YARNTON & CASSINGTON
WORTON RECTORY FARM

1990/91 Assessments

THE OXFORD ARCHAEOLOGICAL UNIT

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CONTENTS

FIGURES

1. INTRODUCTION

1.1 In autumn 1990 English Heritage funded the Oxford Archaeological Unit to undertake three assessment projects within ARC's Cassington Pit.

1.2 ARC had obtained planning permission to extract sand and gravel from an area of 140 hectares in the parishes of Cassington and Yarnton without any archaeological conditions attached. When it became clear that the plant area was to be constructed upon the site of a complex and long-lived settlement dating from the early Iron Age to the Roman period English Heritage agreed to fund limited excavation. The results of this work, especially the discovery of later Saxon material, together with information from air photographs led to a further season of work when ARC stripped the adjacent area to the east in autumn 1990. At the same time money was made available to assess the archaeological potential of a limited part of the remaining pit area.

1.3 Machine assessment in the east of Cresswell Field and the field to the south was intended to evaluate cropmarks visible to the north-west of the excavation site, YWRF, and to establish the northwestern limit of the Iron Age settlement (Fig. 2).

1.4 Environmental assessment to the south-west of the excavation area was designed to locate a palaeochannel and to evaluate its potential to produce environmental material associated with the settlement (Fig. 4).

1.5 A fieldwalking project was carried out both within the pit area and beyond its boundaries. Its aim was to locate other sites within the pit, to assess the extent of the site catchment area and to examine manuring patterns and establish land-use (Fig. 3).

1.6 The aims of all three assessments were inter-related and together they provide a valuable insight into the complexity and potential of the archaeological resource of the area.

The nature and extent of the settlement sites at Yarnton and Worton on the second gravel terrace were established. However, perhaps the most exciting aspect of the results was the realisation of the potential of the floodplain as an under-researched element of the resource.

1.7 The origins of the Yarnton settlement were located in Cresswell Field. The village was established on second gravel terrace on the eastern edge of a dry river valley in the late Bronze Age/early Iron Age and spread eastwards across the terrace into the main excavation area (YWRF). The identification of an earlier element to the settlement greatly enhances its potential for exploring issues of continuity and change through time. The assessment also indicated a clear settlement layout with limited redeposition and the presence of stratified deposits in the edge and bottom of the valley.

1.8 The evaluation demonstrated the enormous potential for examining the relationship of the settlement to its surrounding landscape, in particular the floodplain. Well-preserved contemporary organic remains were found within a palaeochannel on the floodplain and possibilities for the use of these channels as a resource were suggested. Fields which were manured from the settlement in the Roman period were identified. Light scatters of early Iron Age pottery were more difficult to interpret and could represent satellite settlement or, conceivably, manuring.

1.9 Four early prehistoric sites were identified on gravel islands within the floodplain. One of these, represented by a dense flint scatter and burnt flint, had principally Mesolithic and late Bronze Age elements. A late Bronze Age site was located by a pottery scatter. It was not within the brief of these evaluations to examine the nature of these settlements but the implications for the recovery of environmental data, in particular waterlogged remains, and well-preserved deposits sealed beneath alluvium is clear.

1.10 The value of investigations on the floodplain was also demonstrated by the identification of a sequence of channel use, the possibility of investigating the relationships between channels and settlements and retrieving environmental information from all major periods. Waterlogged material was well-preserved within all channels examined.

The discovery of light pottery scatters on the floodplain, possibly the result of manuring, was unexpected. There is potential to examine the full significance of these scatters and their relationship to the alluvium.

1.11 This report summarises firstly the methodology, results and conclusions to be drawn from all three projects (Sections 2-11) and then details each project individually (Sections 13-14).

2. TOPOGRAPHY

2.1 The Cassington gravel extraction pit covers an area of some 140 hectares. It lies to the north of the A40 Oxford to Cheltenham road and is bounded on the east and north-east by the Oxford to Worcester railway line. Its western boundary is formed by a 350 m exclusion zone around Cassington village (Fig. 2).

2.2 The pit lies on an area of second terrace gravel, interspersed with silty loams, Oxford Clay, and alluvium, sloping down onto the Thames floodplain (Fig. 2). Palaeochannels cut through the floodplain gravel creating islands which appear to lie very close to the modern ground surface in several places.

2.3 Present land-use is mainly arable. The land is part of Worton Rectory Farm and will remain under cultivation until extraction.

3. ARCHAEOLOGICAL BACKGROUND

3.1 Introduction.
The pit lies within the Thames/Evenlode confluence area. This region has a rich archaeological past (Fig. 1). Important sites from the Neolithic to the Saxon period are found within a small area, including the large late Iron Age enclosure at Cassington Mill. However, over the last century, many of these sites have been destroyed by gravel extraction, road and railway construction and house building with, at best, only limited and piecemeal recording having taken place.

3.2 Nineteenth Century Destruction
In the last century the construction of the Oxford to Worcester railway and its branch line to Witney and Fairford cut through the pit area (see Fig. 2). The present haul road utilises the old branch line. Bronze Age Beakers and part of the Yarnton Iron Age settlement were observed during railway construction. Associated gravel extraction north of the railway line destroyed at least part of a Saxon cemetery.

3.3 Fieldwalking
Oxford University Archaeological Society undertook some fieldwalking in the field to the west of Worton Rectory Farm in 1970 and found Romano-British pottery (SMR 3746) on the gravel terrace. M. Aston of Woodstock Museum observed house platforms and a hollow way of the medieval village of Worton, in the area south of the farm between it and the pond, during field investigations.

3.4 Air Photographs

Aerial photography indicated the presence of archaeological sites in the pit area (Fig. 2). The recent excavation site at Yarnton (YWRF) was discovered from the air by St. Joseph in 1962 (University of Cambridge Committee for Aerial Photography, AFU 65,66 and 67). An earlier flight by St. Joseph led him to believe there was a villa south of Yarnton (Journal of Roman Studies, 1961 vol. 51: 134), though the precise location is not clear.

Flights by Allen in the 1930s (Allen Collection, Ashmolean Museum) and more recently by the RCHM (eg. NMR SP4611/2) revealed cropmarks of a ring ditch, rectangular enclosures and possible sunken-featured buildings west and north-west of Worton Rectory Farm.

A small rectangular enclosure with an entrance to the north (SMR 1382) just north of the A40, in the south of the pit area, was also photographed by Allen. Faint traces of possible features are visible to the north in other photographs (eg. NMR SP4610/1 and SP4610/2).

In the summer of 1990 cropmarks were clearly visible in the field north-west of the excavation area (Cresswell Field) and photographs taken by R.A. Chambers of the Oxford Archaeological Unit indicated the presence of an interesting small rectangular enclosure as well as pits and larger enclosures.

3.5 Field Names

The field names of 'Black Patch' and 'Chissels Ground' have been recorded for Cresswell Field. It was suspected that this could be the site of the elusive Roman villa.

Study by Alison McDonald has raised various interesting theories about the medieval land boundaries which have not been tested on the ground. The Yarnton/Cassington and Yarnton/Begbroke parish boundaries could fossilise early medieval hay meadow strips. Was the land south of the old Oxford to Witney railway track and north of the 17th century enclosures really enclosed in the Saxon period as the field name of 'Hay Day' suggests ? (see Fig. 5).

Present Gravel Extraction

3.6 Excavation on the plant site and the adjacent area has examined a rural settlement site which was occupied from the early Iron Age into the mid Saxon period (Fig. 2). There is evidence that this occupation was continuous, though not always of the same intensity.

3.7 In the east of the pit a mat of wood was found preserved in a palaeochannel (Fig. 4). One worked, upright stake was recorded in situ in a section and a mass of wood including worked pieces lay horizontally next to it. The wood was observed over an area 24 m x 14 m but had originally been more extensive. No detailed excavation was possible but it could have formed a platform or trackway. Two flint flakes, several hazelnut shells and animal bones were found on the surface and a Neolithic or early Bronze Age date is likely.

3.8 Part of Oxey Mead has been extracted in the south-east of the pit. It was one of a group of hay meadows studied by early ecologists in the 1930s and formed part of a classic account by Baker in the 1937 Journal of Ecology. The origins of hay meadows is an important research issue which has been highlighted in respect of both economic and social implications by Lambrick and Robinson's (1988) work on the Upper Thames floodplain. There is no pre-Roman evidence for hay making. The Domesday survey shows that Oxey Mead existed by the end of the Saxon period but it is by no means clear when these very extensive communal meadows were established. The fields to the west were also hay meadows by the time of Domesday and were probably enclosed when the land was divided between female heirs of the Spencer family in the early 17th century (A. McDonald D. Phil. thesis).

4. THE THREAT

4.1 ARC have planning permission to extract gravel from the Cassington Pit with no attached archaeological conditions.

4.2 The pit will be exploited over the next 15 years and the planned staging of operations is shown on figure 5. At present work on Stage 1 is finished, Stages 2 and 3 are near completion and work on Stage 4 is about to commence.

4.3 ARC have been very accommodating about access and have already altered some of their schedule to make archaeological investigations possible but there is no requirement for them to fund excavation.

The landowner, Mr G. Pharoan of Worton Rectory Farm has shown interest in the project and has been extremely cooperative. He is willing to allow access to his fields when they are not under crop.

5. SUMMARY OF CURRENT ARCHAEOLOGICAL INVESTIGATIONS

5.1 Strategy

English Heritage has funded a programme of limited excavation at Yarnton on the plant site and adjacent area (YWRF) (Fig. 2). The excavation examined an area of 4.5 hectares in some detail, 1 hectare as salvage and a further 1 hectare as a rescue operation. A strategy was devised to assess the value of the archaeology and target areas of interest which were then selectively sampled. A continuous process of reviewing progress and updating the objectives was undertaken throughout in conjunction with A.J. Fleming of English Heritage.

5.2 Character of Site

A rural settlement site was excavated dating from the early Iron Age to the Saxon period. There was evidence that the occupation was continuous, though not always of the same intensity. The settlement maintained an eastward shift so that, while there was sufficient overlap to examine the nature of change between the phases, the problems of redeposition were minimised.

5.3 Early Prehistoric

Although the most extensive evidence of domestic occupation is early Iron Age in date a late Neolithic flint scatter was found within the ploughsoil over the site, including a greenstone axe fragment. Only two contemporary features were discovered; a pit containing Mortlake ware which had been badly cut away by late Iron Age ditches and a shallow pit containing 75 flint flakes and tools into which a cremation had been set. This evidence, though limited, is of value since most early prehistoric material in this area has been recovered from funerary contexts.

5.4 Early/Mid Iron Age

A substantial early and middle Iron Age settlement, of which approximately one hectare has been investigated, revealed a wide range of features. Circular post-built houses of the early Iron Age were associated with fence-lines and gullies suggesting land division and also with pits including grain storage pits. In the middle Iron Age some circular buildings were enclosed within ditches but the layout and economy appears similar. A semi-circular workshop seemed to be associated with metal working.

5.5 Late Iron Age/Early Roman

Settlement layout changed in the late Iron Age and early Roman periods, possibly associated with a change in the economy. Large ditched animal enclosures were dug, some of which having been first excavated in the late Iron Age had their latest recuts in the early Roman period. There is a strong degree of continuity between these periods. Two late Iron Age domestic enclosures and one Roman building were examined. Two early Roman pottery kilns were excavated adjacent to the building. Other contemporary features included several deep pits, some of which could have been for grain storage. Of the nine cremations found, one contained an early Roman bow and fantail brooch.

5.6 Late Roman

Later Roman occupation seems to have been particularly badly affected by ploughing as finds of late Roman metalwork in the topsoil attest. Postpads from a structure did survive, as did agricultural processing areas and the field system. Two corndriers were probably also late Roman in date. Fifteen burials from a pagan late Roman inhumation cemetery were recovered and, adjacent to them, seven ? Christian burials lying east-west.

5.7 Saxon

Twelve sunken-featured buildings were possibly early Saxon, though the lack of material within them makes them very difficult to date and some could be contemporary with the mid Saxon settlement. Equally difficult to date were a possible granary and a large sub-rectangular enclosure both of which could be sub-Roman or early Saxon.

Four large timber halls were constructed in the mid Saxon period. Arrangements of postholes indicate that others existed but their plans were difficult to recover in the brown silty sub-soil. One of the buildings was laid out within the large enclosure and shallow gullies and fence-lines delineated occupation zones elsewhere. A smithy with an oval hearth and square ? working platform appeared to be contemporary with the settlement. Large quantities of slag and hammer scale lay around the building. Other associated features were rectangular animal enclosures, pits and waterholes some of which contained waterlogged remains.

5.8 Environmental Work

Environmental assessment work in Oxey Mead located a palaeochannel or channels running approximately around the northern and eastern boundary of the field (Fig. 4). These channels were formed at the end of the last Ice Age and would have run along the northern edge of the floodplain. It has been possible to document the subsequent infilling by alluvium and propose a limited sequence of channel activity. The sections on the east of the field evidenced two episodes when organic material collected in the channel (Fig. 8), probably one prehistoric and the other Saxon. These were separated by a phase of more rapid alluviation, probably reflecting increased arable

agriculture upstream in the late Iron Age and Romano-British period. The channel to the north had only one surviving episode of waterlogging, possibly because it was active at a later stage.

A few worked flint flakes and several preserved fragments of twigs and thin branches exhibiting signs of cutting or preparation, including one crudely pointed stake in situ, were found associated with the ? prehistoric deposit. Evidence of early flax retting has also been discovered. The remains of bundles of flax, immersed in water to facilitate separation of the fibres, were found. Samples were taken from the channels for pollen analysis, examination of waterlogged plant and insect remains and snail analysis.

6. RESEARCH OBJECTIVES

Original objectives

6.1 Although it was hoped from an early stage that the project would meet a wide range of objectives the expectation was that the excavation would be of a standard Iron Age to Romano-British settlement on the gravels. Its value lay principally in the absence of detailed excavation elsewhere in the immediate area. The level of funding for the work reflects this belief.

Sections 6.2 - 6.4 outline the original research objectives of the project and sections 6.5 - 6.11 evaluate the achievement of these objectives and the way in which expectations were surpassed by the time the assessments which are the subject of this report were undertaken. Section 6.13 lays out the specific research aims of the assessments.

6.2 The original research objectives of the project can be broadly summarised in two categories:

A. The investigation of the settlement site and the settlement pattern and

B. The examination of the environment, land-use and ancient topography

These were laid out in 'Archaeological Investigation in the Upper Thames Valley: A Proposal for Research in The Cassington/Eynsham/Yarnton Area (Evenlode Confluence)' which was submitted to English Heritage in December 1989.

6.3 A. Settlement

i. Comparison with other sites in the Thames Valley (5.5 paragraph 5) was an central element of the original proposals. The importance of continuing to build upon a growing body of knowledge was stressed (1.0 para. 3).

ii. The location of the site on a political boundary in the late Iron Age (5.5 para. 3) was thought to be particularly interesting with the potential to examine how this might affect the nature and economy of a settlement and shed light on the longevity of this border.

iii. The paucity of knowledge of earlier prehistoric settlement in the immediate area was identified and the discovery of Beaker pots within the railway cutting in the last century encouraged the hope of recovering some early material (5.5 para. 4).

iv. A Saxon cemetery found in gravel workings during the railway construction may have extended onto the northern part of the site (5.5 para. 7) and an associated settlement could be predicted.

v. The choice of site location to exploit the varied environments of the area was to be examined (5.5 para. 1).

6.4 B. Landscape

i The use of the landscape in the past has always been seen as a major research objective of the project (5.5 paras 5, 6 & 7) and, in particular, the exploitation of the floodplain (5.5 para. 1).

ii. The presence of palaeochannels within the pit area and their potential for providing environmental information was recognised at an early stage. Examining the sequence and dating of the channels was an important element of this research (5.5 para. 2).

iii. A palaeochannel running around the north and eastern edge of Oxey Mead was recognised as having considerable potential for gathering information about the origins of hay meadows (5.5 para. 6).

iv. The examination of medieval land boundaries and land-use was a long-term objective of the project (5.5 para. 8).

How the results came up to and surpassed the expectations

6.5 The excavations on the plant site have only just been completed and analysis remains to be done. However, it is already apparent that the results have achieved and, in many cases, surpassed expectations. The time is now ripe for a major review of the research design.

The Settlement

6.6 Throughout the excavation project the original objectives underwent constant review. These changed because of the complexity of the settlement site and its longevity of occupation which enabled the detailed examination of the nature of continuity and change.

6.7 The site was occupied through three ill-understood periods of transition both locally (middle Iron Age to late Iron Age) and nationally (late Iron Age to early Roman and late Roman to Saxon). The academic objectives recently laid out in the English Heritage document 'Developing Frameworks: Policies for our Archaeological Past. 1979-1999' targeted the understanding of processes of change as a priority. The transition from late Iron Age to early Roman and from late Roman to Saxon were specified as being in particular need of investigation. The changing nature of settlement type, often manifested in the Upper Thames Valley by dislocation, could be studied on the Yarnton site within a framework of continuity.

6.8 The discovery of the middle Saxon settlement was completely unexpected and was of both regional and national importance. A site of this date had not previously been excavated in detail in the Upper Thames Valley. It extended the period of use of the settlement and provided the link for documenting the history of the village of Yarnton from the Iron Age to the present day. It also provided another political boundary (this time between Mercia and Wessex) in which to examine the nature of the settlement.

The Landscape

6.9 The longevity of occupation of the settlement and its complexity enhances the examination of land-use and the way it changed through time.

6.10 The potential for correlating carbonized remains from the settlement to manuring scatters on the fields was recognised as being of great significance.

6.11 Evidence from the palaeochannels on Oxey Mead and the field to the north indicated that it was possible to propose sequences of channels and alluviation and to obtain waterlogged material from several periods. Expectations of the potential to assess land-use were vindicated by the discovery of flax bundles from the retting process. The waterlogged, pollen and snail remains await analysis.

6.12 These new elements were presented in 'Yarnton & Cassington, Worton Rectory Farm: Proposals for Future Work' submitted to English Heritage in August 1990. As a result of this document further funding was provided to excavate the area adjacent to the plant site and to undertake the assessment work which is detailed in this report.

6.13 Objectives of the assessment projects

The specific objectives of the assessment projects were as follows:

Machine trenching (Proposals for Future Work 4.C) (Fig. 2)

1. To assess the western edge of the Iron Age settlement
2. To assess cropmarks in Cresswell field

Environmental assessment
(Fig. 4)

3. To acquire waterlogged samples associated with the settlement from the palaeochannel immediately south of the settlement.

Fieldwalking (Proposals for Future Work 4.B)
(Fig. 3)

4. To establish land-use
5. To examine manuring patterns
6. To look for other sites in the pit area
7. To investigate the extent of the site catchment area

7. METHOD

7.1 Archaeological machine assessment (Fig. 6)

A 360° digger with toothless ditching bucket excavated 24 trenches in the east of Cresswell Field and two trenches in the field to the south (YWCF 90) giving a 1.5% sample of the area assessed. Generally the trenches were 25 m long and 1.8 m wide and were positioned on the national grid. Some trenches were moved to locate features observed on the air photographs and some were lengthened to answer questions raised during the assessment, particularly the examination of contexts and potential stratigraphy beneath colluvium/alluvium on the edge of the gravel terrace.

7.2 Environmental machine assessment (Fig. 4 & 9)
Machine trenching was undertaken across a palaeochannel, running south of the settlement site (YRCA 90). A 360° digger with a toothless ditching bucket cut a discontinuous section on a line suggested by an earlier auger survey.

The sections were examined for alluvial sequences and preservation of waterlogged remains. Samples were taken for waterlogged material and pollen.

7.3 Fieldwalking (Fig. 3)
A team of 5 - 6 people walked an area of 185 hectares in 18 fields in autumn and winter 1990/91. With the exception of one field this represented all the ploughed land within the proposed site catchment area at that time. Approximately forty-four hectares were also walked beyond the catchment area to investigate the full range of local geologies and thus more accurately investigate land-use associated with the settlement. Part of the pit area also lay beyond the proposed catchment boundary.

The fields were walked on 20 m transects laid out on the national grid and finds were bagged by 20 m lengths. Particular attention was paid to geology, slope and weather and ground conditions during the exercise.

The finds were washed and examined by specialists at the Oxford Archaeological Unit. The results were plotted onto a 1:2500 map, colour-coded by phase and size-coded by quantity. The results were compared to the geology, cropmarks and old field boundaries.

An interpretation of the results is illustrated in Figures 11 - 15.

8. SUMMARY OF RESULTS (Fig. 5)

8.1 The assessments provided a wealth of information about the settlement and landscape archaeology of the area. It demonstrated the value of the archaeological resource, especially that within the gravel extraction pit, and revealed the potential for further investigation. This chapter summarises the results of all three projects and describes:

1. site specific information related to the Yarnton settlement (Sections 8.1 - 8.2)

2. environmental information related to that settlement (Sections 8.3 - 8.5)

3. new sites located in the assessments (Sections 8.6 - 8.9)

4. wider aspects of the environmental information recovered (Sections 8.10 - 8.14).

A more detailed discussion of results is recorded in Sections 11.5, 12.5 and 13.5.

8.2 The north-western limit of the Iron Age settlement was established in the archaeological machine assessment (Fig. 5) and an earlier element within it was identified.

The settlement was established on the second gravel terrace on the east side of a dry valley and spread eastwards across the gravel terrace into the area which has already been excavated (Yarnton, YWRF). An assemblage of late Bronze Age/early Iron Age pottery was recovered from the earliest features, though one context did contain diagnostic sherds of late Bronze Age date (Fig. 7). Other contexts were predominantly early and mid Iron Age in date.

The assessment demonstrated the presence of domestic occupation, including structures, and the existence of a fairly clear settlement layout without the degree of recutting that was present in the main excavation area (YWRF) and thus without the attendant problems of later disturbance and redeposition.

Stratified occupation deposits were located in the valley sides and bottom, preserved by subsequent colluvial accumulations.

8.3 The evaluation also indicated the presence of a north-western boundary to the later Roman site south-east of Cresswell Field (see Fig. 7).

8.4 It has been possible to draw some conclusions about the use the community made of the surrounding landscape. Light scatters of Roman sherds, indicative of manuring, were recovered in the fieldwalking project over several fields (Fig. 13). Much of this pottery was abraded grey-ware but diagnostic material was predominantly early. Of the four scatters identified three were on floodplain gravel islands and another on Oxford Clay. No scatters were recovered on second gravel terrace where the main arable fields would be expected (but see 8.7). This suggests arable intensification and effort being invested in manuring more marginal ground.

Two light scatters of Iron Age pottery are less easily interpreted (Fig. 12). They could represent nearby satellite occupation or, conceivably, manuring scatters.

Medieval land-use is more fully documented and it is possible to draw parallels from this data to suggest that the site catchment area would be more linear in form than the traditional circular or octagonal model. Thus the settlement would have exploited land running north from the Thames watermeadows, over the floodplain, second gravel terrace and clays onto the fourth gravel terrace where heath and woodland would have been available.

8.5 Environmental information about the settlement was also acquired from the section through the palaeochannel (Yarnton River Channel Assessment, YRCA) which ran south of the site (Fig. 9 & 10). Samples of well-preserved organic material were retrieved from a waterlogged deposit which probably formed during the period of occupation. Pointed stakes driven into the northern edge of the channel and the presence of features on the far bank indicates potential for locating a bridge or ford as well as more detailed information on the use of channels as a resource.

8.6 Early prehistoric sites were identified in the fieldwalking project, some of which are threatened in the gravel extraction programme (Fig.5 & 11).

An early prehistoric occupation site was located on a gravel island in the floodplain, between two palaeochannels. Finds were predominantly flint (of a density of 32.5 flints per hectare) with some burnt flint (5 per hectare) but one probably late Bronze Age sherd was recovered. The principal elements of the flintwork seem to be Mesolithic and late Bronze Age in date. There is great potential for recovering well-preserved and even stratified deposits beneath alluvium on the edges of the palaeochannels.

Another prehistoric site represented by a flint scatter, this time associated with an early Bronze Age sherd, was found on the gravel island to the north.

