

CHAPTER 2

KOM EL-NANA: THE CENTRAL PLATFORM

by

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2.1 Introduction

This year's excavation of the Central Platform was very much a continuation of last year's work, when eleven five-metre squares were excavated on the south side of the site, which appears as a mound 1.5 m high with an area approximately 35 x 25 m. This year fifteen squares were opened altogether, on the north and east sides, all east of the line AA. Now only the west side of the platform remains untouched. The principal goals of the work were to add to the plan of the building in order to gain an insight into its appearance and function, and to discover how it was constructed and then later destroyed.

The main features found last year were the southern outer wall, which had been partially robbed out, a ramp running up to it from the south, and casemate blocks which had supported a series of rooms on the top of the platform with paved mud-brick floors. These appeared to lead eastwards off a corridor which lay on the east-west axis of the ramp. To the west of the corridor were lines of pillar bases and sub-surface features which were not symmetrical with those to the east of the corridor.

This year part of the badly robbed-out northern outer wall was found, with a fragmentary trace of the east side of the north ramp running up to it. This wall and ramp, and a casemate block behind the wall, were all exactly symmetrical with the parallel features on the south side of the platform. The corridor linked both ramps, and on the east side the remainder of the block of rooms was defined, and shown to consist of two parts, a western and an eastern. Both contained various brick internal structures, such as doorway partitions and pillar bases. Those on top of the surviving mound were generally better preserved than those on the north and east slopes. The five rooms found on the east side of the platform appeared to form a separate but contemporary annexe to those on the west. Their internal features were generally perpendicular to those in the west section. This block was bounded by the eastern outer wall, which was not as substantial as the northern and southern walls. It had also been severely robbed, as had, to an even greater extent, the northern section. A rectangular structure was found butting up against the eastern outer wall at its southern end. It does not seem to have been a ramp; rather it must have been a narrow extension of the platform.

There were no exceptional small finds this year, but a human burial was discovered which was very similar to one found last year and post-dates the use of the platform. The building seems to have been cleared of ritual or personal objects at the end of its life.

Before excavation began a contour map of the relevant squares was made. The slopes on the north and east sides of the mound are steep, more so than on the south side. Last year it was thought that this was due to the wind, which predominantly blows from the north or west, depositing sand down the south slope. However, the depth of topsoil was found to be deep, up to 50 cm on the north side, and the steepness of slope is more likely to reflect the more severe robbing here and on the east side. Two spurs could be seen on the ground surface, one to the south of the east side and one on the north side, along the line AA. The latter turned out to overlie the northern ramp, the other the platform extension to the east. The topsoil was basically the same throughout, light brown medium sand, with occasional pebbles. It was generally loose except in some locations at the bottom of the slope where a trackway crossed it.

The stratigraphic sequence was also mainly the same as last year's: topsoil overlay rubble (a mixture of mud-brick debris and gravel), which was difficult to separate. The mud-brick walls below had generally been heavily robbed so that their tops lay beneath the level of the gravel fill. Thus much of the rubble was found within the robber trenches, so that it was often possible to predict the location of walls once the topsoil had been stripped off. Two types of gravel infill to

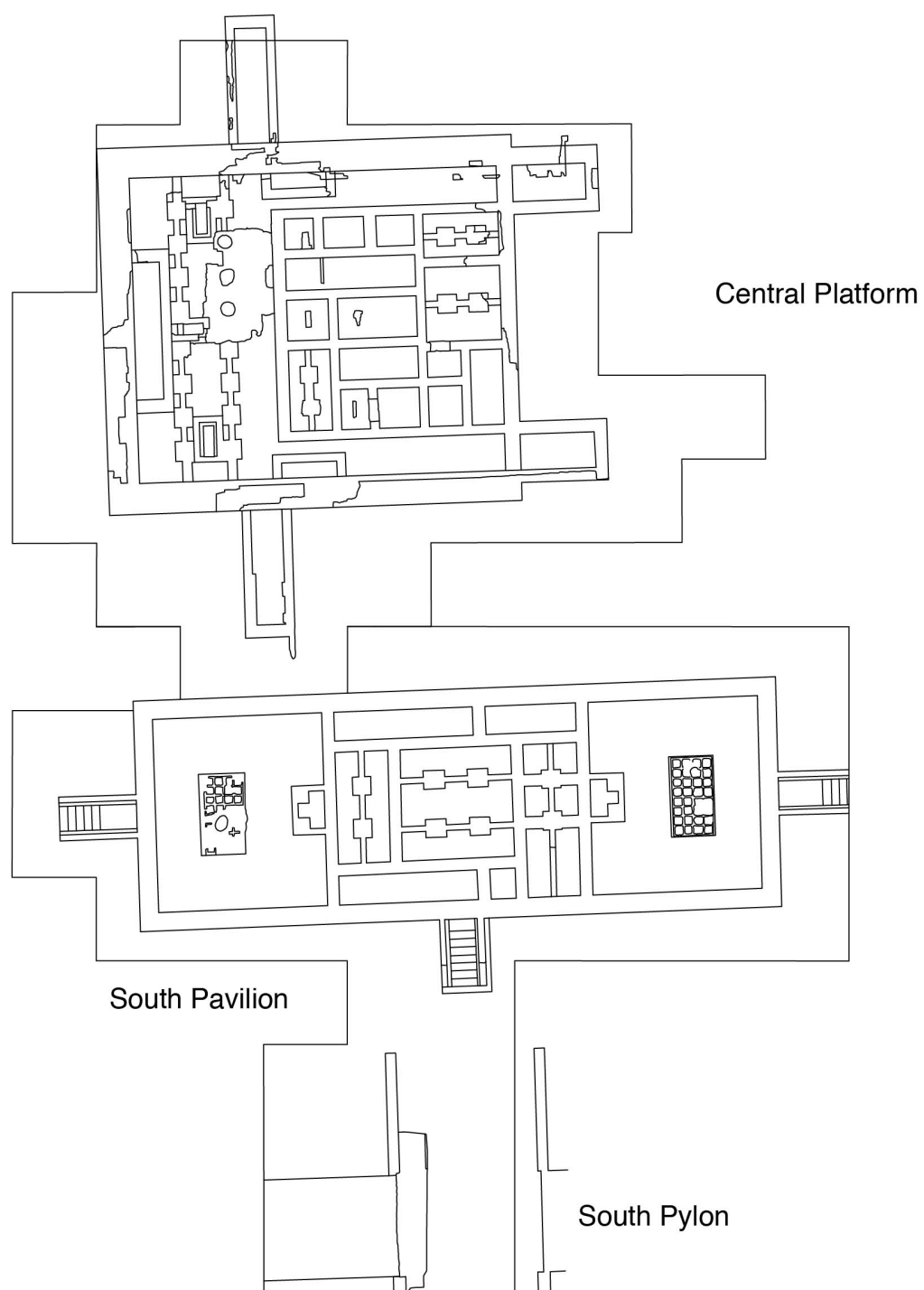


Figure 2.1. General plan of the Central Platform at the end of the 1992 season, together with the South Pavilion and South Pylon.

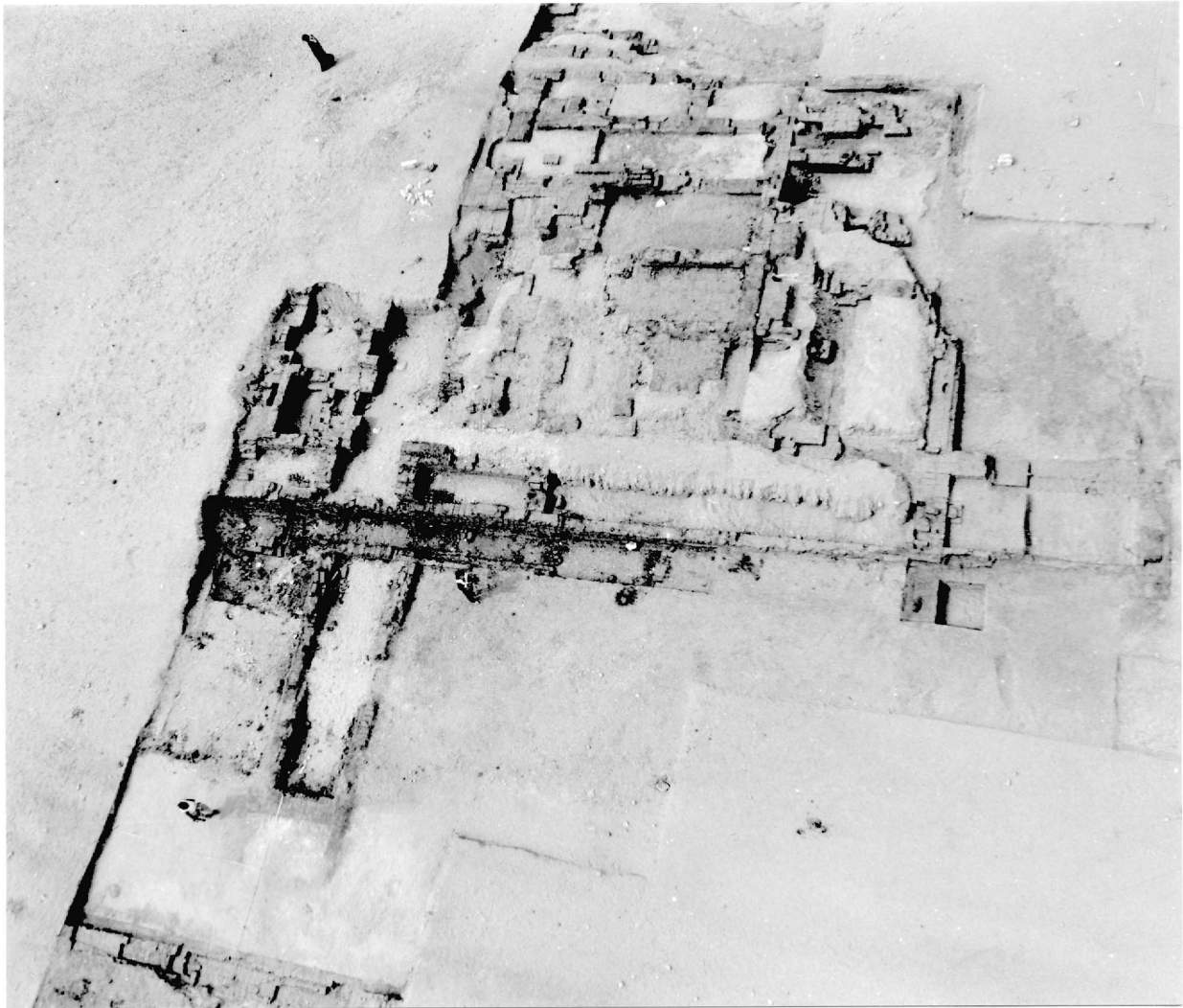


Figure 2.2. Aerial view of the Central Platform at the end of the 1990 excavations.

the brick casemates could be distinguished: one was red gravel, locally called *ramla*, and the other a fine yellow sand which had frequently coagulated into lumps, called *tifla*. The infill of a casemate was generally either *ramla* or *tifla*, but not a mixture of the two. The only cases where the two occur together are where one of the later-phase structures has been inserted, and the foundation cut has been filled with the second type.

