

# AMARNA REPORTS III

BARRY J. KEMP  
EGYPT EXPLORATION SOCIETY

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The Egyptian city of (Tell) el-Amarna was built by King Akhenaten around 1350 B.C. as a new capital and as the showpiece for his new cult of the life-giving powers of the sun, the Aten. Following his death the city was rapidly deserted, after an occupation of between about fifteen to twenty years. This short-lived history makes the site immensely important for archaeological studies. In 1979 the Egypt Exploration Society resumed its programme of excavation and survey at Amarna, interrupted since 1936. The current excavations have been concentrated at an isolated settlement in the desert behind the main city, the Workmen's Village. At the same time a project of archaeological mapping for the whole city has been undertaken. This is the third volume of interim reports on excavations and survey, and on various related research projects. Whilst the results contribute to our knowledge of the nature and history of Amarna specifically, they also illustrate the behaviour of one human community, isolated in space and time, as manifested through archaeology. The volume also breaks new ground by including reports on the first season of survey at the ancient alabaster quarries of Hatnub, and on Late Period pottery from the South Tombs.

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**AMARNA REPORTS III**

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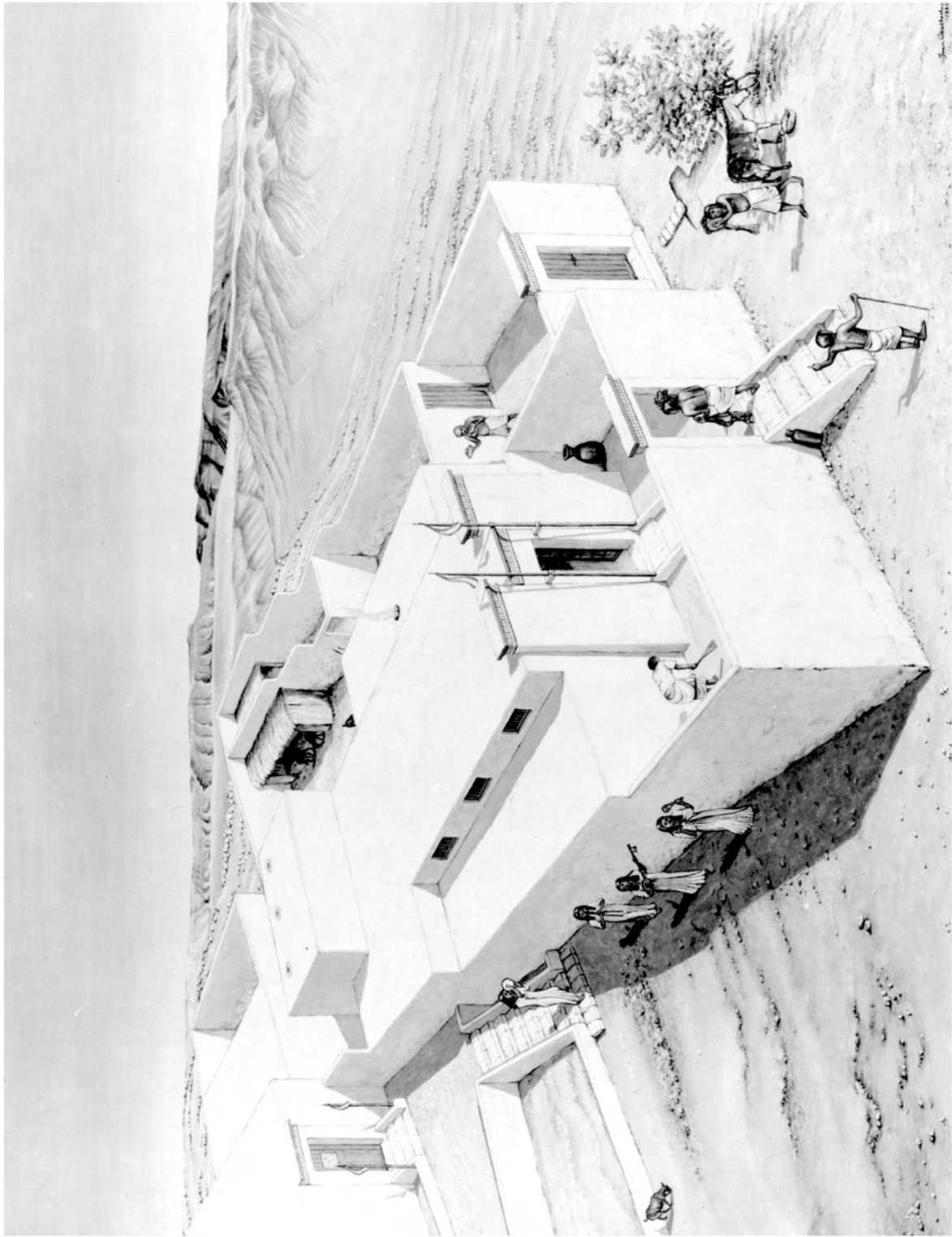


Figure 0.1. Reconstruction of the Main Chapel (by Fran Weatherhead).

