

LITTLETON DREW-CHIPPENHAM GAS PIPELINE,
WILTSHIRE

ARCHAEOLOGICAL EXCAVATIONS AND
WATCHING BRIEF

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GLOSSARY

ARCHAEOLOGY

For the purposes of this project, archaeology is taken to mean the study of past human societies through their material remains, from prehistoric times to the modern era. No rigid upper date limit has been set, but AD 1900 is used as a general cut-off point.

BRONZE AGE

Chronological division of the prehistoric period, which sees the introduction of copper and eventual widespread adoption of bronze weapons, implements, jewellery etc. In Britain it is dated between c2300 BC-700 BC.

CROPMARK

A trace of a buried feature revealed by differential growth of crops, best seen from the air.

DAUB

Mud or clay mixed with dung, hair, etc, often used to weatherproof wattle panels of buildings, or build structures such as ovens.

IRON AGE

The first period in which iron was the predominant metal. In Britain it is dated between c700 BC to the Roman conquest in AD 43.

MEDIEVAL

Taken here as the period from the Norman invasion in AD 1066 to approximately AD 1500.

MESOLITHIC

A chronological division within the post-Glacial prehistoric period in which hunter-gathering formed the basis of economy. Settlement patterns are not well understood but may have taken the form of intermittently occupied, perhaps seasonal, camping sites. The material culture is represented by a range of flint-work, particularly *microliths*, bone and antler work and organic materials. The period is dated between c10,000 BC and 3500 BC.

MICROLITHS

Very small worked flint flakes and blades, commonly used throughout the Mesolithic period.

NATURAL

Defined in archaeological terms this refers to the undisturbed natural geology of a site, e.g. Lower Lias clay, river terrace gravels etc.

NEOLITHIC

A chronological division of the prehistoric period during which agriculture and domesticated animals are introduced to Britain. It is dated between c4500 BC - 2000 BC.

NGR

National Grid Reference given from the Ordnance Survey Grid.

OD

Ordnance Datum; used to express a given height above mean sea level.

PRN

Principal Record Number (used for entries on the County SMR)

RING-DITCH

A ditch of circular or pennanular plan, usually surviving as a cropmark and often representing the remains of ploughed barrows of Bronze Age date.

ROMANO-BRITISH

Term used to describe a fusion of indigenous late Iron Age traditions with Roman culture, often abbreviated as 'R-B.'

SETTLEMENT

An area of habitation, perhaps surrounded by associated closes, paddocks, approach ways and other features which together constitute a complex of earthworks or cropmarks distinct from fields. or an old map. Any of these may reveal certain archaeological features (pits, ditches, etc) which can be classed as components, but not monuments.

SMR

Sites and Monument Record.

SUMMARY

In May 1997 Cotswold Archaeological Trust was commissioned by Transco to undertake an archaeological watching brief along the route of the Littleton Drew-Chippenham gas pipeline. The pipeline ran for a distance of approximately 12km, through a landscape of proven archaeological interest, including the Fosse Way (Area A), a Mesolithic flint scatter (Area B) and a cropmark complex previously identified from aerial photography (Area C). Contingency was made for more detailed investigation in the event of the discovery of significant archaeological deposits during the watching brief. Seven sites (Areas A to F) of archaeological interest were recorded during the programme of archaeological work.

At Area A, (ST 8397 7937) two ditches presumed to represent the Romano-British roadside ditches of the Fosse Way were revealed.

At Area B, (ST 8880 7653) two undated pits and a post-medieval field boundary were recorded. A Romano-British copper alloy disc brooch was retrieved from the ploughsoil.

Excavation undertaken within Area C, centred on ST 8982 7656, revealed the presence of early to middle Iron Age and Romano-British activity. The preliminary results of the excavation have also helped date some of the known linear cropmarks previously identified within the study area.

At Area D, (ST 8492 7868) two pits, one containing a sherd of second to third-century pottery, and a small flint scatter were identified within a 40m section of the pipeline route.

A rapid response excavation at Area E, centred on ST 8790 7998, revealed an hitherto unknown area of dense Romano-British activity. Preliminary analysis of the artefactual evidence suggests activity spans the Romano-British period from the first to fourth century, with a noticeable concentration of activity within the second to third

centuries. The evidence is indicative of contemporary settlement within the immediate vicinity.

At Area F an Iron Age boundary ditch was revealed at ST 8771 7716.

In Area G, a bowl shaped pit, suggestive of in-situ smithing activity, was revealed at ST 8676 7752.

1. INTRODUCTION

1.1 Introduction

1.1.1 This report presents the results of an archaeological watching brief and associated excavations carried out between July and September 1997 along the route of the Littleton Drew to Chippenham gas pipeline, Wiltshire (ST 8335 7950 to ST 9100 7655).

1.1.2 The work was commissioned by Transco as part of its environmental policy.

1.2 Geology and Topography

1.2.1 The pipeline crosses the predominantly limestone geology of the Cotswold dipslope, and largely comprises middle Jurassic Great Oolite and Cornbrash. Middle Jurassic Forest Marble clays and upper Jurassic Kellaways Clay, associated with the North Wiltshire Clay Vale, are more prevalent at the south-east extent of the scheme.

1.2.2 The route of the pipeline traverses a landscape dominated by arable farmland. Topographically it consists of gently undulating ground along the north-west part of the route, becoming more uniform 3.5km towards the south-eastern end of the pipeline route. At its north-western extent the pipeline lies at approximately 130m OD, the south-eastern end lies at approximately 90m OD.

1.3 Archaeological background

1.3.1 Within the Chippenham environs, evidence has been recorded indicating occupation and activity from the earliest prehistoric period up to the present

day (Fig. 1). However, the lack of research frameworks concerning the development of the local archaeological landscape prohibits placing such findings within an established chronological setting.

1.3.2 Prehistoric activity is attested by the increasing number of lithic scatters (Tucker 1985) and funerary monuments identified within the immediate hinterland of the study area. However, evidence of contemporary settlement within the area remains poor.

1.3.3. Iron Age and Romano-British activity is concentrated to the west of the pipeline upon the Cotswold dipslope. Iron Age settlement is dominated by Bury Camp hillfort (Wiltshire SAM 130), although isolated findspots of Iron Age pottery have also been recorded, most commonly associated with Romano-British settlement. The spatial distribution of Romano-British settlement activity within the general area is polarised towards the Fosse Way (PRN 300), the major Roman road linking Exeter to Lincoln. A roadside settlement at Nettleton Shrub (Wiltshire SAM 311, PRN 302) containing twenty six buildings, a temple and cemetery was excavated between 1938 and 1967 (Wedlake 1982). A villa complex and associated cemetery was excavated at Truckle Hill, North Wraxall, in 1859-60. The villa measured c55m by 11m, and contained sixteen rooms and baths. Four inhumations were revealed c50m west of the building (Scott 1993).

1.3.4 No sub-Roman or Anglo-Saxon activity is recorded within the immediate vicinity of the pipeline, although the excavation of a Saxon sunken-featured building to the south-west of Chippenham (NGR ST 898 727) suggests contemporary occupation in the area (Anon 1991).

1.3.5 The pipeline route passes through three previously known archaeological sites. At ST 8397 7937 it crosses a section of the Fosse Way (PRN 300) which runs between Cirencester (*Corinium*) to the north-east and Bath (*Aqua Sulis*) to the south-west. At Down Farm, Heywood, (ST 8880 7653) the route

of the pipeline crosses an area where an assemblage of early prehistoric flints has been previously been found (PRN 052). The lithic material includes flint cores, scrapers, blades and flakes from the Mesolithic period. At Lodge Farm, Heywood, the pipeline route intersects an area of cropmark features previously identified from aerial photographic evidence (PRN 625). The cropmarks, centred on ST 8982 7656, include ring ditches, linear features, a D-shaped enclosure and a possible Romano-British building. Archaeological fieldwalking and excavation immediately south of the cropmarks complex recovered Romano-British pottery and tile (PRN 301 and 304).

- 1.3.6 Other archaeological sites within close proximity to the pipeline route include a probable long barrow at Green Barrow Farm (PRN 600) (ST 8545 7782), which is no longer extant, having been levelled in 1852; and an undated semi-circular enclosure (PRN 606) north of Park Farm at ST 8650 7810.

1.4 *Archaeological Specification and Methods*

- 1.4.1 An archaeological specification issued by CAT to record the archaeological potential of the study area was approved by Mr D. Coe of Wiltshire County Council Archaeological Service. The specification was issued in response to an archaeological brief issued by Wiltshire County Council Archaeological Service, which had proposed the investigation of the three previously identified archaeological areas in advance of the main phase of construction. Secondly, a watching brief to be maintained during all intrusive groundwork along the pipeline corridor, with further contingency for excavation in the event that significant archaeological deposits were encountered.
- 1.4.2 The objectives of the archaeological recording were:
- (i) to observe any operations that may disturb or destroy archaeological deposits.

- (ii) to investigate the presence/absence, nature, extent, character, date, and preservation of any buried archaeological remains.

Contractors Working Methods

- 1.4.3 A fenced wayleave, approximately 15m in width was established throughout the route of the pipeline. Within the wayleave a narrow strip of topsoil, approximately 3m in width, was mechanically stripped prior to the excavation of the trench for the 355mm gas pipe.

Archaeological Methodologies

- 1.4.3 The field methodologies employed during the programme of archaeological recording were:

Advanced Excavations

- 1.4.4 The three identified archaeological areas (Areas A, B, and C) were excavated by mechanical excavator equipped with a toothless grading bucket. All machining was carried out under archaeological supervision to the top of the first significant archaeological horizon or the top of the natural substrate, whichever was encountered first. The locations of the excavation areas are illustrated on Fig. 1.

Area A: 100m either side of the Fosse Way (PRN 300)

Area B: 400m, centred on the area of the flint scatter (PRN 052)

Area C: 500m through the area of the cropmark complex (PRN 625)

- 1.4.5 Sufficient hand cleaning was undertaken to define the presence and extent of archaeological deposits, and to allow the compilation of a site plan. A site meeting was held with Mr D. Coe, Wiltshire County Council Archaeological Service and representatives from Transco, to determine the extent and nature

of any further works. It was agreed that archaeological excavation should continue by hand within Area C, the cropmark complex, but the limited archaeological evidence identified within Areas A and B could be investigated without recourse to full-scale excavation. All fieldwork was undertaken in accordance with the *Standard and Guidance for Archaeological Excavations* issued by the Institute of Field Archaeologists (IFA). All archaeological deposits were recorded in accordance with CAT Technical Manual 1 *Field Recording Manual* (1996). All artefacts recovered were catalogued and analysed in accordance with CAT Technical Manual 3 *Treatment of Finds Immediately after Excavation* (1995). Particular emphasis was given to potentially datable artefacts such as pottery. A full written, drawn and photographic record was kept during the programme of works.

The Watching Brief

- 1.4.6 All intrusive groundwork along the pipeline route was monitored for the presence of archaeological deposits. If archaeological features were revealed during topsoil stripping they were hand excavated and recorded in plan. Features identified during the machine excavation of the pipe trench were recorded in section only. All work was undertaken in accordance with the IFA *Standard and Guidance for Archaeological Watching Briefs* (1994) and CAT Technical Manual 1 *Field Recording Manual* (1996). A full written, drawn and photographic record was kept during the programme of works

Rapid Response Excavation

- 1.4.7 In the event that significant archaeological deposits were encountered during the course of the watching brief, contingency was made for the recording of the deposits. One significant site, Area E centred on NGR ST 8790 7998, was identified and after consultation with Mr D. Coe, Wiltshire County Council Archaeological Service and representatives from Transco, was subsequently excavated.

- 1.4.8 The excavation utilised the same methodologies as outlined in 1.4.5.
- 1.4.9 The finds and site archive from all phases of the archaeological mitigation works will, subject to agreement with the legal landowners, be deposited with Devizes Museum.

1.5 *Presentation of results*

- 1.5.1 The results of the archaeological recording undertaken during the course of the project are described below in the following manner. Within chapter 2, the excavation at Area C is discussed. Chapter 3 discusses the contingency excavations undertaken at Area E. Chapter 4 discusses the results of the watching brief undertaken throughout the remainder of the pipeline. An overview of the findings from the whole pipeline is presented within chapter 5.

2 THE EXCAVATIONS AT AREA C

2.1 *General*

2.1.1 Area C, centred on ST 8982 7656, was excavated in an area of known archaeological significance. Aerial photographic evidence had revealed the presence of undated cropmarks (PRN 625), and previous fieldwork had recovered Romano-British pottery and tile (PRN 301 and 304) from the general area (see 1.3.8) (Fig. 2). An area totalling 510m in length by 1.8m in width, was machine stripped to the top of the natural substrate, with archaeological excavation continuing by hand thereafter.

2.1.2 The site is located on gently undulating agricultural land, ranging from 104.45m OD at the western extent of the study area to 99.61m OD at its eastern limit. The underlying geology consists of middle Jurassic Cornbrash.

2.2 *Results of the Excavation*

Early to Middle Iron Age

2.2.1 Ditches [542] and [536] were revealed at the eastern extent of the study area and represent the earliest phase of activity identified during the excavation. Ditch [542] was orientated north to south, measured 0.64m in width and was fully excavated to a depth of 0.33m. It contained red-brown silty clay fill (543) from which 9 sherds of Early Iron Age pottery and three fragments of animal bone were retrieved.

2.2.2 Ditch [536] was orientated north-east to south-west, measured 1.8m in width and was fully excavated to a depth of 0.8m. It contained three fills; a yellow brown silty clay primary fill (539); red-brown silty clay secondary fill (538)

from which 11 sherds of early to middle Iron Age pottery, a fragment of daub, and 26 fragments of animal bone were retrieved; and grey-brown silty clay tertiary fill (537).

Romano-British

2.2.3 The earliest identified Romano-British feature was ditch [503]. It was orientated north-east to south-west, measured 0.7m in width and was fully excavated to a depth of 0.11m. It contained red-brown silty clay fill (504) from which 9 sherds of first to second-century pottery and 4 fragments of animal bone were retrieved.

2.2.4 Feature [512] was revealed 240m from the western limit of the study area. It was aligned north to south, measured 2m in width and was fully excavated to a depth of 0.92m. A stonelined and capped culvert (515) was revealed at the base of the feature. It comprised coursed but unbonded limestone blocks and incorporated a flat limestone capstone. It measured 0.86m in width and 0.26m in height. The culvert was sealed by blue-green clay (514), in turn overlain by red-brown silty clay fill (516). Five sherds of second-century pottery were retrieved from tertiary fill (513).

2.2.5 Fifty metres east of culvert [512], pit or ditch terminus [530] was revealed. It measured at least 1.2m in length, 0.8m in width and was fully excavated to a depth of 0.2m. It contained green-grey silty clay fill (531) from which 21 sherds of second-century pottery, 16 fragments of daub, 9 fragments of animal bone and 1 worked flint flake were retrieved.

2.2.6 Ditch [562] was orientated north-east to south-west. It measured at least 2.3m in width and was fully excavated to a depth of 0.78m. It contained grey-brown silty clay fill (563) from which 1 sherd of pottery, broadly dated as Romano-British and 9 fragments of animal bone were retrieved. It had been recut by ditch [565].

- 2.2.7 Ditch [562] measured at least 0.5m in width and survived to a depth of 0.3m. No artefactual material was retrieved from grey-brown silty clay fill (564). It had subsequently been recut by ditch [524].
- 2.2.8 Ditch [524] measured 1.86m in width and was fully excavated to a depth of 0.72m. It contained three distinct fills; a grey-black silty clay primary fill (527) from which 1 sherd of pottery broadly dated as Romano-British was retrieved; a weathering/tipline (526); and grey-brown tertiary fill (525) from which 3 sherds of second to third-century pottery and 17 fragments of animal bone were retrieved.
- 2.2.9 Feature [520] was revealed 5m west of ditch [524]. The feature was not fully contained within the area of excavation. It measured at least 1.5m in length, 2.2m in width and was fully excavated to a depth of 0.56m. It contained yellow-brown silty clay primary fill (523); yellow-brown clay secondary fill (522) from which 3 sherds of second-century pottery and 3 fragments of animal bone were retrieved; and grey-brown tertiary fill (521) from which 11 sherds of second to third-century pottery, 15 fragments of animal bone and 1 intrusive fragment of modern glass were retrieved.
- 2.2.10 Pit [510] was revealed 6m west of culvert [512]. It measured at 0.7m in diameter and was fully excavated to a depth of 0.5m. It contained grey-brown silty clay fill (511) from which 3 sherds of pottery, broadly dated as Romano-British, and 1 fragment of animal bone were retrieved.

