WYNDYKE FURLONG, ABINGDON, OXFORDSHIRE

A BRONZE AGE AND IRON AGE SETTLEMENT WITH ROMANO-BRITISH ENCLOSURES AND POSSIBLE ANGLO-SAXON OCCUPATION

POST-EXCAVATION ASSESSMENT AND PUBLICATION PROPOSAL

OXFORD ARCHAEOLOGICAL UNIT

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SUMMARY

From December 1994 to February 1995 the Oxford Archaeological Unit excavated an area of 1.3 hectares at Wyndyke Furlong on the Abingdon Business Park. This was the latest in a series of investigations over more than 20 years into the Iron Age landscape on the west side of Abingdon.

The site lay on the Second Gravel Terrace to the north of the River Ock. The excavation concentrated two main focuses of occupation. The first was in the southwest part of the site where the northern continuation of the Iron Age settlement found on the Ashville Estate was investigated. To the northeast of the site an area with Romano-British field boundaries and a trackway was excavated. Further trenching explored associated enclosure ditches. In addition to the Iron Age and Romano-British settlement features, a small amount of evidence for Beaker and Middle Bronze Age activity was found and also post-built hall-like structures thought to be of Saxon date.

1 INTRODUCTION

1.1 Site location, topography and geology

The Wyndyke Furlong site is located 1.2 km W of Abingdon at a height of 58 m OD on the second gravel terrace overlooking the confluence of the Rivers Thames and Ock (NGR SU 4825 9772). The natural geology of the area consists of a mix of gravel, Corralian sand and Kimmeridge clay. The area of the Wyndyke development may have been preferred for settlement because it lies on the top of a hogs back on the second terrace overlooking the Ock. At this point the gravel is very free draining and a spring line exists where the gravel stops and gives way to the underlying impermeable lenses of gravel, clay and silt. It may be significant that the north edge of the settlement coincides with this geological divide The terrace is cut to the east by the Larkhill Stream and another stream runs to the west

1.2 Project background and excavation methodology

The excavation at Wyndyke Furlong, Abingdon was conducted by the Oxford Archaeological Unit, on behalf of Standard Life Insurance Company in advance of business park development and in fulfilment of an archaeological condition placed upon planning permission by Vale of the White Horse District Council. The work was carried out in accordance with a brief set by the Oxfordshire County Archaeologist.

The excavation followed an archaeological evaluation which was undertaken by the OAU and which had identified the continuation of the Iron Age settlement investigated at Ashville Trading Estate and the MG works to the south. Another focus of Romano-British activity was identified 300 m to the northeast. Ditches which may represent enclosures associated with this settlement were also located (OAU 1994, *Wyndyke Furlong, Abingdon Business Park, archaeological evaluation*).

As a result of the evaluation (Trenches 1-15) three areas were targeted for further investigation. In the northwest part of the site, where enclosure ditches were found, further investigations were carried out by mean of trenching (Trenches 16-31). One of these trenches (29) revealed Iron Age waterhole and other features and was expanded to allow investigation. The area of Romano-British activity identified to the northeast of the site was almost entirely stripped and recorded (Trench 32). The area to the southwest, where Iron Age and Roman activity survived under modern dumping, was also almost entirely stripped and recorded (Trench 33)

1.3 Summary of results to date

1.3.1 Bronze Age

A small amount of evidence for activity preceding the Iron Age occupation was recovered. Fragments of Beaker with comb and finger decoration were found, and also some postholes which may represent part of a middle Bronze Age structure.

1.3.2 Iron Age

Work in 1974-1976 at Ashville (Parrington 1978) revealed part of an Iron Age settlement. Further work in 1985 to the south on the site of the former MG factory revealed more of this settlement and

defined its southern and western boundaries. The excavations discussed in the present document were to the north of the Ashville site and revealed the northern extent of the settlement. The evidence for early and middle Iron Age occupation was found in the south-west corner of the site in Trench 33 immediately north of the Ashville site. The Iron Age settlement at Ashville/MG Works/Wyndyke seems to cover an area approximately 150 x 50 m in extent.

The settlement ranges in date from the early to late Iron Age. To the north on the Wyndyke Furlong site, the early to middle Iron Age settlement was enclosed while the middle and late Iron Age occupation to the south on the Ashville and MG sites appears to have been unenclosed. At Wyndyke, the early Iron Age enclosed part of the site had been divided functionally: the houses and their enclosures to the south were separated from two lines of workshops to the north, and rubbish dumping seems to have been located north-west of the houses. A waterhole was also found in this area. A ditch was uncovered which seems to mark the north-west boundary of the settlement, since few features other than field ditches were found beyond it despite extensive trial trenching. The spatial relationships of the features in this trench will reveal information about the settlement.

1.3.3 Romano-British and later

There is little or no late Iron Age activity at Wyndyke Furlong. Soon after the Roman conquest the Ashville/Wyndyke Furlong settlement changed character: Roman activity is much less intense. A Roman cemetery was found in the southern part of the MG Works site. This suggests that the centre of activity may have moved

A large 1st- to 2nd-century Roman ditch cuts across the Iron Age settlement following the divide between the houses and workshops. This ditch probably joined a double ditched trackway which runs roughly N-S from the NE corner of the site (Trench 32). This trackway and the enclosures adjoining it were excavated. The Romano-British enclosures appear to respect the alignments established in the middle Iron Age.

A second waterhole enclosed by a ditch was found to the north of the Iron Age village in Trench 29; its date is unclear. Several hall-like structures were found in the angles of the Roman enclosures. It is probable that these were halls of Anglo-Saxon date.

1.4 Archaeological background

The site lies in an area which is rich in archaeological remains, and contains extensive evidence for prehistoric, Roman and Saxon activity on the adjacent gravel terraces.

1.4.1 Neolithic and Bronze Age

Peterborough Ware has been found at the Spring Road cemetery (see below), just 400 m east of the site (Allen 1990b), and pit containing Grooved Ware was found on Abingdon Common 800 m south-west of the site (Parrington 1978, 31-3). Cropmarks suggest a possible long barrow close to the A34 south-west of the site, and another at Caldicott south of the River Ock has been tentatively interpreted as a neolithic cursus. Cropmark ring ditches which may be the remains of early Bronze Age burial mounds can be seen in the areas around the site (Benson and Miles, 1974, Map 30). Two ring-ditches were located at Ashville Trading Estate immediately to the south (Parrington 1978, 28).

1.4.2 Iron Age and Romano-British

An extensive Iron Age settlement superseded by late Iron Age and Romano-British field systems has been located at the Ashville (Parrington, 1978, 31-40) and the MG works. This is one of several Early Iron Age sites on the gravel terraces north of the rivers Ock and Thames, others being known beneath the Spring Road cemetery (Allen 1991; Allen 1990, 73). Small scale Early Iron Age activity is also known from the first gravel terrace east of Abingdon at Thrupp (Everett forthcoming)

In the Middle Iron Age settlement at Wyndyke/Ashville/MG Works intensifies, as it does under the town centre at Abingdon Vineyard (Allen 1990, 73). Some settlement shift or nucleation may be occurring, as the Spring Road site does not appear to continue into the Middle Iron Age. East of Abingdon a string of small open settlements have been excavated at Thrupp (Ainslie 1992, 63-6; Everett forthcoming), possibly mirroring the development of sites with specialised pastoral functions evident from Port Meadow, Oxford (Lambrick and McDonald 1985).

The settlement under Abingdon town centre was defended with a triple ditch in the Late Iron Age, becoming an *oppidum* or defended market. East of the town an enclosed farmstead appeared at this time at Barton Court Farm, and this may have been the residence of a member of the local aristocracy, as it developed into a villa early in the Roman period. At Ashville occupation continued into this period, but soon after the Roman conquest the scale of activity declined, possible indicating some population movement to the new defended centre. A cremation cemetery of the late 1st/2nd century AD has been found just west of Bath Street outside the defended area (Ainslie 1995)

By the early 2nd century, the defences at Abingdon were slighted and masonry buildings were built inside. Settlement spread outside the former defences, resulting in an occupied area exceeding 40 hectares in extent. Roman material has also been found under Abingdon School and in the Spring Road cemetery closer to Ashville. A small Roman cemetery has been located 200 m south of Ashville Trading Estate (Parrington 1978, 23-5). A possible temple site was located south of the Ock to the south-west of this site.

1.4.3 Saxon

Abingdon has early Saxon cemeteries and settlements around it. Early Anglo-Saxon material has also been recovered from the MG works evaluation and from the Spring Road cemetery 400 m to the east of Wyndyke, across the Larkhill Stream. Middle to late Saxon settlement is known from the town centre and Saxon cemeteries lie to the north and south of the River Ock. The identification of possible Saxon post-built structures at Wyndyke Furlong is significant because the nature of early and middle Saxon occupation is ill understood. Either early Saxon settlements were loosely structured and relatively mobile or they were stable and set firmly in the Roman and pre-Roman landscape.

2.2 Statement of potential

This section follows the guidelines proposed by English Heritage in their recommendations for post-excavation assessment (English Heritage, *Management of Archaeological Projects*, 2nd edition, 1991, Appendix 4). It forms a summary statement of the value of the data gained in the excavation in terms of their potential to address the research aims of the investigation. Fuller finds assessment reports by individual authors are contained in Appendices **1-7** and section 3 contains a statement of the academic objectives of the project.

2.2.1 Stratigraphy and phasing

Preliminary analysis of the stratigraphic relationships have produced 15 sheets of matrices; most of the relationships between sets of features are expressed spatially rather than through physical relationships. Some redeposited pottery was indicated when the pottery spot dates were introduced into these matrices.

A preliminary appraisal of the excavated evidence suggests that there is a good opportunity for addressing many of the objectives of the investigation. The density and extent of the features relating to the Iron Age occupation was much higher than expected and unanticipated Saxon structures were identified. The excavation was able to examine a relatively large area relating to both periods of occupation and there was a reasonably large, though not prolific, quantity of pottery and other finds.

There should be sufficient evidence to assess the nature and date of Iron Age settlement and compare it with the contemporary and slightly later occupation at Ashville and the MG Works. The overall form and status of the Iron Age site is discernible from the plan of the site and the ceramic evidence. This may be enhanced by careful analysis of finds patterning and the interpretation which can then be put upon aspects such as site and social organisation, and building tradition.

Economic evidence appears to be relatively abundant. Loomweights, quernstones, and carbonized remains were present. Quantities of animal bone offer an opportunity for examining the economy of the settlement in comparison with the later material form Ashville.
Saxon occupation was possibly detected at the MG Works and further examination of the post-built structures may confirm Saxon occupation at Wyndyke Furlong.

2.2.2 Bronze Age pottery

The Beaker and early-middle Bronze Age sherds indicate small scale domestic activity close to the excavated Ashville barrows. The similarity between the MBA lugged vessel from Wyndyke Furlong and one from a secondary deposit within Ashville ring-ditch 460 is quite striking and suggests that the funerary and domestic activities could be broadly contemporary. This is an important association within a region where Bronze Age domestic evidence is quite rare.

2.2.3 Iron Age and Roman Pottery (Appendix 1)

This assemblage has the potential to address two questions. It can be studied firstly in terms of questions of site sequence and function, and secondly in terms of its significance in the study of pottery within the region.

The pottery is of primary importance as a dating medium since it is the only chronologically diagnostic artefact type recovered from most parts of the site. Refinement of the broad dating outline available

at present is required. This will be achieved by more detailed work on the fabrics and forms which make up the assemblage, and by close comparison of this evidence with the appropriate elements of the stratigraphic sequence.

