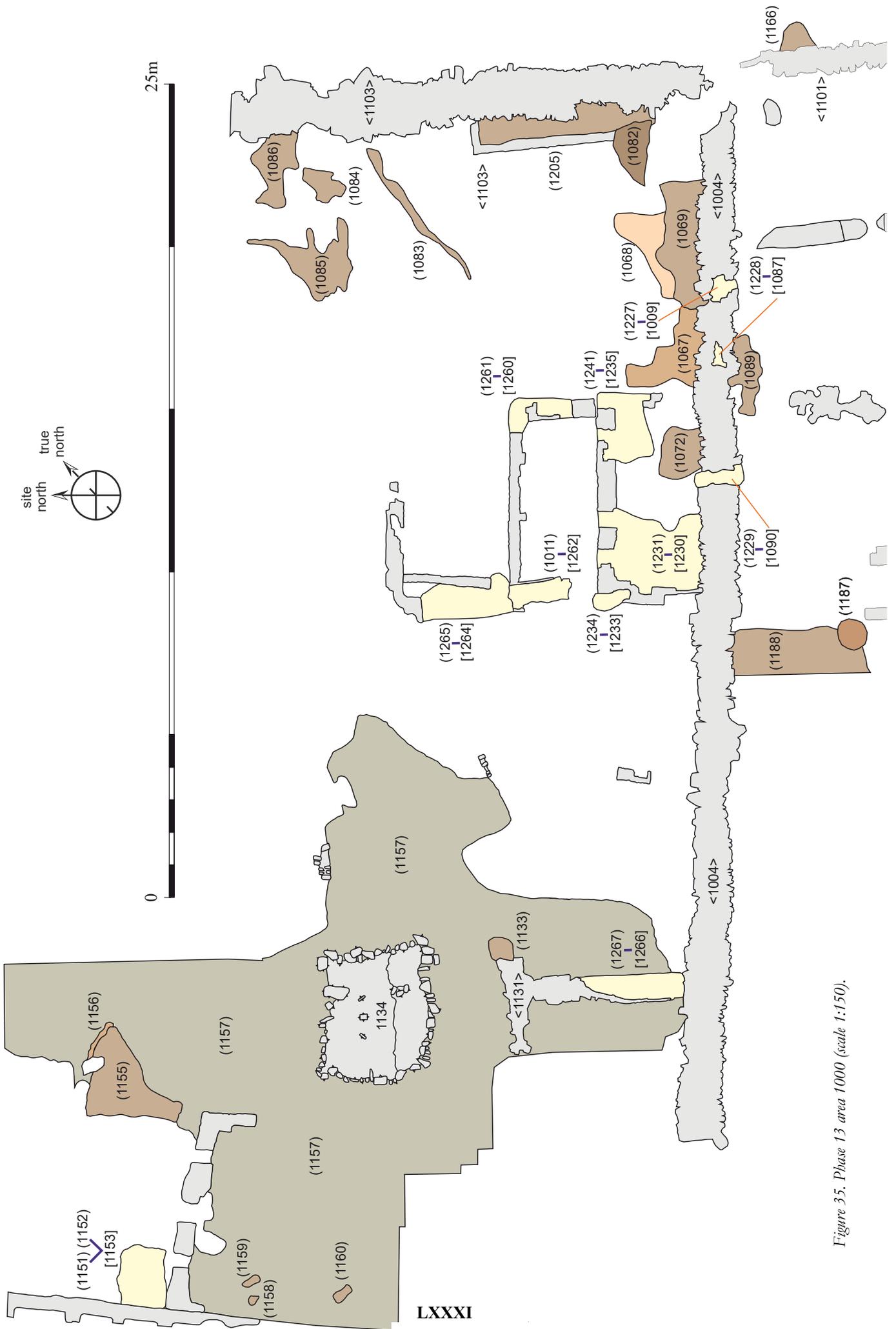


Figure 35. Phase 13 area 1000 (scale 1:150).

TABLE 5. PHASE 13, 1000 AREA (DEPOSITIONAL EVENTS, TABULATED)

Context	Type	Description	Space location
1067	Deposit	Erosional decay abutting stone wall <1004>, slumped bonding matrix?, beneath (1069)	1095
1068	Deposit	Erosional decay or collapse, abutting stone wall <1004>, beneath (1069)	1095
1069	Deposit	Erosional decay or collapse, abutting stone wall <1004>	1095
1072	Deposit	Erosional decay abutting stone wall <1004>, slumped bonding matrix?	1094
1082	Deposit	Degraded mud- and red-brick fragments:- probable collapse deposit	1095
1083	Deposit	Erosional depositon, probably derived from adjacent structures surrounding space 1095	1095
1084	Deposit	Erosional depositon, probably derived from adjacent structures surrounding space 1095	1095
1085	Deposit	Erosional depositon, probably derived from adjacent structures surrounding space 1095	1095
1086	Deposit	Erosional depositon, abutting stone wall <1003> derived from adjacent structures surrounding space 1095	1095
1089	Deposit	Stone rubble mass, adjacent to cut [1087], discarded debris from cut?	n/a
1133	Deposit	Probable collapse/abandonment-phase deposit, abutting wall <1131>	n/a
1157	Deposit	Extensive area of stone and fragmented mud brick, site destruction horizon	n/a
1158	Deposit	Localised patch of collapse/erosional decay upon (1157)	n/a
1160	Deposit	Localised patch of collapse/erosional decay upon (1157)	n/a
1166	Deposit	Erosional deposition, abutting wall <1101>, slumped bonding matrix?	n/a
1188	Deposit	Localised erosional deposit, probably derived from adjacent structures	n/a
1189	Deposit	Localised erosional deposit, probably derived from adjacent structures, overlies (1188)	n/a
1205	Deposit	Stone and clay silt fragments, probably collapse/abandonment-phase deposit derived from stone wall <1003>	n/a