## PREFACE

The third volume of *Amarna Reports*, like its predecessors, provides both interim reports on the progress of the fieldwork of the latest season (1985 in this case) and technical reports intended to be more or less complete in themselves. A period of just over ten weeks at the site (between January 18th and April 1st) enabled a good deal of fresh ground to be opened up and two largely independent projects to be initiated, at the South Tombs and at the Hatnub alabaster quarries. The main work remained, however, at the Workmen's Village, with the new results complementing in a very satisfactory way the picture that has slowly accumulated since work began.

The point has also been reached when increasing thought has to be given to the expedition's overall objectives. Excavations at the Workmen's Village have been proceeding annually since 1979. The latest season's work is thus the seventh devoted to a site which, in Egyptian terms, is relatively small and has seen previous excavation, in 1921 and 1922. It has naturally become a point of much discussion as to when it can properly be said that the current project to re-examine the site is complete. One element in current archaeological thinking is that a sufficiently adequate record of a site can be obtained through relatively small-scale sampling performed in accordance with a sampling strategy which holds the promise of results which are statistically valid for the site as a whole. The philosophy behind this approach seeks a cultural and environmental profile of an ancient society viewed at a macroscopic level, in which details of local circumstances become peripheral. By this approach one or two seasons at the Workmen's Village would have sufficed. Egyptian society of the New Kingdom is, however, relatively well documented through a variety of sources to a level where quite specific questions are raised which will find answers as much through attention to local details as through macroscopic synthesis. The role of private initiative in animal stock-raising and of private chapels in the rhythm of people's lives are two examples where only the fullest possible study of the archaeological context is likely to provide a reasonable level of confidence in interpretations. The fact that non-archaeological sources provide already a socio-economic framework at a relatively high level places upon the archaeologist the responsibility of responding with excavation at an appropriate level of detail. [1] The problem with any sampling strategy that seeks answers at this finer level of detail is the sheer unpredictability of human behaviour when viewed close to. It has become all too apparent as the years have passed that surface indications at the Workmen's Village do not provide an easy basis for assessing what lies beneath the ground. Always when excavation is complete the reason for the ground's initial appearance can be explained logically, but the link between surface and sub-surface detail is too far from being sufficiently constant to create a reasoned basis for any but very local predictions.

It has to be accepted, nevertheless, that total excavation of the site lies beyond the resources available, and that in individual parts a level of diminishing returns in practice justifies a decision not to pursue the

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[1] On the relationship between texts and archaeology in Egypt, with reference to the Workmen's Village, see B.J. Kemp, "In the shadow of texts: archaeology in Egypt", *Archaeological Review from Cambridge* 3:2 (Autumn 1984): 19-28.



excavations further. Where the strategy adopted differs from a rigidly modernist one is in rejecting the idea that this level is itself predictable.

The strategy that has been followed (and from the beginning some considerable thought has been given to this topic each year) has been gradually to bring the various parts of the site under scrutiny not by working forwards along a single front until interest runs out but, in effect, by sampling the different areas with blocks of five-metre squares and enlarging the blocks either until that part is exhausted or until the results have become too repetitious to require further pursuit. This has to be seen, however, within the broad context of the site as a whole, where information is available from two other sources: from the work of our predecessors in the 1920s, and from surface indications. With regard to the latter, since 1981 a policy has been followed of mapping the whole surface of the site where the debris of human activity is apparent. The scale of mapping has varied, from a large scale closest to the Village where the activity was at its most intense to a smaller scale (1:250) for the outlying hillsides.

The combination of excavation, evaluation of older work, and surface survey has produced a general criterion for directing the course of the excavation: "an area can be said to be finished when an argument of some detail supported by data from the various sources can be put forward to explain its present appearance." This holistic approach involves explaining the present appearance of the site in terms of all of the agencies at work, from the geological, through the New Kingdom occupation, the subsequent decay, slight later activity, occasional rainstorms, phases of illicit digging in modern times, and the older and current excavations. Knowledge of the whole process of archaeological landscape formation is a necessary ingredient in the process of judging that our picture of one part of the site is sufficiently adequate for us to declare that it is "finished".