The pottery assemblage can be compared with material from other sites within the region to inform discussion of relative site chronologies (eg in relation to the adjacent Ashville Trading Estate site, which does not have exactly the same sequence of activity as that seen here) and questions such as status (eg by comparing the decorated component of the assemblage with that from The Vineyard, Abingdon). In slightly wider terms, evidence from Barton Court Farm and The Vineyard suggests settlement discontinuity in the Abingdon area at about the middle of the 2nd century AD and the present early Roman pottery assemblage can be used to shed further light on this question. The potential of the pottery to provide dating evidence for the probable Anglo-Saxon components of the site may be realised by comparison of possible sherds of this date with material from Barrow Hills, Radley. It should be noted, however, that associated pottery is very scarce at such Middle Saxon sites as Worton Rectory Farm, Yarnton, and if the Wyndyke Furlong Saxon activity was entirely of Middle Saxon date, rather than including an Early Saxon component, contemporary pottery might have been in very short supply. This is an interesting problem which requires further examination.

The present assemblage provides an important complement to the data at present available from Iron Age sites in the region. The adjacent site of Ashville produced a very important assemblage of Iron Age pottery. Although extensively reported, this work was fatally flawed by lack of fabric definition (ie only two fabrics were used!). Work on further material could provide a better defined context in which to place the pottery from the earlier excavation. Important chronological questions raised by the Ashville assemblage but not adequately addressed in the report, particularly relating to the late Iron Age-early Roman period, may perhaps be partly addressed by the present assemblage, but the paucity of material of the relevant phase makes it unlikely that these problems will be completely resolved here. Equally, resourcing difficulties have precluded any extensive examination of the Iron Age pottery from The Vineyard, Abingdon, so the Wyndyke Furlong assemblage assumes additional importance as a potential yardstick for chronological developments in fabrics and forms against which the evidence from The Vineyard might be set.

There was no quantification of the Roman pottery published in the Ashville report, so this material cannot usefully be assessed in qualitative terms either. The recent development of comparative analysis of Roman pottery assemblages in the region means that ceramics can now be used as a guide to the socio-economic status of sites. The Ashville report suggested that the Roman material then identified indicated the existence of a villa nearby (Parrington 1978, 36). The generation of quantified data for the early Roman material from Wyndyke will therefore be important for the definition of the character of the Roman site in terms of its position in a local/regional settlement hierarchy on the basis of the ceramic assemblage.

2.2.4 Small Finds (Appendix 2)

The assemblage is small and the amount of information that can be gained from the various categories of material limited. The assemblage will be compared and contrasted with the material recovered from the adjacent sites of Ashville Trading Estate and the MG Car Factory. The bone objects although limited in number are in good condition and include an interesting group of Iron Age tools.

2.2.5 Flint (Appendix 3)

An analysis of the spatial patterning of the flints may indicate activity areas which are not represented

by features. Further study of the flints may show the date and nature of activity revealed by the spatial patterning.

2.2.6 Worked Stone

[contribution awaited]

2.2.7 Fired clay (Appendix 4)

The previously excavated sites at Ashville and the Vineyard provide comparable material of Iron Age date. The fired clay is a good indicator of domestic settlement and a wide range of activities. The loomweights provide direct evidence for textile production. The structural clay provides indirect evidence for ovens built from wattle and clay, and for burnt daub walls no doubt derived from demolished structures.

2.2.8 Plant and invertebrate remains (Appendix 5)

The waterlogged plant and invertebrate remains have the potential to provide the information on site environment that was lacking from the Ashville Trading Estate excavation. The insect remains can give some more general landscape details. Once the phasing of the site has been refined, the charred plant remains would be able to demonstrate many aspects of the agricultural economy of the site and would provide a useful comparison with the results from Ashville.

2.2.9 Faunal remains (Appendix 6)

There is potential to compare and add to the data recovered from Ashville. Study of the sex and age at death of the animals will add to the understanding of the economic activity of the settlement. For example, there is now evidence of half-grown horses being slaughtered in the Iron Age which was absent at Ashville and on the MG.Works.

2.2.10 Human bone (Appendix 7)

The only work required is to record and catalogue the human bone. No potential for analysis.

3 RESEARCH AIMS

3.1 Original research aims

In the pre-excavation project design the excavation was seen to offer an important opportunity for examining a further part of a well known site. Furthermore, the excavation was seen as offering the potential for examining various aspects of Iron Age and Romano-British settlement within local, regional and national frameworks. In particular the site was seen as having considerable importance in understanding the origin and early development of Abingdon and the surrounding area.The main emphasis of the research was to address the following questions:

3.1.1 What was character and relationship of the various periods of occupation?

3.1.2 What was the extent of the field or enclosure system (of Romano-British date) and how is it associated with the settlement?

3.1.3 What were the limits of the settlement and landuse in the Bronze Age, Iron Age and Romano-British periods. How was this affected by the behaviour of the Larkhill Stream; was there flooding or alluviation?

3.1.4 What was date, nature and function of an earthwork bank seen by Parrington and which he suggested was connected with the Iron Age site?

This bank was a medieval headland. It is shown on Roque's map as a field boundary and is extant to the west of the site.

3.1.5 Where there identifiable zones where differing economic and industrial activities took place?

3.1.6 Could particular pit groups be associated with individual houses?

3.1.7 Were there pits with special deposits such as those found at Danebury and other sites especially those in the Thames Valley eg Gravelly Guy?

3.1.8 An wooden ard-share was recovered from a well at Ashville Trading Estate and was dated to the 3rd century. Were Roman ploughsoils present and if so could they indicate ploughing techniques such as the nearby Roman ploughing at Drayton Cursus?

Due to the modern truncation of the site no Roman ploughsoils survived.

3.1.9 The late Iron Age phase at Ashville was represented by high concentrations of pottery in the ditch fills. Was the focus of activity associated with these deposits located at Wyndyke Furlong to the E.

There was little or no late Iron Age activity at the Wyndyke excavations.

3.1.10 Environmental sequences for the Iron Age from Ashville were good. Sequences for the Romano-British periods are needed for comparisons. Many more Iron Age sites have had palaeoenvironmental examination since the 1970's and will allow reexamination of the conclusions in the Ashville report.

3.1.11 The pottery report at Ashville was flawed by a lack of fabric definition. As a result there are important chronological questions to be addressed particularly relating to the Iron Age transition to the Romano-British period. Ashville period 3 (late Iron Age) may actually be c AD 30-65.

See comment on 3.1.9 above for lack of comparison due to date difference.

3.1.12 Parrington suggested the presence of a villa nearby from the Roman material at Ashville. Even if such a structure was not detected the ceramic assemblage may well indicate the socio-economic status of the site in its local and regional framework.

3.1.13 Was there a difference in artefact assemblages between other sites in the Abingdon area? The presence of an Oppidum in Abingdon renders the possibility of comparison between urban and rural sites.

3.1.14 The role of Wyndyke Furlong in a wider context needs to be examined in both the Iron Age

and Romano-British periods. Excavations in urban, high status and rural can be used to test interactive models.

3.2 Revised research aims

Aim 1 To define the structural/stratigraphic sequence and describe the major phases and their features.

Aim 2 To characterise the various phases of occupation and establish the relationships between them where appropriate.

Aim 3 Characterise the Beaker and Bronze Age occupation and relate it to its local regional setting.

Aim 4 Define the limits of the settlement and land use in the Iron Age and Romano-British periods. What was the extent of the Romano-British field or enclosure system and how is it associated with the settlement?

Aim 5 Define zones of activity and establish the nature of the economic and industrial activities which took place.

Aim 6 To establish whether any groups of pits can be identified with particular houses.

Aim 7 To study the small number of pits with special deposits: one horse head, an articulated vertebrae of a horse, articulated forelimb and cattle skull and two further cattle skulls with a single dog burial were recovered.

Aim 8 Characterise the Anglos-Saxon occupation and relate it to its local regional setting.

Aim 9 To compare Wyndyke Furlong with other sites in the local region may indicate differences of status and function. The pottery assemblage is critical to this aim

Aim 10 Publish the results and produce an accessible archive.

4 METHODOLOGY

4.1 Stratigraphic

Aims 1, 2, 4-7, 9 & 10

Matrices and digitised plans exist, but the nature of the site is such that phasing will be established through spatial analysis and close analysis of finds assemblages, and in particular pottery. The use of digitised plans will allow the manipulation of plans data and facilitate the spatial analysis of the site. Zones of activity will be identified use both stratigraphic and finds data. Descriptions of groups of features and structures by phase will be generated. Drawing briefs will be prepared. Reconsideration of earlier data, particularly that published from Ashville will be incorporated. **Task Nos 1-3, 11-17**

4.2 Artifactual and environmental

4.2.1 Bronze Age Pottery

Aims 3, 9 & 10
The small quantity of Beaker and early/middle Bronze Age pottery will be studied in terms of fabric, vessel form, decoration and related characteristics and discussed in its local and regional setting. **Task Nos 4 & 12**

4.2.2 Iron Age and Romano-British Pottery

Aims 1, 2, 4-7, 9 & 10
The selected groups of the pottery will be quantified in terms of fabrics, vessel forms, decoration and related characteristics and recorded by context. The quantification will be by sherd count, weight and by EVEs. (EVES may not be appropriate for handmade Iron Age forms.) The range and sources of both Iron Age and Romano-British fabrics will be considered. In the case of the Iron Age pottery, correlation between form and fabric and proportions of decorated to undecorated vessels will be considered. The analysis of pottery will consider the evolution of the assemblage through time. This will contribute to both the dating of the site and its sequence and to the study of the site in its local and regional setting. The spatial distribution of characterised and dated pottery will not only contribute to the phasing of the occupation but also contribute to the understanding of the functional zoning of the site. **Task Nos 1-3, 13 & 14**

4.2.3 Flint

Aims 2, 3, 9 & 10
The worked flint will be recorded, its spatial distribution analysed and short report for publication written. Drawing briefs will be prepared. **Task Nos 5 & 12**

4.2.4 Fired clay

Aims 1-2, 4-10
The fired clay will be characterised and catalogued and a brief report for publication prepared. The distribution of fired clay will be analysed. Drawing briefs for selected pieces will be prepared. **Task Nos 8 & 13-15**

4.2.5 Other artifactual evidence

Aims 1-2, 4-10
The artifacts will be catalogued and short reports prepared where appropriate. The spatial distribution of various categories of finds will be analysed. Objects will be selected for illustration and drawing briefs prepared. **Task Nos 6-7 & 13-15**

4.2.6 Environmental

Aims 1-2, 4-10
The samples will be analyzed in detail. The evidence of insects will provide data on the general site environment, while the plant macrofossils will provide evidence for agricultural practice and for any changes in practice through time. There may be evidence for processing and the zoning of processing activities. **Task Nos 11, 13-16**

4.2.7 *Faunal remains*

Aims 1-2, 4-10
Basic recording including fragment count, identification to species and anatomical part, non-metrical attributes and pathological indications. Metrical analysis will be undertaken on appropriate groups. Questions of exploitation, butchery and seasonality will be considered. The animal bone will be analysed in terms of the changing assemblage through time, with particular regard to species distribution from selected dated contexts. **Task Nos 10, 13-15**

5 PUBLICATION

5.1 Synopsis of proposed publication

It is proposed to publish the report as an OAU Thames Valley Landscapes monograph or part thereof. The manuscript for publication will be produced by mid-1997.

Wyndyke Furlong, Abingdon, Oxfordshire: an Iron Age settlement with Bronze Age features, Romano-British enclosures and possible Anglo-Saxon occupation.

by M R Roberts and others

Front Cover - to be decided

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5.2 Site Archive

The archive is to conform with UKIC guidelines for the preparation of excavation archives for long-term storage.