TABLE 6. PHASE 13, 1000 AREA (PITS AND FILLS)

Context	Type	Length	Width	Depth	Filled by	Comments
1009	Pit	600mm	900mm	250mm	1227	Cut into stone wall <1004>
1087	Pit	600mm	400mm	300mm	1228	Cut into stone wall <1004>
1090	Pit	1.3m	400mm	240mm	1229	Cut into stone wall <1004>
1151	Fill	750mm	300mm	200mm		Localised fill within robber cut [1153]
1152	Fill	750mm	300mm	80mm		Localised fill within robber cut [1153]
1153	Pit	1.5m	1.9m	140mm	1151 & 1152	Probable robber cut
1230	Pit	3.2m	2.25m	200mm	1231	Robber cut within space 1094 (phase 7)
1233	Pit	1.35m	700mm	240mm	1234	Robber cut into phase 7 wall
1235	Pit	2.15m	1.9m	110mm	1241	Robber cut within space 1094 (phase 7)
1260	Pit	2.15m	1.15m	340mm	1261	Robber cut into phase 7 wall
1262	Pit	1.85m	900mm	250mm	1011	Robber cut into phase 7 wall, fill unexcavated
1264	Pit	2.65m	1.35m	250mm	1265	Robber cut into phase 7 wall
1266	Pit	3m	690mm	150mm	1267	Robber cut into phase 7 wall

Abandonment phase (depositional events)

Of the 19 contexts allocated to this phase in area 3000, 15 comprised depositional episodes. As all of these are immediately adjacent to, or directly abutting, the structures which constitute the Phase 12 remains, it seems reasonable to assume that they relate to the degradation and collapse of the preceding archaeological phase. The recorded depositional sequences seem most likely to attest to processes associated with both gradual and more rapid periods of decay, which have affected most of the archaeological remains across the whole of the site.

Phase 13, area 3000: Figure 36

The deposits of this phase are listed in Table 7.

Abandonment phase (pits)

Within the area designated 3000 only four pits with associated fills were allocated. Of these, three are convincingly associated with the destruction and robbing of the mud-brick structures, as they cut either directly into mud-brick walls or associated collapse deposits, while the fourth cut directly into the underlying solid geology and is, therefore, less easy to explain. However, as stratigraphically it is not associated with any other phase and it lacked any anthropogenic material to assist with its dating, its insertion here within the final phase seems logical. Details of the pits and associated fills are presented in Table 8.

