

## CHAPTER 7

REPORT ON THE 1983 AMARNA SURVEY  
THE SURVEY OF THE CITY

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## 7.1 Introduction

A brief summary of the status of the Amarna Survey was included in the 1981-82 preliminary report (Kemp 1983: 21). The aim of the project is to prepare for publication a series of map sheets at a scale of 1:1000 to cover the main part of the ancient city, from the northern limits of the North City to the southern edge by the modern village of el-Hagg Qandil. This can be accomplished in eight basic sheets. At present, the second and final stage of mapping is centred in the main southern residential area, running south from the Central City (cf. the map in Kemp 1983: 22, Figure 7). The southern part, Map Sheet no. 8, was completed in 1982. Work on the central part, Map Sheet no. 7, required the entire season to complete. It had been hoped to advance the work faster than this, but the intricacy of the city plan in this part, taking in areas of unpublished excavation where in some cases the original plans have been lost, demanded a slower rate of progress.

Sheet no. 7 (which includes a sizeable overlap with Sheets 8 and 6) covers the main southern residential area from the southern limits of the pre-1914 excavations of the Deutsche Orient-Gesellschaft (Borchardt and Ricke 1980), across the broad wadi that divides the site, to the beginning of the wide area of housing just beyond, part German- and part British-excavated. The northern edge of this map is still about 500 metres from the Central City. Two sections of this map sheet are illustrated as Figures 7.1 and 7.2. The first includes a small part of the southern overlap with Map Sheet 8, which appeared in the 1981-82 preliminary report (Kemp 1983: 23, Figure 8).

Most of the houses are drawn from published and unpublished outline plans. It is not feasible to check the position of every single one: quite apart from the enormous labour involved, many of the smaller buildings have been so eroded or covered with sand that it is now difficult to find an adequate number of survey points. Instead, individual blocks of houses have been fixed by means of a close triangulation network, originating from a base line formed by the modern line of electricity pylons which run along the edge of the cultivation. Within these blocks the original excavators' plans have been accepted.

Large areas of the site remain unexcavated, though much has been turned over in the past, probably in the 19th century. By means of surface observations and from details visible on various sets of aerial photographs it is possible to map many features in these areas. A style of shading by means of

dots has been adopted to convey the density of sherds and other indicators of ancient activity. Where these indicators, which will often include wall fragments and patches of brickwork, concentrate to form a mound a broken circle is drawn around the area. In most cases these will represent actual house mounds. A differently styled circle, drawn with a dotted line, represents a depression in the ground which may have been an ancient well. This aspect of the site's appearance is further discussed in Chapter 8, on the resistivity survey. Further topographic information is provided by contours at 50 cm. intervals.

One element so far omitted from the maps is the 200-metre grid established by the Deutsche Orient-Gesellschaft, and followed by all subsequent excavators as a means of locating and numerically indexing individual houses as excavated. It has been found that the published grids are not entirely true. In the final version of the map sheets both the old grid will be marked together with the intersections of the true grid, but this work of calibration is not yet complete.

The illustrated sample contains a number of areas and features which require individual comment.

## 7.2 The area illustrated in Figure 7.1

Two north-south streets are present, following converging paths as they run northwards. The one on the right (east) is the southern end of the "High-Priest Street", along which most of the German excavations were carried out (cf. Borchardt and Ricke 1980: Plan B; Peet and Woolley 1923: 2). Most of the houses which border the street on both sides were, in fact, excavated by the German expedition. However, the block of houses that runs across the map towards the top and forms the northern edge of a narrow east-west street formed part of the earliest Egypt Exploration Society work (Peet and Woolley 1923: Plate I).