The archive and finds are to be deposited with the Oxfordshire Museums Service.

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7 Appendices

Appendix 1 Iron Age and Romano-British Pottery Assessment

by Paul Booth

1 Introduction

1.1 The ABBUS excavations, including evaluation work, produced c 5250 sherds of pottery, contained in the equivalent of c 16 bulk finds boxes. The following assessment is based principally on examination of the material from the main 1994 excavation (ABBUS 4), which produced some 4754 sherds, or 90% of the total pottery. The material was predominantly of Iron Age date, with a significant group of early Roman pottery and occasional sherds of earlier prehistoric and possibly of Anglo-Saxon material.

1.2 The pottery was in variable condition in terms of preservation of surfaces and (estimated) average sherd size. Some of the Iron Age groups consisted of quite small moderately abraded fragments, but other groups included substantial sherds. The early Roman material was generally quite well-preserved and consisted of quite large sherds.

2 Methodology

2.1 The pottery was scanned very briefly, the principal objective of this exercise being to provide spot dates to assist in the provisional phasing of the site. Material was assigned to generalised period categories on the basis of fabrics and forms. Dating was on the basis of ceramic criteria alone; comparison with excavation matrices was made by the excavator, but ceramic dates were not altered at this stage of analysis to take account of the evidence of the site phasing. At present, therefore, context groups assigned to the Early Iron Age but which must have been later on the basis of the stratigraphic relationships of the contexts are assigned to their original spot date periods.

2.2 No attempt was made at quantification at this stage beyond the approximate sherd count prepared at the initial processing stage for administrative purposes. These counts, which do not take account of recent breaks, usually overestimate the final sherd totals which emerge from analysis, generally by c 5-10%. The final sherd total may therefore be around 5000 pieces.

3 Chronology

3.1 The overall chronological range of the pottery assemblage was quite wide, from early Bronze Age to early Roman, though the bulk of the material was probably of Middle Iron Age date.

3.2 In many cases the context group spot dating could not be more precise than `Early Iron Age' or `Middle Iron Age', and in some instances even this degree of definition was not possible. Where groups were small and diagnostic forms were absent fabric was the only remaining criterion of date; the distinction between early and Middle Iron Age assemblages is broadly based on the proportion of shell-tempered pottery in the group, since this is characteristic of the early Iron Age whereas sand-tempered fabrics, while occurring in the early Iron Age, are particularly characteristic of the middle Iron Age. Within the Upper Thames region there is, however, no clearly-defined point at which shell-tempered fabrics became obsolete; rather this was probably a gradual process. Small groups consisting of both shell and sand-tempered sherds are therefore very difficult to assign with confidence to one period or the other. The problems of secure dating of context groups were exacerbated by the number of such groups which were very small. At least 128 context groups (ie over 41% of `dated' groups) were specifically noted as containing less than 5 sherds. This figure helps to explain the large number of groups for which the dating was tentative.

3.3 The rough breakdown of context groups from ABBUS 4 by spot date periods is as follows:

PERIOD	Certain/fairly certain context groups	Probable/possible context groups
Late Bronze Age (LBA)	1	
Early Iron Age (EIA)	13	39
Early/Middle Iron Age (EMI)	40	6
Middle Iron Age (MIA)	90	94
Middle/Late Iron Age (MLI)	3	
Late Iron Age/Early Roman (LIR)	2	4
Early Roman (mid/late 1st-2nd century)	11	8
TOTAL	160	151

3.4 Five probable Beaker/Early Bronze Age sherds were noted, usually in later contexts. One context (5649) was assigned to the Late Bronze Age on the basis of a single flint-tempered sherd. A similar sherd occurred in a later context.

3.5 The bulk of the pottery was of Iron Age date, with more groups assignable to the Middle Iron Age rather than the Late Iron Age, though the problems of assigning dates to individual context groups, discussed above, are relevant here. Groups assigned to the Early Iron Age with a reasonable degree of confidence only totalled 4.2% of all `dated' groups, though inclusion of the possible EIA groups brings this figure to 16.7%. If all the groups of general Iron Age date (assigned to the Early/Middle Iron Age category) were included, 31.5% of all `dated' contexts could have been of Early Iron Age date, but this is a very optimistic figure. The certain Early Iron Age contexts only produced c 80 sherds, including one important group (5023). On present evidence it is impossible to assess how much of the total assemblage was of Early Iron Age date (ie, taking into account residual EIA material in certain MIA groups), but even this is very unlikely to have been more than about one third of the total assemblage at most.

3.6 EMI groups by definition tended to be quite small and contained no clearly diagnostic material. Middle Iron Age groups amounted to almost 60% of all the `dated' context groups and the majority of the total pottery from the site was clearly of this period. This assemblage had no obviously remarkable characteristics, but is nevertheless of regional importance (see below).

3.7 A very small number of groups were assigned to a Middle/Late Iron Age date bracket, and slightly more to the late Iron Age/early Roman overlap, characterised by grog-tempered `Belgic type' fabrics. The probable/possible groups in this date range in any case thought more likely to be post-conquest. The majority of the early Roman material from the site, from a relatively small number of contexts mostly related to a ditch system, was of the mid/late 1st-early/mid 2nd century and probably represented a phase of activity of relatively limited duration.

3.8 There was no late Roman or obvious early Saxon material. A very few sherds were considered to be possibly of Anglo-Saxon date, but these identifications (eg in context 5252) were very tentative and are not reflected in the table above. Diagnostic fabrics and forms of Anglo-Saxon date, eg grass-tempered sherds, were apparently absent, though problems of identification of material of this period will need to be considered very carefully in fuller analysis.

3.9 Clearly defined disturbance of the site by possible activity and features of later date, eg medieval ploughing, was not indicated in the ceramic record. Medieval and post-medieval sherds were almost entirely absent, even in general cleaning layers.

4 Proposed further work

4.1 In the light of the importance of the ABBUS assemblage both in relation to site-specific and local/regional questions production of a quantified record of the material in terms of fabrics, vessel forms, decoration and other relevant characteristics is a sine qua non. It is recognised that limitations in the assemblage, in terms of the physical condition of some of the material and the small size of some of the groups, will restrict the extent to which the material can inform the questions outlined for consideration above. In particular, refinement of the date of some groups beyond what has already been suggested may not be possible, but overall there is no doubt that a detailed record is required both for the project archive and to provide the basis for analysis in the excavation report.

4.2 The material will be recorded by context in terms of fabric, form and other characteristics using the established OAU system for recording Iron Age and Roman pottery from sites across the region. Specific questions to be addressed will include: the range and sources of Iron Age and Roman fabrics, the correlation of fabrics and forms (particularly for the Iron Age, to see if specific combinations emerge) and the proportion and character of decorated material in the Iron Age assemblage. Quantification will be by sherd count, weight and EVEs (this last may not be appropriate for the hand made Iron Age material, in which case a vessel count based on rims will be substituted). The records will be computerised. The report, with illustrations, will summarise the basic data and present analysis of it. This analysis will consider evolution in the character of different aspects of the assemblage through time, demonstrating the relationship of these changes with developments in the site sequence and drawing comparisons wherever possible with material from other sites within the region. In particular aspects of chronology and status will be considered in the discussion.

Appendix 2 Small finds assessment

by Leigh Allen

I. Factual Data

Quantification

There were a total of 20 finds recovered from the four phases of investigation at the site of Abingdon Business Centre, Wyndyke Furlong. The assemblage comprised the following material categories with the number of objects in each category noted in brackets, copper alloy(3), iron(8), bone(6), leather(1), shale (1), and a slate object(1). The context, phase and preliminary identification of each object is recorded in the table below.

Context	Object	Description	Date	Phase
5813	Strip (Ca)	Strip of copper alloy twisted along its length, the strip is curved and tapers to a point at one end.	Roman	EIA pit/ ditch
5704	Strip (Ca)	Small copper alloy strip curved into a hook shape and broken at both ends	-	Late 1st- 2nd century
5573	Sheet (Ca)	Irregularly shaped fragment of copper alloy sheet	-	Gully
3216	Knife (Fe)	Whittle tang iron knife. The tang continues the line of the back of the blade, which is slightly arched before falling in a shallow curve to the tip. The blade edge is straight then turns up to meet the tip.	Late Roman	ERB
23/03	Horseshoe (Fe)	Complete horseshoe with a plain outline and three nail holes in each arm. the webs are wide with no heel or calkin. There is a fullered groove running around the outside edge.	Post Medieval	Modern
5283	Nail (Fe)	Nail with circular flat flanged head, the tip is missing	-	Mid 1st century
5818	Nails x 3 (Fe)	Three nails, one complete, two with broken shafts. All three have flat circular flanged heads.	-	MIA Fill of pit
5812	Nail (Fe)	Nail with very corroded head.	-	MIA Ditch fill
5035	Strip (Fe)	Angled strip, rectangular in cross section.	-	?
5312	Awl(bone)	Awl made from a splinter of a sheep's metatarsal with a needle like point, circular in section, broken at the tip	IA	?

5052	Point(bone)	Bone splinter tapering to a sharp point at one end, sub-square in section. The other end is flattened to form an expanded point. It is polished on the upper surface.	IA	MIA ring gully
5924	Gouge (bone)	Gouge with long pointed terminal with raised flanges at either side. The tip of the tool is missing, the upper end of the gouge is also damaged. The object is polished all over.	IA	MIA ?
5598	Grooved and polished metapodial (bone)	Grooved and polished metapodial. Transverse grooves and a thinning of the bone appear on opposite sides of the shaft near the distal end the proximal end is missing. The metapodial is polished all over.		Late 1st- 2nd century
5825	Spindlewhorl (bone)	Complete spindlewhorl, bun shaped, facetted with concentric line decoration, areas around the central perforation are highly polished.	Need to do more work on parallel	EIA pit fill
5283	Object(bone)	Cow metacarpal, highly polished on the upper surface.		2nd fill of 1st century ditch enclosure
5822	Vessel fragment (Shale)	Body fragment from a shale bowl decorated with incised concentric lines.		Late 1st century
5701	Sheet fragment (leather)	Irregularly shaped fragment of leather sheet		MIA
29/58	Slate Pencil	One end of the slate pencil has been sharpened	Post Medieval	Top fill of IA ditch
Total	20 objects			

Means of collecting data

Visual examination and X-radiography of the metalwork.

II. Statement of Potential

The three copper alloy objects are all strips, the one from context 5813 an Early Iron Age pit is rectangular in section and gently twists along it's length, it is possibly the handle from a spoon(B Cunliffe 1971, 112, fig 47 No.122). The remaining two strips show no distinctive features.

The iron objects include 6 nails from three contexts, a Late Roman whittle tang knife
(W H Manning 1985, 116-117, plate 55, Q58) from 3216 an Early Roman context and a Post Medieval horseshoe(I H Goodall 1990, 1056) from context 23/03 with a fullered groove running around the edge.

The 6 bone objects comprise a fragment from an awl from context 5312 with a broken circular sectioned point, similar examples were recovered from Iron Age contexts at Danebury, Hampshire(L Sellwood 1984, 387, Fig 7.36, 3.156) there is also a bone splinter from context 5052, a Middle Iron Age ring gully, that has been fashioned into a point with a square section this is possibly another awl. There is a gouge from Middle Iron Age context 5924 with raised flanges, the tip is missing, the object appears to have been polished all over. Similar examples have been recovered from Iron age contexts at Danebury(L Sellwood 1984, 385, fig 7.33, 3.101-3.116). A grooved and polished metapodial was recovered from a Late 1st-2nd century context(5598), the exact use of these objects is still a matter of conjecture, similar examples have been found in Iron Age and Roman contexts at Danebury (Sellwood 1984, 389, fig 7.37), Meare Village East (Coles 1987, 145-150, fig.B.61) and more locally at The Ashville Trading Estate, Abingdon (Parrington 1978, 81-83, fig 61, No.39), Yarnton Worton Rectory Farm (forthcoming) and The Abingdon Vineyard Redevelopment site (forthcoming). There is also a complete bone spindlewhorl from an Early Iron Age pit fill (context 5825), it is bun-shaped, facetted with concentric line decoration, the areas around the central perforation are highly polished. The remaining bone object is a cow metacarpal that has been polished on the upper surface, function unknown.

