

CHAPTER 1

REPORT ON THE 1985 EXCAVATIONS WORK INSIDE THE WALLED VILLAGE

Site supervisors: Ibrahim M. El-Saidi and Ann Cornwell

The interior of the Walled Village has remained, prior to this season, an area of low priority, for two reasons. The repetitive plan exposed by the near fifty per cent clearance of the 1920s implied that new findings were likely to be very limited; the trial excavation in 1979 of one new house, Long Wall Street 6 (Kemp 1980: 10-12), revealed that since the 1920s extensive illicit digging has taken place, to the extent of completely turning over the fill of individual houses. Nevertheless, in reviewing the growing body of data from the excavations outside the Village (bones, sherds, etc.) the absence of a suitably large sample of comparative material from within the Village creates an unsatisfactory gap. Since one of the objectives is to investigate the spreading of debris around a settlement, it is clearly important to have a balanced sample from the point of origin, the settlement itself. Moreover, despite the modern disturbance to Long Wall Street 6, its pottery in particular was in a generally better condition than that from most other points and forms a distinctive group on its own. With these factors in mind, one work-team was allocated to the interior of the Village for the whole of the 1985 season.

1.1 The house Gate Street no. 8: basic features

Since the 1985 season also witnessed the opening of excavations along the outside of the east wall of the Village (Chapter 2), for logistic ease a suitable house inside the Village was sought also towards the east side. The choice fell on house no. 8 in Gate Street, simply because it could be seen that its walls were amongst the highest preserved of all in this part of the site. The full clearance and recording of this house occupied the site supervisors for most of the season.

As expected, the house had been the subject of illicit digging in recent times. This was apparent even before excavation began, from a crater which ran down towards the south wall of the house in the middle of the main central room. As the excavation progressed, however, it was revealed that the depth of the fill had made it difficult for the robbers to be thorough. Over most of the main central room and in the rear south room they had failed to dig through the rubble layer which sealed the floor, so that the principal archaeological deposits remained intact. In the other parts they had managed to dig down and right through the floors. But this still means that about half of the original deposits were spared. This proved to be a bonus not only in terms of pottery and small finds, etc., but also in the structural information to be derived from the rubble layer itself.

The house possesses a plan and individual features similar to those of the houses excavated in the 1920s (Figure 1.1). The basic division is into three

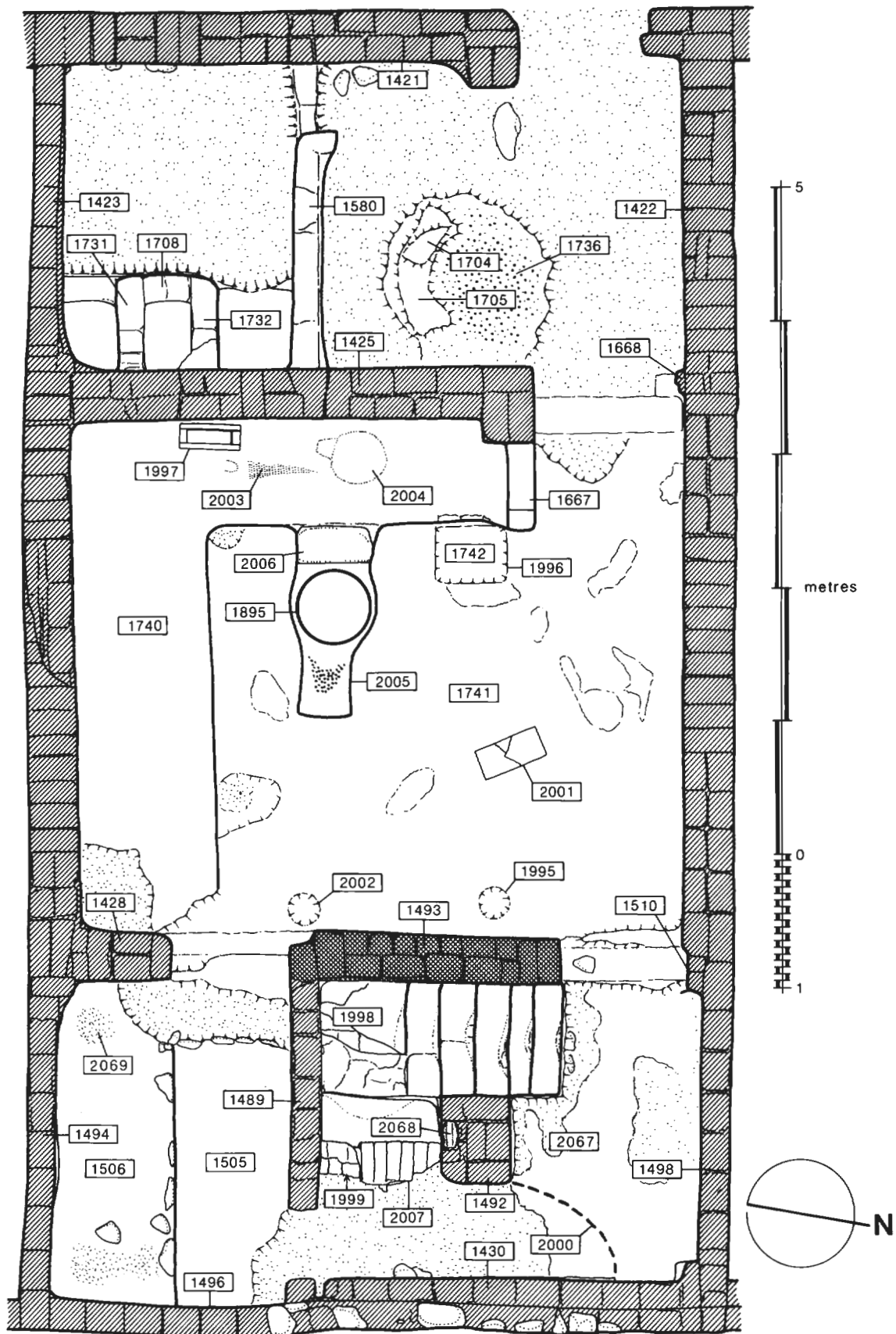


Figure 1.1. Plan of the house Gate Street No. 8 (original by A. Cornwell and I.M. el-Saidi).

parts, the eastern and western parts being further subdivided. For convenience the labelling sequence Front Room N., Front Room S., Middle Room, Rear Room N. and Rear Room S. has been used.

Front Room North (c. 2.70 x 2.30 metres): no internal details survived beyond a patch of flooring, consisting of two distinct layers [1704, 1705] above an ashy area [1736]. On the south a metre-high wall with rounded top [1580] served to separate the space, Front Room S. (Figure 1.2). Figure 1.2 also shows two constructional points of interest. The modern destruction of the floor has revealed that the lowest foundation courses in this part are of alluvial mud brick, in contrast to the marl brick used for the rest of these walls. This was previously noted in the construction of Long Wall Street 5 and 6 (Kemp 1980: 10-12, and Figure 4). Secondly, the interior walls had been replastered more than once. In Figure 1.2 the successive coats are numbered in circles. They are of marl plaster except for no. 3, which was of alluvial mud. This is, however, unusual. In the typical sequence in the rest of the house the main coat appears to be a thin skim of alluvial mud, with a replastering with marl only over the lower part of the wall. The original gypsum around the grinding emplacement in Front Room S. seems to have been the only widespread use of gypsum in the house (apart from the floor of the cupboard beneath the stairs). Nowhere else were there signs that walls had been whitened, except for small areas around doorways.

Front Room South (c. 1.75 x 2.30 metres): most of the floor had been dug up, but a structure built against the east wall had been largely spared (Figures 1.2, 1.3). It consists essentially of three compartments. But whereas the northern and southern had been formed by a curb wall only about 10 cms. high in the case of the latter, the central one had been built up into a box filled with a layer of stones and mud [1735] topped by a layer of ash [1733]. The side walls of the central compartment [1731, 1732] had not been of the same height. Whereas the north wall [1732], as well as the front wall and top of the fill in the compartment, had been about 40 cms. high, the south wall [1731] had originally risen for a further 35 cms. This was apparent from the scar left on the wall [1425] against which it had been built. Several similar structures were found in the houses excavated in the 1920s. The one most clearly illustrated came from house Gate Street 11 (= no. 501 of Peet's original numbering; see Peet 1921: 178, Plate XXVII.2; also *COA* I: 73). It was lower (the pedestal said to be 30 cms. high), but otherwise very similar, with one side higher than the other. The upper surface had been better preserved, with two "basin-shaped depressions side by side, one narrower than the other." The entire structure, including the depressions, had been coated in gypsum plaster. A further similar example, but with three depressions in the top, occurred in house Main Street 5 (*COA* I: 77, Figure 11, also page 64 for general discussion). The function of these structures is explained both by ancient tomb models and by examples found at Deir el-Medina: they are milling emplacements, the depressions on the top serving to hold the heavy oval querns of quartzite or granite (see Bruyère 1939: 75-8; Bruyère 1953: 96-101). They occurred commonly in the front rooms of the Workmen's Village houses. In our example, the original gypsum plastering of the area had been covered by two later replasterings with mud.

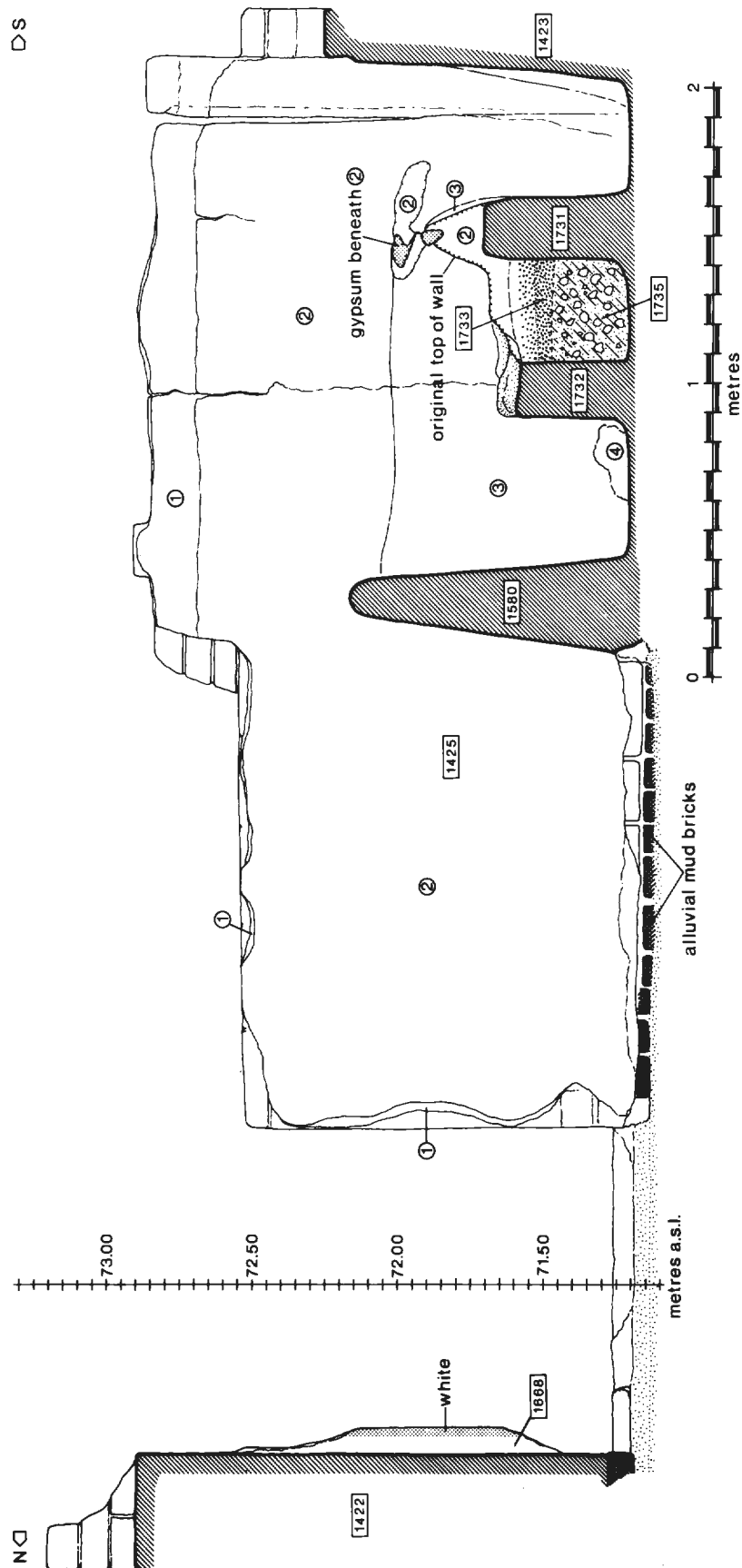


Figure 1.2. Elevation of the east wall of the Front Rooms (original by I.M. el-Saidi). Numbers in circles are successive coats of plaster.



