Kushite buildings at Kawa

Derek Welsby

During the excavations directed by Francis Llewellyn Griffith at Kawa between 1929 and 1931 on behalf of the Oxford Excavation Committee, and later those of Laming Macadam and Laurence Kirwan in the winter of 1935–6, a number of temples, other religious monuments and houses were excavated. Apart from the temple built by Tutankhamun all the rest were of Kushite date with evidence for occupation spanning from at least the reign of Shabaqo into the 3rd century AD. The current survey and excavation project by the Sudan Archaeological Research Society, under the direction of the writer, began work on the site in 1993 with the planning of three buildings in the lower town, and since 1997/8 a more extensive project has been in progress.

The current project is a combination of survey and excavation. A detailed topographic survey of the town, which covers approximately 40 hectares, is in progress along with stratigraphic excavation of a number of areas of the site. Excavations are also progressing in the adjacent cemetery. Although large-scale excavation is the only way to build up a detailed knowledge of the topography, morphology and history of a site, the possibility of achieving the detailed excavation of a sizeable proportion of a site such as Kawa, with its large size and up to 11 m of stratigraphy, is not feasible with the resources of time and money available. Survey, on the other hand, is relatively quick and inexpensive, but can give a glimpse, although often a rather confusing one, of the archaeology over a wide area. By combining the two approaches we hope to mitigate the disadvantages of both.

The structural remains of buildings at Kawa are in equilibrium with their environment. All the structural remains, except for a few uncovered in the earlier excavations, have been eroded down to the present ground surface, itself a product of the collapse of the buildings themselves and of a build-up of wind-blown sand. The tops of the surviving walls are thus flush with the ground surface and are either visible on the surface or covered by a very thin layer of dust and sand. It is possible, by brushing the ground surface, to rapidly expose the uppermost surviving courses of the walls to view (Fig. 1). Similar approaches have been adopted at the nearby, but much older, site at Kerma since the 1970s where a Swiss team under the direction of Prof. Charles Bonnet have succeeded in recovering large areas of the town plan of the ancient capital of the first Kingdom of Kush. A similar project is also underway at Naqa where the Ägyptisches Museum of Berlin, under the direction of Dietrich Wildung, is recovering the plan of this unusual site.

At Kawa our approach is to extract as much information as possible whilst causing the minimum amount of damage to the underlying stratigraphy (excepting, of course, those areas subjected to detailed excavation). There is every likelihood that many of the buildings being planned will be excavated at some time in the future, and the archaeologists engaged in those tasks will not thank us if we dig down along the wall lines to allow us to make a more complete plan but, at the same time, divorcing the walls from their associated stratigraphy. Our reluctance to do more that brush the ground

1. Macadam, The Temples of Kawa I–II.
2. Bonnet, Kerma, Royaume de Nubie.
3. Wildung, Die Stadt in der Steppe.

http://www.thebritishmuseum.ac.uk/egyptian/issue1/welsby.html
surface, combined with the often extensive destruction of walls by sebakhin, results in some cases in the recovery of very incomplete building plans. However, a considerable amount of information about the town plan, and of the buildings within it, has been, and will continue to be, recovered in the near future.

The presence of the Temple of Amun towards the northern end of the site, and the numerous references to Kawa in inscriptions of the earlier Kushite period, indicate that it was one of the most important religious, and urban(?), centres in the Kushite realm and, it has recently been suggested, perhaps the ancestral home of the earliest Kushite rulers. Although the excavators of the Oxford Excavation Committee found evidence for occupation into the later Kushite period, the current project, observing the surface scatters of pottery over much of the site, and excavating at the northern and southern ends of the lower town, has concluded that the town attained its greatest extent in the Early Kushite period. Over much of the town there is no evidence for occupation in the later 1st millennium BC and into the 1st millennium AD. The great benefit to us of this is that many of the buildings visible on the surface are of early Kushite date and are available for study. This is at present a unique situation in the Nile valley. Although extensive remains of urban centres of that period presumably survive elsewhere they will invariably be deeply sealed beneath later Kushite, and in some cases, post-Kushite structures making their excavation very difficult if not impossible. The excavations by Shinnie and Bradley at Meroe illustrate this problem well. Shinnie excavated a sondage down to the natural, through a depth of 10 m and ‘15 components, comprising 28 levels’ providing much information on the development of the cultural assemblage over time. However he was only able to glimpse

very small parts of buildings the characters of which were totally uncertain, furnishing very little information on the topography and the layout of the town.5

