

CHAPTER 6

REPORT ON THE 1985 AMARNA SURVEY THE SURVEY OF THE CITY

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6.1 Introduction

The goal for the 1985 season was the completion of the ground check and contouring for map sheet no. 5, and by the end of the season this had been accomplished. Sheet no. 5 extends across the Central City (but omitting the Great Aten Temple). This is the most familiar part of el-Amarna, covered by the work of Pendlebury, Fairman and Lavers which forms a substantial part of *COA* III. A large element of the current survey, therefore, involves locating on the ground key reference points from the published plans of individual buildings and relating them to the survey control points. Many of the buildings, however, have become indistinct since they were excavated, either from weathering or from having been covered by dumps so that even this procedure was not straightforward. Moreover, there was much to be done to relate buildings to the underlying topography through careful contouring. The exercise also came to extend beyond cartography. The close scrutiny of the ground that is involved has the effect of bringing the old excavations into the focus of future research strategy.

6.2 The Central City: topographic considerations

The site that Akhenaten chose for his new city was not a perfectly flat plane. Although by no stretch of the imagination could the topography be called dramatic once away from the cliffs, it does undulate to a degree that is very noticeable when walking on the site. And whilst it is true that the extent of overall town planning at Amarna was very limited, the lie of the land did play its part in such planning as was attempted. To this extent the descriptions and plans in *COA* III are somewhat misleading, in that they easily convey the impression that everything stood on a single flat surface.

The royal layout, the part around which the rest of the city spread rather informally, possessed two architectural nodes: the main royal residence in the north (the North Riverside Palace in the North City), and the Central City. The former took advantage of the formidable natural protection afforded by the proximity of the precipitous limestone cliffs; the latter was set on the highest intermediate point of the desert as it skirts the river between the two headlands which close the Amarna plane. The Great Wall which enclosed the North Riverside Palace on the east stands on the 45.00 metre contour. Southwards as far as the village of el-Till the level of the ground hardly changes. To the east and south of the village, and across a wadi which terminates the North Suburb, the ground then begins a steady rise up to the Great Aten Temple, much of



Figure 6.1. Sample area of Survey Sheet no. 5, which covers the Central City. The King's House is in the centre. The scale is 1:2000.

which occupies a plateau at around the 50.00 metre level. A slight dip into a hollow which develops into another wadi further back is to the south, filled at the western end by the kitchens and other buildings which lie between the Temple and the King's House. The latter stands on a conspicuous knoll which is part of a ridge of high ground running eastwards and climbing slowly as it does so. The east-west axis of this ridge contains the highest ground within the limits of the ancient city. Its northern side develops into a pronounced escarpment as it runs back into the desert, and the direction that it follows, bearing slightly southwards, had a marked effect on the way that this part of the city was laid out. The two buildings which took most advantage of the elevation were the King's House at the west end, and the "Police Barracks" (R.42.10) at the east. Southwards beyond the Smaller Aten Temple the ground begins a gentle even descent until it reaches the broad wadi which cuts the Main City in half.

As Figure 6.1 reveals, the King's House covers ground at the 50.00 metre level. On the west side it overlooks the Royal Road, which passes by three metres lower. The edge of the building coincides with the level change. The original builders either coped with a natural projection by building around it, or raised the floor of the King's House artificially by terracing. The older excavations ignored questions of this kind, which can be resolved only by further selective excavations and far more detailed architectural study. The sudden change in level must have accentuated physically the dominance which this building had in the life of the city. Thus the main entrance from the Royal Road was actually a ramp rising two metres over a length of twenty metres (cf. *COA* III: 86). An element of landscaping was also present in the Smaller Aten Temple. From north to south the ground was relatively flat, but from east to west the builders elevated the courts progressively one above another.

The Police Barracks, like the King's House, took advantage of a sudden slope, in this case the escarpment edge up from the wadi to the north (Figure 6.2). Thus the main entrance was approached by a short climb from 50.50 metres to 54.50. The building also followed the line of the escarpment, giving it an alignment of 11° to the King's House. From the way that several other large buildings took their alignments from it we can judge that the Police Barracks was one of the first buildings to be laid out in the Central City. One building influenced in this way lies to the north in the wadi, and remains unexcavated, although it is very conspicuous. We have given it the designation S.42.1 (Figure 6.2). It is referred to in *COA* III: 133, where it is likened to the huge well pit in the Barracks, but is described as "clearly dug out for the sand-filling and scaffolding required for the Palace, to which a street runs directly from it." This description runs counter to what can be inferred of its character from surface study. It appears to be a walled enclosure, 95 by 65 metres, with a very large lake or well in the centre. The sand and gravel originally dug out can still be identified as a broad low mound to the east.