A late Bronze Age pottery scatter was located in the south-west of the pit, north of the haul road. This site is threatened not only by gravel extraction but also by the Cassington spur road proposed as part of the A40 road-widening scheme. The pottery was associated with some burnt flint. Another small cluster of burnt flint associated with one sherd of late Bronze Age pottery was identified further east along the same gravel island.

A possible Bronze Age site north-west of Worton is centred on the cropmarks of a ring ditch. A dense flint scatter was located along with two sherds of early Bronze Age pottery. This site is not threatened by gravel extraction but may be affected by the A40 Cassington spur road.

8.7 A late Roman settlement contemporary with the Yarnton site was located only 1.5 km away at Worton Rectory Farm (Fig. 13). Light scatters of both late Iron Age and early Roman pottery at this site could indicate an early origin for this settlement or could be manuring scatters.

8.8 A surprisingly dense scatter of Saxon pottery was retrieved from the site next to Worton (Fig. 14). This has led to a reappraisal of cropmark features on this site as sunken-featured buildings.

8.9 Fieldwalking at Yarnton south of the church and manor located medieval domestic occupation in this area (Fig. 15).

8.10 The assessments provided information on the early topography which has been levelled through time. The dry valley west of the settlement has been much infilled with colluvium as a result of ploughing and the open watercourse south of the site has filled with alluvium. Conversely, ploughing on the top of the gravel terrace has degraded the surface and a flatter landscape has resulted.

8.11 Manuring scatters of Roman, medieval and even possibly Iron Age date have been identified on several fields (Fig. 12, 13 & 15). The degree to which this accurately reflects field use is, however, uncertain. The absence of evidence of manuring on the well-drained second gravel terrace in the Roman period, for example, is surprising. It may indicate more intense manuring on more marginal ground. This question merits further investigation. Medieval manuring scatters more closely conformed to the expected pattern.

It is difficult to draw conclusions about land-use in other periods from the fieldwalking results. Pottery is not such a common component of domestic debris in the early prehistoric and Saxon periods and thus would not find its way so readily onto manured fields. It is also so fragile that it would not survive many ploughing episodes.

8.12 The Roman and ? Iron Age manuring scatters (Fig. 12 & 13) have been discussed above (8.4). These fields were probably farmed from the Yarnton settlement.

8.13 Medieval manuring scatters were identified in the fieldwalking survey (Fig. 15). Although no documentary sources have yet been found locating the open field arable of Yarnton it is possible to propose that it lay to the north and north-west of the village where fairly dense scatters of medieval sherds were present. Fields west and south-west of the village were probably pasture but there is some evidence that part of this land was converted to arable at some stage, possibly in the late 13th/early 14th centuries when pressure on land was great. Only a small part of the meadow land was surveyed but no medieval sherds were found in these areas.

There is more documentary evidence about the fields belonging to Worton. The arable land lay north and immediately west of the village. West Croft was one of the main arable fields and the manuring scatter found in this field supports this evidence. Most of the land south of Worton lay in a singe field (Worton Cow Common). Pottery scatters in this area are much lighter and, indeed, non-existent in places. The evidence suggests, however, that some of this land had been ploughed at some stage.

8.14 Evaluation shows that it is not just by identifying manuring scatters and analysing the faunal and floral remains from the site that it is possible to chart the use of the floodplain. Well-preserved waterlogged remains have been found within all the palaeochannels so far examined. Analysis of the macro-botanical and pollen samples will provide information about the use of the channels and their surrounding environment. The alluvial history of the floodplain has also been investigated and it has been possible to propose a limited sequence of channel use. These are compelling reasons to extend these aspects of research, increasing knowledge of the history of floodplain environment and alluviation.

9. CONCLUSIONS

Validity of Results

9.1 Conditions were favourable during all the evaluations and, although pressure on time during the archaeological machine assessment in Cresswell Field sometimes resulted in detail being omitted, it was always possible to draw confident conclusions from the results.

Preservation of the Archaeological and Environmental Resource

9.3 There was some truncation of features on the top of the second gravel terrace, though the settlement layout still survives. A positive consequence of ploughing has been the preservation of contexts and stratified deposits downslope within and on the edges of the palaeochannels where they have been sealed by colluvium.

9.4 Assessment of the north-west of the Iron Age occupation site at Yarnton indicated that the settlement layout could be recovered. There was comparatively low incidence of feature inter-cutting and the presence of large and unabraded sherds from pits suggested limited redeposition.

9.5 Detailed evaluation of sites on the floodplain still remains to be done and their state of preservation is thus unknown. However well occupation has survived on the gravel islands the potential for recovering sealed deposits on the edges of the palaeochannels is extremely good.

9.6 The potential for recovering environmental evidence remains good. Charcoal in pits and ditches on the Iron Age site indicated that carbonized remains could be retrieved and there is still a huge amount of scope for examining waterlogged and carbonized material on the floodplain both close to the main settlement and away from it.

9.7 The Objectives

All three assessments undertaken achieved their objectives (See section 6.13):

1. The western edge of the Iron Age settlement was evaluated and its nature, date, extent, state of preservation and significance assessed.

2. Most of the major cropmark features were identified and were interpreted as forming part of the Iron Age settlement or post-medieval land boundaries.

3. Well-preserved organic remains were located in the palaeochannel which ran to the south of the settlement site (YWRF) and samples of waterlogged deposits were taken. Furthermore the potential for elucidating the sequence of channels and their organic deposits was demonstrated.

4. The land-use of the area will be elucidated by the analysis of the waterlogged samples collected from the palaeochannels and by the identification of manuring scatters and the interpretation of their density. Documentary sources should enhance this data for the medieval period.

5. Manuring patterns were located in the fieldwalking survey for both the Roman and medieval periods. An Iron Age scatter is less easy to interpret. Where Roman diagnostic material was recovered it was early in date. A comparison with contemporary carbonized crop and weed remains from the excavation of the settlement site should be particularly interesting.

6. Other sites were identified within the pit area. Those which are immediately under threat are early prehistoric in date and located on the floodplain. The prehistoric, Roman and Saxon site at Worton is unlikely to be damaged by the scheme, though it will be affected by the A40 spur road.

7. The catchment area of the Yarnton (YWRF) site was clarified by the discovery of the contemporary nearby sites at Worton. Documented medieval land-use and extant boundaries suggest a linear land-holding pattern running north from the Thames across the floodplain second gravel terrace and Oxford Clay to the heaths and woodland on the fourth gravel terrace above. The Yarnton (YWRF) site and the settlement west of Worton may thus represent two estate centres, each spanning the prehistoric to medieval periods.

9.8 The Character, Extent, Potential and Significance of the Archaeology.

The evaluation has demonstrated the presence of occupation sites on second gravel terrace and the floodplain which are threatened by gravel extraction and road improvements. The area has huge potential for examining and comparing two settlement sites, which display exceptional continuity, within their wider contexts, particularly in terms of contrasts between the gravel terrace and floodplain.

9.9 The north-western continuation of the Iron Age settlement excavated in the ARC plant site (YWRF) survives in the south-east of Cresswell Field and runs eastward along the gravel terrace. A further 2.5 hectares of the settlement is threatened, and just over 1 hectare of it will be extracted over the next four years.

From the small percentage assessed it has been possible to postulate that its nature is similar to the YWRF occupation but it seems to have greater clarity of layout and more limited redeposition. Stratified deposits in the bottom and sides of a dry valley are the first located associated with the settlement and are extremely rare, if not unique, for the higher gravel terraces in the region.

The late Bronze Age/early Iron Age origins of the settlement have been identified. This is element of the settlement which has not previously been examined. An important research objective of the excavations has always been to examine the nature of continuity and change within the context of one of the longest continuously occupied sites in the Upper Thames Valley. The value of this aspect of the settlement is greatly enhanced by this discovery.

9.10 Dense flint scatters associated with occasional sherds of early prehistoric pottery represent early occupation sites on the floodplain. These have been found on gravel islands but how far they extend below floodplain alluvium is unclear. The degree of feature survival beneath the sub-soil is also unknown, though there is expected to be good-quality preservation of deposits on channel edges.

Four potential early prehistoric sites lie within the current ARC staging of operations. One of these was represented by a dense flint scatter of 32.5 flints per hectare which covered an area of 17 hectares and was associated with burnt flint (5 per hectare) and a sherd of probably late Bronze Age pottery. It may be partially sealed by alluvium. Three other sites are somewhat smaller; a small scatter north of this site covers an area of 2 hectares, a late Bronze Age pottery scatter is found in an area 1.5 hectares in extent in the south-west of the pit area and a little to the east of it another ? late Bronze Age site was approximately 3 hectares in size.

It is difficult to assess the nature and preservation of these sites without more detailed evaluation. Their potential for survival on the floodplain where alluvial deposits have sealed earlier remains is much greater than on the gravel terraces where they are usually examined.

Early prehistoric sites on the floodplain have rarely been investigated. Their potential for good feature survival and the preservation of waterlogged deposits and thus shedding light on the use of the floodplain in these periods makes them a valuable resource. The identification of a significant late Bronze Age presence is of particular importance in the light of recent discoveries on a gravel island in the floodplain west of Cassington and the possible late Bronze Age enclosure at Eynsham.

9.11 The prehistoric, Roman and Saxon site at Worton is not immediately threatened by the gravel extraction scheme, though it may have to be examined in advance of the construction of the A40 Cassington spur road. The fieldwalking data indicates the significance of this site and the immense value of any investigation especially in the context of the Yarnton settlement and the landscape study.

9.12 The assessment also identified other elements of the archaeological resource which will be affected by destruction.

9.13 Palaeochannels cut through the gravel on the floodplain creating islands. At least four separate channel systems have been located in the pit area and the assessments suggest not only that organic remains are well-preserved within them but that there is a sequence of active use. This implies that waterlogged deposits built-up at different times in the different channels and that it should be possible to obtain organic remains from all major periods.

9.14 Landscape studies have only comparatively recently recognised manuring scatters and their value in assessing land-use. These scatters were clearly identified in the survey for the Roman and medieval periods. However, it is not always apparent whether manuring is represented or small-scale satellite settlement or even other agricultural practices such as barns or hayricks. The degree to which scatters have been obscured by later alluviation is also uncertain and requires investigation. The significance of a similar density of Iron Age material is not clear and needs to be more fully evaluated.

9.15 The value of salvage work should not be overlooked. Comparison of surviving sub-soil features with the density of surface material will be extremely interesting. There is also potential for examining medieval field boundaries and gaining more topographical detail.

9.16 Opportunities exist within the context of the ARC gravel extraction pit for developmental work and for research into areas of national interest.

There is considerable scope for the development of techniques for assessing sites on alluvium. There is increasing pressure on gravel in floodplain areas as the number of feasible sources on the second terrace dry up. It is possible to use the Cassington gravel pit to develop techniques and methodologies for evaluating archaeological sites within the context of sites which are already scheduled for destruction. Comparisons of the results of a variety of techniques with the archaeology found to survive on the ground after machine stripping can thus be achieved.

Key areas of research include the review of Iron Age sites in the Thames/Evenlode confluence area, using the Yarnton excavations as a key. The study of early and mid Saxon settlement in the area could use the Eynsham and Yarnton excavations in a similar way. The potential for assessing land-use and land holding into the medieval period enhances this field of research.

10. RECOMMENDATIONS

10.1 A constant process of reviewing progress and updating objectives has taken place. However, the quality and quantity of the archaeology recovered has meant that the project has now outgrown its original objectives and a major review of the research design is urgently required. The full potential of the archaeological resource is far from exhausted. The present study clearly indicates that there are many avenues of research which could be developed.

10.2 The project contains all elements of gravel archaeology within a restricted area. The ability to examine fairly complete settlement layout and the study of the way that layout changed through time in a context of limited settlement drift is of great value in understanding the nature of change. The information these sites yield in terms of environmental information both from the site (carbonized remains, waterlogged material from deeper pits and ditches, animal bones etc.) and their nearby resources such as water courses are known on many gravel sites. Deposits sloping off the gravel terrace sealed by alluvium on the floodplain have also occasionally been recovered elsewhere. All these elements are, however, seldom encountered within the same site as they are at Yarnton.

10.3 There is potential for expanding our knowledge about the local settlement pattern which is well overdue. The targeting of this area for development in the next decade highlights the importance of the study of a fast-diminishing resource.

10.4 The excavation of the remains of the Iron Age settlement clearly falls within the scope of the present project. The importance of continuing the programme of work on this long-lived settlement is discussed more fully above.

10.5 Work on the floodplain, concentrating on the Hay Day fields is, however, a complex project integrating different methodologies to examine issues of early settlement and land-use on the floodplain as well as to evaluate different techniques for assessing these aspects of valley archaeology. The potential for survival of well-preserved stratified deposits and waterlogged remains is a compelling reason for undertaking this work.

10.6 A spur road to Cassington proposed as part of the A40 road widening scheme threatens archaeology in the western part of the pit area. A late Bronze Age pottery scatter and the prehistoric, Roman and Saxon sites west of Worton Rectory Farm will need further evaluation in advance of road construction.

10.7 Opportunities for more detailed research on regional aspects of local archaeology are highlighted by the present survey. This is of particular importance in the light of increased development pressure in this area.

A survey of the Iron Age sites in the area, reviewing previously excavated material in the context of the Yarnton settlement site would be of especial value. Research based archaeological investigation at Bladon hillfort (threatened by tree planting) and the remains of the late Iron Age enclosure at Cassington could be proposed as future projects.

Documentary research into local medieval land holding and land-use and its Saxon origins is significant in the context of the excavation of the Saxon site at Yarnton, future work at Worton and the current excavations at Eynsham. Within such a project the medieval site found in the fieldwalking at Yarnton merits evaluation. A review of Saxon sites in the area and their contemporary cemeteries the majority of which are unpublished is also overdue.

Gill Hey
July 1991

11. ARCHAEOLOGICAL ASSESSMENT (YWCF 90)

11.1 INTRODUCTION

In November 1990 English Heritage funded the Oxford Archaeological Unit to carry out an assessment in the east of Cresswell Field in the parish of Yarnton. The field lies on the western boundary of Yarnton parish, west of the Oxford to Worcester railway line and north of the old branch line to Witney (now the ARC haul road). Two supplementary trenches were also excavated in the field to the south. The evaluation area lies within the current ARC Cassington pit and the southern half is scheduled for extraction in the next four years.

The evaluation was designed to examine an area of cropmarks which were clearly visible in the field in summer 1990 and to establish the western limit of the Iron Age settlement excavated in the plant site (YWRF). The main evaluation area was in the eastern eight hectares of Cresswell Field where 24 trenches were excavated. Two trenches were excavated in the field south of the haul road (Fig. 6).

The aim of the work was to determine the nature, location, extent, date, condition and significance of any surviving archaeological remains

11.2 TOPOGRAPHY

Cresswell Field is approximately 22.4 hectares in size, of which the eastern 8 hectares was assessed. A further 0.6 hectares was evaluated in the field to the south (Fig. 2).

The assessment lay on an area of second gravel terrace at c 65 m OD, overlooking the floodplain of the Thames. It was bounded to the north by an area of Oxford clay, overlain to the west by periglacial silt sub-soil and was cut by a palaeochannel running north-east to south-west.

Cresswell field is at present under arable cultivation. The modern ploughsoil, typically 0.30 m in depth, consists of a clay or silt loam depending on the subsoil. It contained variable amounts of quartzite pebbles and gravel. The field to the south is permanent pasture.

11.3 ARCHAEOLOGICAL BACKGROUND

During the construction of the Oxford to Witney branch line in 19th century, which cut through the assessment area, finds of Beakers and Iron Age pottery were recorded. The Saxon cemetery destroyed by 19th century gravel working lay to the east.

The evaluation lay north-west of the main area of excavations in the plant site (see above 5: Summary of archaeological investigations). The north-western edge of the excavation was an area of intensive early and mid Iron Age activity. Some Roman archaeology (including a corndrier) was also located in the area.

Aerial photographs taken by the Oxford Archaeological Unit in late spring 1990 showed more extensive cropmarks in Cresswell Field than had been previously seen (see 'Proposals for Future Work' Fig. 3). It indicated the presence of pits, enclosures and linear features which strongly suggested a western continuation of the Iron Age settlement. A rectangular feature visible on the photograph and which had linear features radiating from it was difficult to interpret.

A reference by St Joseph to a possible Roman villa south of Yarnton could have alluded to this field. Roman field boundaries and paddocks on the excavation site suggested the possibility of a nearby major farmstead or villa and the recorded field names of 'chissels' and 'black patch' suggested this field as a possible site.

The assessment area had potential for establishing the western limit of the Iron Age settlement and the possibility of locating earlier activity. The presence of a Roman villa could also be evaluated.

11.4 STRATEGY

Trenches were laid out on the national grid or positioned to locate features seen as cropmarks in summer 1990 (fig. 6).

Twenty six trenches were dug by a 360° excavator using a six foot toothless ditching bucket. Generally the trenches were 25 m long and 1.8 m wide but some trenches were extended. They gave a 1.5% sample of the 8.6 hectares assessed.

Trenches were hand cleaned and planned. A sample of archaeological features was excavated to establish their nature, state of preservation and date. Unfortunately, because of the density of features only a small proportion of the contexts observed in Cresswell Field could be excavated within the time allocated. However, pottery recovered from the top of unexcavated features and comparisons with the excavation site enhanced the information recovered. In the field to the south (Trenches 25 and 26) 90% of the features were excavated by hand.

Dr Mark Robinson of the Environmental Archaeology Unit, University Museum, Oxford visited the site and commented on the environmental potential.

11.5 RESULTS (Fig. 7)

The assessment provided evidence about the location and date of the earliest settlement on the site, the full extent of the Iron Age settlement, the extent of the late Roman settlement and a great deal of detail about the ancient topography.

Archaeological features were identified in 22 of the 26 trenches. A dense concentration of pits, gullies, ditches and postholes, indicative of domestic activity, were identified in an area of approximately three hectares. Occupation was largely confined to the gravel terrace and the evidence suggests that in the late Bronze Age settlement developed to the east of a dry river valley and slowly spread eastwards along the terrace in the early and middle Iron Age (Trenches 7,8,9,10,11,15,16,24). In the south-east (Trenches 25 & 26) there was a predominance of late Roman features though two Iron Age contexts were excavated.

The Topography

The assessment established the geology and demonstrated the levelling of the landscape over time. The gravel terrace runs east to west across the field giving way on higher ground to the north to Oxford Clay. Running north-east to south-west across the field was a palaeochannel (through Trenches 19, 7 & 18) which would have been dry by the time of the earliest occupation. It had created a small valley at a depth of c 60.5 m OD and the main settlement seemed to be limited to the eastern edge of it, running down into the valley. Evidence of less dense activity east of the valley was, however, present. Further west palaeochannels, probably of a frequently changing course, existed but they were not closely examined. They were overlain by silty loam. All these channels drained into the main channel flowing west-east, south of the settlement site.

The channels were gradually infilled with material washing down from the settlement site and later and more rapidly with ploughsoil. 1.90 m of deposits had accumulated in part of the palaeochannel examined. Ploughing has also degraded the surface of the natural gravel creating a much more level landscape than existed in the past.

The Archaeological Deposits

In broad terms the early settlement was bounded to the north by Oxford Clay and to the west by the dry valley created by the palaeochannel. Occupation material did, however, run down the slopes into the channel and a small settlement seems to have been established on the other side of the valley. The Roman site appears to have had a north-western boundary just south of Cresswell Field.

Evidence of occupation from the late Bronze Age to the late Roman period was recovered in the evaluation.

Only one context 6/4 (Trench 6), a shallow ditch running east-west contained pottery which was unquestionably late Bronze Age. The pottery was similar to that found at nearby late Bronze Age sites, for example Mead Lane, Eynsham and Eynsham Abbey. An interesting group of large pits, visible on the air photographs (see 'Proposals for Future Work', Fig. 3, where they are sketched on), were probably located in Trenches 13 (13/4) and 12 (12/3) on the interface between gravel and clay. They were suspected to be early contexts but a communication error resulted in their not being excavated and sadly no dating material was retrieved from the surface.

A recognisably distinct assemblage of late Bronze Age/early Iron Age material was recovered from domestic features; pits, postholes and gullies. The pottery appeared to be earlier than that recovered from early Iron Age contexts on the part of the site already excavated (YWRF). The features were concentrated in the north of the assessment area to the east of the palaeochannel (especially Trenches 7,15,16 & 11) and appeared to represent the first clear domestic use of the site.

Occupation in Cresswell Field was, otherwise, predominantly early and middle Iron Age in date. The early material lay further to the west (in particular in Trenches 7,8,24 & 10) and also, to some extent, on the other side of the channel (Trenches 5,17 & 19). Although most features west of the channel appeared to be field boundaries some (eg. 5/14, a posthole) were clearly domestic. Middle Iron Age occupation generally lay to south and east of the Cresswell Field (Trenches 8,10,11 & 24) but was represented elsewhere (Trenches 4,18 & 15).

The settlement extended east across the gravel terrace an into the main area of excavation (YWRF). An early Iron Age pit in Trench 26 contained a decorated bone comb.

The nature of the occupation appeared similar to that already excavated in the plant site to the south-east with a similar range of features both to that site and the earliest settlement. Groups of postholes in Trenches 16 and 11 were definitely parts of structures. There was, however, no signs of middle Iron Age ditched enclosures.

The relationship of these features to the channel system was particularly interesting and indicates great potential for recovering stratified deposits. Trenches 24, 7 and 18 clearly demonstrated that archaeological deposits extended down the slopes and into the channels to the west and south-west. In Trench 7 (Fig. 16) the earliest contexts (pits 7/15, filled with olive-green silty loam but not excavated) were overlain by two layers 7/5 and 7/4. The lowest layer, 7/5, was an almost identical olive-green silty loam, 0.25 m in depth. This soil was characteristic of the pits and postholes on the gravel terrace and could represent a relatively stable contemporary soil developing in the channel. 7/4, a reddish-brown silty loam with inclusions of gravel, burnt quartzite pebbles and burnt limestone, 0.40 m in depth, almost certainly accumulated during the life of the settlement. It was cut by a ditch (7/7). Six sherds which were probably middle Iron Age but which could be late were found within 7/4. 7/7 contained 3 sherds of early to mid Iron Age pottery. The dating evidence is ambiguous but the implications for recovering well-sealed and stratified deposits are clear.

Ploughsoil of darker silty loam washed down into the channels, sealing the settlement deposits. Up to 0.60 m of early ploughsoil, 7/3, was found in Trench 7 where it was overlain by two layers of comparatively recent ploughsoil. The date of this early ploughing is uncertain and only early to middle Iron Age pottery came from 7/3. It was most probably Roman. The majority of the trenches (except Trenches 8,10 & 11 on the top of the gravel terrace and Trench 14 to the north-west) had evidence of a lower layer of disturbance below the modern ploughsoil, possibly the result of deep ploughing.

No late Iron Age contexts were excavated in Cresswell Field and only one pit in Trench 26, to the south was of this date. Some sherds from colluvial layer, 7/4, could be late Iron Age but are more likely to be middle Iron Age.

There was little evidence of Roman occupation in Cresswell Field. A north-south ditch in the south-west end of Trench 3 contained an abraded sherd which was probably Roman and to the north of it the ditch of a large rectangular enclosure, visible on the air photographs, was located in Trenches 3 and 4. No dating material was found within it, however.

In the field to the south (Trenches 25 & 26) (Fig. 20 & 21), however, there was a significant quantity of Roman archaeology which was mostly late in date. A series of ditches running parallel to the edge of the terrace were found at the south end of the trenches, north of which lay pits, postholes and gullies. This occupation is continuous from the area of the main excavation on the plant site to the east (YWRF) and it is evident that there was a fairly sharp boundary to the west, somewhere between the two assessment fields.

No evidence for a Roman villa was found. Trench 15 was laid out to cut across a rectangular feature seen on the air photograph which could have been a building. Some loose limestone in a ditch (15/6) was associated with clay pipe and glazed pottery, and its orientation and position corresponds exactly to a field boundary on the 1876 OS map (see Fig. 6). The cropmark feature could be a post-medieval barn.