Post-medieval/ Modern

- 2.2.11 One feature, posthole [557], can be dated as post-medieval or modern in origin. It was subcircular in plan, measuring 0.48m in diameter, and was fully excavated to a depth of 0.23m. It contained grey-brown silty clay primary fill (559) from which 1 fragment of clay tobacco pipe, two pieces of slag and 1

residual sherd of Early to Middle Iron Age pottery were recovered. No artefactual material was retrieved from secondary fill (558).

Undated

- 2.2.12 Ditch [540] was revealed 50m from the eastern extent of the study area. It was orientated north to south, measured 3.26m in width and was fully excavated to a depth of 0.22m. No artefactual was retrieved from red-brown silty clay fill (541).
- 2.2.13 Ditch [528] was revealed 120m from the eastern extent of the site. It was orientated north-west to south-east, measured 2.1m in width and was fully excavated to a depth of 0.74m. It contained grey-brown silty clay fill (529) from which 30 fragments of animal bone were retrieved.
- 2.2.14 Ditch [534] was revealed 50m west of ditch [528]. It was orientated approximately east to west with a southerly return at its eastern extent. It measured at least 14.5m in length, 0.61m in width and was fully excavated to a depth of 0.28m. No artefactual material was retrieved from grey-brown silty clay fill (535). The ditch cut pit/posthole [547].
- 2.2.15 Pit/posthole [547] was subcircular in plan. It measured at least 0.45m in diameter and was excavated to a depth of 0.08m. It contained grey-brown silty clay fill (548), from which no artefactual material was retrieved.
- 2.2.16 Subcircular pit [549] was revealed immediately south of feature [547]. It measured 1.14m in diameter and was fully excavated to a depth of 0.11m. No artefactual material was retrieved from grey-brown silty clay fill (550).

- 2.2.17 Subcircular pit [551] was revealed 0.3m west of pit [549]. It measured 0.85m in diameter and was fully excavated to a depth of 0.11m. No artefactual material was retrieved from grey-brown silty clay fill (552).
- 2.2.18 Feature [553] was revealed 0.5m west of pit [551]. The feature was not fully contained within the area of excavation. It measured at least 1.4m in length, 1.17m in width and was fully excavated to a depth of 0.2m. No artefactual material was retrieved from grey-brown silty clay fill (554).
- 2.2.19 Ditch [560] was revealed 220m from the eastern extent of the study area. It was orientated north-west to south-east, measured 1.1m in width and was fully excavated to a depth of 0.25m. No artefactual material was retrieved from green-brown silty clay fill (561). The eastern edge of the ditch had been partially truncated by a modern field drain.
- 2.2.20 Gully [532] was revealed 0.5m west of, and was broadly parallel with ditch [560]. It measured 0.5m in width and was fully excavated to a depth of 0.3m. No artefactual material was retrieved from green-brown silty clay fill (533).
- 2.2.21 Ditch [544] was revealed 2.5m west of gully [532]. It was orientated north to south, measured 1.9m in width and was fully excavated to a depth of 0.28m. No artefactual material was retrieved from red-brown silty clay fill (546).
- 2.2.22 Posthole [517] was oval in plan. It measured 0.6m in length, 0.45m in width, and was fully excavated to a depth of 0.3m. It contained yellow-brown silty clay primary fill (519), and mid-brown silty clay fill (518) from which no artefactual material was retrieved.
- 2.2.23 Ditches [505] and [507] were revealed 220m from the western extent of the study area. Due to the similarity of fills, the stratigraphic relationship between the features was not resolved. Ditch [505] was orientated north-west to south-east, measured at least 1.1m in width and was fully excavated to a

depth of 0.33m. No artefactual material was retrieved from mid-brown silty clay fill (518). Ditch [507] was orientated north to south. It measured at least 1.2m in width and was fully excavated to a depth of 0.54m. It contained a grey-brown silty clay primary fill (509), and mid-brown silty clay secondary fill (508). No artefactual material was retrieved from the feature.

2.3 *Discussion*

2.3.1 The excavation within Area C has revealed the presence of Early to Middle Iron Age and Romano-British activity. The strong correlation between the excavated features and the aerial photographic transcription has enabled the provisional dating of a number of components of the previously identified cropmark complex.

Early to Middle Iron Age

2.3.2 Ditches [536] and [542] correlate closely with linear cropmarks previously identified at the eastern extent of the study area, which may now be interpreted as Early and Middle Iron Age ditches respectively. Aerial photographic evidence suggests ditch [536] may represent an antenna ditch associated with the D shaped enclosure previously identified 65m south of the pipeline. Such an association would allow the enclosure to be broadly interpreted as a Middle Iron Age enclosed settlement.

Romano-British

2.3.3 Artefactual evidence retrieved from the Romano-British deposits encountered across the study area suggests activity is concentrated in the second to third century, although the pottery retrieved from ditch [503] may hint at earlier,

first-century activity. Ditches [503], [505/507] and [524/562] correlate closely with the alignment of known cropmarks.

2.3.4 Ditch [503] correlates with the alignment of a north-east to south-west orientated cropmark, which may now be provisionally dated as first to second-century in origin. Interpretation of the cropmark remains limited, although its possible association with undated ditch [534] may suggest it represents the northern alignment of a Romano-British agricultural enclosure or paddock. Such an interpretation would suggest that the undated shallow pits [549], [551] and possibly [553], which respect the alignment of this postulated enclosure, are broadly contemporary in date.

2.3.5 Ditch [507] and stonelined culvert [512] correlate closely with the alignment of previously identified linear cropmarks, and represent the western limit of activity identified from both the aerial photographic evidence and the excavation. Artefactual material retrieved from culvert [512] might indicate that the cropmarks are second century in origin, although its close proximity to a similarly aligned redundant field boundary may suggest the pottery is residual. However, it is worth noting that no evidence of the contemporary east to west aligned post-medieval field boundary, also visible from aerial photographic evidence, was revealed during the excavation.

2.3.6 The quality of dressed limestone utilised within the construction of the culvert, in conjunction with the deliberate sealing of the structure with non-local, and therefore presumably imported blue-green clay (514), suggests it was designed to carry a water supply rather than function as a land drain. The alignment of the culvert suggests it is associated with an amorphous depression, measuring approximately 20m in length by 15m in width, visible 15m north of the pipeline. The depression may represent an infilled water source subsequently channelled towards the area of contemporary settlement. Such an hypothesis would suggest the area of occupation lies to the south-west of the study area.

- 2.3.7 Ditch [562] correlates with the projected alignment of a cropmark, which may now be broadly interpreted as a second to third-century agricultural boundary. The two phases of recuts within this ditch alignment suggests continuity in both the use and function of this boundary.
- 2.3.8 Interpretation of pits [520] and [530] is limited, although the moderate quantity of daub retrieved from the features reinforces the hypothesis of occupation within the immediate vicinity.
- 2.3.9 The restrictive nature of the excavation precludes detailed interpretation of the remaining archaeological features, and consequently of the contemporary landuse within the immediate vicinity.

Undated

- 2.3.10 Ditches [528], [544], and [560] are the only significant archaeological features that remain undated. Although the ditches correlate closely with known cropmark alignments, the paucity of datable artefactual material retrieved from the features prohibits their interpretation.

3. THE EXCAVATION AT AREA E

3.1. *General*

3.1.1 Area E, centred on ST 8790 7998, was initially revealed during the watching brief. It quickly became apparent that the significant archaeological deposits could not be recorded in tandem with the construction of the pipeline. A site meeting held with Mr D. Coe, Wiltshire County Council Archaeological Service and representatives from Transco agreed that contingency archaeological recording should be implemented. This comprised the recording and planning of all features exposed within the wayleave, and the excavation of features affected by the cutting of the pipe trench. An area totalling 220m in length by 6m in width was machine stripped to the top of the natural substrate, with archaeological excavation continuing by hand (Fig.3).

3.1.2 The site is located on a moderately sloping agricultural land, ranging from 120.5m OD to 117m OD. The underlying geology consists of middle Jurassic Cornbrash and Forest Marble clay.

3.2 *Results of the Excavation*

First century

3.2.1 Ditches [5013] and [5064] represent the earliest phase of activity identified, and may be broadly assigned to the first century AD. Ditch [5013] measured at least 14m in length, 0.55m in width, and was fully excavated to a depth of 0.18m. A terminus was noted at its north-western limit. It contained orange-grey clay fill (5014), from which 4 sherds of first-century pottery were retrieved.

- 3.2.2 Ditch [5064] was revealed 30m north-west of [5013]. It was orientated approximately east to west, measured 1m in width and was fully excavated to a depth of 0.55m. It contained yellow-brown silty clay fill from which 9 sherds of first-century pottery were retrieved, and was cut by ditch [5092].

Second century

- 3.2.3 Ditch [5092] measured 1.92m in width and was fully excavated to a depth of 1.12m. It contained primary fill (5095), secondary fill (5094), and tertiary fill (5093). Four sherds of second-century pottery were retrieved from fill (5093). Its relationship with ditch [5032] and adjacent pit [5100] remains undetermined due to the similarity of their respective fills.
- 3.2.4 Ditch [5032] measured at least 1.5m in width, and was fully excavated to a depth of 0.55m. No artefactual material was retrieved from yellow-brown silty clay fill (5031). It was cut by ditch [5025].
- 3.2.5 Ditch [5025] measured 3m in width and was fully excavated to a depth of 0.9m. It contained yellow-brown silty clay primary fill (5024), and a mottled yellow-brown secondary fill (5023), from which 11 sherds of second-century pottery were retrieved.
- 3.2.6 Ditch [5009] was revealed 18m south-east of ditch [5025]. It measured 1m in width and was fully excavated to a depth of 0.4m. It contained grey-brown silty clay fill (5010) from which 10 sherds of early to mid second-century pottery were retrieved. Three postholes were revealed 3m north-west of the ditch.
- 3.2.7 Posthole [5004] measured 0.48m in diameter and was fully excavated to a depth of 0.09m. It contained yellow-brown silty clay fill (5003) from which 11 sherds of second-century pottery were retrieved.

- 3.2.8 Posthole [5008] measured 0.52m in diameter and was fully excavated to a depth of 0.25m. It contained yellow-brown silty clay fill (5007) from which 7 sherds of early to mid second-century pottery were retrieved.
- 3.2.9 Posthole [5006] measured 0.42m in diameter and was fully excavated to a depth of 0.11m. No artefactual material was retrieved from yellow-brown silty clay fill (5005).
- 3.2.10 Gully [5011] was revealed 3m south-east of ditch [5009]. It measured 0.3m in width and was fully excavated to a depth of 0.06m. It contained grey-brown silty clay fill (5012), from which 15 sherds of second-century pottery were retrieved.
- 3.2.11 Subrectangular pit [5015] was revealed 16m south-east of ditch [5009]. The semi-articulated remains of at least two animals were recovered along with 8 sherds of second-century pottery from grey-brown silty fill (5016). The animals comprised a mature sheep or goat, and an immature sheep. The animals appear to have been deliberately buried rather than being the products of casual discard (see Appendix 3).

Second to early fourth century

- 3.2.12 Approximately 50% of a subsquare well, [5066], was revealed. It measured 4m in width at the top, giving way to a 1.1m wide vertical shaft, and was excavated to a depth of 1m. No evidence for a lining survived. Primary fill (5068) formed the well shaft and contained 4 second to third-century pottery sherds. The well shaft was infilled by green-grey silty clay (5067), from which no artefactual material was retrieved. The uppermost fill of the well, (5072), comprised an homogenous grey-brown silty clay from which 12 sherds of late third to early fourth-century pottery were retrieved.

- 3.2.13 Subcircular well [5087] was revealed 2m east of well [5066]. It comprised a subcircular weathering cone, 5.6m in diameter, with a centrally positioned 1m diameter vertical shaft. It was excavated to a depth of 1.7m. The well was infilled with three distinct fills. Moderate sized limestone fragments within a grey-green clay matrix (5090) filled the shaft. The lower extent of the weathering cone contained dark grey silty clay fill (5089), from which 13 sherds of late second to third-century pottery were retrieved. The uppermost infilling of the well, (5091), comprised grey-brown silty clay from which 68 sherds of second to third-century pottery, and one sherd which cannot date before the middle of the third-century, were retrieved.
- 3.2.14 The relationship between well [5087] and ditch [5027] remains undetermined. Ditch [5027] was orientated east to west and measured at least 38m in length. Its width varied between 2.1m and 3.8m, due largely to the irregularity of the southern side of the ditch. The ditch was heavily truncated, rarely surviving to depth greater than 0.15m. It contained grey-brown silty clay fill (5028)/(5030)/(5054) from which 36 sherds of second to third-century pottery. It remains undetermined whether the 16 sherds of third to fourth-century pottery retrieved from the ditch are contemporary with its usage or are intrusive from deposit (5053/5072) (see 3.3.9 below). The relationship between ditch [5027] and feature [5059] was not established due to the similarity of the fills.
- 3.2.15 Subrectangular feature [5059] was lined with vertically pitched limestone along both of its short sides, although no such evidence was revealed along its southern extent. The base was lined with small limestone fragments that sloped gently into ditch [5027], suggesting it was constructed as an access ramp. No artefactual material was retrieved from grey-brown silty clay fill (5060).
- 3.2.16 Ditch [5027] was recut along its full length by ditch [5048]. It measured 1m in width and was fully excavated to a depth of 0.2m. It contained grey-brown

silty clay fill (5029)/(5036) from which 14 sherds of second to third-century pottery were retrieved.

3.2.17 At its eastern extent ditch [5027]/[5048] turned north-eastwards avoiding ditch [5033]. Ditch [5033] was orientated north-east to south-west, measured at least 1.9m in width and was fully excavated to a depth of 0.72m. It contained orange-grey silty clay fill (5035) from which 7 sherds of second to third-century pottery, and a residual early prehistoric pebble-hammer stone were retrieved (see Appendix 4). It had been recut by ditch [5047].

3.2.18 Ditch [5047] measured 2.2m in width and was fully excavated to a depth of 0.4m. It contained grey-brown silty clay fill (5034) from which 87 sherds of third-century pottery were retrieved.

3.2.19 Ditch [5043] was revealed 5m south-east of ditch [5033]/[5047]. It was orientated east to west, with a north to south return at its western extent. It measured 5m in length, 0.5m in width and was fully excavated to a depth of 0.1m. It contained orange-brown silty clay fill (5044) from which 6 sherds of second to third-century pottery were retrieved. It had been cut at its eastern extent by ditch [5040].

3.2.20 Ditch [5040] measured at least 14m in length, 0.8m in width and was fully excavated to a depth of 0.11m. The ditch formed a right angle in plan, with a terminus at its north-western extent. It contained yellow-brown clay (5039) from which two sherds of pottery, broadly dated as Romano-British, were retrieved.

Undated

3.2.21 Ditch [5073] and associated pits and postholes are the only significant features that remain undated. Ditch [5073] was orientated approximately east to west, measured 0.62m in width and was fully excavated to a depth of

0.25m. It contained yellow-brown silty clay fill (5074) from which no artefactual material was retrieved.

- 3.2.22 The ditch was flanked on its southern side by an elongated suboval pit or ditch [5077] and by two postholes [5075] and [5096]. This arrangement was mirrored on its northern side by pit [5081] and posthole [5079]. No artefactual material was retrieved from any of the features.

3.3 *Discussion*

- 3.3.1 The rapid response excavation at Area E has revealed an hitherto unknown area of dense Romano-British activity. Preliminary analysis of the artefactual evidence suggests activity spans the Romano-British period from the first to fourth century, with a noticeable concentration of activity within the second to third centuries. The findings can be broadly assigned to two main phases of activity, with evidence for the deliberate infilling of features in the late third to early fourth century.