Down the left (west) side of the plan the ground is unexcavated. But the remainder of the ground to the east is occupied by a further scatter of buildings. These were exposed as part of a major excavation in the city undertaken in season of 1923-24, directed by F. Ll. Griffith. The scale of this work was very considerable indeed, yet no more than a brief preliminary report was ever published (Griffith 1924). It would seem that during the course of the season many of the excavated buildings were planned by W.B. Emery, but not all of them. The remainder were planned in the following season (1924-25) by H.B. Clark. The number of individual plans made, mostly groups of houses, totalled twenty-one. [1] Tragically, not a single one of them seems to have survived, but several were photographed on half-plate glass negatives and these remain intact, and have been utilised in compiling the survey maps. For several areas, however, there is no plan at all. The buildings concerned were mostly small ones, and only sketchy outlines are visible on the ground

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[1] From a manuscript list made by Emery, in the E.E.S. archives.

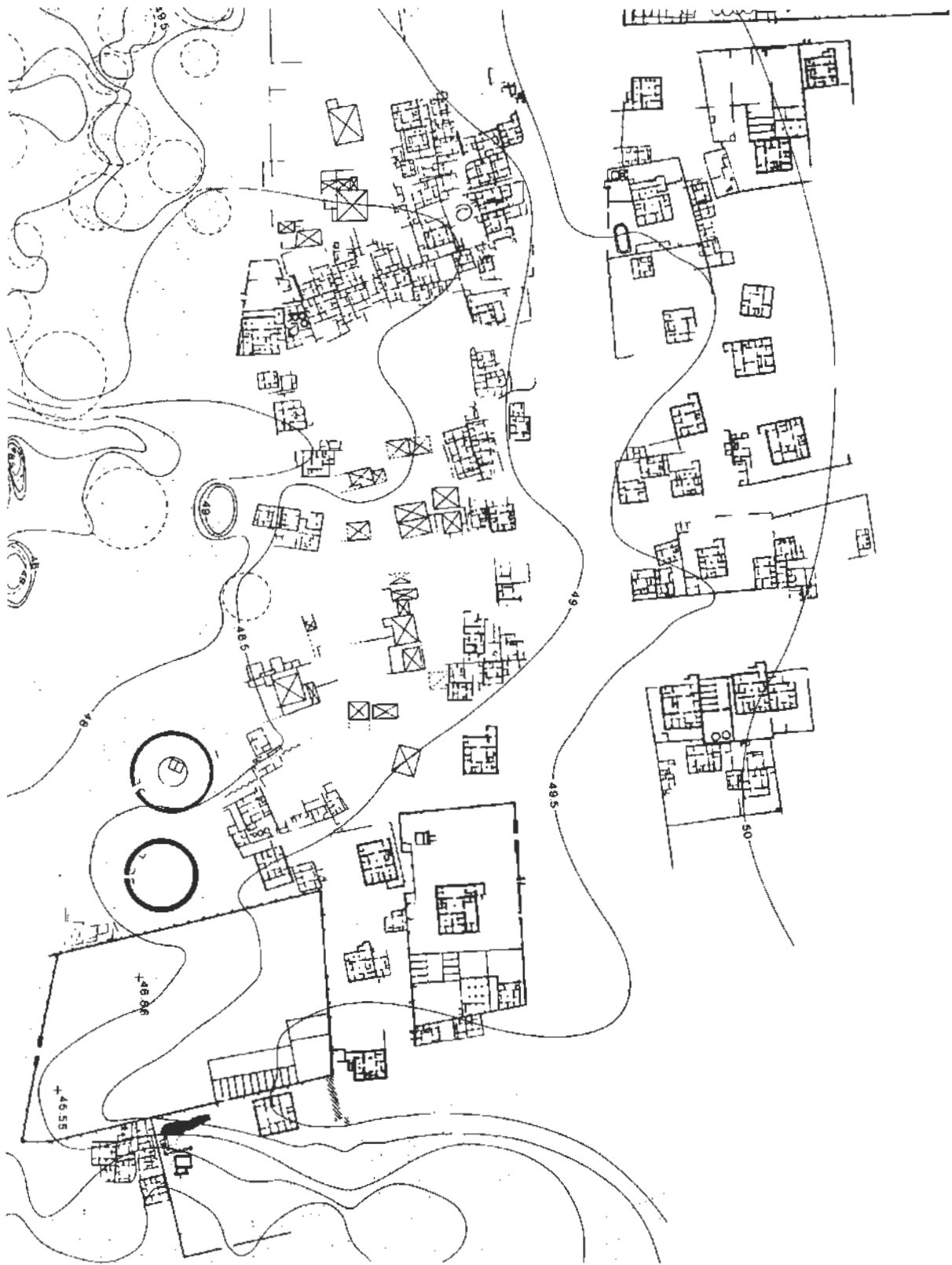


Figure 7.1. Section of the southern part of Map Sheet 7 of the Amarna Survey. North is at the top.

