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Archaeological Investigations on the A34 Newbury Bypass, Berkshire/Hampshire, 1991-7

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December 1999

ARCHAEOLOGICAL INVESTIGATIONS ON THE A34 NEWBURY BYPASS, BERKSHIRE/HAMPSHIRE, 1991-7

by Vaughan Birbeck

with contributions by Michael J. Allen, Phil Andrews, Peter S. Bellamy, Nicholas Cooke, Joy Ede, Rowena Gale, Emma Loader, Richard I. Macphail, Lorraine Mepham, Frances Raymond, Rachael Seager-Smith and Sarah F. Wyles

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Summary

Archaeological investigations along the route of the A34 Newbury Bypass employed a staged approach to assess the likely impact of the road on archaeological remains and allow appropriate mitigation strategies to be developed. All existing material was reviewed to provide baseline data. This was followed by field evaluation employing both intrusive and non-intrusive techniques to confirm the presence and significance of remains.

This process confirmed the existence of archaeological remains at ten sites: Great Pen Wood, Enborne Street, Wheatlands Lane, Enborne Road, Elmore Plantation, Bath Road, the Lambourn Valley, Hills Pightle, Swilly Copse and Curridge Road. Two of these sites, early Roman material at Enborne Road and *in situ* Mesolithic deposits in the Lambourn Valley, were thought to be of regional or national importance, and a medieval site at Enborne Street/Wheatlands Lane was thought to be of regional importance. All the other sites were considered to be of local importance.

Three different strategies were employed to mitigate the archaeological impact of the road. At Enborne Road and the Lambourn Valley, sites that were thought to be of regional or national importance, the design of the road construction requirements was amended so as to allow archaeological remains to be preserved *in situ*. At the other sites, where the new road would destroy all the remains, mitigation took the form of archaeological investigation and recording, prior to construction works. This entailed set-piece excavation in only one case, with the majority of sites being investigated by a 'strip and record' technique designed to ensure that the full extent of the archaeological remains within the road corridor was recorded. An archaeological watching brief was also maintained over all groundworks undertaken along the bypass route.

The results of these staged investigations are presented in a descriptive text intended to be intelligible to a wide readership, with more detailed and specialist reports presented separately as appendices.

Four sites of prehistoric date were investigated along the bypass route. Part of the Lambourn Valley Mesolithic site, which was thought to contain *in situ* deposits, was preserved through the relocation of a balancing pond. However, part of the site lay directly on the line of the road and could not be preserved; this was excavated by York Archaeological Trust. The excavation identified two concentrations of flintwork,

interpreted as a 'home base' site of later Mesolithic date, in which a wide range of activities were carried out using a varied tool kit.

Evidence for Neolithic and Bronze Age activity along the Bypass route comprised a flint scatter at Curridge Road, Middle Bronze Age features at Swilly Copse, a group of Middle and Late Bronze Age features at Bath Road and colluvial deposits of Middle-Late Bronze Age date on the Lambourn Valley and Elmore Plantation sites. These were investigated using the 'strip and record' technique. No certain evidence for settlement dating to these periods was found. This may reflect the often ephemeral nature of such sites, particularly those of Neolithic date, or these isolated features may simply be peripheral to settlement sites that lie beyond the road corridor.

Prehistoric material, mostly worked flint of Mesolithic, Neolithic and Bronze Age date, was also recovered from features and deposits of later date along most of the route, indicating that prehistoric activity in the area was more widespread than the distribution of prehistoric sites along the route suggests.

Four sites of Romano-British date were investigated using the 'strip and record' technique. The Enborne Road site included material of early Roman (pre-Flavian) date; the design requirements of the road were amended to allow this site to be preserved beneath an embankment. The sites at Bagnor Road and Enborne Road appear to represent farmsteads of unknown size. The Bagnor Road site probably originated in the Late Iron Age and continued in use over most of the Romano-British period; the very early date of some of the features on the Enborne Road site suggest that this was also the case there. The nature of the activity represented by the Romano-British remains recorded at Elmore Plantation is less clear, however, it is probable that this too was a farmstead. At Great Pen Wood, on the low plateau to the south of the Kennet valley, the nature of the activities represented by the very disturbed features recorded, is uncertain: the heavy clay subsoil and waterlogged ground conditions would have made this an unpromising area for agriculture or settlement.