Phase I: (First to second century)

- 3.3.2 The earliest activity is concentrated upon the gentle slope demarcating the Cornbrash from the Forest Marble clays. Ditch [5013] and gully [5011] may be interpreted as boundary ditches forming the north-western corner of a first-century enclosure or paddock. The 1m gap between the respective termini of the ditches may represent an entranceway to the enclosure. Ditches [5009] and [5064] are more substantial in construction. Both ditches are orientated approximately east to west, gently cutting across the natural slope of the land, and are likely to have functioned as drainage channels.
- 3.3.3 Interpretation of postholes [5004], [5006], and [5008] is problematic. The postholes appear to form a curving alignment, suggestive of a domestic

building. A similar north-western return of postholes was not identified during the excavation, although given a 13m diameter for the structure, such a return may have been truncated by second to third-century ditch [5018]. Given such an interpretation, the structure would have been centrally positioned between ditches [5009] and [5064], suggesting they formed a boundary around the building. However, such an hypothesis based solely upon three postholes, particularly given the high level of modern truncation within the general vicinity, must be seen as speculative and interpretation as the corner of a fenced boundary may be of equal validity.

Phase 2 (Second to third century)

- 3.3.4 Activity within phase 2 continues on the higher, and presumably drier, ground previously utilised within phase 1, but there is also an expansion of activity into the heavier, low-lying Forest Marble clays.
- 3.3.5 A sequence of intercutting ditches was revealed on the higher ground, broadly respecting the alignment of the earlier, phase 1, boundaries.
- 3.3.6 At the junction of the Cornbrash and Forest Marble clays two wells were identified. The close proximity of the two wells to each other suggests they were not in contemporary use, but were situated to exploit the change in the local geology and to presumably utilise the same water resource. No evidence for the date of construction of well [5087] was retrieved, although artefactual evidence retrieved from the deliberate infilling of the well shaft suggests it was redundant by the late second to third century. Although no evidence for a lining survived within well [5066], the construction technique utilised to form the shaft suggests it had originally contained a lining, presumably of wood or wicker, with redeposited clay (5068) immediately backfilled between the lining and the original well cut. Artefactual evidence from this deposit suggests the well was constructed in the second to third-century.

3.3.7 The relationship between ditch [5027] and well [5087] remains speculative, however it may be suggested that ditch [5027] acted as a drainage outlet from the well, in turn feeding the excess water into drainage ditch [5033]. The construction of the stonelined ramp [5059] on the southern side of ditch [5027] was undoubtedly constructed to allow access to the ditch, in all probability for livestock. Furthermore, the irregularity of the southern side of the ditch may also have resulted from the encroachment of livestock poaching the ground along the edge of the ditch.

3.3.8 Ditch [5041] delineates the south-eastern extent of activity identified during the excavation, and may form a further agricultural enclosure/paddock, utilising drainage ditch [5033] as its western boundary.

Phase 3 (late third–early fourth century)

3.3.9 Deposit (5053)/(5072), consisting of small fragments of limestone rubble within a clay matrix, sealed the western extent of ditch [5027] and wells [5066] and [5087]. The deposit is likely to represent an attempt to consolidate an area of increasingly wet/marshy ground for continued use. Artefactual material retrieved from the deposit suggests these features had become redundant by the early fourth century.

4. THE WATCHING BRIEF

4.1 *General*

4.1.1 A watching brief was maintained during all intrusive groundworks, successfully identifying the significant, and previously unknown Romano-British deposits at Area E (see chapter 3), as well as a small number of features and artefacts. Interpretation of these features is consequently limited due to the isolated nature of the findings.

4.1.2 A number of difficulties were experienced during the watching brief. The natural substrate was frequently not revealed throughout the wayleave due to the shallow nature of the topsoil strip, furthermore the exposed surfaces were often smeared with disturbed soil. After consultation with Transco, it was agreed that upon completion of predetermined sections of their topsoil strip, any remaining topsoil and/or subsoil along the alignment of the pipe trench itself would be mechanically removed to allow the natural substrate to be examined for archaeological features. Whenever possible, the wayleave was also visited during pipe laying operations, when the excavated pipe trench could also be examined. Over large lengths of the scheme, therefore, a width of only c. 1.5m of natural subsoil was exposed. This inevitably hindered the recognition, and particularly the interpretation, of archaeological features. While it is conceivable that sites with a low density of cut features might have gone unnoticed, it is very unlikely that any major sites were missed. Roman pottery was recovered during the initial topsoil stripping at Area E, and the recognition of the area as being of archaeological potential was readily apparent. Indeed the fact that comparatively minor and isolated features were detected in the watching brief (such as Areas D and F) tends to confirm the success of the methodology employed.

4.2 *Area A*

- 4.2.1 Area A was centred on the postulated alignment of the Roman Fosse Way (PRN 300) at ST 8397 7937. An area totalling 210m length and 5m in width was machine stripped to the top of the natural substrate.
- 4.2.2 Two linear ditches were recorded in section, on either side of, and parallel to, the existing road. Ditch [103] was revealed 1.75m east of the modern road. It measured 3.5m in width and 0.4m in depth. No artefactual material was retrieved from mid-brown silty clay fill (104). The ditch was sealed by topsoil (101) and a drystone boundary wall.
- 4.2.3 Ditch [105] was revealed 7m west of ditch [701], and was partially sealed by the modern road. It measured 3.2m in width and 0.75m in depth. No artefactual material was retrieved from mid-brown silty clay fill (106). The ditch was cut by a modern sewerage pipe and was sealed by topsoil (101) and a hedgebank.
- 4.2.4 The orientation of the two ditches correlates strongly with the projected alignment of the Fosse Way. Although no artefactual material was retrieved from the either of the ditches, nor evidence of Roman road surfaces encountered, the ditches may be interpreted as the Roman roadside ditches of the Fosse Way. Such an interpretation would suggest the road was approximately 7m in width, with an overall width for the road and associated ditches of 16.7m. These dimensions compare favourably with previous observations of the Fosse at Culkerton Wood, Gloucestershire (Stevens, 1939) and at Radstock, Somerset (McMurtie, 1903) which measured 6m and 5m respectively.

4.3 Area B

- 4.3.1 Area B was centred on the previously identified Mesolithic flint scatter (PRN 052) at ST 8880 7653. An area totalling 385m in length and 5m in width was machine stripped to the top of the natural substrate.
- 4.3.2 Sub-square pit [201] was revealed at ST 8862 7660, at the western limit of Area B. It measured 2.5m in width and was fully excavated to a depth of 0.65m. It contained mid orange-green clay primary fill, (202), from which 6 undated worked flint flakes were retrieved; secondary fill (203), comprising sub-angular limestone fragments, some of which were burnt, within a dark grey-green clay matrix; and grey-green clay tertiary fill (204) from which 54 fragments of cattle bones were retrieved. Deposits (203) and (204) appear to represent the deliberate infilling of the feature. It was sealed by orange-green clay (205), interpreted as subsoil slumping into the feature.
- 4.3.3 Feature [208] was revealed at ST 8893 7643, 35m from the western limit of Area B. The full extent of the feature was not contained within the wayleave. It measured at least 0.85m in length, 0.4m in width and excavated to a depth of 0.2m. No artefactual material was retrieved from mid green-brown clay fill (209).
- 4.3.4 Ditch [206] was revealed at ST 8878 7653, 185m from the western limit of Area B. It was orientated north-north-west to south-south-east, measured 1.1m in width and was fully excavated to a depth of 0.5m. It contained orange-brown silty clay fill (207) from which 1 sherd of post-medieval pottery was retrieved. The alignment of the ditch, broadly parallel to the existing field boundary suggests it represents an earlier, post-medieval field boundary.
- 4.3.5 A Romano-British copper alloy disc brooch dated to the mid first to late second-century (Hattatt, 1982) was retrieved from the ploughsoil at ST 8894 7644 (Figure 9). The brooch measured 30mm in diameter and was decorated

with a central raised ring, the centre of which contains a small recessed boss. The outer edge of the brooch is moulded with a further area of raised moulding midway between the edge and central ring. Small traces of gold lead are apparent between the outer edge and the central raised ring. The hinged pin was missing. The lack of contemporary features within the immediate vicinity suggests the brooch represents a stray find.

- 4.3.6 The paucity of features associated with the lithic scatters previously identified throughout Area B may suggest the utilisation of the area by people moving/hunting across the landscape during the prehistoric period, rather than use for long term settlement. Such an interpretation is particularly valid given the Mesolithic character of the flint assemblage. However, the limitations imposed upon such findings by the very nature of the fieldwork should be noted, and the possibility of settlement, whether transitory or seasonal, within the general vicinity should not be overlooked.

4.4 *Area D*

- 4.4.1 Two pits and a small flint scatter were identified within a 40m section of the pipeline route centred on ST 8492 7868
- 4.4.2 Sub-oval pit [403] was located at approximately ST 8492 7868. It measured 1.1m in length, 0.6m in width and was fully excavated to a depth of 0.1m. It contained mid grey-brown silty clay fill (404) from which 1 sherd of second to third-century pottery and a worked flint flake were retrieved.
- 4.4.3 Pit [405] was revealed 2m north-east of pit [403]. It was sub-oval in plan, measuring 1.2m in length, 0.9m in width, and was fully excavated to a depth of 0.07m. No artefactual material was retrieved from mid grey silty clay fill (406).

4.4.4 A small flint assemblage, consisting of six flakes, one broken flake, two broken blade flakes and two burnt worked pieces were recovered from the ploughsoil (401) within Area D. The material is broadly late-prehistoric in character, although two flints are suggestive of Mesolithic technology.

4.4.5 The identification of Romano-British activity is noteworthy given its relative closeness to the Fosse Way (1.2km to the west). Interpretation of such limited and isolated features is prohibitive although it may be suggestive of a contemporary settlement within the immediate vicinity, perhaps associated with possible Romano-British building (PRN 303) recorded 750m to the north-west at ST 84607950. The small flint assemblage may again be viewed as being typical of the Chippenham area (Tucker 1985), which has increasingly been shown to be an area of prolific Mesolithic, Neolithic and Bronze Age activity.

4.5 *Area F*

4.5.1 Ditch [601] was revealed 200m north of Grove Farm at ST 8771 7716. It was orientated north to south, measured 1.7m in width and was fully excavated to a depth of 0.45m. It contained mid red-brown silty clay fill (602) from which three sherds of Iron Age pottery (now lost) were retrieved.

4.5.2 The feature may broadly be interpreted as an Iron Age boundary ditch, of probable agricultural origin. The identification of the ditch 200m north-west of the intensive Romano-British activity excavated at Area E (see chapter 3) may suggest some continuity of settlement within the immediate vicinity.

4.6 *Area G*

4.6.1 Subcircular pit [703] was revealed 130m west of Springfield Farm at ST 8676 7762. It measured 0.5m in diameter and was fully excavated to a depth of 0.15m. Its sides and base were concave, creating a 'bowl' shape. It contained

grey-brown silty clay fill (704) from which a significant concentration of charcoal and slag was retrieved.

- 4.6.2 The bowl shape and the concentration of charcoal revealed at the base of the feature are suggestive of *in-situ* smithing activity. However, the lack of datable artefactual material retrieved in association with the slag prohibits accurate dating of the feature.

5. CONCLUSIONS

- 5.1 The programme of archaeological recording undertaken during the construction of the Littleton Drew to Chippenham gas pipeline has recorded seven sites of archaeological interest. The pipeline route crossed two topographical zones, the Cotswold dipslope and the North Wiltshire Clay Vale. The majority of the route lay on the limestone geology of the Cotswolds, while the final section from Kingston Langley to Chippenham cut through the Kellaway clays of the Northern Clay Vale. Essentially the observations made on the pipeline help to elucidate the pattern of settlement at the southernmost limit of the Cotswolds.
- 5.2. Archaeological deposits of varying significance were encountered along the predetermined lengths of the pipeline that crossed the known archaeological Areas A, B and C. The watching brief succeeded in identifying significant and hitherto unknown Romano-British deposits at Area E, as well as a number of isolated features which ranged in date from the prehistoric to post-medieval periods. Although the limited nature of the groundworks and the nature of the topsoil stripping reduced the ability to interpret the archaeological features encountered during the watching brief, the archaeological methodologies employed (see 4.1.2 above) were sufficient to identify archaeological deposits and to retrieve artefacts from within the topsoil/ploughsoil.
- 5.3 The earliest activity detected was the six flint artefacts from Area B, the Mesolithic flint scatter previously identified by Tucker (1985, table 1, Allington 2; Anon 1985, 254 (5)). Unfortunately none of the newly discovered flint was diagnostic, and there can be no certainty that the few cut features found in this area need have any association with the overlying surface scatter. A second flint scatter was found at Area D, which contained two pieces suggestive of Mesolithic technology. Little further comment can be made on these two sites, save to note that they are typical of the scatters

recorded by Tucker (1985) in the Chippenham region, and across the southern Cotswolds generally (Saville 1984). They presumably indicate the sites of temporary camps utilising woodland and riverine resources. A number of finds of Neolithic-Bronze Age flintwork have been found in the general vicinity of the pipeline (see Fig.1), although their distribution is more a reflection of the location of individual survey programmes than of past settlement patterns.

- 5.4 Found in a Roman ditch at Area E was a pebble-hammer stone which had been subsequently re-used (in the Roman period?) as a whetstone (see Appendix 4). Such artefacts have a generalised Mesolithic to Bronze Age date range. While noteworthy in its own right, the re-used nature of the piece means that it need not have originally been deposited close to where it was found.
- 5.5 The earliest period for which we have structural remains on the scheme is the Early to Middle Iron Age activity identified at the eastern extent of Area C. Pottery recovered from the pipeline suggests that part of the cropmark complex previously identified from aerial photographs is of this date. Although the D-shaped enclosure to the south of the pipeline was not investigated, its likely association with ditch [536] suggests that it may now be interpreted as a Middle Iron Age enclosed settlement. The D-shaped enclosure (internal area approximately 500m²) appears to be associated not only with linear (?field) boundary [536] but also with a sinuous ‘antenna’ ditch. This ditch was sectioned in the pipe trench as [528]: it contained 30 fragments of animal bone but no dating evidence. If an Early-Middle Iron Age date is accepted for the enclosure it can be classified alongside the ditched farmstead enclosures of the Wessex chalklands (Cunliffe 1984). A number of the other ditches might be part of a contemporary fieldsystem. Area C lies 8km north-east of Bury Wood Camp, a hillfort which has produced evidence of intensive occupation in the Middle Iron Age (fourth to second century BC) (King 1967). Other Iron Age finds from the general

vicinity (Fig. 1) comprise small collections of pottery recovered from various sites examined in advance of the Chippenham bypass and ring main pipeline, and a stray find of a gold stater of Corio from near Yatton Keynell.

- 5.6 The study of the Romano-British settlement pattern in this part of North Wiltshire has traditionally focused upon the rich villas, and Branigan (1977, 24-31) has stressed the importance of proximity to both roads and the town of Bath in their siting. It is noticeable that the villas to the north-west of Bath (such as North Wraxall) are concentrated to the west of the deeply incised valley of the By Brook which must have hindered east-west communications hereabouts. Further south villas tend to concentrate close to the Bath-Mildenhall road, especially around the small town of Sandy Lane (*Verlucio*). The area to the north-west of Chippenham, although away from the main concentration of villas, was not devoid of settlement in this period as the results from Areas C and E testify. The majority of the small Roman pottery assemblage from Area C seemingly dates to the second or third century AD, and there is no evidence, or requirement, to seek continuity from the previous Early-Middle Iron Age occupation. The material recovered in the pipeline excavation may be added to the 20 sherds of pottery retrieved during fieldwalking by Chippenham College Archaeology Group in 1984, and the further pottery and tile found in a small excavation by the same group. The tile should testify to the presence of a building in the Roman architectural tradition somewhere on the site. The pottery from Area E dates to the mid first to mid fourth-century, and includes a number of imports from outside of the region. Oxford and New Forest colour-coated wares, and Central Gaulish samian, indicate that the site had access to systems of regional trade, and the inhabitants were clearly above subsistence level. Nevertheless there is currently no evidence to suggest that either site need be classified as a villa (and certainly none to make them fall within the definition of a villa adopted by RCHME (1976, xxxviii) for the Gloucestershire Cotswolds). It is noteworthy that amongst the small animal bone assemblages from both sites there is evidence that the local environments supported established

populations of deer (see Appendix 3). Due to the small size of the assemblages interpretation of the significance of deer within the local economy must be viewed as speculative, and it remains undetermined whether the bone is representative of the ad hoc subsistence killing of deer, or whether deer were managed either for formal hunting, or as a resource to provide food and skin on a commercial basis.