2.2 Constructional evidence for an internal chronology

It was noted last year that there appeared to be two phases of construction for the rooms on top of the platform. Two floors could be distinguished, and where the upper floor no longer survived, replastering marks could be seen on the walls where it would have been. There was also a blocked doorway along the south side of square AB21, and the cut to insert the blocking had been made through the lower floor. It was also noticed that the doorway partition in AB21, units [5777] and [5287], was made of two different types of brick, one rough and the other smooth. The significance of this did not become apparent until this year, when Richard Hughes pointed out that there were at least two types of brick generally across the site. A clear distinction could be drawn between: (a) dark grey bricks with a high straw content. The straw had been eaten by termites, leaving holes and giving the bricks a rough, pitted appearance; (b) light-mid

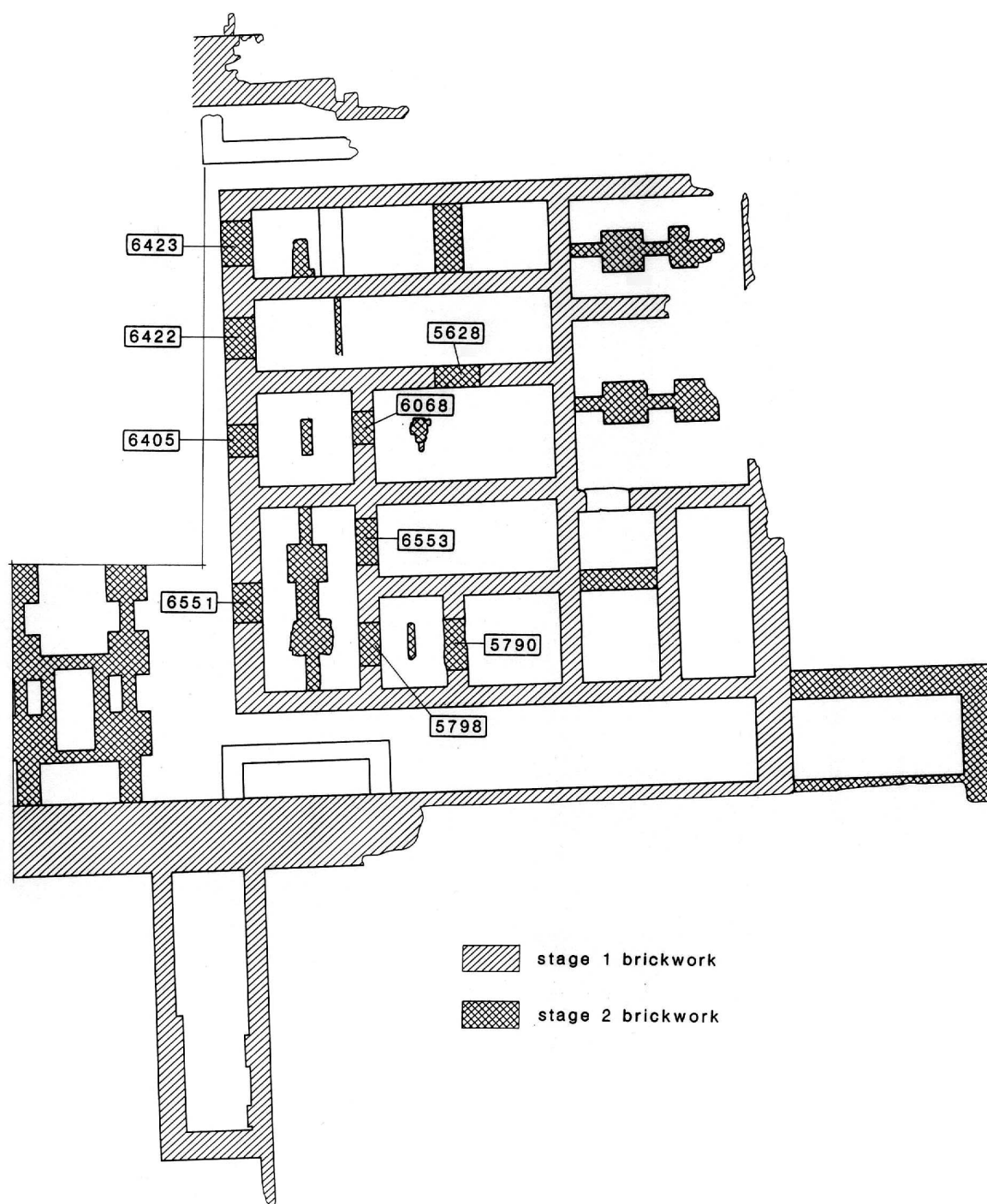


Figure 2.3. Diagram showing the distribution of features in the Central Platform according to their phases. Original by W. Horton.

grey bricks with a smooth, hard texture. Here the main inclusion was sand as opposed to straw. The mortar between layers also varied according to the two types of brickwork. Double layers of light-grey mortar with a layer of grass or reed between were characteristic of the later phase, often with a thickness of c. 5 cm, whereas single layers of mortar, c. 3 cm thick, were normal for the earlier-phase brickwork.

These two types were not distributed arbitrarily across the site (Figure 2.3). The smooth, pale bricks were found to make up the following features: the pillar bases and their linking walls, the doorway blockings, the upper "rebuilt" sections of doorway partitions, the rectangular structure which butts on to the east side of the platform, and a few other internal walls. All these features appear to be late and they all butt against walls comprising dark grey rough bricks. The paved mud-brick floors, such as in square AB21, are also made up of the later-phase bricks, and are thus contemporary with the doorway blockings, etc. It was thought last season that the low-level doorway in wall [5617] belonged to the early phase, that this was later blocked [5628], and that a new door for this room would have been made in the west wall. It now seems that all the doorways have an early and late phase (Figure 2.4). Likewise, the two doorway partitions investigated belong to both phases. All the other second-phase walls serve either to give extra support (e.g. pillar base walls), or are small additional structures. The overall plan of the first phase would have been basically the same, and the changes would not have been easy to insert at a late stage when the building was complete. Thus the second stage must have been an integral part of the creation of the platform, belonging to the final levelling-up, with a few additions. Evidently a change in design occurred late in the building work, after the walls had been plastered, which involved raising the level of the platform.

2.3 The northern rooms

The rooms on the top and north slope of the mound were within a rectangular block bound by walls [5125], [5788], [5616], and [6345] on the west, south, east, and north sides respectively. This block encompassed six squares: AA20, AB20, and AB21 excavated last season, together with AA21, AA22, and AB22 excavated this year. All the first-phase walls, including the boundary walls, were bonded together, so the whole block was built as a unit.

The features in square AA21 were very much a continuation of those in AA20, especially in the southern half. Before excavation the square was relatively flat, being on top of the mound, but there was a slight depression just south of the centre. This was filled by a layer of yellow brown sand with occasional fragments of mud brick [6059], approximately 25 cm thick. Beneath this, and covering virtually the whole square, was a deposit of mud brick rubble [6057], comprising mud brick dust and fragments up to 15 cm across, with pebbles and fragments of gypsum or lime. In the north-west corner some bricks were exposed, which were later interpreted as part of wall [5125], and floors to each side of it, [6062] and [6063]. In the eastern half of the square the rubble overlay these bricks, but in the western half the collapse was below the level of the floors. It was, however, impossible to distinguish between the two halves. It was originally thought that [6059] might be the fill of a shallow cut [6064], but in fact the depression containing fills [6057] and [6059] just reflects an area where brick robbing had been particularly severe. Unit [6057] was approximately 65 cm deep in the depression, but only 10–25 cm deep elsewhere.

All the features in the square were revealed after the removal of the rubble deposit [6057]. Wall [5125] continued northwards right through the square from AA20. It is wider than the average wall, being of 2 stretchers, or approximately 75 cm across. As mentioned above, it had been particularly badly robbed, the northern part standing 1.2 m above the level of the south end. Last season it was thought that there was a break in wall [5125] approximately 40 cm south of the north boundary of square AA20. It now seems that [5125] continued across the north boundary at this much lower level, with a step down of 60 cm where the break was thought to be. It was also noticed that there was a doorway [6551] immediately south of the top of the step with the characteristic smooth, light-grey blocking bricks and a thick layer of mortar lining it. Its northern edge appeared to be about 8 cm south of the step, which was jagged, but it was not easy to tell because only one course of the doorway-blocking survives at this point. Another blocked doorway [6405] was noticed in the northern half of square AA21. Thus there were two doorways leading eastwards from the corridor in squares AA20 and AA21. West of wall [5125] the mud

brick floor of the corridor was revealed in the northern 1.3 m of AA21. The bricks were basically of the second-phase type, but were particularly hard and seemed to contain inclusions of lime or gypsum dust. The floor overlay red gravel fill [5123] which was exposed further south.

On the east side of square AA21 wall [5124] continued northwards until it was crossed by east–west wall [5617], which ran along the north edge of the square and was also bonded into wall [5125]. Another east–west wall [5615] was also bonded into walls [5125] and [5124] further south, and continued into square AB21. Neither wall extended into the corridor opposite the ramp. A doorway [6068] was found in the northern part of wall [5124] very much as predicted last year, and leading into the north room of square AB21. As usual, smooth, light-grey bricks marked the doorway blocking, but a trace of the second-phase doorway itself was shown by a piece of gypsum threshold-lining along the north edge of it. Immediately north of that a timber insert was found running horizontally across the wall, similar to those found in wall [5615] last year. At the south end of wall [5124] another blocked doorway [6552] running east into the southern room of AB21 was noticed at the very end of the season. Thus there were originally three doorways through wall [5124], all leading from east to west.

Last season, the edge of a square pillar base [5792] became exposed along the north edge of square AA20, linked to a southern pillar base [5796] by a connecting wall [5119]. The rest of [5792] was found this year along with a connecting wall [6065] to the north of it which butted up against wall [5615]. The pillar base measured 0.9 x 1.05 m and the connecting wall was just one brick (c. 0.32 m) wide. The sequence of three connecting walls and two pillar bases is made up of the second-phase bricks and they are all linked together, forming one unit. It is not known whether the top layer of each base was incorporated into the floor or emerged above it, although the latter is unlikely if it is assumed that a stone column base was placed on top. These two pillar bases are the only two in this group of rooms, although some could exist beneath the paved floors in squares AB20 and AB21.