Another unexcavated building lies south of the Police Barracks and beside the large rubbish-heap area. We have given it the designation R.43.4, although it in fact straddles both R.42 and R.43 (Figure 6.3). It is untouched in modern times and is apparent only from smooth undulations of the ground. These can be

resolved into a rectangular walled enclosure measuring at least 60 by 35 metres, the eastern side not detectable from ground observations. In the centre is a mound with a slight dividing valley running east-west, the whole representing a central construction. Building R.43.4 helps to enclose on the east the street which separates the Police Barracks from what Pendlebury thought was the Military Barracks. Although this group of buildings has a single very strict alignment, R.43.4 is laid out at an angle to it, bringing it into line with the direction of the blocks of the "Clerks' Houses" east of the King's House, and an individual block within the Records Office area (Q.42.10). The meaning of this and other variations in alignment within the Central City in terms of the internal chronology of the area can only be investigated by further excavation and re-examination.

Figure 6.2 includes the famous rubbish-heaps themselves, their outlines properly mapped for the first time. As the contours show, as mounds they are very low. They also divide into two areas of dense debris separated by an area of lesser archaeological cover. Since this coincides with the course of a natural depression the division could be a result of erosion, but any future investigation should seek to compare material from the two parts to evaluate whether they are, in fact, homogenous. Petrie (1894: 15-17) was the first to investigate them, and through his collection of large quantities of Mycenaean sherds the heaps have become famous. A further investigation was carried out by Peet in 1921 (Peet 1921: 170, 182-185), and a few objects from casual collection were included in *COA III*: 139, 142.

The natural undulation of the ground had its effect on the Great Palace, the largest continuous building of all at Amarna. The ground beneath it dips somewhat irregularly. Beneath the Coronation Hall, for example, it drops generally by about 1.50 metres from east to west. Locally, however, the change in ground level can be more severe, so that the floor of the southern section of the Hall, for example, is markedly lower than the adjacent ground outside. The slope must have continued further westwards for the desert ran directly down to the river's edge. For the most part the ancient edge is buried beneath later alluvium, but beside the village of el-Till it reappears for a short distance along the waterfront at a height of around 40.00 metres compared to the floor level along the east side of the Palace which seems to have been around 46.50 metres. The Great Palace is noted for the grandeur of its overall concept and for its unusually elaborate pattern of foundations. To achieve their effects the builders must have used terracing here also to compensate for the variations in ground level. This is generally evident when looking at certain parts today (especially the area west of the Bridge), and is discussed briefly in *COA III* (e.g. 55, 58; Plates XXXVIII.4, XL.2,3; XLII.3). It had a curious negative image effect on the excavated remains, where the floors were anything up to two metres higher than the lines of walls, which remained only as robber trenches. Lavers' plan (*COA III*: Plate XIII B) is a good horizontal record of what was found, made in difficult circumstances since one part or another of the area must always have been covered by a dump. It does not provide, however, a record of the hundreds of significant changes of level. These are a prerequisite for a full study of this strange and impressive piece of ceremonial architecture.