Figure 1.3. Construction against the east wall of Front Room S.

Middle Room: except for a small patch in the south-east corner this part of the house had escaped modern damage. The room is square, c. 4.55 by 3.85 metres (Figure 1.4). An L-shaped bench, or *mastaba*, 7 cms. high, runs around the west and south walls [1740]. The end beside the door leading in from the Front Room was protected by an 85 cm. high wall [1667], such as occurs in some other houses (Main Street 12, Long Wall Street 9 and 12, West Street 13, 15, 21, 22, 24). The western part was evidently the more important. An upturned limestone table [1997] lay on it (for the type see *COA I*: 62, Figure 10), and not far away, opposite the projecting hearth, a circular area had been repaired with marl plaster [2004]. It is tempting to see this as a patch of wear from the use of a circular stone seat on small legs (like *COA I*: 62, Figures 7, 8). Beside it the mud plaster of the bench bore a strip of impressions apparently from a mat [2003] which must have been laid down whilst the plaster was still damp. The use of



Figure 1.4. The Middle Room, view to the west.

mats on benches beneath seats is sometimes shown in contemporary art. [1] A second limestone table [2001] lay broken on the floor near the middle of the room. The room had been warmed by a pottery hearth [1895] built into a narrow extension of the dais [2005], into which an unworked limestone slab had been set [2006]. The hearth was simply one of the large pottery bowls, 50 cms. in diameter, (*ARI*: 135-6, Group 11: "hearths"), and contained a small deposit of ash [1850]. It was a replacement of a previous one [1896] which had cracked, and which had been left in place, lying immediately beneath the new one. It, too, contained a deposit of ash [1892]. Hearths of this kind were one of the commonest features of the sample of houses excavated in the 1920s (*COA* I: 62-3, Plate XVII.3), their presence reflecting the near-freezing temperatures which develop during winter nights. The remaining features of the Middle Room were

[1] E.g. the tomb of Ramose (Davies 1941: Plate X), where the mat between Ramose's chair and the dais seems to be a mark of status not accorded to his wife or guests. Coloured depictions help to confirm that the object is a mat and not something else, such as a low pedestal (e.g. Davies and Gardiner 1936: Plate XXXV).

two shallow circular depressions in the floor against the east wall [1995, 2002], probably where pottery vessels had stood.

Rear Room South (c. 2.45 x 1.75 metres): apart from a patch of damage around the doorway, this room also had escaped the attacks of modern robbers, and contained much of its original fill consisting mostly of collapsed roofing and wall rubble. The only significant feature of the room was a low bench or *mastaba* [1506]. At either end patches of the mud plaster showed traces of wear [2069]. It is tempting to see this as a consequence of limestone bed-leg supports having stood here originally (for these see COA II: 8, Plate XVIII; Vercoutter 1978).

Rear Room North (c. 2.85 x 2.20 metres): this nearly square room contained a well-preserved staircase [1998], built against a central brick pillar [1492]. A flight of five steps led up to a small landing. The steps had originally turned east and continued, but of this second flight only one step fully survives, and the mortar bed of the next one [2007], retaining the impressions of the brick step, which had been laid at a slight angle to the horizontal. All steps had been made from a row of bricks laid as headers on their sides, and thickly plastered over. The floor of the room had been completely dug away in modern times, although an originally underlying compacted layer of mud [2067] covered the northern part. This destruction extended to the floor of the small cupboard beneath the southern flight of steps. The sides and top of the cupboard had, however, survived reasonably well, together with a small patch of floor, consisting of a layer of marl plaster covered by two thick coats of gypsum (Figure 1.12). The roof of the cupboard had to support the mass of brickwork which formed the eastern flight of steps. This support was achieved by means of a layer of closely spaced wooden poles which rose at a steep angle from the back of the cupboard and originally extended to, and were doubtless embedded into, the rear wall of the house [1430]. The only other feature of the Rear Room North were traces of a bench or raised area of floor which had been built against the north wall and for a short way against the east wall [2000]. The robbers had completely dug it away, but its outline remained in the wall plaster. Its level also seems to match the loss of plaster at the foot of the stairs and central pillar. In the plan (Figure 1.1) and isometric drawing (Figure 1.13) these points have been used as the basis for reconstructing a raised area of floor which began from the now lost threshold of the doorway leading in from the Middle Room, and helped to reduce the height of the first step of the staircase.

1.2 The house Gate Street no. 8: the nature of the fill

In the two Front Rooms and Rear Room N. the fill consisted of a loose mix of sand, dust, rubble and occasional archaeological material, more or less homogenous from top to bottom and representing the original fill thoroughly disturbed and turned over in recent times. The upper part of the fill over the other two rooms was the same, but the lower parts were undisturbed. In the case of Rear Room S. the transition was fairly abrupt. With the Middle Room this was less so. In all cases, following the removal of the initial surface debris, the fill was removed in horizontal layers, each one given a separate unit number. In the Middle Room the fill was further divided into separately numbered northern

and southern units; for Rear Room S. the northern and southern halves of each unit were separately marked. A basic control therefore exists for the fill and its contents, but for the Middle Room some ambiguity exists over the point at which the fill became undisturbed. As will be made clear in the discussion on the roofing fragments in the next section, this is an important matter.

The history of formation of the fill is easy to recognise. The houses were abandoned with the roofs left intact. How long they remained like this we cannot tell, although only a thin layer of sand had time to drift on to the floor of Rear Room S. The roof eventually collapsed, covering the floors with a relatively even layer of debris, consisting of wooden beams, poles, rubble from the thick covering of mud, and sherds and perhaps other things which had been left on the roof. Now exposed to the elements, the tops of the walls began to decay, and bricks fell down on to the layer of collapsed roof. The rooms also now lay open to the deposition of wind-blown sand, and it became a race between further collapse and sand deposition until the rooms and houses had filled up completely and become geologically stable. With the best preserved houses, such as Gate Street 8, the rate of deposition had greatly exceeded the rate of wall decay. Thus ideally, a consolidated layer of collapsed roofing had been covered by a mix of bricks and sand, the sand increasing in proportion towards the top. However, the contents of the excavation units show that whilst roofing fragments predominate in the lowest, they continue to occur in higher units. The process of decay must therefore have been somewhat less even than the sequence just described, with patches of roofing hanging on and eventually falling mixed with bricks and coming to rest higher up in the piles of rubble. Trying to account for this, and for differences in the composition of the roofing, raises the question of a possible roofed second story. This forms the subject of the next section.

As soon as the more consolidated units of fill appeared they were carefully brushed, photographed and drawn to scale (Figure 1.5). In the case of Rear Room S. this happened twice (for units [1490] and [1502]), but with the Middle Room the consolidated layer was thinner and represented only one stage of planning and excavation, units [1669, 1709]. The contents of the consolidated units left no doubt as to the nature of the roofs. Wooden poles had been laid over wooden beams, and a thick layer of mud spread over the top. Although the undersides of the main beams had been encased in mud, there had been no general plastering on the underside of the roof to form a plastered ceiling: the blackening on poles and around the pole impressions showed that the underside had been exposed to the smoky room atmosphere. Like all but one of the other excavated Village houses [2] no column base was found from a central roof support. The evidence shows that no support was necessary. The considerable weight of the roof was taken by logs of acacia wood reaching from one side of the room to the other. The loose fill in Front Room S. [1424] contained a remarkably well preserved specimen. It measured 2.10 m. in length, with a girth of between 15 and 17 cms. No attempt had been made to trim or dress its twisted and irregular surface beyond lopping off the branches. Many fragments

[2] The exception is West Street no. 19, and possibly no. 21; cf. COA I: 58, 88-89; Woolley 1922: 53.

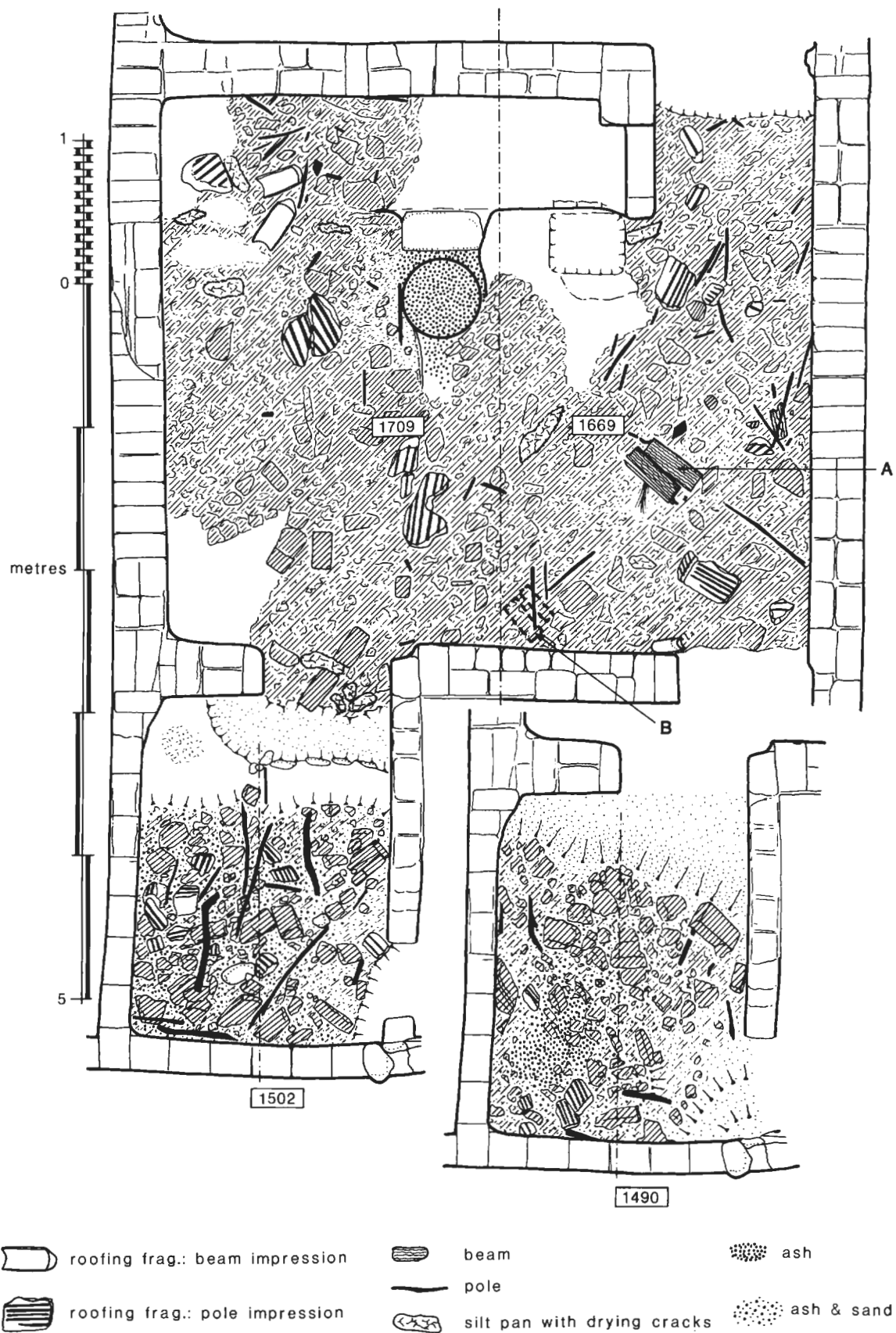


Figure 1.5. Plan of the lower levels of fill in the Middle Room and Rear Room S. (originals by A. Cornwell and I.M. el-Saidi). **A**: wooden window pieces **6013-6**; **B**: position of pieces **6017-8** in overlying unit [1583].

of the mud casings bearing impressions of equally irregular beams came from the roofing fragments.