The remaining objects consist of an irregularly shaped fragment of leather sheet from a Middle Iron Age context (5701), a body fragment from a shale vessel from a Late 1st century context (5822), the vessel fragment is decorated with incised concentric lines. A Post Medieval slate pencil with one end sharpened was recovered from the top fill of an Iron Age ditch(context 29/58).

III. Storage and Curation

The metal objects are at present packed in dry storage with silica gel, the bone, shale and slate are stored dry and the leather fragment is stored in a cool, wet and dark environment. The condition and relative humidity of each object category is regularly monitored.

IV Aims and methods

Each object will be examined with a view to a more detailed identification. The species of the bone objects will be determined. A full computerized catalogue will be compiled for the publication. The material will be considered along with artifacts recovered from the adjacent sites mentioned above and with similar sites in the region.

V Resources and programming

Five days will be needed to complete a report. Two and a half days for the production of a detailed catalogue, half a day for a bone specialist to identify the bone species and two and a half days for research on further parallels.

VI References

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Manning W H 1985, Catalogue of the Romano-British iron tools, fittings and weapons in the British Museum.

Parrington M 1978, The Excavations of an Iron Age, Bronze Age ring-ditches and Roman features at Ashville Trading Estate, Abingdon(Oxfordshire) 1974-1976.

Sellwood L 1984, `Objects of bone and antler' in B Cunliffe Danebury an Iron Age Hillfort in Hampshire, Vol 2 The Excavations 1969-1978: The Finds. CBA Research Report No 52.

Appendix 3 Worked Flint assessment

by Philippa Bradley

Introduction

A small assemblage consisting of 108 pieces of worked flint and four pieces of burnt unworked flint was recovered from the excavations. The flint was recovered from Iron Age and later features with generally only one or two pieces being recovered from each context. The material is mostly gravel flint although a small quantity of chalk flint was identified. The flint was generally lightly corticated and some pieces were abraded and worn. The assemblage is summarised in Table 1.

Table 1 Assemblage composition

Flakes	Blades, blade-like flakes	Chips	Irregular waste	Cores	Retouched forms	Total	Burnt unworked flint
74*	10	5	1	4 (2 single platform, 1 discoidal and 1 fragment)	14 (4 end and side scrapers, 3 end scrapers, 1 retouched flake, 1 microlith fragment, 1 retouched flake, 1 backed knife, 1 piercer, 3 miscellaneous pieces)	108	4

* including one core rejuvenation flake (face/edge)

Method

The material was briefly scanned and limited recording undertaken in order to quantify and characterise the assemblage.

Technology and Dating

The assemblage consists of all elements of the reduction sequence. Although some stages seem to be under-represented, for example, chips and irregular waste. This may be due to post-depositional processes and collection methods. Both hard and soft hammers were used. Generally the flakes seem to have been hard-hammer struck with limited evidence for platform preparation. The cores recovered were used to produce unspecific flake removals (Table 1). This material would not be out of place within a Neolithic or Bronze Age context. The retouched forms present tend to confirm this date range, unfortunately no diagnostic pieces were recovered which may refine the dating further. Scrapers are the commonest type present in the assemblage and these tend to be neatly retouched on thin, often non-cortical blanks. The backed knife has relatively fine invasive retouch and may be of later Neolithic or early Bronze Age date. The piercer is very crudely retouched and may be of middle or later Bronze Age date.

A few of soft-hammer struck blades, blade-like flakes and flakes were recovered together with a single core rejuvenation flake and a broken microlith. The microlith is a small edge blunted type and may be of later Mesolithic date although these types occur throughout the Mesolithic (Pitts and Jacobi 1979).

Mesolithic, Neolithic and Bronze Age flintwork has been found at excavations on the Ashville Trading Estate (Skellington 1978 90-2, fig. 65) and a small quantity of flint was recovered from Claire Halpin's excavations at the MG Works. Mesolithic, Neolithic and Bronze Age flintwork has also been recovered from a series of excavations in the centre of Abingdon (Bradley in preparation), at Barton Court Farm (Whittle 1986) and at Radley (Bradley forthcoming). The material from Wyndyke Furlong compares well with these assemblages in terms of dating and composition.

Recommendations for further work

Finalise recording, spatial analysis and produce short report for publication, produce drawing briefs and check drawings 1 day. The report will consist of c 750 words and a table

Drawing: one scraper, one knife, microlith fragment, one core plus one other retouched piece

References

Bradley, P in preparation The worked flint, in Excavations at the Vineyard, Abingdon, Oxfordshire (T G Allen).

Bradley, P forthcoming The worked flint, in A. Barclay, R. Bradley and C. Halpin, Barrow Hills Radley vol 1 The Prehistoric, OAU Thames Valley Landscape Series.

Pitts, M W, and Jacobi, R M, 1979 Some aspects of change in flaked stone industries of the Mesolithic and Neolithic of southern Britain, Journal of Archaeological Science, **6**, 166-170.

Skellington, W A, 1978 The worked flints, in The excavation of an Iron Age settlement, Bronze Age ring-ditches and Roman features at Ashville Trading Estate, Abingdon (Oxfordshire) 1974-76 (M Parrington), OAU Report 1, CBA Research Report 28, 90-1, London.

A W R Whittle 1986 Struck flint, in Archaeology at Barton Court Farm, Abingdon, Oxon (ed. D Miles), OAU Report 3, CBA Research Report 50, M3B5-3B10, London.

Appendix 4 Fired clay assessment

by Alistair Barclay

Introduction
The assemblage consists of 195 fragments weighing a total of 19.443 kg and includes an important group of Iron Age loomweights. Most of the fired clay was recovered from the fills of cut features belonging to the Iron Age settlement. None of the structural clay was recovered from *in situ* deposits. No evidence for metalworking debris (eg. moulds or crucibles) or for salt containers (briquetage) was recorded.

Method
The material was quantified by number of fragments and weight. The fired clay occurs in a range of fabrics. The fired clay was examined for evidence of wattle or other impressions, possible objects and structural pieces.

Quantification

Type	Number of fragments	Weight kg	Contexts	Comments
Loomweights	9	6.658	5314, 5352, 5502, 5665?	Triangular
Structural clay	37	0.965	5269, 5367, 5470, 5963	Fragments with wattle impressions
Hearth and oven	22	2.629	5502	Flattened clay lumps
Miscellaneous	127	9.191	5006, 5055, 5200, 5223, 5265, 5283, 5323, 5358-9, 5397, 5410, 5470, 5476, 5502-3, 5569, 5617, 5666, 5706, 5719-20, 5744, 5746, 5781, 5816, 5922,	Mostly amorphous fragments.
Total	195	19.443		

Loomweights
The assemblage includes nine fragmentary triangular loomweights of Iron Age form. Nearly all of these were recovered from pit context 5502.

Structural clay
Thirty seven fragments of fired clay had wattle impressions. This material is likely to derive from domestic oven structures or from burnt wall daub. None of this material was found *in situ*. Nearly all of this material was recovered from context 5367.

Hearth/oven clay
Twenty two fragments are from oven or hearth structures. Some of these lumps graded from oxidised to unburnt clay indicating firing *in situ*. Some fragments with straight or moulded edges and flattened surfaces could derive from oven structures.

Miscellaneous
The majority of the fired clay (127 fragments) is amorphous and no doubt derives from ovens and hearths used for domestic and industrial activities. Most but not all of this material is fired a reddish-brown colour.

Discussion - Recommendations for further work.
Expand discussion of existing report and add catalogue 1 day
Illustrate a range of the fired clay 1 day

Appendix 5 Macroscopic Plant and Invertebrate Remains from Wyndyke Furlong, Abingdon

by Jenny Robinson

Introduction

Excavations at Wyndike Furlong, Abingdon, revealed a few Bronze Age features, an extensive Iron Age settlement with roundhouses, storage pits and two wells, and Roman ditches, some of which flanked a trackway. Bulk samples were taken from the wells in order to recover waterlogged organic remains and samples were floated from the other deposits onto a 0.5 mm mesh to recover charred plant remains.

Methods and Results

A 1 kg sub-sample of the two bottom-most waterlogged samples from each well was sieved down to 0.2 mm and sorted. Macroscopic plant remains were entirely absent from one well (Samples 5028 and 5029). The other two samples (Samples 29/5 and 29/6) contained numerous well preserved waterlogged seeds, some charred plant remains, mollusc shells and rather badly preserved insect remains and so they were sorted under a binocular microscope. The plant and mollusc remains were identified in full, the results being listed in Tables 1 to 3. The insect remains were better preserved in Sample 29/5 than Sample 29/6, so a further 4 kg of this sample was subjected to paraffin flotation onto a 0.2 mm sieve and sorted for insects only. These have not been fully identified yet but are mentioned in the text.

The 52 flots from dated contexts were fully sorted under a binocular microscope for charred plant remains other than charcoal. These were identified. 30 of the 35 Early to Middle Iron Age flots contained identifiable remains and they have been listed in Table 4. Eight of the 17 Late Iron Age to Roman flots contained identifiable remains and they have been listed in Table 5. The single Bronze Age flot (Sample 29/8) contained an indeterminate cereal grain. Charcoal was not recorded in detail although *Quercus* sp. (oak), *Alnus* or *Corylus* tp. (alder or hazel) and Rosaceae tp. (hawthorn or sloe) are all present.

Some of the flots also contained numerous mollusc shells. In the case of the 5000 series of sample numbers, they were mostly of the small burrowing species *Cecilioides acicula*, along with a few examples of the dry ground open country species *Vallonia excentrica*. However, the flots from the Iron Age water hole 29/ and the 3000 series from the Roman ditches contained many shells of a range of aquatic and terrestrial species likely to have lived in the features. These have been recorded in Table 3 on a scale of relative abundance.

Interpretation

IRON AGE The molluscs from the Iron Age well 29/ included stagnant water species such as *Lymnaea truncatula* and *Anisus leucostoma*. The waterlogged seeds from Samples 29/6 and 29/7 suggested rather pond-like conditions with *Ranunculus* S. *Batrachium* sp. (water crowfoot) growing in the water and *Lemna* sp. (duckweed) growing on the surface. The insect remains included the aquatic larvae of midges (Chironomidae) and small water beetles such as *Helophorus brevipalpis* tp.

