

CHAPTER 5

REPORT ON THE 1984 AMARNA SURVEY
THE SURVEY OF THE CITY

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5.1 Introduction

The aims and method of the Amarna City Survey have been outlined in previous reports (Kemp 1983: 21; *AR I*: 89-90). The 1984 season, a relatively short one, saw a continuation of the work into the southern limits of the excavated Central City. In terms of the scheme of map sheets this represents the coverage of sheet no. 6, and with it the completion of the large and intricate area of the whole of the Main City (or South Suburb). There yet remains the Central City itself, the North Suburb and the relatively featureless zone between the North Suburb and the North City. The map sheet which covers the North City itself (no. 1) was completed in 1981.

With the area covered by sheet no. 6, the remains of the ancient city reach their widest point, so that the main axis of the sheet has to be turned to run east-west, rather than north-south (cf. Kemp 1983: 22, Figure 7). The sheet covers most of the area north of the wadi which cuts the site near the house of the sculptor Thotmes. Along the eastern edge are the northernmost groups of houses excavated by the expedition of the Deutsche Orient-Gesellschaft, and a major part of the unpublished British season of 1923-24. This carried the strip of excavated houses to the very edge of the Central City, and included a conspicuous house which had belonged to the High Priest Panehsy (Griffith 1924: 302, Plate XXXIII). Another conspicuous house in this area is the anonymous Q44.1, which had been provided with a fine cattle stall (Newton 1924: 290-93, Plates XXV-XXVII).

Not all of the area covered by sheet no. 6 was residential, however. Over much of the western part the visible debris, mostly unexcavated in modern times, has a topographic pattern very different from that which characterises areas of housing. This part runs on either side of the modern road along the edge of the cultivation, which is a southwards continuation of the Royal Road (for a photograph of the southern part see Kemp 1978: Plate VI.1). The outlines of several large buildings can be made out. In some places one gains the impression that extensive brickwork still survives beneath the present cover of sand and gravel. The excavation of these parts would be a major undertaking, but until that is done much can still be learned about the general disposition of walls and buildings. To illustrate this a sample area from sheet no. 6 is included in this chapter (Figure 5.1).



Figure 5.1. Sample area of Survey Sheet no. 6.

5.2 The area illustrated in Figure 5.1

As the contours show, immediately south of the Central City the desert swells slightly, and as a result the encroachment of the cultivation has been less. We can therefore see further into the western, river side of the city than at most other points. The buildings along the northern side of Figure 5.1 are well-known parts of the Central City excavated by Pendlebury in 1931-32 (*COA III*). On the east is the major part of a long block of rooms which lie beside the smaller Aten temple and which housed a bakery (*COA III*: 100-05, Plate XVI; Kemp 1979: 11). On the west is the southern end of the so-called Coronation Hall, a huge hall of brick piers erected during the time of Smenkhkare (*COA III*: 60-1, Plates XIII-XIV). By its south-west corner stand the foundations of two pavilions (*ibid.*: 81-2, Plates XIII-XIV).

The map covers an area which provides a key to understanding the overall articulation of the city and its major roadways. Between building P43.1 and the Coronation Hall runs the Royal Road, having emerged from beneath the bridge linking the Great Palace to the King's House. It does not, however, continue unbrokenly southwards. Its course was largely blocked by the huge unexcavated building that we have designated O43.1. Between its north-east corner and the diagonally lying south-west corner of P43.1 the street width must have been reduced to about 17 metres (as against 50 metres). Beyond this constriction the road widens suddenly to create a large triangular space before gradually narrowing again and continuing its southern journey.

From the general disposition of buildings, however, it is possible to see the real southward continuation of the Royal Road following a different course: first turning westwards with a width of 40 metres and running between the Coronation Hall and building O43.1, and then turning again southwards, but at an angle of about 100°. At this point we are close to the cultivation and within a marginal agricultural zone where livestock is regularly tethered so that only the most meagre traces of antiquity survive, insufficient to enable the road width to be determined. A great importance is, however, given to this last section by the two pavilions beside the Coronation Hall. The western pavilion of the pair seems to have looked directly down this road on exactly the same alignment. The relationship between these pavilions and the Coronation Hall and Great Palace has unfortunately been lost through the encroachment of the fields. It is thus not clear if they were part of a formal entrance system to the Great Palace from the south, or places for ceremonies using the open spaces around building O43.1 as an arena (*cf.* Kemp 1976: 93 for a preliminary discussion).