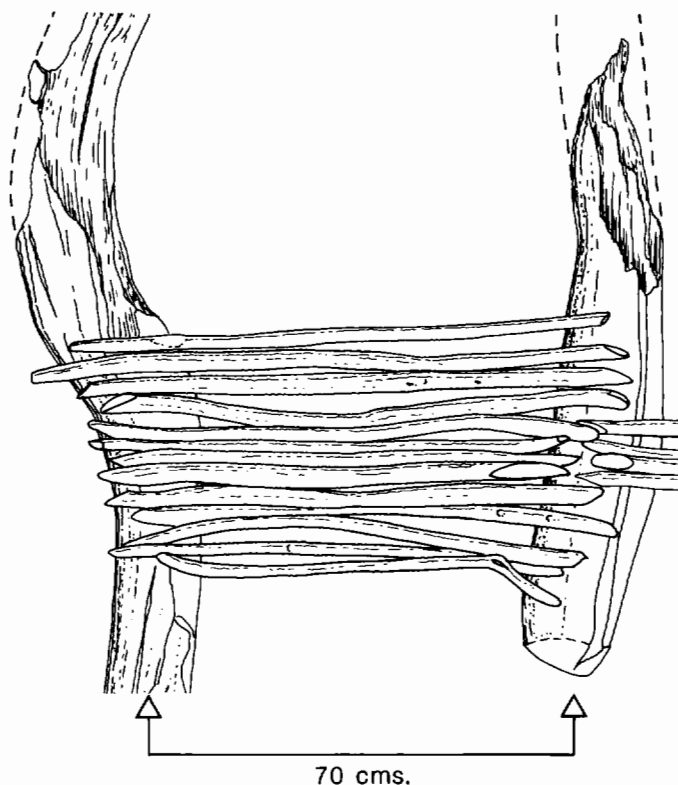


Figure 1.6. Reconstruction of roofing, based on materials found in various fill units.

The distances at which these beams were set from one another can be roughly calculated without difficulty (Figure 1.6). Many of the poles that had been laid at right-angles between them were found complete, with both ends showing chopping marks. These poles had been cut to roughly the same length: 70 cms. This must be the maximum distance between the beam centres. Just as the beams seemed all to be of one species (acacia), so did the poles (provisionally identified as tamarisk). The use of so many thick beams evidently provided enough independent support for the whole roof. The same must have been true for the chapels. As previously reported most of their chambers were roofed yet no column bases occur.

The preservation of wood has been far from uniform. During the Village's life the woodwork would have become infested with termites, as inevitably happens in desert locations, and their destructive activity would have continued after the collapse of the roofs. The acacia beams suffered more. Apart from the large piece found in Front Room S. and another smaller piece from the same deposit very few pieces were recovered. The tamarisk poles had fared better. Large numbers, remarkably intact, came from all areas of roofing materials, although they must still represent only a small proportion of the original total. The destruction of acacia beams after the collapse of the roof probably explains a number of patches of fine silt found on the top of units [1669] and [1709] (Figure 1.5). In their general appearance, particularly in the drying cracks,

they resemble water-laid deposits, despite the general absence of weathering over the units as a whole. They could perhaps have formed as the result of rainwater running down tunnels left by the complete termite destruction of lengths of roofing beam which lay at an angle and so reached further up into the debris, close to the surface.

The quantity of wood used in the roofs of both houses and chapels shows that it was in plentiful supply. And contrary to the earlier suggestion (COA I: 58; Woolley 1922: 53) it is unlikely that the villagers took roofing timbers away with them when they left this part of the Village. [3]

At first sight the weight of such a roof seems excessive compared to the strength and often careless construction of the house walls. But it must be remembered that lateral forces were neutralised by the roofs of the adjoining houses. The finished village, with its almost continuous roofing, had something like a cellular construction, held rigid by the thick village enclosure wall.

The collapsed roofing deposit in the Middle Room contained sherds from twenty or thirty vessels (yet to be studied), several artefacts, and a remarkable piece of joinery. Its component pieces were found in two groups, both towards the east end of the northern sector of excavation in the Middle Room. One group, consisting of pieces **6017** and **6018**, was found in the loosely consolidated fill unit [1583]; the other, of pieces **6013** to **6016**, lay in a neat group on the surface of unit [1669] (Figure 1.7), where they were planned *in situ* (Figure 1.6). The pieces belong to a small window shutter and its frame, complete except for one side strut (Figures 1.8, 1.9). The shutter itself (pieces **6014** and **6015**) is a rectangle measuring 36 x 25 cms., made from two panels 2.4 cms. thick, fixed together by dowels in a simple butt joint. One of the panels had been cut to leave one set of end projections at top and bottom which had been fashioned into rounded pivots. Traces remained on one surface of stripes of red and white paint, and both panels contain dowel holes, perhaps from a handle and means of fastening. The frame had consisted originally of four elements: a base plate or sill (no. **6018**), 30 x 10 cms, with lower pivot hole, rebate for the closing of the shutter, two mortice holes for the side struts, and four dowel holes for fixing the plate to a structure; two side struts (no. **6016**, and one missing), 3 cms. wide and 2.4 thick, the missing strut having been the one which would have had the fastening device; the top bar or architrave (nos. **6013**, **6017**) made from two pieces: a bar 31.8 x 5 x 2.4 cms, with mortice holes for the upper tenons of the side struts, and a shaped piece dowelled to it in which was carved the hole in which the upper shutter pivot rotated.

Two related questions arise from this object: what was it a part of, and why was it found lying in the way that it was? To the first question two possible answers must be considered: it belonged to a wooden shrine or similar object with a pivoting door at the front, or it was built into a wall, either as a cupboard door or as a window-frame with shutter. The first possibility is less likely than the second. If the frame had been part of a larger wooden structure, one would expect to find evidence for joining the sides and top to the body by means of

[3] This statement does not necessarily apply to the western side of the Village where, according to Peet and Woolley (COA I: 67; Woolley 1922: 60) neither wood nor roofing material was found. This is one of the points to be checked in the current work on this sector.



Figure 1.7. Part of the wooden window-frame and shutter lying on unit [1669].

dowels or mortice and tenon joints. As it is, the only signs of fixing are in the base plate. This last piece, more than twice the width of the other pieces of frame, again accords ill with the idea that it was part of a deeper container, for there are no dowel holes on the long sides to join it to a neighbouring plate forming the next part of the floor. If the frame had been fitted within an aperture in a brick wall, however, its construction appears more sensible. There are two ways to fit a frame. One is simply to fix it after the building is finished partly with nails (or in ancient times, wooden dowels or pegs) and partly with wedges; the other is to make some provision for the fixing as the surrounding walls are built. The dowel holes in the short sides of the base plate could have been intended for fixing to matching wooden pieces built into the wall on either side. This would have secured the base or sill. The upper part could have been held in place by mortaring into the brickwork (perhaps using gypsum for extra strength) the short projecting ends of the top bar. If viewed in this way the dimensions of the base plate also make sense: it is somewhat smaller than the size of a brick, thus allowing, at each side, for the thickness of a coat of mud plaster. We must also consider which is the inside and which the outside. In the

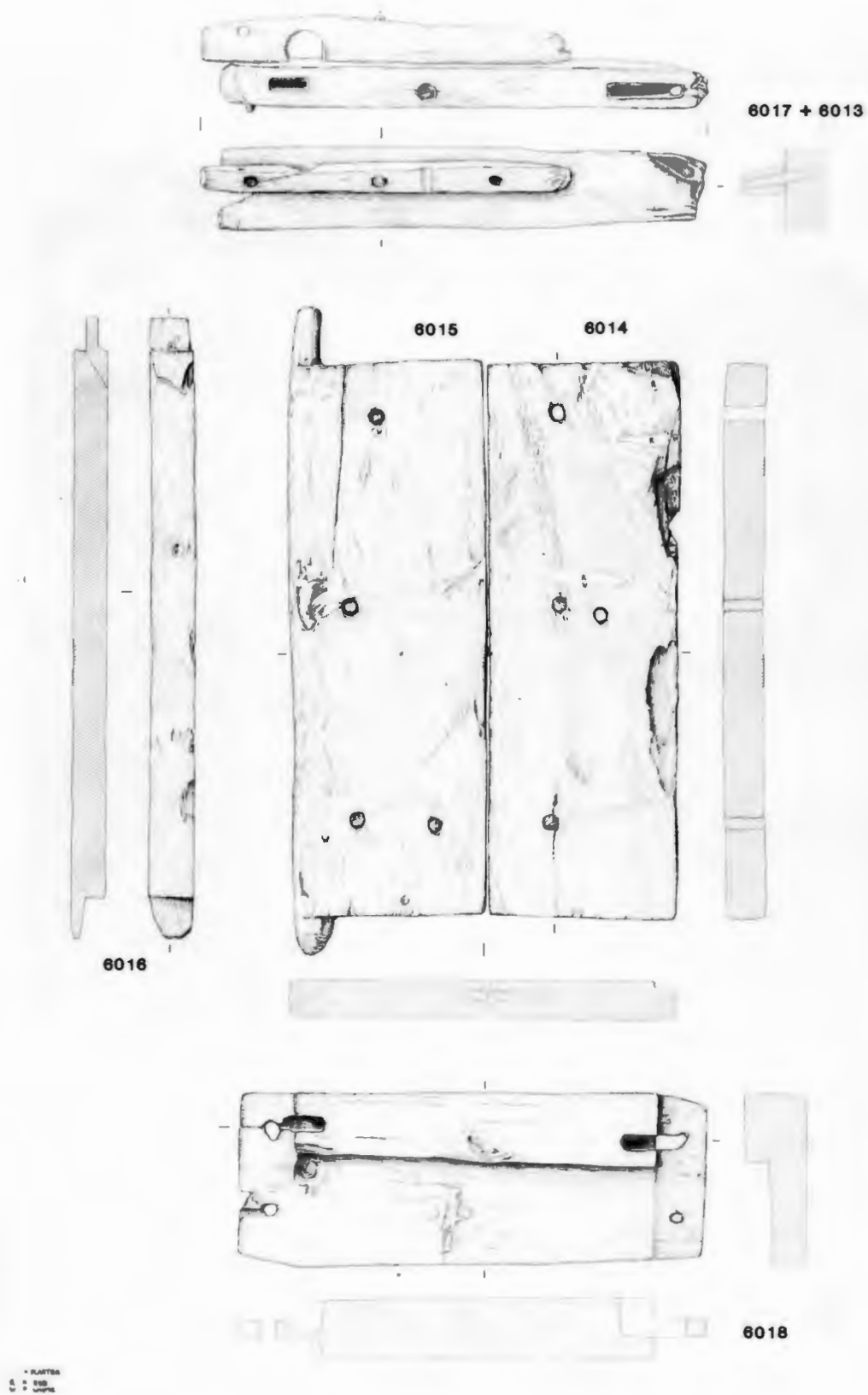


Figure 1.8. The wooden window-frame and shutter at one-quarter scale (originals by B. Garfi).