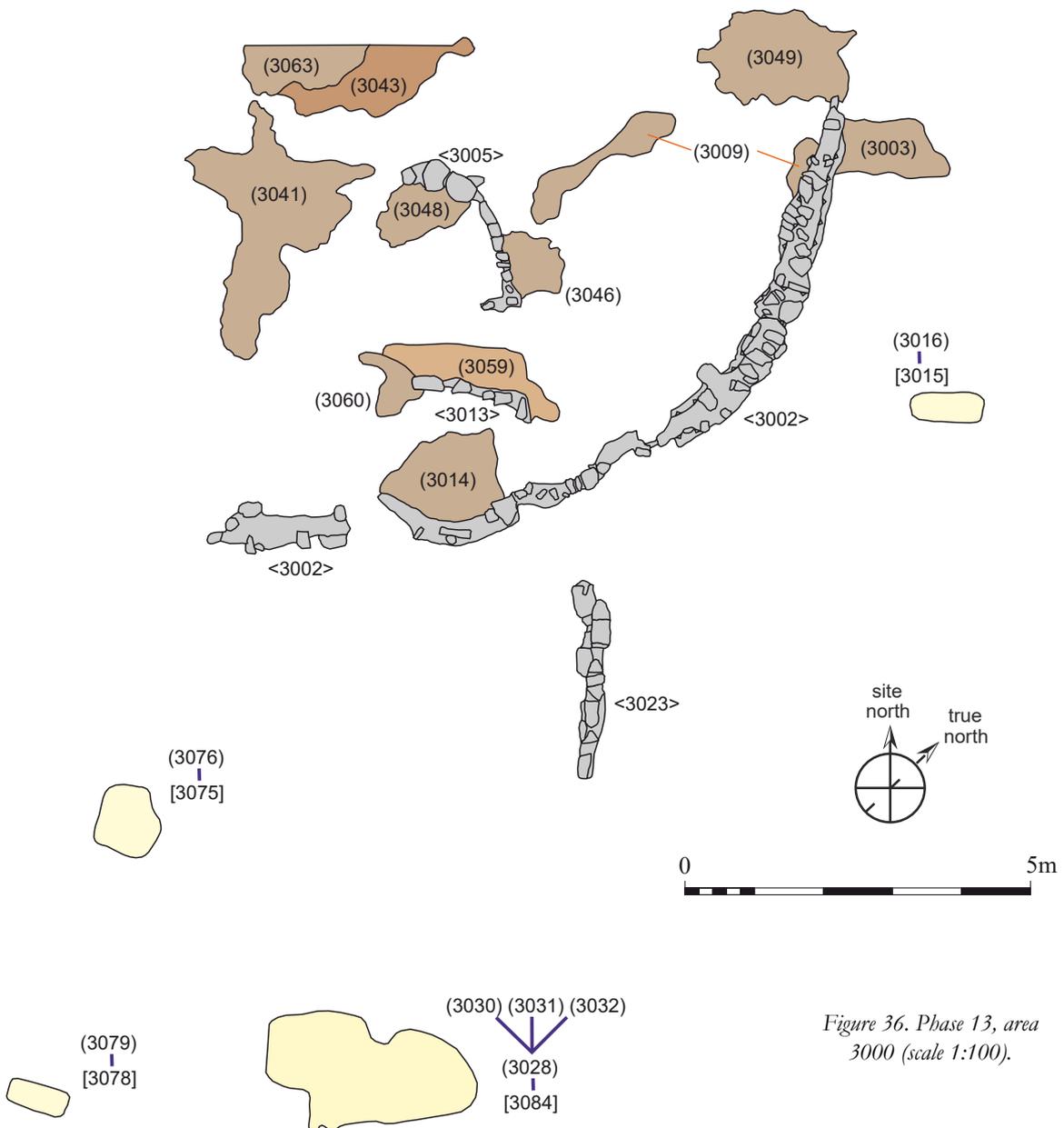


Figure 36. Phase 13, area 3000 (scale 1:100).

Phase summary (area 3000)

Phase 13 represents a grouping together of all the deposits, interpreted as destruction events, which appear to post-date the earlier phases of activity. Here the bulk of the archaeological record is represented by episodes of deposition, plus some localised pit-cutting sequences. It is probable, however, that the most destructive process witnessed across this area must have been extensive aeolian erosion, which in many places has removed all of the overlying soft deposits, to expose large areas of the underlying solid geology.

Area 4000: Figure 37

All of the 224 contexts allocated within the area defined by the 4000 number block comprised cutting events and associated fill deposits. The existing ground surface which comprised loose aeolian sand was here allocated context numbers (4000) and (4134).

Abandonment phase (pits)

Within the area designated 4000, 113 pits were recorded.

All are believed to be associated with a very late phase of activity, probably associated with the removal of material for domestic or agricultural needs (see Table 9).

Phase summary (area 4000)

Phase 13 represents a grouping together of all the deposits, interpreted as destruction events, which appear to post-date the abandonment of occupation on the site. Here the archaeological record is represented by pitting. Amongst the 100 or so cuts which comprise this phase, a small percentage did have some visual resemblance to grave cuts. However, as no human remains were discovered, it must be presumed that this is simply coincidental. Of some interest were the series of narrow gully features, seen both within this and the 6000 context area. These are thought to represent the remains of irrigation channels associated with later farming activity.

Aside from the pits themselves, it is probable that aeolian erosion caused extensive destruction to the walls of the structures. The pits have also, by their depth destroyed much of the lower level archaeological deposits.

TABLE 7. DEPOSITS OF PHASE 13 IN AREA 3000.

Context	Type	Description	Space location
3003	Deposit	Localised area of silty sand abutting <3002>, erosional deposition	n/a
3009	Deposit	Localised areas of silty sand abutting <3002>, erosional deposition	n/a
3014	Deposit	Probable collapse/destruction deposit abutting wall <3002>	n/a
3041	Deposit	Stone and clay-silt mass, probable collapse/destruction deposit	n/a
3043	Deposit	Stone and clay-silt mass, probable collapse/destruction deposit	n/a
3046	Deposit	Probable collapse/destruction deposit abutting wall <3005>	n/a
3048	Deposit	Probable collapse/destruction deposit abutting wall <3005>	n/a
3049	Deposit	Probable collapse/destruction deposit abutting wall <3002>	n/a
3059	Deposit	Probable collapse/destruction deposit abutting wall <3013>	n/a
3060	Deposit	Probable collapse/destruction deposit abutting wall <3013>	n/a
3063	Deposit	Localised area of silty sand abutting collapse deposit (3043), low energy erosional deposition	n/a

TABLE 8. PHASE 13 IN AREA 3000 (PITS AND FILLS).