South of P43.1 and the Coronation Hall the ground has not been excavated in modern times, although much was turned over in the early part of the 19th century (see section 5.3 below). There is one small exception to this: the building marked P43.3. This was one of several isolated points of Petrie's 1891-92 excavations. Petrie includes the detail plan as one of several isolated structures published in his report (Petrie 1894: 23, Plate XLI.16). On his general site map, however, its position is not marked. The rediscovery of its location was made during the surveying carried out in 1977 (Kemp 1978). Very little brickwork can now be seen, but the pattern of ridges visible both on the ground and on early aerial photographs (Figure 5.2) was sufficiently reminiscent of



Figure 5.2. Part of an aerial photograph including the area of Figure 5.1, taken in 1932.

Petrie's plan to justify taking the possibility of identification seriously. A scale plan was therefore made of such traces as can now be identified. The resemblance to Petrie's plan is so close as to remove any lingering doubts as to their identity. Although in Petrie's report it appears as if it is a separate building, its context implies that it is just one part of a larger administrative complex. No external wall connections are marked simply because the inner

wall face was used as the boundary for the excavation, the spoil from which was heaped immediately outside. It appears to be a storage unit, with two sets of parallel chambers behind what were probably either deep double colonnades supported on two sets of brick piers each, or sections of a continuously covered hall. Little is now apparent of the ancient surroundings. A well-depression lies to the east, and a little further beyond the ground was given over to individual houses. A marked linearity running southwards is probably a wall frontage to the road. This is, however, at an angle to P43.3, which seems, in its orientation, to be a compromise between the alignments of the old Royal Road and its continuations to the south.

Much of the ground in Figure 5.1 is occupied by a very large unexcavated complex, to which we have assigned the numbers O43.1, O43.2 and O44.1. The condition varies between the zone beside the cultivation where the brickwork peters out altogether to other parts where it seems to be substantially preserved. The digging of the 19th century must have exposed, at least partially, most of the walls. Their subsequent decay has reduced them to linear ridges of gravel, reflecting the composition of the bricks themselves, which used gravel instead of straw as the main temper (cf. Griffith 1924: 301). It is therefore possible both from ground observation and from the study of aerial photographs to make out not only the main outlines of the buildings, but also some of their internal arrangements as well. One source for Figure 5.1 is an aerial photograph taken in 1932, and reproduced here as Figure 5.2.

The general alignment of the buildings reflects again a compromise between the direction of the Royal Road to the north, and its southern continuation on a different axis. Building O43.1 was constructed parallel to the Coronation Hall. It measured about 180 by 55 metres. It was evidently a building of some significance since, apart from its size, it also contained stamped bricks in its walls. A copy of the stamp, from bricks in the long northern wall, was reproduced in Kemp 1979: 23, Figure 1. It has no parallel at Amarna. The building seems to fall into two main divisions: a western part largely filled with internal walls which look as though they may have included sets of parallel magazine chambers facing a central east-west corridor; and an eastern containing at least two sub-buildings with internal walls, together with four large well depressions: three adjacent and in a north-south row, and one in the north-east corner.

The ground beyond the southern wall of O43.1 seems to have been largely open, although a trace of a north-south dividing wall seems detectable in the middle. In the eastern part lie two more well-depressions, one of them very large, with a diameter of about 25 metres. The pattern of 19th century disturbance implies that much of the surrounding space was devoid of buildings, except along the south side. Likewise much of the western part seems to have been flat open ground.

This open or only lightly built-up area seems then to have turned southwards to run in front of building O43.2, though with one well-depression occupying a central place. Building O43.2 was thus set back from the road running south from the pavilions by the Coronation Hall. It measured about 70 metres wide by between 130 and 140 metres long. Like its neighbour it was divided into two

1984 survey



[Facing page). Figure 5.3. View north from the modern water-tower over buildings O44.1 (right foreground), and O43.1 and 2].

parts. Both the western wall and the main central dividing wall share an important common feature: entrances in the centre defined by pairs of short projecting walls. These show that the building was oriented westwards, towards the pavilion street. The eastern division of the building must again have been largely open ground, a huge rectangular space. Modern ground disturbance runs along the south wall suggesting the presence of brickwork, but as with the open space to the north this could have been the collapsed remains of the wall itself rather than buildings constructed against it. This space contained no well-depression. The western part displays a distinctive internal pattern. On north and south there lay blocks of rooms which from the regularity of traces look as though they may have been magazines, although a well-depression stood in the north-west corner. Between the two blocks ran a broad open space interrupted part of the way along by a mass of brickwork. This could have been a gateway such as subdivides the not dissimilarly arranged North Palace (Newton 1924: Plate XXVIII; Stevenson Smith 1981: 317, Figure 304).