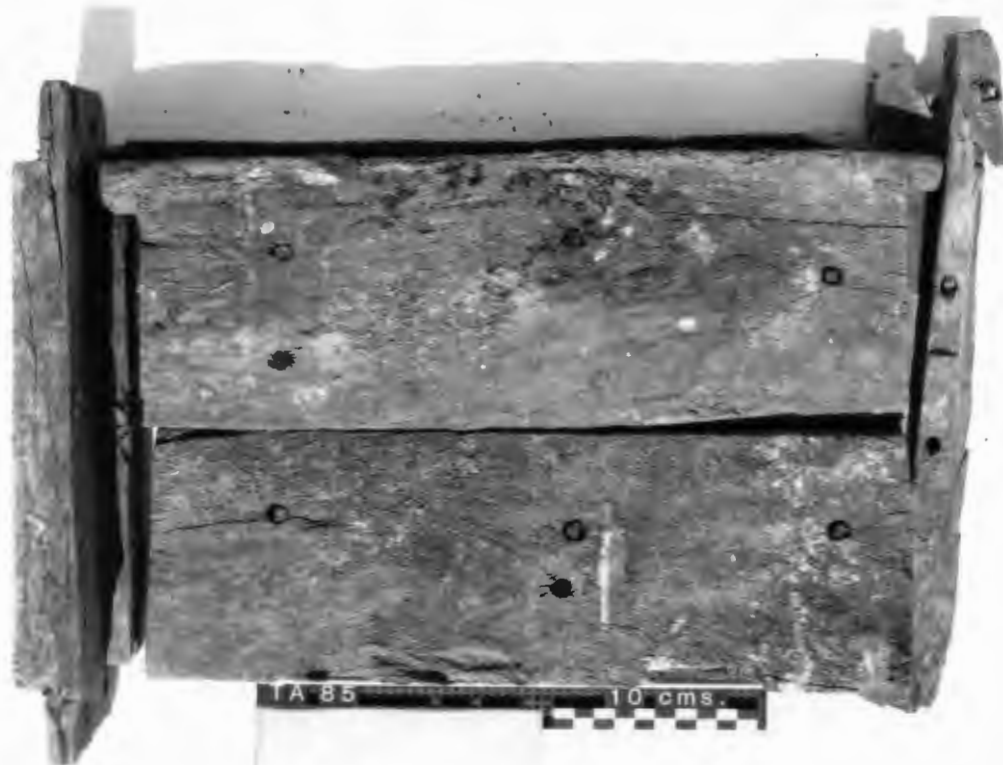


Figure 1.9. The wooden window-frame and shutter.

case of doorways, the pivot strip attached to the top bar of the doorway was normally on the inside of the house, which meant that the door could only be opened inwards (e.g. Winlock 1955: Figures 59, 60, 62-4, 66, 68, 70, 72, 84 top right, all Meketra models). With our shutter, the "inner" side had been decorated with red and white stripes. This makes it less than likely that it opened inwards into a cupboard or niche. The various circumstances point to this being a window-frame with shutter, rather than a door to a cupboard or niche. The "inside" opened towards the inside of the house. The wall in which it was set was probably of two bricks in thickness (see below). With the sill towards the outside, the dimensions of the shutter are such that it could be opened into the thickness of the wall without projecting beyond it at all (Figure 1.10). But as to where the window came from in the first place, this belongs in the discussion below on the nature of the upper part of the house.

1.3 The house Gate Street no. 8: reconstructing the heights of the roofs

The only direct evidence occurs at the back of the house, around the staircase (Figure 1.11). To what extent the results of interpreting this apply to the remainder of the house, especially to the Middle Room, depends on evidence for an upper storey discussed in section 1.4.

Figure 1.12 presents the basic evidence in the form of elevation drawings of the staircase area, with reconstruction lines added. The height of the steps is standard, determined by the width of the bricks, which were laid on edge. The steps have been continued upwards, beginning from the bed of mortar [2007] which bears the impressions of the next step. Above and beyond this step the

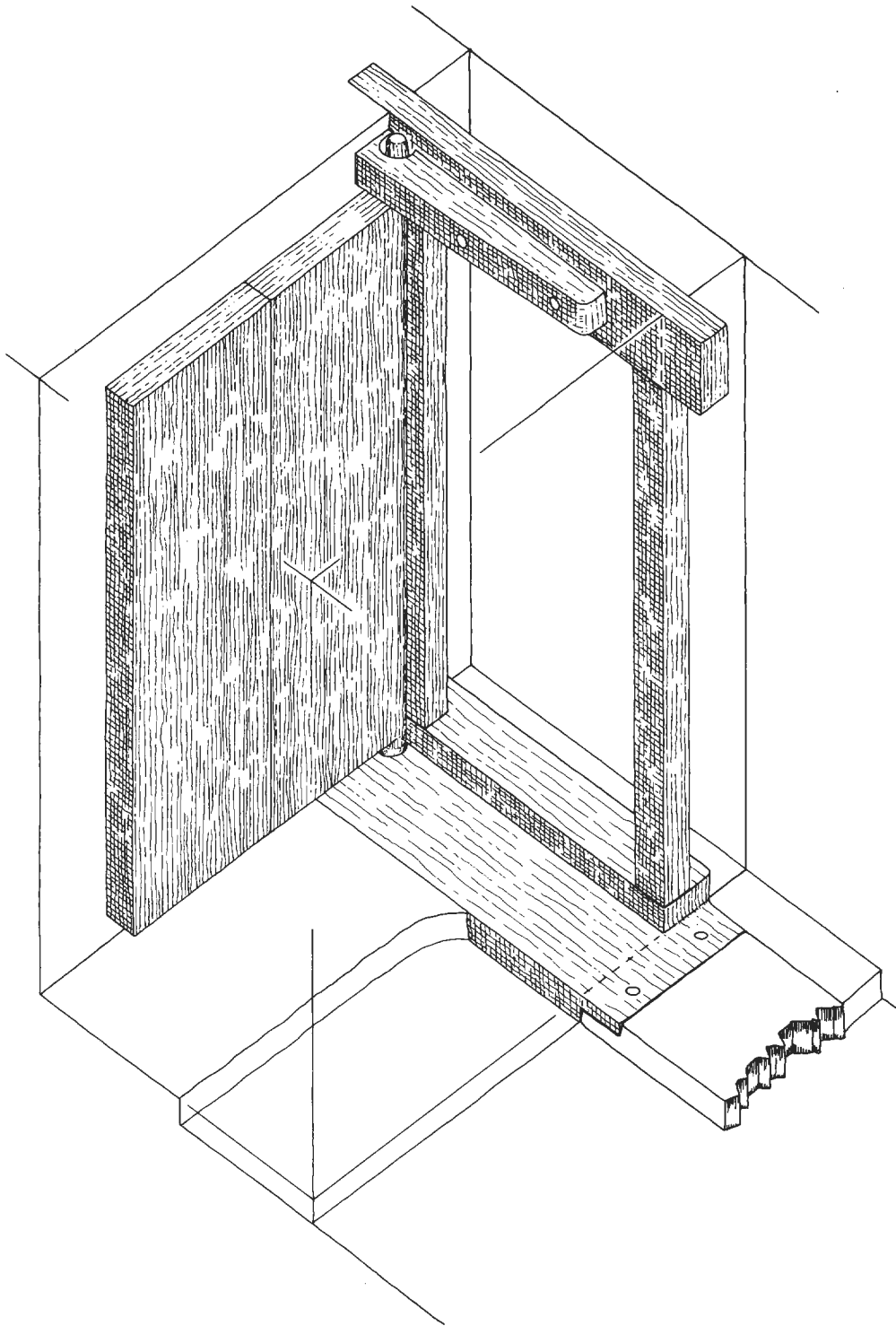


Figure 1.10. Reconstruction of how the window-frame and shutter fitted into the wall.

options for reconstruction narrow sharply because of the proximity of the rear wall of the house. Anyone emerging on to the roof must have turned left or right from a landing of suitable width. The available space accommodates a landing of the same width as that of the staircase itself if it is made into the



Figure 1.11. The staircase in Rear Room N., looking south.

very next step. One then has a choice: either the landing is put at the same height as the adjacent roof, or the roof was one further step up. Since the roof height of both options is not very great - 1.80 or 2.00 metres - the second option has been chosen in the reconstructions (Figures 1.12, 1.13). When the thickness of the roof has been added (usually between 10 and 15 cms.) the result is very close to that calculated by Peet and Woolley (*COA* I: 56; Woolley 1922: 52), 2.30 metres for the total room height, i.e. including the roof thickness.

The roof of the cupboard beneath the steps was supported on a dense mass of wooden beams set at a steeply sloping angle, or rather, angles, since the beams seem to have curved and twisted and therefore ran down into the cupboard and the brickwork of the stairs behind in a very irregular way. They had not even been started from the same level, but from two (Figure 1.12), following the line of the steps when they had been only partially built and the decision was made to start laying the beams into the masonry. But as Figure 1.12 shows, the reconstruction allows just enough space between the upper landing and the preserved height of the rear wall to receive the tilted ends of the beams. Those

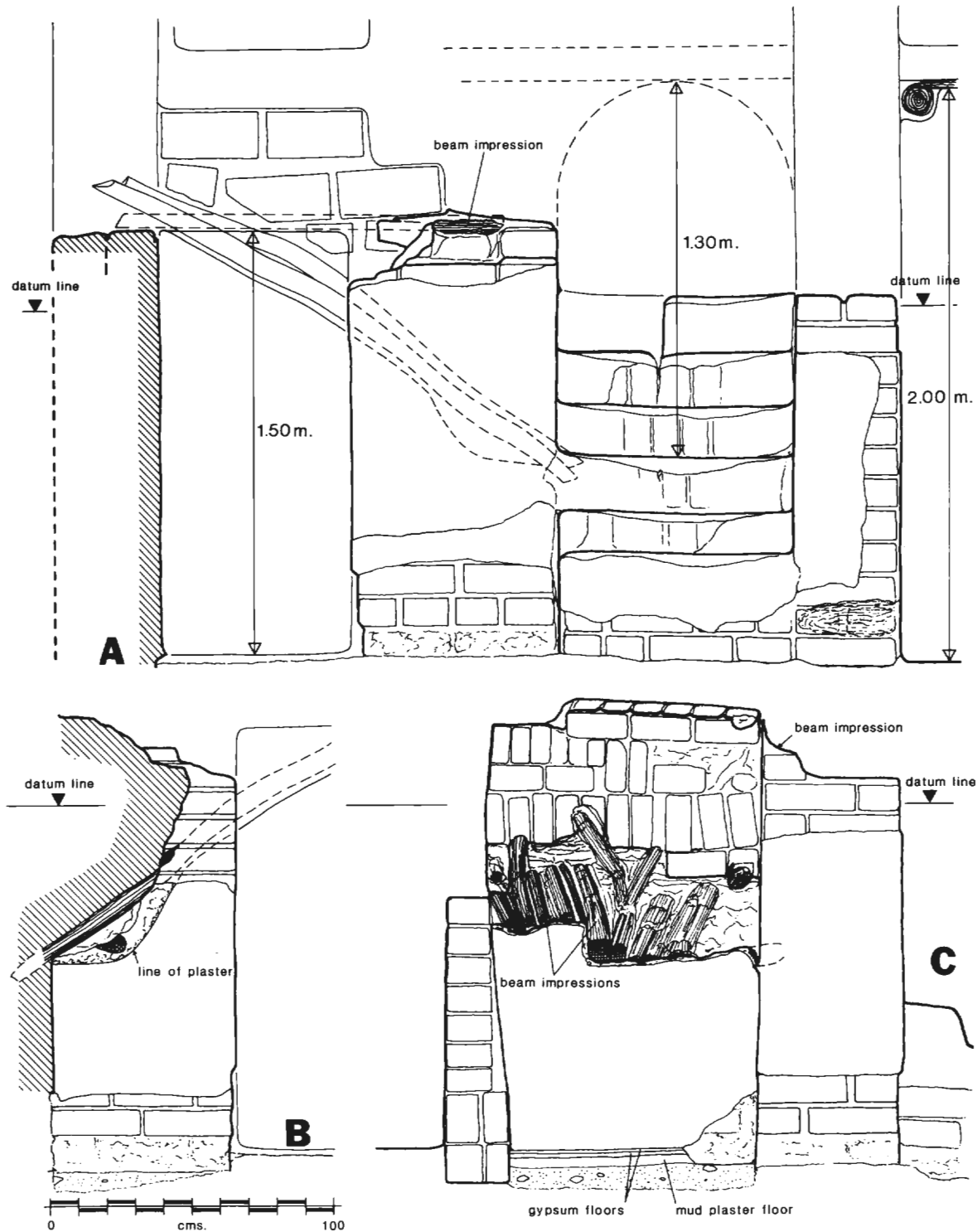


Figure 1.12. Elevations with reconstruction lines of the staircase (based on originals by I.M. el-Saidi). A: looking south; B: looking north inside cupboard; C: looking west into cupboard. Datum line is 72.50 metres a.s.l.

furthest away in the drawing (i.e. to the south) must have risen at a slightly less steep angle since their lower ends had been set at a higher level in the brickwork, as just noted.