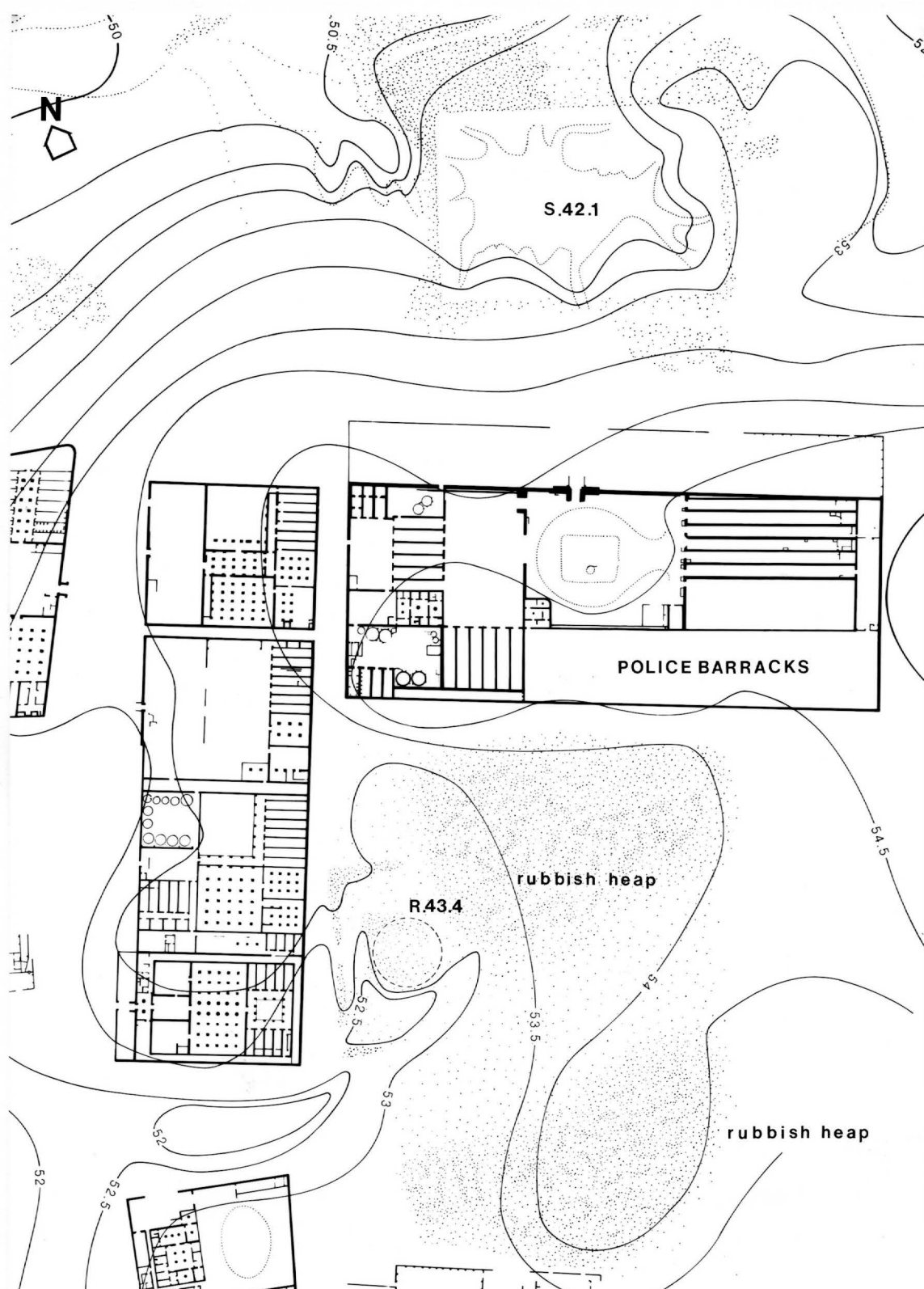


Figure 6.2. Sample area of Survey Sheet no. 5, including the Police Barracks and Military Barracks. The scale is 1:2000.

The size of the Great Palace was daunting even for the ambitious goals of 1930s excavations, and the Great Palace was never completed. This applies most forcefully to the Coronation Hall. The excavation photograph of this part published in *COA III* (Plate XLIV.2) shows only seven each of the centre two rows of brick piers cleared of debris. Examination of the ground today confirms that this was the limit of excavation in this part. The remainder of the plan of the main pillared hall was compiled from the 19th century plans. The result is probably not wrong, since many of the positions of the unexcavated columns are still visible as heaps of gravel. But the published report cannot be taken as an adequate record either of architectural detail or of the earlier and underlying layout using tree-pits which the text mentions in passing (*COA III*: 60-61, 80).