The terrestrial plant and insect remains from the well suggested open conditions, the only evidence for trees or scrub being a couple of thorns of *Prunus* or *Crataegus* sp. (sloe or hawthorn). The plant remains very much represented a flora of dry ground with, for example, seeds of Cyperaceae (sedges) absent and, in comparison with Iron Age sites on the lower terraces or floodplain, low numbers of seeds of *Juncus* spp. (rushes). Numerous seeds of *Plantago major* (great plantain) suggested an area of trampled ground in the vicinity of the well. Otherwise, the major category of vegetation on the site was weedy neglected or waste ground with *Rumex conglomeratus* (sharp dock) and *Urtica dioica* (stinging nettle). There were somewhat smaller numbers of seeds from annual weeds of more frequently disturbed and perhaps rather nutrient-rich ground, such as *Stellaria media* gp. (chickweed), *Chenopodium polyspermum* (all-seed) and *Sonchus asper* (sow-thistle). Some of these seeds could have been introduced amongst crops brought to the site for processing although the undoubted arable weed seeds from the charred flots (see below) were mostly from other species. There were no waterlogged remains of definite crops from the well although *Papaver somniferum* (opium poppy) could have been cultivated. The two well samples contained a few charred remains of *Triticum spelta* (spelt wheat) and *Hordeum* sp. (barley). There were very few waterlogged seeds of grassland plants. The terrestrial insects likewise largely comprised a fauna of weedy disturbed ground and there were few dung beetles. Unlike some of the Iron Age sites on the floodplain, where scarabaeid dung beetles comprise around 20% of the terrestrial Coleoptera, numbers of these beetles were relatively low. There were, however, some beetles which feed on the roots of grassland plants such as *Phyllopertha horticola* and *Agriotes* sp.

(Some uncertainty has been expressed as to whether Well 29/ was Iron Age or early Saxon in date. The waterlogged macroscopic plant remains did not include any species believed to be post-Iron Age introductions and the assemblages

generally had an Iron Age "character". The charred remains from the well included chaff of *Triticum spelta*, which would be very unusual in a post-Roman context unless they had been reworked from an earlier context).

The Early and Middle Iron Age charred plant remains (excluding charcoal) appeared almost entirely to have been derived from crop processing. The assemblages can be divided into two groups. Samples 5001 to 5013 generally contained high concentrations of weed seeds and some also had high concentrations of cereal grain. Quantities of chaff were much lower. Samples 5014 to 5030 mostly had lower concentrations of remains. The only crops identified with certainty were *Triticum spelta* (spelt wheat) and *Hordeum vulgare* (six-row hulled barley). It is possible that a little *T. dicoccum* was also present but the few grains of *Avena* sp. probably represented wild oat. Although grains of wheat outnumbered grains of barley, barley was present in more samples than wheat. The chaff was almost entirely glumes from hulled wheat, probably spelt, with only a single rachis fragment of barley. The weed seeds were mostly from arable weeds of well drained circumneutral soils as might be expected on the Second Gravel Terrace upon which the site is situated, for example *Atriplex* sp. (orache), *Medicago lupulina* (black medick) and *Lithospermum arvense* (corn gromwell). Nitrophilous weeds were not much in evidence and some of the samples had a significant proportion of Leguminosae seeds, possibly reflecting relatively low levels of soil fertility. The occurrence of *Galium aparine* (goosegrass) seeds in almost half the samples was possibly indicative of autumn sowing of some of the cereals. Seeds of some wayside plants such as Malvaceae (mallow) had become incorporated into one of the assemblages, perhaps as a result of arable extending onto areas that were previously uncultivated. Seeds of marsh plants, particularly *Eleocharis* S. *Palustres* sp. (spike rush) were abundant in some but by no means all of the flots. This suggested that some of the crops being processed on the site were from fields which extended onto the clay slope at the edge of the Second Terrace or were situated on lower lying ground towards the river.

The results from the Early to Middle Iron Age site generally present a similar picture to those from the Ashville Trading Estate. The Ashville results likewise showed spelt wheat and six-row hulled barley to be the two main crops. There was also evidence from the weed seeds for cultivation extending into wetter, lower lying ground.

ROMAN The molluscs from the 5000 series of samples, both Iron Age and Roman, reflected the dry, open and somewhat disturbed conditions of the site on the Second Gravel Terrace. Apart from recent burrowing species, the fauna comprised mostly *Vallonia excentrica*, with a few *V. costata*, *Pupilla muscorum* and *Trichia hispida* gp. The flots from the Roman ditches on the lower edge of the terrace, however, contained much richer molluscan assemblages with strong wet ground and aquatic elements. These flots contained the same dry ground species which had probably fallen into the ditches. There were also large numbers of *Anisus leucostoma*, a stagnant water species which can tolerate the drying out of its habitat. The occurrence of *Valvata cristata* and *Armiger crista* suggests that water flowed along the ditches for some of the year and that they were well vegetated with water weed. The marsh species from these flots included *Vertigo angustior*, a species now very rare in Britain. It had probably been able to extend up the Roman ditches from a more extensive marsh habitat on the Gault Clay or the floodplain.

The charred plant remains from the Late Iron Age and Roman flots were similar to those from the Early and Middle Iron Age samples, although the concentration of remains was lower. Spelt wheat and barley were again the only certain crops.

Table 1: **Waterlogged Macroscopic Plant Remains from the Iron Age Well**
(Seeds unless otherwise stated)

			No. of items	
		Sample	29/6	29/5
		Context	29/25	29/24
		Weight processed (kg)	1	1
Bryophyta	moss	- leafy stems	+	-
Ranunculus cf. *acris* L.	buttercup		-	1
R cf. *repens* L.	buttercup		1	1
R. S. *Batrachium* sp.	water crowfoot		28	52
Papaver rhoeas tp.	poppy		1	5
P. somniferum L.	opium poppy		-	1
Brassica rapa L. ssp. *sylvestris* (L.) Jan.	wild turnip		1	-
Thlaspi arvense L.	field penny-cress		-	1
Capsella bursa-pastoris (L.) Medic.	shepherd's purse		2	4
Cruciferae indet.			4	2
Cerastium cf. *fontanum* Baum.	mouse-ear chickweed		6	6
Stellaria media gp.	chickweed		31	60
Arenaria sp.	sandwort		11	-
Chenopodium polyspermum L.	all-seed		21	12
C. album L.	fat hen		2	4
C. rubrum gp.	red goosefoot		-	1
Atriplex sp.	orache		1	3
Malva sylvestris L.	common mallow		3	11
Potentilla anserina L.	silverweed		1	-
P. reptans L.	creeping cinquefoil		-	1
Agrimonia eupatoria L.	agrimony		-	1
Prunus or *Crataegus* tp.	sloe or hawthorn	- thorn	2	-
Epilobium sp.	willow herb		12	-
Callitriche sp.	starwort		-	1
Aethusa cynapium L.	fool's parsley		5	17
Pastinaca sativa L.	wild parsnip		2	-
Torilis sp.	hedge-parsley		5	8
Daucus carota L.	wild carrot		-	1
Polygonum aviculare agg.	knotgrass		11	7
P. persicaria L.	red shank		20	2
Rumex crispus L.	curled dock		1	1
R. conglomeratus Mur.	sharp dock		142	709
Rumex sp.	dock		120	16
Rumex sp.	dock	stem with peduncles	6	27
Urtica urens L.	small nettle		3	1
U. dioica L.	stinging nettle		643	1021
Myosotis sp.	forget-me-not		-	1
Hyoscyamus niger L.	henbane		5	1
Ballota nigra L.	black horehound		12	-
Lamium sp. (not *album*)	dead-nettle		1	-
Galeopsis tetrahit agg.	hemp-nettle		1	1
Plantago major L.	great plantain		143	71
Valerianella locusta (L.) Lat.	lamb's lettuce		-	1
Tripleurospermum inodorum (L.) Sch.	scentless mayweed		-	1
Arctium sp.	burdock		2	-
Carduus sp.	thistle		17	1
cf. *Cirsium* sp.	thistle		13	9
Leontodon sp.	hawkbit		-	1
Sonchus asper (L.) Hill	sow-thistle		19	56
Crepis capillaris (L.) Wal.	smooth hawk's-beard		1	-
Taraxacum sp.	dandelion		2	1
Juncus bufonius gp.	toad rush		50	10
Juncus sp.	rush		20	20
Lemna sp.	duckweed		8	20
Bromus sp.	brome		2	-
Gramineae indet.	grass		31	20
Total seeds			1,412	2,191

Table 2: **Charred Plant Material from the Iron Age Well**

			No. of items	
		Sample	29/6	29/5
		Context	29/25	29/24
Quercus sp.	charcoal	oak	+	-
Alnus / Corylus sp.	charcoal	alder / hazel	+	-
Bromus sp.	seed	brome	+	-
Triticum spelta L.	glume base	spelt wheat	2	1
Hordeum sp.	grain	barley	1	-
Cereal indet.			1	-
Hordeum sp.	rachis	barley	1	-
Galium aparine L.		goosegrass	-	1
Eleocharis S. *Palustres* sp.		spike-rush	-	1

Table 3: **Mollusca**

	Iron Age Well						Roman ditches										
Sample	29/6	29/5	29/4	29/3	29/2	29/1	3001	3002	3003	3004	3005	3006	3007	3008	3009	3010	3011
Context	29/25	29/24	29/23	29/22	29/12	29/10	3446	3265	3263	3266	3249	3303	3329	3483	3383	3376	3413
Valvata cristata (Müll.)	-	-	-	-	-	-	-	-	+	-	-	+	+	+	-	-	-
Carychium sp.	2	-	-	-	+	++	-	+++	+	+	-	+	+	+	++	-	+
Aplexa hypnorum (L.)	3	-	+	+	+	-	-	+	-	-	-	-	-	-	-	-	-
Lymnaea truncatula (Müll.)	2	7	-	+	+	+	-	+	+	+	+	-	-	-	+	-	+
Planorbis planorbis (L.)	-	-	-	-	-	-	+	-	+	+	-	+	-	+	-	-	-
Anisus leucostoma (Mil.)	3	4	+	+	+	+	++	++	-	+	-	+++	+	+++	+	-	-
Armiger crista (L.)	-	-	-	-	-	-	-	-	+++	++	-	+	-	-	-	-	-
Succinea or *Oxyloma* sp.	-	1	-	-	-	-	-	+	-	-	+	+	-	-	-	-	-
Cochlicopa sp.	-	-	-	-	+	++	-	+	+	+	-	+	-	+	-	-	+
Vertigo antivertigo (Drap.)	-	-	-	-	-	-	-	+	-	+	-	+	-	+	+	-	+
V. pygmaea (Drap.)	-	-	-	-	-	+	+	+	+	+	-	+	-	-	-	-	+
V. angustior Jeff.	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	+
Pupilla muscorum (L.)	1	2	-	-	+	+	-	++	+	-	-	+	+	+	+	-	+
Vallonia costata (Müll.)	2	1	+	+	-	+++	+	+	+	+	-	-	+	-	-	-	-
V. excentrica Sterk.	1	2	-	++	-	+++	++	++	++	++	++	+	+	+	-	-	+++
Acanthinula aculeata (Müll.)	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-
Punctum pygmaeum (Drap.)	1	-	-	-	+	+	-	+	-	-	-	-	+	-	-	-	+
Discus rotundatus (Müll.)	-	-	-	-	-	-	+	+	-	-	-	-	-	-	+	-	+
Nesovitrea hammonis (Ström)	-	-	-	-	-	-	-	-	+	-	-	-	-	-	+	-	+
Aegopinella nitidula (Drap.)	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-
Oxychilus cellarius (Ström)	-	-	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-
Clausilia bidentata (Ström)	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-
Trichia hispida gp.	6	12	+	++	++	+++	+	+++	+++	++	++	++	++	+	+	+	++
Total	21	29															

+ scarce, ++ moderately common, +++ abundant

Table 4a: **Early & Middle Iron Age Charred Plant Remains** (1 of 2)