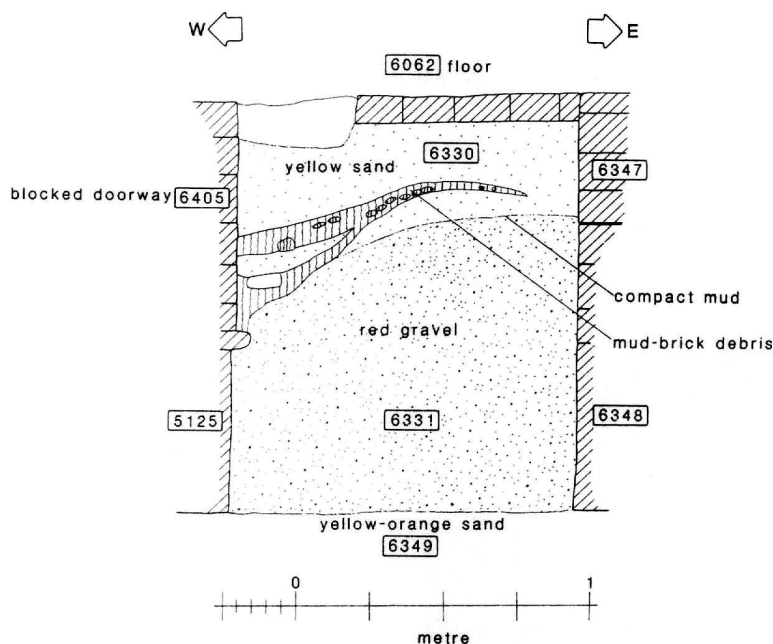


Figure 2.4. Section across brick floor [6062] and walls [5125] (left) and [6347/6348] (right). Original by W. Horton.

The east–west wall [5617] was robbed out to beneath the level of the brick floor [6062] to the south of it, which was one brick thick and overlay yellow sand (*tifla*) [6330]. Mud plaster remained standing on the south side of [5617] and below the level of the floor, implying that an earlier floor existed beneath. Floor [6062] comprised lines of bricks pointing north–south, except

for a row of bricks near the centre which were aligned east–west. The floor south of this had been destroyed, exposing the yellow sand [6330] beneath. It was decided to remove a section of [6330] (Figure 2.4) to see if there was an earlier floor beneath, and also if this row of bricks continued down and made up a feature. Along the north of the excavated section a line of compacted mud became visible approximately 20 cm below the paved floor (with two exceptions, see below). This could be a lower floor, but it did not continue convincingly across the excavated area. It is worth noting that the fill below this line, a red gravel [6331], was not the same as the yellow sand [6330] above it. The row of bricks did continue down and appeared to form one of the doorway divider walls, similar to [5777]/[5827] in square AB21. It lay, in fact, in the middle of a room, between the two doorways [6405] and [6068]. It was made up of two parts. The upper [6347], which has four remaining courses, was built from smooth, light grey, second-phase bricks and was approximately 90 cm long and 35 cm wide. The top row, seen in the floor, comprised six headers. Only the thickness of half a brick remained, and since this was flush with the floor surface it was assumed that the top of this row and probably several other rows originally stood above floor level. Below there was an alternating pattern of stretcher–stretcher–header–header–stretcher–stretcher. This part was perched upon an earlier wall [6348] made up of the first-phase dark grey rough bricks. It was the same width as the part above, but only half as thick, c. 17 cm, with eight courses of bricks in a two course repeat pattern of stretcher–stretcher–half brick–half brick–stretcher–stretcher. This wall was very regular, the mortar was fine (3cm thick), and there was no plaster or facing since it was intended to be below floor level.

This wall stood upon a fine yellow-orange sand [6349] which had a height of 51.28 m a.s.l. Wall [5615], and probably others, was also built upon it. Instead of foundation trenches, depths of gravel up to 1 m deep were poured between walls beneath floor surfaces. The second, upper phase of the doorway/divider must have helped to level the fill when the new design was instigated. The two phases of this doorway/divider also explain the divider in square AB21. It is, in fact, just the same, with a first-phase wall [5777], half a brick or 17 cm thick, and an upper part [5827] made of the smooth, light-grey bricks, and 35 cm thick.

It was mentioned above that a rough line of compact mud separating yellow sand [6330] from red gravel [6331] was generally about 20 cm below the paved floor. On the west side, however, the line swept down as it approached the blocked doorway [6405] in wall [5125] (Figure 2.4) so that the sand [6330] was at least 60 cm deep. This appeared to mark the cut [6406] made to install the doorway blocking, and the bottom of it coincided with the bottom of the blocking. It should also be noted that the compact mud line was discontinuous around the doorway divider, and so had probably been cut through in order to add the upper phase. What is difficult to determine is whether this line of compact mud was a floor. It was not continuous throughout the room and it appeared to line a cut made for a doorway blocking, rather than being actually cut through. On the other hand, the plaster on the edge of wall [5617] below the paved floor implies that there should be a lower floor. It may be that this compacted floor was only a working surface not deliberately laid at all.

Squares AA22 and AB22 produced the most northerly of the northern rooms, both rectangular, orientated east–west, and measuring approximately 7.75 x 2 m; bounded by walls [5125] to the west, [5616] to the east, [5617] to the south, and [6345] to the north, with [6425] separating them. All these walls were of the earlier phase, and each of the rooms was entered from the west through doorways [6422] and [6423] in wall [5125]. There were thus four doors altogether through wall [5125]. The two rectangular units were then subdivided by second-phase north–south walls.

The topsoil in these two squares was very thin (except along the east side of AB22), probably from severe erosion. Dense mud-brick rubble [6073] covered most of AA22 beneath the topsoil. It was particularly deep, up to 0.75 m in the middle of the north half, and a number of worked limestone blocks and pieces of gypsum plaster were found in the vicinity. It was first assumed that the deepest area of [6073] overlay a badly robbed-out wall, until it was noticed that there was an unusual curved cut with a jagged edge in the doorway-blocking [6422] in wall [5125]. Robbing normally involved prizing out whole bricks rather than cutting through them. As the final remnants of [6073] were being cleaned human bones appeared in the layer below, which was the red gravel [6081] containing occasional fragments of brick, up to 10 cm across, and gypsum. This



Figure 2.5. View, looking to the west, of the later grave cut into the platform in square AA22.

was excavated to reveal a burial which was very similar to that found last year in square AB21. Like the latter, the skeleton was in an extended position, orientated approximately east–west with the head at the west end and pointing to the south. The right foot crossed the left foot, and the hands and lower arms pointed upwards. The right side of the pelvis was 15 cm higher than the left side, and, like last year's body, it may have originally been interred on its right-hand side, then gradually slipped round. No hair remained on the body, but some skin survived which had been bound by cloth resulting in semi-mummification. The feet were particularly well-preserved, with toe-nails and flesh remaining. A preliminary analysis carried out by Dr. Rosemary Luff showed that this individual was a male, not as tall as last year's (c. 1.6 m), but the bones were heavy and it was definitely an adult, with all the molars erupted and generally well-preserved. The similarities between the two burials imply that they are of similar date.

The deep U-shaped and jagged cut [6083] in doorway-blocking [6422] and the wall below [5125] must represent the edge of the grave. The skull was found 0.9 m down from the top of the wall, under an overhang. The shape of the grave was very clear where it cut through the wall, but



Figure 2.6. The burial in the grave in square AA22, view to the south-west.

elsewhere it had been dug into red gravel [6412] which was almost indistinguishable from the fill [6081] around the skeleton. Thus the outline was not very clear. The burial must post-date the original use of the platform, but seems to pre-date most of the collapse since it appears to have been cut from below the level of the collapse, the fill being almost pure gravel.

The brick rubble deposit [6404] in square AB22 was deep along the southern edge, where there were also many worked limestone blocks and gypsum fragments. Elsewhere it was less deep or non-existent, e.g. where gravel infills were exposed immediately below the topsoil. The location of mud-brick debris generally reflected the presence of underlying walls, which were in relatively predictable places. This square had also contained human remains, for a skull was found in the south-west corner just inside wall [5617] and partly in square AB21. Bones were found last year in AB21, but Dr. Luff has pointed out that this skull does not belong to any of the individuals represented by them. We seem to have evidence, therefore, for a minimum of four burials: two found complete, and two represented by loose bones and a skull.

Wall [5617] runs along the north edges of squares AA21 and AB21. Last season a blocked doorway [5628] was exposed along the south side of it in AB21; this season it was fully exposed and planned. The two parallel walls to the north ([6425] and [6345]) were both standard early-phase walls with a width of one and a half bricks. No doorways were seen in either of them, although [6425] was probably preserved to an insufficient height for traces to be visible. The north-south wall [5616], on the other hand, was preserved to the appropriate level yet still did not contain a doorway, which makes it difficult to see how access was gained to the rooms on the east side of the platform.

Two north-south walls [6511] and [6504] divided the northern rectangular block roughly into thirds. Wall [6511] in AB22 belonged to the later phase and abutted the walls to the north and south of it, [6345] and [6425]. It was 75 cm wide and consisted of smooth, light grey bricks and double layers of mortar with reeds between. No doorways could be seen running across or through it, although it was probably a room wall since it was quite substantial. Wall [6504] to the west was of standard width, c. 50 cm, but was one of the few features on the site where it was difficult to say whether it belonged to the first or second phase. The bonding/butting relationships were not clear, but there were double layers of mortar with reeds between which is a second-phase feature. About 30 cm to the west occurred feature [6508], comprising one row of seven header bricks on edge orientated north-south with a thick layer of mortar below. Directly above the header bricks, which were of the second phase, was a layer of perpendicular bricks which seemed to be part of the brick floor [6507], more of which was seen to the west. Unless it served as a support for something else, it is not easy to suggest a function for this feature, or even whether it rose above floor level.

The infills between the walls and beneath the paved floors in the three sections of this rectangular block were all red gravel (*ramla*). None of the deposits was excavated to see if an earlier-phase floor lay below.

The rectangular space to the south, between east-west walls [6425] and [5617], was crossed by only one north-south wall [6502], and this was uncharacteristically narrow, only one brick's width (17 cm) and of four courses of stretchers in a two-course repeat pattern. The bricks themselves were light grey, smooth, and hard, characteristic of the second phase. The north end butted up against the plaster of wall [6425], and at the south end the wall was incorporated into the brick paving [6503]. Since, however, only one row of paving bricks survived, it was not possible to see whether the bricks of the floor were laid to line up with those of the wall, although it is very likely that the wall would have risen above floor level. The top of the wall was eroded in the centre, and had a rather smooth appearance. When the yellow sand fill [6412] below the paving was removed a compact mud floor [6501] was revealed beneath, on top of which the narrow wall [6502] was built. The plaster on the south side of [6425] was laid at the same time as this early floor, and wall [6502] was constructed later, along with the paved floor [6503]. Replastering marks can also be seen on the side of [6425] at the level of the upper floor. This compact mud floor was not investigated to the west of wall [6502]. It was assumed to continue although it was not noted in the section created by the secondary burial. One interesting point is that the infill to the east of wall [6502] was fine yellow sand (*tifla*), whilst that to the west was the red gravel (*ramla*).