At Kawa we have the opportunity to recover the town plan of an early Kushite town over a considerable percentage of its area. The methodology employed does raise significant problems of interpretation in that we are recording the buildings that happen to be visible on the surface. These are not necessarily all contemporary and, given the imprecise nature of our knowledge of pottery typology in the early Kushite period, close dating derived from the surface scatter of material is not possible. Dating from ceramics is further complicated by the considerable problems posed by residual material, particularly of rubbish survival. The mud bricks and the mud mortar used in the construction of the buildings contain a large amount of pottery sherds, often of considerable size, and much of the surface scatter may derive from this material released from the mud bricks as they were eroded away by the strong north wind.

To date the plans of 66 buildings (and part of the temenos wall near Temple T) have been recovered totally or in part. Looking solely to the Kushite phase of occupation, and incorporating the structures excavated by the Oxford Excavation Committee, Table 1 below summarises the data so far.

### Religious structures

The earliest evidence for a Kushite temple at Kawa comes from a number of column drums inscribed with the titles and name of Shabaqo although the extant building is of later date. It abuts onto the east wall of the temple constructed by Tutankhamun. The Temple of Amun, built by Taharqo between 684 and 680 BC, is one of the largest of Kushite temples. It is almost identical in size and form to the stone-built temples at Tabo on Argo Island 30 km to the north6 and to that at Sanam Abu Dom.7 It is clearly the home of Amun of Gematon and the focus of the coronation ceremonies recorded on the inscriptions of Ireke-Amannote, Harsiyotef and Nastasen.8 The so-called Eastern Palace and Building G1 (Fig. 2) are multi-roomed temples of a type generally associated with the worship of Amun. Building G1 faces towards the Nile, as does Taharqo’s Amun temple, while the ‘Eastern Palace’ abuts the east wall of the temenos and faces south.9 It utilises stone elements in its construction for column bases, door jambs and thresholds, and also for the small porch. Traces of a stone revetment to the pylons were found in Building G1, although the other doorways do not appear to have had stone jambs.

The shrine, Building A1, is still under excavation. Originally it was an axial three-roomed structure, aligned east-west, entered through centrally-placed doorways from the west to which two rooms were later added. The walls were of mud brick, but two sandstone window grills came from the building and two stone column drums were found associated with it. The cult room had a stone floor, contained an altar bearing an inscription of Taharqo and wall paintings, that on the north wall of a king before two gods. The additional room V contained a ceramic oven and a series of hearths, the other secondary room had a mud-brick floor.

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http://www.thebritishmuseum.ac.uk/egyptian/issue1/welshy.html
Fig. 2 Building G1
Industrial structures

Buildings F3 and F7 are kilns as is clearly indicated by their mud-brick walls, which are fired a deep red from the considerable heat generated inside the buildings. In Building F3 was a series of five parallel walls c. 380 mm apart, each pierced by a large arch at least 1.4 m high and 2.6 m in width (Fig. 3). The parallel walls presumably supported the floor of the firing chamber. At the west end is an area 2.9 × 1.7 m, not subdivided by walls, which may be connected with access to the stoke-hole. Building F7 is of similar size but lacks the parallel walls suggesting that it is much better preserved and that the walls visible on the surface are of the firing, rather than of the combustion, chamber. Abutting the east wall of the structure are two short walls on a slightly different alignment, 1.6 m apart, which may flank the stoking-pit. No similar kilns are known to the writer in the Nile valley, but the type is well represented in the Western Roman Empire.

Domestic structures

The identification of these as domestic is provisional and is based largely on the absence of any features which suggest strongly another, more specialised function. A number of house types can be recognised, but there is, as one would expect, a considerable range of diversity. Five buildings have been extensively excavated. Within these were found hearths and circular ceramic ovens underlining their domestic character.