		Total number of items									
	Sample	29/7	5000	5001	5002	5003	5004	5005	5006	5008	5009
	Context	29/75	5312	5503	5503	5470	5509	5321	5476	5702	5746
	Sample Volume (litres)	2	12	14	15	12	6	4	6	21	8
	Date	E-M IA	EIA	E or MIA	E or MIA	EIA	MIA	MIA	MIA	MIA	MIA
Cereal Grain											
Triticum spelta L.	spelt wheat	-	-	-	-	1	-	-	-	3	19
Triticum sp.	wheat	-	1	1	-	4	-	-	-	11	43
Triticum cf. *dicoccum* Shubl.	emmer	-	-	-	-	-	-	-	-	1	-
Hordeum sp.	hulled barley	-	1	-	2	1	4	-	-	3	2
Hordeum vulgare L.	6-row hulled barley	-	-	-	-	1	-	-	-	-	1
Hordeum sp.	barley	1	-	-	-	-	1	2	2	8	2
Avena sp.	oats	-	-	-	-	1	-	-	-	-	-
cf *Avena* sp.	oats	-	-	-	-	1	-	-	-	-	-
cereal indet.		-	2	1	1	32	7	6	1	64	121
Total Cereal Grain		1.00	4.00	2.00	3.00	41.00	12.00	8.00	3.00	90.00	188.00
Cereal Chaff											
Triticum spelta L. glume	spelt wheat	-	-	-	-	2	3	-	4	4	8
T. dicoccum Shubl. or *spelta* L. glume	emmer or spelt wheat	-	-	-	-	2	10	-	6	12	26
Hordeum sp. rachis	barley	-	-	-	-	-	-	-	-	-	1
Avena sp. awn	oats	-	-	-	-	-	-	-	1	1	-
Total Chaff (excluding awns)		-	-	-	-	4	13	-	10	16	35
Seeds of Other Crop or Collected Plants											
Corylus avellana L.	hazel	-	1	-	-	-	-	-	-	-	-
Weed Seeds											
Ranunculus cf. *acris* L.	buttercup	-	-	-	-	-	-	-	-	-	-
R. cf. *repens* L.	buttercup	-	-	-	-	-	-	-	-	1	-
Papaver rhoeas tp.	poppy	-	-	-	1	-	-	-	-	-	-
P. argemone L.	poppy	-	-	2	2	-	-	-	-	-	-
Fumaria sp.	fumitory	-	-	-	-	-	-	-	-	-	1
Brassica rapa L. ssp. *sylvestris* (L.) Jan.	wild turnip	-	-	-	-	-	-	-	-	-	1
Stellaria media gp.	chickweed	-	-	-	-	1	2	-	-	2	5
Montia fontana L. ssp. *chondrosperma* (Fenz.) Walt.	blinks	-	-	-	-	-	-	-	-	3	-
Chenopodium album L.	fat hen	-	-	-	-	1	2	-	-	3	4
Chenopodiaceae indet.		-	3	2	3	2	2	-	1	6	6
Atriplex sp.	orache	-	-	2	3	-	-	-	-	1	26
Malva sylvestris L.	common mallow	-	-	1	-	-	-	-	-	-	-
Malvaceae indet.	mallow	-	-	22	22	-	-	-	-	-	1
Vicia or *Lathyrus* sp.	vetch or tare	-	-	1	1	1	-	-	-	7	1
Medicago lupulina L.	black medick	-	-	2	3	-	-	-	-	-	-

Table 4a: **Early & Middle Iron Age Charred Plant Remains** (2 of 2)

		Total number of items									
	Sample	29/7	5000	5001	5002	5003	5004	5005	5006	5008	5009
	Context	29/75	5312	5503	5503	5470	5509	5321	5476	5702	5746
	Sample Volume (litres)	2	12	14	15	12	6	4	6	21	8
	Date	E-M IA	EIA	E or MIA	E or MIA	EIA	MIA	MIA	MIA	MIA	MIA
cf. *Medicago lupulina* L.	black medick	-	-	5	7	3	-	1	1	1	2
Trifolium sp.	clovers, trefoils	-	-	-	-	-	-	-	-	1	1
Potentilla sp.		-	-	-	-	-	-	-	-	-	-
Aphanes arvensis L.	parsley-piert	-	-	1	1	-	-	-	-	-	-
Euphorbia sp.	spurge	-	-	-	-	-	-	-	-	-	1
Polygonum aviculare agg.	knotgrass	-	-	-	-	-	1	-	1	1	6
P. persicaria L.	redshank	-	-	-	-	-	-	-	-	-	-
Fallopia convolvulus (L.) Löve	black bindweed	-	-	2	-	1	2	-	-	3	2
Rumex acetosella agg.	sheep's sorrel	-	-	1	-	-	-	-	-	-	-
Rumex sp.	dock	-	3	1	1	1	2	-	-	3	4
Urtica dioica L.	stinging nettle	-	-	-	-	1	-	-	-	-	-
cf. *Anagallis arvensis* L.	scarlet pimpernel	-	-	7	8	-	-	-	-	-	
Lithospermum arvense L.	corn gromwell	-	-	12	16	-	1	-	-	12	4
Hyoscyamus niger L.	henbane	-	-	-	-	1	1	-	-	-	1
Odontites verna (Bell.) Dum.	red bartsia	-	-	10	5	-	1	-	-	1	-
Plantago lanceolata L.	ribwort plantain	-	-	1	-	2	-	-	-	1	-
Sherardia arvensis L.	field madder	-	-	-	1	-	-	-	-	2	-
Galium aparine L.	goosegrass	-	-	7	7	1	1	-	2	2	2
Valerianella dentata (L.) Poll.	corn salad	-	-	-	-	-	-	-	-	-	-
Tripleurospermum inodorum (L.) Sch.	scentless mayweed	-	1	4	6	-	1	-	-	1	2
Arctium sp.	burdock	-	-	-	-	1	-	-	-	-	-
Carduus or *Cirsium* sp.	thistle	-	-	-	-	-	-	-	-	1	1
Juncus effusus gp.	rush	-	-	-	-	-	59	-	-	-	-
Eleocharis S. Palustres sp.	spike rush	-	-	-	-	5	2	-	1	14	1
Carex spp.	sedges	-	-	-	-	-	4	-	-	-	2
Gramineae indet.	grasses	-	1	2	1	3	1	1	3	3	3
Bromus cf. *secalinus* L.	brome	-	-	-	-	-	-	1	-	1	2
weed indet.		-	3	48	25	31	15	-	8	39	21
Total Weed Seeds		-	11	133	113	55	97	3	17	109	100
Average no of items per litre (excluding awns)		0.5	1.3	9.6	7.7	8.3	20.3	2.8	5.0	10.2	40.4

Table 4b: **Late Bronze Age and Early & Middle Iron Age Charred Plant Remains** (1 of 2)

		Total number of items									
	Sample	5012	5013	5014	5015	5017	5018	5019	5022	5023	5024
	Context	5824	5516	5227	6185	5553	5408	5645	5757	5524	5589
	Sample Volume (litres)	12	12	9	4	8	10	10	8	8	12
	Date	MIA	MIA	MIA	E or MIA	EIA	E or MIA	LBA	MIA	MIA	MIA
Cereal Grain											
Triticum spelta L.	spelt wheat	-	12	-	-	-	-	-	-	-	-
Triticum sp.	wheat	-	27	-	-	1	-	-	-	1	-
Triticum cf. *dicoccum* Shubl.	emmer	-	-	-	-	-	-	-	-	-	-
Hordeum sp.	hulled barley	1	2	-	-	-	-	-	-	-	-
Hordeum vulgare L.	6-row hulled barley	-	-	-	-	-	-	-	-	-	-
Hordeum sp.	barley	5	13	-	1	-	1	1	1	2	5
Avena sp.	oats	-	-	-	-	-	-	-	-	-	-
cf *Avena* sp.	oats	-	-	-	-	-	-	-	-	-	-
cereal indet.		22	76	3	-	-	1	3	4	-	9
Total Cereal Grain		28	130	3	1	1	2	4	5	3	14
Cereal Chaff											
Triticum spelta L. glume	spelt wheat	-	1	-	-	-	1	-	-	-	2
T. dicoccum Shubl. or *spelta* L. glume	emmer or spelt wheat	3	1	-	-	-	1	-	-	1	1
Hordeum sp. rachis	barley	-	-	-	-	-	-	-	-	-	-
Avena sp. awn	oats	2	1	-	-	-	-	-	-	-	-
Total Chaff (excluding awns)		3	2	-	-	-	2	-	-	1	3
Seeds of Other Crop or Collected Plants											
Corylus avellana L.	hazel	-	-	-	-	-	-	-	-	-	-
Weed Seeds											
Ranunculus cf. *acris* L.	buttercup	1	-	-	-	-	-	-	-	-	-
R. cf. *repens* L.	buttercup	-	-	-	-	-	-	-	-	-	-
Papaver rhoeas tp.	poppy	-	-	-	-	-	-	-	-	-	-
P. argemone L.	poppy	-	-	-	-	-	-	-	-	-	-
Fumaria sp.	fumitory	3	17	-	-	-	-	-	-	-	-
Brassica rapa L. ssp. *sylvestris* (L.) Jan.	wild turnip	-	-	-	-	-	-	-	-	-	-
Stellaria media gp.	chickweed	-	2	-	-	1	-	-	1	-	-
Montia fontana L. ssp. *chondrosperma* (Fenz.) Walt.	blinks	3	-	-	-	-	-	-	-	-	-
Chenopodium album L.	fat hen	2	5	-	-	-	1	-	-	-	-
Chenopodiaceae indet.		4	6	-	-	-	1	-	-	-	-
Atriplex sp.	orache	3	3	-	-	-	-	-	-	-	-
Malva sylvestris L.	common mallow	-	-	-	-	-	-	-	-	-	-
Malvaceae indet.	mallow	1	-	-	-	3	-	-	-	-	-
Vicia or *Lathyrus* sp.	vetch or tare	1	31	-	-	2	-	2	-	-	1
Medicago lupulina L.	black medick	-	-	-	-	-	-	-	-	-	-
cf. *Medicago lupulina* L.	black medick	-	8	1	-	-	-	1	-	-	2

Table 4b: **Late Bronze Age and Early & Middle Iron Age Charred Plant Remains** (2 of 2)

		Total number of items									
	Sample	5012	5013	5014	5015	5017	5018	5019	5022	5023	5024
	Context	5824	5516	5227	6185	5553	5408	5645	5757	5524	5589
	Sample Volume (litres)	12	12	9	4	8	10	10	8	8	12
	Date	MIA	MIA	MIA	E or MIA	EIA	E or MIA	LBA	MIA	MIA	MIA
cf. *Medicago lupulina* L.	black medick	-	8	1	-	-	-	1	-	-	2
Trifolium sp.	clovers, trefoils	2	-	-	-	-	-	-	-	-	-
Potentilla sp.		-	-	-	-	-	-	-	-	-	-
Aphanes arvensis L.	parsley-piert	-	-	-	-	-	-	-	-	-	-
Euphorbia sp.	spurge	-	-	-	-	-	-	-	-	-	-
Polygonum aviculare agg.	knotgrass	2	1	-	-	-	-	-	-	-	-
P. persicaria L.	redshank	-	-	-	-	-	-	-	-	-	-
Fallopia convolvulus (L.) Löve	black bindweed	3	3	-	-	-	1	-	-	-	-
Rumex acetosella agg.	sheep's sorrel	-	-	-	-	-	-	-	-	-	-
Rumex sp.	dock	1	20	-	-	-	-	1	-	1	1
Urtica dioica L.	stinging nettle	-	-	-	-	-	-	-	-	-	-
cf. *Anagallis arvensis* L.	scarlet pimpernel	-	-	-	-	-	-	-	-	-	-
Lithospermum arvense L.	corn gromwell	1	9	-	-	-	-	-	-	-	-
Hyoscyamus niger L.	henbane	-	-	-	-	-	-	-	-	-	-
Odontites verna (Bell.) Dum	red bartsia	3	12	1	-	1	-	1	1	1	-
Plantago lanceolata L.	ribwort plantain	-	-	-	-	-	-	-	-	-	-
Sherardia arvensis L.	field madder	-	1	-	-	-	-	-	-	-	-
Galium aparine L.	goosegrass	3	8	-	-	3	-	-	-	2	1
Valerianella dentata (L.) Poll.	corn salad	-	4	-	-	-	-	-	-	-	-
Tripleurospermum inodorum (L.) Sch.	scentless mayweed	1	3	-	-	1	-	-	-	-	-
Arctium sp.	burdock	-	-	-	-	-	-	-	-	-	-
Carduus or *Cirsium* sp.	thistle	-	-	-	-	-	-	-	-	-	-
Juncus effusus gp.	rush	-	-	-	-	-	-	-	-	-	-
Eleocharis S. Palustres sp.	spike rush	4	-	-	-	-	1	-	-	-	1
Carex spp.	sedges	2	-	-	-	-	-	-	-	-	-
Gramineae indet.	grasses	-	1	-	-	2	-	-	-	1	1
Bromus cf. *secalinus* L..	brome	-	-	-	-	-	-	-	1	-	-
weed indet.		15	22	1	-	15	-	4	1	1	4
Total Weed Seeds		55	156	3	-	28	4	9	4	6	11
Total no of items per litre excluding awns		7.2	24.0	0.7	0.3	3.6	0.8	1.3	1.1	1.3	2.3