Finds
Alistair Barclay and Paul Booth examined the pottery. In total there were approximately 170 sherds with over 90% falling within the date range of late Bronze Age to middle Iron Age. Few rim sherds recovered were diagnostic. One sherd had decoration.

The concentration of pottery was greatest in the area of occupation on the gravel terrace. The sherds were large and unabraded. Although the life-cycle of pottery is often obscure the larger sherds would suggest that pits contain a good assemblage of pottery with a limited amount of redeposition.

Environmental
No waterlogged remains were found on the site and the palaeochannel was already dry when the site was occupied. Quantities of charcoal were observed both within and on top of the features indicated that obtaining good carbonized samples would be possible.

11.6 CONCLUSIONS

Comment on Validity of Assessment
Weather and ground conditions were good during the assessment. The sample size of 1.5% was not high but was sufficient to indicate the full extent and nature of the settlement. Because of the density of features found it was only possible to excavate a small percentage of these. Material retrieved from the surface of features aided in their dating and their similarity to contexts from the main excavations aided interpretation of feature type. A higher percentage of closely dated features would have been preferable but the date range of the site was evident.

Condition of Remains
Ploughing had affected the survival of the archaeological contexts. On the top of the terrace truncation had taken place and the existence of a second plough horizon beneath the modern ploughsoil in many places indicates that deep or steam ploughing had taken place. However, postholes survived throughout and some of those excavated (for example 16/7 at 0.17 m deep) had a reasonable depth and building layout is recoverable. Truncation of deposits from the top of the surface had, however, resulted in the preservation of archaeological deposits down-slope where the accumulation of colluvium had sealed contexts.

Where the natural was sandy gravel some animal disturbance had taken place.

Although feature density was fairly high there was not the degree of recutting that was present on the main excavation area to the south-east. Sherds were often large and unabraded indicating that redeposition was minimal and that the collection of good pottery groups was a possibility.

Archaeological Potential

The potential of the site is great, not just because a more complete and detailed site layout for the early and middle Iron Age could be acquired and thus a more informed appraisal of the nature and economy of the settlement achieved, but because it raises the possibility of examining a completely new and early element of the site. The discovery of a recognisably earlier assemblage of pottery (late Bronze Age/early Iron Age) and a context with late Bronze Age pottery holds out great hope for examining the origins of a very long-lived settlement and extending the investigation of the changing settlement focus. There is also potential for recovering earlier prehistoric material.

There appears to be greater clarity in settlement layout in this area and the presence of large and unabraded sherds in pits demonstrates the potential for obtaining good assemblages of material with a low risk of redeposition. Bone preservation was good and charcoal was visible in many features enhancing the potential for obtaining good economic data. A ditch in Trench 11 (11/10) which contained middle Iron Age pottery on the surface also contained clay daub indicates structural detail may be present.

Of, perhaps, greatest potential is the existence of stratified deposits on the edge of the terrace sloping into the palaeochannel. Not only does this mean that features will be well-preserved but evidences huge possibilities for examining the temporal and vertical relationships between different occupation periods.

11.7 TRENCH SUMMARIES

Unless otherwise noted all the trenches were excavated 25 m long and c 1.8 m wide and had 0.3 m of ploughsoil over them.

TRENCH 1

Trench 1 was dug W of the track, positioned N-S down the slope, to test for features to the W away from the main concentration of cropmarks.

At the N end the modern ploughsoil overlay the undisturbed subsoil. Elsewhere the ploughsoil overlay a layer of hillwash (1/2) up to 0.30 m deep.

At the South end an E-W ditch was sectioned but contained no finds.

TRENCH 2

Trench 2 was dug N-S down the slope. The modern ploughsoil overlay an earlier ploughsoil (2/2) 0.17 m deep.

To the N an ill-defined curvilinear feature (2/4) 0.08 m deep
produced no finds and its similarity to the natural undisturbed subsoil suggests it is probably a naturally filled hollow.

TRENCH 3

Trench 3 was dug E of the track and north-east to south-west down the slope, 30 m long. It was positioned to cross an area of linear cropmarks possibly forming a sub-rectangular enclosure.

The modern ploughsoil overlay an earlier ploughsoil (3/2) 0.12 m in depth.

An E-W ditch (3/7) was exposed running east-west along the slope. This was probably the cropmark feature. It was not excavated as it had the same width and alignment as ditch (4/3) excavated in Trench 4, only 20 m away. Further down the slope, to the S, was a circular pit (3/5) 1 m in diameter which was not excavated. At the end of the trench was a N-S ditch (3/6) 1.8 m wide and 1.17 m deep, which contained a small abraded sherd of pottery. Although its date is not clear it is possibly Romano-British or medieval.

TRENCH 4

Trench 4 was dug N-S down the slope, positioned in the same area of cropmarks as Trench 3.

The modern ploughsoil overlay an earlier ploughsoil (4/2) 0.15 m in depth.

A large V-shape ditch (4/3), 2 m wide and 0.85 m deep, ran E-W along the slope. This ditch is probably part of the sub-rectangular enclosure visible on the air photographs and a continuation of that observed in Trench 3. The fill was a stiff clay loam containing charcoal flecks. When sectioned it produced no finds.

In the N of the trench was an ill-defined area of disturbed subsoil (4/4) which contained middle Iron Age pottery.

TRENCH 5

Trench 5 was dug E-W towards the bottom of the slope on the west side of the field to test the area away from the main cropmarks concentrations.

The modern ploughsoil overlay an earlier ploughsoil (5/2) up to 0.15 m deep.

The trench contained 5 shallow linear features running either N-S or NW-SE. They produced no finds when excavated and their fills were similar to the undisturbed subsoil. The exact nature of these features was not clear and they were probably natural. In contrast a number of postholes had charcoal in their fills and one posthole/pit (5/14) contained 10 sherds of pottery of late Bronze Age/early Iron Age date and one sherd of early Iron Age to middle Iron Age pottery.

TRENCH 6

Trench was dug N-S down the slope. The modern ploughsoil overlay an earlier ploughsoil (6/2).

A ditch (6/4), at the S end ran WNW-ESE, 1.10 m in width and 0.20 m deep. One flint-tempered pottery rim sherd from the excavated section was late Bronze Age in date. N of the ditch a pit (6/5) 0.70 m in diameter was not excavated.

TRENCH 7 (Fig. 16)

Trench 7 was dug E-W down the slope, to assess the extent of features on the edge of the gravel terrace sloping down into a channel and to examine the depth of colluvium and look for stratified deposits.

In the western half of the trench the natural clay sloped away sharply to a palaeochannel running NE - SW. Below the modern ploughsoil (7/1) was an earlier ploughsoil (7/2), 0.05 - 0.28 m in depth. Underlying this was the latest colluvial layer (7/3), a dark, compact silty loam containing burnt limestone and quartzite pebbles, probably derived from ploughed out Iron Age features on the gravel terrace. It seemed to represent a fairly intense/long-lived episode of ploughing.

In the centre of Trench 7 was a ditch (7/7) aligned NE-SW, the final fill of which was a layer of dark brown silty loam (7/8), extending 5 m E of the feature which was sealed by 7/3. Ditch 7/7 cut an colluvial layer (7/4), a reddish-brown silty loam with inclusions of gravel, burnt quartzite pebbles and burnt limestone, 0.40 m in depth, which almost certainly accumulated during the life of the settlement. It extended over the W half of the trench and containing middle to late Iron Age pottery.

Beneath layer 7/4 was an earlier layer (7/5) which consisted of an olive-green silty loam, similar to the fills of features dug into the gravel natural. It is proposed that this layer developed as a fairly stable soil horizon during the earliest occupation of the site. Layer 7/5 sealed 3 pits (7/15) cut into natural clay in the bottom of the palaeochannel. These were not excavated but burnt limestone and bone were observed in the tops of the fills and they were probably Iron Age in date.

At the E end of Trench 7, layer 7/3 overlay a NE-SW ditch (7/9) 2.3 m wide and 0.5 m deep. This cut a N-S ditch (7/10), 1.55 m wide and 0.47 m deep. 7/10 cut a gully (7/11), 0.65 m wide and 0.28 m deep running NE-SW along the top of the slope. These all contained late Bronze Age to middle Iron Age pottery.

There was a group of pits (7/12) 3 m W of ditch 7/9, which were not excavated but late Bronze Age pottery was recovered from the surface of the features.

TRENCH 8 (Fig. 17)

Trench 8 was aligned E-W on the gravel terrace.

At the W end ploughsoil (8/1) directly overlay natural gravel, heavily disturbed by animal burrows.

At the E end a large ditch (8/4) 4.4 m wide and 0.8 m deep was aligned N-S with two recuts (8/3 and 8/8). They corresponded to a linear cropmark and contained late Bronze Age to middle Iron Age pottery. Further W another ditch, 8/10, ran WNW-ESE and was 0.8 m wide and 0.8 m deep. It had two recuts and contained middle Iron Age pottery.

Several pits were observed in the trench (8/6 & 8/7 to the east and 8/11 & 8/12 to the west) and one posthole (8/15). They were heavily animal disturbed. Pit 8/12 had an uncertain relationship with a shallow N-S ditch, 8/13, 1.11 m wide and 0.25 m deep which contained early to middle Iron Age pottery. Features 8/5, 8/9 and 8/14 could have been pits or animal disturbance.

TRENCH 9

Trench 9 was aligned N-S on the gravel terrace.

The modern ploughsoil (9/1) overlay an earlier ploughsoil (9/2) directly above natural gravel which was heavily disturbed by
animals.

In the northern half of the trench three gullies were identified, 9/4 and 9/6 aligned E-W and 9/5 aligned N-S and a possible posthole, 9/7, was observed in the S. None of these was excavated.

The natural was very fine and loose and was disturbed by animals and it was difficult to interpret the archaeological remains.

TRENCH 10 (Fig. 17)

Trench 10 was aligned E-W on the gravel terrace.

Modern ploughsoil (10/1) directly overlay heavily animal disturbed natural gravel.

Several pits (10/3 - 10/7) and a N-S ditch (10/8) at the E end were identified. 10/9 and 10/10 could have been postholes or disturbance. No features were excavated but pottery recovered from the surface ranged from early to middle Iron Age in date.

TRENCH 11 (Fig. 18)

Trench 11 was aligned N-S on the gravel terrace.

Modern ploughsoil (11/1) overlay an earlier ploughsoil (11/2) 0.12 m in depth.

Several features were identified but none were excavated. At the S end 11 postholes were cut into the natural gravel and Iron Age pottery was recovered from the top of two of these (11/5, late Bronze Age/early Iron Age, and 11/6, middle Iron Age). In this area four pits were also identified and late Bronze Age/early Iron Age pottery was recovered from the top of three (11/4, 11/7 & 11/8).

At the N end of the trench two gullies (11/9 containing late Bronze Age/early Iron Age pottery & 11/11), a ditch (11/10) and a possible pit (11/12) were observed.

TRENCH 12

Trench 12 was aligned N-S in the E of the field.

Natural in this area was a mixture of clay and gravel. The modern ploughsoil (12/1) overlay an earlier ploughsoil (12/2) 0.15 m in depth.

Several features were identified but none was excavated. In the centre of the trench was a large pit (12/3) at least 1.7 m in width, containing some animal bone, adjacent to a smaller pit (12/4). At the N end were at least two ditches (12/5 and 12/6) aligned NE-SW and a further ditch (12/7) aligned E-W, all containing animal bone but no pottery.

TRENCH 13

Trench 13 was aligned N-S across a possible pit alignment seen on the air photograph in the N of the field.

The modern ploughsoil (13/1) was 0.23 m deep and directly overlay an earlier ploughsoil (13/2) 0.15 m in depth.

At the S end of the trench was a large pit (13/4) at least 2 m wide, containing large amounts of charcoal and animal bone. A ditch (13/5) with a similar fill ran NW-SE at the N end, but neither was excavated. Both features were cut through natural clay and gravel (13/3).

TRENCH 14

Trench 14 was aligned E-W in the NW of the field along the top of the slope.

Modern ploughsoil (14/1) 0.3 m deep directly overlay natural clay.

There were no archaeological features.

TRENCH 15 (Fig. 19)

Trench 15 was aligned N-S on the N edge of the gravel terrace across a linear cropmark.

Modern ploughsoil 0.25 m deep overlay an earlier ploughsoil 0.15 m in depth.

A ditch (15/6) ran NE-SW through the centre of the trench along the line of an old field boundary shown on the 1876 1:2500 OS map. This ditch contained post-medieval pottery and clay pipe.

At the N end of Trench 15 a gully (15/3) 0.5 m wide ran NE-SW and 10 postholes were identified over the trench. Gully (15/3) and four of the postholes (15/1, 15/2, 15/4 and 15/5) contained predominantly Late Bronze Age to Early Iron Age pottery.

TRENCH 16 (Fig. 19)

Trench 16 was aligned E-W on the gravel terrace.

Modern ploughsoil (16/1) 0.27 m deep overlay an earlier ploughsoil (16/2) 0.17 m deep.

At least 11 postholes were exposed cutting natural gravel and two of these were excavated. Posthole 16/6 was 0.30 m wide and 0.07 m deep,and posthole 16/7 was 0.38 m wide by 0.17 m deep, neither contained any finds. These postholes were almost certainly part of a structure.

Five pits were also seen but not excavated. However, one early Iron Age grog-tempered sherd was recovered from the top of pit 16/4 and a probable Iron Age sherd from pit 16/5.

TRENCH 17

Trench 17 was aligned E-W to the north of the field.

Modern ploughsoil (17/1) 0.3 m in depth overlay natural clay at the W end of the trench and an earlier ploughsoil (17/2) at the E end.

At the E end was a large ditch (17/3) orientated NW-SE at least 2 m wide and 1 m deep, cut into natural clay. One sherd of early to middle Iron Age date was recovered from this ditch.

TRENCH 18

Trench 18 was aligned E-W sloping down from the gravel terrace into the palaeochannel (as Trench 7).

Ploughsoil (18/1) to depth 0.30 m overlay similar stratigraphy to Trench 7, with layers 18/2, 18/3 and 18/4 corresponding to layers 7/3, 7/4 and 7/5 respectively.

On the edge of the palaeochannel, underlying 7/5 and cut into the natural clay were five postholes (18/7, 18/8, 18/10, 18/11 and 18/12) and two pits (18/9 and 18/13) on an E-W alignment. These were not excavated but all contained large amounts of charcoal and posthole 18/7 had early Iron Age pottery on the surface.
At the E end of the trench was a 0.4 m wide gully (18/6) orientated NE-SW.

TRENCH 19

Trench 19 was positioned N-S across the depression left by the palaeochannel (see Trenches 7 and 18).

Modern ploughsoil (19/1) overlay an earlier ploughsoil (19/2)
0.15 m in depth.
Underlying layer 19/2 was a colluvial layer 19/5, 0.2 m deep, above a silty loam layer with a discontinuous quartzite pebble horizon (19/6), possibly an old ploughsoil.

Beneath layer 19/6 were two colluvial layers (19/7 and 19/8), both 0.25 m deep, the latter containing one sherd of early to middle Iron Age pottery. They overlay a possible feature, group of features or fill of natural hollows, 19/10, which contained early to middle Iron Age pottery. The lowest layer, a gleyed silty clay (19/9), was 0.5 m in depth and attributed to silting of the palaeochannel.

At the N end of the trench was a large feature (19/4), probably a ditch, at least 3.5 m wide, cutting layer 19/5 and overlaid by a further colluvial layer 19/3. It does not appear to have been planned!

TRENCH 20

Trench 20 was aligned E-W to the W of the field.

Modern ploughsoil (20/1) overlay an earlier ploughsoil (20/2) 0.20 m in depth.

Layer 20/2 overlay natural gravel at the E end and natural sand and silt at the W end. There were no archaeological features.

TRENCH 21

Trench 21 was aligned N-S to the W of the field.

Modern ploughsoil was 0.28 m deep and overlay an earlier ploughsoil (21/2) 0.2 m in depth.

Beneath 21/2 was a compact silty colluvial layer (21/3)
0.24 m deep overlying a WNW-ESE aligned gully (21/5). When sectioned 21/5 contained early to middle Iron Age pottery.

TRENCH 22

Trench 22 was aligned E-W at the N edge of the field.

The modern ploughsoil was 0.3 m deep and overlay undisturbed natural clay. There were no archaeological features.

TRENCH 23

Trench 23 was aligned NW-SE in the NE corner of the field.

Modern ploughsoil (23/1) was 0.23 m deep and overlay an earlier ploughsoil (23/2) 0.18 m deep.

Two parallel ditches 23/4 (0.8 m wide and 0.3 m deep) and 23/5 (0.7 m wide and 0.3 m deep) cut the natural clay (23/3) running WNW-ESE in the centre of the trench. Neither, when sectioned, produced any finds.

TRENCH 24 (Fig. 18)

Trench 24 was aligned NE-SW on the SW edge of the gravel terrace.

Modern ploughsoil (24/1) overlay an earlier ploughsoil (24/2) 0.2 m in depth.

The trench contained many features but some disturbance made them hard to define. None of the features was excavated but finds were recovered from the surface. Posthole 24/16 and pit 24/4 produced late Bronze Age to early Iron Age pottery. Early to middle Iron Age sherds were recovered from posthole 24/12, pit 24/6, E-W gully 24/11 and NW-SE gullies 24/8 and 24/10. Middle Iron Age pottery came from posthole 24/15 and pit 24/7.

TRENCH 25 (Fig. 20)

Trench 25 was 26 m long, aligned N-S down the slope.

Ploughsoil to a depth of 0.40 m overlay natural gravel, both being heavily animal disturbed.

At the N end a shallow gully (25/1) ran N-S for 5 m. This was cut at its southern end by a large pit (25/2), 1.20 m deep and at least 2 m in diameter. A section through 25/2 yielded several sherds of Roman and some residual Iron age pottery.

A further ditch (25/3), ran in a NW-SE direction from the southern extent of 25/2. This ditch also contained mainly Roman pottery, but its relationship with 25/2 was obscured by animal disturbance.

TRENCH 26 (Fig. 21)

Trench 26 was 64 m long, aligned N-S down the slope.

Ploughsoil to a depth of 0.40 m overlay natural gravel in the southern two-thirds of the trench, and a reddish-brown sandy silt subsoil in the northern third. There was some animal disturbance but not to the same extent as in trench 25.

At the northern end of the trench a shallow gully (26/1) running NE-SW was sectioned, and contained mainly Roman with some residual Iron Age pottery.

Immediately south of 26/1 were several small pits and postholes.
One shallow circular pit (26/4) contained early to middle Iron Age pottery and a complete decorated bone weaver's comb of possible early Iron Age date. Another small pit (26/6), 3 m S of 26/4 contained middle to late Iron age pottery.

20 m from the N end of Trench 26 was another group of small pits and postholes, three of which (26/12, 26/15, and 26/21) contained late Roman pottery.

S of these features the ground sloped more steeply towards the palaeochannel and, though gullies and ditches were found, no further pits or postholes were observed.

Two parallel gullies 2 m apart (26/24 and 26/25), ran NW-SE , 45 m from the N end of Trench 26 and, immediately south of these, another ditch (26/26) about 3 m wide aligned E-W was uncovered. None of these was excavated.

At the southern end of the trench a small, silted up stream channel (26/27) ran E-W, from the edge of which, five sherds of late Roman pottery were recovered.

12. ENVIRONMENTAL ASSESSMENT

12.1 INTRODUCTION

In November 1990 the Oxford Archaeological Unit carried out an environmental assessment in two fields immediately south-west of the Iron Age to Saxon settlement then under excavation in the ARC plant site (YWRF) (Fig. 4). The aim of the project was to locate a palaeochannel and to assess its potential for obtaining environmental evidence related to the occupation site. The assessment lay within the current ARC Cassington pit and is scheduled for destruction during gravel extraction within the next four years.

12.2 TOPOGRAPHY

The area of assessment lies on the southern edge of the second gravel terrace where it slopes down onto the Thames floodplain. A palaeochannel, running W-E at this point, was detected in the borehole survey and confirmed by aerial photographs. Its course was visible during flooding in January 1990.

12.3 ARCHAEOLOGICAL BACKGROUND

The palaeochannel runs along the southern edge of the main excavation site and is suspected to have remained an open watercourse into the Roman period.

The site itself contained archaeology of continuous settlement from the early Iron Age to the Saxon period. The river channel would have formed an important resource and a natural barrier to the settlement. There is also evidence of Bronze Age and late Neolithic activity on the gravel terrace.

Waterlogged wood, possibly forming part of a platform of Neolithic or early Bronze Age date, had been observed during gravel extraction in the meadow north of Oxey Mead and environmental data had been recovered from further down the channel course in Oxey Mead itself (Fig. 4). An interesting sequence of alluviation with well-preserved waterlogged material had been examined (see above 5.8 and Fig. 8).

An auger survey earlier in the year ('Proposals for Future Work' Fig. 5) had revealed the possibility of good organic preservation within the channel and the location of the trenches was dictated by this information.

12.4 STRATEGY

A 360° with a 6 foot ditching bucket excavated a total of eight trenches, 1.8 m wide and of differing lengths (Fig. 9). This represented approximately a 1% sample of the 1 hectare area covered by the assessment.

Trenches 1 to 7 were excavated at intervals along a 130 m approximately N-S transect across the palaeochannel following the line of the auger survey.

The sections were examined by Dr Mark Robinson and layers 4/2, 4/3, 4/4 and 4/5 were sampled for waterlogged plant and insect remains. A soil column was also taken from Trench 4 for pollen analysis.

12.5 RESULTS

The palaeochannel formed in the late glacial or early post-glacial and would have flowed round the northern edge of the floodplain. The history of alluviation in the channel can best be interpreted from the sections of Trench 4 (Fig. 10).

Layer 4/5 represents the pattern of silting in the early prehistoric period when a low water-table resulted in low organic preservation. Alluviation then increased within the channel raising the water levels and causing waterlogging and good organic preservation on the edges of the channel. This is represented in layer 4/4 which, on comparison with other Upper Thames Valley sites, probably dates to the Iron Age.

A colluvial deposit (4/3) of sandy silt with fine gravel, shell and flecks of charcoal which was probably the direct result of ploughing on the terrace above had crept over the northern edge of the channel. The dating of this episode is uncertain but it is suspected to be Roman and a large Romano-British pottery sherd was found on the surface of the layer. A medieval date could also be proposed.

The channel appears to have narrowed considerably by the time of the deposition of 4/3 and is later filled completely by alluvium from the Thames floodplain (4/2).

Roman gullies in Trenches 6 and 8 suggest that settlement may extend from the gravel terrace onto the south bank of the channel and that there may be a ford or bridge nearby. A pointed stake and a fragment of a radially cut plank were found within waterlogged layer 4/4 but careful cleaning and an extension to the trench failed to unearth a structure.

Organic preservation within the channel was good and interesting and relevant information is expected from both the waterlogged and pollen samples.

12.6 CONCLUSIONS

Weather and ground conditions were favourable during the assessment, though the dry soils are resulting in the gradual desiccation of the waterlogged deposits.

A representative section through the palaeochannel deposits was achieved. The assessment was not designed to evaluate archaeological features and the nature of possible occupation on the south bank of the channel remains unclear and the presence of a bridge or ford across the channel uncertain. There were, however, favourable indications that settlement evidence survives on the south side of the channel.

Preservation of organic material in the channel was good. It clearly demonstrated the value of sampling the palaeochannels to recover information about the use of the channels and their surrounding environment.

There is considerable potential for establishing the sequence of channels across the northern floodplain with the attendant possibility of acquiring well-preserved organic material for several periods. Evidence from Oxey Mead had already indicated that at least two separate episodes of waterlogging had occurred, probably as a result of a change in the course of the channel. Finds from the area of the waterlogged wood in the channel to the north indicated that this had accumulated in the earlier prehistoric period. Further investigation should provide a thorough profile of the environmental history of the floodplain.