today. These have been planned as far as is possible, and appear on the maps as rectangles filled with simple crossed lines. From the experience of the 1981 North City work (Kemp 1983: 15-21) it is likely that most of the missing detail could still be obtained from re-clearing the buildings. So many are involved, however, that this is a task that cannot be undertaken at the present.

The southern part of the plan is largely occupied by an enclosure surrounded by a butressed wall. Its western wall is angled to align with the street, and contains the main entrance, flanked by brick pylons. Much of the interior seems to have been open ground. A small group of rooms, possibly magazines, stood in the south-east corner, and there are two large well pits. It is one of two not dissimilar enclosures that stand in the southern residential area, [2] but the purpose of neither can be established from the available information. Immediately to the south stands a large house in its own grounds. The house itself formed the basis of the German expedition house, which has served in turn as the southern E.E.S. dig house, and is now the headquarters of the current expedition. The grounds and an adjacent group of small houses were dug by Griffith, who found a well-preserved garden, and the foundations for a shrine beside which were two headless statues of Akhenaten and Nefertiti (Griffith 1924: 303, Plates XXXIV.2, XXXV).

The ground to the north of the large enclosure is dominated by two large circular constructions. The northern one of the pair was first excavated by Petrie and Carter, and a plan published (Petrie 1894: 24-25; Plate XXXIX.12). Griffith re-excavated it, and a second one adjacent on the south (Griffith 1924: 302-303). None of those involved was able to provide an explanation for their purpose, and until a re-excavation and fresh study of the brickwork is undertaken speculation has little value. In both cases the ground level inside was lower than the level outside, but the idea that they were simply large wells is complicated by the existence of a small brick structure in the centre of the northern one.

To the left (west) of these circles runs the line of one of the main north-south streets, passing through largely unexcavated ground until it reaches the line of houses excavated in 1921. The corner house is that of the Overseer of Horses, Ranefer [N49.18] (Peet and Woolley 1923: 9-15; Plate I). The remaining space on the right of the road and to the east and north of the large circles is occupied by houses mostly dug in the ill-fated 1923-24 season. For some a plan has survived in the photographic negatives, for others an outline only has been plotted, from direct ground observations.

It might be recalled that the house of Ranefer was the site of test trenches dug by Peet in 1921, which revealed a considerable depth of archaeological stratigraphy beneath the house, including apparent floors (Peet and Woolley 1923: 12-14; Plate VIII.7). Although further exploration of these lower levels was contemplated in the report, nothing further was ever actually done. The visible ground surface conveys no indication of how

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[2] The other one was also excavated in the 1923-24 season.

extensive these lower levels might be; no indication, indeed, of their very existence. Yet, as the stratigraphic record from the Workmen's Village has shown, close attention to this kind of deposit can yield valuable results. At some stage in the future further exploration of these lower levels should be added to the programme of work.

### 7.3 The area illustrated in Figure 7.2

The left (north) side is close to the northern edge of the map sheet. The area illustrated lies just to the north of the broad wadi. At the top (east) lies a group of excavated houses. The large house on the right is that of the General Ramose [P47.19-20], dug by Borchardt (Borchardt and Ricke 1980: 123-130). Most of those to the left form part of the 1922 British work (Peet and Woolley 1923: Plate II). The second main north-south thoroughfare runs in front of them. Across the road the ground is divided into excavated and unexcavated housing areas. The high-density area is another separate unpublished E.E.S. excavation, made during the 1932-33 season, and directed by J.D.S. Pendlebury (Pendlebury 1933: 117-118). The excavation itself, however, was supervised and recorded by H. Waddington, who made a detailed plan which has survived, and which has been used in compiling the map sheet. The area contains two larger houses with thicker walls [O47.16a and O47.20], and a host of short lengths of wall from tiny houses and courtyards. Towards the eastern side several pieces from a sculptor's workshop were found, including the famous quartzite head identified as Queen Nefertiti.