The yellow sand [6516] above the lower floor in square AB22 was anomalous because it rose above the level of the upper paving, a row of bricks from which remained in the south-west corner of the square. One possibility is that [6516] included the back-fill from the burial cut [6083]. However, the material was different (yellow sand rather than red gravel) and it looked pure and undisturbed. It was up to 45 cm thick and contained some very large limestone pieces. One was 53 cm long and might have been a threshold stone, while another had a concretion of mortar and sand and some termite-eaten wood on one side. Just north of the doorway-blocking [5628] lay a deposit of sand [6514], which, although looser than [6516] and not standing so high, was probably the same material perhaps disturbed during the course of excavation since the workmen were emptying their spoil into square AB21. There is, in fact, a cut for the doorway-blocking [5628], but this, as expected, is through the lower floor [6501]. It had a maximum width of 50 cm, and a couple of whole bricks and a lump of mud with gypsum embedded in it were included within the fill.

Outside these rooms to the west lay the corridor connecting the two ramps on the north and south sides of the platform. The only part of the corridor, or of the platform top to the west of the east building, to be cleared this year was a narrow strip of the corridor, part of which still bore brick paving [6063], again including gypsum or lime fragments. It might have had a coating of whitewash.

2.4 The north wall

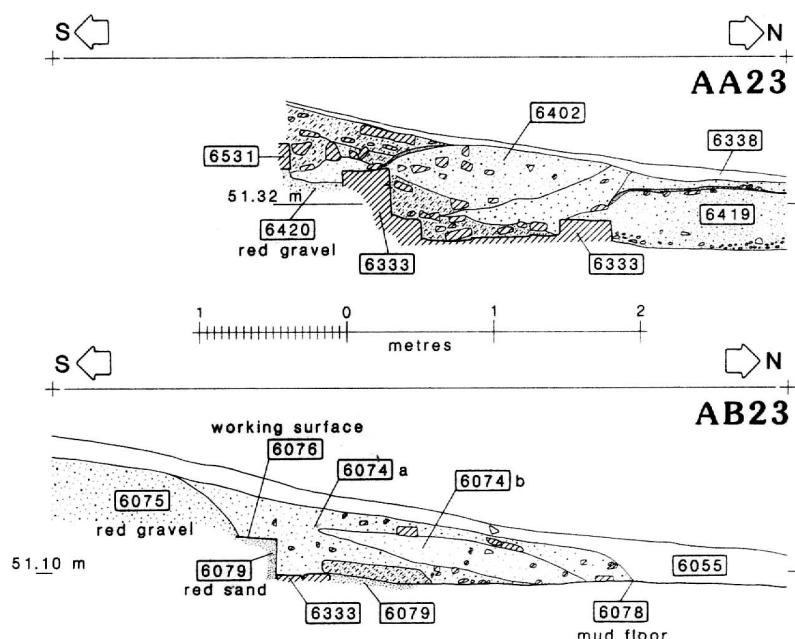


Figure 2.7. Sections along the west sides of squares AA23 and AB23. Originals by W. Horton.

The most northerly squares opened this year were AA23 and AB23. Both included some of the flat ground to the north of the mound, for it was hoped that they would reveal the northern edge to the platform. This side of the mound was particularly steep, although the west side of AA23 covered part of a slight spur which jugged out in the direction of the South Shrine. The topsoil, yellow-brown sand, was about 10 cm thick at the top, but up to 40 cm thick near the base of the slope. Orange-brown gravel including brick fragments ([6074] in AB23 and [6402] in AA23) lay below. In the northern third of AB23 and the north-east corner of AA23 a compact mud floor [6078] was found directly below the topsoil, similar to that found on the southern side of the site [5358], but at a level 30 cm lower. The floor was not well preserved along the northern edge, probably because the flat ground above has been used as a modern thoroughfare. The only other deposit revealed in AB23 was a patch of sterile red gravel [6075], approximately 2 x 2 m in extent, in the south-west corner, which stood at a higher level than the mud-brick collapse and looked like original gravel infill.

The removal of [6074] revealed an absence of structures (Figures 2.7, 2.8). The red gravel [6075] was found to overlie one of the typical working surfaces [6076], consisting of very black and rough brick fragments. This appeared to be broken away, and below and to the north lay fine red sand [6079]. Also overlying [6079] was the compact mud floor [6078]. The two surfaces, however, did not meet and the working floor was, in any case, 40 cm higher. The fine red sand which underlay everything looked similar to deposits found last year at the south base of the slope, on which the floors and walls were built. The working surface, if it is the same as those found on the south and east sides of the site, should be inside the platform itself and thus the outer wall should lie further to the north. It seemed, therefore, that the northern outer wall had



Figure 2.8. Square AB23, viewed to the south, showing the remnants of the north outer wall and the mud floor which subsequently replaced much of it.

been completely removed, that is, until the appearance on the west side of the square of a few pats of mortar, each measuring c. 0.5 x 0.3 m, having a straight south edge which was aligned with, but lower than, the edge of the working floor. It was part of a bottom layer of mortar with impressions of the first course of bricks, and must be the only remaining trace of the outside wall in this square.

In the adjacent square AA23, following removal of topsoil, two additional features were revealed besides collapse [6402] and floor [6078]. An area of very sterile yellow gravel, c. 1 x 1 m in extent, lay in the north-west corner, as well as part of an east-west wall [6530] running parallel with the south side, which did not seem to be aligned with anything in the surrounding squares. When the rubble deposit was removed the complete width of the northern outer wall [6333] was found in the western two metres of the square (Figure 2.9). It was identical in width with the southern outer wall [5360], measuring approximately 1.85 m, or 5 stretcher bricks. It had been robbed out in much the same way, but more severely, so that only the bottom layer of

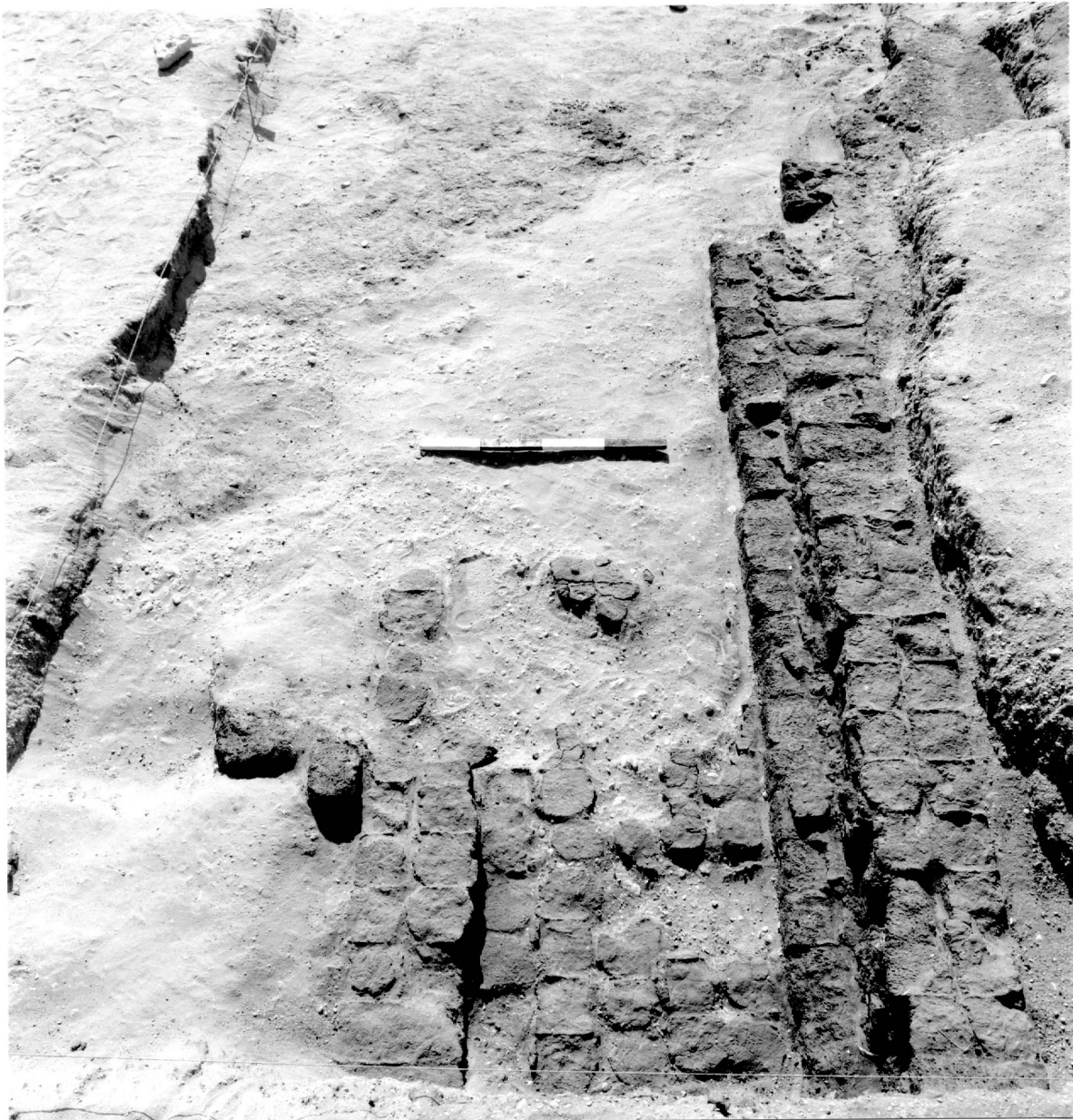


Figure 2.9. Square AA23, viewed to the east, showing the remnants of the north outer wall; the western end of square AB23 is also included.

mortar remained in the centre of the wall, leaving the front, and particularly the back, standing to a higher level. A robber trench over its line appears in the west section of square AA23 (Figure 2.7). A second slightly smaller and possibly later cut lay to the south of it, where the back part of the wall was partially robbed. The bricks which made up the wall were of the first-phase type, dark grey and rough with inclusions of straw, now decomposed. The bottom course had the following sequence from south to north: stretcher–header–header–header–stretcher–header. The course above had headers along each edge. Further to the east only the back half-metre remained, the rest having been completely robbed away.

It will be noticed that the back of the wall does not line up with the mortar pats in square AB23, which were set further back into the body of the platform. However, towards the east of square AA23 a row of bricks in the outer wall had also been set back. A section taken out in

order to investigate this revealed the following sequence. The top layer was red gravel [6420], equivalent to [6075] in AB23, and this overlay the working surface [6076]. Underneath was a deposit of fill [6421], approximately 8 cm thick, comprising a pink-grey gravel. This in turn overlay a single course of brickwork constructed upon the ubiquitous fine red sand [6079]. The bricks were set back from the edge of the working floor by one and a half bricks, or 50 cm. The line continued westwards from the excavated section, perhaps all the way along the wall. This new wall edge also lined up perfectly with the mortar pats seen in square AA23.