All the Kushite buildings known at Kawa are rectilinear apart from one, Building A3, which may also be the earliest dwelling so far revealed. It certainly predates the shrine, A1, and the dwelling A2, it being partially demolished to make room for them although it was probably already ruinous at the
time of their construction. The total plan has not yet been revealed but it comprised at least two rooms, one roughly square, the other ‘D’-shaped, with the curved wall on the north side of the building (Fig. 4). The walls are thin, one row of headers or two of stretchers, strengthened in the corners and at intervals along the walls by small square buttresses. The style of construction with thin walls and buttresses, together with the presence of a ‘D’-shaped room or courtyard, can be readily paralleled in the architecture of the Kerma period particularly at Kerma itself. The building at Kawa appears to have been built in the Kerma tradition yet is firmly dated on ceramic grounds to the Kushite period.

The plans of Buildings A2 and B2 were clearly visible on the surface. Both are of very similar size and proportions and both are similarly aligned with their long axis north–south. A2 has at least one external doorway, in the south-west corner opening through the south wall. B2 probably has a stairway at this point (Fig. 5). The internal arrangement appears to be two ranges of rooms arranged side by side down the long axis. There is no evidence for a central courtyard/light well. External walls range in thickness between 700–840 mm in A2 and 500–550 mm in B2, while internal walls in the former are between 520 and 610 mm, in the latter 530–720 mm. Part of the east wall of A2 has been revealed by
excavation and stands to a minimum height of 1.58 m. It is battered on its outer face. If external walls were usually battered then the wall widths recorded on the surface must be taken as a minimum and will vary relative to the thickness of the wall at its base, the angle of the batter, and the height to which the wall is preserved, data which is rarely available.

C3 is rather smaller but has a similar layout to A2 and B2 with a stairway in the south-west corner occupying 13% of the ground floor area (Fig. 6). B1 may be similar but only a part of the building plan was revealed through excavation, the western end having been removed by erosion. The plan is irregular, with the north wall markedly diverging (by 9°) from the alignment of the south wall. One of the internal east–west walls is aligned mid-way between the two orientations. A narrow doorway in the south-east corner gave access southwards into the street.

C17 is of different construction. The external walls are thinner, at between 320 and 370 mm, and are constructed of two rows of stretches or one of headers. However, the central wall is thicker (500–520 mm), with a header and stretcher to each course (Fig. 7). The greater thickness of this internal
wall presumably reflects the fact that it had to support the roof timbers over both of the rooms flanking it whereas the external walls were only required to support one set of roof timbers. C2 is squarer in plan and appears to have a tripartite division, a feature also seen in B5. There is again a stairway in the south-west corner.

Towards the summit of the town mound are a number of smaller buildings of simpler plan. C4 is divided into two rooms, a smaller one at the back, the larger front room entered by a doorway through the south wall in the south-east corner. C13 may actually be two single-roomed structures separated by a narrow alleyway.

Of the five houses excavated none had evidence for a stairway. The complex B5/B12/B13/B14 represents an organic growth of housing with new structures being constructed up against pre-existing buildings, frequently reusing their walls as part of the new structure. This was not, however, invariably the case. The narrow west wall of B5 was added against the wall of the earlier building probably to support the ends of the roof timbers, which would have simplified the roofing of the new building. The large eastern room of B12 must have been an open courtyard and it contained a substantial hearth. Likewise the central long room of B5 may also have been open and contained a two-period hearth in its centre. A courtyard, on three sides of the core of the building, was also postulated in the first phase

10. Welsby, *Sudan & Nubia* 2, 15–20; id., *Sudan & Nubia* 4, 5–10; id., *Sudan & Nubia* 5, 64–70.
House 1 on Site I excavated in the 1930s. A number of the building plans recorded on the site are so complex as to suggest that they are also building complexes which co-existed with the detached buildings noted above. In the excavated houses there were numerous modifications, which makes the interpretation of building plans from surface indications difficult, particularly as a lack of bonding of one wall to another need not imply a different period of construction.