12.7 TRENCH SUMMARIES (Fig. 9 & 10)

TRENCH 1

This trench was situated on the slope of the second gravel terrace. Topsoil (1/1) and ploughsoil (1/2) to a depth of 0.70
m directly overlay natural gravel. There were no archaeological features.

TRENCH 2

Trench 2 was situated further down the slope. Topsoil (2/1) and ploughsoil (2/2) to a depth of 0.50 m directly overlay natural gravel in the northern half of the trench. To the S of Trench 2 a thin layer of silty clay (2/3), 0.10 m in depth, was observed under the ploughsoil.

TRENCH 3

Ploughsoil (3/1) here was 0.50 m in depth overlying, at the N end of the trench, a shallow, silted up stream channel running W-E along the base of the gravel terrace. This possibly continues the spring line identified S of the main excavation. The silt (layers 3/8 and 3/9) from this channel was not waterlogged and organic preservation was poor.

S of this channel was a ridge of gravel 8 m wide aligned E-W, which was either deposited by the stream channel or was a remnant of first gravel terrace.

At the S end of Trench 3 the gravel sloped away sharply and the northern edge of another stream channel was seen, very probably the main palaeochannel. This was filled by silting (layers 3/3, 3/4, 3/5, 3/6 and 3/7) but the organic preservation was, again, poor.

Between the ploughsoil and the lower stream channel was a 0.5 m thick layer of greyish brown alluvium (3/2).

At the N end of Trench 3 the natural gravel was less than 0.5 m thick and overlay blue grey clay which sloped away sharply and was not observed at the southern end of the trench.

TRENCH 4

Trench 4 was dug through the deposits of the main palaeochannel to a depth of 2.5 m.

Ploughsoil (4/1), 0.40 m in depth, directly overlay a 0.70 m thick band of grey alluvium (4/2), the top 0.2 m and the bottom 0.10 m of which were heavily flecked with iron staining.

Beneath this at the northern end of the trench, and extending a further 14 m into the centre of the palaeochannel, was a thin 0.20 m layer of grey, very sandy silt (4/3) with a 20% fine gravel content and frequent fragments of shell, flecks of charcoal and iron staining. This was interpreted as a colluvial layer from Roman or early medieval ploughing on the gravel terrace.

Layer 4/4, beneath 4/3, was a 0.3 m thick band of dark grey waterlogged silt containing a 30% fraction of well-preserved organic material, with fragments of leaves, twigs and larger pieces of wood visible. A pointed stake and one fragment of a radially cut plank were recovered in the machine cut associated with a sherd of Roman pottery. To investigate the possibility of a waterfront structure, an extension to Trench 4 (1.8 m by 4 m) was excavated immediately NW. This showed that although 4/4 did contain some worked wood there was no apparent structure. Much of the preserved wood consisted

of roots and twigs which had naturally accumulated on the riverbank.

The top of layer 4/4 showed some worm sorting, possibly a result of the exceptionally low water levels during summer 1990 caused by the drainage of the ARC pit and drought.

Directly beneath 4/4 was a layer of blue grey clay silt (4/5) up to 1 m thick in the centre of the palaeochannel. Layer 4/5 contained some organic material, but this was seen to be almost entirely root penetration from layer 4/4.

Layer 4/6 a blue grey clay silt with an 80% gravel content was formed by the mixing of layer 4/5 with the underlying natural gravel.

TRENCH 5

Trench 5 was similar in depth and content to Trench 4; layers 5/1, 5/2, 5/3, 5/ and 5/5 being the same as layers 4/1, 4/2, 4/4, 4/5 and 4/6 respectively.

The southern bank of the palaeochannel is situated between Trenches 5 and 6.

TRENCH 6

Within Trench 6 topsoil (6/1) and ploughsoil (6/2) to a depth of 0.3 m overlay a light brown silty loam subsoil (6/3) which was directly on top of the natural gravel. Cut through the subsoil was a gully (6/4) aligned NW-SE, 2 m wide and 0.6 m deep containing Roman pottery.

TRENCH 7

Ploughsoil to a depth of 0.4 m in Trench 7 directly overlay natural gravel. No archaeological features were observed.

TRENCH 8

Trench 8 was situated 30 m W of Trench 4 to locate the western continuation of the palaeochannel, and was 1.8 m wide by 19 m long. The sequence of deposits closely resembled those of Trench 4 with layers 8/1, 8/2, 8/3 and 8/4 corresponding to layers 4/1, 4/2, 4/3 and 4/4 respectively.

The southern edge of the palaeochannel was located 10 m from the N end of the trench and a bank of natural gravel continued to the S.

The gravel bank was cut by a shallow curving gully, 8/6 (with a recut 8/5) and 8/7. The gully was discontinuous with an apparent western entrance 3 m from the S end of the trench.

13. THE FIELDWALKING PROJECT

13.1 INTRODUCTION

A fieldwalking project was undertaken in autumn and winter 1990/1991 as part of the Worton Rectory Farm Project assessments.

13.2 TOPOGRAPHY

182.2 hectares of land in 18 fields were walked (Fig. 3). It is axiomatic that only arable fields were surveyed but this included most land which would traditionally be regarded as arable as well some land which would probably have been permanent pasture.

The project was designed to cover a variety of topographies and ecological zones, not just the pit site, in order to fully examine questions of land-use. The full range of landscapes available for use could, therefore, be more thoroughly assessed. Also, it was hoped to address the problem of archaeological visibility over various geologies.

To this end floodplain (45%), evenly divided between alluvium and gravel islands, second gravel terrace (16%), Oxford Clay (29%) and fourth gravel terrace(10%) were included in the survey. The ground sloped from c 59 m OD on the floodplain to over 91.4 m OD to the north on the fourth gravel terrace.

13.3 RESEARCH OBJECTIVES AND ARCHAEOLOGICAL BACKGROUND

The research objectives of the project have been discussed above (Section 6). The fieldwalking addressed some of the problems of the settlement pattern, specifically the site catchment area, location of earlier sites and the choice of location to exploit a variety of environments. It also attempted to answer many of the questions of the landscape project, specifically the use of the landscape and exploitation of the floodplain (partly through manuring scatters), establishing medieval land boundaries and land-use and correlating carbonised remains from the site with manuring scatters in their fields.
The specific objectives of the project were detailed in Section 6.13.

The archaeological background of the survey has also been described (3). It is set in the context of the excavated settlement site occupied from Iron Age to Saxon period with its associated economic evidence.

Within the survey area was the railway line where Beakers and material from the Iron Age settlement were recovered in the 19th century, the earlier fieldwalking evidence and cropmarks around Worton Rectory Farm and the cropmarks of the small enclosure immediately north of the A40 road.

13.4 METHODOLOGY

All the arable fields within the site catchment area (see Fig. 3) were walked with the exception of that north of Field 7 and south of the railway line . Other fields were either pasture of have been built over.

Fields were gridded out in 20 m transects on the national grid using OS 1:2500 maps. Highly visible markers were placed where the grid lines intersected with field boundaries or further into the field where visibility was a problem and at a distance into the field on the grid lines so walkers had two markers to walk towards and one marker to walk from. A 20 m length of rope temporarily secured into the ground by a grid peg was used to measure each run. This avoided discrepancies in pace length.

All material was collected.

Each walker recorded the grid reference of their run, the time of day, lighting conditions, any visible geology and presence or absence of finds per 20 m run.

A form was completed for each field by the supervisor detailing the field name, grid reference, parish, owner/farmer, size of field, geology, slope, crop conditions, soil condition, lighting and weather conditions, date and direction walked. Comments on any visible earthworks were also made.

Finds were washed at the Oxford Archaeological Unit. Paul Booth examined the material.

The results were plotted onto a 1:2500 map, colour-coded by phase and size-coded by quantity. They were compared to the geology, cropmarks and old field boundaries. The clusters were then defined and interpreted on 1:10 560 maps (Figs 11 - 15).

Sherds or flints per hectare have been calculated by dividing the number of sherds found in each field by the area of that field and then multiplying by 10. The assumption being that each walker will look 1 m to either side of their line and that, therefore, 10 m would be scanned in every 100 m.

Stone, tile and brick scatters were plotted on 1:2500 maps as was the post-medieval material. Their distribution did not seem to bear any relationship to earlier scatters.

All the owners/farmers involved were extremely cooperative.

13.5 RESULTS

The project fulfilled a wide range of objectives.

New sites were discovered or at least indicated, old sites were confirmed and the site catchment area can now be more closely defined.

The presence of a Roman settlement at Worton Rectory Farm was confirmed and it appears to be late in date. However, the early prehistoric material (? early Bronze Age) associated with a possible ring ditch visible on the photographs was not previously suspected. Also surprising was the large quantity of Saxon material which led to a reappraisal of cropmarks as sunken-featured buildings.

A possible early prehistoric occupation site was located on a gravel island in the floodplain, between two palaeochannels. Its principal elements seem to be Mesolithic and late Bronze Age in date. Another prehistoric site could exist on the gravel island further north.

A late Bronze Age pottery scatter was located in the south-west of the pit, north of the haul road. This site is threatened not only by gravel extraction but also by the Cassington spur road proposed as part of the A40 road-widening scheme.

A dense distribution of medieval pottery immediately south of Yarnton village must represent part of the medieval village.

Manuring scatters were recovered over a wide area of the survey. These were mostly Roman (early where diagnostic) and medieval but three light scatters of Iron Age pottery were located suggesting the possibility of manuring in this period also (or small satellite settlements in close proximity to the main settlement or other functions eg hayricks, manure mounding areas).

Early prehistoric (Fig. 11)

An occupation site is probably represented by the dense flint scatter (32.5 per hectare) including burnt flint (5 per hectare) located on a gravel island in the floodplain (Fields 14 & 15). One sherd of possibly late Bronze Age pottery was also recovered. Although eleven tools and one core were found the flintwork was not particularly diagnostic. Some material appears to be Mesolithic, there was one Beaker thumbnail scraper and a late Bronze Age barbed and tanged arrowhead. The flint density tails off to west and east into a light scatter.

On the gravel island immediately to the north of this site another flint scatter was located (in Field 12). An early Bronze Age sherd was recovered with this scatter which included some burnt flint. The flint density over the whole field was 5.6 per hectare (7.4 including the burnt flint), though its distribution was fairly concentrated in the centre.

A possible ring ditch visible on air photographs on the second gravel terrace north-west of Worton could be the focus for the dense flint scatter found in this area. In Fields 6, 7 & 8 20.9 flints per hectare were recovered with some burnt flint (8.3 per hectare). One definite and one possible early Bronze Age sherd were also found.

A group of six definite plus four possible late Bronze Age sherds were found on what was probably a gravel island (south-west of Field 8). Several burnt flints were also clustered in this area. The discovery is sufficiently rare to merit further investigation. A single sherd of late Bronze Age pottery possibly associated with 4 burnt flints may indicate activity a little further east on the same gravel island.

The edge of the fourth gravel terrace was identified as another area of early prehistoric activity. A light flint scatter of around 3 flints per hectare were found in this area (Fields 1, 2 & 3) with burnt flint nearby. Less easily understood is a small scatter in an area of Oxford Clay (south of Field 4) where a concentration of later material was discovered.

Iron Age (Fig. 12)

The presence of an Iron Age settlement (early to late) was already known in the ARC plant site. Its limits to the north-west in Cresswell Field (Field 9) were established by machine assessment before the field was ploughed and walked. However, a dense cluster of early and middle Iron Age pottery was recovered confirming the results of the assessment. It was interesting that the greatest concentration of pottery did not coincide with the areas of greatest feature density but lay downslope to the south and south-west. Presumably this was a result of ploughing off the top of the terrace. The presence of a limited amount of occupation west of the palaeochannel was also corroborated.

Three other Iron Age pottery scatters were located. One of these (8.8 to 14.8 sherds per hectare) lay on the floodplain (Fields 12 & 13). The scatter appears to run over and ignore a palaeochannel which was respected in the early prehistoric periods and, later, in the Roman period. This could, of course, be caused by excessive post-depositional activity. Another lay on second gravel terrace north of Worton Rectory Farm (Fields 6 & 7). The density of this scatter is similar (11.8 - 12.8). It is not certain whether these scatters represent other sites (though note the proximity of the scatter in Fields 12 & 13 to the known occupation site) or whether they could be manuring scatters. The fragility of Iron Age pottery led us to expect that it would have been broken up by the plough. Other agriculture processes could be responsible, for example barns or hayricks ? The explanation for the scatter on Oxford Clay (south of Field 4) (20 sherds per hectare) is also unclear.

Roman (Fig. 13)

A rural settlement site had already been examined in the ARC plant site. Most of the fields walked would probably have been farmed from this site.

Another Roman site was also known at Worton Rectory Farm. Air photographs clearly indicated the presence of rectangular and curvilinear enclosure ditches typical of rural settlement (eg. Cambridge University Collection AY-94) and Romano-British pottery was recovered by the Oxford University Archaeological Society during fieldwalking in 1966. A dense concentration of Roman material was found in our fieldwalking exercise (1017 sherds per hectare in Field 6 and the north of Field 8) with a tail-off of material to east and south (Fields 7 & 8) which confirmed these results. Some early Roman material was found but later Roman predominated which suggested that this was the period of its most intense use, if not its inception.

Four light pottery scatters representing manuring were isolated. None of these were on second gravel terrace; three were on the floodplain and one on Oxford Clay. The densities ranged between 8 and 40 sherds per hectare. Most of this material was undiagnostic grey-ware but where sherds could be dated they were predominantly early. This accords with other surveys which suggest more intensive manuring in the early Roman period. All three floodplain scatters were on gravel islands between palaeochannels. Could they represent an extension of arable onto more marginal ground which needed to be manured to increase productivity? This could also explain the increase of damp-ground weeds found among carbonized grain samples on domestic sites of this period.

The scatter on Oxford Clay in the south of Field 4 could be part of the same process or could be part of an unexplained phenomenon which has resulted in the clustering of material of all periods in this field.

Saxon (Fig. 14)

Two Saxon cemeteries were known from earlier gravel working in the area. One lay south-west of Worton Rectory Farm and the other south of Yarnton and immediately north of the Saxon settlement excavated in the ARC plant site. A burial uncovered in ? 1960s during the construction of a barn on the west of Mead Farm (SMR no 5536) could be part of the cemetery. The two Saxon sherds in the east of Field 16 were found nearby.

The Saxon settlement on the ARC plant site was in the process of excavation when the fieldwalking survey was underway. Fieldwalking also clearly indicated a settlement 1.5 kilometres away, west of Worton Rectory Farm on the second gravel terrace (Field 6 and N of Field 8). A sherd of Saxon grass-tempered pottery had been recorded from the field (SMR 12933) but the density of very fragile Saxon

material (40.1 sherds per hectare) was surprising. A re-examination of the air photographs suggests that some of the cropmarks thought to be pits or even small gravel workings are sunken-featured buildings. This is probably the settlement site related to the cemetery. An isolated sherd of Saxon pottery was found east of the cemetery.

Evidence of Saxon land-use was not forthcoming and must be gleaned from carbonized and waterlogged material recovered in the excavations and within the palaeochannels.

Medieval (Fig. 15)

The villages of Yarnton, Worton and Cassington are all mentioned in the Domesday survey. Worton seems always to have lain within the parish of Cassington but throughout its history it seems to have had its own fields (VCH vol XII pt ii). All the fields walked would have been farmed from Worton or Yarnton.

Tithe maps indicate that Worton is now much shrunken and house platforms and hollow ways can be seen south of the present hamlet. Dense pottery scatters were found around the village (from 116 sherds per hectare in Field 6 to 165 sherds in Field 7) which are probably associated with heavy manuring and rubbish disposal. The 1797 map shows Field 7 divided into north-south strips connected to crofts and there are no indications of buildings further to the west either on early maps or the air photographs. This field (West Croft) which extended to the edge of the gravel terrace appears to have been part of the open field arable and slight traces of ridge and furrow can be detected on the edge of the terrace.

Other surveyed fields associated with Worton lie south of the hamlet. Early maps show all this land lay within a single field called Worton Cow Common but it cannot all have been permanent pasture as manuring scatters are present. South-west of Worton (Field 8) a moderately dense pottery scatter (of about 36 sherds per hectare) falls neatly within an old field boundary (on 1955 OS map) and suggests that part of the common was taken into arable at some time in the medieval period. A lighter pottery scatter further south (Field 11) of around 12 sherds per hectare was also in Worton Cow Common. It may have been arable for a shorter time.

Yarnton village centre lay north-east of its Saxon precursor. It was centred on the church and manor. A little to the south, however, a dense scatter of pottery in Field 17 (497 sherds per hectare) demonstrates that the village extended in this direction.

The precise location of the arable open fields belonging to the village is not known. However, the density of the pottery scatter over fields 1, 2, 3 & 4 (of around 30 - 60 sherds per hectare) implies it lay to the north and north-west of the village. Ridge and furrow is visible in the east of Field 4 and the adjacent field to the east.

The 1889 plan of the village shows all the fields to the west and south-west as pasture. The density of medieval pottery from this area was certainly lower than the fields to the north. However, there is a light scatter in Fields 9, 12, and the west of 13 and within Field 15 of around 11 to 16 sherds per hectare which suggests that these fields were ploughed at some time. It is possible that they were taken into cultivation in the late 13th/early 14th century when pressure on land was greatest and then reverted to pasture. (Note the clear presence of the parish boundary on the west edge of Field 9).

The meadow land south of the village, between it and the Thames, was an important element of the medieval agricultural economy. The method of annually distributing this land and the cropping and grazing regime continued until the present century and is well-documented. The small area of potential hay meadow that was walked in the project contained virtually no medieval sherds.

13.6 CONCLUSIONS

Methodology
The conditions under which the fieldwalking survey were undertaken were generally good. The weather was mostly dry, the ground had been fairly recently ploughed and it was only towards the end of the survey that crops had grown appreciably. Even so they did not significantly affect visibility.

The fieldwalking team remained fairly constant and included mostly experienced personnel. Where inexperienced walkers were used they were staggered between the experienced. Nevertheless, it is well-recognised that individual bias both in the collection of quantities and different categories of material is the single greatest variable in fieldwalking survey. The recovery of the late Bronze Age pottery in the south-west of Field 8, for example, was achieved by one person on a single transect. Does this genuinely reflect the distribution of this artefact or its low visibility in the soil? An effort was made to keep these differences to a minimum by the collection of all classes of material, the careful composition of the team and constant communication between them. It is felt that any discrepancies did not make gross differences to the end result.

Interpretation

Recovery of artefacts from different soils appeared to be comparable. For example, it was possible to draw coherent and consistent conclusions about medieval agricultural systems from the data collected. The effect of alluviation and colluviation is more difficult to assess. On the floodplain most pre-medieval material was found on gravel islands away from the palaeochannels (with the exception of an Iron Age group over Fields 12 & 13). How far this reflects actual use and how far earlier material has been buried can only be answered by further investigation. The persistent absence of material in the west of Field 9 also requires examination.

Roman and medieval artefacts are durable and comparatively visible in the ground. It is possible to draw conclusions about site location and manuring patterns with some confidence. It is less easy to assess the significance of earlier prehistoric and Saxon finds. The perishable nature of the pottery indicates that their presence has an importance which far outweighs their quantity in the ground. They may well be the finds which have been brought up by the plough in that season and thus single sherds are significant and could represent domestic occupation. More subtle distributions such as manuring scatters would not survive (but see ? Iron Age scatter in Fields 12 & 13). It is difficult, therefore, to compare and contrast results for different periods on the grounds of the fieldwalking alone.

Archaeological Potential

The fieldwalking project has added significantly to the understanding of the archaeological resource of the area.

It has indicated the presence of earlier occupation sites and
offered some hope of recovering information about the early use of different elements of the landscape. It has also clarified the Roman, Saxon and medieval settlement pattern and demonstrated land-use for some of these periods.

It has added a new dimension to the investigation of the excavated settlement site (YWRF) and its agricultural economy and greatly enhanced the value of the environmental material recovered from that site.

The full implications of the results will not, however, be fully understood unless this work is backed-up by more detailed investigation of those areas highlighted in the present survey.

Machine evaluation of the early prehistoric sites is needed to pinpoint their precise location and date and to asses their nature and state of preservation. Their relationship to the palaeochannels; whether stratified deposits may survive beneath alluvium on the channel edges and whether contemporary waterlogged material may have been preserved within them, are all questions to be addressed. These sites are all threatened by gravel extraction and that in Field 15 is under

imminent threat. Also of some urgency is the mitigation of destruction of the western limit of the Iron Age settlement already partly excavated. The machine evaluation of this site, detailed below, highlights this problem.

Parts of the Roman and Saxon site north-west of Worton are threatened by the A40 Cassington spur road, as is the potential late Bronze Age site discovered in the south-west of the pit area. Further investigation of these sites may more properly fall within the scope of that project.

Although it is possible to propose manuring and hence land-use from the scatters identified some of the problems inherent in fieldwalking data still remain to be assessed. The difficulties of assessing the significance of pottery scatters over alluvium, for example, have already been discussed above. More detailed investigation is needed to elucidate the meaning of different densities of scatters. In particular sieving on transects from the gravel islands into the palaeochannels in spits down to the natural ground would be of especial value in this respect.

The degree to which artefact visibility in the ploughsoil accurately reflects archaeological presence is also uncertain. To some extent this would become apparent during field evaluation of potential sites. However, monitoring of stripping before extraction should also be undertaken in order to appraise the technique and compare its effectiveness over different soils as well as to rapidly examine unsuspected sites.

Documentary research into the origins of the medieval settlements of Yarnton and Worton and the use of their fields would be of immense value in expanding our knowledge of this aspect of the development of the landscape. An evaluation of the medieval site located south of Yarnton village would also be a worthwhile avenue of research.

FIELD SUMMARIES

Eighteen fields were walked in the fieldwalking project. The following is a brief description of the condition, geology and topography and finds recovered per field. Some field names are included but this has not been fully researched. Finds densities are normally plotted per field and sherds of uncertain date are normally included in their most likely category.

The information was initially plotted onto a 1:2500 map which was too large to illustrate here. It is held with the archive (now at the Oxford Archaeological Unit, to be deposited at the County Museum, Oxford). The interpretation of the results is illustrated - figs 11 - 15.
Stone scatters and post-medieval material was also plotted.

Field 1

PRN 17103 SP4714 1242

31 hectares
Home Clay (1889)
(recently much enlarged)
Mostly clay with some 4th gravel terrace in NW. Slopes down from NW.

Prehistoric: 4 flints (1.3 per hectare - but fairly restricted in large field) & 1 burnt flint
Includes 1 possible scraper
Light scatter of flint, all on or near 4th gravel terrace

Roman: 4 + 1 ? sherds (1.6 ph)
(2 late, 2 early)
Mostly in S of field very light scatter

Medieval: 81 + 13 ? sherds (30 ph)
Manuring scatter, mostly off 4th gravel terrace

2 limestone scatters, mostly in E of field

Field 2

PRN ~~17104~~ 15443 SP4653 1233

13.16 hectares
Middle Ground (modern name)
Mostly 4th gravel terrace with clay to W

Prehistoric: 5 flints, including 1 ? scraper and 8 burnt flints. The burnt flint is concentrated in the west of the field and the struck flint to the east giving on average a distribution of 10 ph. This is the only area where there is a clear difference in distribution between the two.
Light scatter - mostly on edge of terrace

Iron Age: 1 ? sherd

Medieval: 14 + 3 ? sherds (includes 1 ? glazed medieval tile sherd)
(12.9 ph)
Manuring scatter, mostly off 4th gravel terrace

Field 3 PRN 17104 SP 4677 1204

11.2 hectares
Hillocks (modern) Bank Windmill Field (1889)
Mostly clay with 4th gravel terrace at N edge of field. Slopes S-N.