Context	Type	length	width	depth	Filled by	Fill of	Comments
3015	Pit	450mm	1m	250mm	3016		Robber cut into solid geology
3030	Impression	150mm	60mm	10mm	n/a	3084	Human footprint within unexcavated fill (3028)
3031	Impression	60mm	150mm	10mm	n/a	3084	Human footprint within unexcavated fill (3028)
3032	Impression	60mm	150mm	10mm	n/a	3084	Human footprint within unexcavated fill (3028)
3075	Pit	1m	800mm	330mm	3076		Robber cut into collapse deposit (3074)
3078	Pit	400mm	850mm	200mm	3079		Robber cut into phase 7 wall
3084	Pit	1.65m	3.05m	160mm	3028		Robber cut (partly excavated)

Although stratigraphic links between some of the archaeological events was lacking, it is highly probable that this final phase represents an extended time period, probably lasting until the very recent past.

Area 6000: Figure 38

All of the 121 contexts allocated within the area defined by the 6000 number block comprised pits and their associated fills. The existing ground surface, a loose aeolian sand, was here allocated several context numbers, in an attempt to 'zone' artefact distribution within the abandonment deposits. These were context (6025) (within space **6020**), context (6026) (within space **6021**), context (6028) (within space **6023**), context (6085) (within space **6084**), context (6087) (within space **6086**) and context (6089) (within space **6088**). Context (6000) represents the remaining areas of aeolian sand within the 6000 excavation area.

Abandonment phase (cutting events)

Within the area designated 6000, 60 pits were noted, all are associated with a very late phase of activity, probably connected with the removal of material for domestic or agricultural needs (see Table 10).

Phase summary (area 6000)

Phase 13 represents a grouping together of all the deposits, interpreted as destruction events, which appear to post-date the earlier phases of activity. Here the archaeological record is represented only by cutting episodes. Although it is probable that aeolian erosion has caused extensive destruction to the walls of the structures, the pit cutting has, by its depth, destroyed much of the lower level

archaeological deposits, which would otherwise have been protected by the surviving walls.

Although stratigraphic links between some of the archaeological events was lacking, it is highly probable that this final phase represents an extended time period, probably lasting until the very recent past.

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TABLE 9. PHASE 13 IN AREA 4000 (PITS AND FILLS).

Context	Type	N-S extent	E-W extent	Depth	Filled by	Comments
4010	Cut	400mm	860mm	640mm	4242	Oval-shaped cut into space 4001
4011	Cut	900mm	320mm	330mm	4012	Oval-shaped cut into wall <4005>
4019	Cut	470mm	1.95m	450mm	4245	Sub-rectangular cut into space 4001
4021	Cut	300mm	1.5m	200mm	4246	Sub-rectangular cut into space 4105
4023	Cut	650mm	300mm	300mm	4247	Oval/incomplete cut into wall <4085>
4026	Cut	1.5m	2.1m	700mm	4251	Irregular cut into space 4024
4027	Cut	320mm	670mm	80mm	4253	Oval-shaped cut into space 4024
4032	Cut	360mm	670mm	200mm	4256	Oval-shaped cut into wall <4249>
4033	Cut	470mm	1.15m	370mm	4257	Sub-rectangular cut into space 4024
4034	Cut	1.15m	580mm	250mm	4258	Sub-rectangular/incomplete cut into space 4024
4035	Cut	1.25m	1.3m	320mm	4259	Irregular cut into space 4024 (same as [4033])
4038	Cut	340mm	600mm	150mm	4260	Oval-shaped cut into wall <4200>
4039	Cut	1.3m	380mm	120mm	4261	Irregular cut into space 4132
4040	Cut	850mm	280mm	190mm	4252	Irregular cut into space 4024
4041	Cut	1.2m	340mm	160mm	4262	Irregular cut into space 4105
4042	Furrow	4.75m	120mm	80mm	4250	Agricultural furrow (truncates pits [4026] & [4040]?)
4043	Cut	1.25m	1.3m	320mm	4259	Irregular cut into space 4024 (same as [4035])
4044	Furrow	1.41m	100mm	80mm	4263	Agricultural furrow cuts wall <4029>
4045	Cut	320mm	500mm	70mm	4264	Oval-shaped cut into wall <4513> (part-excavated)
4046	Cut	1.25m	550mm	200mm	4265	Sub-rectangular cut into space 4001
4047	Cut	630mm	1.5m	200mm	4073	Sub-rectangular cut into space 4001
4050	Cut	800mm	350mm	100mm	4266	Incomplete cut into wall <4085>
4051	Cut	1.3m	300mm	100mm	4267	Irregular/incomplete cut into wall <4085>
4059	Cut	900mm	1.85m	300mm	4248	Sub-rectangular cut into spaces 4020 & 4022
4060	Cut	450mm	1.75m	400mm	4271	Sub-rectangular cut into space 4022
4061	Cut	1.65m	2.65m	800mm	4273	Sub-rectangular cut into space 4036
4062	Cut	1.8m	500mm	90mm	4274	Oval-shaped cut into space 4107
4063	Cut	850mm	440mm	340mm	4272	Sub-rectangular cut into space 4022 , cuts [4271]
4075	Cut	350mm	650mm	200mm	4074	Sub-rectangular cut into space 4001
4076	Cut	700mm	450mm	150mm	4280	Oval-shaped cut into wall <4028>
4089	Cut	500mm	1.3m	200mm	4282	Sub-rectangular cut into space 4105
4091	Furrow	2.4m	80mm	100mm	4281	Agricultural furrow (same as [4236])
4101	Cut	1.15m	1.4m	200mm	4283	Irregular cut into space 4105
4146	Cut	550mm	1.1m	400mm	4295	Irregular cut into space 4054
4148	Cut	1.3m	1.5m	380mm	4268	Oval-shaped cut into space 4055 , cuts [4269]
4149	Cut	500mm	1.65m	300mm	4269	Oval shaped/incomplete cut into space 4055
4150	Cut	2m	1.4m	570mm	4270	Oval shaped cut into space 4055 , cuts [4269]
4151	Cut	850mm	400mm	400mm	4276	Irregular cut into wall <4066>
4152	Cut	750mm	1.75m	180mm	4277	Oval-shaped cut into wall <4069>
4153	Cut	1.75m	1.6m	n/a	4279	Irregular cut into wall <4069> (unexcavated)
4155	Cut	1.7m	1.6m	260mm	4289	Oval-shaped cut into space 4119 (part-excavated)
4156	Cut	440mm	950mm	120mm	4228	Sub-rectangular cut into [4006]
4157	Cut	2.15m	1.35m	50mm	4286	Oval-shaped cut into space 4118 (part-excavated)
4158	Cut	1.55m	1.15m	50mm	4287	Oval-shaped cut into space 4119 (part-excavated)
4161	Cut	1.05m	2m	90mm	4167	Irregular cut into space 4107
4162	Cut	500mm	1.8m	90mm	4299	Irregular cut into space 4107
4168	Cut	550mm	1.55m	480mm	4465	Circular cut into [4006]
4169	Cut	2.5m	2.5m	650mm	4227/4233/4467	Irregular cut into [4006] (same as [4170])
4170	Cut	2.5m	2.5m	650mm	4227/4233/4467	Irregular cut into [4006] (same as [4169])