Miscellaneous structures

Several buildings are of unique plan, scale, or style of construction. D1 has internal walls between 520 and 790 mm thick, comparable with the wall thickness found in many buildings across the site, but the external walls are much thicker, in the range 1.38–1.48 m (Fig. 8). A sandstone column drum lies immediately to the north but there is no indication that it originally came from this building. F1 is much larger than the norm and had a wide centrally-placed entrance though its east wall. When first

discovered the secondary blocking of the doorway, utilising large stone blocks and at least one column drum, remained in situ but was subsequently destroyed by illicit digging. F2 contains large areas of brick paving or of brick masonry, but has yet to be planned in detail.

F4/F5/F10 is a massive building complex the limits of which have not been defined. F4 to the east is a roughly square structure $39.6 \times 36.8$ m in size within which no walls are visible. F5 does contain a number of smaller rooms. The plan of the western element, F10, is incomplete. Within the structure there is a transition from the alignments of F4 and F5 to that of the buildings to the west. No function can be suggested for such large structures. Z1 lies towards the northern extremity of the site. Little is known of its plan but it contains a solid block of walling 2.4 m thick, a feature comparable to the pylon of G1.

This is very much a provisional statement regarding the buildings within the Kushite town at Kawa. Further work of planning the surface features is being undertaken along with additional excavation and it is hoped in the future to use ground penetrating radar to augment the information available. It

Fig. 8 Building D1
is too early to make general statements concerning the full range of building types employed or on the plan of the town. What is clear is that substantial buildings are to be found right across the 40 hectare site and that, at least in the case of religious monuments, they are widely spaced. G1 lies 450 m to the south of Taharqo’s Temple of Amun, and the shrine A1, set right on the southern limit of the urban complex, is a further 340 m away. Of the non-religious monuments the corpus of buildings from Kawa far exceeds the scanty traces known from elsewhere in Nubia and future work offers the possibility of allowing a meaningful discussion of early Kushite domestic architecture and town planning, at least at this important urban centre.

Acknowledgements

The work at Kawa is conducted in association with the National Corporation for Antiquities and Museums in Khartoum. It is funded by SARS with financial support from a variety of sources, particularly from the Bioanthropology Foundation and the British Museum.

Bibliography


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Table 1: Plans of buildings at Kawa