South of building O43.2 the ground begins to drop towards a minor wadi floor. It was in the centre of this that Petrie excavated the remains of a glazing factory (Petrie 1894: 28, Plate XXXV), but the site is now occupied by the modern water-tower and its surrounding enclosure. Nevertheless, some traces of walls and buildings still survive on the sloping side of the wadi. The most important, O44.1, actually occupies a slight spur of higher ground, and this seems to have helped preserve its brickwork better than over most of the area described in this section. It is essentially a square building with many internal walls. Its size - about 100 metres square - makes it too large to have been a house.

Survey cannot take the place of excavation, and in the case of these buildings it gives us insufficient evidence to do more than identify them loosely as "royal/administrative". However, even the broad generalised picture established so far modifies the picture of the central area of Amarna provided by the work of Pendlebury (*COA III*). The general plan of the Central Area (as well as the frequently reproduced reconstruction drawing of Lavers: *COA III*: Plates I and II) conveys the impression that the Central City was a discrete block of buildings extending between the Great Aten Temple on the north, and the Coronation Hall and Smaller Aten Temple complex on the south. This, in fact, was not the case. The official part of the city continued southwards, presumably catering for a range of government or court activities additional to those provided for in the areas cleared by Pendlebury. Just how extensive this area was we can no longer tell because of the loss of key ground beneath the cultivation south of O43.2. But along the edge of the modern road it extends for a distance of some 500 metres south of the Coronation Hall.

The fact that we possess only part of the picture from excavation should also be remembered when considering ancient references to and depictions of the official parts of Amarna. The most detailed of the latter occurs in the tomb of Meryra (Davies 1903: 33-42, Plates XXV, XXIX-XXXII). It shows the waterfront



Figure 5.4. Well-depression west of O43.2 now occupied by a temporary farmer's shelter.

with moored boats, cattle pens and an open grain depot, and beyond these two buildings depicted in great detail, one evidently a huge magazine block with central pavilion, the other a complex of rooms and gardens with a well-depression and ornamental pools.

Amarna architectural scenes belong as much to the world of cognitive geography as to objective topographic recording; it is a mistake to try to read them literally. The essential preliminary for studying them, however, is a reliable picture of the whole range of buildings from which the artists drew in making up their compositions. Buildings O43.1 and O43.2 appear to possess the kind of outlines and character that lie behind the Meryra scene. Certainly from their size and key position they would have been prominent in contemporary mental images of the city, the images which the artists were attempting to codify.

Even without more explicit identification the tomb pictures provide one key piece of information: the walled spaces which seem to be "open" and devoid of internal detail may well have been gardens filled with trees.

5.3 The plans of Wilkinson and Lepsius

To Wilkinson belongs the credit for the first useful plan of the city area at Amarna. It first appeared in the 1837 edition of his *Manners and Customs* (Wilkinson 1837: Plate VI, opposite p. 106; also 1878: 350, Plate VII, and reproduced in Williams 1930: 94, Figure 10, the source of our Figure 5.5). A