This area of small and closely spaced housing ends on the west at the boundary wall of a large estate [O47.19]. The boundary wall, the entrance to the street, the edge of the well depression, and the plan of the chapel foundations were made by Waddington. The pair of adjoining houses, however, were dug and planned by Petrie and Carter in their 1892 season (Petrie 1894: 22; Plate XXXIX.9). Their walls still stand to some height, and the old plans can easily be identified with them.

The remainder of the ground included in Figure 7.2 is unexcavated. It contains several very large houses, and probably areas of smaller dwellings. The condition of the ground varies considerably. Towards the eastern edge it is untouched, the ground surface undulating smoothly over the houses, and in the same condition that Borchardt found over much of the ground that he dug. But the central and western areas have been dug over in varying degrees. Woolley attempted to enter this part in 1922, but after having cleared three small houses [O47.16-18] he abandoned it altogether (Peet and Woolley 1923: 27-28; Plate III). It is essential to any rational scheme of work in the main city, however, that areas such as these be included for systematic treatment, even if it has to be accepted that, for example, analyses of artefact distribution will have a diminished degree of precision.

In the north-western part the nature of the ground changes. The rhythmic pattern of house mounds is replaced by signs of broad open spaces and areas of uniform walling. The area terminates westwards with a long straight wall fronting another of the north-south thoroughfares, which today carries the main road linking the modern villages. One can, with some confidence, identify