- 5.7 Previously unknown Romano-British field systems in the area around Chippenham have come to light during development works over the last few years (Anon 1993; Bateman 1998). Associated settlements (although perhaps not rich villas) must await discovery. The results of the pipeline investigations help to fill out a picture of an exploited agricultural landscape in this part of North Wiltshire in the Roman period. Whether there was a relationship between the seemingly non-villa settlements in this area, and the villas to the west and south, is unlikely to be ascertained by archaeology alone.

6. BIBLIOGRAPHY

Annable, F K, 1962, 'A Romano-British pottery in Savernake Forest, kilns 1-2' in *WAM* **58**, 142-55

Anon 1985 'Wiltshire Archaeological Register for 1983' *WAM*, **79**, 254-9

Anon 1991 'Excavation and Fieldwork in Wiltshire 1989: Chippenham Without' in *WAM*, **84**, 143

Anon 1993 'Excavation and Fieldwork in Wiltshire 1991: Chippenham' in *WAM*, **86**, 159

- Bateman, C.M. 1998 *Chippenham Western Bypass (A4 to A350 Link), Chippenham, Wiltshire: Archaeological Recording*. Unpublished Typescript report
- Boessneck J. 1969. 'Osteological differences between sheep (*Ovis aries* Linne) and goat (*Capra hircus* Linne).' in Brothwell, D. and Higgs, E. S. (eds.), *Science in Archaeology*, 331-58
- Branigan, K. 1977 *The Roman Villa in South-West England*
- CAT 1997 *Project Design: Littleton Drew–Chippenham Gas Pipeline, Archaeological Watching Brief and Recording*
- Clough, T. H. McK and Cummins, W.A. (eds) 1979 *Stone Axe Studies* CBA Research Report **23**
- Clough, T. H. McK and Cummins, W.A. (eds) 1988 *Stone Axe Studies Volume 2* CBA Research Report **67**
- Cunliffe, B 1984 'Iron Age Wessex: Continuity and Change' in Cunliffe, B. and Miles, D. (eds.) *Aspects of the Iron Age in Southern Britain* UOCA Monograph **2**
- Dobney K. *et al.* 1996. *Of Butchers and Breeds*. Lincoln Archaeological Studies **5**.
- Fasham, P.J. 1985 *The Prehistoric Settlement at Winnal Down* Hampshire Field Club and Archaeological Society: Monograph **2**.
- Fulford, M G, 1975, *New Forest Roman Pottery*, British Archaeol Rep **17**, Oxford
- Gillam, J P, 1976, Coarse fumed ware in North Britain and beyond, *Glasgow Archaeol J* **4**, 57-80

- Grant, A. 1982. 'The use of tooth wear as a guide to the age of domestic ungulates', in Wilson, B., Grigson, C. and Payne, S. (eds.), *Ageing and Sexing animal bones from archaeological sites*. British Archaeol Rep, **109**, 91-108
- Holbrook, N, and Bidwell, P T, 1991, *Roman Finds from Exeter*, Exeter Archaeol Rep **4**
- King, D.G 1967 'Bury Wood Camp, Excavations in the Area of the South-West Opening'. *WAM* **62**, 1-15
- Lyman R.L. 1994. *Vertebrate Taphonomy*.
- Matolski, J. 1970. Historische Erforschung der Körpergröße der Rinde auf Grund von ungarischem Knochenmaterial. *Zeitschrift f. Tierzucht. und Zuchtungsbiologie* **87**, 89-137.
- McMurtrie, J. 1903 Notes on Roman Roads, with an Account of Excavations on the Fosse Road at Radstock, and a Road near North Stoke, Bath *Trans. Bristol and Gloucestershire Archaeol. Soc.* **26**, 326-338
- Neal, D.S., Wardle, A. and Hunn, J. 1990 *Excavation of the Iron Age, Roman and Medieval Settlement at Gorhambury, St Albans* English Heritage Archaeological Report **14**
- RCHME 1976, *Ancient and Historical Mounuments in the County of Gloucester; Volume 1 Iron Age and Romano-British Monuments in the Gloucestershire Cotswolds*
- Rigby, V, 1982, 'The pottery', in J S Wachter and A D McWhirr 1982, *Early Roman Occupation at Cirencester*, Cirencester Excavations **1**, 153-200

- Roe, F. 1979 'Typology of stone implements with shaftholes' in Clough and Cummins 1979, 23-48
- Saville, A. 1984 'Palaeolithic and Mesolithic evidence from Gloucestershire' in Saville, A. (ed.) *Archaeology in Gloucestershire*, 59-79
- Scott, E. 1993 *A Gazetteer of Roman Villas in Britain* Leicester Archaeology Monograph **1**
- Silver, I. A. 1969. 'The ageing of domestic animals' pp. 283-302 in Brothwell, D. and Higgs, E. S.(eds.), *Science in Archaeology*.
- Stevens, C.E. 1939 The Fosse Way at Culkerton Wood *Trans. Bristol and Gloucestershire Archaeol. Soc.* **61**, 132-134
- Tucker, J.H. 1985 Upper Palaeolithic and Mesolithic Sites in the Chippenham Area *WAM* **79**, 226-228
- Von Den Driesch A. 1976. *A Guide to the Measurement of Animal Bones from Archaeological Sites*. Peabody Museum Bulletins.
- Wacher, J S, and McWhirr, A D, 1982, *Early Roman Occupation at Cirencester*, Cirencester Excavations **1**,
- Wedlake, W.J. 1982 The Excavation of the Shrine of Apollo at Nettleton, Wiltshire, 1956-1971
- Wiltshire County Council 1997 *Archaeological Brief: Littleton Drew-Chippenham Gas Pipeline*
- Woodcock, A. G., Kelly, D.B. and Woolley, A.R. 1988 'The petrological identification of stone implements from south-east England' in Clough and Cummins 1988, 21-33