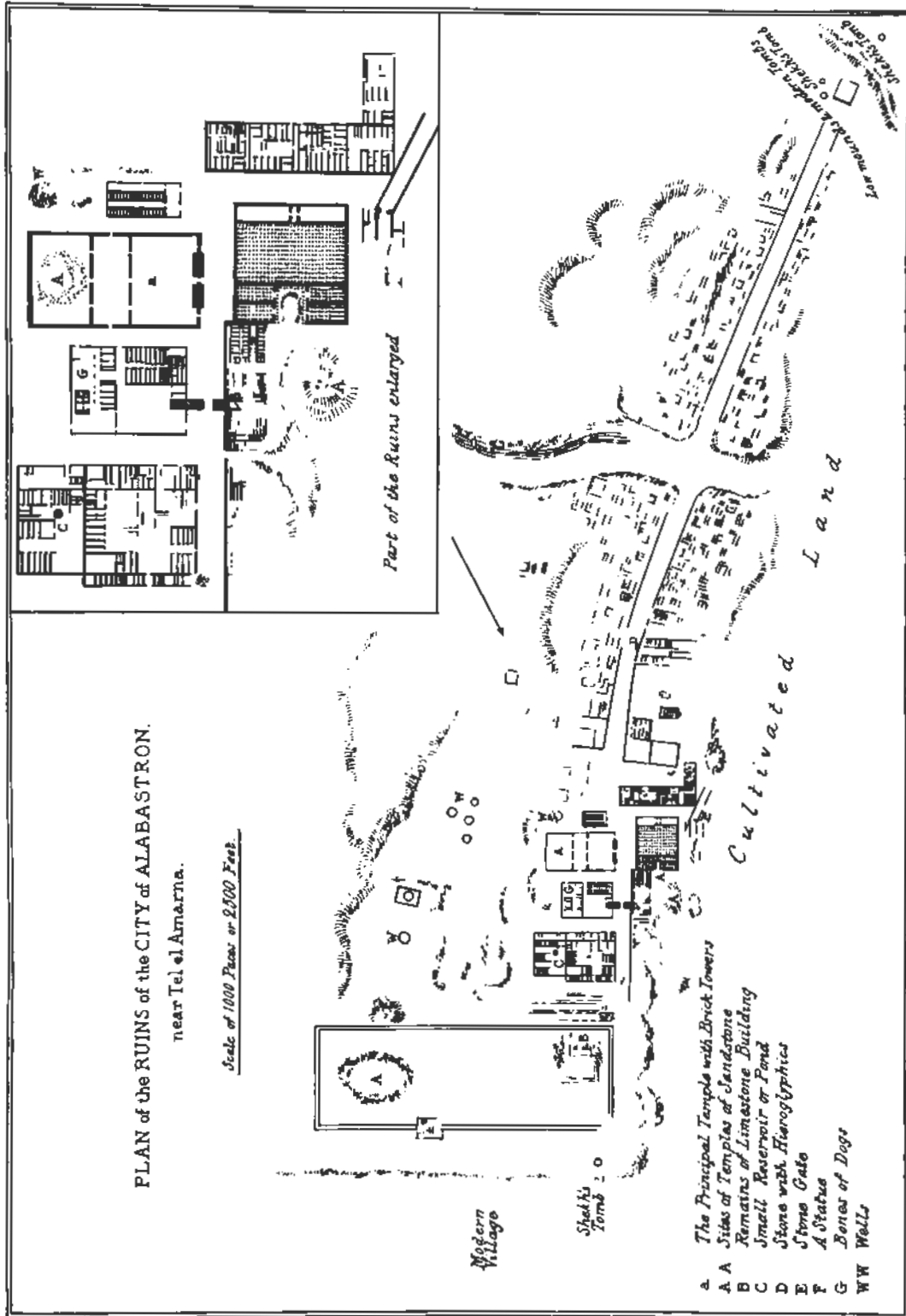


Figure 5.5. Wilkinson's map of the city of Amarna.

general map at a very small scale covers the ground between the Great Aten Temple and a point close to el-Hagg Qandil, whilst an inset plan at a larger scale includes most of Pendlebury's Central Area (minus the Great Aten Temple) together with building O43.1. A decade later Amarna was visited by the Lepsius

team, and the surveyor Erbkam produced a fine map of the main part of the city (*Denk. I: 64*; reproduced in *Prisse d'Avennes 1878: Plate 38*). This includes the whole area under discussion (Figure 5.6).