Figure 37. Phase 13, area 4000 (scale 1:100).

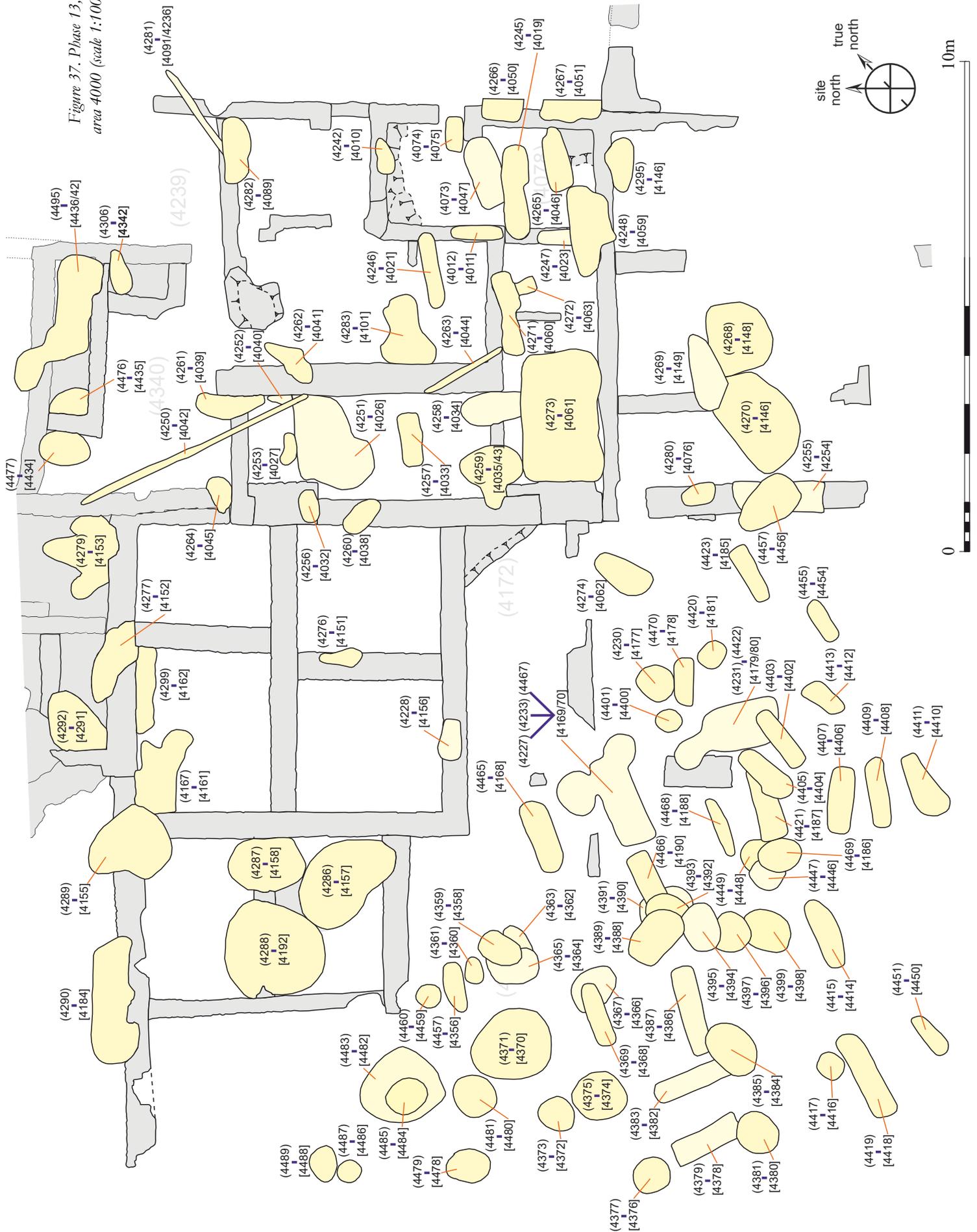


TABLE 9 (CONT.). PHASE 13 IN AREA 4000 (PITS AND FILLS).

Context	Type	N-S extent	E-W extent	Depth	Filled by	Comments
4177	Cut	800mm	750mm	900mm	4230	Circular cut into [4006]
4178	Cut	950mm	450mm	250mm	4470	Sub-rectangular cut into [4006]
4179	Cut	3.6m	2m	750mm	4422/4231	Irregular cut into [4006] (same as [4180])
4180	Cut	3.6m	2m	750mm	4422/4231	Irregular cut into [4006] (same as [4179])
4181	Cut	600mm	600mm	500mm	4420	Sub-square cut into [4006]
4184	Cut	2.6m	1m	390mm	4290	Oval-shaped cut into space 4219
4185	Cut	1.3m	300mm	300mm	4423	Sub-rectangular cut into [4006]
4186	Cut	800mm	600mm	400mm	4469	Oval-shaped cut into [4006]
4187	Cut	1.45m	500mm	450mm	4421	Sub-rectangular cut into [4006]
4188	Cut	1.25m	400mm	450mm	4468	Sub-rectangular cut into [4006]
4190	Cut	1m	350mm	350mm	4466	Sub-rectangular cut into [4006]
4192	Cut	2m	2.1m	50mm	4288	Oval-shaped cut into space 4119 (part-excavated)
4227	Fill	2.5m	2.5m	650mm	n/a	Fill of robber cut [4169/4170] (same as [4233] & [4467])
4231	fill	3.6m	2m	750mm	n/a	Fill of robber cut [4179/4180]
4233	Fill	2.5m	2.5m	650mm	n/a	Fill of robber cut [4169/4170] (same as [4227] & [4467])
4236	Furrow	2.4m	80mm	100mm	4281	Agricultural furrow (same as [4091])
4254	Cut	1.95m	600mm	490mm	4255	Rectangular cut into wall <4028>
4259	Fill	1.25m	1.3m	320mm	n/a	Fill of robber cut [4035/4043]
4269	Fill	500mm	1.65m	300mm	n/a	Fill of robber cut [4149], cut by [4148] & [4150]
4271	Fill	450mm	1.75m	400mm	n/a	Fill of robber cut [4060], cut by [4063]
4291	Cut	1.5m	900mm	n/a	4292	Irregular cut into space 4126 (unexcavated)
4342	Cut	400mm	950mm	200mm	4306	Oval-shaped cut into space 4131