6.3 The archaeological status of the Central City

The Central City is (with the North Suburb) the most completely excavated discrete zone of the city. Apart from the two individual buildings (S.42.1 and R.43.4 respectively) north and south of the Police Barracks all parts have received some treatment, usually amounting to complete clearance of debris within the confines of a building. The two most important cases of partial clearance are the great bakery lying immediately south of the Great Aten Temple where only a very small proportion of the baking chambers has been excavated (*COA III*: 29-30, Plate XII; see Kemp 1979b for identification as bakeries); and parts of the enclosure of the Great Aten Temple itself (to be treated in a subsequent report).

Although the whole area is represented by a single two-volume monograph excavation report (*COA III*), the history of excavation is not a straightforward one. As noted in last year's report (*AR II*: 58-63), by the time of Erbkam's map for the Lepsius expedition, made in the 1840s, most of the local turning-over of the site that has ever been done was already finished. In the Central City this meant the Great Palace, the King's House with its magazines, the Records Office area, the kitchens and bakeries to the north, and parts of the two Aten temples. An aerial photograph taken in 1922/23 shows that the boundary between the dug and the undug had not advanced much since Erbkam's day, and was still excluding the buildings behind the Records' Office area. This includes the Police Barracks, and underlines the peculiarity noted by Pendlebury that at some point after the building had collapsed the well depression was re-dug and sand heaped over fallen walls (*COA III*: 133). This conspicuous depression appears on Erbkam's map, and, with its attendant sand heaps, on the early aerial photograph.

Petrie's excavations of 1891/92, which took the form of picking off likely-looking points, included parts of the Central City, but the amount actually excavated here was probably quite small by the standards of the day. It is important to realise that for the most part Petrie selected buildings which had been dug over and where a partial wall pattern was already visible. The Great Palace is a particular case. For the Coronation Hall both Wilkinson's and Erbkam's plans show that Petrie needed to do little in order to compile his own plan. For the rest of the building, the omissions and discrepancies that arise

from comparison with Pendlebury's plan imply that Petrie confined serious excavation down to floor level to only very few places. Elsewhere in the Central City he limited himself to the King's House and one section of magazines to the east, the Records Office and two adjacent buildings (no. 21=Q.42.22, but see COA III: 115; and no. 18=Q.42.7), and pits and trenches into the rubbish-heaps south of the Police Barracks. Petrie also followed the practice of confining his excavations to the interiors of buildings, the ground outside being regarded as blank space.

Most of the subsequent work in the Central City was carried out under Pendlebury's direction, although for the architectural planning, the principal concern of the current Survey, the name that matters most is that of Ralph Lavers. Apart from peripheral elements of the Great Aten Temple, Lavers planned all the central buildings. In the last season Pendlebury continued excavating to the very end (the final day was 11 December 1936). Some of this last work was on the group of buildings in the south-east corner of the Central City, in square R.43, called the "South-east quarter", which included the remarkable brick temple for the king's statue (COA III: Chapter IX, Plates XXII, XXIII, LV, LVI). The pattern of work in all these seasons seems to have been similar to that established at the beginning, in 1921. The crucial figure was the architect, who moved behind the excavation, planning individual buildings as they were completed. Overall planning, setting the buildings within a broader site context, was a consideration normally ignored. The consequences are very apparent from Lavers' block plan of the Central City (COA III: Plate I), which is a composite of individual detail plans rather than the result of an independent survey. Some buildings are incorrectly placed (e.g. O.42.1 and .2 beside the Coronation Hall of the Great Palace; and the kitchens, magazines and bakery between the King's House and Great Aten temple). Those of the South-east quarter, the last to be dug, are omitted, as are unexcavated features. Yet at this sketch-map level we have the only record of the enclosure of the Great Aten Temple beyond the walls of the two main interior buildings: the Gem-Aten and the Sanctuary.

It is important to take a hard look at the older work as a preliminary to evaluating what, if any, further work could profitably be undertaken in the future. The status of the Pendlebury investigations is probably very similar to that of the Peet and Woolley excavations at the Workmen's Village. Re-clearance of selected buildings reveals that the standard of accuracy in planning was really very good, both in respect to the internal plans of individual buildings and to the relationships between buildings; but that there is much valuable, and sometimes crucial information to be gained from re-examination partly from working to a larger scale and devoting more time to small details, and partly from a more vigorous cleaning particularly of floors to reveal deposits and features not fully exposed before. Transferred to the Central City, a policy of carefully selected re-examination would be likely to reap a massive harvest of information, not least on the public buildings. The older work tended to see them as two-dimensional structures to be recorded primarily in outline plans, whereas even now in places the height of surviving brickwork gives the ruins an impressive three-dimensional aspect enhanced by changes in ground level where

the builders sometimes had to respond with terracing. In the case of the magazine and kitchen area north of the King's House one would dearly like more information on the nature of ground deposits and the organic content of spoil heaps, whilst the large unexcavated portion of the adjacent bakery is a site of obvious attraction.