Young, C, J, 1977 *Oxfordshire Roman Pottery*, British Archaeol Rep **43**,

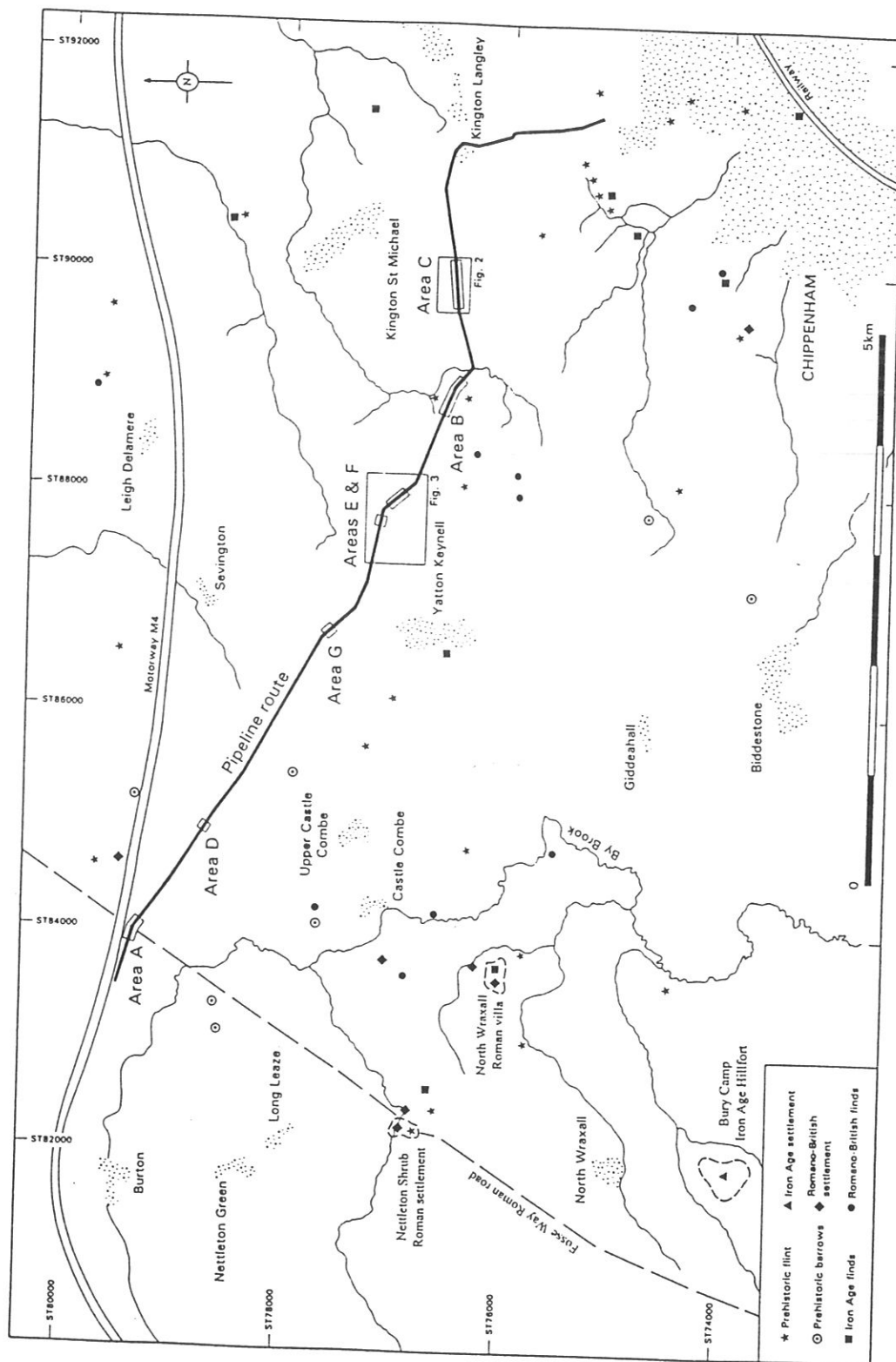


Fig. 1 Location plan

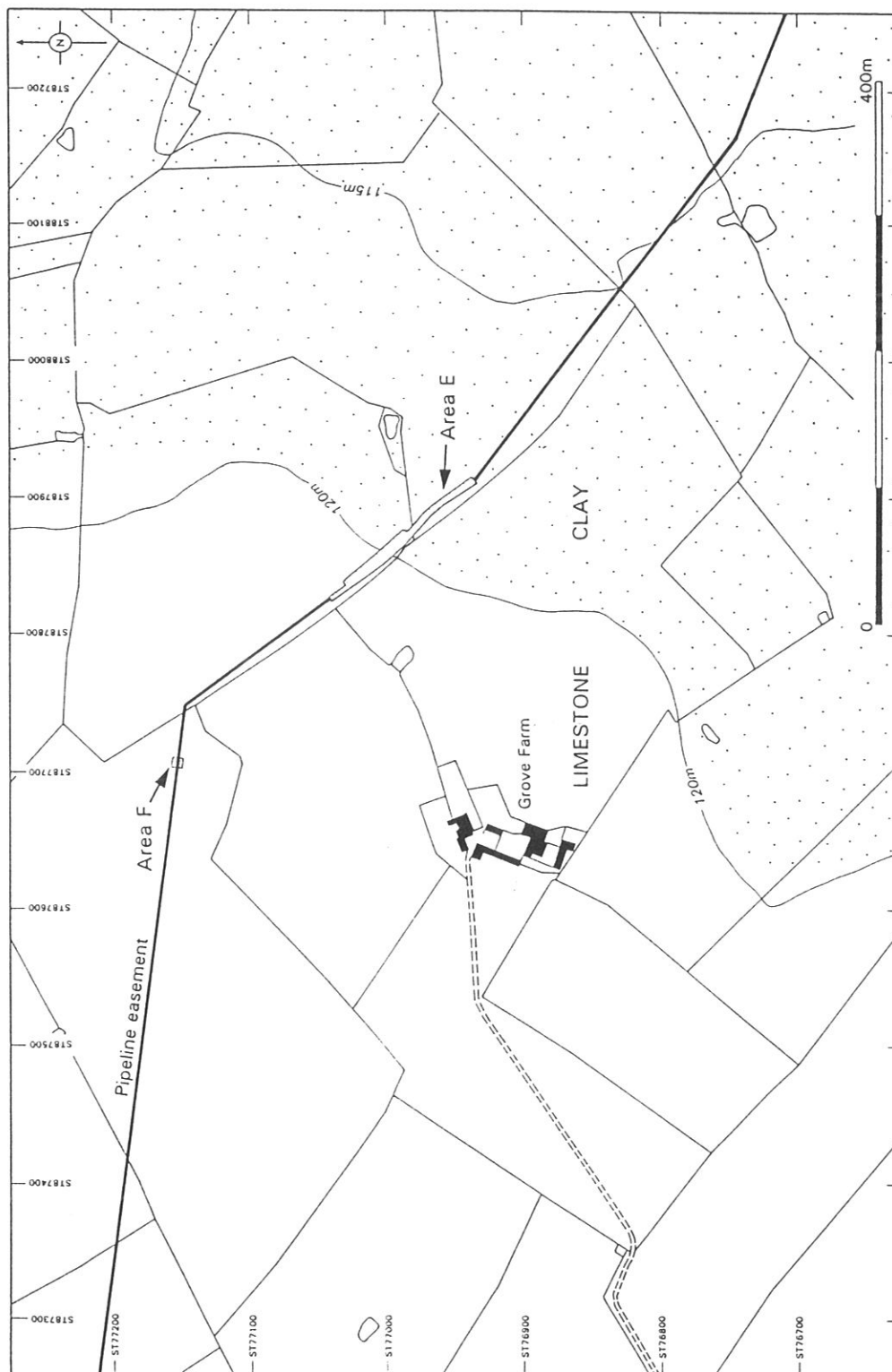


Fig. 3 Location of Area E

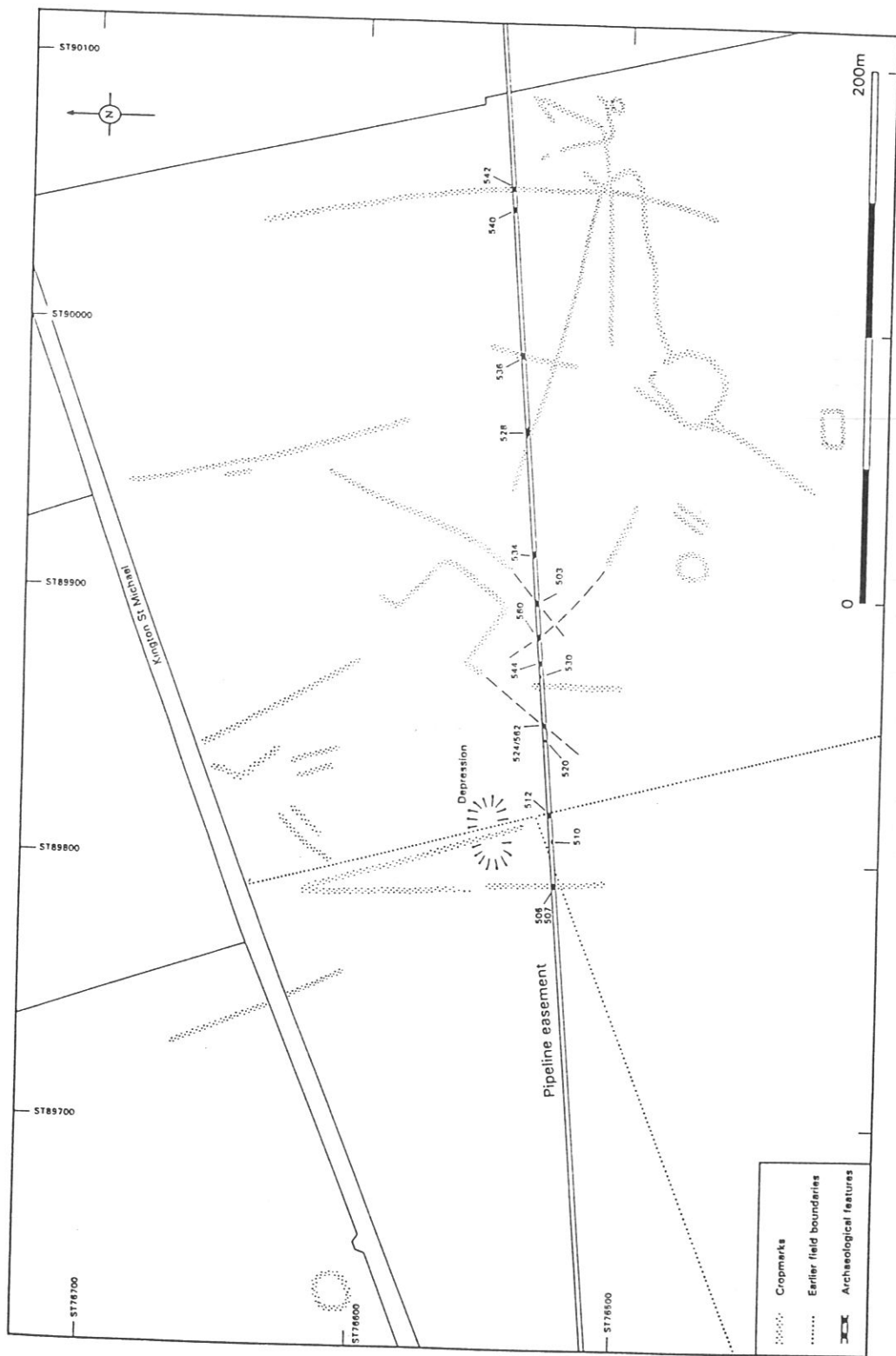


Fig. 2 Area C: Plan

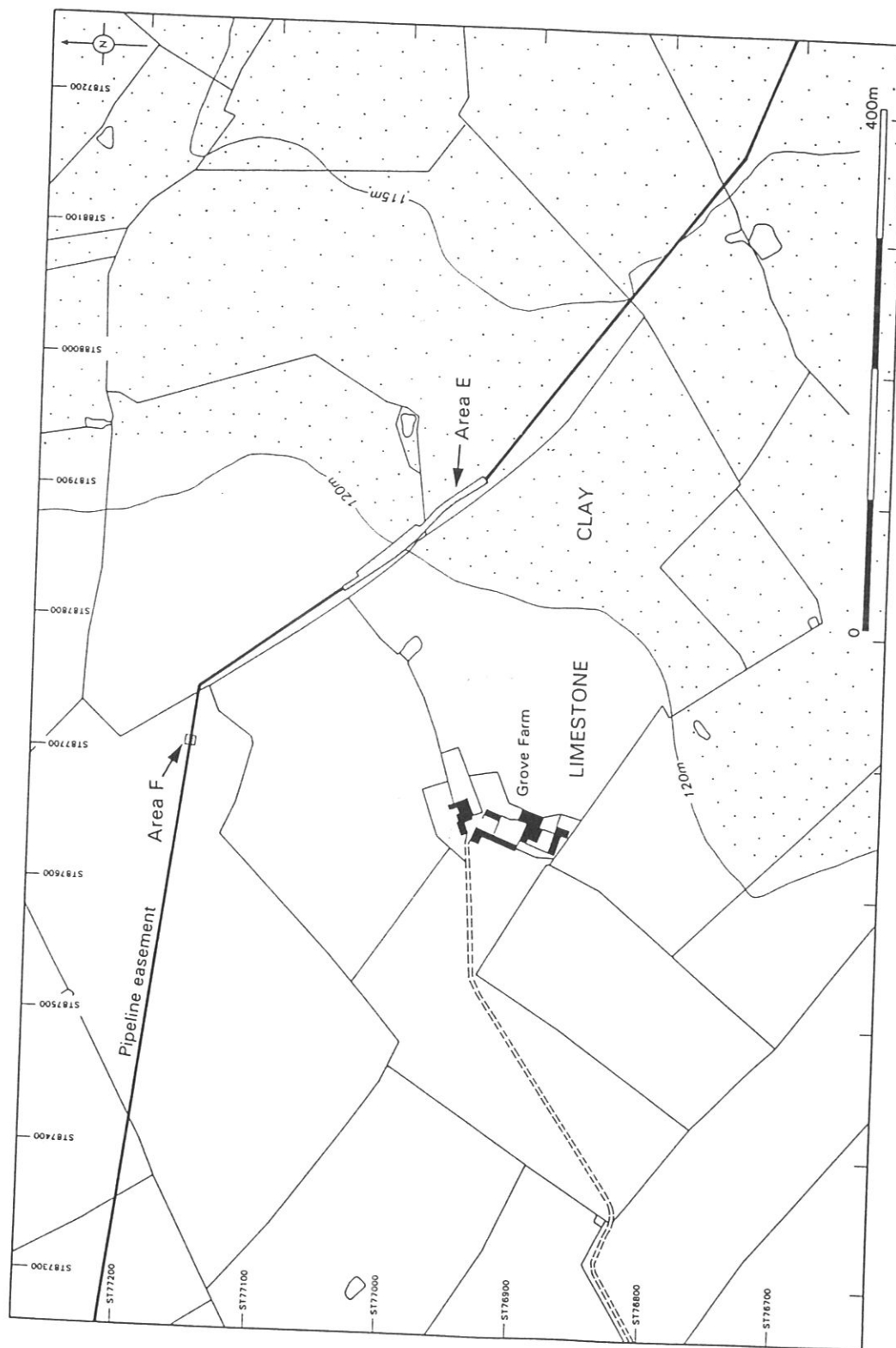


Fig. 3 Location of Area E

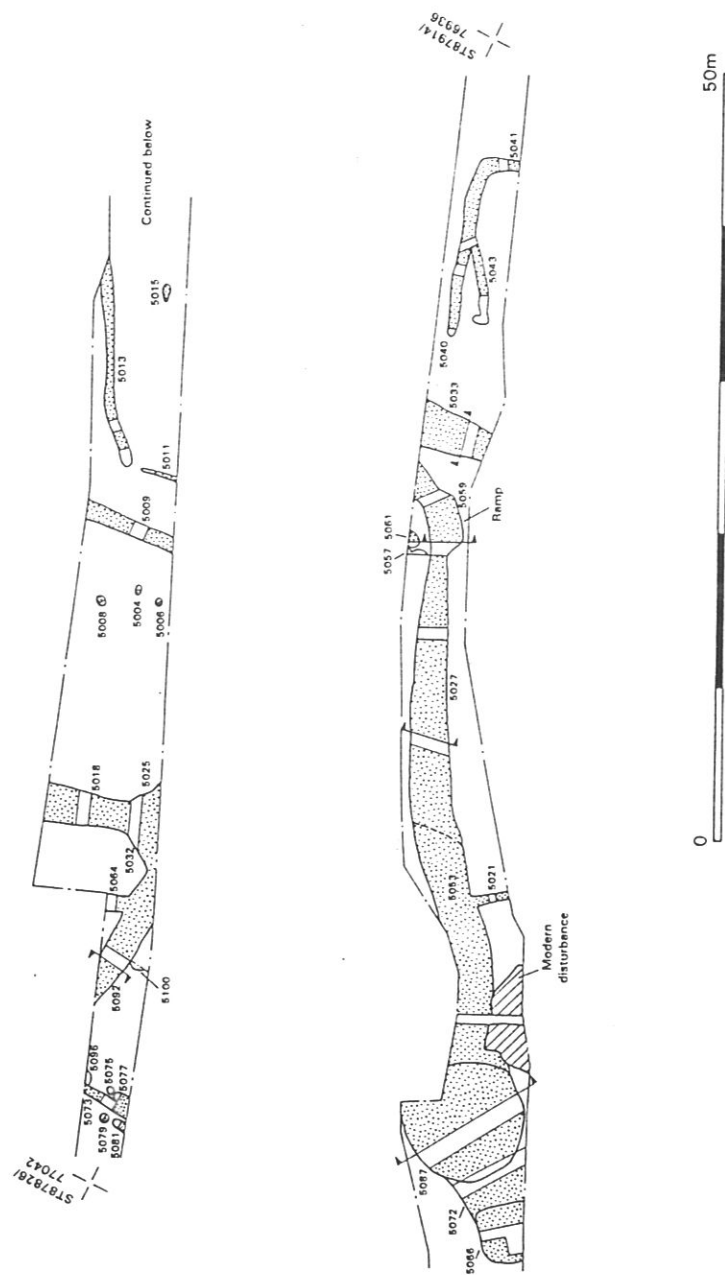
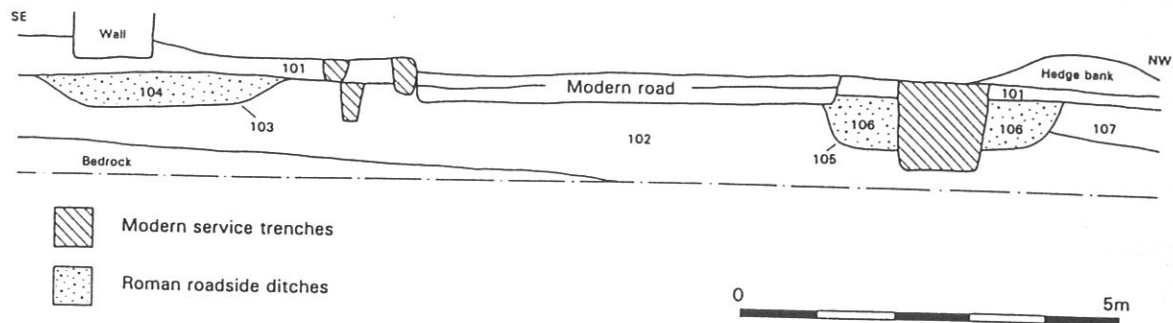
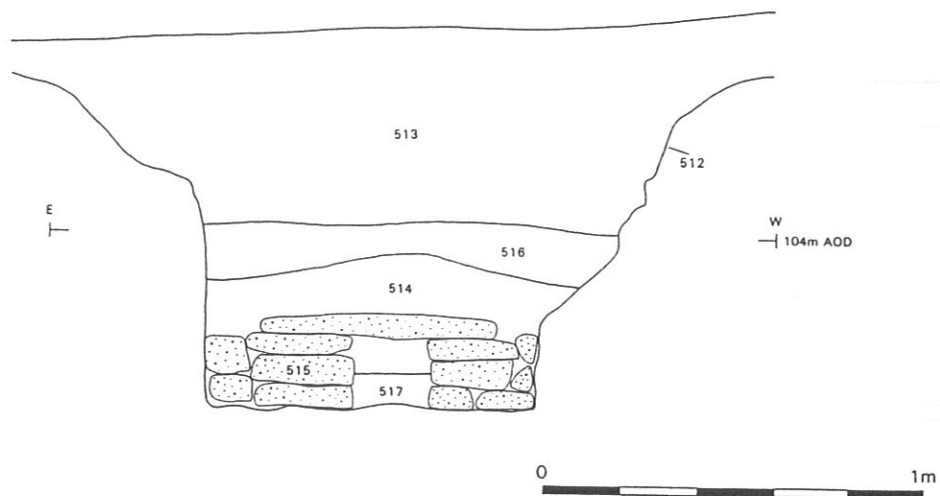


Fig. 4 Area E: Plan

DITCHES 103/105, AREA A



DITCH 512, AREA C



DITCH 520, AREA C

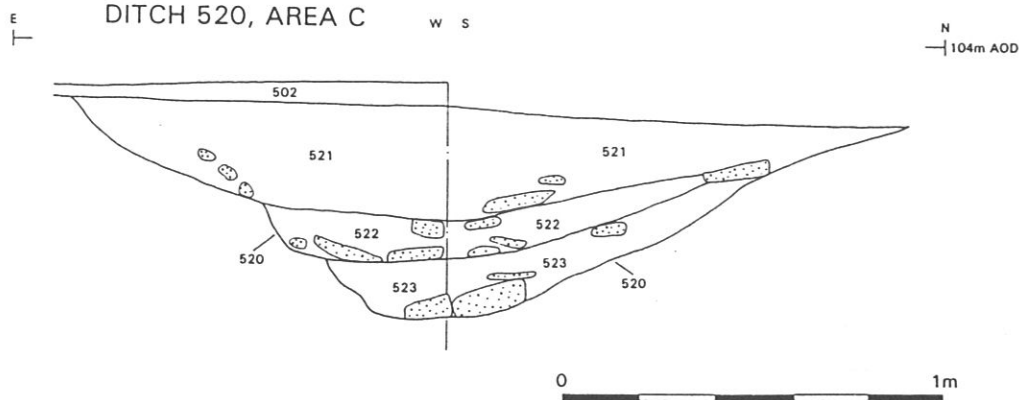
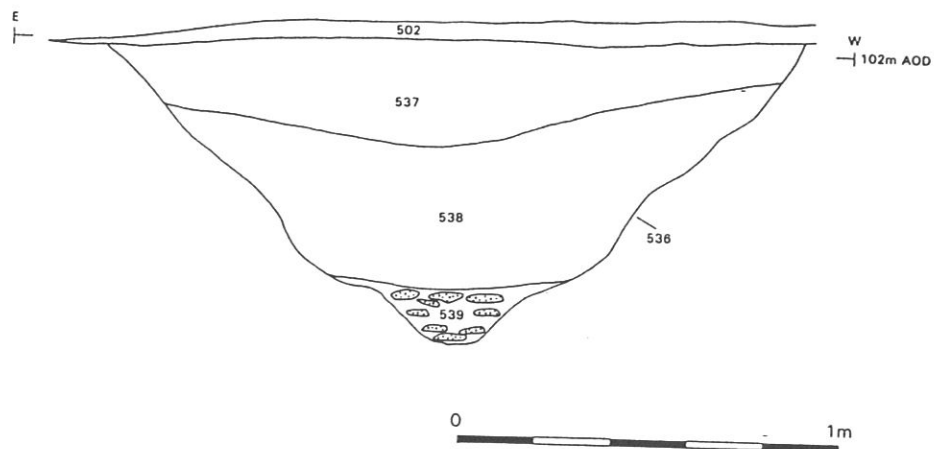
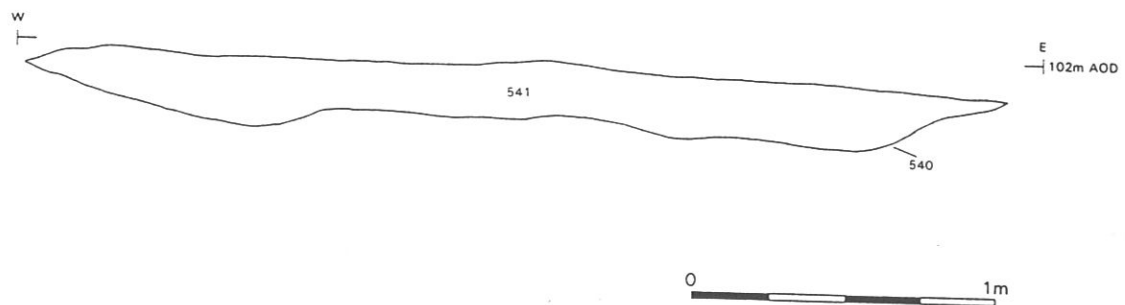


Fig. 5 Areas A and C: Sections

DITCH 536, AREA C



DITCH 540, AREA C



DITCH 542, AREA C

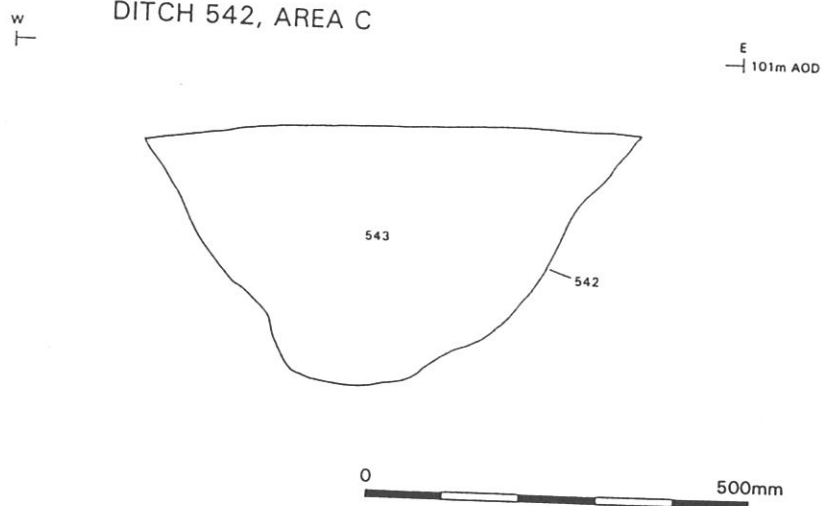
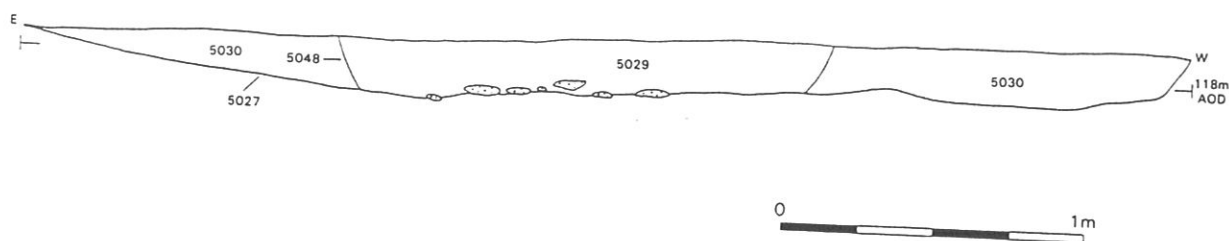