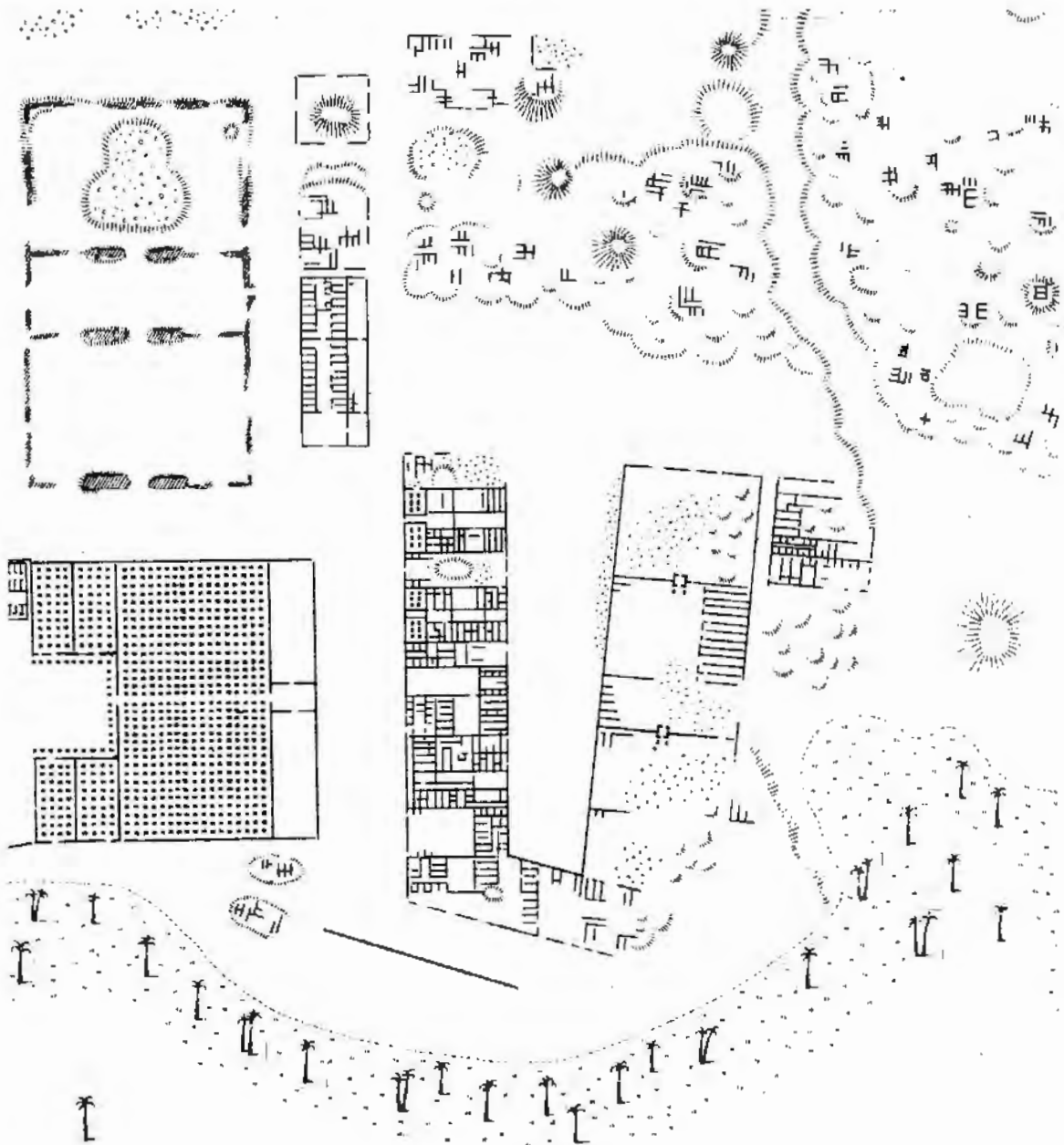


Figure 5.6. Part of Erbkam's map of Amarna made for the Lepsius expedition.

Both maps incidentally provide an important piece of evidence on the general history of modern activity at Amarna. Both appear to show a lot of exposed walls. This applies not only to the Central Area but also to the Main City running to the south. The sketched wall lines, however, do not extend over the entire site. They are largely absent from a broad eastern strip of the city. In the case of the Main City, this eastern part coincides very closely with the areas chosen by the *Deutsche Orient-Gesellschaft*, and to a lesser extent by the British excavations of 1923-24. It is apparent even now from the state of the ground as

well as from statements made by past excavators that this part was chosen because it had been hardly disturbed hitherto. The surface before excavation must have been one of smooth mounds and undulations with no walls apparent, a condition which still survives for a small part of the city close to el-Hagg Qandil, just to the south of the expedition's own house. Over the rest of the site, however, some measure of disturbance occurs almost everywhere: sometimes serious, sometimes apparently less so.

The implication of the Wilkinson and Lepsius maps is that this disturbance had already taken place by the time of their visits. The age of this disturbance also explains its greatly weathered appearance. It is instructive to examine the portion of aerial photograph, taken in 1932, which is reproduced in Figure 5.2. Even Petric's building P43.3 and several adjacent houses which he excavated stand out from the general background disturbance because, even after forty years, the weathering and decay had not reached such an advanced condition. It is also interesting to note that whereas on Wilkinson's map no walls belonging to the Records Office are shown, a cluster appear over this building on the Lepsius map. Thus the local attack on the Records Office must have started well before the alleged date of the discovery of the Amarna Letters (1887). Much of the Central City east of the Records Office (including the Police Post) probably remained untouched until Pendlebury's day.