Table 4c: **Early & Middle Iron Age Charred Plant Remains** (1 of 2)

		Total number of items									
	Sample	5025	5026	5030	5032	5036	5037	5039	5048	5049	5050
	Context	5555	5791	5901	5231	5922	5009	5265	5886	5310	6247
	Sample Volume (litres)	8	12	8	11	15	14	6	6	4	12
	Date	EIA	MIA	EIA	MIA	E or MIA	MIA	MIA	MIA	EIA	MIA
Cereal Grain											
Triticum spelta L.	spelt wheat	-	-	-	2	-	-	-	-	-	-
Triticum sp.	wheat	1	1	-	2	-	1	-	1	-	-
Triticum cf. *dicoccum* Shubl.	emmer	-	-	-	-	-	-	-	-	-	-
Hordeum sp.	hulled barley	2	-	-	-	-	1	3	-	-	-
Hordeum vulgare L.	6-row hulled barley	-	-	-	-	-	-	-	-	-	-
Hordeum sp.	barley	-	1	-	-	-	-	9	-	-	-
Avena sp.	oats	-	-	-	-	-	-	-	-	-	-
cf *Avena* sp.	oats	1	-	-	-	-	-	1	-	-	-
cereal indet.		10	5	6	13	8	12	15	4	2	3
Total Cereal Grain		14	7	6	17	8	14	28	5	2	3
Cereal Chaff											
Triticum spelta L. glume	spelt wheat	-	-	-	-	-	-	-	-	-	-
T. dicoccum Shubl. or *spelta* L. glume	emmer or spelt wheat	1	-	-	4	-	1	3	4	4	4
Hordeum sp. rachis	barley	-	-	-	-	-	-	-	-	1	-
Avena sp. awn	oats	-	-	-	1	-	1	-	-	-	1
Total Chaff (excluding awns)		1	-	-	4	-	1	3	4	5	4
Seeds of Other Crop or Collected Plants											
Corylus avellana L.	hazel	-	-	-	-	-	-	-	-	-	-
Weed Seeds											
Ranunculus cf. *acris* L.	buttercup	-	-	-	-	-	-	-	-	-	-
R. cf. *repens* L.	buttercup	-	-	-	-	-	-	-	-	-	-
Papaver rhoeas tp.	poppy	-	-	-	-	-	-	-	-	-	-
P. argemone L.	poppy	-	-	-	-	-	-	-	-	-	-
Fumaria sp.	fumitory	-	-	-	-	-	-	-	-	-	-
Brassica rapa L. ssp. *sylvestris* (L.) Jan.	wild turnip	-	-	-	-	-	-	-	-	-	-
Stellaria media gp.	chickweed	-	1	-	-	-	-	-	-	-	-
Montia fontana L. ssp. *chondrosperma* (Fenz.) Walt.	blinks	-	-	-	-	1	1	-	-	-	-
Chenopodium album L.	fat hen	-	-	-	-	-	-	-	-	-	-
Chenopodiaceae indet.		-	-	-	-	-	-	-	-	-	-
Atriplex sp.	orache	-	-	-	-	-	-	-	-	-	-
Malva sylvestris L.	common mallow	-	-	-	-	-	-	-	-	-	-
Malvaceae indet.	mallow	-	-	1	-	-	-	-	-	-	-
Vicia or *Lathyrus* sp.	vetch or tare	1	3	-	-	4	-	-	1	2	4
Medicago lupulina L.	black medick	-	-	-	-	-	-	-	-	-	-
cf. *Medicago lupulina* L.	black medick	1	-	-	-	-	4	-	1	-	-
Trifolium sp.	clovers, trefoils	-	-	-	-	-	1	-	-	-	-

Table 4c: **Early & Middle Iron Age Charred Plant Remains** (2 of 2)

		Total number of items									
	Sample	5025	5026	5030	5032	5036	5037	5039	5048	5049	5050
	Context	5555	5791	5901	5231	5922	5009	5265	5886	5310	6247
	Sample Volume (litres)	8	12	8	11	15	14	6	6	4	12
	Date	EIA	MIA	EIA	MIA	E or MIA	MIA	MIA	MIA	EIA	MIA
Potentilla sp.		-	-	-	1	-	-	-	-	-	-
Aphanes arvensis L.	parsley-piert	-	-	-	-	-	-	-	-	-	-
Euphorbia sp.	spurge	-	-	-	-	-	-	-	-	-	-
Polygonum aviculare agg.	knotgrass	-	-	-	-	-	-	-	-	-	-
P. persicaria L.	redshank	-	1	-	-	-	-	-	-	-	-
Fallopia convolvulus (L.) Löve	black bindweed	-	-	-	-	-	-	-	-	-	-
Rumex acetosella agg.	sheep's sorrel	-	-	-	-	-	-	-	-	-	-
Rumex sp.	dock	-	-	-	1	-	-	-	4	-	-
Urtica dioica L.	stinging nettle	-	-	-	1	-	-	-	-	-	-
cf. *Anagallis arvensis* L.	scarlet pimpernel	-	-	-	-	-	-	-	-	-	-
Lithospermum arvense L.	corn gromwell	-	-	-	-	-	-	-	-	-	-
Hyoscyamus niger L.	henbane	-	-	-	1	-	-	-	-	-	-
Odontites verna (Bell.) Dun.	red bartsia	-	-	-	2	-	-	-	1	-	-
Plantago lanceolata L.	ribwort plantain	-	-	-	-	-	-	-	-	-	-
Sherardia arvensis L.	field madder	-	-	-	-	-	-	-	-	-	-
Galium aparine L.	goosegrass	-	-	-	-	-	-	1	2	-	-
Valerianella dentata (L.) Poll.	corn salad	-	-	-	-	-	-	-	-	-	-
Tripleurospermum inodorum (L.) Sch.	scentless mayweed	-	-	-	-	1	-	-	-	-	-
Arctium sp.	burdock	-	-	-	-	-	-	-	-	-	-
Carduus or *Cirsium* sp.	thistle	-	-	-	-	-	-	-	-	-	-
Juncus effusus gp.	rush	-	-	-	-	-	-	-	-	-	-
Eleocharis S. *Palustres* sp.	spike rush	-	1	-	1	-	1	6	2	-	2
Carex spp.	sedges	-	-	-	-	-	-	-	3	-	-
Gramineae indet.	grasses	-	1	-	3	1	-	-	-	-	-
Bromus cf. *secalinus* L.	brome	-	-	-	1	-	-	1	-	-	1
weed indet.		1	-	-	10	7	2	6	4	-	1
Total Weed Seeds		3	7	1	21	14	9	14	18	2	8
Total no of items per litre (excluding awns)		2.3	1.2	0.9	3.8	1.5	1.7	7.5	4.5	2.3	1.3

Table 5: **Late Iron Age and Roman Charred Plant Remains**

		Total number of items							
	Sample	3002	3003	3004	3005	5031	5044	5045	5047
	Context	3265	3263	3266	3249	5179	6211	6233	5354
	Sample Volume (litres)	8	7	9	8	14	12	10	12
	Date	C2nd or med	Roman?	Roman?	Roman?	LIA	C1st	C1st	Mid C1st or later
Cereal Grain									
Triticum spelta L.	spelt wheat	-	-	-	-	-	-	-	1
Triticum sp.	wheat	-	-	1	1	1	-	-	1
Hordeum sp.	barley	-	-	-	-	-	3	2	3
cereal indet.		-	-	1	-	9	-	5	5
Total Cereal Grain		-	-	2	1	10	3	7	10
Cereal Chaff									
Triticum spelta L. glume	spelt wheat	-	-	-	-	3	1	-	-
T. dicoccum Shubl. or *spelta* L. glume	emmer or spelt wheat	-	-	-	-	6	-	5	7
Hordeum sp. rachis	barley	-	-	-	-	-	-	-	1
Total Chaff		-	-	-	-	9	1	5	8
Weed Seeds									
Ranunculus cf. *repens* L.	buttercup	-	-	-	-	-	-	-	1
Stellaria media gp.	chickweed	-	-	-	-	-	-	-	1
Montia fontana L. ssp. *chondrosperma* (Fenz.) Walt.	blinks	1	-	-	-	-	-	-	-
Malvaceae indet.	mallow	-	-	-	-	-	-	1	1
Vicia or *Lathyrus* sp.	vetch or tare	-	-	-	-	-	-	-	5
cf. *Medicago lupulina* L.	black medick	-	-	-	-	-	-	1	2
Fallopia convolvulus (L.) Löve	black bindweed	-	1	-	-	-	-	-	-
Rumex sp.	dock	-	-	-	-	-	-	1	-
Lithospermum arvense L.	corn gromwell	-	-	-	-	1	-	-	-
Solanum sp.	nightshade	1	-	-	-	-	-	-	-
Odontites verna (Bell.) Dum.	red bartsia	-	-	-	-	-	-	-	1
Galium aparine L.	goosegrass	-	-	-	-	3	-	-	-
Eleocharis S. *Palustres* sp.	spike rush	-	-	-	-	1	-	-	-
Carex spp.	sedges	1	-	-	-	-	-	-	1
weed indet.		-	-	1	-	5	-	5	5
Total Weed Seeds		3	1	1	-	10	-	8	17
Average no of items per litre		0.4	0.1	0.3	0.1	2.1	0.3	2.0	2.9

Appendix 6 Assessment report on the animal bones from the Abingdon Business Centre (ABBUS 94)

By Bob Wilson

All bones from this site have been examined and recorded in one way or another. However, the stage of site evaluation that the post-excavation work had reached at the time of the recording had not allocated many features containing bones to an overall stratigraphic phase or definite pottery date. Accordingly, for this bone assessment report, only data from features which were given confident pottery dates have been used in the calculation of results. Results were calculated for the numerous bones from 273 contexts of Trench 4 but not at this stage for the few bones of Trenches 2 and 3.

The outcome of tallying results by their fragment frequencies is given in Table 1. The sample sizes for each phase are small but probably will double in number as further feature analysis allocates other bone groups to an occupation phase and period. What results have been provided in the table, however, are probably typical of each phase in that most figures are based on small contributions from many features; in all 115 features of different type yielded 1731 normally collected fragments. Of these bones 46% were identified to species level, the bones being considerably fragmented by ancient and modern breakage.