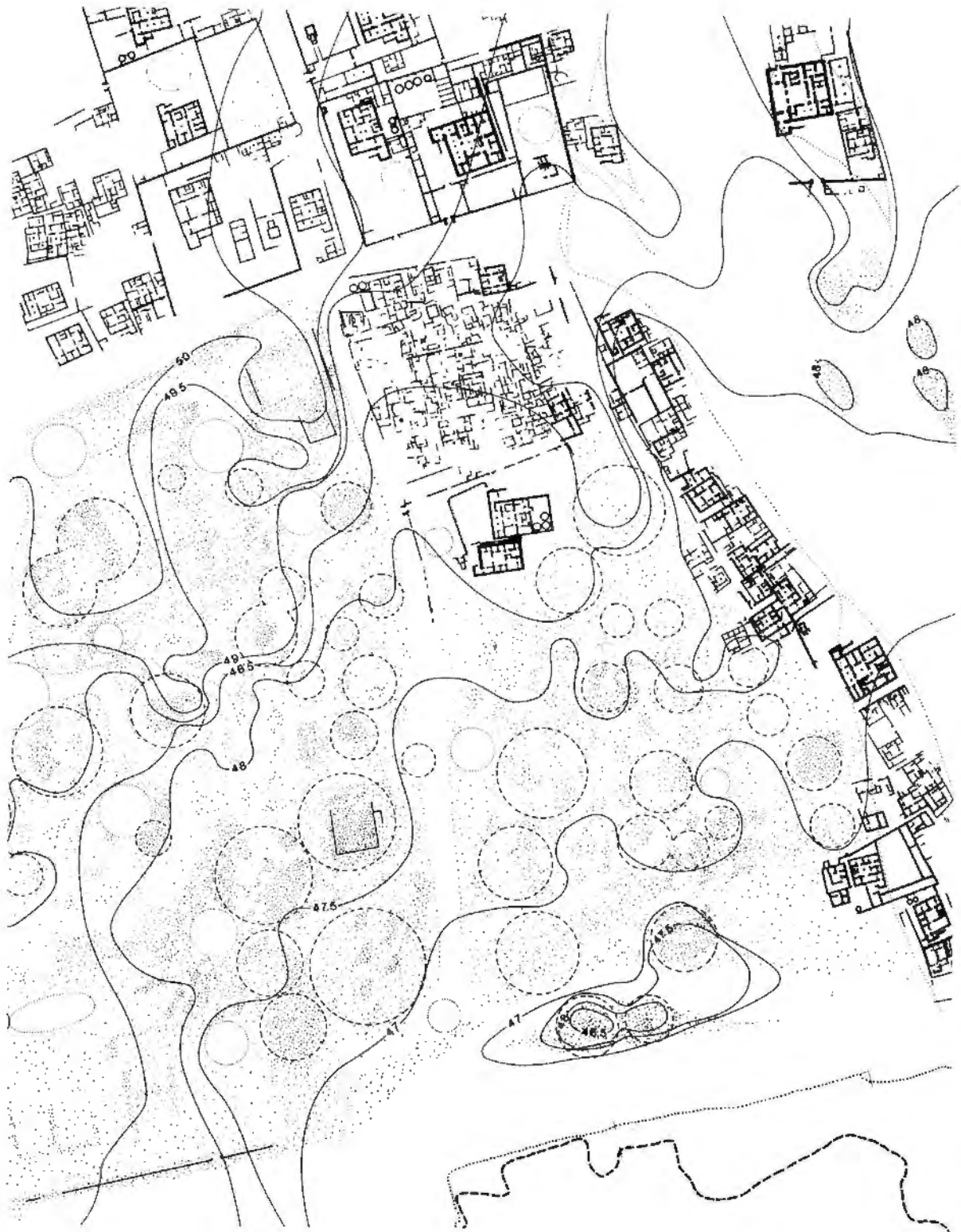


Figure 7.2. Section of the northern part of Map Sheet 7. North is on the left.

this as an area of official buildings, which runs unbrokenly southwards from the Central City on both sides of the road.

The whole area illustrated in Figure 7.2, with its continuation northwards, offers the most interesting prospect for fieldwork within the main city, on account partly of the mix of buildings and partly of the mix of undisturbed and disturbed ground.

#### 7.4 The resistivity "well" survey

For the majority of the ancient inhabitants of the city the river was too far away to provide a source of water. Richer people living in houses surrounded by an enclosed and sufficiently spacious plot of ground had their own private well dug for them. For the rest of the people public wells were dug at frequent intervals in open spaces amongst the houses. Official buildings also had their own wells, often very large ones. Wells large and small were customarily funnel-shaped, and their subsequent filling with sand and silt has often left a rounded depression on the desert surface where light desert vegetation may grow. Because of their shape they require much labour to clear completely, and previous excavators were frequently content to mark the positions of depressions on their maps and proceed no further. In the 1921-22 excavations, for example, only one well was actually dug out (Peet and Woolley 1923: 11-12; Plate VII.2, 5).

In some cases the location and shape of a depression provides a reasonably positive basis for identification (cf. Kemp 1981b: 92-93; Suppl. 4-6). Many others, however, are ambiguous. A low-lying area between mounds of debris may collect rainwater and leave a shallow pan of fine silt indistinguishable from a well depression. Visual identification is only a preliminary step. Yet this is the prime data for an important aspect of the city's life: its water supply. It appears to be unusual in the record of Egyptian settlement sites to have unequivocal evidence on this subject.

As the surveying has proceeded, all likely well depressions have been marked on the maps. The visit of a surveying team (I. and P. Mathieson) with a resistivity meter raised the hope that a means of verification might exist which would still obviate the need for expensive total clearance in every case. Two sample areas were therefore pegged out on the ground in the main city. They both lie within the limits of Map Sheet no. 6, and are within squares P46 and P47. A mixture of excavated and unexcavated areas was deliberately chosen, including the grounds of the house of the sculptor Thutmose containing a well fully dug out by the German expedition of 1912-13. The results of this examination are set out in Chapter 8. Although there can be no substitute for excavation, and although the resistivity work was carried out in only a few days, the results are sufficiently positive to justify future use and development of this method.

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