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<th>Building</th>
<th>Type</th>
<th>Material</th>
<th>Dimensions</th>
<th>Excavation Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>T</td>
<td>temple</td>
<td>stone</td>
<td>68.5 × 38.7 m</td>
<td>1929–31, 1935–6, 11 rooms</td>
</tr>
<tr>
<td>B</td>
<td>temple</td>
<td>mud brick, stone</td>
<td>27 × 15 m</td>
<td>1929–31, 4 rooms</td>
</tr>
<tr>
<td>Eastern Kiosk</td>
<td>kiosk</td>
<td>stone</td>
<td>c. 14.15 × 6.8 m</td>
<td>1929–31</td>
</tr>
<tr>
<td>Western Kiosk</td>
<td>kiosk</td>
<td>stone</td>
<td>10.18 × 7.72 m</td>
<td>1929–31</td>
</tr>
<tr>
<td>temenos wall</td>
<td>mud brick</td>
<td>c. 4 m thick</td>
<td>only N and east sides located, stone revetted gateway in east wall (see T5 below)</td>
<td></td>
</tr>
<tr>
<td>‘Eastern Palace’</td>
<td>temple</td>
<td>mud brick, stone</td>
<td>c. 22.3 × 15.2 m</td>
<td>1929–31, 8 rooms + vestibule and additional room, dimensions of core building, width excludes pylons</td>
</tr>
<tr>
<td>Site I, House 1</td>
<td>domestic, storage</td>
<td>mud brick</td>
<td>26.5 × 15.5 m</td>
<td>1935–6, 11 rooms, staircase in room 1, Kirwan in Macadam, <em>The Temples of Kawa II</em>, 208ff.</td>
</tr>
<tr>
<td>Site I, House 2</td>
<td>domestic</td>
<td>mud brick</td>
<td>12.5× 8+ m</td>
<td>1935–6, 5+ rooms, Kirwan in Macadam, <em>The Temples of Kawa</em>, 208ff.</td>
</tr>
<tr>
<td>Site II, Block Three</td>
<td>storage,</td>
<td>mud brick</td>
<td>14.6–15.4 × 7–7.5 m</td>
<td>1935–6, three phases Kirwan in Macadam, <em>The Temples of Kawa</em>, 216ff.</td>
</tr>
<tr>
<td>Site III, House 1</td>
<td>?</td>
<td>mud brick</td>
<td>7 × 6.5 m</td>
<td>1935–6, Kirwan in Macadam, <em>The Temples of Kawa</em>, 228–9</td>
</tr>
<tr>
<td>Site III, House 2</td>
<td>?</td>
<td>mud brick</td>
<td>14 × 10.5× m</td>
<td>1935–6, Kirwan in Macadam, <em>The Temples of Kawa</em>, 228–9</td>
</tr>
<tr>
<td>Site III, House 3</td>
<td>?</td>
<td>mud brick</td>
<td>14.6× 8+ m</td>
<td>1935–6, whitewashed walls, 3+ rooms, Kirwan in Macadam, <em>The Temples of Kawa</em>, 228–9</td>
</tr>
<tr>
<td>Site III, House 4</td>
<td>?</td>
<td>mud brick</td>
<td>c. 6.3 × 6.2 m</td>
<td>1935–6, Kirwan in Macadam, <em>The Temples of Kawa</em>, 228–9</td>
</tr>
<tr>
<td>A1</td>
<td>shrine</td>
<td>mud brick</td>
<td>c. 11 × 4.5 m (ph. I) 16.5 × 8.75 m (ph. II)</td>
<td>excavated 2000–, 3 roomed structure with 2 rooms added to south west.</td>
</tr>
<tr>
<td>A2</td>
<td>domestic</td>
<td>mud brick</td>
<td>14.8 × 9.8 m</td>
<td>largely complete plan, 5 rooms</td>
</tr>
<tr>
<td>A3</td>
<td>domestic</td>
<td>mud brick</td>
<td>12.5× 7.6+ m</td>
<td>excavated 2000–2001, overlain in part by Buildings A1 and A2, 3+ rooms, one 'D'-shaped</td>
</tr>
<tr>
<td>B1</td>
<td>domestic</td>
<td>mud brick</td>
<td>15.5× 9.65+ m</td>
<td>excavated 1997–8, 7+ rooms, removed by erosion at west end</td>
</tr>
<tr>
<td>B2</td>
<td>domestic</td>
<td>mud brick</td>
<td>15.5 × 9.25 m</td>
<td>largely complete plan, 5(?) Rooms, stairway in SW corner</td>
</tr>
<tr>
<td>B3</td>
<td>domestic</td>
<td>mud brick</td>
<td>11.1× 10.9 m</td>
<td>plan unclear, 6+ rooms, extension 4.6+ m to east</td>
</tr>
<tr>
<td>B4</td>
<td>domestic</td>
<td>mud brick</td>
<td>16.5× 20+ m</td>
<td>complex plan, building with additions and modifications? Stairway</td>
</tr>
<tr>
<td>B5</td>
<td>domestic</td>
<td>mud brick</td>
<td>15.8× c. 13.2 m</td>
<td>excavated 1997–2001, 10? rooms, abuts Buildings B12 and B14</td>
</tr>
<tr>
<td>B7</td>
<td>domestic</td>
<td>mud brick</td>
<td>12× 8.9+ m</td>
<td>only north-western part visible, 3+ rooms, stairway in NW corner</td>
</tr>
<tr>
<td>B8/B16</td>
<td>domestic</td>
<td>mud brick</td>
<td>11.3× 9+ m</td>
<td>two walls only visible, probably associated with one building</td>
</tr>
</tbody>
</table>

http://www.thebritishmuseum.ac.uk/egyptian/bmsaes/issue1/welsby.html
Table 1: Plans of buildings at Kawa (continued)