Fig. 6 Area C: Sections

DITCH 565/562, AREA C



DITCH 5027/5048, AREA E



DITCH 5027/5059, AREA E

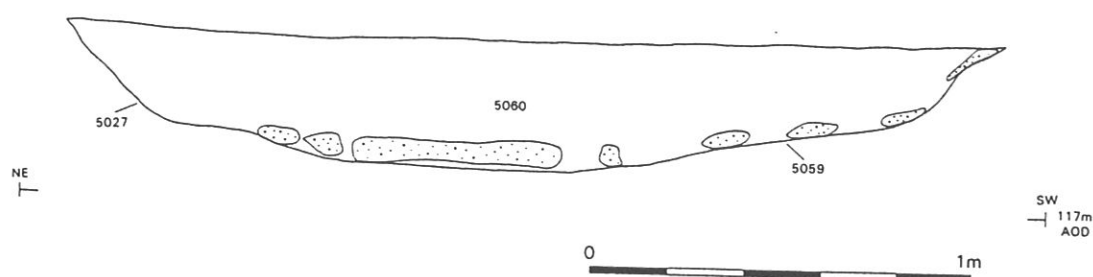
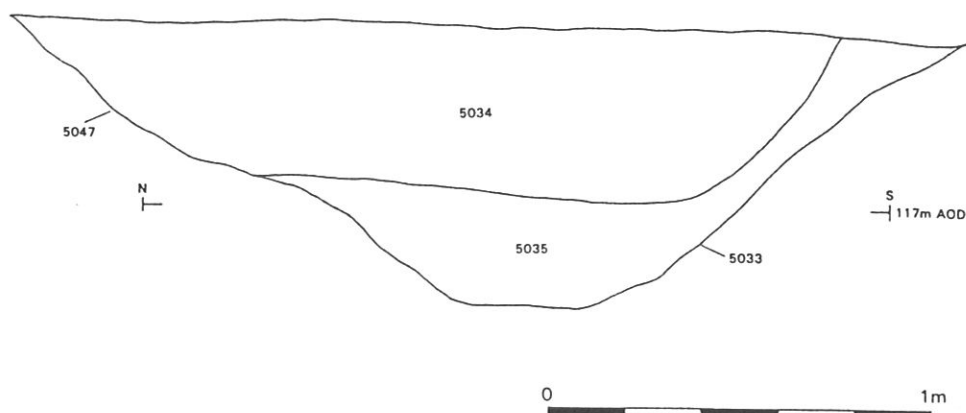
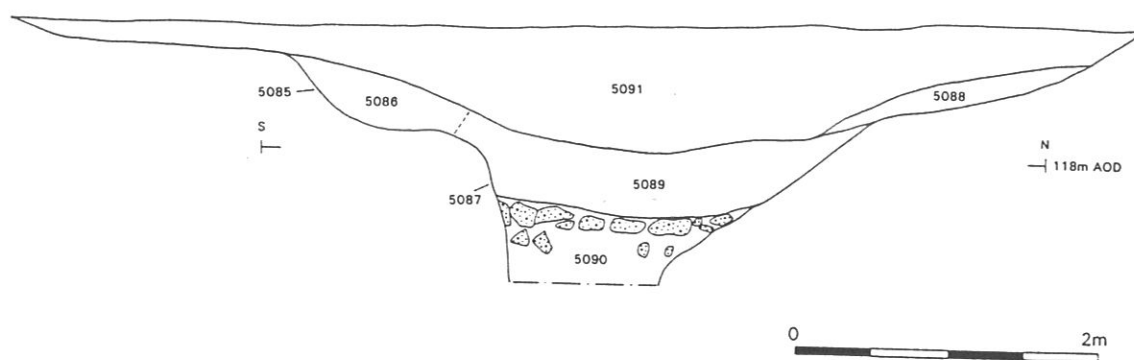


Fig. 7 Areas C and E: Sections

DITCH 5047/5033, AREA E



DITCH 5085/5087, AREA E



DITCH 5092, AREA E



Fig. 8 Area E: Sections

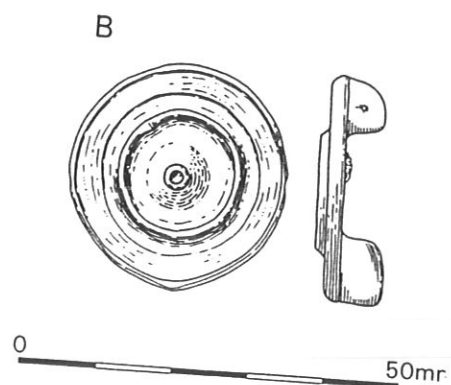
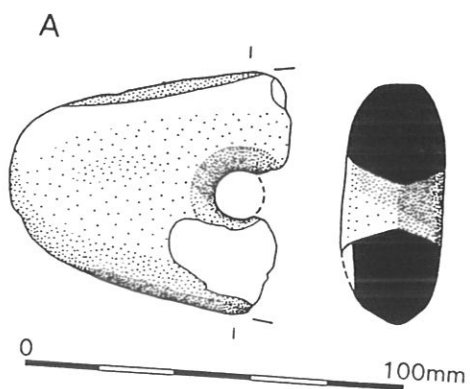


Fig. 9 Finds

(A. Early Prehistoric pebble-hammer stone; B. Romano-British copper alloy brooch)

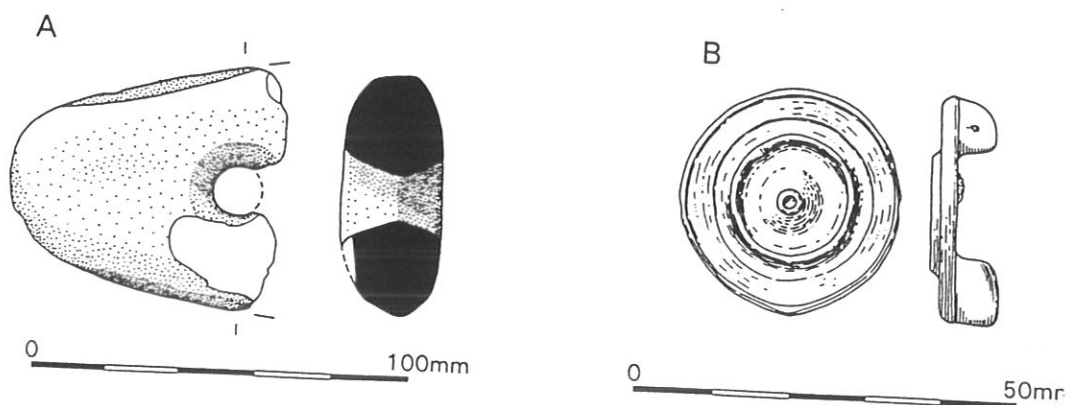


Fig. 9 Finds

(A. Early Prehistoric pebble-hammer stone; B. Romano-British copper alloy brooch)

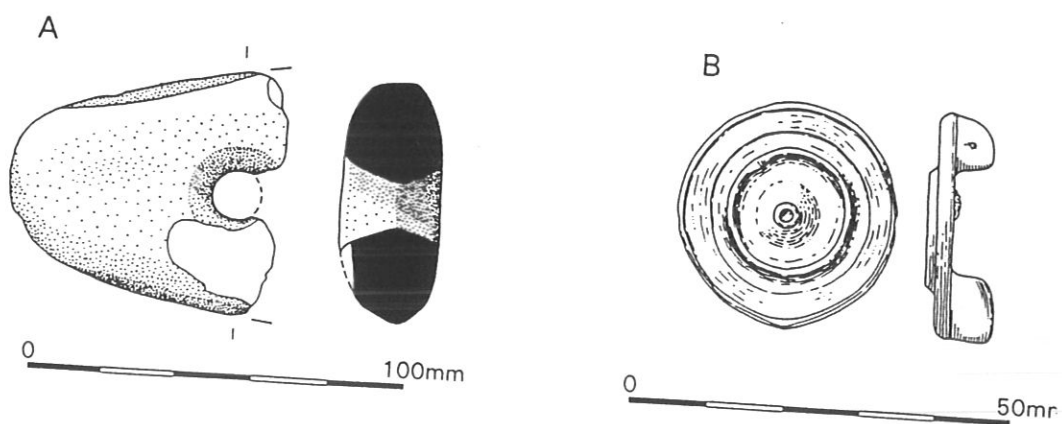


Fig. 9 Finds

(A. Early Prehistoric pebble-hammer stone; B. Romano-British copper alloy brooch)

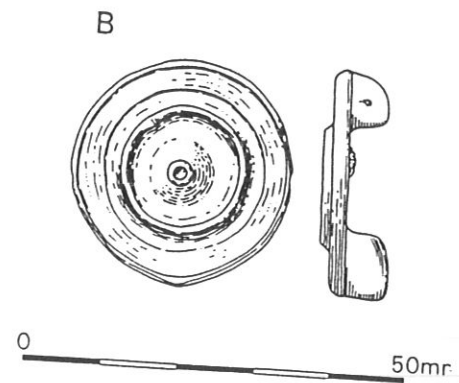
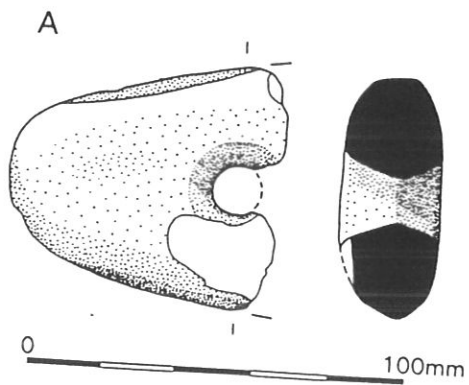


Fig. 9 Finds

(A. Early Prehistoric pebble-hammer stone; B. Romano-British copper alloy brooch)

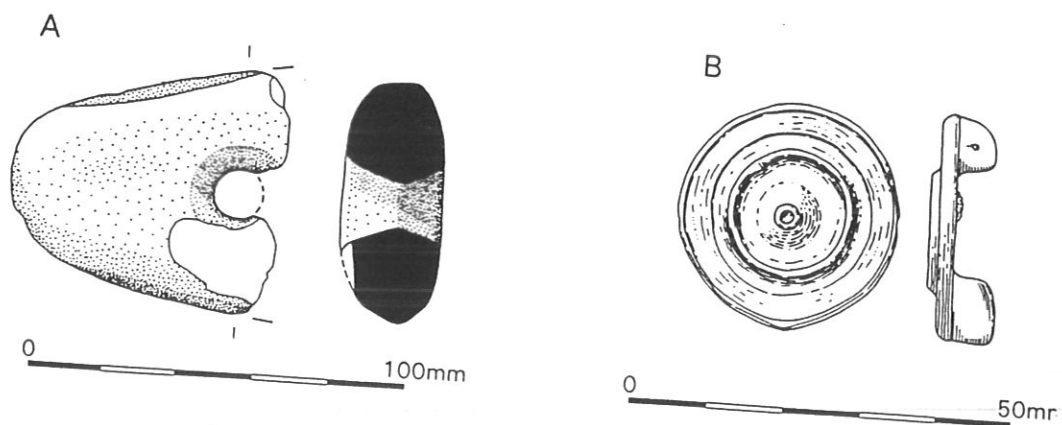


Fig. 9 Finds

(A. Early Prehistoric pebble-hammer stone; B. Romano-British copper alloy brooch)

Fig. 1 Location plan

Fig. 2 Area C: plan

Fig. 3 Location of Area E and F

Fig. 4 Area E: Plan

Fig. 5 Areas A and C: Sections

Fig. 6 Area C: Sections

Fig. 7 Areas C and E: Sections

Fig. 8 Area E: Sections

Fig. 9 Small Finds

APPENDIX 1

Assessment of the pottery by Dr J.R. Timby

A moderately small assemblage of some 482 sherds of pottery, approximately 5kg in weight was recovered from Sites B, C and E. Most of the assemblage dates to the Roman period with a small number of Iron Age pieces from Site C and a single post-medieval sherd from Site E. The pottery was sorted macroscopically into fabric groups and quantified by sherd weight and count for each context (Table 1). Brief fabric descriptions can be found in Appendix 1.

IRON AGE (SITE C)

Twenty-two body/basesherds (137g) of Iron Age date were recovered from Site C F536, F542 and F557. Although the sherds were in relatively fresh condition, the lack of featured sherds frustrates close dating of the material which is all fossil shell and limestone-tempered. Feature 542 produced exclusively coarse shell-tempered sherds (fabric H1) normally typical of the earlier Iron Age. Features 536 and 557 produced limestone and shell-tempered sherds (fabrics L3, L4), probably of early or middle Iron Age date.

ROMAN (SITES B, C and E)

The remainder of the assemblage dates to the Roman period and appears to include material spanning the first to fourth centuries. The two main foci of activity appear to be around Sites E and C which produced 362 and 110 sherds respectively. Site B in between produced just nine pieces.

The overall average sherd size at 10.5g was slightly below average for rubbish material from feature fills suggesting a certain amount of disturbance. Several of the sherds had become discoloured or lost their surfaces suggesting slightly hostile ground conditions for pottery preservation.

First century wares include Savernake ware (SAVGT), oolitic limestone-tempered sherds (fabric L1), Malvernian Palaeozoic limestone-tempered ware (MALVLI) and wheelmade black-burnished ware (WMBBW), the latter continuing into the 2nd century. From the later 1st-early 2nd century oxidised and reduced wares (WILOX, WILRE) from the North Wiltshire industries start to make an impact. Pottery spanning the later second to third centuries includes Dorset black burnished ware (DORBB1), samian (SAM), South-west orange sandy wares (SWOX), Wiltshire grey and oxidised wares (WILOX, WILRE), grey micaceous ware (MICGW) and various other grey or black wares. The second half of the third century into the fourth century sees the introduction of products of the Oxfordshire industries (OXCC, OXWWMO) and New Forest colour-coated ware (NFCC). The relatively limited number of Oxfordshire products combined with the absence of flanged DORBB1 bowls and other typical fourth-century forms suggests fairly limited occupation in the fourth-century.

SITE B

Site B produced a small assemblage of poorly preserved bodysherds only two of which came from features (pit 405, 407). All the wares are grey or oxidised sandy wares probably local and not particularly closely dateable other than Roman.

SITE C

Sherds of Roman pottery were recovered from seven individual cuts with additional 30 sherds of unstratified material. Few of the features produced chronologically viable groups with only two features; pit 520 and 530 yielding in excess of 10 sherds. Most of the material would appear to firmly

belong to the 2nd century suggesting a hiatus in activity in the later Iron Age/early Roman periods. Pit 520 is probably slightly later extending activity into the 3rd century. Sherds of Oxfordshire colour-coated ware from the unstratified material would confirm use of the area in the second half of the 3rd century but there is limited evidence for the 4th century. The majority of the wares are local products from the Wiltshire industries including jars from the Savernake Forest kilns. Imports are limited to two sherds of Dorset black burnished ware and two small scraps of samian.

SITE E

The largest assemblage was recovered from Site E amounting to some 363 sherds (4214 g). The pottery suggests activity from the 1st century through to the early-mid 4th century. Particularly large assemblages were recovered from ditches 5033 and 5027, and well 5087, which effectively account for 58% of the assemblage from Site E. The majority of the wares are of local origin supplemented in the later Roman period by products of the large regional industries. Foreign imports are limited to a few samian tablewares.