Three sites of medieval date were located within the Bypass corridor and investigated using the 'strip and record' technique. The remains excavated at Hill's Pightle probably represent a small croft or farmstead, situated in a chalkland dry valley. The Enborne Street and Wheatlands Lane sites were situated on a ridge of London Clay towards the southern end of the Bypass route. Large quantities of pottery and tile dating to the 13^{th} –14^{th} century were recovered, the fragile and poorly-fired condition of which suggested that it represented waste material from kilns. Given the close proximity of the two sites, their similar dating and nature, it is thought that they represent a dispersed ceramics industry, exploiting the London Clay.

Post-medieval evidence from the Bypass route was largely confined to field boundaries encountered during the watching brief and strip and record operations and in some cases recorded on estate or other maps. No evidence associated with the two Civil War battles of Newbury was found.

Environmental evidence from along the route was generally limited. Although sufficient evidence was recovered to allow specific activities and in some cases

localised land use to be identified, there was little evidence of the wider landscape through the archaeological periods represented along the route.

The discovery of only a single 'unexpected' site – part of the Romano-British farmstead at Bagnor Road, which was located in an area peripheral to the main line of the road and had therefore not been included in the evaluation trenching programme – demonstrates the success of the evaluation in locating archaeological sites. This success was supported by the employment of the 'strip and record technique' in mitigation, which ensured that sites located by the evaluation were recorded over their full extent within the road corridor. The general absence of archaeological discoveries during the watching brief, beyond a small number of isolated features, indicates that the level of archaeological activity across large parts of the route was relatively low, and further demonstrates the success of the evaluation and strip and record techniques in locating and defining the extent of sites.

The archaeological investigations along the line of the A34 Newbury Bypass have been viewed as an opportunity to consider the evolution of the landscape and the part that people have played in its management and inhabitation. The bypass corridor crosses a number of topographical/geological zones, the archaeological potential of some of which was already well established, while little was known of that of others owing to a lack of previous archaeological work. The road corridor transect has allowed the investigation of a sample of these landscapes, although the restricted width of the transect means that, in many cases, the extent or nature of the archaeological sites remains uncertain. Nevertheless, the data provides an invaluable tool with which to review perceptions of human activity across varying landscapes over a long period of time.

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The Lambourn valley excavation was managed on site for York Archaeological Trust by W.A. Boismier and Robbie Browse; on-site finds work was managed by James Kenny. Site work was supervised by John Wildman.

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1. INTRODUCTION

Project Background

Newbury is situated in West Berkshire, approximately 3km north of the border with Hampshire (Fig.1). The town is sited on the floodplain of the River Kennet, close to the confluence with the River Lambourn, at a point where the Oxford to Southampton road, the A34, crosses the river and the London to Bath road, the A4, passes to the north. In response to increasing traffic congestion in the town during the 1980s,the Department of Transport put forward proposals to construct a north-south bypass to divert traffic travelling on the A34, designated a European trunk road by the EU, away from the town centre. The relative merits of bypass routes to the east and west of the town were considered at a Public Inquiry in 1988.

The historical development of Newbury in part arises from its position at a natural crossroads. However, evidence for earlier settlement in the area has long been known. Roman remains have been found in Newbury and the surrounding area, and this part of the Lambourn/Kennet valley was extensively farmed at least 2000 years ago. Earlier still, all along the Kennet valley there is evidence that semi-nomadic people hunted in the river valleys and the surrounding woodlands. It was therefore likely that, whichever bypass route was selected, the construction of the new road would have lead to the discovery of archaeological remains.