It has been apparent from the very beginning that topography and surface appearance divide the site into several different zones. Until this season the excavations have been concentrated in zones which run south from the Walled Village and spread eastwards on to the lower slopes of the hillside. For much of this whole area - represented by the Main Quarry, Building 350 and surrounding rubbish deposits, and the *Zir*-area - a web of arguments based on the different sources of data covers it with sufficient completeness to render further excavation unnecessary. In the zone around the low spur lying to the east - stretching between Chapels 570-571 and the important work of this season on Buildings 300 and 540-541 - we are drawing towards that point, reachable perhaps in one further season. The 1:250 ground survey of the whole southern part of the site, from Site X1 in the west to Chapel 537 in the east, and including the row of Chapels 521 to 536 dug in 1921, is also virtually complete, and covers as well the surface of the hill which flanks the Walled Village on the west. This leaves, however, two major zones where the collection of evidence for making a proper assessment still has some way to go: the ground to the east of the Walled Village, and the interior of the Village itself.

The ground to the east of the Village is in a particularly confused condition. Along the mid-slope of the hillside several tombs were made anciently and these have been investigated both by the Peet and Woolley work of the 1920s and by local people, all of whom heaped their spoil lower down the slope, closer to the



Village. The 1921 excavations followed a line of chapels built at almost the same level for a short distance beyond the point opposite the south-east corner of the Village. The most northerly one investigated was no. 521 (since completely destroyed, see *AR* II: vii, 39), but surface indications confused by spoil from the tomb clearances suggest that they may continue yet further to the north, even perhaps as far as the group built opposite the north-east corner of the Village, nos. 551-556. Between this band of disturbance and the Village Enclosure Wall lies another zone, bounded on the south by the Main Chapel. A brief description of its current appearance is given in Chapter 2, and its investigation has, with this season, now become one of the expedition's main targets. The first results of an excavation conducted in the centre reveal that, despite the modern disturbance, both structure plans and stratigraphic sequence can be recovered with relatively small loss. Furthermore the results have set up an initial framework of arguments for explaining the adjacent ground to north, east and south. The area is, however, sufficiently large to require a good deal of further clarification before it can be said to be properly understood.

The interior of the Village presents an unusual problem. Peet and Woolley excavated roughly half of the interior and revealed a plan composed of house units so similar in plan and regularly spaced that they felt sufficiently sure of the layout of the unexcavated part to reconstruct the house outlines and give them numbers in sequential series by streets. In this they were sometimes aided by having exposed just the tops of critical dividing walls. [2] If we accept the validity of this plan then we have to ask ourselves very carefully what we hope to gain by further work inside the Village. The excavation of a single house in 1979, Long Wall Street 6 (Kemp 1980: 10-12), underlined at the time the limitations to the gathering of useful evidence in this quarter. On the one hand modern disturbance had destroyed key architectural data and had locally confused the spatial distribution of finds; on the other hand much of the original contents of the house (and of its neighbours) was still there and in a fine state of preservation. As the rest of the excavation outside the Village has continued and large sets of data on pottery, small finds, animal bones and botany have been built up a pressing case has emerged for further work inside the Village simply to enlarge the categories of data from this sector for the purpose of comparison. It was in this spirit that the 1985 season saw a return to the interior of the Village, and the excavation of Gate Street no. 8. Here, however, the modern disturbance turned out to much less than was the case with Long Wall Street 6. Not only was an important harvest of material possible but significant additions of architectural detail could be made. The limited amount of modern disturbance has, all the same, introduced ambiguity into some of the findings, but this only strengthens the case for exploring the area further, by opening up at least one of the adjacent houses.

Re-evaluation of prospects inside the Village does not end here, however. The initial intention was to increase the sample of material from inside the Village by excavating one house on the east (Gate Street 8) and one on the west, to complement the material from Long Wall Street 6, located near the centre. Late in the season work was therefore started on the site of West Street no. 2, its

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[2] Peet and Woolley declared themselves to be much indebted to their surveyor, F.G. Newton (*COA* I: vii), so that we should probably credit him with much of the final appearance of the plan, *COA* I: Plate XVI.

position apparently guaranteed by the dividing walls having been exposed and planned by Newton in 1922. The results of doing this are presented in Chapter 1. By the end of the season the surface sand had been removed from half of the space supposedly occupied by West Street 2 and from the entire space of West Street 1 as well. There now lay revealed an area which hardly conformed at all to the predictions of the 1920s work. The floor deposits in this area still remain to be removed. Not only this, but the excavation itself must be extended to north and east until the regular pattern of unit-houses is picked up, and the old results can become again the basic argument for understanding the site.