Amongst the earlier Roman features investigated was ditch 5064 which produced later first century material. Further small groups of potential first-century wares were recovered from cuts 5013 and 5018. Second century wares are more prolific and include several pieces of samian (SAM), further Savernake ware and WMBBW along with greywares (fabrics R1, R2 and R5). Features with typical second century material include cuts 5004, 5011, 5015, 5018, 5025, ditch 5048 and layer 5098.

Pottery spanning the later second to third centuries were recovered from wells 5066 and 5087, in particular fills (5068) and (5089) respectively. Layer (5098) would also appear to belong to this phase of activity as do ditches 5027 and 5092. Wares dating to the second half of the third century into the fourth century were associated with the upper fill of well 5087 and the subsoil.

Description of fabrics and forms present

IRON AGE

H1: Handmade. Brown paste with a sparse to moderate density of coarse fossil shell temper.

L3: Pale brown ware with a moderate to common density of medium-fine fossil shell and limestone.

L4: As L3 but with a sparse frequency of inclusions.

ROMAN

Native wares

L1: Handmade brown or orange-brown ware with a high density of very fine discrete oolites of limestone with occasional larger fragments.

L2: A very soapy fabric with sparse fragments of shell/limestone. Handmade.

SL: Brown medium-fine sandy ware with sparse fragments of fossil shell/limestone.

MALVLI: Malvernian limestone tempered ware. Form: Beaded rim jar.

GROG : Handmade grog-tempered wares. Form: jar.

Local Wiltshire wares

SAVGT: Savernake ware (Annable 1962). Form: Large storage jars. Date: mid first-second century

WMBBW: Wheelmade black burnished ware (cf Rigby 1982, 153, Cirencester TF 5). Form: Necked jars. Neronian-second century.

WILGW: North Wiltshire grey sandy wares. Form: Necked, expanded rim jar.

WILGX: North Wiltshire oxidised sandy wares.

SWOX: South-west orange sandy ware. Gritty feel. Forms: Small flagons, white-slipped mortaria, necked everted rim jars/bowls. Date: Second-third century.

Traded wares

SAMCG: Central Gaulish samian. Forms present mainly second century types, Dragendorff 30, 38, 31, Curle 35.

DORBB1: Dorset black burnished ware (Gillam 1976; Holbrook and Bidwell 1990). Forms: Jars, straight-sided dishes, flat-rimmed bowls and grooved rim bowls.

OXCC: Oxfordshire colour-coated ware (Young 1977). Forms: tablewares and mortaria.

NFCC: New Forest colour-coated ware (Fulford 1975). Form: beaker. Date: early fourth century.

MICGW: Grey or brown micaceous sandy ware. Forms: copies of DORBB1 forms, jars, straight-sided dish. Date: second-fourth century.

Source unknown, probably local

R1: Thin walled, hard, black medium sandy wheelmade ware. Forms: jars, beaker.

R2: Fine, sandy ware with blue grey surfaces and a red-brown inner core. Wheelmade. Forms: Handled jug with vertical burnishing on the neck.

R3: Black sandy, finely micaceous ware with a brown core.

R4: Finer, black sandy ware with a slightly gritty feel. ?Originally with a white slip.

R5: A fine or medium grey sandy ware with occasional buff clay pellets.

R6: Hard, black, sandy ware imitating DORBB1 forms.

R7: A dense medium sandy ware with a speckled grey surface.

R00/R15 - miscellaneous reduced wares

O00/O15 - miscellaneous oxidised wares

Bibliography

Annable, F K, 1962, A Romano-British pottery in Savernake Forest, kilns 1-2, *Wiltshire Archaeol Nat Hist Mag* **58** (pub 1963), 142-55

Fulford, M G, 1975, *New Forest Roman Pottery*, British Archaeol Rep **17**, Oxford

Gillam, J P, 1976, Coarse fumed ware in North Britain and beyond, *Glasgow Archaeol J* **4**, 57-80

Holbrook, N, and Bidwell, P T, 1991, *Roman Finds from Exeter*, Exeter Archaeol Rep **4**, Exeter

Rigby, V, 1982, The pottery, in J S Wachter and A D McWhirr 1982, 153-200

Wachter, J S, and McWhirr, A D, 1982, *Early Roman Occupation at Cirencester*, Cirencester Excavations **1**, Cirencester

Young, C, J, 1977, *Oxfordshire Roman Pottery*, British Archaeol Rep **43**, Oxford

Table 1 Fabric quantities (sherd count and weight)

FABRIC	AREA C				AREA E			
	No	%	WT (g)	%	No	%	WT (g)	%
IRON AGE								
H1	9	8.25	73	9.75				
L3	3	2.75	18	2.40				
L4	10	9.00	46	6.15				
ROMAN: native wares								
L1					4	1.10	11	0.25
L2					1	0.28	1	0.02
MALVLI					2	0.55	14	0.33
SL					2	0.55	5	0.12
GROG					6	1.60	44	1.05
ROMAN: local wares								
SAV	13	12.00	212	28.30	16	4.40	1115	26.45
WMBBW	14	12.80	43	5.75	23	6.40	89	2.11
WILRE					2	0.55	27	0.65
WILOX	1	0.95	23	3.00				
SWOX	4	3.50	12	1.60	39	10.80	425	10.00
ROMAN: traded wares								
SAM	4	3.50	7	0.95	11	3.00	134	3.20
BB1	2	1.80	10	1.35	129	35.60	1493	35.40
OXCC	9	8.25	87	11.60	5	1.40	15	0.35
NFCC					2	0.55	27	0.64
SVW	3	2.75	44	5.90	3	0.85	30	0.71
MICGW	4	3.50	25	3.33	16	4.40	248	5.90
ROMAN: source unknown								
R1	1	0.95	2	0.26	33	9.10	67	1.60
R2	7	6.40	20	2.66	2	0.55	30	0.70
R3	1	0.95	9	1.20	1	0.28	16	0.37
R4	1	0.95	10	1.35				
R5	3	2.75	7	0.95	1	0.28	1	0.02
R6	3	2.75	24	3.20	9	2.50	37	0.20
R7					3	0.85	10	0.23
Misc. reduced	12	11.00	64	8.50	37	10.25	295	7.00
Misc. oxidised	6	5.50	13	1.75	15	4.15	79	1.78
Total	110	100.3	749	100	362	99.99	4213	100

Table 2: Pottery by context

Context	Type	Fabric	Wt	No	Rim	Comment	Date
AREA B							
Unstrat		WILRE	9	1	0		2ND-3RD
Unstrat		R00	12	4	0		ROMAN
Unstrat		R2	5	1	0		ROMAN
401	Subsoil	O10/T	1	1	0	?TILE	ROMAN
404	Pit 403	O15	1	1	0		ROMAN
409	Pit 407	R2	10	1	0		ROMAN
AREA C							
Unstrat		MICGW	18	2	0		2ND-4TH
Unstrat		SWOX	6	1	1		2ND-3RD
Unstrat		WMBBW	4	2	0		2ND

Unstrat		WMBBW	10	0	1		2ND
Unstrat		WILOX	23	1	0		2-3RD
Unstrat		OXCC	4	1	0		3RD-4TH
Unstrat		OXCCM	83	7	1		4TH
Unstrat		R00	5	5	0		ROMAN
Unstrat		R6	16	1	1		ROMAN
Unstrat		SAM	1	2	0		2ND-3RD
Unstrat		SAV	14	2	0		2ND-3RD
Unstrat		SVW	30	2	0		2ND-4TH
Unstrat		T	0	0	0	X1	ROMAN
504	503	WMBBW	18	8	0		ROMAN
504	503	O15	1	1	0		ROMAN
511	Pit 510	R15	30	3	0		ROMAN
513	512	MICGW	1	1	0		2ND
513	512	WMBBW	1	1	0		2ND
513	512	BB1	10	2	0		2ND
513	512	R6	8	0	1		2ND
521	Pit 520	MICGW	6	1	0		2ND-3RD
521	Pit 520	O15	10	4	0		2ND-3RD
521	Pit 520	R15	22	0	1		2ND-3RD
521	Pit 520	R15	7	3	0		2ND-3RD
521	Pit 520	R2	6	2	0		2ND-3RD
522	Pit 520	R1	2	1	0		2ND
522	Pit 520	SAV	16	1	0		2ND
522	Pit 520	SAV	5	1	0		2ND
525	524	SWOX	6	1	1		2ND-3RD
525	524	R3	9	1	0		ROMAN
525	524	SAM	2	1	0		2ND
527	524	R4	10	1	0		ROMAN
530	Pit 530	SAM	4	1	0		2ND
530	Pit 530	SAV	11	1	0		2ND
530	Pit 530	SAV	86	0	2		2ND
531	Pit 530	WMBBW	10	2	0		2ND
531	Pit 530	O10	2	1	0	BURNT	2ND
531	Pit 530	R2	14	5	0		2ND
531	Pit 530	R5	7	3	0		2ND
531	Pit 530	SAV	80	6	0		2ND
538	536	L3	14	1	1		IRON AGE
538	536	L4	46	10	0		IRON AGE
543	542	H1	73	9	0	I VESS	IRON AGE
559	Ph 557	L3	4	1	0		IRON AGE
563	562	SVW	14	1	0		ROMAN
AREA E							
5001	Rubble	PMGW	1	1	0		PMED
5001	Rubble	R6	2	1	0		ROMAN
5003	Ph 5004	WMBBW	37	8	3		2ND
5007	Ph 5008	WMBBW	22	2	0		E-M2ND
5007	Ph 5008	R1	9	5	0		E-M2ND
5010	5009	WMBBW	11	2	0		E-M2ND
5010	5009	L1	6	1	0		E-M2ND
5010	5009	R1	5	2	0		E-M2ND
5010	5009	R3	16	1	0		E-M2ND
5010	5009	R5	1	1	0		E-M2ND
5010	5009	SAV	75	3	0		E-M2ND

5012	Gully 5011	R1	26	14	1		2ND
5014	5013	L1	1	1	0		1ST
5014	5013	R6	4	2	0		1ST
5014	5013	SL	2	1	0		1ST
5016	5015	WMBBW	4	2	0		2ND
5016	5015	BB1	14	1	0		2ND
5016	5015	R10	10	3	0		2ND
5016	5015	SAM	2	1	0	BURNT	2ND
5019	5018	R1	1	1	0		1ST-2ND
5019	5018	SAV	15	1	0		1ST-2ND
5020	5018	SAV	50	1	0		2ND
5022	5021	MICGW	10	1	0		3RD
5022	5021	SWOX	17	5	1		3RD
5022	5021	BB1	3	1	0		3RD
5022	5021	O10	3	0	1		3RD
5022	5021	R15	13	0	1		3RD
5022	5021	R15	28	0	1		3RD
5022	5021	R7	3	1	0		3RD
5023	5025	R1	23	7	1		2ND
5023	5025	SAV	3	1	0		2ND
5029	Ditch 5048	WILRE	9	1	0		E-M2ND
5029	Ditch 5048	MICGW	57	0	1		E-M2ND
5029	Ditch 5048	BB1	24	2	0		E-M2ND
5029	Ditch 5048	GROG	27	4	1		E-M2ND
5029	Ditch 5048	SAM	22	1	0		E-M2ND
5029	Ditch 5048	SAV	28	2	0		E-M2ND
5034	5033	MICGW	19	0	1		3RD
5034	5033	BB1	41	0	1		3RD
5034	5033	BB1	10	0	1		3RD
5034	5033	BB1	170	22	0		3RD
5034	5033	BB1	8	0	1		3RD
5034	5033	BB1	31	0	1		3RD
5034	5033	BB1	92	0	3		3RD
5034	5033	BB1	230	0	3		3RD
5034	5033	BB1	530	52	0		3RD
5034	5033	SAM	15	0	2		L2ND-3RD
5035	5033	BB1	32	6	0		2ND-3RD
5035	5033	SAM	12	0	1		2ND-3RD
5036	Ditch 5048	SWOX	2	0	1		2ND-3RD
5036	Ditch 5048	BB1	15	1	0		2ND-3RD
5044	5043	R	1	2	0		ROMAN
5050	5043	SWOX	1	1	0		2ND-3RD
5050	5043	WMBBW	1	1	0		2ND-3RD
5050	5043	R7	7	2	0		ROMAN
5054	Ditch 5027	MICGW	7	1	0		2ND-4TH
5054	Ditch 5027	SWOX	24	9	0		2ND-3RD
5054	Ditch 5027	BB1	108	16	0		3RD-4TH
5054	Ditch 5027	O10	4	2	0		ROMAN
5054	Ditch 5027	O15	6	1	0		2ND-3RD
5054	Ditch 5027	R10	3	0	1		2ND
5054	Ditch 5027	R15	29	3	0		ROMAN
5054	Ditch 5027	R6	6	1	0		ROMAN
5054	Ditch 5027	SAM	45	1	0		2ND-3RD
5056	Ditch 5027	GROG	17	1	0		1ST-2ND
5065	Ditch 5064	WMBBW	8	3	0		1ST

5065	Ditch 5064	L1	4	2	0		1ST
5065	Ditch 5064	L2	1	1	0		1ST
5065	Ditch 5064	R1	1	1	0		1ST
5065	Ditch 5064	SAV	224	0	1		1ST
5065	Ditch 5064	SL	3	1	0		1ST
5068	Well 5066	SWOX	45	2	0		2ND-3RD
5068	Well 5066	O10	26	2	0		2ND-3RD
5072	Layer	MICGW	18	0	1		4TH
5072	Layer	MICGW	23	0	1		4TH
5072	Layer	WMBBW	6	2	0		4TH
5072	Layer	WILRE	18	0	1		4TH
5072	Layer	SVW?	6	1	0		4TH
5072	Layer	BB1	16	0	1		4TH
5072	Layer	BB1	7	0	1		4TH
5072	Layer	NFCC	15	1	0		4TH
5072	Layer	O15	4	1	0		4TH
5072	Layer	OXCC	4	1	0		4TH
5072	Layer	SAV	6	1	0		4TH
5089	Well 5087	MICGW	14	2	0		L2ND-3RD
5089	Well 5087	SVW	20	1	0		L2ND-3RD
5089	Well 5087	SWOX	20	0	1		L2ND-3RD
5089	Well 5087	BB1	25	3	0		L2ND-3RD
5089	Well 5087	O10	2	1	0		L2ND-3RD
5089	Well 5087	R1	2	1	0		L2ND-3RD
5089	Well 5087	R6	5	1	0		L2ND-3RD
5089	Well 5087	R2	30	1	1		L2ND-3RD
5089	Well 5087	SAM	2		1		L2ND-3RD
5091	Well 5087	MICGW	60	4	1		2ND-4TH
5091	Well 5087	SWOX	111	0	1		2ND-3RD
5091	Well 5087	SWOX	175	13	2		2ND-3RD
5091	Well 5087	BB1	77	6	2		2ND-4TH
5091	Well 5087	NFCC	12	1	0		4TH
5091	Well 5087	O10/11	26	4	0		ROMAN
5091	Well 5087	OXCCM	11	4	0		3RD-4TH
5091	Well 5087	R00	170	22	2		ROMAN
5091	Well 5087	SAM	10	1	0		2ND-3RD
5091	Well 5087	SAV	714	5	1		2ND-3RD
5093	Ditch 5092	O10/11	8	3	0		2ND+
5093	Ditch 5092	SAM	3	1	0		2ND+
5098	Layer	MICGW	40	3	0		2ND-3RD
5098	Layer	SVW	4	1	0		2ND-3RD
5098	Layer	SWOX	13	3	0		2ND-3RD
5098	Layer	SWOX	17	0	0		2ND-3RD
5098	Layer	MALVLI	14	1	1		RESID
5098	Layer	BB1	30	0	1		2ND-3RD
5098	Layer	BB1	30	4	0		2ND-3RD
5098	Layer	R15	41	2	0		2ND-3RD
5098	Layer	R6	20	4	0		2ND-3RD
5098	Layer	SAM	23	2	0		2ND
TOTAL			5001	425	57		

APPENDIX 2

Worked flint by Graeme Walker

Six flints were recovered from the SMR flint scatter at ST 8880 7653 (site B). Unfortunately the group is not diagnostic. The remaining 17 flints were recovered from features within the pipeline corridor, a further 2 flints were recovered from unstratified contexts. Many are damaged and/or broken.