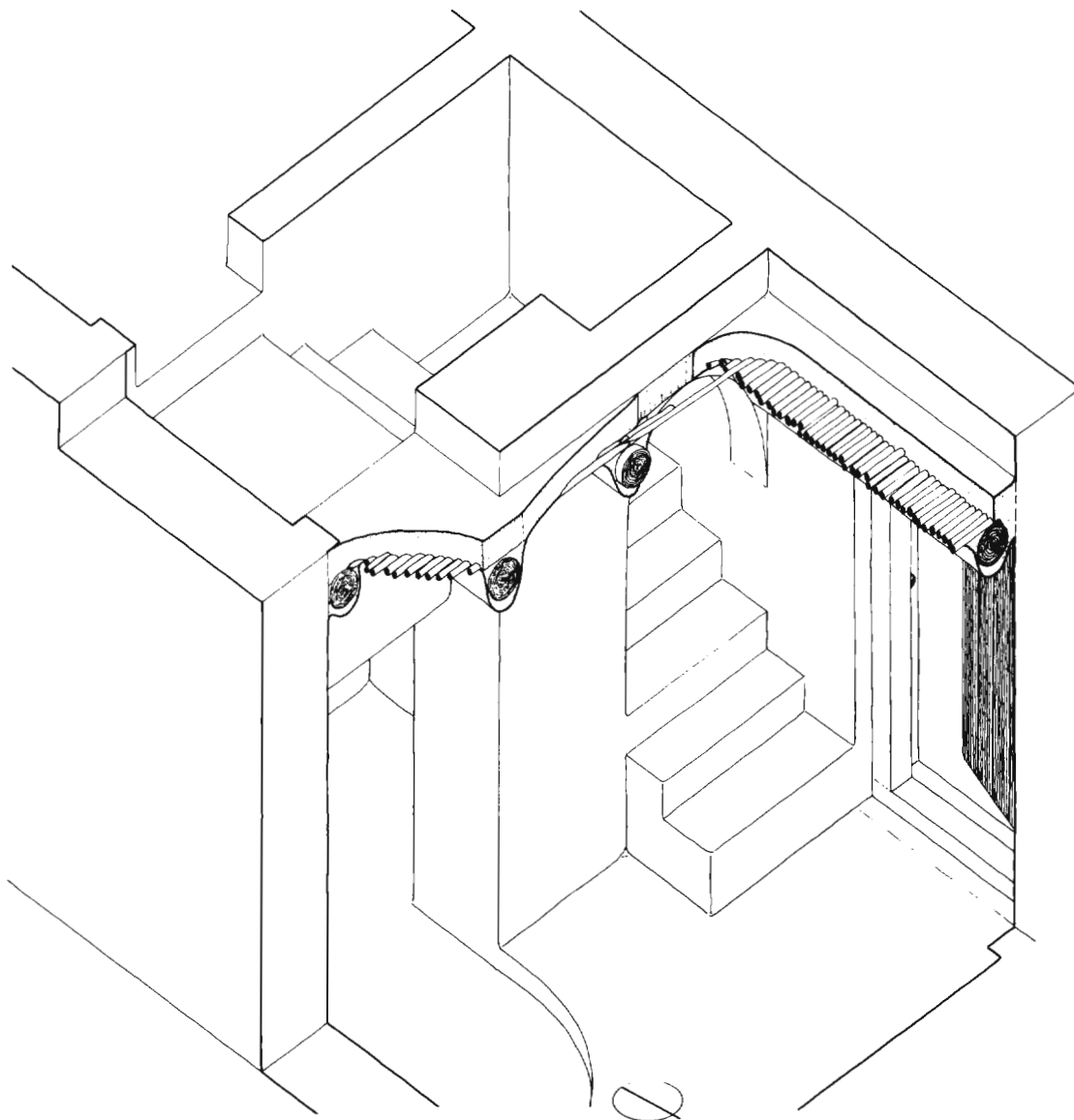


Figure 1.13. Isometric reconstruction of the staircase area, looking south-west.

In its finished state the cupboard ceiling was mud plastered to cover the beams and to smooth out some of the unevenness, although major irregularities must have remained. The reconstructions also assume that the central pillar was linked to adjacent walls on east and west. The arch on the west is pure guesswork, the slightly angled lintel on the east less so. [4] At the highest point of the pillar a short stretch of mortar preserves the impression of a more or less horizontal wooden beam [2068]. The most obvious explanation is that it is the end of a beam which jugged out eastwards in front of the corridor and helped to bear the weight of a wall above, which enclosed the upper part of the stairs. If this was so, however, the beam cannot have remained straight and horizontal, for there is no trace of its further end in the rear wall of the house.

[4] For arches used to support stairs see COA I: 89-90; Woolley 1922: 54 (West Street nos. 20, 22); also unpublished E.E.S. photograph 1922/22.

Not a great difference of height is involved, and it has been assumed in Figure 1.12 that the beam twisted upwards slightly.

By these calculations the ceilings of the rooms were not inconveniently low. One could stand up without hitting one's head, although negotiating the staircase must have been awkward. Yet neither did they attempt to enhance the illusion of interior space. The whole interior of the ground floor, or at least of the Middle and Rear Rooms, must have been dark, smoky and claustrophobic. The undersides of the ceilings were not plastered, and the fragments of mud covering and of wooden poles from the Middle Room where the hearth was situated were encrusted with soot. No gypsum plaster had been used on the walls. Local mud had served instead, and this had also turned a grey colour. Late in the life of the house the lower 75-100 cms. of wall surface had been replastered, but only with the same material.

As yet we have direct evidence for roofs pertaining only to the Middle Room and Rear Room S. In the reconstructions it has been assumed that Rear Room N. was also roofed, light entering via the staircase. A great many roofing fragments were found in the filling debris [1495], mostly from poles, loose grass and the ceiling over the cupboard where beams and split beams were laid closely parallel. Although the material had been turned over the latter pieces show that some of the materials found did come from the vicinity. The fill of the Front Rooms had likewise been thoroughly disturbed, although they too contained both roofing fragments (mostly with pole impressions) and two large pieces of acacia beam. Against this evidence, which is of doubtful value in view of the great disturbance to this part, is the fact that the partition wall had been built to a height of only one metre. Its potential structural value for added roof support was thus not realised, unless there was no roof at all over this part. Some of the evidence obtained in the 1920s gave to many Front Rooms a distinctive character (COA I: 60-1; Woolley 1922: 55-6). Here animals seem to have been kept and craft production pursued; frequently, too, the quern emplacement was situated here. Since hand milling was accompanied by sieving it would have been a dusty operation. Until more direct evidence as to roofing is forthcoming it is worth considering the possibility that all or part of the front was in some cases an open court. In a few cases Peet and Woolley did find roofing materials here. In East Street 11, for example, it consisted of the standard beam/pole/mud layer type (COA I: 57, 72). Main Street 8 is listed as having "coarse matting from roof" in the Front Room (*ibid.*, 79). Without knowing exactly where it was found (in East Street 11, for example, had it formed a veranda-like covering over the stairs ?) it is difficult to evaluate as evidence. The variety in the designs of the houses may also have been reflected in variations in roofing and in the provision of upper storeys.

1.4 The house Gate Street no. 8: what lay above the roof ?

This question haunts anyone who tries to visualise what Amarna houses actually looked like. Houses small and large alike preserve the bottoms of staircases rising from the ground floor, but to what ? The general consensus is that they rose generally to an opening on to a flat roof, although the opening

itself could have been protected by a triangular construction containing a door (e.g. Tietze 1985). Access to the roof was necessary because it offered extra space for storage, and even for sleeping out on hot nights. Only in the case of large houses in the Main City has a second storey been contemplated, and then only a partial one covering a fraction of the roof area (*COA* II: 6-8, Plates XVI, XVII). Even the supposed contrast between Amarna-style single-storey houses and multi-storey houses at Thebes reconstructed from artistic evidence can be challenged to favour the former (e.g. Kemp 1977: 125; Assaad 1983). Generally at Amarna the walls of the smaller houses collapsed anciently down as far as the lowest few courses. Also, none of the previous excavations attempted a close study of the rubble, although it has to be admitted that there is a strict limit on how much information can be obtained from it. The local conditions at the Walled Village, however, led to a unique degree of wall preservation for small houses. Consequently the rubble from the collapsed parts is also relatively well preserved, although the modern digging has disturbed the upper parts and reduced the value of a quantitative study of the amount of broken brickwork present.

Our attention this season was concentrated on what appeared to be the undisturbed units of fill. This threw up two surprising possibilities.

1. **The location of the kitchen.** Table 1.1 shows the sequence of excavation units in Rear Room S.

N.	S.
	[1400]
	[1426]
	[1501]
[1490]	[1490] plan Figure 1.5
[1491]	[1491]
[1431]	[1431]
[1500]	[1500]
[1502]	[1502] plan Figure 1.5
	[1506] bench
[1505]	floor

Table 1.1 Sequence of units in Rear Room S.

Unit [1400] on top represents the surface heaps of loose debris removed over the entire house; [1426] likewise began with modern disturbance over the top of this particular room, and comprised a mixture of sand and straw. As the removal of [1426] progressed, it began to subdivide into two areas of different appearance: ashy on the east, the mix of straw and sand on the west. Further definition quickly followed: the straw and sand was recognised as the fill of a modern pit which had been cut down to the original floor level, whilst removal of some of the ashy layer on the east raised the possibility that it was in fact the top of an undisturbed area. The contents of the modern pit were removed as more of unit [1426]. For the undisturbed material, however, the strategy was adopted of excavating it both by arbitrary layers and in two portions, north and south. Each layer was given its own unit number, with N. and S. added to

indicate whether it was from the north or the south. The fill was also planned twice, when the top surfaces of units [1490] and [1502] were exposed, see Figure 1.5.

Already as the ash of [1426] was appearing so did two fragments from a standard cylindrical bread-oven. The room was therefore considered potentially to be the kitchen. The fill from [1490] to the bottom was a mix of roofing fragments, a few bricks, wooden poles, sherds, animal dung and much ash. The ash was present even in unit [1502] (Figure 1.5). It lay in a distinct concentration in unit [1490]. More sherds were blackened than is normally to be expected. But no more pieces of oven were found, and by the time the floor was reached it was very clear that no oven had ever been built into the room, which had certainly never been a kitchen. Indeed, Gate Street 8 joins the majority of houses inside the Village in not possessing an oven built into the ground floor. The two oven fragments by themselves, coming as they did from near the surface, are an ambiguous piece of evidence. The ash, however, is not. A deposit of ash must have been on the roof, not as a general spread since it did not appear in the rubble filling the Middle Room, but in a concentrated deposit which came down when the roof caved in. Add to this the blackened pottery (a full study of Gate Street 8 pottery awaits next season) and a case can be put forward that this house had its oven on the roof, above Rear Room S.