The order of construction for the northern part of the platform therefore appears to be as follows. A single course of bricks was laid, of six and a half bricks width, on top of the fine red sand [6079]. At this stage a fill-layer of pink-grey gravel was laid behind it for the interior of the platform, but this overlapped the outer wall by one and a half bricks. The working surface developed over it, and when the wall was continued it was either made narrower or its line was moved northwards by an equivalent amount. A red gravel infill was then poured in behind it, covering the working floor. The structure seems to have been further stabilized by having a casemate block constructed behind it, similar to the one found behind the south wall. It was mentioned above that part of an east-west wall [6530] was seen directly beneath the topsoil in square AA23. It was of standard 50 cm width, and, although some reed impressions were visible on the surface, it was difficult to ascertain if the bricks were of the first or second phase. The bottom of the wall was at a relatively high level, 51.68 m a.s.l., so high, in fact, that the whole wall had been completely eroded away in the easternmost metre of the square, and it was not possible to see a perpendicular wall running towards the outer wall. Such a perpendicular wall [6531] did survive at the west end, and likewise was set at a high level (51.58 m). Its northern end was eroded away so that it missed joining the outer wall by 25 cm, but it has to be assumed that it would have abutted the outer wall, as was the case for the southern casemate blocks.

To the north of the northern outer wall a trace remained of what was probably the eastern wall of a ramp. It was mentioned above that some yellow gravel [6419] was seen in the north-west corner of the square. This was sterile and resembled the gravel infill of the southern ramp. On the eastern side of it were two bricks [6529] which were aligned perpendicularly to the outer wall and abutted it. Two bricks alone do not prove the existence of a wall at this point, but a robber trench [6532] was visible along the north section of the square exactly in line with these bricks, and matching the width necessary for the removal of such a wall. It should be noted that the fragmentary remains of this wall are exactly in line with the east ramp wall on the southern side of the platform. Likewise the casemate walls [6530] and [6531] are exactly aligned with the eastern block behind the southern outer wall.

If we look at squares AA23 and AB23 as a whole we can see that, to the east, the whole wall seems to have been cut away, probably from the front. At the east end part of the gravel infill and working floor behind the wall have been removed, too. As on the the south and east sides of the platform, once the wall had been removed the space it occupied was coated with a compact mud flooring (Figure 2.7) which was evidently intended to be indistinguishable from the original floors surrounding the mound. Here it has been so effective that both the original floor and the patching have the same unit number [6078]. The meaning of this will be discussed in more detail when the eastern outer wall is described.

2.5 The eastern side of the platform

The rooms on the eastern side formed a separate entity laid out between two north-south walls, the outer eastern wall [5779] and wall [5616], which were 4.5 m apart. The first-phase east-west walls of the eastern block were bonded into [5616], as they were in the western block, but the two sets of walls did not run continuously across [5616], their alignments being slightly staggered. Wall [5616] stood sufficiently high along most of its length for doorways to be visible, but none was present, suggesting that the eastern rooms were not entered from the west.

The eastern wing was subdivided into three principal areas on a north-south alignment, and it is probably on the north that the entrance was originally located. The first two areas were rooms separated by wall [6344] and each containing two square brick pillar-bases linked by cross-walls on an east-west alignment. The third and southernmost section was itself subdivided into two equal parts by a north-south wall [6515], the western area so created being further subdivided by

a second-phase wall [6512] to form two small chambers. Most of the walls of the eastern wing have been severely robbed, to below the likely level of any doorways. Traces of only one doorway, in fact, remained, and that in wall [6514]. The traces consisted of the impression in mud mortar of the underside of the limestone threshold, and some of the gypsum plaster used to set it in place. The position of this doorway helps to confirm the impression that this eastern wing was aligned to the north.

The eastern outer wall [5779] straddled squares AC20 and AD20. It was narrower than the southern and northern walls, with a width of 90 cm, or two and a half stretcher bricks. It was bonded in with the southern wall [5360]. The full extent of the north-east corner of the platform was not uncovered this season, but, from the traces of the inner edge of the surrounding wall which were exposed, it is likely that no more of this corner survives. A maximum of three courses was preserved. The bottom course comprised header-header-stretcher from west to east; the second course was stretcher-header-header, and the third course stretcher-header-stretcher-stretcher (?; the eastern stretcher is presumed to have existed but to have fallen away). The bricks were typical of the first phase and 34–35 cm long. The mortar was mid-dark grey, laid in single layers 3–4 cm thick, and contained moderately-sized small pebbles. As well as being narrower, the bottom of the eastern wall was higher than the northern and southern outside walls, at approximately 51.25 m a.s.l.

The eastern side of wall [5779] was revealed in squares AD20 and AD21. The slope on this side of the mound was not parallel with the side of the platform, but curved outwards towards the south to form a spur which was centred along line 20. A subsidiary structure butting on to the east side of [5779] was found beneath, which will be discussed later. The surface in AD21 was virtually flat except for the western third where it rose up. The topsoil was up to 20 cm thick and within it, along the western edge of the square and just crossing into square AC21, two sections of modern steel railway track were found buried, orientated east-west and lying side by side. They were both 9 cm wide, with lengths of 1.2 and 1.26 m. One had engraved at one end, "steel 1897", and both had written in Arabic in embossed letters the phrase "survey, Minia 1962". They must be survey markers used when a survey of the area was carried out in connection with the irrigation project in 1962, and then stolen and buried.

A rubble deposit [6085] was found along the west side of AD21 beneath the topsoil composed of red gravel mixed with pieces of mud brick up to 20 cm across and fragments of gypsum. It continued into square AD20 as unit [6071]. Further east, removal of the topsoil revealed a compact mud floor [6087] similar to that found on the south side of the platform [5358] at and about the same height, 51.25 m a.s.l. The bottom of the east outer wall was at the same level as this floor. The floor was not very well preserved and had been entirely eroded away along the eastern side of the square, exposing red gravel [6088] beneath. When the rubble deposits [6085] and [6071] were excavated, wall [5779] and the compact mud floor were fully exposed. The wall was relatively well preserved in AD20, except for some erosion along the eastern edge. It had a maximum width of 70 cm at the south end of the square (continuing in AC20), with three surviving courses. The same was not true in AD21, where only one metre of the wall survived, the rest having been completely removed. The area where the wall should have been was floored over (Figure 2.10), just as on the north side of the platform. In some cases it was possible to see the outlines of bricks through the floor, as if a few centimetres of the first course of bricks had been left. At the very south end of the square the floor lapped against the wall.

The squares AC22, AC21, and AC20 produced a series of rooms and the west side of wall [5779], where it still existed. The topsoil in AC20 sloped down slightly towards the south and east. It was up to 25 cm thick, and deepest in the centre. A deposit of rubble [6332] covered much of the square beneath, except along the south side, where some sterile red gravel [6516] could be seen. This is the same as [5426] in AC19, which is the infill behind the southern outer wall [5360]. The deposit was very varied in nature, but consisted basically of grey-brown sand with mud-brick fragments. The depth varied from a few to 60 cm where it overlay severely robbed-out walls. In the south-east corner the material became basically red gravel with a small amount of mud brick, and so was given a different unit number [6337]. The eastern outer wall [5779] was revealed all the way along the eastern edge of the square. This was bonded into a perpendicular wall [5788], which was a continuation of one found last season in square AB20. It is a typical wall of the first phase, with a width of 55 cm, and the southern half had been badly



Figure 2.10. The northern end of the east side of the Platform, viewed to the west. In the foreground is the mud floor [6087] which has been carried over the line of the demolished eastern outer wall of the Platform.

robbed. The remaining part of wall [5616] found last year was also uncovered along the west side of square AC20, and was also bonded in with [5788]. No walls or features were found south of [5788], only the sterile red gravel infill [5616].

A wall [6515] ran northwards from [5788] through the centre of the square. It again was of the first phase and bonded in with [5788]. This wall had suffered some of the severest robbing on the site, so that its surviving top was 65 cm below the sand infills around it. One further wall [6512] was found in this square, and was the only one belonging to the later phase. It ran east-west between walls [6515] and [5616], butting up against both of them. It was made of the characteristic hard, light grey bricks and had a width of 55 cm and a length of 2 m. Although it was of standard width, its construction was unusual: the bricks were exceptionally small, about 32 x 14 cm, with a rather angular look. There was a line of headers and a line of stretchers in each course, with a mortar fill between them which was up to 12 cm thick. The mortar was also light

grey and very hard, and was 4 or 5 cm thick between courses. Headers and stretchers alternated between each course, but not enough of the wall was visible to see if there was a five-course repeat pattern. The wall had been robbed at the east end where it stepped down and abutted wall [6515], and had also been cut away by a few courses along the south edge. There was, in fact, a quadrant-shaped cut [6519] in the corner between [6512] and [5616], which was approximately 80 cm across and 35 cm deep. The fill was excavated as part of the general rubble [6332], but afterwards it was realized that the fill here contained much denser mud-brick debris and should have had a separate number. The cut was made into yellow *tifla* [6518], and a little of this was removed in order to reveal the edge of wall [6512]. The purpose of the cut is not known. The infill [6517] east of wall [6515] was also *tifla* rather than *ramla*. Neither of the infills ([6517] and [6518]) was excavated further to see if there were earlier surfaces beneath. In the extreme north-west corner of AC20 were mud bricks which formed part of a paved floor [6520] continuing into square AC21. They were of the later phase and butted up to the late wall [6512]. It seems that [6512] would have stood above the level of this floor, and it also appeared to cut an earlier compact mud surface [6527] which was visible in the northern few centimetres of the square and continued into AC21.

Square AC21 sloped down steeply from west to east with a gradient of about 1 in 4. The topsoil, which was deeper on the south side than the north, revealed features which were very badly eroded at the bottom of the slope on the eastern side. Some rubble [6058] was visible along the western metre of the square, had a maximum depth of 10 cm, and overlay the mud-brick pavements [6520] and [6528] separated by a wall [6514]. Along its eastern edge [6058] directly overlay the yellow gravel which was found beneath the pavements. Much of the rest of the square was covered by grey mud-brick dust and sand [6060], which was also about 10 cm deep. This was removed to reveal a denser, harder brick rubble layer [6067] below, which covered a slightly smaller area, concentrated mainly along the north side (the very eastern edge) and through the centre on east-west and north-south alignments. It seemed likely that this deposit would fill the trenches of robbed-out walls, and this was found to be the case. Wall [5779] continued from AC20, although it was almost totally destroyed at the north end, as did [5616], which was now for the most part in square AB21. The north-south wall [6515] continued from AC20 to be bonded into east-west wall [6514]. It was a standard first-phase wall, approximately 55 cm thick, and had been severely and unevenly robbed out. It was also bonded into [5779] and [5616].