Prehistoric: 3 flints, including 1 scraper (2.6 ph)
On edge of gravel terrace

Iron Age: 1 + 2 ? sherds (2.6 ph)
In W of field. ?? assoc with scatter in field 4

Roman: 1 (box flue tile), 1 ? sherd (2nd - 4th century) (1.8 ph)
In NE of field

Saxon: 1 ? Saxon sherd - very small frag

Medieval: 36 + 4 ? sherds (35.7 ph)
Fairly even distribution

Field 4 PRN 11979

6.28 hectares
Windmill (modern), Further Windmill Field (1889)
Clay. Slopes N-S.
Crop becoming a bit thick when walked
Ridge and furrow visible in NE of field and in adjacent field to E which coincides with area of greatest density of finds (could they all have been brought from somewhere else?)

Prehistoric: 2 flints (3.2 ph) & 4 burnt flints (6.4 ph)
Light scatter in E of field

Iron Age: 1 + 12 ? sherds
(3 ? fairly late, 1 ? middle, 1 IA/Saxon, 1 IA/med)
(20 ph)
Scatter - generally to S of field (manuring, settlement or late redeposition?)

Roman: 13 + 6 ? sherds
Predominantly early
(30 ph)
Manuring scatter but very clustered to E

Medieval: 37 + 4 ? sherds
(63 ph)
Heavy manuring scatter but also a bit clustered to the E in area of ridge and furrow (but not as much as Roman)
Ridge and furrow visible

Field 5

3.12 hectares
No information
?Clay
The comparison stark with the adjacent field to the E. This is probably because field boundary along old line of Slade stream, now canalised. Settlement must have run up to stream. No cropmarks

Prehistoric: 3 flints, including 1 possible tool (9.6 ph) and 1 burnt flint

Iron Age: 1 ? sherd

Roman: 3 sherds, all early, edge of scatter in field 6

Saxon: 3 ? Saxon sherds, edge of scatter in field 6

Medieval: 2 + 2 ? sherds, edge of scatter in field 6

BUT quite a lot of post-medieval.

Field 6

8.46 hectares
Akery (modern), West Croft (1797)
Mostly 2nd gravel terrace

This field is immediately NW of Worton Rectory Farm. It is a settlement site, apparently commencing in the late Roman period and continuing in use up to the present day
Previous fieldwalking has turned up material (SMR no 3746) and cropmarks have been photographed (eg NMR SP4611/2). The cropmarks seem to show a ring ditch, enclosures of the Romano-British period and ? Saxon sunken-featured buildings.

Prehistoric: 17 flint flakes, including 1 ?scraper and 1 ?tool (20.9 ph) and 7 burnt flints (8.3 ph)
1 sherd early Bronze Age pottery & 1 possible sherd
Flint scatter plus the very rare discovery of pottery. Flints seem to be fairly evenly distributed over the field. Definite BA sherd is close to ring ditch

Iron Age: 5 + 15 ? sherds (2 of poss sherds could be late, 2 could be Saxon) (Calculated on basis of 5 plus 10 density is 11.8)
Does this mean a small Iron Age settlement exists here or that we have a manuring scatter or what?

Roman: 792 sherds + 69 ? sherds (1017 ph)
Where sherds were diagnostic they were late
Mostly concentrated in N of field, N of poss trackway visible on air photos (which need not necessarily be Roman
Occupation site. How late in the period did it start?

Saxon: 17 + 17 ? Saxon sherds, includes some grass-tempered wares (40.1 ph)
This is a very significant quantity in Saxon terms and must indicate an occupation site

Medieval: 77 + 21 ? sherds, includes 1 11th - 12th century sherd (115.8 ph)
Does this indicate domestic occupation or heavy manuring in home fields? No evidence of buildings in this field
Also fairly dense scatter of post-medieval material

Field 7

4.7 hectares
Granary (modern), Black Patch in east (1797)
? Clay to N and gravel terrace to S
Strips at back of crofts shown on 1797 map
Limestone scatters in field, one of which follows line of croft strip

Prehistoric: 6 flints (12.8 ph) & 5 burnt flints (10.6 ph)
1 sherd late Bronze Age
Probable continuation of Bronze Age site

Iron Age: 1 + 7 ? sherds (if say 6 sherds = 12.8 ph)
Continuation of Iron Age site or manuring scatter?

Roman: 23 + 3 ? sherds (55.3 ph)
Mostly concentrated in W of field
Tail-off of occupation site

Saxon: 8 + 2 possible sherds (21.2 ph)
Mostly concentrated in W of field
Tail-off of occupation site

Medieval: 71 + 7 ? sherds (165.9 ph)
Back garden debris

Dense scatter of post-med material

Field 8

27 hectares
Dairy (modern), Worton Cow Common (1797)
Second gravel terrace in N of field, gravel island in S of field, alluvium/colluvium and silty loams between.

Finds distribution so variable within field densities have not been calculated.
Old field boundary to N originally further S, to correspond to edge of gravel terrace.

Prehistoric: 14 flints, including 3 retouched flakes & 1 ? scraper, 10 ? struck flakes & 10 burnt flints.
6 definite & 4 possible late Bronze Age sherds (1 sherd could be EBA)
Significant late Bronze Age pottery cluster in SW corner of field with 1 other sherd on gravel island in S. The burnt flint is also mainly concentrated in the SW with a small group near the single late Bronze Age sherd. All the struck flint and some of the burnt flint was found on the gravel terrace. Probably a late Bronze Age site here. Could be another to E.

Iron Age: 1 + 5 ? sherds
Mostly to W of field

Roman: 171 + 39 ? sherds (both early & late)
Dense scatter in N of field which is clearly part of settlement site & tail-off down slope.
Otherwise a light scatter over S of field, probably manuring, which mostly coincides with gravel island

Saxon: 8 + 6 ? sherds
Almost exclusively on gravel terrace in NW of field, coincidental with cropmarks of ? sunken-featured buildings

Medieval: 94 sherds + 24 ?. 1 decorated tile
This is virtually all in W of field. Dense scatter in NW on gravel terrace continuing scatter from field 6.
Ridge & furrow can be seen in this part of the field sometimes and it was part of the arable open fields of Worton in 1797.
The lighter scatter in the W coincides with one of the field boundaries shown on the 1955 1:10 560 OS map. Could this have been converted to arable and then reverted?
Clearly most of field was permanent pasture

Post-medieval material found over all field but mostly to W indicating that this part of field has been arable for longer. A few scatters of limestone in S & E but do not seem to coincide with pottery scatters.

Field 9

22.4 hectares
Modern (Cresswell), several fields in 1889 - part of Great Meadow, Oak Tree Park, Barn Close, Black Patch, Chissels Ground & Little Bottom.

Oxford Clay in N giving way to second gravel terrace cut by palaeochannels in W & S

Prehistoric: 4 flints & 1 burnt flint. In centre

Iron Age: 44 definite & 3 possible sherds. Mostly early & middle but some late.
Densely clustered in E of field & so density per field (20.9) not very meaningful.
This field has been assessed by machine and the scatter clearly corresponds with a known Iron Age Mostly early and middle) settlement. It is interesting that the greatest concentration of pottery from the fieldwalking does not correspond with the highest density of features, but seems to have been ploughed off the top of the terrace.

Roman: 4 + 7 ? sherds (including 1 Oxford mortarium), mostly in E of field

Saxon: 1 possible sherd (flint-tempered, possibly late Saxon)

Medieval: 24 definite & 10 possible sherds (3 with green glaze)
Fairly even and light scatter in S of field. Was all pasture in 1889 but possibly ploughed at some stage in its medieval history.

Post-medieval - light scatter of debris in E and W of field. Also stone scatters on field boundaries (Chissels Ground to Oak Tree Park) and around area of suspected barn in SE.

Field 10

1.7 hectares
Part of Triangle (modern) but separated by ARC haul road, part of Worton Cow Common (1797)
Alluvium
Medieval: 1 sherd

Field 11

8.1 hectares
Triangle Field (modern), part of Worton Cow Common (1797)
Floodplain (gravel island in N of field & also in SE corner, alluvium from palaeochannel cutting through these).

Prehistoric: 2 burnt flints
On N gravel island with burnt flints in S Field 8 & late Bronze Age sherd - could be site

Roman: 1 + 2 ? sherds (3.7 ph)
Mostly in N, on gravel island
Lava quern frag - Roman or later
Possibly part of manuring scatter on this island

Medieval: 5 + 7 ? sherds (12 ph)
Part of light medieval manuring scatter (also in Fields 9, 12 & 13)

Fairly even scatter of post-medieval material

Field 12

10.75 hectares
Lower Cresswell (modern), Great Meadow (1885)
Floodplain - gravel island, cut to S by palaeochannel, filled with alluvium
Odd that early prehistoric and Roman seem to respect channel, whereas Iron Age and medieval don't.

Prehistoric: 4 flints plus 2 possible struck flints (5.6 ph) & 2 burnt flints (1.9 ph)
1 early Bronze Age sherd
Light scatter on gravel island - ? occupation

Iron Age: 6 + 10 ? sherds (14.8 ph)
Light scatter which does appear to run over palaeochannel but could be later disturbance.
Is this occupation (?satellite) or a manuring scatter???

Roman: 9 + 4 ? sherds (12 ph)
predominantly early
Light scatter in NW of field - part of manuring scatter with Fields 8 & 11 on the gravel island.
Respects channels

Medieval: 8 + 4 ? sherds (11.1 ph)
Light scatter over all field - manuring scatter

Field 13

5.68 hectares
Bog Field (modern), Watery Ham (1889)
Floodplain - mostly alluvial fill of palaeochannel but with gravel island to S & SW (visible in ploughsoil).

Prehistoric: 1 burnt flint - on gravel island

Iron Age: 1 + 4 ? sherds (8.8 ph)

Scattered E-W across centre of field, apparently ignoring channel.

Roman: 4 + 3 ? sherds (12.3 ph)
Confined to SE corner of field
Part of manuring scatter on gravel island with Fields 14 & 15

Medieval: 6 + 2 ? sherds (14 ph)
In W of field
Part of manuring scatter with Fields 9, 11 & 12. Ignores channel.

Field 14

12 hectares
Signboard (modern), Little Hay Day and Great Hay Day (1889)
Floodplain - gravel island
Cropmark of N part of rectangular feature with entrance to N visible from air (SMR no 1382)
Finds avoid cropmark area

Prehistoric: 38 flints (plus 1 possible), including 11 tools & 1 core (32.5 ph) & 6 burnt flints (5 ph)
Generally Mesolithic to late Bronze Age. Only diagnostic = 1 Mes blade core (is some blade-like waste), 1 Beaker thumbnail scraper & 1 barbed & tanged arrowhead (late Bronze Age). Burnt flint mixed with rest, though possibly in small clusters.

1 possible late Bronze Age sherd
Occupation site on gravel island. Mostly concentrated to E.

Iron Age: 3 ? sherds

Roman: 27 + 20 ? sherds (39.1 ph)
Early where diagnostic
Manuring scatter

Medieval: 4 sherds (3.3 ph)

Field 15

6.57 hectares
Pylon (modern), Hay Day (1889)
Floodplain - gravel island (with Field 14)

Prehistoric: 6 flints (9.1 ph) & 6 burnt flints (9.1 ph)
More intense to W
Continuation of occupation from W

Iron Age: 1 ? sherd

Roman: 9 + 2 ? sherds (16.7 ph)
Most of diagnostic is early
Part of manuring scatter on this gravel island

Medieval: 4 + 1 ? sherds (7.6 ph)
? Light manuring scatter

Field 16

3 hectares
part of Mead Farm, Home Ploughed Park (1889)
Second gravel terrace
Machine assessment in January 1991 showed that all but the E edge of this field was a 19th century gravel quarry (ie everything apart from a few medieval and 2 Saxon sherds)
Saxon cemetery discovered in S of field during gravel extraction

Prehistoric: 4 flints (including ? thumbnail scraper) & 2 burnt flints

Roman: 4 + 1 ? sherds

Saxon: 2 sherds (sand & limestone tempered)

Medieval: 13 + 4 ? sherds - varied collection

Also scatter of post-med material

Field 17

3.5 hectares
? - part of Mead Farm, Home Ground (1889)
Silts

Prehistoric: 2 flints (5.7 ph) & 2 burnt flints (5.7 ph)
In centre of field

Iron Age: 2 ? sherds

Roman: 3 + 2 ? sherds (14.2 ph)
? manuring scatter

Saxon: 1 ? sherd

Medieval: 170 + 4 ? sherds (497 ph)
Domestic occupation must be indicated by this

Field 18

3.6 hectares
? - part of Mead Farm, Long Croft (1889)
Silts

Roman: 1 + .1 ? sherd (5.6 ph)

Medieval: 18 sherds (50 ph)
Mostly on W edge next to occupation site found in Field 17

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Oxford Archives Ref: Misc Minn 1/2

1889 Messrs Farebrother, Ellis, Clark & Co. Map of Yarnton Estates for Sale
Oxford Archives Ref: DIL/XXIII/7

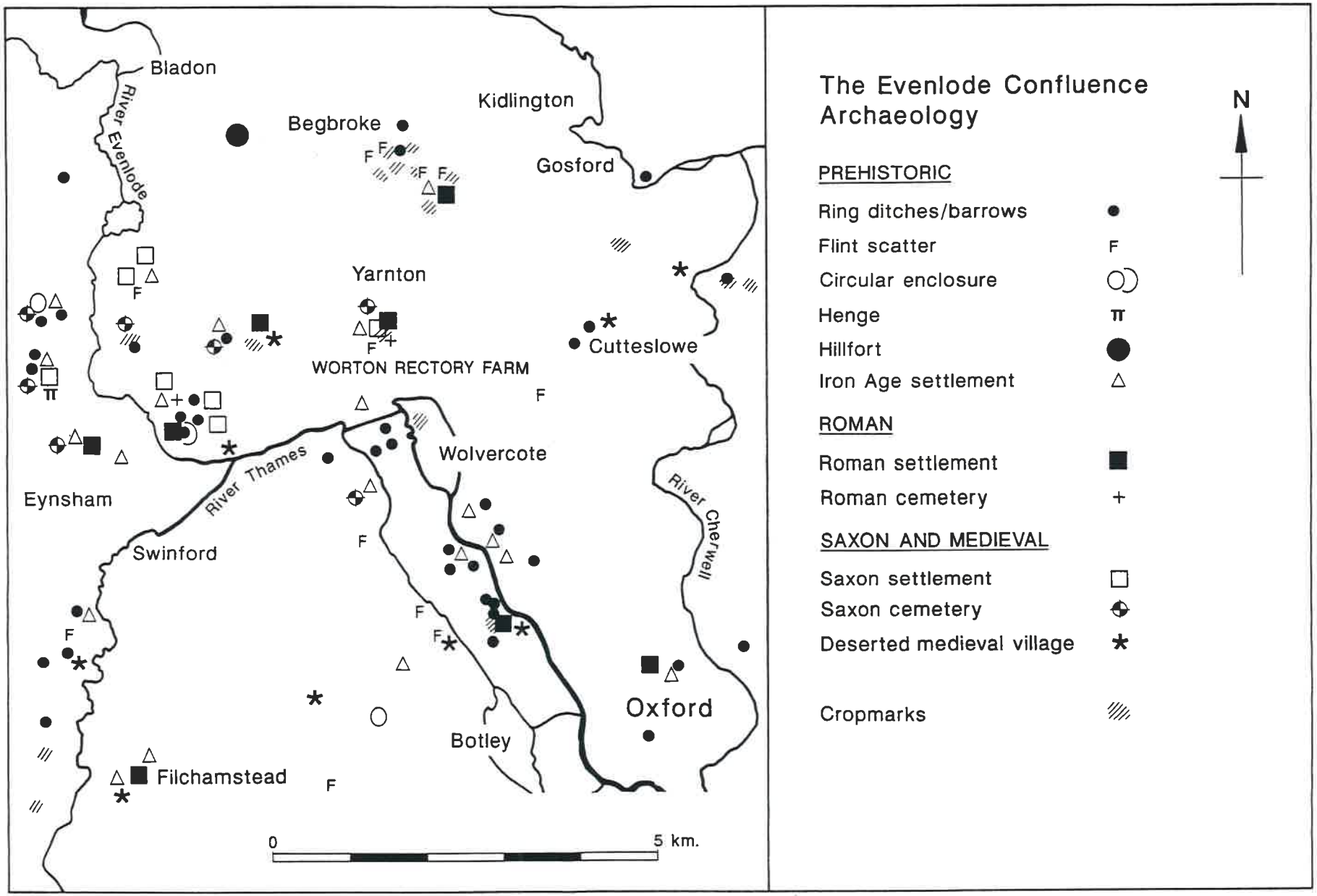

Bladon
River Evenlode
Kidlington
Begbroke
Gosford
Yarnton
Cutteslowe
WORTON RECTORY FARM
Wolvercote
River Thames
River Cherwell
Eynsham
Swinford
Oxford
Botley
Filchamstead
0
5 km.
The Evenlode Confluence
Archaeology
N
PREHISTORIC
Ring ditches/barrows
Flint scatter
Circular enclosure
Henge
Hillfort
Iron Age settlement
ROMAN
Roman settlement
Roman cemetery
SAXON AND MEDIEVAL
Saxon settlement
Saxon cemetery
Deserted medieval village
Cropmarks

Figure 1

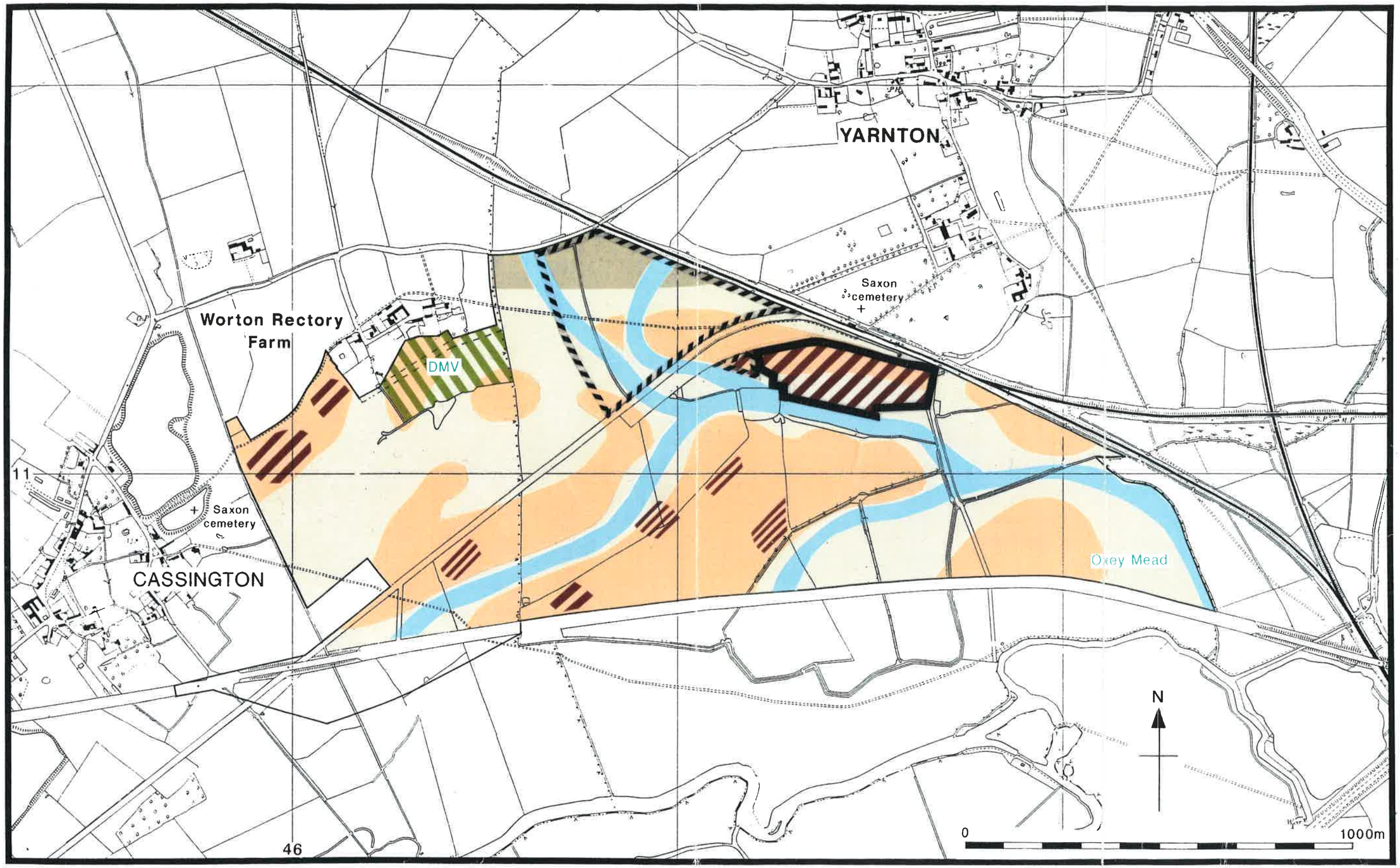
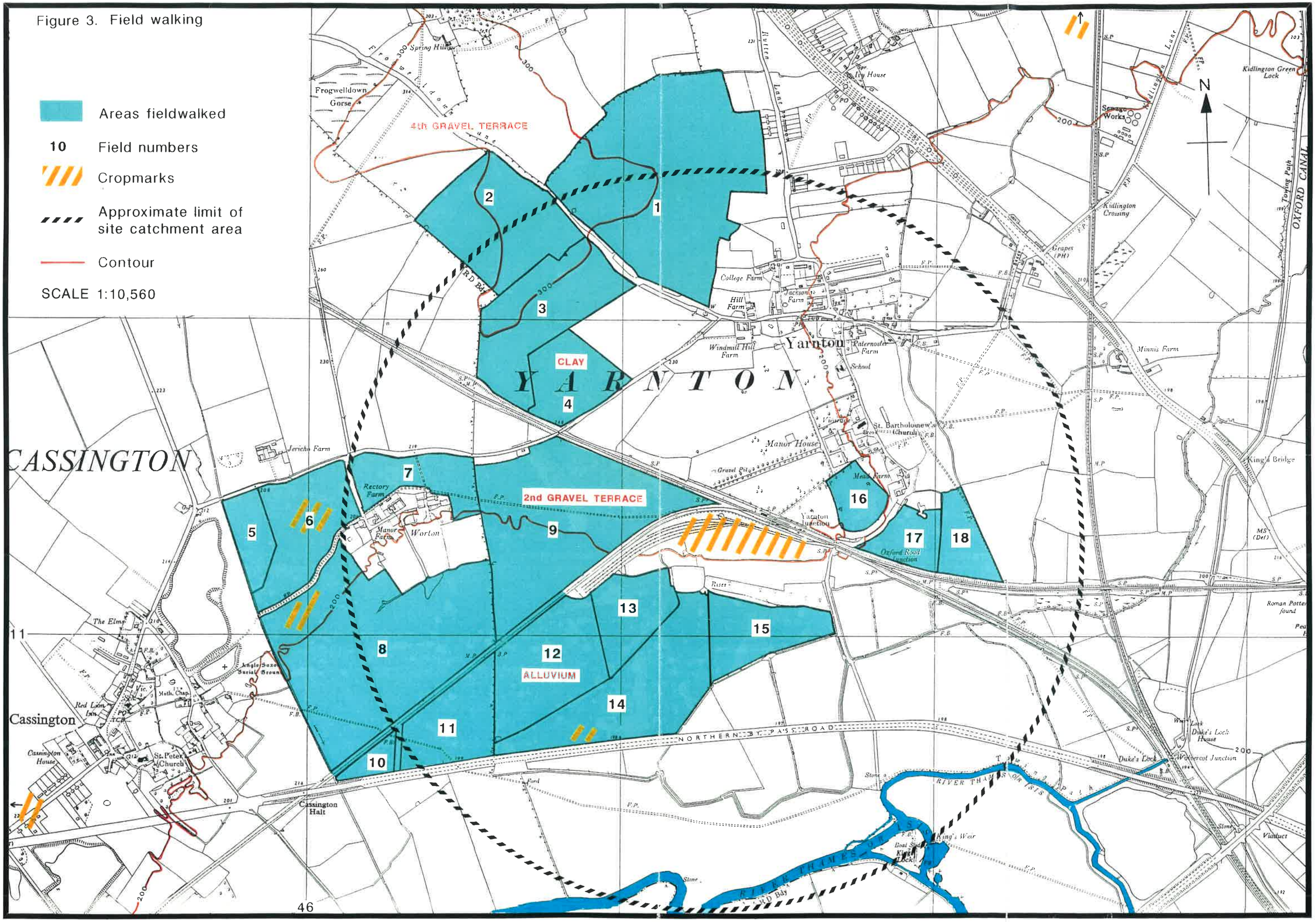