Context is another important consideration. Both within and around the Central City are large open areas with sherd cover. No brick buildings are likely to lie beneath, and for this reason, with the exception of the famous "rubbish-heaps" south of the Police Barracks, they have never been examined. Yet they represent part of the pattern of the activity of the city's inhabitants and merit serious attention, both for a proper record of artefact spread and in case some open areas were the site of temporary or insubstantial structures.

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References for Chapters 1-6

- Assaad, H.A. (1983). "The house of Thutnefer and Egyptian architectural drawings." *The Ancient World* 6 (Egyptological Miscellanies): 3-20. Chicago.
- Bruyère, B. (1939). *Rapport sur les fouilles de Deir el Médineh (1934-1935)*. Troisième partie: le village, les décharges publiques, la station de repos du col de la Vallée des Rois. (Fouilles de l'Institut Français d'Archéologie Orientale du Caire, XX). Cairo.
- Bruyère, B. (1953). *Rapport sur les fouilles de Deir el Médineh (Années 1948 à 1951)*. (Fouilles de l'Institut Français d'Archéologie Orientale du Caire, XXVI). Cairo.
- Coburn, F.D. (1909). *Swine in America: a text-book for the breeder, feeder & student*. New York and London.
- Davies, N. de G. (1929). "The town house in ancient Egypt." *Metropolitan Museum Studies* 1: 233-255.
- Davies, N. de G. (1941). *The tomb of the vizier Ramose* (Mond Excavations at Thebes, I). London.
- Davies, N.M. and A.H. Gardiner (1936). *Ancient Egyptian paintings*. Chicago.
- Janssen, J.J. (1975). *Commodity prices from the Ramessid Period: an economic study of the village of necropolis workmen at Thebes*. Leiden.
- Kemp, B.J. (1977). "The city of el-Amarna as a source for the study of urban society in ancient Egypt." *World Archaeology* 9: 123-139.
- Kemp, B.J. (1978). "Preliminary report on the El-Amarna survey, 1977." *JEA* 64: 22-34.
- Kemp, B.J. (1979). "Wall paintings from the Workmen's Village at el-Amarna." *JEA* 65: 47-53.
- Kemp, B.J. (1979b). "Preliminary report on the El-Amarna survey, 1978." *JEA* 65: 5-12.
- Kemp, B.J. (1980). "Preliminary report on the El-Amarna expedition, 1979." *JEA* 66: 5-16.
- Kemp, B.J. (1981). "Preliminary report on the El-Amarna expedition, 1980." *JEA* 67: 5-20.
- Kemp, B.J. (1983). "Preliminary report on the El-Amarna expedition, 1981-2." *JEA* 69: 5-24.
- Long, J. (1886). *The book of the pig: its selection, breeding, feeding, and management*. London.
- Peet, T.E. (1921). "Excavations at Tell el-Amarna: a preliminary report." *JEA* 7: 169-185.
- Petrie, W.M.F. (1894). *Tell el Amarna*. London.
- Pinch, G. (1983). "Childbirth and female figurines at Deir el-Medina and el-Amarna." *Orientalia* 52: 405-414.
- Spencer, S. (1897). *Pigs. Breeds and management*. (Live Stock Handbooks, V). London.
- Tietze, C. (1985). "Amarna. Analyse der Wohnhäuser und soziale Struktur der Stadtbewohner." *ZÄS* 112: 48-84.
- Vercoutter, J. (1978). "Supports de meubles, éléments architectoniques, ou <<établis>> ? (Inventaire: Balat 205-717 et 207-720)." *BIFAO* 78: 81-100.
- Winlock, H.E. (1955). *Models of daily life in ancient Egypt*. Cambridge (Mass).
- Woolley, C.L. (1922). "Excavations at Tell el-Amarna." *JEA* 8: 48-82.