Some appreciation of the history of local digging is required when looking at the Wilkinson and Lepsius maps and asking: what exactly did they see? Was a lot more brickwork exposed than now? How useful are their plans for buildings never subsequently excavated? One must, of course, remember the limitations of their work. The area in question is very large, and the time that they spent there was not great. The Lepsius team claimed to have worked at Amarna for only three days in September 1843, and again for eight days in June 1845. On this kind of schedule the mapping achievements are truly remarkable. We can obtain a fair idea of how these maps were made by comparing individual parts with plans derived from modern excavation. The most generally useful is the King's House in the Central City (*COA III*: Plate XVI). When the comparison is made it immediately becomes clear that the main outer wall and the inner dividing walls were seen and drawn, and that a more or less correct appreciation was made of open as against built-up parts. Where the built-up parts consisted of rows of magazines these also could be easily caught in their rapid sketches. But where the internal plans were more complex, they fell back to sketching in walls as more or less conventional space fillers to indicate architecturally busy areas.

The confidence with which some of the main alignments were drawn and spaces filled implies that connected lengths of brickwork were visible, and that a relatively recent spasm of digging by the local villagers had left much brickwork freshly exposed, although doubtless visible only against a background of irregular spoil heaps and pittings. What we see now, and what was apparent from the air in the 1930s, is the result of more than a century of weathering which has cloaked most of the remaining brickwork in sand and gravel, the heavier constituents of the bricks themselves, left behind as the finer dark silt particles from the Nile alluvium blow away.

If we realise the circumstances of the early surveys - a mixture of rapid instrument surveying in order to fix the corners of principal buildings, accompanied by rapid freehand sketching by eye of local wall arrangements with no time for making second checks or lingering over difficult details - we can still find value in their maps.

Building O43.1 was planned by both Wilkinson and the Lepsius team. Oddly, neither of them took much note of the well-depressions, perhaps because the more irregular topography created by the fresh digging made them less conspicuous. Wilkinson, in fact, missed all of them. The internal divisions, however, can be recognised in the modern traces. Wilkinson marks four. Within them, however, the failure to spot the well-depressions clearly underlines the conventional nature of the internal walls, although a possible concentration of parallel magazine-like chambers towards the west does match what can be seen now. Wilkinson also missed the change in alignment along the western side of the building, but allowing for this he records the presence of walls running southwards in one of the spaces flanking the pavilion road, and we should cautiously accept this. Of building O43.2 only the enclosure walls are given, with no internal details recorded at all. The Lepsius plan hints that it may have been because the local digging had not yet moved far in this part of the site.

The Lepsius plan covers all three buildings. With O43.1 two of the eastern well-depressions are put in and, very usefully, the depression by the 48-metre contour on Figure 5.1. Many of the internal wall divisions and wall clusters are also suggestive of the present appearance of the building. Furthermore, the rooms with square pillars along the north side of the eastern part are too specific a contribution to the plan to be taken as conventional space fillers. As with Wilkinson's plan, the ground running south along the edge of the pavilion road contains walls, and becomes a block joining on to building O43.2. The positioning of the well-depression by the 48-metre contour helps us to see that the prominent wall which runs south from a point opposite the western pavilion (it also appears on Wilkinson's map) must be a major wall, now vanished, lying further west than anything now preserved.

The ground between O43.1 and 2 is left completely blank on the Lepsius map, with neither well-depressions nor a closing wall on the east. Building O43.2, however, is presented with important detail. Most conspicuous are the two portals facing west, exactly where traces of such survive today. The eastern court is left completely blank, although a convention for light mounding runs across the southern part, where subsequently traces of digging have appeared, possibly on the site of rubble from the wall collapse. The western part is filled with parallel magazine chambers on the south. Although the north side is left largely blank, ends of walls imply that the reason was that the local digging had not progressed far in this part, something which explains the lack of any detail on Wilkinson's earlier plan. However, an intermediate cross wall is given which occupies just the position where a mass of brickwork is marked on the survey map.

Finally, building O44.1 is also marked correctly in position and in outline, though the internal walls could well be conventional space fillers.

It must be accepted that early in the 19th century much of this part of the site had been dug over and its walls exposed for a time. This should not mean, however, that it must be written off as a site for future excavation. The same was true for the most important parts of the Central Area excavated by Pendlebury, many of which had, in fact, already been dug over by Petrie as well.

Acknowledgements

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