Figure 2. Cassington Pit showing excavation and assessment areas

Figure 3. Field walking



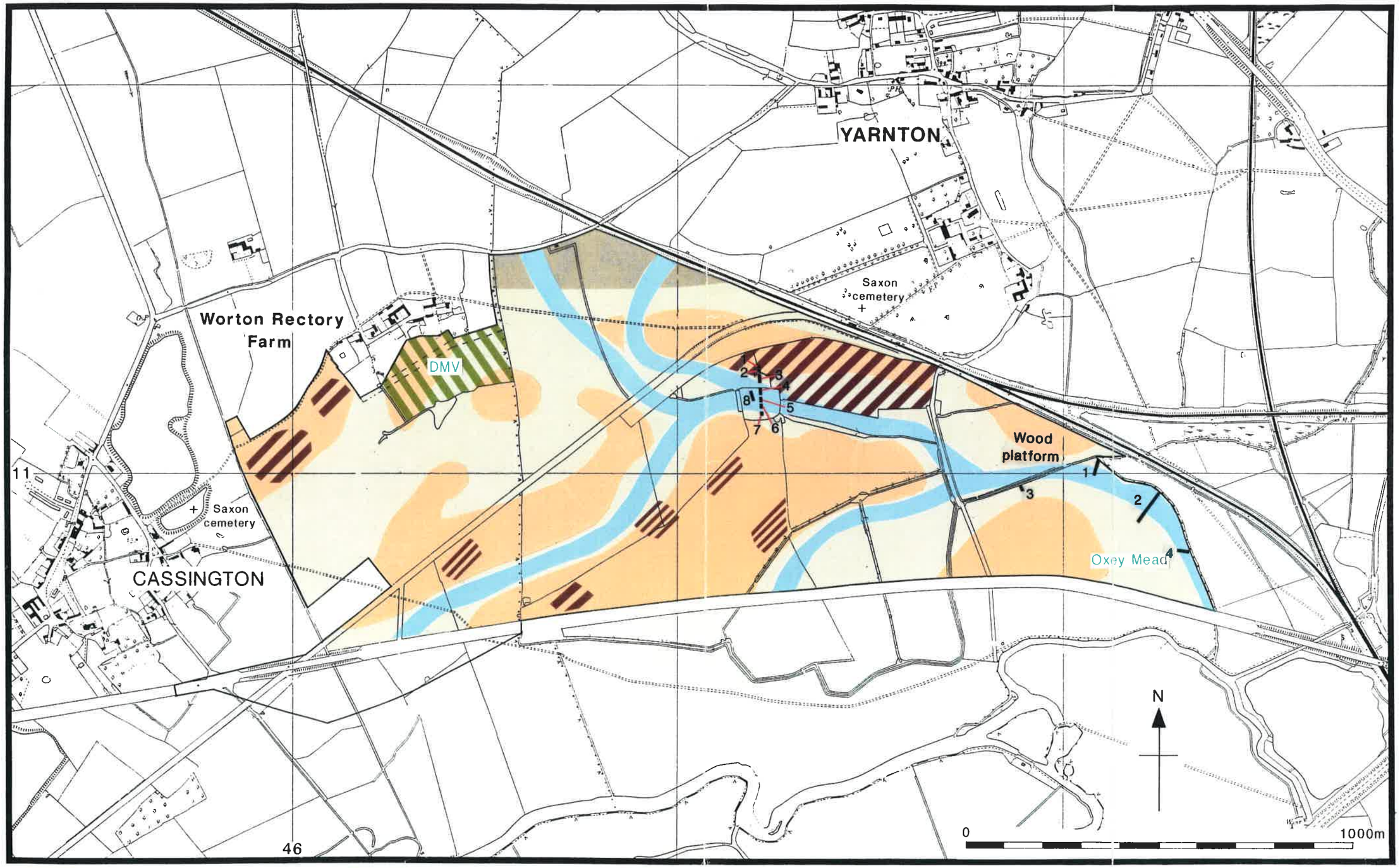


Figure 4. Environmental assessment areas

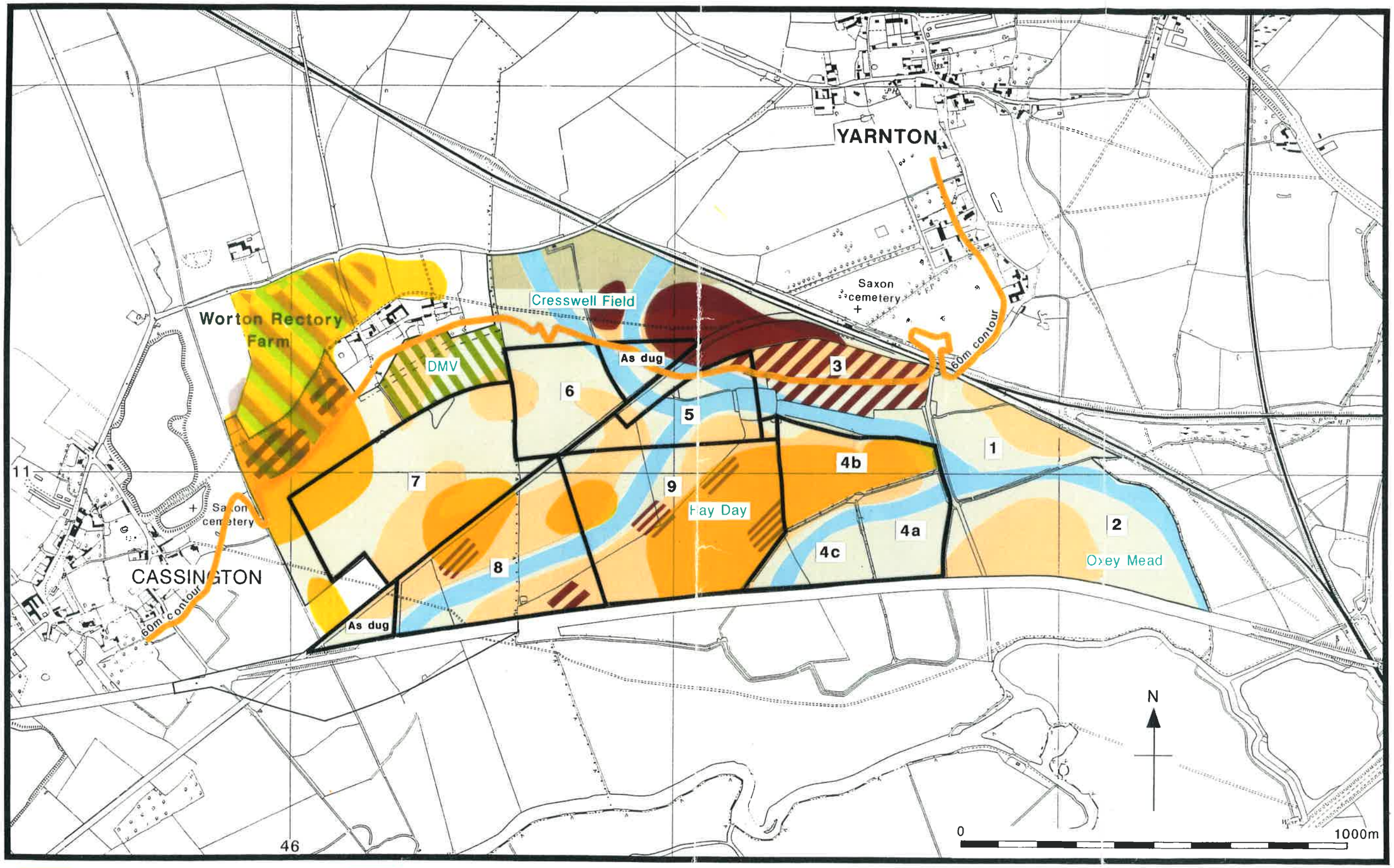


Figure 5. Archaeological sites in the gravel extraction area

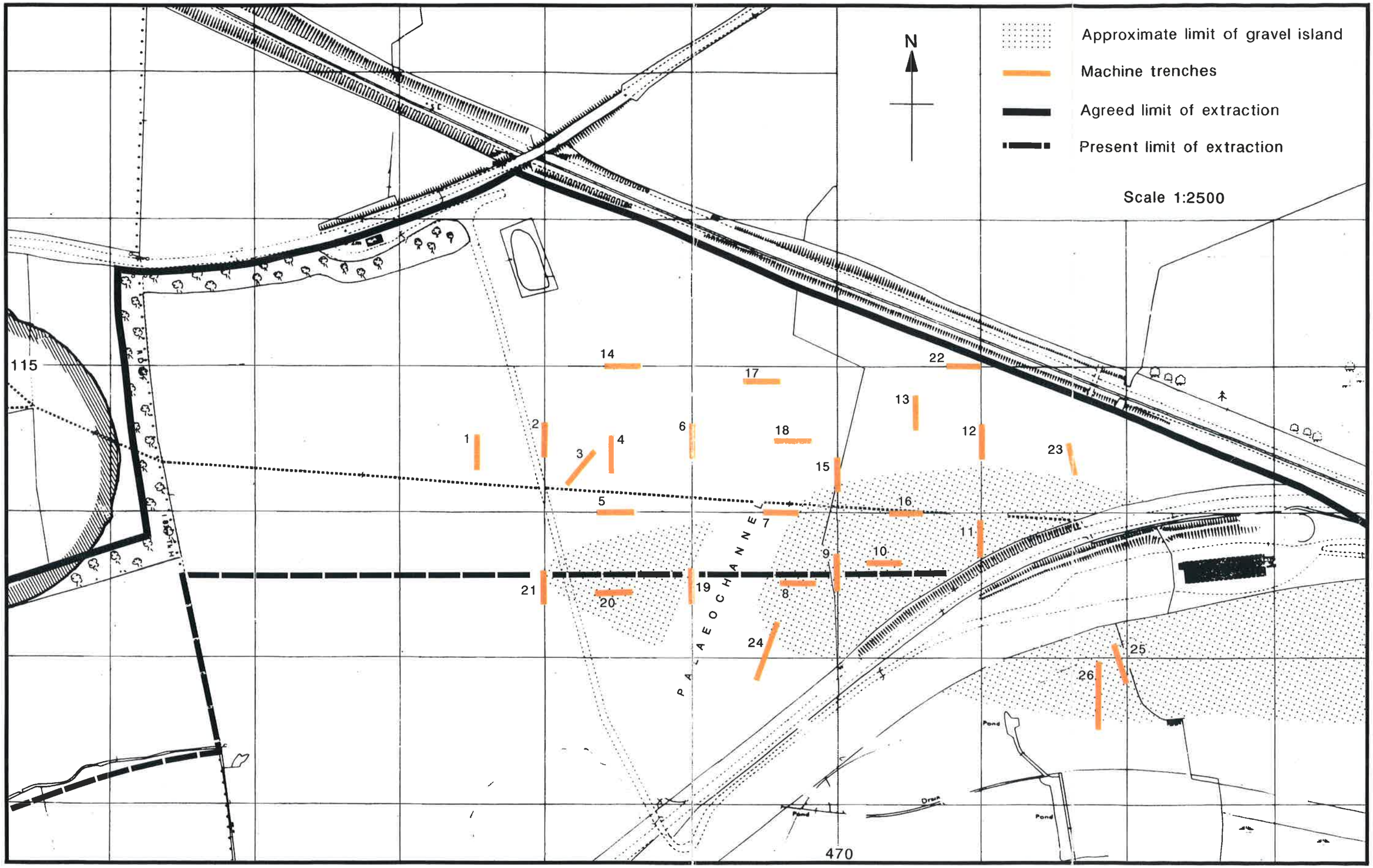


Figure 6. Cresswell Field: Assessment trenches

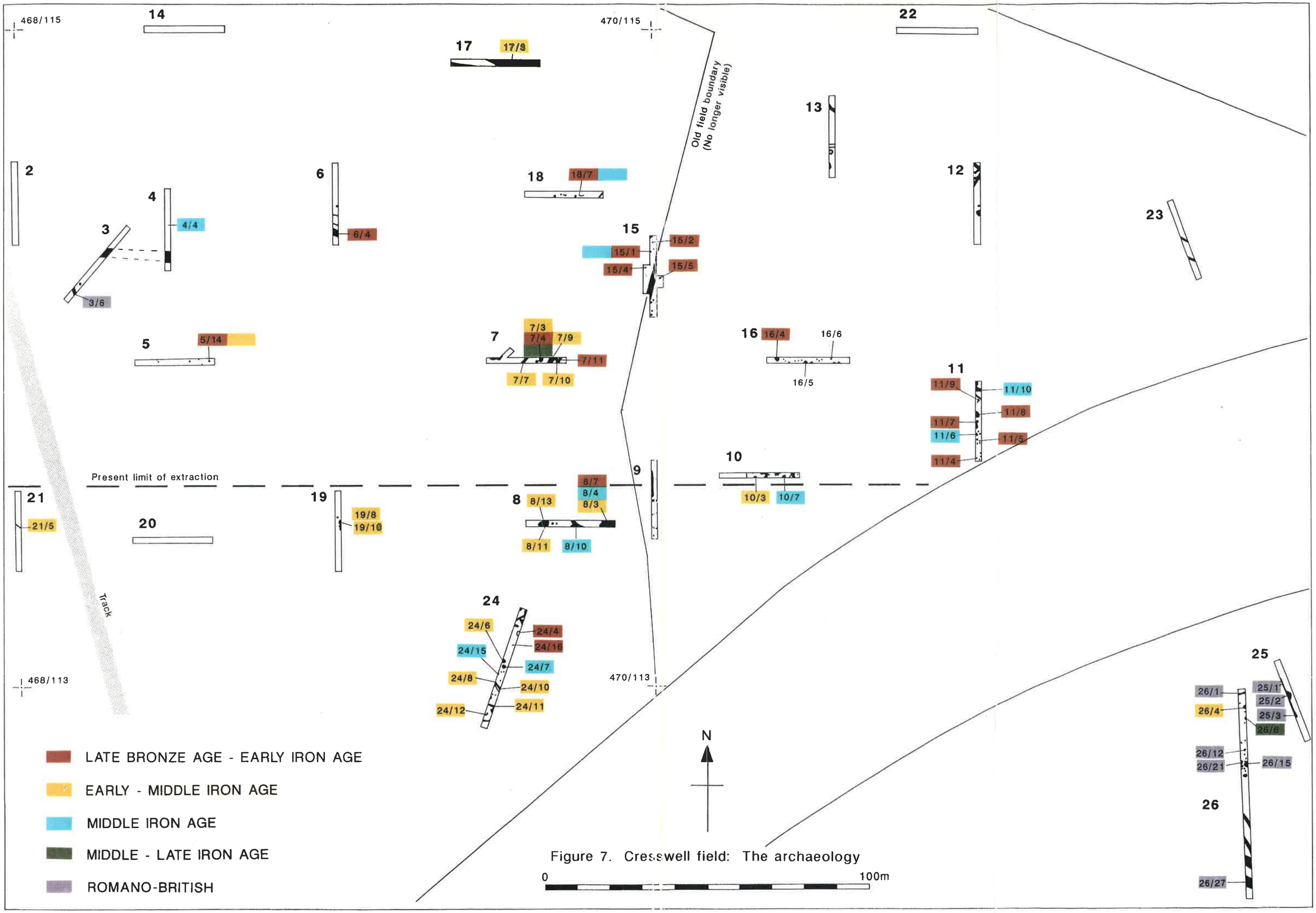


Figure 7. Cresswell field: The archaeology

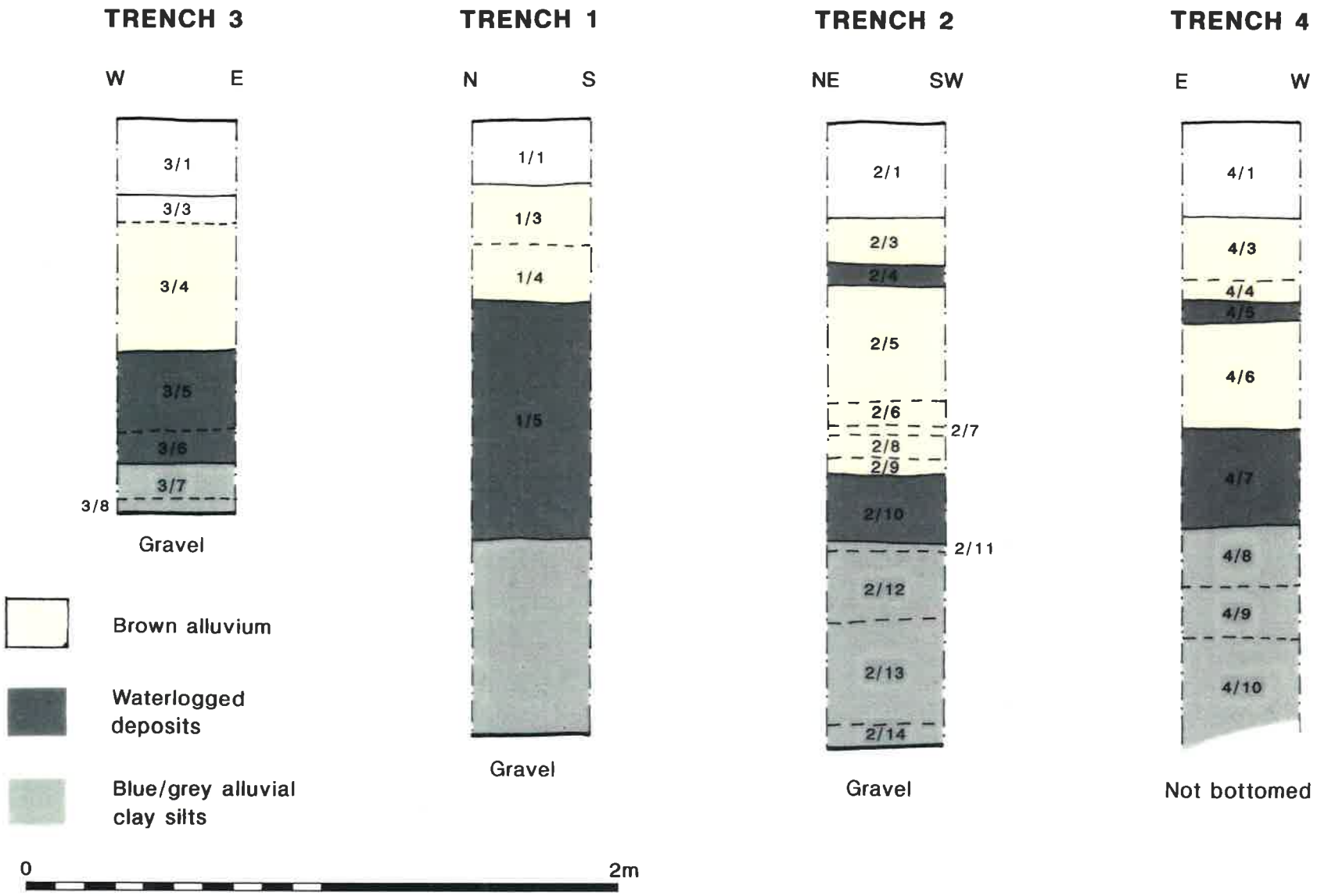


Figure 8. Oxey Mead: Sections through palaeochannel

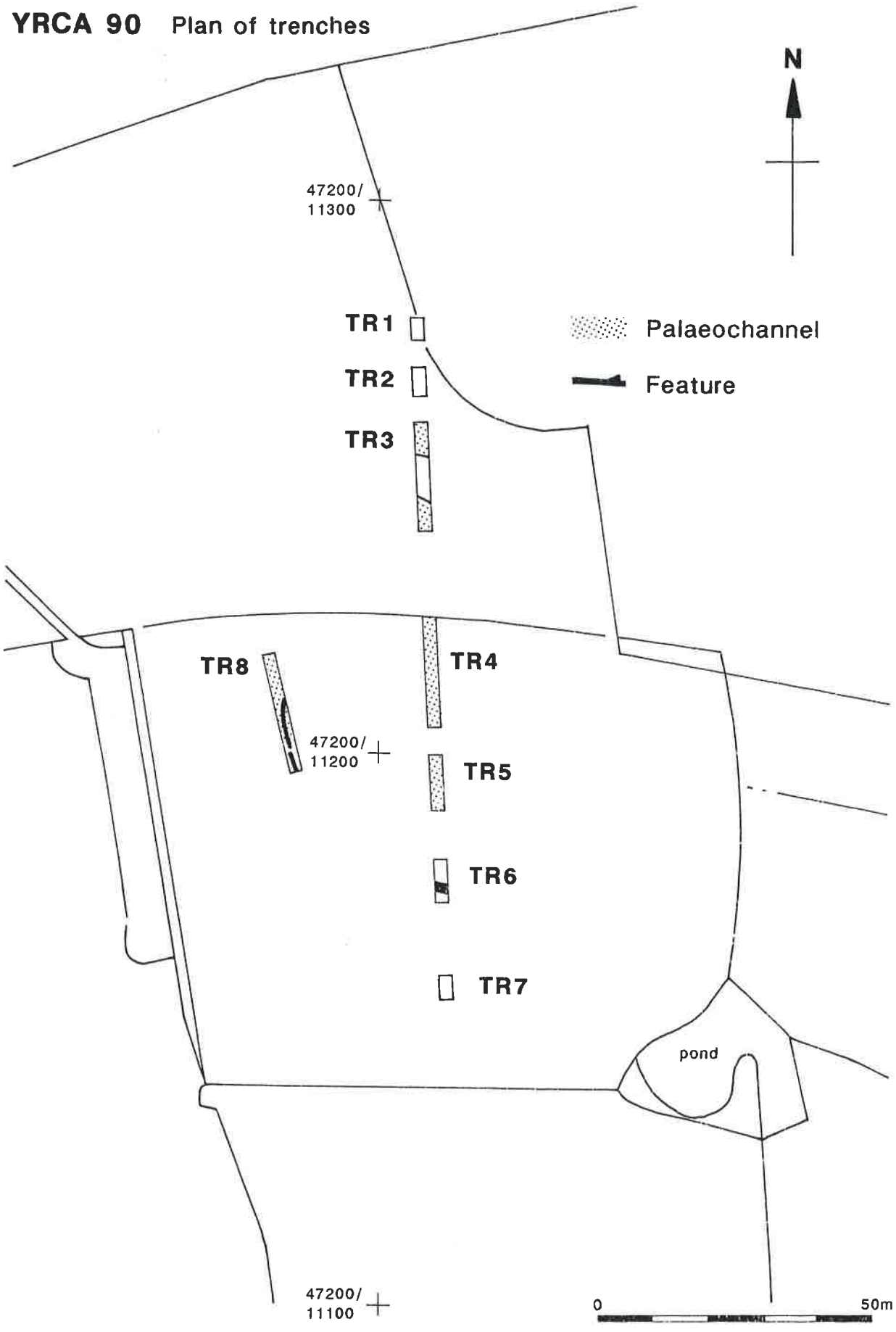

YRCA 90 Plan of trenches
N
47200/
11300
TR1
TR2
TR3
Palaeochannel
Feature
TR8
TR4
47200/
11200
TR5
TR6
TR7
pond
47200/
11100
0
50m