From this discussion it should be clear that although a blanket of explanation now covers a substantial part of the site it will not be complete until further work is done in several sectors, work that will require more than one season. However, having reached this advanced position in understanding the site, it would be tragic not to complete the course.

This season's work has drawn even more attention to the 1920s excavations of Peet and Woolley. Their results, which outlined much of the character and history of the site, have hung like a backdrop behind the current work, which began with the idea of simply completing certain parts of the picture but has gradually come to create a scene of its own. The published report in *COA I* says little about the logistics of their operation. We can see from it only that two seasons were involved, two seasons in which a good deal of excavation in other parts of the site was accomplished as well. It comes as something of a shock to discover, from the dig diaries now housed in the E.E.S. archives, just how little time was spent there. In 1921 Peet devoted a mere fourteen days to digging at the site, for part of the time simultaneously with work in the Main City. Thence came most of the information on the chapels. In the following season Woolley took over, and spent twenty-one days digging at the site, including time (apparently three days) set aside for laying out four light-railway lines and making their embankments. Working at this pace the archaeologists can have done little more than number the finds as they came from the different parts of the site, take photographs with a glass-plate camera, and perhaps make a few sketchy notes on points of interest. The real site record was left to Francis Newton, to whom the authors of *COA I* gave such fulsome thanks. One cannot but marvel now at the confidence with which the bare bones of a site were laid open and at the tidiness of the resulting record.

This extreme brevity of treatment explains all too clearly why the re-excavation of some of the previously cleared buildings yields important fresh information. What was apparent last year in the case of Chapel 528 has been repeated this year with "Chapels" 540 and 541, summarised in Chapter 4. Again, however, a decision has to be taken on how extensive the re-clearances should be. The course chosen is a judicious sampling. The large chapel group 532-536 to the south-east of the Village will be left alone on the grounds that the 1921 notes and photographs give no cause for suspecting that they are anything but variants of the group 529-531 re-cleared last year, and the same applies to nos. 524-527. The group beside the north-east corner of the Village, however, does show features which require clarification. In particular, they possess an outer enclosure on the east side which communicates by means of a path bordered with stones with a group of enclosures and paths on the hill-top also outlined by lines of stones. These features, entirely unrecorded, give a unique character to

this chapel group and make it worth detailed study.

The principal results of the 1985 season lie firmly in the sphere of ancient domestic life and economy. Apart from the surprisingly good results obtained from within the Village, the excavations have revealed three more building groups given over to the raising of pigs: two entirely new sets of farrowing pens, and a building (540/541) where perhaps the animals were slaughtered and the meat prepared. The extent of the pig farms and the care and specialisation given to their construction raise the whole activity above the level of local dietary supplement. The full perspective of our findings has to await the transfer of the excavations to the Main City and the compiling of comparative collections of animal bones in particular. But for the present we have to consider the likelihood that this was an industry whose prime outlet was the Main City. This could have an important historical implication, for the evidence from the Village shows that this activity was flourishing in the Village's later stage of occupation, well into the reign of Tutankhamun.

The whole Amarna area is one rich in archaeological material and not only from the time of Akhenaten. Whilst the city of his reign is bound to remain the principal focus of the expedition's activities non-Amarna Period sites and archaeology offer interesting possibilities for separate projects which can contribute evidence of a particular kind as well as fragments of a regional history. Two such projects are reported on here, and Chapter 8, on the late New Kingdom burial from the 1984 season at the Workmen's Village, is really another. One of these projects, carried out by Peter French and the subject of Chapter 9, is a study of the extensive quantities of Late Period pottery which lie outside the rock-tombs of the southern group. The material forms such a homogenous group that it lends itself well to the creation of a corpus of pottery from a period which, in Middle Egypt, is poorly represented. The other project, the work of Ian Shaw and supported independently by the Thomas Mulvey Fund of the University of Cambridge, is a study of the quarries and quarry settlements at Hatnub. Here only a preliminary survey was attempted (Chapter 10), but the results have been so good as to lead to plans for further seasons.