The Public Inquiry report indicated that the Department of Transport's preferred route for the bypass lay to the west of Newbury. In view of the likely presence of archaeological remains, Wessex Archaeology was appointed by the consultant engineers, Mott MacDonald, on behalf of the Department of Transport, to undertake an archaeological assessment of the preferred route. This first assessment involved both a review of existing information on the archaeology of the area and a limited field evaluation, carried out during 1991 and 1992. This confirmed the archaeological potential of parts of the route. This assessment was followed by a further stage of field evaluation during 1993-4 to determine the importance of these remains and to identify any need for remedial archaeological work ('mitigation').

The final stage of archaeological fieldwork was carried out in 1996-7, after government approval had been given for the construction of the bypass. This was concerned primarily with the mitigation of the archaeological impact of the road

through the preservation of two of the most important sites, and a series of archaeological investigations to record other sites prior to construction of the road.

Following completion of the final stage of fieldwork and the assessment of the results, Wessex Archaeology were commissioned by Mott MacDonald, on behalf of the Highways Agency, to produce a single, integrated report presenting the results of all the archaeological investigations carried out along the route of the Bypass. Rather than presenting a detailed description of each site and its finds, a summary of the results from each is provided here, arranged by period. The summary descriptions are followed by a narrative discussion of the overall findings in their wider local and regional contexts. More detailed specialist reports are provided as appendices.

Chronology
The following periods are referred to in this report:

Palaeolithic	**500,000 – 10,000 BC**
Mesolithic	**8500 – 4000 BC**
Neolithic	**4000 – 2400 BC**
Earlier Neolithic	4000 – 3000 BC
Later Neolithic	3000 – 2400 BC
Bronze Age	**2400 – 700 BC**
Early Bronze Age	2400 – 1500 BC
Middle Bronze Age	1500 – 1100 BC
Late Bronze Age	1100 – 700 BC
Iron Age	**700 BC – AD43**
Early Iron Age	700 – 400 BC
Middle Iron Age	400 – 100 BC
Late Iron Age	100 BC – AD 43
Roman	**AD43 – AD410**
Early Roman	AD 43 – 150
Mid Roman	AD 150 – 250
Late Roman	AD 250 – 410
Saxon	**410 – 1066**
Early Saxon	410 – 650
Mid Saxon	650 – 850
Late Saxon	850 – 1066
Medieval	**1066 – 1499**
Early medieval	11th century
Earlier medieval	12th – 13th century
Later medieval	14th century
Late medieval	15th century

Post-medieval	**1500 – 1799** (16th – 18th centuries)
Modern	**1800 – present** (19th – 20th centuries)

The Physical Background: Geology, Topography and Land-use (Fig. 2)

The Bypass route lies to the west of Newbury, and runs approximately south-north. The Bypass is mostly in the former Royal County of Berkshire (now West Berkshire), with a *c.* 3.9km stretch in Hampshire. From the existing A34 trunk road in Hampshire, some 6.5km south of Newbury at SU 46150 60700, the route follows the course of the former Didcot to Southampton railway, entering Berkshire where it crosses the River Enborne. It continues along the course of the former railway until immediately to the south of the Kennet and Avon Canal, where the Bypass route continues northwards crossing the valleys of the Rivers Kennet and Lambourn to the west of Newbury, near the villages of Speen and Donnington. From here the route passes to the south of Snelsmore Common, and rejoins the existing A34 approximately 3.5km north of Newbury at SU 47200 71000. The total length of the route is 13.5km.

Sites along the route can be considered to be in one of four distinct topographic and geological locations, which can be characterised as follows:

1. A low plateau, with a ridge of London clay running from south-west to north-east across its centre, occupying most of the southern half of the route to the south of the Kennet valley. This lies at between 96m and 110m OD and is divided by the valley of the river Enborne. The underlying geology comprises London Clay (blue-grey marine clay), Reading Beds (variable sands, clays and gravels) and Bagshot Beds (sands with seams of clay).