It might be thought that if this were so the ceiling, and in particular its wooden poles, would have been visibly affected by the heat. But it can be demonstrated that these bread-ovens smouldered at a low temperature. Chapel 528, re-cleared last year (*AR* II: Chapter 4), had an oven in one corner [1328]. Whilst inspecting it again this year it was noticed that between the oven lining [1328] and the outer coating of mud [1329] was a thin layer of grass contemporary with the oven's construction. Although the oven had clearly been used, the grass had not been affected by heat at all. [5] The possibility that ovens, and perhaps other domestic facilities, could sometimes have been on the roofs of houses has a serious consequence. It reduces the value of ground plans from older excavations as a source for certain statistics, e.g. the provision of baking facilities. It is a striking fact in the Village that from a total of 38 houses (including Long Wall Street 6), only 16 are recorded as with ovens, much fewer than those with quern emplacements.

2. Was there a second storey ? This question is posed by an analysis of the roofing fragments from the Middle Room and Rear Room S., the only two where most of the original fill was undisturbed. The roofing fragments from Rear Room S. present a straightforward picture, summarised in Table 1.2. Most of the fragments bear the impressions of poles (or of poles split in half) on one side, and many of these carried a layer of marl plaster on the other side which had provided a floor. Several also bore a fine coating of ash on the top, although since in a few cases this also spread over the breaks some of the ash could have become attached during the collapse of the roof. In addition to these fragments

[5] The possibility of roof ovens was voiced many years ago by Davies (1929: 238) in interpreting the famous picture of a house in the tomb of Djehuty-nefer at Thebes. The spatial conventions governing this picture are, however, ambiguous. The top register could depict open ground beyond the house, as is suggested by Assaad (1983).

1985 excavation

units	beams	poles	reeds	loose grass	grass bundles
[1501]		10			
			*1		
[1491]		5			
[1431]		11			
[1500/1501]		7			
[1502]	3	27			

Table 1.2. Numbers of roofing fragments by units and types in the Rear Room S. Numbers with asterisk prefix (e.g. *12) refer to pieces made from grey mud.

with impressions of poles are a few with impressions of wooden beams (or of split beams). One fragment in [1491] had a 3 cm. thick ash deposit adhering to a patch of marl which must have originally been part of the plastered roof surface. Within this ash were two fine layers of chaff. All of this material is consistent with a single roof, and creates therefore a useful control for the more complex picture in the Middle Room. The one exception is a single piece made from a greyer mud and with impressions of parallel reeds. This derived from unit [1501] which, although from the top of the sequence, was probably the first of the undisturbed units. The significance of this will emerge shortly. One other piece from the debris filling Rear Room S. should be noted. It came from unit [1431] and was part of a slab of marl plaster about 15 cms. thick, in which a circular aperture had been fashioned, with a diameter which, on account of its irregularity, could have been anything between 50 and 80 cms. It could be part of the edge to a rounded aperture in the roof, either from where the staircase in the adjacent room emerged through the roof, or within Rear Room S. itself. On the other hand, the lack of impressions of roofing materials on either side raises an uncertainty as to whether it belongs to a roof at all. An alternative is that it is part of the rounded top to a doorway at the top of the stairs. This possibility has been used in the reconstruction drawing, Figure 1.14.

With these results in mind we turn now to the record from the Middle Room. Table 1.3 shows the sequence of excavation units.

N.	S.
	[1400]
	[1497]
[1509]	[1508] 30 cms. depth
[1572]	[1571] 25 cms. depth
[1577]	[1575] 25 cms. depth
[1583]	[1707] 20 cms. depth
[1669]	[1709] Figure 1.5
[1704]	bench
	[1741] floor

Table 1.3 Sequence of units in Middle Room

From units [1508/1509] down to [1583/1707] the fill was relatively homogenous,

consisting of brick and roofing fragments, wood and sherds in a soft matrix of dusty sand. Attempts at brushing to find an ancient surface that could be drawn in plan failed until the top of [1669/1709] appeared, which turned out to be the lowest level of fill. Modern disturbance to this level had been slight and its effects obvious. It was confined to the south-east and south-west corners of the room, where pits had been dug down through the floor. It is true that before the excavation began the remains of a hole dug down against the middle of the south wall were also visible, but this hole had failed to reach the lowest level of rubble. It would be unreasonable to conclude that such deep digging had turned over the whole of the fill above the lowest pair of units, whilst leaving this pair largely undisturbed. Some part of the upper sequence of units must also have been undisturbed, but how much is very difficult to say. Nothing modern, including the yellow straw and other dried vegetation found in recently turned-over fill in the Rear Rooms, was found. At the very least most of [1583/1707] must have been undisturbed, and possibly quite a lot more above it. One piece of evidence for this has already been cited: the finding of part of the wooden window-frame in the above-lying unit [1583], yet not far away from the bulk of it in unit [1669]. Similarly at the western end of [1583] a patch of ash [1666] measuring 45 by 25 cms. lay above the position of the hearth and had clearly not been disturbed since the deposits had been originally laid down.

The roofing-fragment record for the Middle Room is given in Table 1.4.

units	beams	poles	reeds	loose grass	grass bundles
[1509]+[1508]	4	14		16	1
			*2		
[1572]+[1571]	4	26		5	
		*1	*3	*1	
[1577]+[1575]	9	42		16	
	*2		*14	*4	
[1583]+[1707]	3	23	3	4	
		*1	*23	*3	*1
[1669]+[1709]	24	35	*2		1

Table 1.4. Numbers of roofing fragments by units and types in the Middle Room. Numbers with asterisk prefix (e.g. *12) refer to pieces made from grey mud.

It presents a more complex picture than that for Rear Room S., which acts as a useful control. It shows greater variety both in the organic materials present and in the covering material. For the latter two different sources of mud were used, one brownish-orange in colour, the other grey. The colour difference is not great, but when all pieces from a single unit are seen together the distinction is difficult to miss. Both sources are from local desert marl, and the colour difference is no greater than is present in different batches of bricks at the site. The importance of making the distinction arises from the combination of the grey mud with one particular type of roofing material: reeds.

In Rear Room S. the fragments from the undisturbed units with the single exception noted above derive from a roof of poles and beams. The

preponderance of the same kind of fragments in the lowest unit in the Middle Room, as well as the quantities of well-preserved tamarisk poles, show that the same kind of roof spanned the Middle Room as well. Of the remaining materials the loose grass, of which quantities of the actual grass occurred loose in the fill in addition to the impressions in mud, can be easily disposed of. In several roofing fragments loose grass occurred together with reeds, both parallel to it and at right angles; and with poles as well. In these cases the fragments have been included in both relevant lists. Loose grass seems to have been used as a filler in making the roofs, covering gaps left in the network of poles and beams, and in the spreads of reeds. This compression of the data, however, can be taken no further. The reed-impressed pieces which have such a high correlation with grey mud must represent a separate and different roof. Not a limited part of the ceiling to the Middle Room, it should be noted, for they are largely absent from the lowest level. There are only two possible explanations: either they come from a roof over an upper storey, or they come from the roof over the Middle Room of a neighbouring house, their spread having been increased by modern digging.

It is hoped before the current programme of excavation is finished to excavate adjacent to Gate Street 8 and so to throw more light on the second possibility. At the moment it does not look a very likely explanation. These second-roof fragments have their highest concentration in the pair of units immediately above the lowest ones, thus in material where the likelihood of modern disturbance is minimal. Conversely, in the upper units most exposed to disturbance the grey reed-impressed fragments fade out. Moreover, house Gate Street 8 is separated from its neighbours on both sides by standing walls about 1.5 metres high which reduces the chances of the roofs having mixed anciently during the process of collapse. Furthermore, if the reeds were used instead of the tamarisk poles they represent a roof of lighter construction, although the thickness of mud covering was normally about the same. On the present data it seems reasonable to conclude that the Middle Room was covered by a second-storey.

This in turn leads us to consider where the wooden window-frame and shutter had fallen from. The first explanation put forward during the work was that it had been lying loose on the roof, perhaps awaiting repair and really belonging in one of the chapels. This does not now appear very plausible, since the frame would have been built into its parent building and would have been more easily repaired *in situ*. It is more reasonable to conclude that it had fallen from a position in the east wall of the Middle Room, probably coming down in a cascade of bricks as a whole section of wall holding the frame collapsed. Had its demise been slower the wood would have been eaten away. As it fell it somersaulted and twisted slightly to one side. For it to have served a useful purpose it must have been high enough to look out over the roof of Rear Room N., missing the covering to the staircase. Without evidence for a second storey this would fall into place as a clerestorey window beneath a ceiling for the Middle Room higher than the roof level of the Rear and Front Rooms. This is a standard reconstruction for New Kingdom houses. One Theban painting of a house, in the tomb of Djehuty-nefer, seems to show high windows in the main living-room,

painted red, the standard convention for wood (Davies 1929: 234, Figure 1A; 238; cf. Assaad 1983). If, however, we accept the evidence for a second-storey room over the Middle Room, the window has to be set into its east wall. In the tentative reconstruction of Figure 1.14 this solution has been followed.

Peet and Woolley themselves found evidence for second storeys in the form of painted plaster which had collapsed from masonry fairly high up in the houses, [6] but they were inclined to minimise the structures from which it had come (*COA* I: 56; Woolley 1922: 52, 55). To set the painted plaster in the context of a full-sized but very private room makes better sense of this evidence. Only one of the groups of painted plaster fragments is actually illustrated in *COA* I (Plate IX.2, cf. pp. 60, 80). It is apparently from a pilaster decorated with convolvulus flowers entwining a papyrus stem. The excavators commented: "the pilaster seems to have helped to frame a panel in which there was an inscription in black on a yellow ground and a polychrome design with a human figure, probably a scene of Aten-worship." The convolvulus and papyrus design is a component in the well-known scenes of women suckling infants and the related figurines of women on beds (Pinch 1983, especially p. 407). This material, as well as paintings of Bes and Thoëris in other houses in the Village (Kemp 1979), point to the importance placed on womanhood and childbirth in New Kingdom society, including that of the Amarna Workmen's Village. An upstairs room provides just the right setting for the actuality that lies behind the ostraca and figurines. In the reconstruction drawing, Figure 1.14, the opportunity has been taken to hint at a simple way in which this could have been realised. The decorated pilaster (from Main Street 9) has been made into one side of a framed painted panel on one of the walls in front of which the bed for the lady of the house is placed.

Second-storeys on Amarna houses, even if only partial, have a direct impact on how we reconstruct the pattern of living that took place within. It immediately increases the roofed living-area by a substantial amount, and provides a different order of privacy and comfortable surroundings. In particular it offers the environment for the ambience of womanhood that is so strongly suggested by the representational evidence. Yet, even if this reconstruction is substantiated by future work at the Village, it should not be taken necessarily as a general guide for reconstructing all Amarna houses. We should expect, in the Main City, a range of diversity in this respect. What is demonstrated is that undisturbed, or only partially disturbed, houses contain a mass of data on construction that was not used by previous excavations at Amarna. For the results of the older excavations to be used with confidence as a source for living-conditions it is important that greater clarification is brought to them from renewed excavation at a more intensive level on selected targets within the Main City.

[6] Main Street 1, 9, and 10; Long Wall Street 11; West Street 20 (?).