Some of the following chapters bear the names of individual authors. The field reports were compiled by Kemp, but on the basis of the field records made by the team members whose names appear as sub-headings in the relevant chapters. The full staff list for 1985 runs as follows: Ann Bomann, Linda Hulin, Ibrahim M. el-Saidi and Janet Richards (site supervisors), Ann Cornwell (site supervision and pot drawing), Salvatore Garfi (Amarna Survey), Barbara Garfi and Andrew Boyce (artists), Pamela Rose and Paul Nicholson (pottery), Fran Weatherhead (painted wall plaster and conservation), Dr. Howard Hecker (animal bones), Ian Shaw (registrar and Hatnub Survey), Peter French (Late Period pottery), and Christopher Hulin (house maintenance). The Egyptian Antiquities Organization was most ably represented by Ibrahim Mohammed el-Saidi, who added to his rôle of Inspector that of site supervisor, and by Mohammed Abd el-Hamid Khallaf, who accompanied the Hatnub Survey and South Tombs pottery project. To them, to the members of the Permanent Committee, to Dr. Ahmed Kadri and Dr. Ali el-Khouli in Cairo, and to their colleagues in Minia Province - Mahmud Hamza, Samir Anis and Adel Hassan - a heartfelt expression of gratitude is due for both granting the permit to work at Amarna, and for assisting the expedition to function smoothly and efficiently.

The 1985 season saw a most welcome increase in outside financial support, in donations of several kinds. In great measure this was due to the energies of Mrs. Deborah Keirle, the Cairo representative of the Egypt Exploration Society. One item of great value obtained through her was the loan of a four-wheel drive vehicle from the Hongkong Egyptian Bank of Cairo. Another valuable donation came from Lloyds Bank International, Cairo. George R. Brown provided his usual munificent support for the expedition and survey. The Amarna Survey was financially assisted as well by further generous grants from the Robert Kiln Foundation and The British Academy. Gillian Eastwood's continuing study of the textiles benefited greatly from a grant from The British Academy; Mr. Stanley Hattie also kindly made a further donation for improvements to the expedition house at el-Amarna. To all of these people and institutions the expedition owes a great debt of gratitude.

For the setting up of the printed text of this volume and for use of analytical programs, the expedition is indebted to the facilities provided by the University of Cambridge Computing Service, and to the assistance of Piete Brookes and Martin Johnson of the Computer Laboratory.

### TECHNICAL NOTES

Most of the current excavation is outside the Walled Village, and is controlled by a grid of five-metre squares originating at a point in the south-west of the site. The squares are identified by prefixes consisting of a letter, representing the west to east axis, and a number for the south to north axis. The squares not only provide a framework of reference, but have also been used throughout as excavation units. Sections have been drawn along many grid lines, but no baulks retained, since the goal is area clearance.

Between 1979 and 1981 the site recording system recognised primarily stratigraphic soil layers, called "levels" and numbered in circles, beginning with no. 1 in each square. In the text of this volume level numbers are placed in round brackets, thus (1), with the five-metre square designation as prefix, e.g. M10(1). In 1982 the system was revised to incorporate all kinds of debris, not only layers, but walls, cuts, fills, and so on. These are now called "units", and numbering is sequential over the squares and from one season to the next. On the plans unit numbers appear in rectangular boxes, and in the text are written in square brackets, thus [1286].

In the excavation photographs, the wooden scale that appears is 1 metre long.

### BIBLIOGRAPHY AND REFERENCES

The references for Chapters 1 to 6, which report on the 1985 fieldwork, will be found at the end of Chapter 6. References for the subsequent chapters, written by individual authors, will be found at the end of each of their chapters.

The following abbreviations have been used throughout:

AR: *Amarna Reports*. London.

ASAE: *Annales du Service des Antiquités de l'Égypte*. Cairo.

BIFAO: *Bulletin de l'Institut Français d'Archéologie Orientale*. Cairo.

COA: *The City of Akhenaten*. London.

- IAEP: International Association for the Study of Egyptian Pottery (forthcoming pottery manual).
- JEA*: *Journal of Egyptian Archaeology*. London.
- LAAA*: *Annals of Archaeology and Anthropology*. Liverpool.
- Lexikon*: W. Helck and E. Otto (later W. Helck and W. Westendorf), *Lexikon der Ägyptologie*, Band I-. Wiesbaden, 1975-.
- MDAIK*: *Mitteilungen des Deutschen Archäologischen Instituts, Abteilung Kairo*. Cairo.
- NARCE*: *Newsletter, American Research Center in Egypt*. New York and Cairo.
- PM*: B. Porter and R.L.B. Moss, *Topographical bibliography of ancient Egyptian hieroglyphic texts, reliefs, and paintings*. Oxford, 1927-.
- PSBA*: *Proceedings of the Society of Biblical Archaeology*. London.
- SAK*: *Studien zur altägyptischen Kultur*. Hamburg.
- ZAS*: *Zeitschrift für ägyptische Sprache*. Berlin.