2. Chalkland with dry valleys occupying most of the northern half of the route to the north of the Kennet valley and divided by the Lambourn valley, lying at between 94 and 125m OD. The underlying geology comprises Upper Chalk, some of which is overlain by Reading Beds, or Plateau gravels.

3. The valley floors of the rivers Enborne, Kennet and Lambourn which lie at approximately 92m OD, 76m OD and 79m OD respectively. The underlying drift geology comprises a mixture of terrace gravels, river gravels, peat and alluvium.

4. The valley sides which rise from the valley floors to the chalk downland or the low plateau. These vary from steep (the northern sides of the Kennet and Lambourn) to very gentle (the sides of the Enborne valley). The underlying geology comprises a mixture of Terrace gravels, Reading Beds and Upper Chalk.

During the course of the archaeological investigations, sites were recognised and excavated or preserved *in situ* in all of these zones. Three sites (Great Pen Wood, Enborne Street and Wheatlands Lane) were situated on the low plateau to the south of the route, four sites (Bath Road, Hills Pightle, Swilly Copse and Curridge Road) were

on the chalk downland, three sites (Enborne Road, Bagnor Road and Elmore Plantation) were on the valley sides of the Kennet and Lambourn, and a single site (Lambourn Valley) was on the valley floor.

The modern land use along the route reflects the changing geology and topography. On the southern plateau, on the London Clay and Reading Beds, are woodland and small fields, mainly under pasture but with some arable use. The gravel terraces of the River Kennet allow more arable farming with a tendency towards larger and more regular fields. To the north of the river Kennet lies an area of very wet floodplain with extensive drainage systems, which comprises a mixture of pasture and woodland. In the chalkland and the valley of the River Lambourn arable farming and large fields are dominant, although woodland predominates where plateau gravels overly the chalk.

Archaeological Background

The area around Newbury, especially the Kennet valley, lies within an area which was the subject of a detailed archaeological survey. The results of the study have recently been published and serve as a timely statement of the potential for the discovery of archaeological remains within the lower Kennet valley (Lobb and Rose 1996). The Kennet valley is particularly noted for remains of Mesolithic date (*c.* 8,500-4,000 BC), although there is evidence of past activity from almost every other archaeologically defined period.

Evidence from the earliest period of human activity, the Palaeolithic (pre-8,500 BC), in this area is restricted to isolated finds of flint tools, commonly hand-axes found during gravel extraction.

The Kennet valley between Woolhampton and Hungerford is one of the richest areas of known Mesolithic (8,500-4,000 BC) occupation in lowland Britain (Wymer 1978). Over the last 30 years more than 50 sites have been identified, and a number have been excavated. Typically, these sites consist of scatters of worked flint tools, sometimes accompanied by the remains of hearths and animal bones. Consequently, there is now evidence for a large number of sites in the valley, with radiocarbon dates ranging from over 10,000 years before present (bp) at Thatcham to around 5,000 bp at Wawcott (Lobb and Rose 1996).

This wealth of information reflects not just the level of fieldwork in the area, but also the significance of the valley during the Mesolithic period. The area as a whole would have acted as a natural routeway between the chalklands in the west and the Thames valley and beyond, to the east (Wymer 1978). At this time, the inhabitants of the Kennet valley lived by hunting, fishing and gathering. They were semi-nomadic, moving regularly over periods of a few days to possibly several months, making best use of the resources available in different places at different times. The density of sites around Newbury and the quantity of flintwork recovered suggests that this was a favoured area.

Riverside camps, which were probably occupied for relatively long periods of time, would have been perfectly placed to exploit the diversity of resources of both the river and forest environments. Occasional finds of this date on higher ground away from

the river, which was presumably heavily wooded, perhaps reflect hunting and gathering forays from the riverside camps.