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<th>Type</th>
<th>Material</th>
<th>Plan/Measurements</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>B9</td>
<td>domestic</td>
<td>mud brick</td>
<td>11.4+ × 9.9+ m</td>
<td>three walls only visible, associated with one building?</td>
</tr>
<tr>
<td>B10/B13</td>
<td>?</td>
<td>mud brick</td>
<td>?</td>
<td>three walls, may not be associated with the same building</td>
</tr>
<tr>
<td>B11</td>
<td>domestic</td>
<td>mud brick</td>
<td>14.8+ × 7.8+ m</td>
<td>incomplete plan, 3+ rooms</td>
</tr>
<tr>
<td>B12</td>
<td>domestic</td>
<td>mud brick</td>
<td>19 × 14.7 m</td>
<td>excavated 1997–2001, 10 rooms, abuts Building B13, abutted by Buildings B14 and B5</td>
</tr>
<tr>
<td>B13</td>
<td>domestic</td>
<td>mud brick</td>
<td>14.7 × 4.3+ m</td>
<td>the east and part of the north wall excavated 2000, extends beneath sand to west, 2+ rooms</td>
</tr>
<tr>
<td>B14</td>
<td>domestic</td>
<td>mud brick</td>
<td>12.4+ × 8.2 m</td>
<td>excavated 2000–2001, 1+ rooms, eroded away to south, abuts Building B12, abutted by Building B5</td>
</tr>
<tr>
<td>C1</td>
<td>domestic</td>
<td>mud brick</td>
<td>19.2+ × 15.8+ m</td>
<td>building with modifications and additions, 8+ rooms,</td>
</tr>
<tr>
<td>C2</td>
<td>domestic</td>
<td>mud brick</td>
<td>12.8 × 10.7 m</td>
<td>complete plan, 6 rooms, stairway in SW corner</td>
</tr>
<tr>
<td>C3</td>
<td>domestic</td>
<td>mud brick</td>
<td>12–12.5 × 8.4 m</td>
<td>complete plan, 5 rooms, stairway in SW corner</td>
</tr>
<tr>
<td>C4</td>
<td>domestic</td>
<td>mud brick</td>
<td>7.8 × 4.7 m</td>
<td>complete plan, 2 rooms</td>
</tr>
<tr>
<td>C5</td>
<td>domestic</td>
<td>mud brick</td>
<td>8.7+ × 6.8+ m</td>
<td>plan unclear, building with addition to SE?</td>
</tr>
<tr>
<td>C6</td>
<td>domestic</td>
<td>mud brick</td>
<td>9.2+ (?) × 5+ (?) m</td>
<td>abuts Building C7, incomplete plan, 2 or more rooms</td>
</tr>
<tr>
<td>C7</td>
<td>domestic</td>
<td>mud brick</td>
<td>9.3+ × 8.8+ m</td>
<td>abuts Buildings C6, incomplete plan, 3+ rooms</td>
</tr>
<tr>
<td>C8</td>
<td>domestic</td>
<td>mud brick</td>
<td>15.3+ × 11.6+ m</td>
<td>two walls only</td>
</tr>
<tr>
<td>C9</td>
<td>?</td>
<td>mud brick</td>
<td>?</td>
<td>south-east corner only</td>
</tr>
<tr>
<td>C10</td>
<td>?</td>
<td>mud brick</td>
<td>?</td>
<td>one wall only</td>
</tr>
<tr>
<td>C11</td>
<td>?</td>
<td>mud brick</td>
<td>5.9+ × 2.8+ m</td>
<td>south-east corner only</td>
</tr>
<tr>
<td>C12</td>
<td>domestic</td>
<td>mud brick</td>
<td>8.5+ (?) × 4.4+ (?)m</td>
<td>fragmentary plan</td>
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<tr>
<td>C13</td>
<td>domestic</td>
<td>mud brick</td>
<td>6.6–6.4 × 3.8–3.3 m</td>
<td>two single-roomed buildings linked by a wall?</td>
</tr>
<tr>
<td>C14</td>
<td>?</td>
<td>mud brick</td>
<td>?</td>
<td>one wall only</td>
</tr>
<tr>
<td>C16</td>
<td>?</td>
<td>mud brick</td>
<td>2.4+ × 1.8+ m</td>
<td>one corner only</td>
</tr>
<tr>
<td>C17</td>
<td>domestic</td>
<td>mud brick</td>
<td>9.5 × 7.4–7.1 m</td>
<td>complete plan, 3 rooms</td>
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<tr>
<td>C18</td>
<td>domestic</td>
<td>mud brick</td>
<td>8+ × 7.6+ m</td>
<td>3+ rooms</td>
</tr>
<tr>
<td>D1</td>
<td>?</td>
<td>mud brick</td>
<td>15.9 × 15.2 m</td>
<td>largely complete plan, 6? rooms</td>
</tr>
<tr>
<td>F1</td>
<td>?</td>
<td>mud brick</td>
<td>26.9 × 15.6 m</td>
<td>not yet planned in detail</td>
</tr>
<tr>
<td>F2</td>
<td>?</td>
<td>mud brick</td>
<td>16.5 × 11.9 m</td>
<td>not yet planned in detail</td>
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<tr>
<td>F3</td>
<td>kiln</td>
<td>mud brick</td>
<td>6.5 × 4.4 m</td>
<td>sondage dug 1997–8</td>
</tr>
<tr>
<td>F4/F5/F10</td>
<td>?</td>
<td>mud brick</td>
<td>c. 87 × 56 m</td>
<td>massive building complex, phasing unclear</td>
</tr>
<tr>
<td>F7</td>
<td>kiln</td>
<td>mud brick</td>
<td>5.3 × 3.7 m</td>
<td>two walls abutting east side</td>
</tr>
<tr>
<td>F8</td>
<td>?</td>
<td>mud brick</td>
<td>6+ × 6+ m</td>
<td>one corner only, cut by Building F7</td>
</tr>
<tr>
<td>F9</td>
<td>?</td>
<td>mud brick</td>
<td>11.8+ × 8+ m</td>
<td>incomplete plan, 2+ rooms</td>
</tr>
<tr>
<td>G1</td>
<td>temple</td>
<td>mud brick, stone</td>
<td>21.4 × 11.5–10.9 m</td>
<td>complete plan, 5 rooms, width excluding pylons</td>
</tr>
<tr>
<td>H1</td>
<td>domestic</td>
<td>mud brick</td>
<td>?</td>
<td>complex and incomplete plan, 12+ rooms</td>
</tr>
<tr>
<td>H2</td>
<td>?</td>
<td>mud brick</td>
<td>?</td>
<td>one wall only</td>
</tr>
</tbody>
</table>