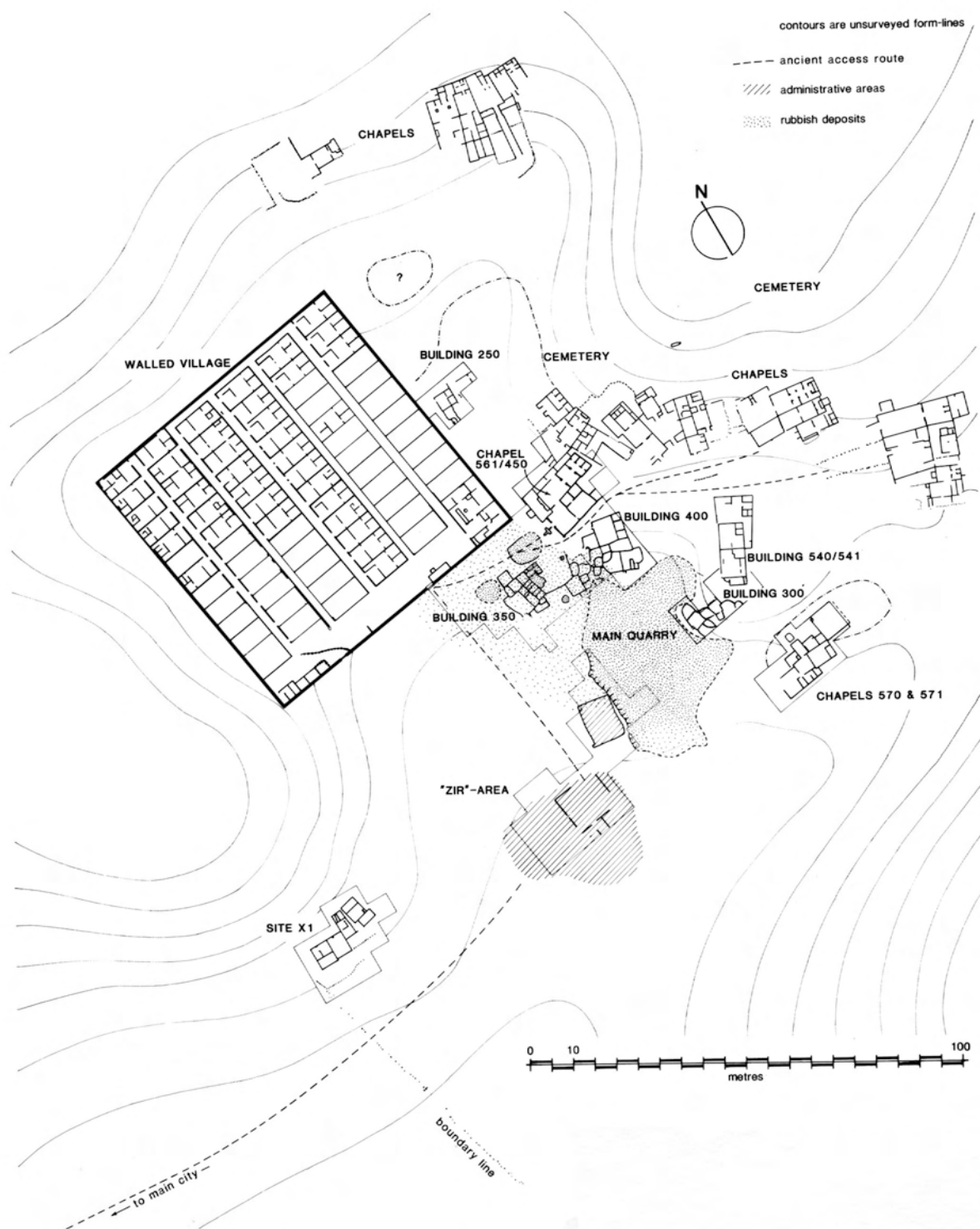


Figure 0.2. Map of the Workmen's Village, identifying principal buildings.