The material appears broadly late-prehistoric in character although 2 broken pieces from site D, context (401), might be Mesolithic.

Most of the material is small secondary and tertiary flint flakes, although a small quantity of chert is also present.

APPENDIX 3

Animal Bone by Tracey Stickler

SUMMARY

There is a high incidence of green fracture and heat treatment throughout the assemblage suggesting active marrow extraction in all the time periods.

The local environment supported populations of Red and Roe deer which were exploited. However, the general fragmentation of the assemblage means that the degree of exploitation of the wild taxa can not be ascertained and so may have been only minimal. The apparent significance of the deer has been increased by the low survival of identifiable evidence for the domestic taxa

METHODS

Specimens where possible were identified to species, or to higher order taxa of: LAR (large artiodactyle); SAR (small artiodactyle); or Small. The osteological differences between sheep and goat were identified after J. Boessneck (1969), weathering stages were assigned after R. L. Lyman (1994), and animal ages ascertained from epiphyseal fusion and tooth eruption after I. A. Silver (1969), and from tooth wear after A. Grant (1982). Measurements are taken as outlined by A. Von den Driesch (1976), and withers height calculations as presented by J. Matolcsi (1970).

Archive data is in the excel spreadsheet accompanying this document. When possible the following data is collected by context:

Element

Handedness

Species

Sex

Fusion

Tooth wear score

Mandible wear score

Age status

Colour

Feel

Condition

Mineralisation

Weathering

Staining

Modification

When, type of fragmentation, and remaining portion

Type, portion and location of butchery

Portion and location of pathology with notes

Measurements, calculated height and build

SUMMARY OF RESULTS

AREA B

Undated

Pit [201] context (204) produced 55 bone specimens: 4 cattle teeth of mid range wear; 5 LAR and 46 unidentified fragments. All were unaltered and showed no signs of weathering or modification.

AREA C

Early to mid Iron Age

Ditch [536] context (538) produced 26 bone specimens: 1 adult horse proximal phalanx in poor condition; 4 cattle, 1 measurable astragalus showing butchery and 2 teeth of average wear; 1 sheep; and 1 Small showing staining and green fracturing; 16 are unidentified. All display extensive root damage and are in poor condition.

Ditch [542] context (543) produced 3 unidentified bone specimens: 2 being stained red but unaltered by heat, and 1 being carbonised.

Romano-British

Ditch [503] context (504) produced 1 dog tooth and 3 unidentified specimens, all display poor condition suggesting exposure.

Pit [510] produced a single Fox tooth in context (511).

Pit [520] context (521) produced 17 bone specimens: 1 Red deer tooth; 1 carbonised sheep bone; 6 unaltered LAR; 9 unidentified, 3 of which were calcined. Context (522) produced 2 SAR, 1 of which displays butchery, the other green fragmentation.

Ditch [524] context (525) produced 18 bone specimens: 14 cattle (10 of a right scapula being contiguous, and 2 contiguous for a left mandible); 2 sheep; and 2 unidentified. All specimens show root damage, 2 are gnawed, and all are in poor condition but unaltered by heat.

Pit [530] context (531) produced 6 bone specimens: 1 Red deer tooth; 1 sheep tooth; 1 cattle fragment; and 3 unidentified. All the bones display black spotting but are unaltered and in good condition. The pit cut produced an adult cattle metatarsal which, the bone displays an unusually large proximal articulation foramen., while measurement gives a calculated withers height of 1236.4 mm, this is within range for the date (Dobney *et al* 1996).

Ditch [562] produced 9 unidentified fragments of bone that had been heated.

Post medieval to modern

Pit [557] context (559) produced 9 unidentified specimens all showing green fracturing and the effects of heating.

Undated

Ditch [528] context (529) produced 30 bone specimens: 18 LAR, 1 tooth, 12 in poor condition, 5 being contiguous; and 12 unidentified, all showing dry fragmentation; also a naturally cast Roe Deer antler base.

Unstratified produced 17 bone specimens: 1 carbonised cattle bone; 3 calcined, green fractured SAR fragments; and 13 unidentified fragments, 3 of which show green fracturing and carbonisation, and 10 being in very poor condition.

AREA E

First century

Ditch [5064] context (5065) produced 5 specimens: 1 Small displaying root damage and some chop marks; and 4 unidentified and unaltered fragments.

Second century

Posthole [5004] context (5003) produced 1 specimen of Red deer that had been heated.

Posthole [5008] context (5007) produced 1 Small specimen which had been fractured when green and heated.

Ditch [5009] context (5010) produced 10 bone specimens: 4 cattle; 2 dog, 1 being unfused; and 4 unidentified. All were unaltered and in good condition with no colouring.

Pit [5015] context (5016) produced 166 bone specimens which indicated at least 2 animals. All skeletal regions are present but interpretation of the relative portions is not possible in the absence of excavation notes. At best all that can be said is that a mature (male ?) sheep or goat, and an immature sheep of 1yr 6mths to 2yr 6mths of age are represented. The condition of all specimens is normal and unaltered with no evidence of butchery. One 3rd phalanx may have been deformed as a result of a foot condition.

Ditch [5025] context (5023) produced 7 bone specimens: 1 juvenile sheep; 1 Small bone showing butchery; 1 green fractured horse rib; and 4 unidentified fragments that had been burned.

Ditch [5092] context (5093) produced 1 unidentified specimen that had been fractured when green and heated.

Second to third century

Ditch [5018] context (5019) produced 19 bone specimens: 11 Red deer, 1 showing green fracture and butchery, 9 contiguous fragments of right mandible, and 1 tooth; 2 calcined SAR specimens; 6 unidentified specimens, 1 calcined and 1 carbonised. None of the Red deer specimens appear to have been burned.

Second to early fourth century

Ditch [5027] context (5029) produced 17 LAR fragments, 3 showing slight mineralization but all otherwise unaltered. A left scapula specimen showed some butchery. Context (5054) produced 20 bone specimens: 2 Red deer teeth; 8 LAR (4 of which were contiguous and displayed green fracturing); 2 SAR which have been heated and are in poor condition; and 8 unidentified fragments which have been heated.

Ditch [5033] context (5034) produced 16 bone specimens: 9 contiguous fragments of a weathered cattle Humerus, some marks suggest either butchery or wear from suspension when most of the meat had been removed; 7 unidentified fragments, 2 showing green fracture and carbonisation.

Well [5087] context (5089) produced 8 bone specimens: 1 portion of a horse tooth; 2 heated SAR displaying butchery; 2 LAR green fractured and heated; and 3 calcined unidentified fragments. Context (5091) produced 16 specimens: 5 unaltered cattle specimens; 1 LAR; 1 Small that has been fractured while green and heated, and punctured when dry; 4 teeth, 1 being horse, 2 sheep, and 1 Red deer; and 5 unidentified fragments that show some green fracturing and heating.

Undated

Posthole [5096] context (5098) produced 4 bone specimens: 1 horse tooth; 1 red stained SAR specimen that has been gnawed; and 2 unidentified specimens that have been fractured while green and heated.

CONCLUSIONS

The material from Area B is very fragmentary and provides little upon which to base any interpretations.

In Area C the material associated with the Iron Age ditches is of very poor condition, this probably being due to the extensive root action evidenced. The condition of the Romano-British material is in general better than that of the Iron Age, with less evidence of actual root damage. A high level of fragmentation is still evidenced but in this instance it is associated with the probable extraction of bone marrow, indicated by the evidence of green fracturing and heating to melt the fats. Marrow extraction continues to be strongly suggested by the Post-Medieval material also. The presence of a naturally cast antler may within reason be taken to indicate a local environment supporting established populations of deer.

In Area E, that activity occurred in the first century is about all that can be deduced from that material. The second century is similarly represented but for pit [5015], which produced the articulated skeletons. Unfortunately taphonomic interpretation is not possible so the conditions of deposition can not be ascertained, all that can be concluded is that there is no evidence for a period of exposure or scavenger activity, suggesting intentional burial rather than refuse pit discard. The consistent presence of Red Deer teeth likely indicates an established local population, that they were utilised is evidenced at least for the second to third century. The second to fourth century period also saw active marrow extraction.

BIBLIOGRAPHY

- Boessneck J. 1969. 'Osteological differences between sheep (*Ovis aries* Linne) and goat (*Capra hircus* Linne).' pp. 331-58 in Brothwell, D. and Higgs, E. S. (eds.), *Science in Archaeology*. London.
- Dobney K. *et al.* 1996. *Of Butchers and Breeds*. Lincoln Archaeological Studies, No 5.
- Grant, A. 1982. 'The use of tooth wear as a guide to the age of domestic ungulates', pp. 91-108 in Wilson, B., Grigson, C. and Payne, S. (eds.), *Ageing and Sexing animal bones from archaeological sites*. British Archaeological Reports, British Series 109. Oxford.
- Lyman R.L. 1994. *Vertebrate Taphonomy*. CUP.
- Matolcsi, J. 1970. Historische Erforschung der Körpergröße der Rindes auf Grund von ungarischem Knochenmaterial. *Zeitschrift f. Tierzucht. Und Zuchtungsbiologie* **87**,89-137.
- Silver, I. A. 1969. 'The ageing of domestic animals' pp. 283-302 in Brothwell, D. and Higgs, E. S.(eds.), *Science in Archaeology*. London.
- Von Den Driesch A. 1976. *A Guide to the Measurement of Animal Bones from Archaeological Sites*. Peabody Museum Bulletins. Harvard University.

APPENDIX 4

Worked stone by Fiona Roe

The broken half of a pebble-hammer stone was retrieved within Area E from Romano-British ditch [5034] (Fig. 9). It was broken across the hour-glass shaped shafthole, the surviving end being somewhat battered. It appears to have had a secondary use as a whetstone. The original pebble would have been more rounded in shape, but both sides are now flattened by wear, and there also appears to have been some use on the top and bottom surface.

The stone is a grey, slightly micaceous sandstone, possibly originating in the Cretaceous Lower Greensand. It may have been collected as a pebble from local gravels belonging to the River Avon, or else from local Pleistocene Drift.

This type of shafthole implement is early Prehistoric in date, but is difficult to date more precisely than to a generalised Mesolithic to Bronze Age date range (Woodcock *et al* 1988, 30; Roe 1979, 36). Pebble hammers also occur quite frequently as apparently residual finds in Iron Age or Roman contexts, but the re-use as a whetstone is unusual, and seems likely to be contemporary with the finds of third century-pottery from the ditch. It is difficult to know what the purpose of these drilled pebbles may have been, but use as weights for bow drills or small, all purpose hammers are possibilities. In Wiltshire, other examples of pebble-hammers include finds from Neolithic sites at Durrington Walls and Windmill Hill, and an Iron Age site at Fifield Bavant.

APPENDIX 5

Miscellaneous Finds by Emma Harrison

Metalwork - Cu alloy

Area B

Small find 2, (202) (Fig. 9). 1 Copper alloy disc brooch with central raised ring. The recess within this ring contains a boss, the centre of which is also recessed. The edge is moulded and there is a slightly raised moulding between the edge and central ring. Traces of gold leaf are apparent between the edge and central ring. The hinged pin is missing. Diameter 30mm. Date: mid first to late second century (Hattatt, 1982)

Hattatt, R 1982. *Ancient and Romano-British Brooches*.

Metalwork - Iron

A small quantity of ironwork was recovered including 13 nails, 1 knife blade and a dome-headed stud. Details are listed below.

unstrat	1 knife blade fragment
unstrat W of Area B	1 nail with round head and square shank
	1 nail with rectangular head and square shank

Area D

409	1 dome-headed stud
-----	--------------------

Area E

5010	1 rod with square section
5028	3 ?nail shanks
	1 encrusted lump, possibly nail head
5072	1 nail with round head and square shank
5089	2 nails with round heads and square shanks
5091	2 nails with round heads and square shanks
	3 fragments
5098	1 nail with round head and square shank

Daub

Context	No	Wgt	Comments
Area C			
unstrat	1	1g	
531	16	162g	3 joining fragments; 1 with wattle impression
538	1	12g	wattle impressions
Area E			
5014	1	3g	
5019	1	3g	daub/fired clay
5022	1	4g	
5054	3	8g	
5089	1	8g	
5091	2	42g	daub/fired clay
5098	2	88g	

A small quantity of daub (331g) was recovered from nine features. The majority are small, formless fragments, but two fragments from 531 and 538 do have wattle impressions.

Glass

1 sherd of clear modern vessel glass was recovered from 521 (Area C).

Slag

Small quantities of slag were recovered from four features (Area C, 559; Area E, 5022, 5054, 5091). While pit 703 (Area G) contained a larger amount of material (896g), the fact that this is an isolated and undated feature means it can add little to our understanding of the sites along the pipeline.

APPENDIX 6

Concordance of finds

Context	Description	Pottery		Animal Bone		Other
		No	Wgt	No	Wgt	
Unstrat	W of Area B	5	25g			2 struck flint (15g); 2 Fe nails; 1 fired clay frag
Area B						
Unstrat						1 Cu alloy brooch
202	Pit 201					6 struck flint (14g)
204	Pit 201			54	233g	
Area D						
401	Subsoil	1	1g			Flint
404	Pit 403	1	1g			1 struck flint (1g)
409	Pit 407	1	10g	3	1g	1 Fe tack
Area C						
Unstrat		31	226g	14	59g	1 slag frag (14g); 1 fired clay frag (1g)
504	Ditch 503	8	18g	4	12g	
511	Pit 510	3	30g	1	<1g	
513	Ditch 512	5	21g			
521	Pit 520	12	56g	15	130g	1 glass sherd
522	Pit 520	3	23g	2	7g	
525	Ditch 524	4	14g	17	534g	
527	Ditch 524	1	8g			
529	Ditch 528			30	245g	
531	Pit 530	20	218g	9	245g	1 struck flint (3g); 18 daub (162g)
538	Ditch 536	12	58g	26	236g	1 daub (12g)
543	Ditch 542	9	72g	3	2g	
559	Pit 557	1	4g	9	32g	2 slag (104g); 1 clay pipe stem
563	Ditch 562	1	14g	9	43g	
Area E						
5001	Rubble spread	2	3g			
5003	Posthole 5004	8	36g	7	46g	
5007	Posthole 5008	6	30g	1	5g	
5010	Ditch 5009	10	114g	10	104g	1 Fe object
5012	Gully 5011	15	26g			
5014	Ditch 5013	4	8g			1 daub (3g)
5016	Pit 5015	7	33g	160	612g	
5019	Ditch 5018	2	16g	14	211g	1 daub (3g)
5020	Ditch 5018	1	50g			
5022	Ditch 5021	12	80g	1	1g	1 slag frag (22g); 1 daub frag (4g)
5023	Ditch 5025	9	26g	6	17g	
5024	Ditch 5025			1	8g	
5028	Ditch 5027					4 Fe frags
5029	Ditch 5048	9	167g	18	172g	
5034	Ditch 5033	87	1176g	16	273g	
5035	Ditch 5033	3	44g			
5036	Ditch 5048	2	17g			

5038	Ditch 5040	1	1g			
5042	Gully 5041	1	3g			
5044	Gully 5043	3	1g			
5050	Gully 5043	4	6g			
5054	Ditch 5027	33	237g	20	183g	3 daub fragments (8g); 1 slag fragment (19g)
5056	Ditch 5027	1	17g			
5065	Ditch 5064	10	247g	5	12g	
5068	Cut 5066	4	70g			
5072	Layer	12	129g	1	14g	1 Fe nail; 1 flint (5g); 1 coal fragment (8g)
5089	Well 5087	13	119g	6	92g	2 Fe nails; 1 daub fragment (8g)
5091	Well 5087	71	1460g	16	255g	2 Fe nails + 3 fragments; 1 slag fragment (68g); 2 daub fragments (42g); 3 struck flint (19g)
5093	Ditch 5092	4	12g	1	2g	
5098	Posthole 5096	22	236g	3	50g	1 Fe nail; 2 daub fragments(88g); 2 coal fragments (15g)
5099	Posthole 5096			1	2g	
Area G						
704	Pit 703					38 slag (896g) from sample 5