http://www.thebritishmuseum.ac.uk/egyptian/kawaew/issue1/welaby.html
Table 1: Plans of buildings at Kawa (continued)

<table>
<thead>
<tr>
<th></th>
<th>Use</th>
<th>Material</th>
<th>Dimensions (m)</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>M1</td>
<td>domestic</td>
<td>mud brick</td>
<td>12.5–14.6+ × 13.6+</td>
<td>incomplete plan, 3+ rooms</td>
</tr>
<tr>
<td>M2</td>
<td>domestic</td>
<td>mud brick</td>
<td>18+ × 16.5+</td>
<td>complex incomplete plan, 8+ rooms, abuts Building M3</td>
</tr>
<tr>
<td>M3</td>
<td>domestic</td>
<td>mud brick</td>
<td>c. 14.8 × 9.1</td>
<td>fragmentary plan, 3+ rooms</td>
</tr>
<tr>
<td>T5</td>
<td>gateway</td>
<td>mud brick, stone</td>
<td>4–4.2 m × 6.5 m</td>
<td>width, length of passageway</td>
</tr>
<tr>
<td>T6</td>
<td>?</td>
<td>mud brick</td>
<td>4.7+ × 4.4+</td>
<td>single-roomed structure?</td>
</tr>
<tr>
<td>T7</td>
<td>?</td>
<td>mud brick</td>
<td>13+ × 8+</td>
<td>fragmentary plan</td>
</tr>
<tr>
<td>Z1</td>
<td>?</td>
<td>mud brick</td>
<td>8.3+ × 7.2+</td>
<td>fragmentary plan</td>
</tr>
</tbody>
</table>