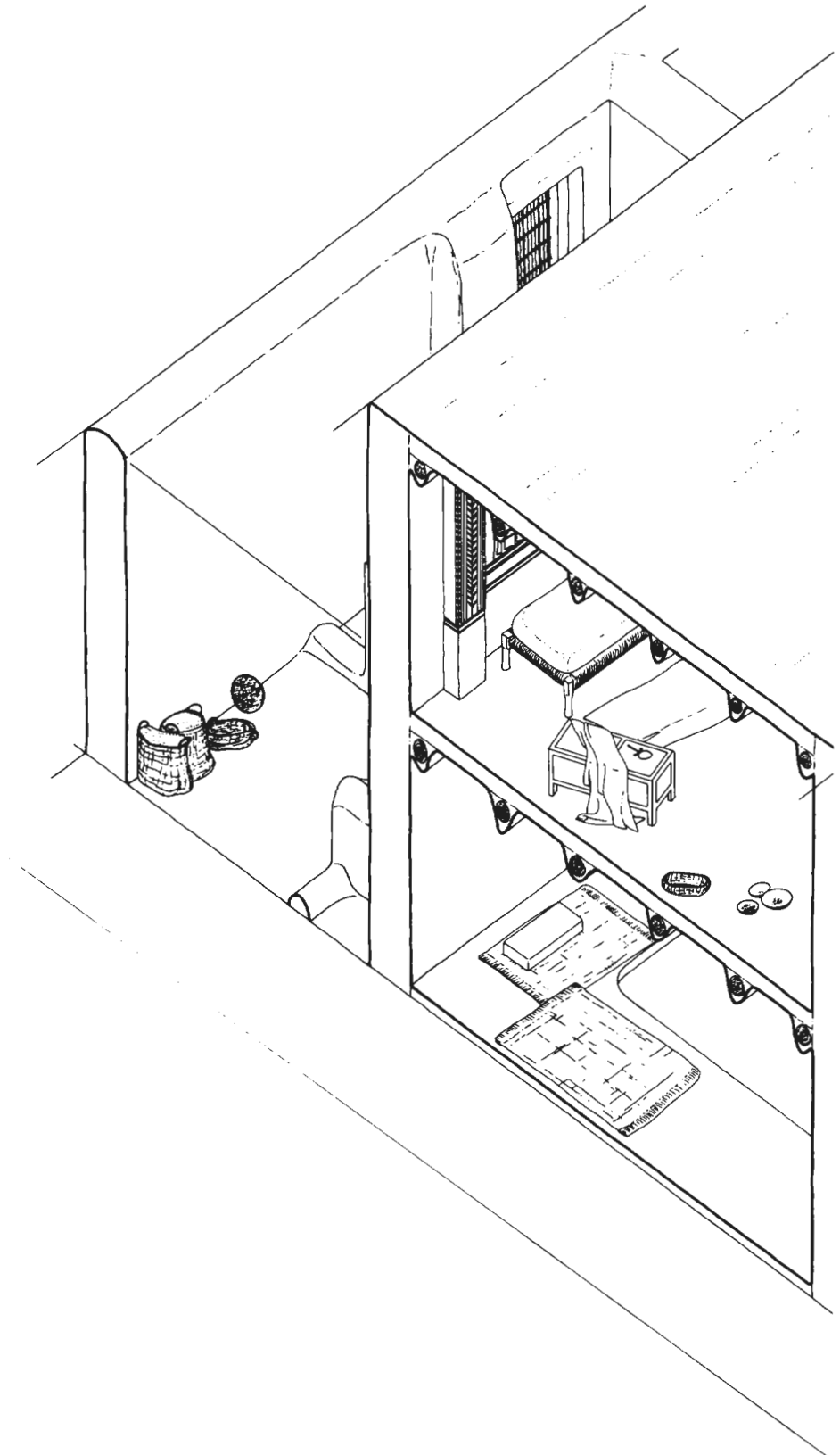
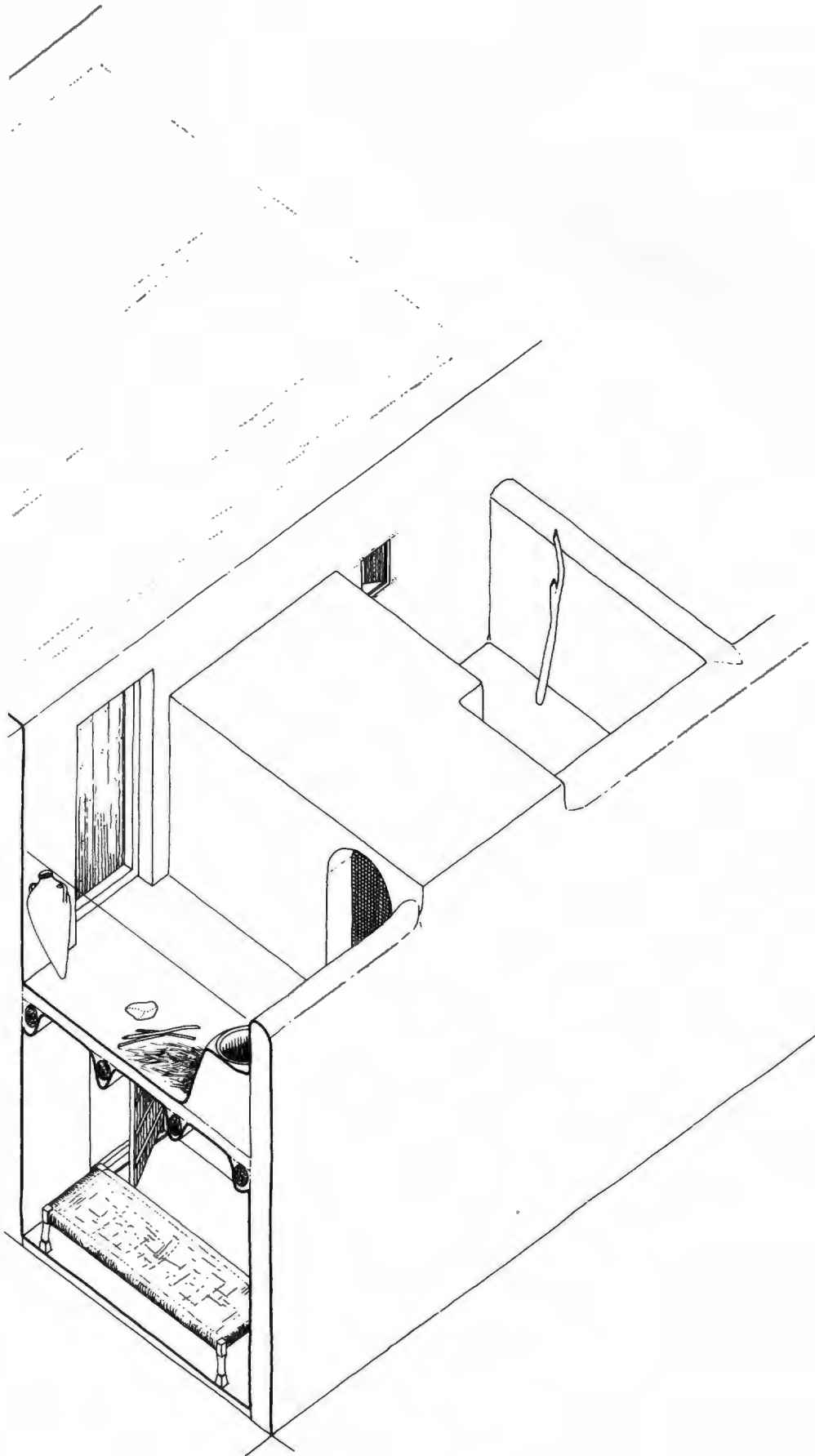
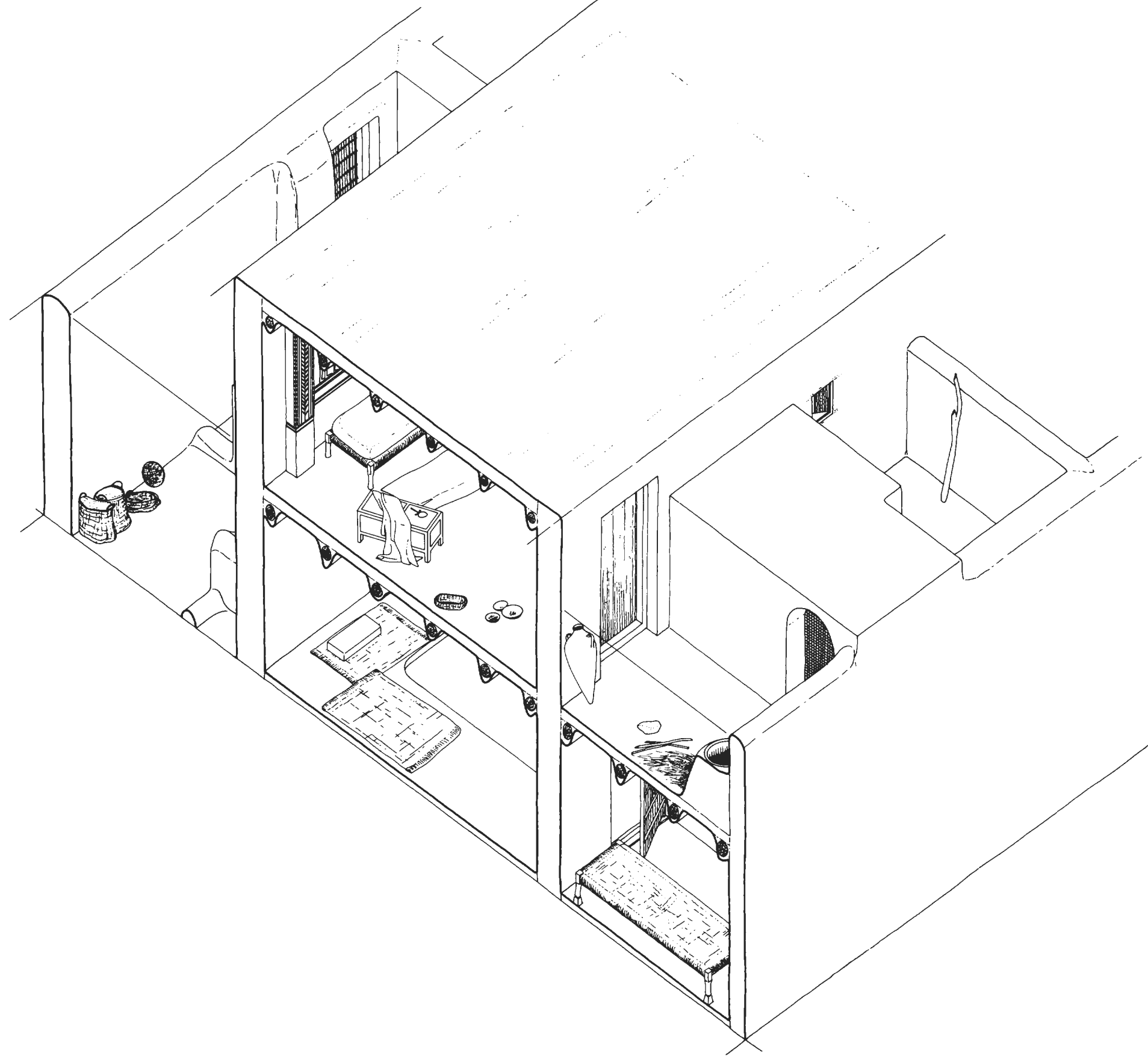


Figure 1.14. Reconstruction of the original appearance of Gate Street 8.





1.5 The south-west corner of the Village

Gate Street 8 represents a sample house from the eastern sector of the Village, Long Wall Street 6 dug in 1979 serves the same for the middle sector. It seemed only logical in the latter part of the season to choose a house in the western sector. There was a specific question to be attended to as well. Peet and Woolley argued (*COA* I: 66-7, also 54) that this western quarter was evacuated before the general abandonment of the Village.

After examining the surface of the ground in the west the site of West Street no. 2 was chosen and marked out on the ground. This should have been one of the houses built directly against the inner face of the Village enclosure wall. The topography suggested that the greatest depth of deposit would be found here, whilst the surface, sandier and smoother than elsewhere, implied less modern digging. Within a short time of beginning the work a major wall appeared running east-west across the full length of the excavation area. On its north side the signs of a building could be detected in the form of an offset wall and an area of wall plaster on the inner face of the enclosure wall. These signs were not matched on the south. The surprising point was that the wall ran down the middle of what was supposed to be a house, West Street 2. Further work confirmed that, for once, Newton's planning was significantly wrong. He had seen this wall and marked it on his plan, but whereas he places it at the expected division of houses of standard width running continuously along the inner face of the west wall, it lies in fact two and a half metres further south.