Species represented in Table 1 are typical of Iron Age sites in the presence of the domesticated species and limited numbers of wild species. One probable goat horncore was identified among the Mid Iron Age sheep/goat bones. Two more occurred among the unassigned Iron Age bone groups as did possible wild boar (large ulna F6227), water vole, wood mouse and frog and a few bird bones among the Romano-British groups. Results of sieving indicate the presence of a few bird and fish bones which may have been missed in Iron Age deposits by normal excavation.

Sieving also indicates that the normal percentages of sheep bones are an under-representation of their actual numbers in deposits. Generally however, percentages of hard gathered species bones appear typical of Iron Age and Romano-British sites. There is a decline in the percentage of sheep over the two periods while cattle and horse percentages increase during the Roman period. The latter may be explained by Romano-British cultural changes or by differences among features of different type, the Romano-British ditches tending to contain coarser debris. Spatial considerations may also be significant in this distribution (Wilson 1994).

Other items of interest recorded include two cattle craniums (F5368 and F5822), a cattle cranium and articulated forelimb (F5745), a horse cranium (F5922), articulated vertebrae of horse (F5781), and remains of a dog skeleton (F5844).

Mandible tooth eruption and wear and epiphyseal fusion data, pathological evidence, and bone measurements were recorded where it was felt they would add useful information, e.g. of age and sex, to the bone reports of the Ashville Trading Estate (Wilson, Hamilton, Bramwell, and Armitage 1978). For example, there is now evidence of half-grown Iron Age horses being killed in the area whereas these were scarcely indicated by the Ashville evidence. It will not take much work to progress from the recorded data to similar conclusions about other animals in the final report.

References

Wilson R. 1994 `Projects modelling the spatial patterning of bones', in R. Luff and P. Rowley-Conwy (eds.), *Whither environmental archaeology?*, Oxbow Monograph 38, 57-66.

Wilson R., Hamilton J., Bramwell D. and Armitage P. 1978, Bone reports in M. Parrington, *The excavation of an Iron Age settlement... at Ashville Trading Estate, Abingdon (Oxfordshire) 1974-76*, CBA Research Report 28, 110-139.

Table 1 Fragment frequency in selected bone groups from the Abingdon Business Centre site

Handpicked bone collections				Sieved bones					
Period	EIA	E-MIA		Mid IA		ER-B		Iron Age	
No. of features contributing	5	23		73		14		43	
	f	f	%	f	%	f	%	f	%
Cattle	-	22	42	207	38	96	49	6	13
Sheep/goat	2	23	44	255	46	57	29	33	72
Pig	2	2	4	27	5	11	6	2	4
Horse	-	4	8	46	8	23	12	2	4
Dog	-	1	2	22	4	6	3	-	-
Red deer	-	-	-	2A	-	-	-	-	-
Water vole	-	-	-	-	-	-	-	1	2
Bird	-	-	-	-	-	1	1	1	2
Fish	-	-	-	-	-	-	-	1	2
Subtotal	4	52		548+ 2A		194		46	
Unidentified	7	74		662		190		615	
Total	11	126		1210+ 2A		384		661	

Appendix 7 Human Bone Assessment

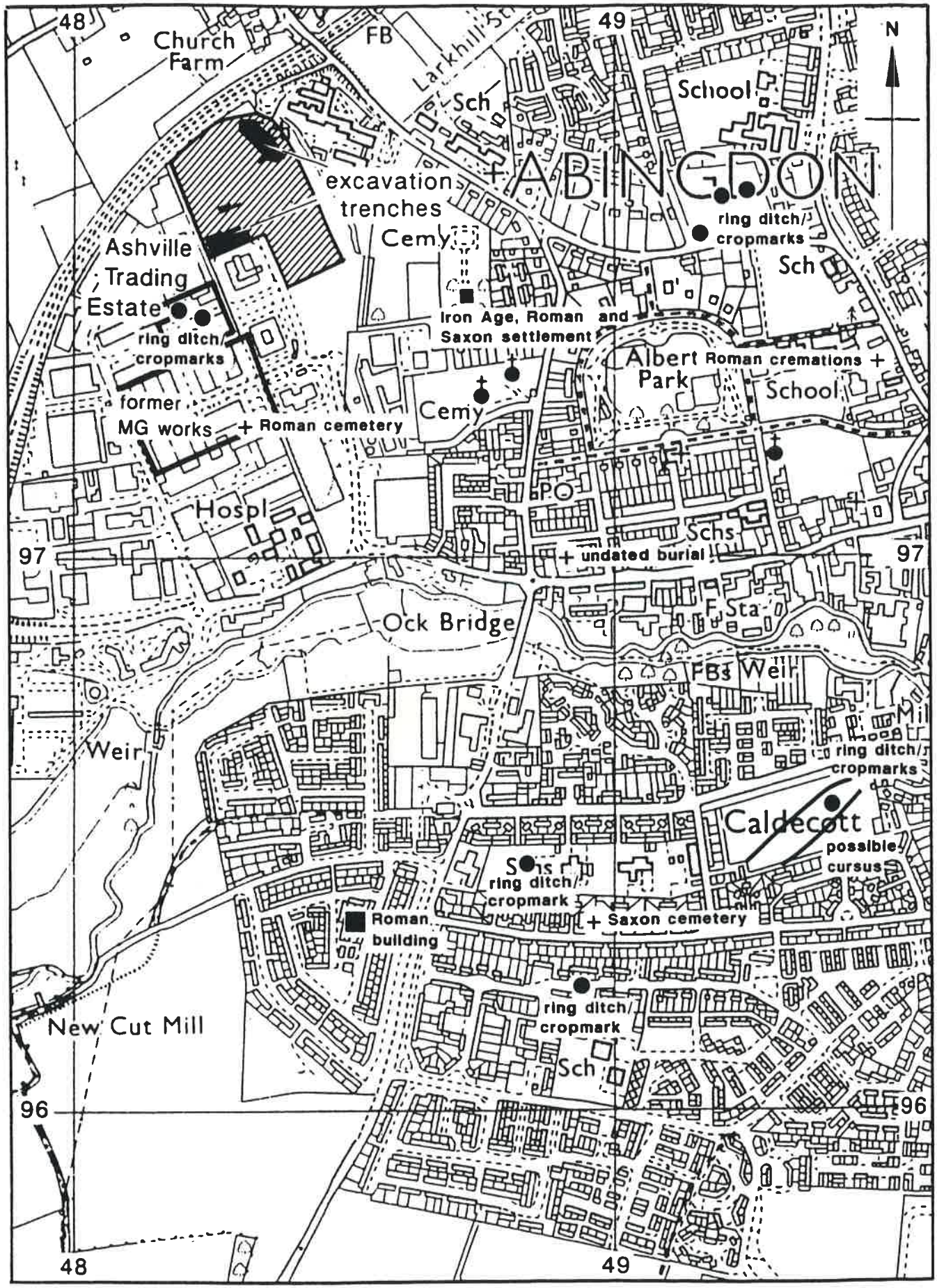
by Angela Boyle

Three fragments of human bone were originally misidentified as animal bone. All are skull fragments although they derive from separate contexts.

Context 5139: a single skull fragment from the fill of an undated ditch. The bone is a parietal fragment (left posterior?) from am adult? Wormian bone is possibly present. The broken edges are completely unworn.

Context 5434: a single skull fragment from an undated pit or posthole. The bone id=s a parietal fragment from and adult; the broken edges are completely unworn.

Context 5569: a single skull fragment was recovered from the fill of a large early Iron Age pit. The bone is an occipital fragment from and adult; the broken edges are completely unworn.



Based on the Ordnance Survey's 1:25000 map of 1992 with the permission of the Controller of Her Majesty's Stationery Office, © Crown copyright

scale 1:10000

site location

Figure 1

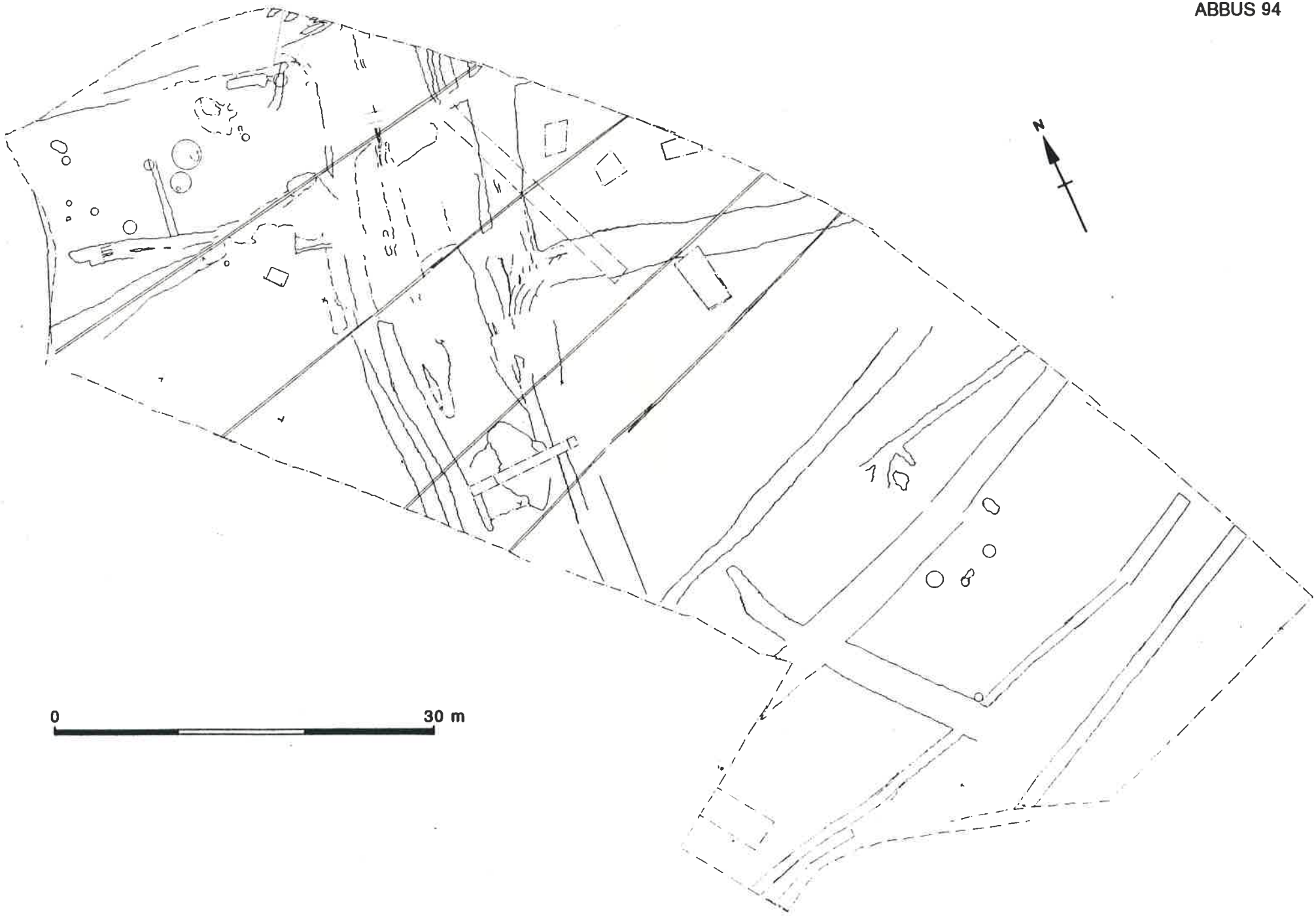


Fig. 2: Trench 32; plan of all features

Fig. 3: Trench 33; plan of all features

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