At the west end of [6514] were the clearest traces found so far of a door threshold [6513], which was also the only identifiable one in the eastern block of rooms. It had been 1.25 m long and the same width as the wall. What survived was a flat layer of compacted mud containing impressions from a limestone block, 1.25 x 0.4 m, and lined by gypsum/lime plaster which projected 18 cm above the mud, implying that the limestone block must have been at least that thick (Figure 2.11). To the south was a thinner strip of compacted mud, 1.25 x 0.15 m, set c. 20 cm lower, on which another limestone block, possibly laid on edge, would have stood. At first it seemed that the lower section might represent an earlier threshold, but the same gypsum lining curved around both sections to make a single unit. There was also what appeared to be a door jamb jutting out of the north-west corner in the form of a gypsum-lined semi-circle. The threshold was assumed to go with the second phase of construction since it was at the correct level for the paved floors [6520] and [6528]. It was not possible to see if there are late doorway blocking-bricks below since the sides of the wall were not exposed at this point.

The way in which the square had been progressively eroded towards the east had left a staggered section through the different floor levels and fills. Along the western edge lay up to 80 cm-width of brick flooring [6520] to the south of wall [6514] and to the north of wall [6525]. Floor [6520] consisted of two rows of bricks laid end to end on a bed of mortar 5 cm thick. Traces of a thin layer of mud survived over the surface of the pavement bricks, which were otherwise very smooth in appearance. The bricks in pavement [6525] were laid in the opposite direction, thus north-south rather than east-west. Earlier surfaces of compacted mud were visible approximately 20 cm beneath the pavements, [6528] to the north of wall [6514], and [6527] to the south of it, separated by a yellow gravel infill [6066]. These surfaces protruded up to 80 cm to the east of the pavements and were, in their turn, cut away. Underneath the two compact mud floors were yellow sand (*tifla*) infills, [6526] on the south side and [6523] on the north side. In the south-east quadrant of the square *tifla* infill [6517] continued from square AC20. It was

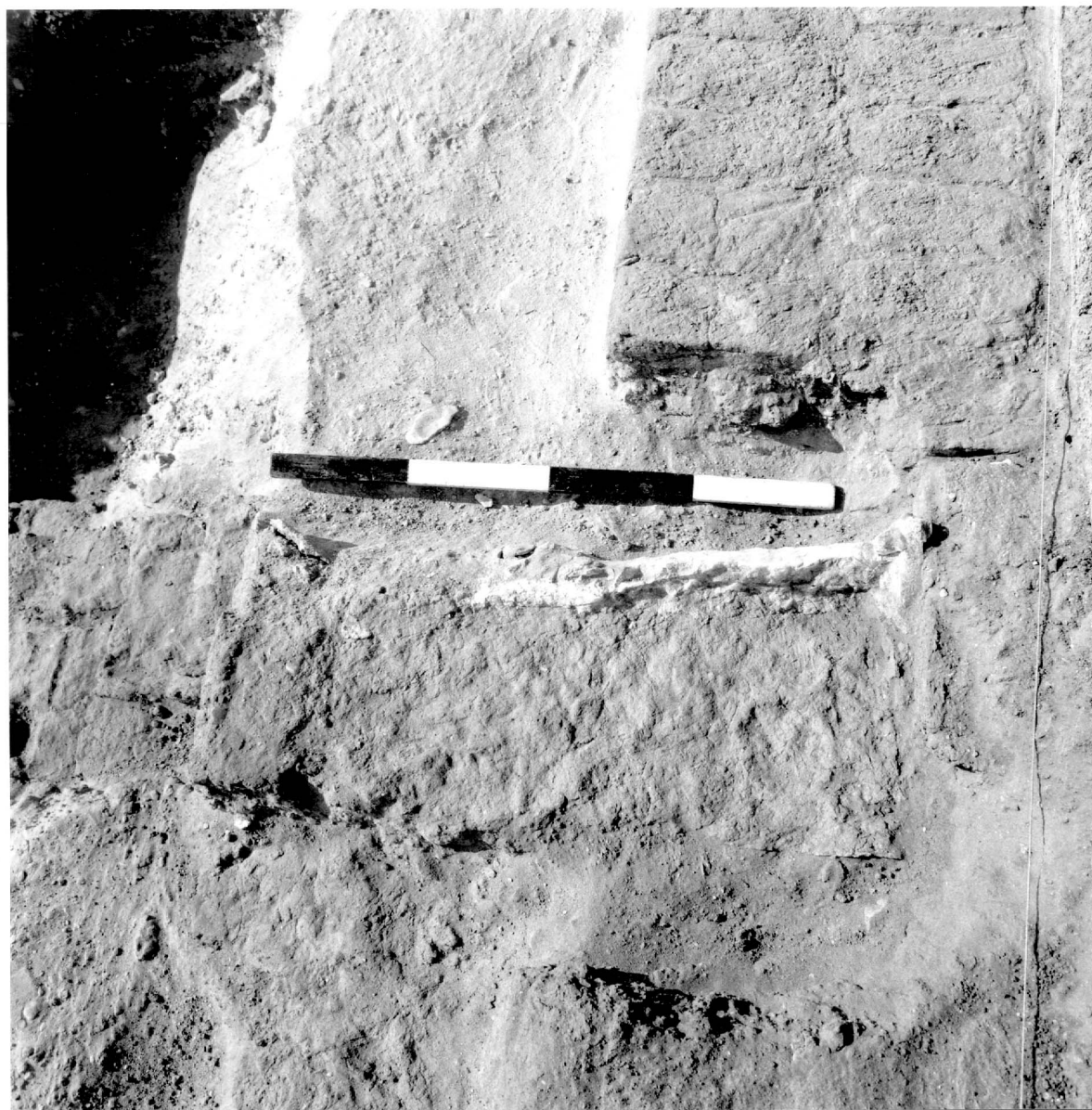


Figure 2.11. Impression in mud mortar of stone door threshold in wall [6514] with line of gypsum mortar, viewed to the south.

bounded by walls [5779], [6514], and [6515].

One more wall [6521] ran east–west near the north side of AC21. It comprised two square pillar bases with linking walls and was made up of the second-phase, smooth, light grey bricks and double layers of mortar with reeds pressed between them. It was much the same as the other walls of this type. The linking walls were one brick (35 cm) wide. One section connected the western pillar base to wall [5616] in square AB21, and the second linked the western and eastern pillar bases. There was probably a third, linking the eastern pillar base with outer wall [5779], but this section had been completely destroyed along with the north–east corner of the eastern pillar base. The pillar bases themselves were roughly square and 1.1 m across.

It was noted above that the northern half of the eastern outer wall [5779] had been destroyed. It does not appear, however, that the bricks were simply prized up. Instead, a large cut [6341] had been made into the side of the platform removing not only the outer wall, but part of the gravel fills behind, together with a corner of a pillar base and probably a linking wall which

The Central Platform

connected the latter to wall [5779] (Figure 2.10). At the level of the base of the wall, between 0.75 and 1 m of these features had been cut away. At a higher level it is assumed that the cut stretched back further since it is unlikely to have been vertical. Fine red sand [6524] was exposed beneath the cut, on which the walls, the floor [6087], and the gravel fills were laid. As on the north side of the platform, a repatching was subsequently attempted, with the mud floor [6087] extending over the previous line of the wall and beyond it by at least 40 cm. It is not possible to differentiate between the original floor [6087] and the repatching. In the north-east corner of the square a few brick-joints were visible within the floor, showing that the bottom of the lowest course must have been left. This whole phase of partial demolition and repair, already encountered last season on the south side, is extraordinary because the removal of the wall would have immediately exposed the gravel infills and left them standing without support.



Figure 2.12. Square AC22, viewed to the south-west, showing brick pillar bases in the foreground. The ancient infill has been removed.

The cut into the east side of the platform continued into square AC22, as did the floor and its repatching [6087]. There was, however, a section at the north end where part of the bottom course of [5779] still survived, having been cut through horizontally in a very uneven way. Three other walls were found in this square, all orientated east–west (Figure 2.12). One of them was wall [6345], a standard first-phase wall 55 cm wide, which continued from square AB22 along the north edge of the square. It had been cut away or destroyed at the east end, but may have once been bonded in with wall [5779]. Another standard wall [6344] ran east–west about 1.25 m from the south side of the square. It was bonded in with wall [5616], just beyond the western limit of the square, but only the western 2.25 m of it remained, the rest having been destroyed. Between these two walls ran one of the second-phase walls with pillar bases [6346], parallel and very similar to [6521] in AC21. It butted up to [5616] just beyond the western limit of the square, and again its eastern end had been eroded away. As with the other pillar-base walls, it presumably remained invisible below the floor, serving to support columns on stone column bases.

Before excavation, square AC22 was seen to slope down to the east and north from the south–west corner, with a slightly raised area near the centre. Below were areas of mud-brick rubble which were found to follow approximately the lines of walls and gravel. One of them [6069] consisted of grey sand and mud brick fragments and was revealed in the southern half of the square, the other [6072] contained less brick and was found interspersed with gravel deposits in the northern half. Subsequently both deposits were found to merge with each other, and to fill the robber trenches above the walls described in the previous paragraph. Gravel deposits filled the original spaces between the walls: [6334] between wall [6345] and pillar base wall [6346], [6335] between [6346] and [6344], and [6336] south of wall [6344]. All these walls and fills were cut by [6341] to the south when the eastern outer wall was destroyed and patched over.

The three gravel fills were removed in order to obtain more information on the way the platform was constructed (Figure 2.12). The northern infill [6334] was yellow sand (*tifla*) with a depth of 30–40 cm. It overlay a very rough surface [6342] made up of black compacted mud fragments. It was of the kind already alluded to as a working surface and was similar to [6076] on the north side of the square. The middle fill [6335], of the same material, was about 50 cm deep and came down on to the same working surface, although it was a little more patchy here. The fill running along the south side of the square [6336] was up to 1 m deep, but instead of a working surface lay on the top of a compacted yellow-grey gravel layer. East of wall [6344], where it had been destroyed, the compacted gravel was visible beneath the working surface, which was 5–7 cm thick.

The fill [6336] was not composed entirely of yellow *tifla*. There was a band of red gravel along the south side, which, on the surface, was at least 40 cm wide. This filled a cutting which curved down and towards the south, and had fragments of mortar along the edge. The cutting appeared to be a foundation trench for the wall comprising pillar bases and linking walls [6521] which ran near the north side of square AC21. On the opposite side of this wall the existence of an equivalent foundation trench was less apparent, although a band of red gravel, up to 80 cm wide, ran along the south side of the wall and was given unit number [6070] to differentiate it from the yellow *tifla* [6523] to its south. A unit number [6522] was also given to the presumed cut where the two deposits met, although there was no time to investigate it further. It thus seems that originally there was a continuous infill of yellow *tafla* between walls [6344] and [6514], and that when the pillar-base wall [6521] was added as part of the second phase, a foundation trench had to be made to insert it, and was then filled with a slightly different substance, namely red gravel. It should be noted, however, that no foundation trench or difference in fill material was visible for the parallel linked pillar bases [6346] in square AC22, or, in fact, for any of the others.