4356	Cut	400mm	900mm	200mm	4357	Sub-rectangular cut into [4006]
4358	Cut	900mm	550mm	800mm	4359	Oval-shaped cut into [4006]
4360	Cut	400mm	600mm	200mm	4361	Oval-shaped cut into [4006]
4362	Cut	300mm	600mm	350mm	4363	Straight sided/incomplete cut into [4006]
4364	Cut	950mm	700mm	600mm	4365	Oval-shaped/incomplete cut into [4006]
4366	Cut	950mm	800mm	450mm	4367	Oval-shaped cut into [4006]
4368	Cut	500mm	1.3m	450mm	4369	Sub-rectangular cut
4370	Cut	1.7m	1.4m	900mm	4371	Oval-shaped cut into [4006]
4372	Cut	750mm	650mm	550mm	4373	Circular cut into [4006]
4374	Cut	1.05m	1m	1.2m	4375	Circular cut into [4006]
4376	Cut	800mm	750mm	500mm	4377	Circular cut into [4006]
4378	Cut	1.5m	450mm	600mm	4379	Rectangular cut into [4006]
4380	Cut	850mm	850mm	550mm	4381	Circular cut into [4006]
4382	Cut	1.5m	450mm	650mm	4383	Sub-rectangular/incomplete cut into [4006]
4384	Cut	850mm	1.2m	700mm	4385	Oval-shaped cut into [4006]
4386	Cut	400mm	1.85m	380mm	4387	Sub-rectangular cut into [4006]
4388	Cut	1.2m	980mm	550mm	4389	Oval-shaped cut into [4006]
4390	Cut	1.1m	550mm	170mm	4391	Oval-shaped/incomplete cut into [4006]
4392	Cut	900mm	500mm	350mm	4393	Oval-shaped/incomplete cut into [4006]
4394	Cut	800mm	1.05m	400mm	n/a	Oval-shaped cut into [4006]
4396	Cut	750mm	800mm	250mm	4397	Circular cut into [4006]
4398	Cut	800mm	950mm	150mm	4399	Circular/incomplete cut into [4006]
4400	Cut	500mm	450mm	650mm	4401	Circular cut into [4006]
4402	Cut	1.1m	450mm	600mm	4403	Sub-rectangular cut into [4006]
4404	Cut	1.15m	400mm	400mm	4405	Irregular cut into [4006]
4406	Cut	450mm	1.3m	500mm	4407	Sub-rectangular cut into [4006]

TABLE 9 (CONT.). PHASE 13 IN AREA 4000 (PITS AND FILLS).