Figure 9

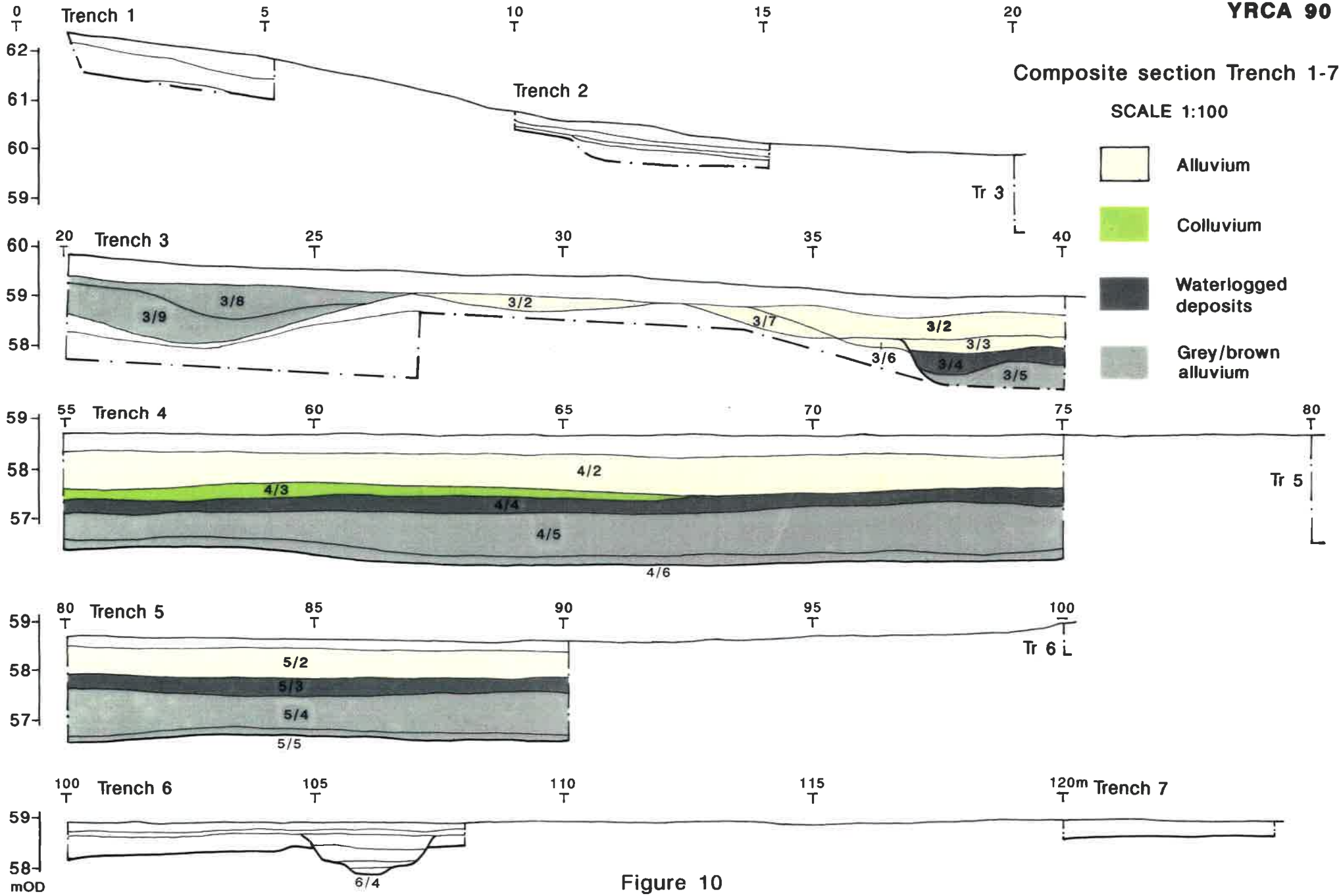

YRCA 90
Composite section Trench 1-7
SCALE 1:100
Alluvium
Colluvium
Waterlogged deposits
Grey/brown alluvium
Trench 1
Trench 2
Tr 3
Trench 3
3/8
3/9
3/2
3/7
3/6
3/3
3/4
3/5
Trench 4
4/2
4/3
4/4
4/5
4/6
Tr 5
Trench 5
5/2
5/3
5/4
5/5
Tr 6
Trench 6
6/4
Trench 7
mOD

Figure 10

Figure 11. Fieldwalking: Early prehistoric

- Occupation site
- Dense flint scatter
- Light flint scatter
- Early Bronze Age sherd
- Late " "
- " " " scatter
- Neolithic pit
- Cropmark
- Gravel terrace
- 10 Field numbers
- Approximate limit of site catchment area

SCALE 1:10,560

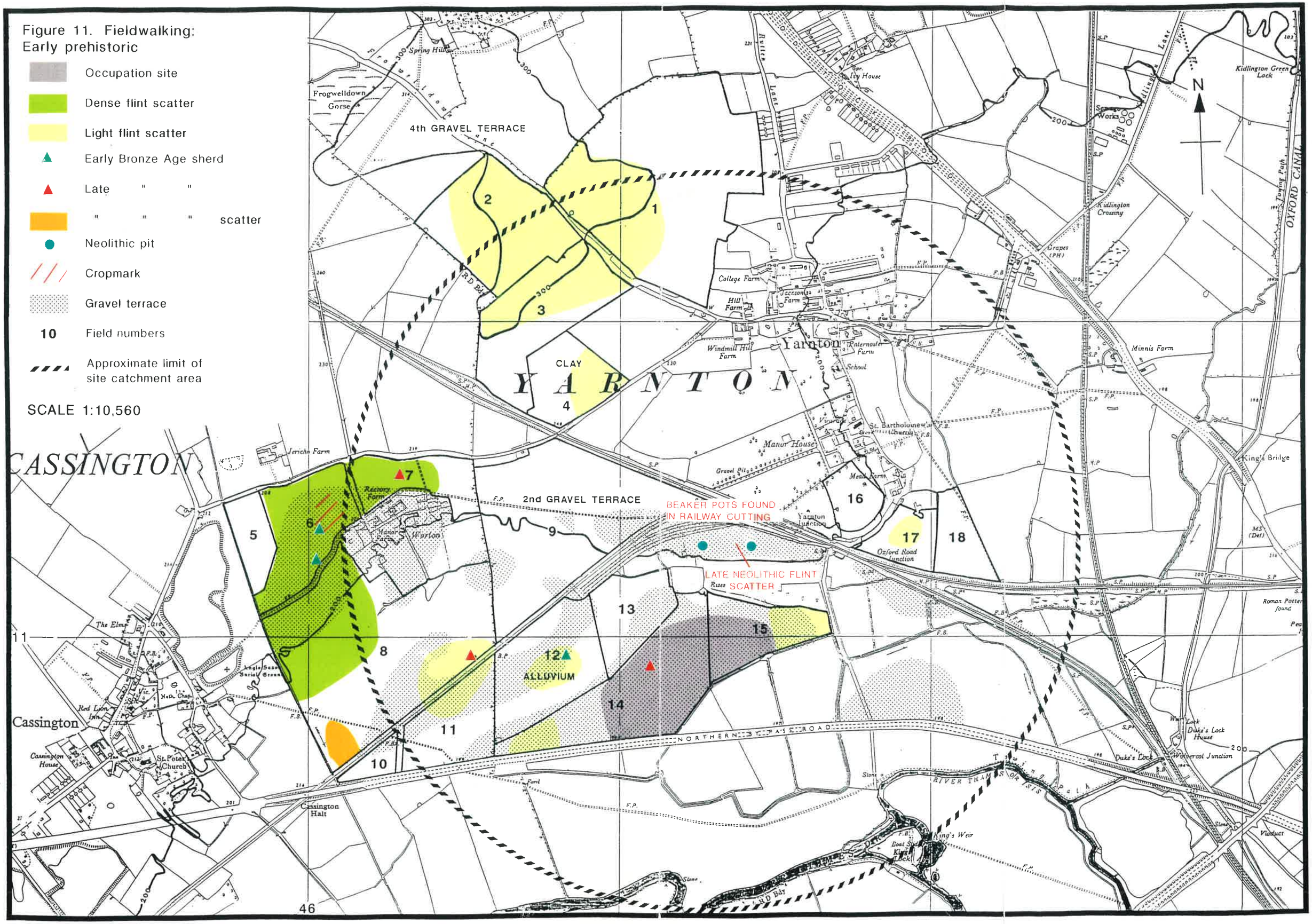


Figure 12. Fieldwalking
Iron Age

SCALE 1:10,560

Occupation site

Pottery scatter

Cropmark

Gravel terrace

10 Field numbers

Approximate limit of site catchment area

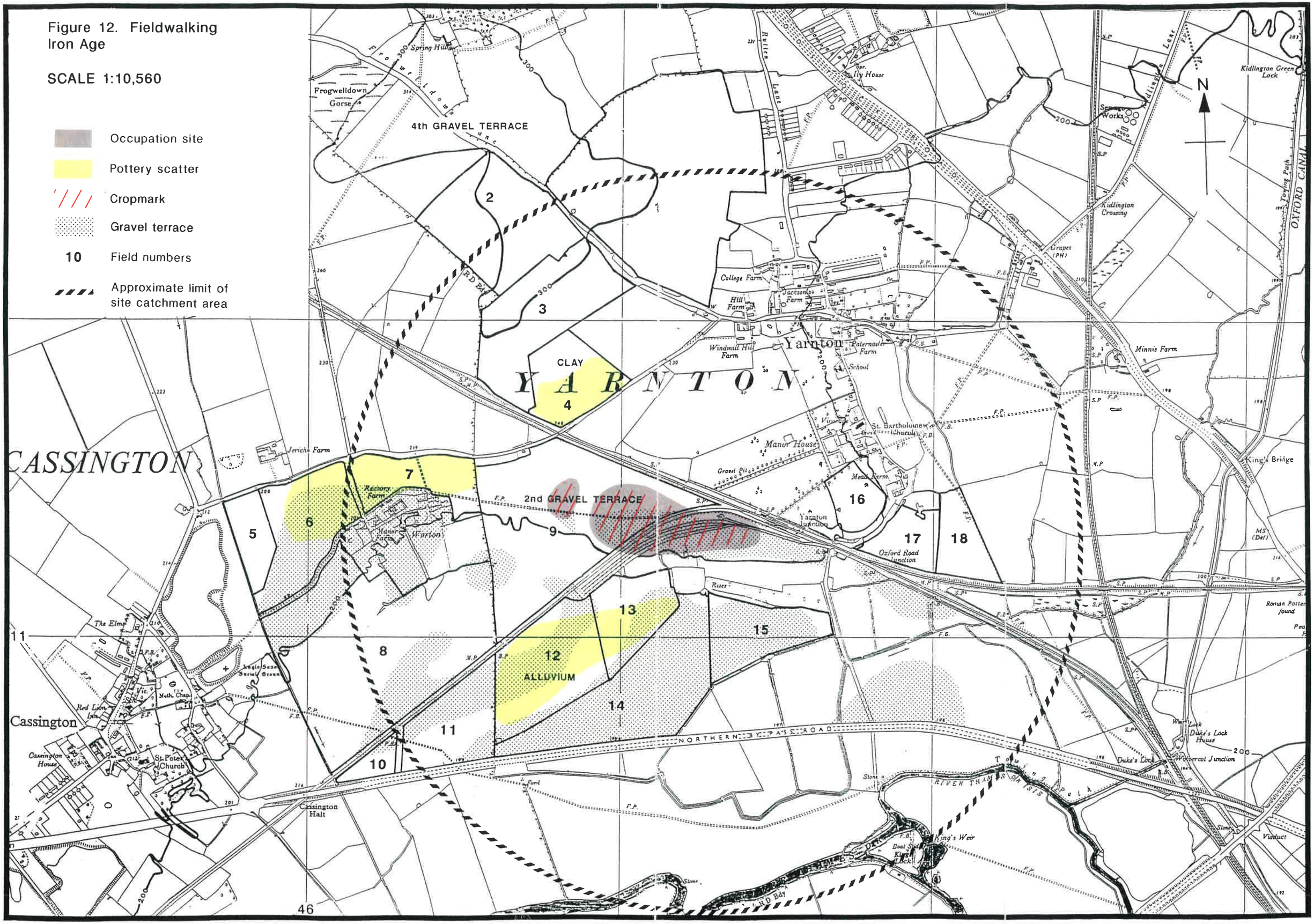


Figure 13. Fieldwalking: Roman

SCALE 1:10,560

- Occupation site
- Dense pottery scatter
- Light pottery scatter
- /// Cropmark
- Gravel terrace
- 10 Field numbers
- Approximate limit of site catchment area

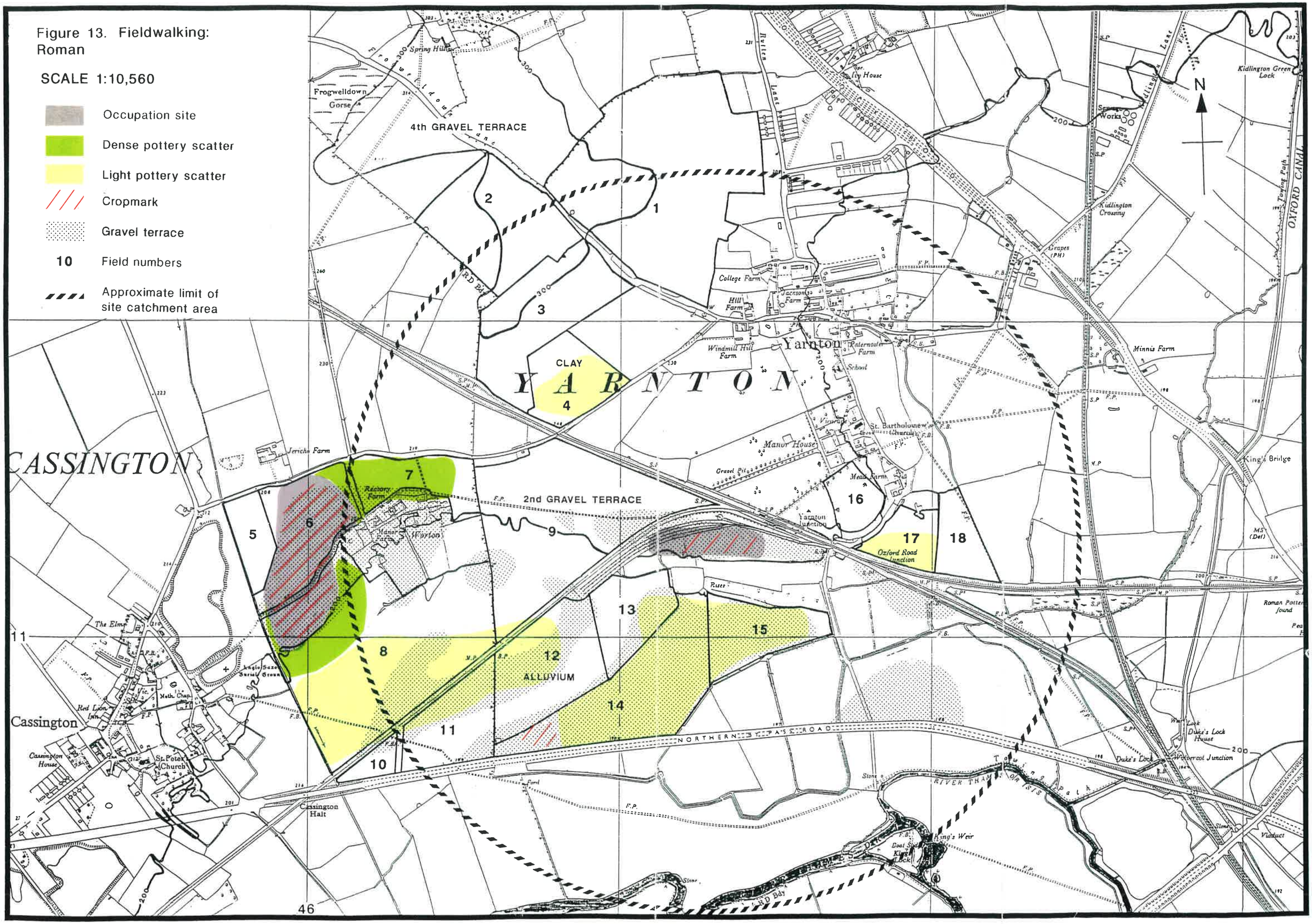


Figure 14. Fieldwalking: Saxon

SCALE 1:10,560

Occupation site

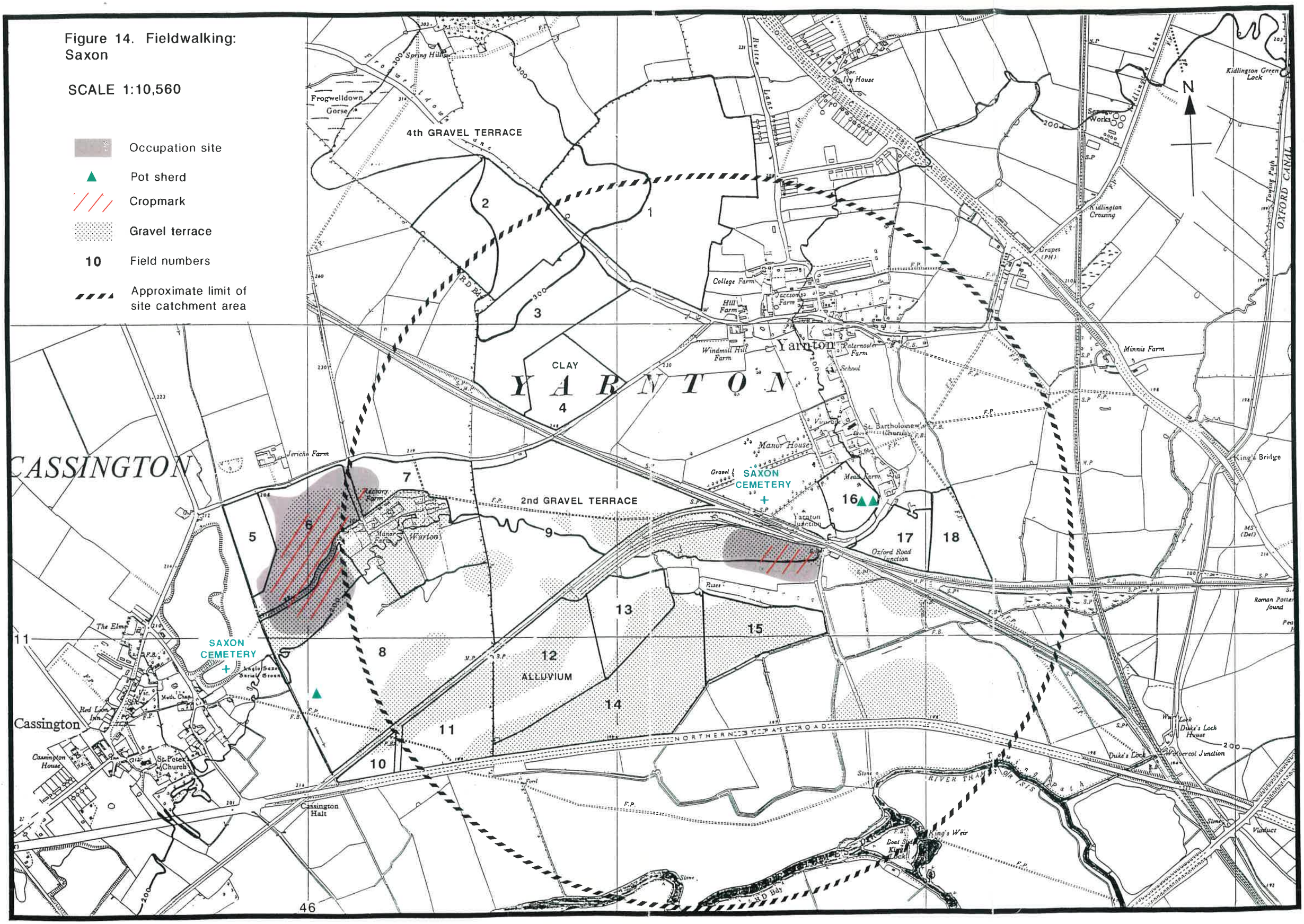
Pot sherd

Cropmark

Gravel terrace

10 Field numbers

Approximate limit of site catchment area



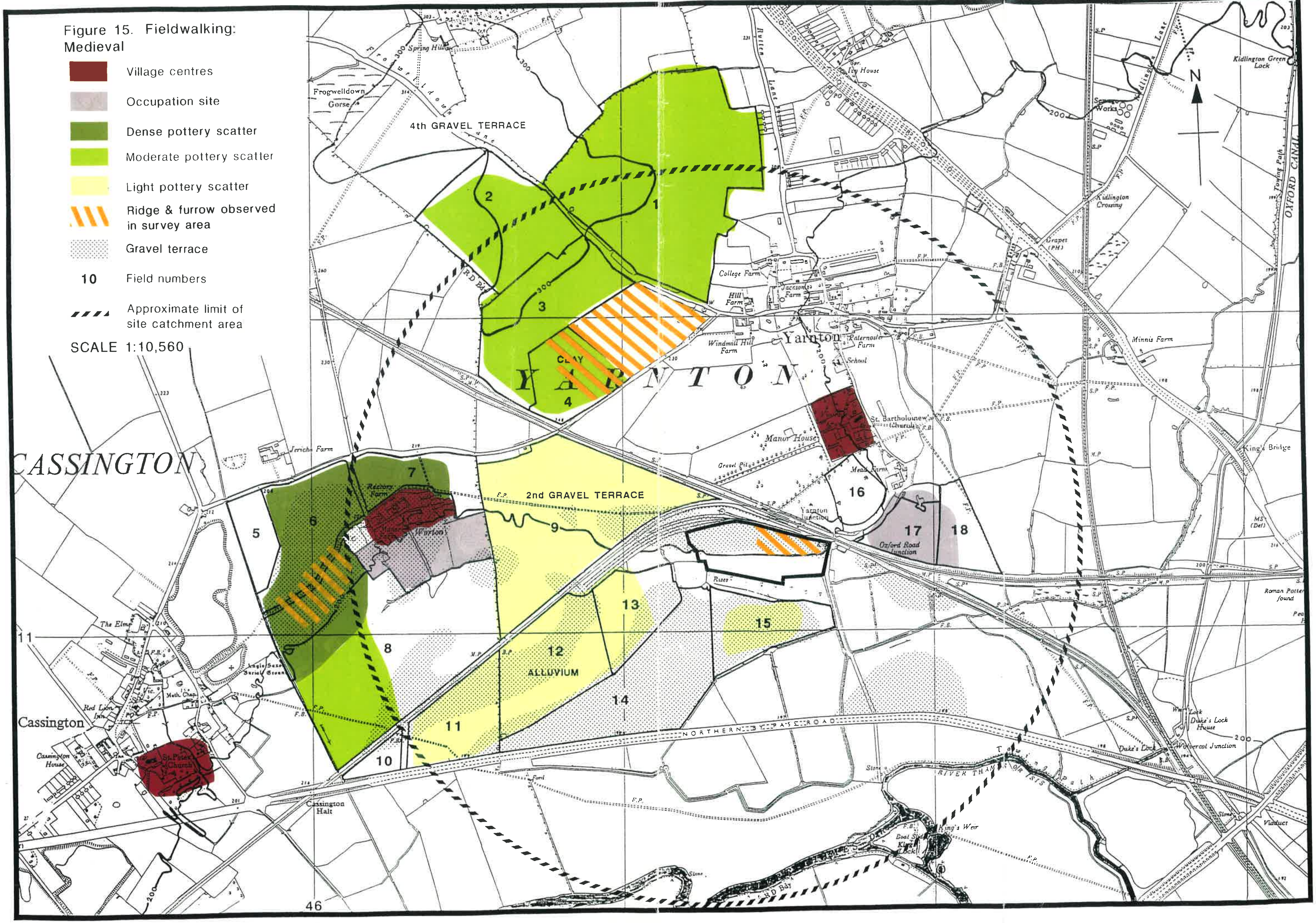
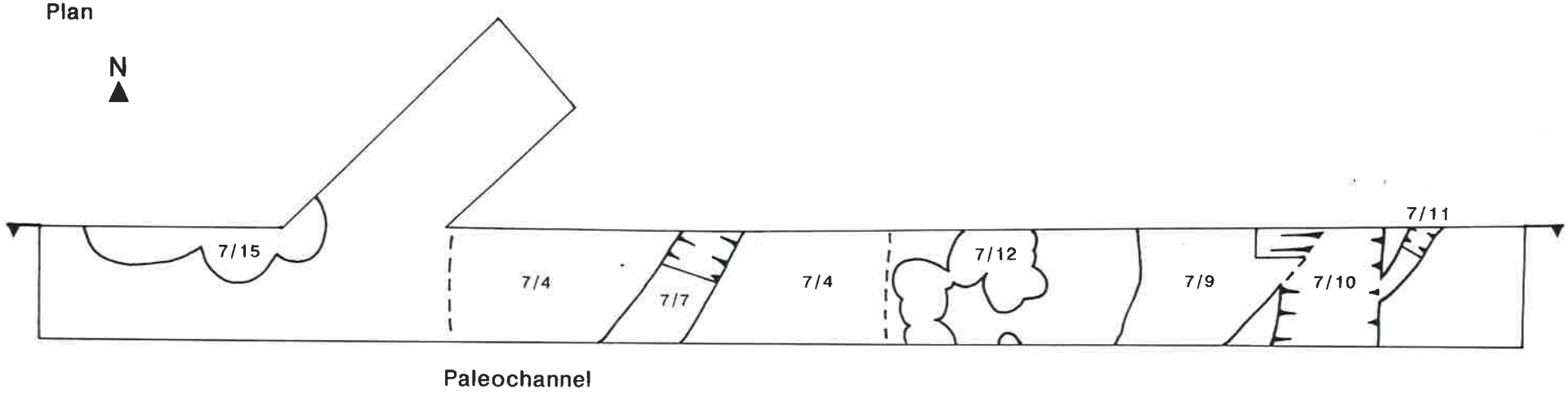