Wall [6346] was also built later than the first-phase walls on each side of it. The local stratigraphic sequence showed that the two early walls [6344] and [6345] were built directly on top of the compacted gravel [6343]. The rough, black, working surface [6342] formed on top of the gravel, lapping up to both walls, and the linked pillar-base wall [6346] was then built on top of the working surface. However, as already mentioned, there are no signs that the yellow sand infill had already been poured in, suggesting that this particular change of design must have occurred at an early stage in the construction of the first phase. By the time that wall [6521]

came to be built, however, the fill was already in place.

The removal of the infills around wall [6346] revealed the details of construction. As usual, the linking walls were one brick (35 cm) wide, and the pillar bases roughly square, measuring c. 1.05 x 1.1 m. The bottom course of both the linking walls and the pillar bases was a line of headers on edge. A thick layer of mortar ran beneath the central linking wall but did not extend beneath the projecting parts of the pillar bases where the lowest course was virtually free-standing. The remainder of the brickwork consisted of alternate courses of headers and stretchers. In some places thick layers of mortar with reed impressions were preserved. There was no plaster on the sides since what survived was a sub-surface feature.

2.6 The eastern extension



Figure 2.13. The eastern extension to the platform, in squares AD20, AE20, viewed to the east.

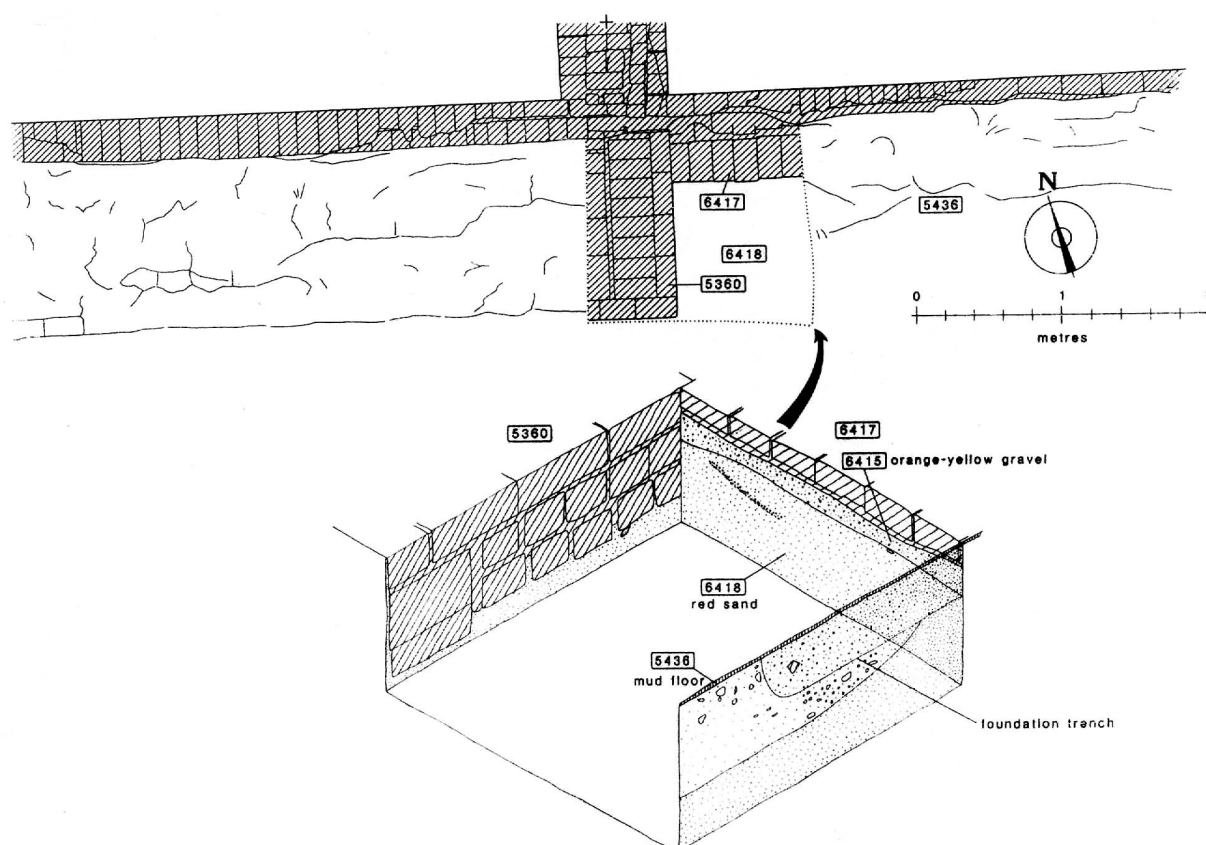


Figure 2.14. Plan of squares AD20 and AE20, with isometric drawing of three of the sides of the pit over the wall junction (cf. Figure 2.15).

As already mentioned, prior to excavation the surface of the mound extended eastwards as a low spur in the vicinity of the south-east corner. Removal of the topsoil in square AD20 revealed a very dense black layer of mud-brick rubble [6071] which appeared to follow the line of the eastern outer wall and then curve round and outwards, following the line of the spur. Along the southern 1.5 m of the square it was replaced by a band of clean red gravel [6089], except in the south-west corner, where the earth contained fragments of mud brick and was given the number [6337]. Deposit [6089] was of the kind regularly used in this building as infill; the rubble layer [6071] was deep, up to 90 cm. Once it had been excavated the outer wall [5779] and a perpendicular wall [6090] running out eastwards were found beneath (Figure 2.13). The latter had been badly robbed so that the gravel fill [6089] stood above it. Much of the north part of the square was covered by more of the compact mud floor [6087], except where it had been eroded, revealing red sand [6535] below. This floor lay 20–25 cm higher than the bottom of wall [6090].

The south side of the spur lay in square AD19, and the sequence there was very similar to that found in AC19 last season. The topsoil sloped down quite steeply from north to south and was deepest (c. 25 cm) near the base of the mound. Removal of the topsoil revealed that a bank of mud-brick rubble and gravel occupied the northern half, and more of the compact mud floor [5358] appeared in the southern half. The rubble was divided into three units, although they actually all merge together. Unit [6099] at the east end and [6091] at the west end consisted of dense mud-brick dust and fragments, whereas the intervening unit [6092] had a red gravel content of approximately 70%. The latter is equivalent to the infill-deposit [6089] in AD20 (although it contains more brick fragments), and the former ran close to north-south walls. When removed, part of the north-south wall [5779] was exposed in the north-west corner, together with an east-west wall [6417]. Only the back of the latter was preserved, however, because it had

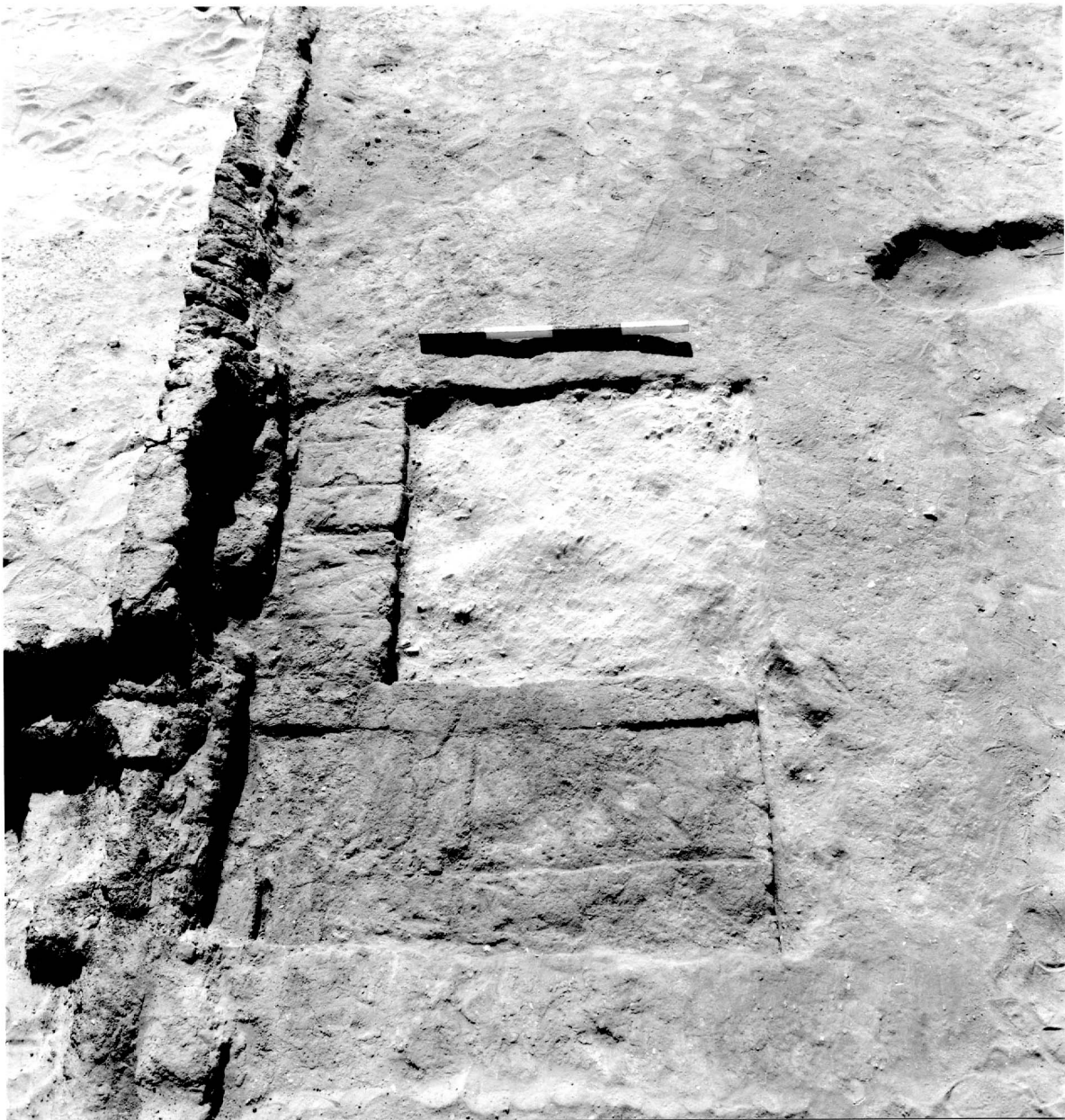


Figure 2.15. The pit dug over the wall junction in square AD19, at an early stage of excavation, and viewed to the east. Note the mud floor [5436] laid over much of the wall and over the gravel infill (cf. Figure 2.14).

undergone the same treatment as the southern outer wall of the platform [6417] excavated last year. Across most of its width the bricks had been removed and the space then patched over with mud flooring, leaving only the back 30 cm of wall. At first it was not clear whether this east–west wall was a straightforward continuation of the outer wall [5360], for, since so little brickwork survived, it was difficult to see if the new wall butted up to the corner of [5360] and [5779]. However, the inner side of [5360] and the inner side of the new wall do not follow quite the same alignment and, furthermore, when the compact mud floor had been exposed for a few days a crack became visible between the original floor [5358] and the reflooring [5436]. This continued from AC19, following the line of the outer wall, and then turned in at right angles on the alignment of the eastern outer wall [5779]. Another crack ran eastwards from here, set back

from the line of the outer wall by 0.75–1.00 m. It thus appeared that the new wall was part of a separate structure but removal of a section of both floors [5358] and [5436] was necessary to prove it.