When this was realised no further clearance was undertaken north of this wall, which became the northern boundary of the excavation. The logic of the position is that West Street no. 3 is also not a normal house, but one probably fifty per cent larger, and requiring a full season's attention. Instead, for the remainder of the season, the surface material was removed over the whole area to the south, as far as the enclosure wall including the entire space of West Street 1. No houses had ever been built here. In their place was a row of small enclosures against the southern wall face (Figure 1.15). Both they and the open ground in front had been gradually covered by layers of dust and rubbish during the time that the Village was occupied. After abandonment a considerable amount of clean yellow sand had accumulated over them. In modern times robbers had dug pits down through this sand into the underlying debris. Their pits, filled with loose sand and dust, their spoil heaps, and the general churning over of material which accompanied their work, made it difficult to distinguish the disturbed from the undisturbed, and for much of the time it was all removed as one unit. By the end of the season all of the post-Amarna Period covering material had been removed (except for some in **Area iv**), exposing what remained of the site as it had appeared during the years immediately following the abandonment. This excavation stage was planned in detail, and is reproduced in Figure 1.16. It shows the walls of rooms that were in use up to the end, the walls of other rooms that had already been almost completely buried in rubbish, and a curious area of subsequent disturbance in the north-west corner. The filling material will be excavated in a future season, but already from the plan a history of more than one phase of activity is apparent.



Figure 1.15. The areas West Street 1 and 2, looking west at the end of the work.

Before proceeding to a more detailed description an explanation is required of the labelling procedure for this part of the site. Because of the height of standing walls, loose nature of much of the fill and general predictability of principal wall alignments it is sensible inside the Village mainly to lay out excavation areas to coincide with houses and to follow the same labelling system begun by Peet and Woolley. Much of the expedition data are, however, either already in or destined for a computer database, the format for which demands consistency of labelling over the entire site, i.e. that grid squares are used for locations. Consequently each house in the Village also has a nominal grid square. House Gate Street 8, for example, is K28. For the new open area in the south-west corner of the Village, where standard house plots do not occur, the system is rather cumbersome, but has nevertheless been adhered to for the sake of consistency, reinforced by the fact that in the first stages of excavation the ground was marked out according to the expected divisions of West Street houses. The excavated area in Figure 1.16 thus covers West Street 1 and part of West Street 2, and all finds were labelled thus, together with their unit numbers.

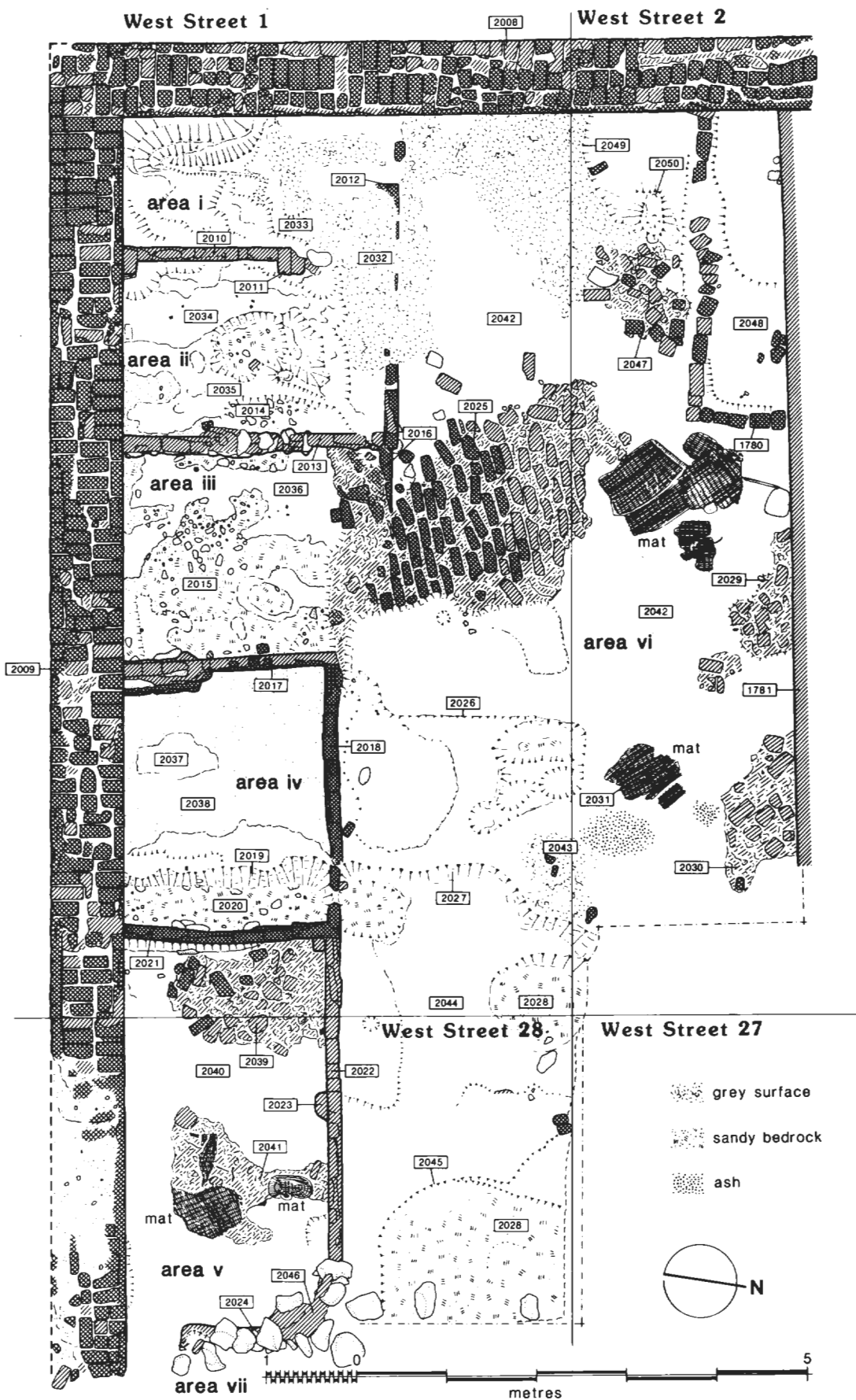


Figure 1.16. Plan of West Street 1 and 2 after removal of surface sand and dust.

For the area of similar size to the east, a small part of which was also cleared and appears in Figure 1.16, the plot numbers West Street 27 and 28 were created, continuing the West Street numbering sequence. These latter areas also include the width of the street. In the database, however, these four plots appear as B20, B21, C21 and C20. For ease of reference in the published reports the areas have been numbered in lower case Roman numerals. When excavation resumes it will be by individual units.

The whole area is bounded on west and south by the Village enclosure wall which at this point was built into the steeply sloping hillside. Early in the Village's existence, whilst alluvial mud bricks were still available, several rectangular enclosures were constructed against the southern inner face. **Areas i** and **ii** came first, as a single group, entered from a doorway in wall [2012], now barely visible through the later rubbish. **Area ii** is an inner enclosure entered from **Area i** via a door in wall [2010] where buttress [2011] occurs. Subsequently **Areas iii** and **iv** were added, presumably with their own separate doorways facing north. Part of the north wall of **Area iii** [2016] is still obscured by fallen brickwork, whilst part of the north wall of **Area iv** [2018] has been destroyed in modern times by the digging of a trench [2019] down through both floor and wall.

Area v is an even later addition. The north wall [2022] with buttress [2023], unlike the other walls, was built not on bedrock but on a layer of accumulated debris. At the east end the wall [2024] had been built using much stone. Unit [2046] is a patch of fallen rubble not yet removed. If Newton's plan (*COA I*: Plate XVI) is consulted it will be seen that a further rectangular enclosure using yet more stone lies adjacent on the east, now provisionally numbered **Area vii**. Beyond this again lies the beginning of a long wall of stones running diagonally from a blocked-up entrance (cf. *COA I*: 54). From a remark made by Peet at the end of the 1921 season (Peet 1921: 176, there called a "rough barricade") and the fact that in the subsequent season Woolley ran his Decauville railway embankment across this point it is likely that this part was not fully excavated, and it must therefore be included in the current programme of work.

The remaining part of Figure 1.16, **Area vi**, must have remained an open space. Although much of it is still covered with archaeological deposits, in places modern pitting has exposed the underlying bedrock [2028] and so revealed that the depth of deposits is not great, particularly towards the east end.

The modern pits dug all over this part of the site show that the ancient fill is a laminated deposit of dust, organic debris, ash and rubble. The thin beds, which follow the contours of the ground and, towards the west and south-west, also an evenly rising slope of their own into the south-west corner, look like the result more of dust and rubbish blowing and being trampled and weathered than of dumping of waste. In **Areas i** and **ii** much of this material accumulated after they had fallen into disuse. The slope of the top and of the component beds shows that before the modern pitting the wall stumps had been almost completely buried (Figure 1.17). Furthermore, the absence of collapsed rubble implies that they were also ruined before the Village was abandoned. In **Area iii** the ancient fill has been removed by robbery, leaving patches of the original mud floor [2036]. Unlike the previous two cases, its north wall had remained



Figure 1.17. **Areas i to iii** in West Street 1, looking west, and showing the extent to which, prior to modern digging against the Enclosure Wall, the walls had been buried by the accumulation of debris anciently.

standing to the very end, only collapsing into a spread of rubble [2025] after the fill of **Area vi** [2042] had ceased to accumulate and now lay as a smooth weathered surface. **Area iv** has been similarly ill-treated, some of the loose modern fill [2038] still remaining to be cleared. **Area v** has fared better. Some of the organic fill [2040], evidently a thin layer, survives, as does some of the collapsed rubble [2039, 2041]. This contains the first trace of roofing fragments noted, bearing the impressions of loose stalks of grass.

At first sight only the north wall of **Area iii** was standing to any height when the site was abandoned, since the only significant area of collapsed wall occurs here. However, the modern pitting which has produced a range of holes and escarpments (including [2026] and [2027]) has probably truncated the further spread eastwards of the collapsed brickwork [2025]. It is highly probable that it originally continued past the north sides of **Areas iv** and **v** as well, and showed that these areas were in use at the end of the Village's life.

The weathering to which the fill was exposed following the abandonment of the Village led to the formation of a thin powdery grey crust, such as has been found in other parts of the site (see *AR I*: 42, 200). This survives in two areas, at the west [2032] and east [2043] ends of deposit [2042]. Around this time several pieces of woven grass matting came to rest on the surface in **Areas vi** and **v**. A further piece was found higher up, in the clean drift sand, 43 cms. above deposit [2050] in the north-west corner. In **Area v** one of the pieces is actually a small oval mat. A similar one was found in 1921 in the adjacent **Area vii** (*COA I*: 69, there called "the cattle-enclosure"). The same deposit ([2041]) and the overlying loose spoil [1907] also produced a collection of spindles and spindle-whorls for spinning, and a stick and small piece of matting stained with purple dye. This material remains to be properly studied.

Apart from the disturbance created in modern times by casual pitting the area has seen a more organised piece of digging, in the north-west corner. A rectangular trench, 3.50 x .75 metres, has been dug down through the yellow drift sand, through a patch of collapsed rubble [2047] from wall [1781] and into the ancient rubbish deposit. It had then been lined with bricks carelessly packed into the sides of the trench [1780]. The bottom of the pit is still filled with the loose dark soil [2048] derived from disturbing the ancient packed rubbish. A corresponding layer of dark soil thrown up when it was dug was found just beneath the modern sand and earth cover beside the pit to the south, about 50 cms. above the surface of [2042]. This helps to confirm that the pit is relatively recent.

The yellow sand, where undisturbed, was very clean and generally devoid of archaeological material. One exception was an intact amphora of the Late Period (Figure 9.21.4) which lay in the sand above the rubble layer [2025]. Its date lies in or about the Twenty-fifth Dynasty (see Chapter 9). It had originally contained a salt or salty liquid which had burst the side of the vessel and formed a crust of white crystals.

The purpose of the row of small enclosures remains to be ascertained. In *COA I*: 54, 69 (and Woolley 1922: 51) the hypothesis is advanced that it was cattle-keeping. The deposits revealed so far do not bear this out very well, although it is a point to be considered when excavation resumes. They are probably unrelated to pig-keeping; at least, no sign of the distinctive black bristles was noted in the exposed fill although they were looked for.