Context	Type	N-S extent	E-W extent	Depth	Filled by	Comments
4408	Cut	400mm	1.35m	600mm	4409	Sub-rectangular cut into [4006]
4410	Cut	500mm	1.30m	700mm	4411	Sub-rectangular cut into [4006]
4412	Cut	800mm	400mm	300mm	4413	Sub-rectangular cut into [4006]
4414	Cut	550mm	1.45m	440mm	4415	Sub-rectangular cut into [4006]
4416	Cut	550mm	500mm	400mm	4417	Circular cut into [4006]
4418	Cut	1.9m	550mm	650mm	4419	Sub-rectangular cut into [4006]
4422	Fill	3.6m	2m	750mm	n/a	Fill of robber cut 4179/4180
4434	Cut	800mm	650mm	540mm	4477	Oval-shaped cut into space 4131
4435	Cut	700mm	400mm	520mm	4476	Oval-shaped cut into space 4131
4436	Cut	1m	3m	330mm	4495	Irregular cut into space 4131 (same as [4442])
4442	Cut	1m	3m	330mm	n/a	Irregular cut into space 4131 (same as [4236])
4446	Cut	540mm	700mm	250mm	4447	Oval-shaped/incomplete cut into [4006]
4448	Cut	360mm	600mm	200mm	4449	Oval-shaped/incomplete cut into [4006]
4450	Cut	980mm	450mm	360mm	4451	Sub-rectangular cut into [4006]
4454	Cut	800mm	250mm	240mm	4455	Sub-rectangular cut into [4006]
4456	Cut	1.35m	900mm	150mm	4457	Irregular cut into [4006]
4459	Cut	500mm	450mm	200mm	4460	Circular cut into [4006]
4467	Fill	2.5m	2.5m	650mm	n/a	Fill of robber cut [4169/4170] (same as [4227] & [4233])
4478	Cut	950mm	600mm	850mm	4479	Oval-shaped cut into [4006]
4480	Cut	800mm	850mm	750mm	4481	Sub-circular cut into [4006]
4482	Cut	1.6m	1.55m	550mm	4483	Irregular cut into [4006]
4484	Cut	800mm	750mm	300mm	4485	Circular cut into [4006]
4486	Cut	400mm	400mm	250mm	4487	Circular cut into [4006]
4488	Cut	0.55m	0.75m	0.25m	4489	Oval-shaped cut into [4006]

Bibliography

- Adams, W. Y. 2000. *Meinarti I. The Late Meroitic, Ballaṅa and Transitional Occupation*. Sudan Archaeological Research Society Publications No. 5, London.
- Fuller, D. Q. 2004. 'The Central Amri to Kirbekan Survey. A Preliminary Report on Excavations and Survey 2003-04', *Sudan & Nubia* 8, 4-10.
- Payne, J. 2005. 'Excavations of the late Kushite and Medieval settlement on Umm Muri', *Sudan & Nubia* 9, 9-13.
- Welsby, D. A. 1996. *The Kingdom of Kush, The Napatan and Meroitic Empires*. London.
- Welsby, D. A. 2003. 'The Amri to Kirbekan Survey: the 2002-2003 Season', *Sudan & Nubia* 7, 26-32.

TABLE 10. PHASE 13 IN AREA 6000 (PITS AND FILLS).