Figure 15. Fieldwalking: Medieval

TRENCH 7

Plan



Section

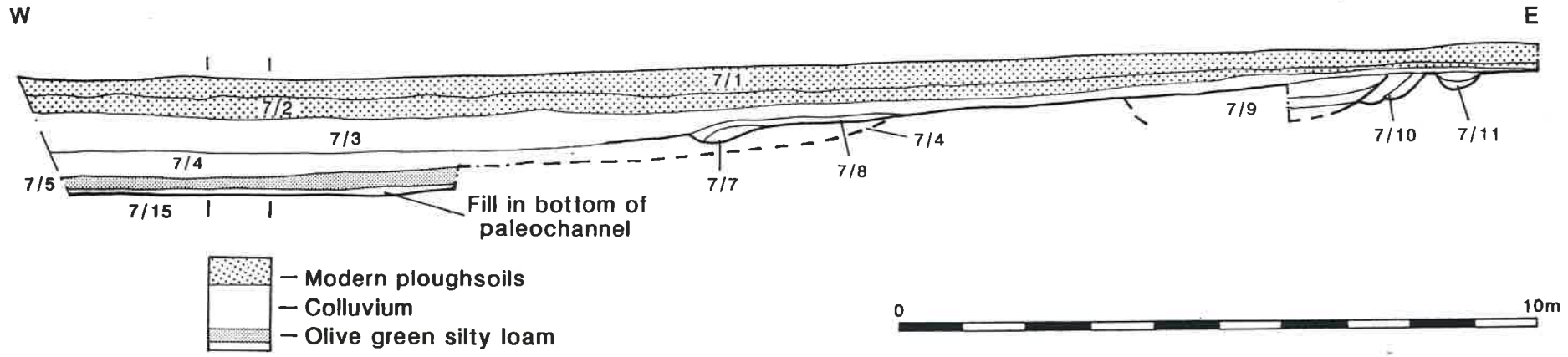


Figure 16

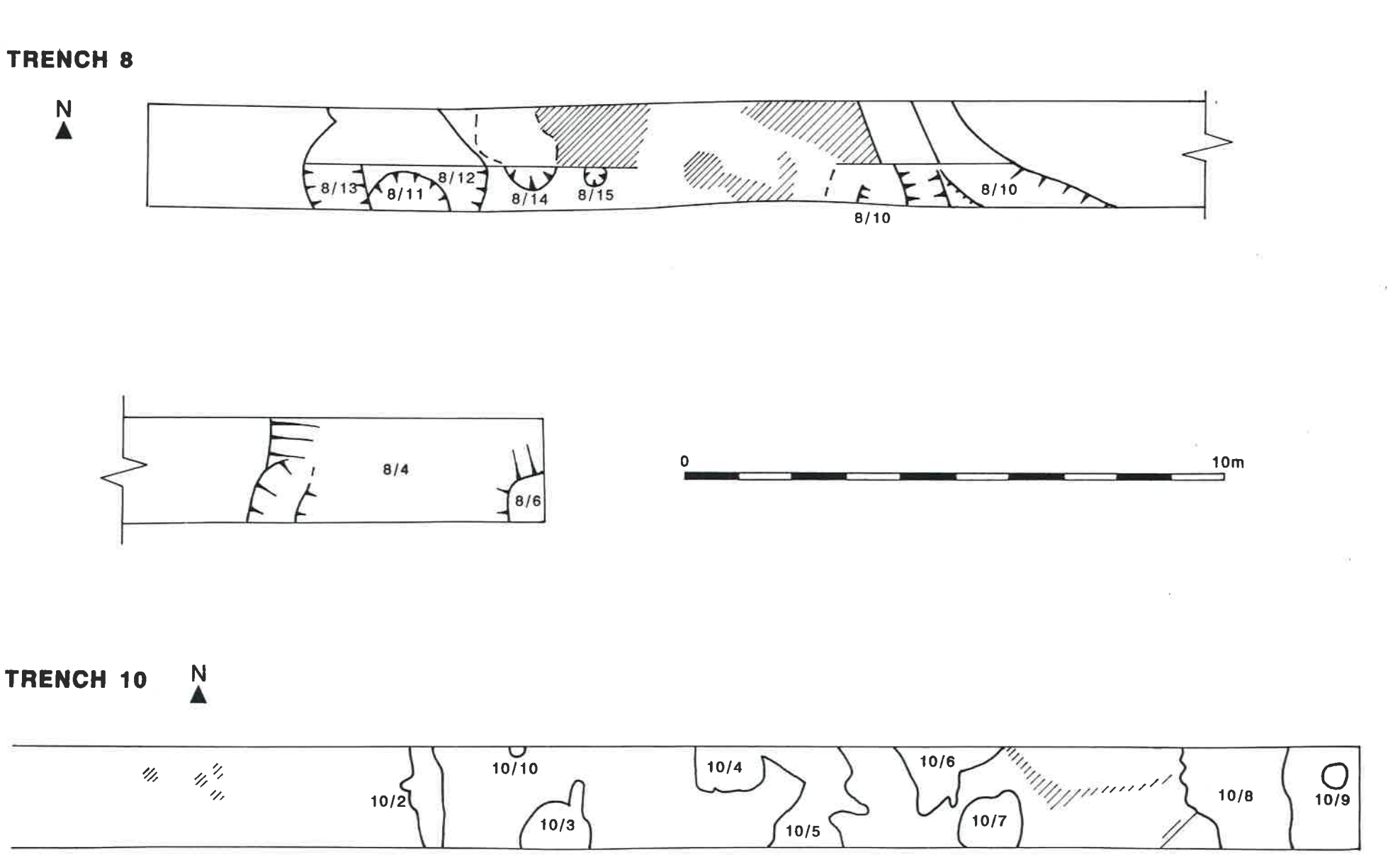

TRENCH 8
N
8/13
8/11
8/12
8/14
8/15
8/10
8/10
8/4
8/6
0
10m
TRENCH 10
N
10/2
10/10
10/3
10/4
10/5
10/6
10/7
10/8
10/9

Figure 17

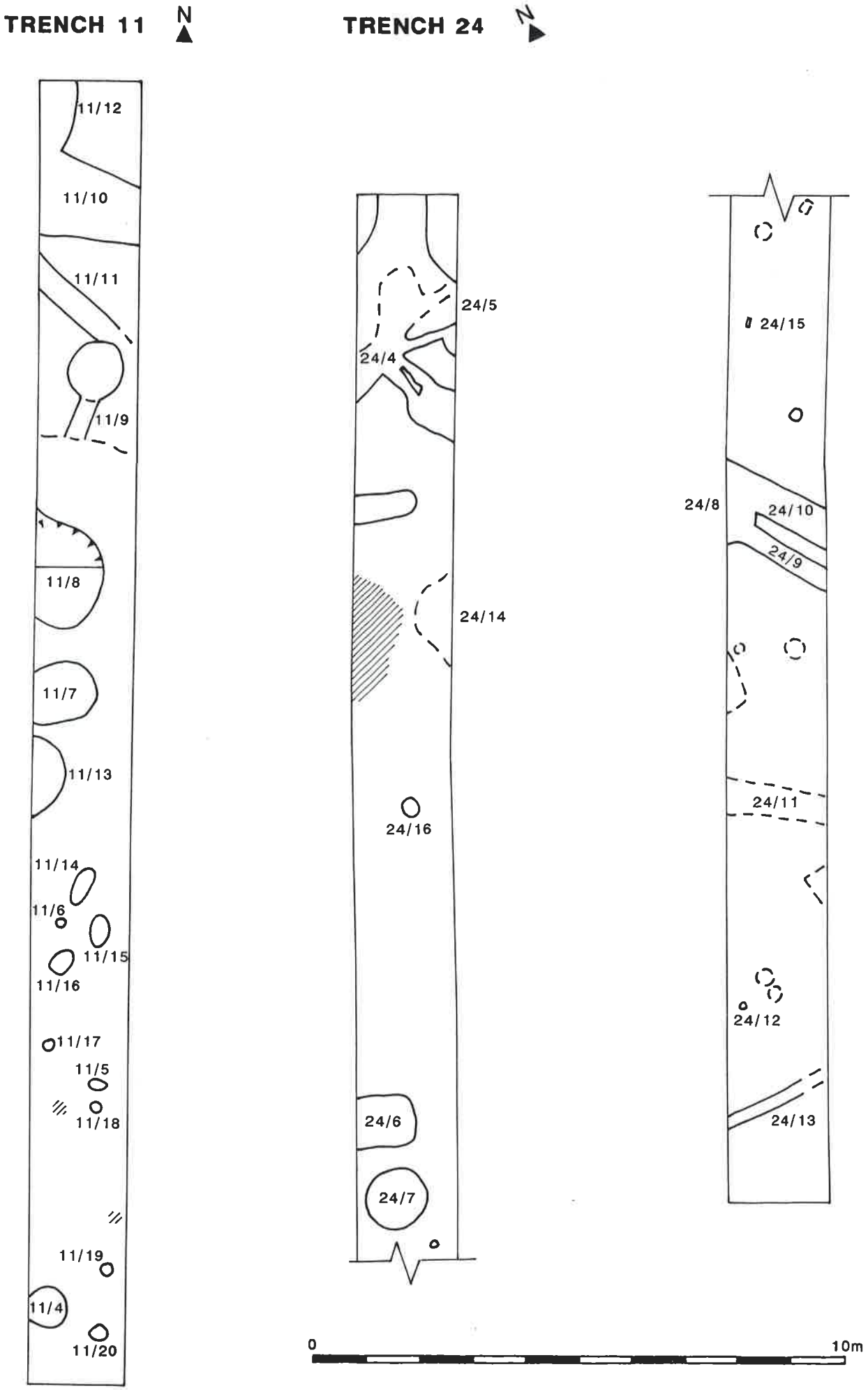

TRENCH 11
N
11/12
11/10
11/11
11/9
11/8
11/7
11/13
11/14
11/6
11/15
11/16
11/17
11/5
11/18
11/19
11/4
11/20
TRENCH 24
N
24/5
24/4
24/14
24/16
24/6
24/7
24/15
24/8
24/10
24/9
24/11
24/12
24/13
0
10m

Figure 18

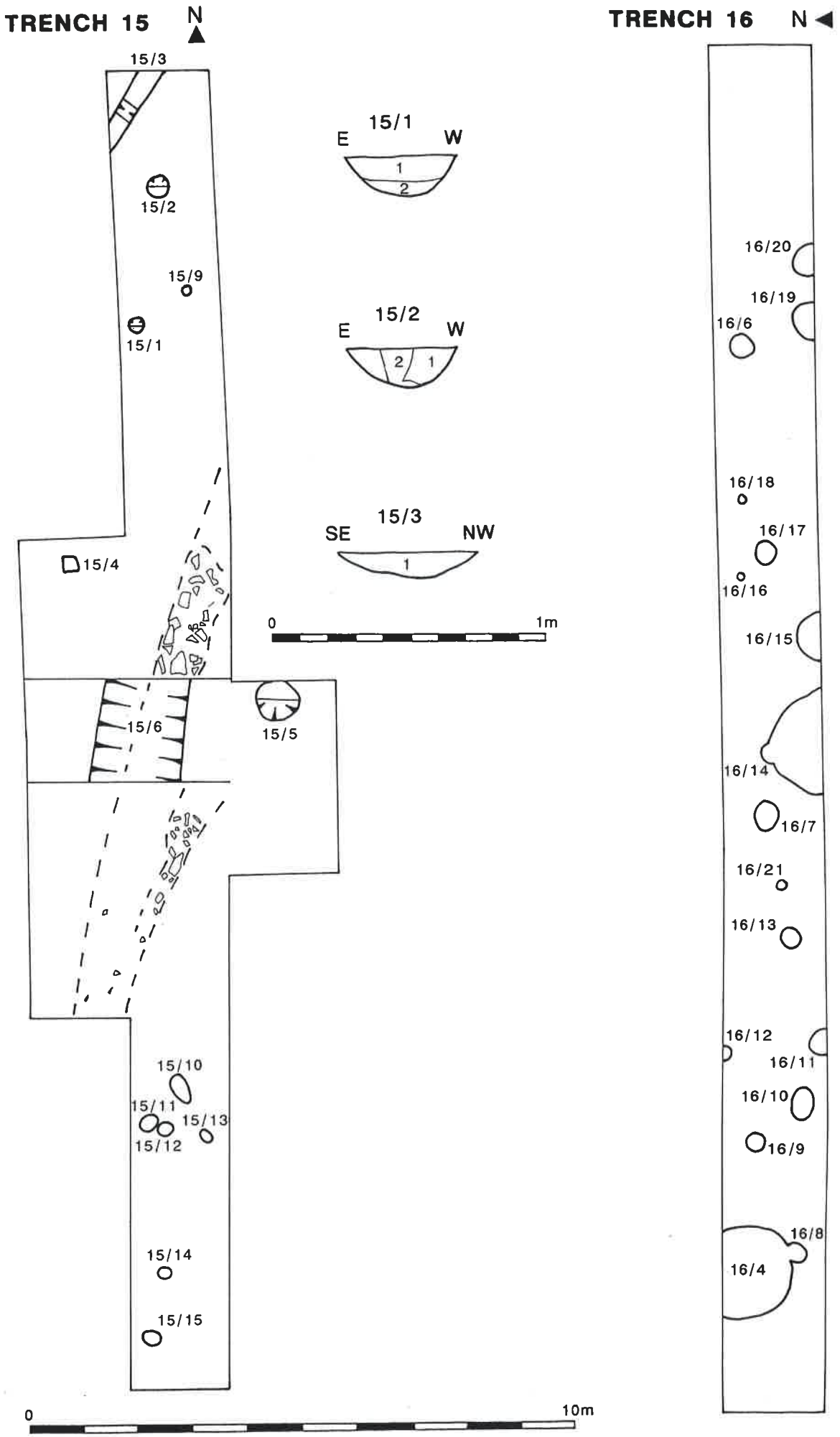

TRENCH 15
N
15/3
15/2
15/9
15/1
15/4
15/6
15/5
15/10
15/11
15/13
15/12
15/14
15/15
0
10m
15/1
E
W
1
2
15/2
E
W
2
1
15/3
SE
NW
1
0
1m
TRENCH 16
N
16/20
16/19
16/6
16/18
16/17
16/16
16/15
16/14
16/7
16/21
16/13
16/12
16/11
16/10
16/9
16/8
16/4

Figure 19

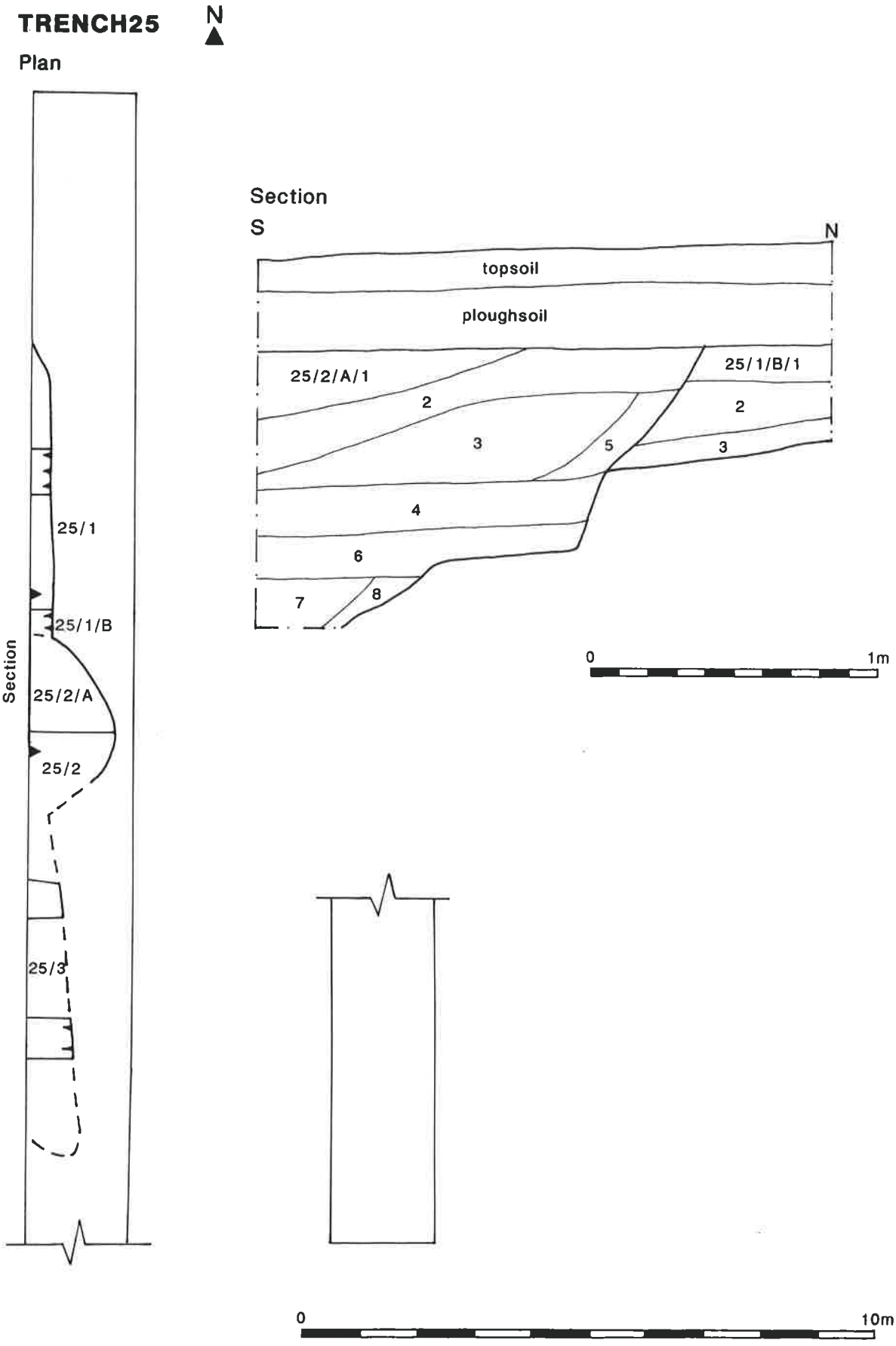

TRENCH25
N
Plan
Section
25/1
25/1/B
25/2/A
25/2
25/3
Section
S
N
topsoil
ploughsoil
25/2/A/1
25/1/B/1
2
2
3
3
5
4
6
7
8
0
1m
0
10m

Figure 20

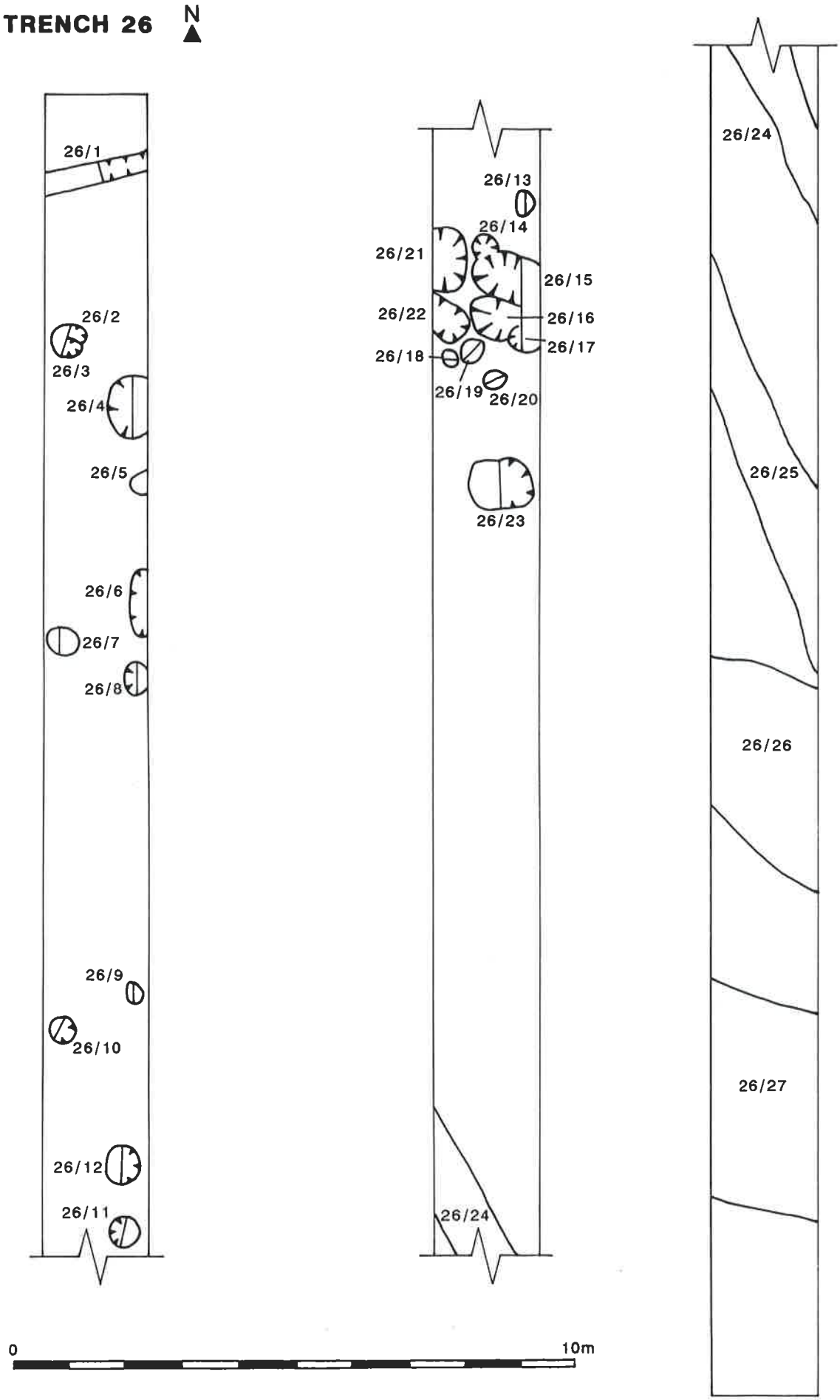

TRENCH 26
N
26/1
26/2
26/3
26/4
26/5
26/6
26/7
26/8
26/9
26/10
26/12
26/11
26/13
26/14
26/21
26/15
26/22
26/16
26/17
26/18
26/19
26/20
26/23
26/24
26/24
26/25
26/26
26/27
0
10m

Figure 21

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