An area of floor, 1.6 x 1.9 m, over the suspected original wall junction was removed. This exposed the corner of outside walls [5779] and [5360], and the south wall of the eastern spur [6417] was found to be a separate, narrower wall butting up to the corner (Figures 2.14, 2.15). In construction it was identical to [6090] to its north, namely two bricks (75 cm) wide, and made up of header bricks with a central line between them filled with mortar. The third course from the bottom is made up of bricks on edge. The bricks and mortar were typically of the later phase.

Orange-yellow gravel [6415] lay beneath the floor in the outside corner between [6417] and [5360]. Upon further excavation the bottom of [6417] was found almost immediately because only one course remained, but the outer wall [5360] continued down. The orange-yellow gravel extended downwards to a level 12 cm below the base of [6417] and overlay fine red sand [6418]. This, too, was removed until the base of the outer wall was reached, at approximately 50 cm, the sand continuing downwards. The outer wall had three surviving courses here, stretchers at the top, and headers in the two courses below. The corner bricks were slightly different: a header on the top course, which would have appeared as a stretcher on the south side, lying above a stretcher on edge (which might have given extra stability), and a stretcher below that. When the sections were observed afterwards a foundation trench for wall [6417] was indistinctly visible on the east side which had not been detectable on the surface. The cut was nearly 1 m wide and 20 cm deep, with a flat bottom (Figure 2.14). The fill was virtually the same as [6415] but contained fewer pebbles and had a slightly lighter colour. This is the first foundation trench noted for any of the outer walls.

The north–south end wall [6326] which closed the structure to the east was found along the west sides of squares AE19 and AE20. Parts of it were exposed directly below the topsoil and the rest was revealed beneath thin layers of mud-brick debris, [6409] in square AE19, and [6100] in AE20. It was two bricks (75 cm) wide, 3.5 m long, and was uneven and quite badly eroded. It was bonded continuously with the two east–west walls. The robbing and repatching of wall [6417] were not so severe at the south–east corner, so that more of the end wall survived.

A small amount of the compact mud floor [5358] survived along the west side of square AE19, beneath collapse [6409], but otherwise the floor had been eroded away and this had exposed compact yellow-brown gravel [6410] across virtually the whole square. About 15 cm of the gravel was dug out in the southern half of the square in order to check that there were no further features. Fine red sand began to appear down the east side and it could be that the gravel was the make-up level for the floor whilst the sand was the general underlying material of the whole site.

The gravel infill [6089] was removed from the brick spur in square AD20. It was approximately 50 cm deep and overlay a compacted surface of grey gravel [6407], which was also found along the north edge of square AD19 beneath [6092]. It looked like a temporary surface, and at the west end four bricks [6408] had been put on it against outer wall [5779]. Three of them were laid side by side and the fourth was placed on top and across them. It was a sub-surface structure and might have served as a step for the builders. Wall [6090] had been so badly robbed that its surface in the east half of the square was 25 cm below the compacted gravel surface [6407]. A 25 cm-thickness of gravel and the red sand [6401] below was removed, thus to the same level as the top of wall [6090], revealing its structure. It had preserved a maximum of three courses of bricks and was two bricks (74 cm) wide. All the bricks were headers, and a central space filled with mortar, approximately 7cm wide, had been left on all the courses. In the eastern two-thirds of the square all that remained was the bottom layer of mortar with impressions of the bricks above. The second course would have been virtually identical and the third course comprised header bricks on edge. The mortar between courses was 6 cm thick with layers of reeds between. Wall [6090] abutted [5779] whilst another wall [5788] continued opposite the same alignment westwards.

All three walls of the eastern spur were built from the hard, light grey, second-phase bricks bonded by thick layers of mortar with reeds between, and were two bricks (75 cm) wide. Its second-phase character fits the observation that at least one of its walls was built in a foundation trench. As to its function, when looked at simply in plan it suggests a short ramp. However, the

surviving depth of infill at the east end makes this unlikely, for here it should have sloped down to nothing. It is, therefore, more likely to have been an extension to the platform. Its presence raises the possibility that an equivalent extension or spur was symmetrically located against the north-east corner. Much of the space which it would have occupied has not yet been excavated, but it has already been established that this corner has witnessed very thorough removal of brickwork followed by reflooring. Unless a bottom course survived beneath the reflooring it may not be possible to tell if a second spur had ever been present.

Away from the main platform itself, a few minor features were found in squares AE20 and AF20. In AE20 a thin layer of mud-brick dust [6100] spread over the north and west parts of the square (already mentioned as having overlaid part of wall [6326]). Compact mud floor [6087] was found beneath, though covering a slightly smaller area, and this in turn overlay orange-brown gravel [6328], which was exposed where the floor had either been eroded away, or, on the east side, perhaps never existed. A long narrow trench crossed the area in a roughly north-south direction, cutting through debris [6100] and the layers below. It was approximately 35 cm wide, 10 cm deep, and 4.5 m long, with a fill of light-brown coarse sand containing frequent pebbles. It runs beyond into AE21. This feature is relatively recent and could be a modern tractor or lorry rut.

After AE20 was finally cleaned the outlines of three small pits became visible along the east side of the square, having been partially excavated accidentally along with the topsoil. This further excavation showed that they all contained fills of orange-brown or grey-brown compacted sand with occasional lenses of orange gravel and moderately sized small pebbles. All three pits passed beyond the limit of excavation into square AF20, and they all had very uneven edges and bases. In their only partly visible state, cut [6096] (fill [6093]) was semi-oval in shape, approximately 1.1 x 0.4 m with a depth of 27 cm; cut [6097] (fill [6094]) was semi-circular, 0.45 x 0.9 m with a depth of 30 cm; and cut [6098] (fill [6095]) had an irregular semi-oval shape, 1.3 x 0.5 m and was up to 33 cm deep. The sides were generally almost vertical at the top and then sloped more gently to an almost flat base. Part of a mud brick was found in two of the fills ([6093] at the south end and [6095] at the north end), and a few small sherds were also found in [6093]. Because the bases of the pits were so uneven, it was decided to dig out a one-metre wide strip along the east edge of the square to a depth below the pits in order to examine their profiles in the section. This was successful and the sections were drawn.

As regards the function of these pits one possibility that has to be considered is that they were tree pits, partly on account of the nature of their fills and partly because they lie in a line. Because it is important to know if the open parts of the site bore any trees, gardens, or other features the excavation was extended further eastwards into square AF20. When fully exposed, the end pits ([6093] and [6095]) both turned out to be sub-rectangular, orientated east-west, and just over 2 m long and 1 m wide. The profiles were very uneven, but the depth was rarely more than 20 cm. The odd fragment of mud brick was again found in the fill. Pit [6094] was different, being smaller and roughly circular, with a diameter of 80 cm, and was the only one which looked like a tree pit. The orange sand [6533] into which these features were cut was rather loose, which meant that it was difficult to excavate them properly. Even looser sand [6411] lay just north of [6094] (and was noticed in square AE20, too), and contained occasional fragments of mud brick. No other features or deposits were found in this square, not even a compact mud floor. This greatly reduces the likelihood that any of the pits were for trees since one would expect more pits evenly spaced across the open ground.

2.7 Conclusions

This season's excavations have revealed much more of the building which lay on top of the platform, and confirmed the overall character established last year. There remains only a strip along the western side to complete. The platform bore two main parts: a building on the east (now fully cleared), and a colonnaded structure on the west (on which no more was done this year), separated by a corridor running between two ramps on the north and south sides. The opening of a new excavation to the south showed that the ground immediately beyond the south ramp was blocked by a separate building (the South House), which, to judge from the relative stratigraphy of the two buildings, was part of the original design whereas the Central Platform

was probably constructed subsequently (see Chapter 4, last section). This makes it less likely that the Platform faced south than that it faced west, the ramps providing access to the sides. When seen from this orientation the focus of the east building on the platform becomes the central room (in square AB21) with its apparent antechamber, which would have faced westwards along the building's axis. Until the western edge of the platform is cleared, however, we are unable to judge the full extent to which this orientation was marked architecturally. The rear of the building had the form of an annexe which looks as though it was aligned at right-angles, probably facing north and thus entered from the space between the building and the north outer wall.

Whereas the rear (east) wall of the east building was also the east wall of the platform, on the other three sides a broad space was left between it and (on the north and south sides) the platform edge, and (on the west side) whatever structural elements occupied the remainder of the platform. Instead of subdividing this space with cross-walls to create a series of casemates, on the north and south the builders increased the thickness of the outer wall to ensure stability for the platform and its fill, although it is possible that the two rectangular projections into this space beside the two ramps were also there to add even further to the stability, and did not project above the level of the floor. On the south side, at least, this promenade-like space was sufficiently important for it to be extended eastwards by means of a projection beyond the original eastern edge of the platform.

One general aspect of the building which was properly established during this season was that there was a change of design during construction. In this, the level of floors, doorways, and partitions was raised, and the new brickwork was of superior quality. It was at this stage that the pillars were added. More traces were also found for the last stage of work on the building before the site was abandoned. It was found last year that, for part of its length, much of the brickwork of the south outer wall had been removed and the space so created carefully replastered, leaving only a thin wall to hold back the platform fill, but, at the same time, apparently creating a rough set of steps to the top. This pattern of removal and replastering has now been found to extend along the remainder of the south outer wall and most of the eastern extension, and to have been pursued even more vigorously on the east and north, to the point where the outer wall was removed completely and the gravel fill cut into. The purpose of the careful replastering of the ground over whatever parts had been removed is hard to define, although it clearly occurred before the building started to fall into serious ruin. Indeed, on these two sides the gravel fill would almost immediately have begun to fall and to spread over the new floor. This implies that the reflooring was an integral part of the demolition process, proceeding simultaneously and keeping in step with the removal of the platform. If the process had run its full course, the site would have presented a clean and finished appearance as soon as the last bricks and gravel had been carried off. Whereas the demolishers tackled their work from the sides of the platform, people who came later to remove just the bricks, presumably for their value as bricks or as good earth, did so by taking them from above, leaving deep robber trenches between the gravel fills.