Context	Type	length	width	depth	Filled by	Comments
6008	Cut	750mm	2.4m	170mm	6308	Irregular shaped cut into space 6021 (same as [6123])
6035	Cut	750mm	2.1m	230mm	6316	Oval-shaped cut into wall <6003>
6036	Cut	660mm	100mm	80mm	6037	Agricultural furrow into wall <6003>
6041	Cut	3.7m	1.8m	300mm	6039	Irregular cut into space 6034
6051	Cut	400mm	400mm	370mm	6052	Circular cut into space 6021
6053	Cut	2.2m	1.6m	250mm	6054	Irregular shaped cut into space 6021
6055	Cut	1.35m	1.35m	430mm	6056	Sub-circular cut into space 6021
6058	Cut	1.15m	1m	430mm	6059	Irregular-shaped cut into space 6023
6060	Cut	950mm	750mm	300mm	6061	Irregular-shaped cut into space 6086
6093	Cut	1.15m	1.05m	400mm	6094	Irregular-shaped cut into space 6090
6095	Cut	550mm	500mm	150mm	6096	Oval-shaped cut into [6080]
6097	Cut	420mm	600mm	180mm	6098	Irregular-shaped cut into space 6088
6102	Cut	450mm	320mm	300mm	6103	Oval-shaped cut into space 6022
6104	Cut	1.25m	1m	400mm	6105	Irregular-shaped cut into space 6022
6106	Cut	1.9m	2m	500mm	6107	Irregular-shaped cut into space 6022
6108	Cut	1.4m	350mm	400mm	6107	Sub-rectangular cut into wall <6009>
6109	Cut	450mm	450mm	500mm	6107	Circular cut into wall <6012>
6112	Cut	520mm	600mm	400mm	6113	Oval-shaped cut into space 6088
6116	Cut	650mm	1.60m	260mm	6117	Irregular-shaped cut into space 6088
6119	Cut	560mm	380mm	250mm	6120	Irregular cut into wall <6003>
6123	Cut	750mm	2.4m	170mm	6308	Irregular-shaped cut into space 6021 (same as [6008])
6133	Cut	1.5m	1.83m	300mm	6134	Irregular-shaped cut into space 6021
6140	Cut	1.5m	2.7m	460mm	6309	Irregular-shaped cut into space 6086
6141	Furrow	120mm	4.9m	120mm	6318	Agricultural furrow into space 6086
6143	Furrow	980mm	130mm	90mm	6319	Agricultural furrow into wall <6013>
6150	Cut	6m	3m	220mm	6030	Irregular-shaped cut into space 6033
6151	Cut	4.8m	3.3m	400mm	6029	Irregular-shaped cut into space 6024
6156	Cut	4.7m	2m	200mm	6031	Irregular-shaped cut into space 6034
6157	Cut	3.75m	2.85m	300mm	6032	Sub-rectangular cut into space 6020
6158	Cut	1.05m	950mm	0.280mm	6305	Irregular-shaped cut into wall <6013>
6166	Cut	1.8m	900mm	700mm	6167/6168	Irregular-shaped cut into space 6084
6167	fill	1.3m	800mm	700mm	n/a	Fill of robber cut [6166]
6168	Fill	800mm	650mm	700mm	n/a	Fill of robber cut [6166]
6169	Cut	700mm	380mm	400mm	6170	Irregular-shaped cut into space 6084
6171	Cut	2.1m	4m	630mm	6068	Irregular-shaped cut into space 6067
6172	Cut	3.5m	1.75m	300mm	6091	Irregular cut partly into space 6090
6173	Cut	600mm	350mm	350mm	6174	Sub-cicular/incomplete cut into [6196]
6175	Cut	750mm	1.15m	350mm	6176	Oval-shaped cut into [6196]
6177	Cut	750mm	750mm	320mm	6178	Circular cut into [6196]
6179	Cut	2.1m	3.4m	330mm	6180	Irregular cut into [6242]
6181	Cut	750mm	750mm	300mm	6182	Circular cut into [6196]
6183	Cut	4.8m	1.75m	200mm	6184	Irregular cut into [6242]
6185	Cut	900mm	800mm	200mm	6186	Circular cut into [6196]
6187	Cut	450mm	400mm	150mm	6188	Sub-square cut into [6196]
6189	Cut	500mm	400mm	150mm	6190	Oval shaped cut into [6204]
6191	Cut	900mm	900mm	250mm	6192	Circular cut into [6204]
6193	Cut	500mm	500mm	230mm	6194	Circular cut into [6139]
6197	Cut	750mm	800mm	420mm	6198	Irregular-shaped cut into space 6088
6199	Cut	600mm	750mm	150mm	6200	Oval-shaped cut into [6196]

TABLE 10 (CONT.). PHASE 13 IN AREA 6000 (PITS AND FILLS).

Context	Type	length	width	depth	Filled by	Comments
6201	Cut	600mm	600mm	250mm	6202	Circular cut into [6204]
6203	Cut	300mm	750mm	150mm	6204	Oval-shaped/incomplete cut into [6196]
6204	Fill	300mm	750mm	150mm	n/a	Fill of robber cut [6203], cut by [6189], [6191]&[6201]
6205	Cut	750mm	550mm	170mm	6206	Oval-shaped cut into [6196]
6207	Cut	400mm	500mm	150mm	6208	Oval-shaped cut into [6196]
6209	Cut	500mm	600mm	250mm	6210	Oval-shaped cut into space 6090
6211	Cut	600mm	600mm	400mm	6212	Circular cut into space 6090
6241	Cut	1.35m	900mm	150mm	6242	Oval-shaped/incomplete cut into [6196]
6243	Cut	1.7m	1.75m	520mm	6244	Oval-shaped cut into space 6021
6253	Cut	2.85m	4.15m	400mm	6083	Irregular-shaped cut into space 6082
6257	Cut	500mm	500mm	150mm	6258	Circular cut into [6139]
6292	Cut	1.25m	1.75m	280mm	6293	Irregular-shaped cut into space 6090
6294	Cut	1.8m	1.9m	300mm	6062	Irregular-shaped cut into space 6155
6297	Cut	2.35m	1.65m	540mm	6312/6159	Irregular-shaped cut into space 6084 (cuts [6313])
6308	Fill	750mm	2.4m	170mm	n/a	Fill of robber cut [6008/6123]