Evidence in the Newbury area for Neolithic (4,000-2,400 BC) and Early Bronze Age (2,400-1,500 BC) settlement is scarce and restricted to isolated finds, almost invariably recovered from the excavation of sites of later periods. Some funerary monuments survive, however. The Bypass route passes approximately 1km to the west of a small barrow cemetery at Wash Common (centred on SU 455 648). A period of flooding in the lower Kennet and Lambourn valleys, which may have been caused by large scale woodland clearance on the Berkshire Downs and upstream in the upper Kennet valley, has been interpreted as evidence of agricultural activity and attributed to this period (Butterworth and Lobb 1992). However, there is little evidence for early agricultural settlement around Newbury itself. This may partly have been because the soils in the area were too heavy to have been worked by the simple form of plough used at that time. By the Middle to Late Bronze Age (1,500-800 BC) there is considerable evidence for an intensification of land-use and a large number of settlement and burial sites are known to the east of Newbury. Although no settlements are known in the immediate area around the Bypass route, there are many finds of this period recorded in the Berkshire County Sites and Monuments Record. The distribution of these finds, particularly around the area where the Bypass route crosses the Kennet Valley, suggests an extensive human presence.

Known archaeological sites and findspots of Iron Age date (800 BC-43 AD) are rare in the Newbury area, perhaps reflecting soil exhaustion caused by over-exploitation of the land (Butterworth and Lobb 1992), to the east of Newbury at least. A 'Celtic' field system covering an area of at least 2ha has been identified at Highclere (Lobb and Rose 1996) to the south of the route. Evidence for the clearance of woodland on Snelsmore Common to the north of the route, to create pasture, may reflect the expansion of agriculture into areas of heavier soils during the Iron Age (*ibid.*). An important factor which may have influenced the pattern, nature and economy of Iron Age settlements in the area, is the rise in power of the tribal centre or 'oppidum' at Silchester, approximately 18km to the south-east of the route. The surrounding countryside, including the Newbury area, would have come under the domination and control of this tribal centre, which may have functioned as a market and distribution point.

Following the Claudian landings of AD43, Roman conquest in the area of Berkshire and Hampshire is thought to have been rapid and straightforward, with the local Atrebates tribe offering no resistance. Silchester became the capital of the administrative district or 'civitas' of the Atrebates. *Calleva Atrebatum* served as the local administration centre and acted as an important Romanising influence over the tribal area as it developed into a planned, and subsequently walled, Roman town.

Large numbers of finds of Romano-British date have been recorded around the Newbury area. South of the Kennet, these finds probably indicate the presence of settlements along the floodplain terrace. One such settlement may be represented by a cemetery of one hundred inhumations found with 1st and 2nd century AD pottery, which was discovered during construction of the railway sidings in Newbury, approximately 2.6km to the east of the route (SU 475 668) (Peake 1931). These burials must have been associated with a settlement of significant size and status, but

none has yet been definitely identified in the close vicinity. Another site, at Salcombe Road, Newbury, approximately 1.2km to the east of the route (SU 4610 6629), can probably be regarded as a villa; this is suggested by finds of walls, tiles, plaster and a hypocaust (underfloor heating system) covering an area of approximately 8ha. A later Romano-British date is probable for this occupation. Twenty cremation burials were associated with this site (*ibid.*). At Hampstead Marshall, approximately 3km to the west of the route (SU 4160 6620), several pottery kilns of 2nd to 4th century date have been excavated (Rashbrook 1983).

The Antonine Itinerary, a list of Roman government stations and the distances along roads between them, which was compiled to assist Roman officials travelling around the country, records the existence of a station called *Spinis*, on the road between *Calleva Atrebatum* (Silchester) and *Cunetio* (Mildenhall, Wiltshire). The exact location of *Spinis* remains unknown, however. The distance from *Cunetio* recorded in the Antonine Itinerary suggests a location at Woodspeen, west of the present village of Speen (Rivet and Smith 1979); however, a concentration of finds further east, in and around the villages of Speen and Bagnor, suggests that this may be a more likely location. The name of Speen may be a survival of the name *Spinis*. Some antiquarians have regarded a site approximately 900m to the south in the grounds of Speen House as the location of *Spinis*, but this has been disputed on the grounds of the paucity of finds from the site.

Several coin hoards dating to the 4th century have been found around Newbury. Coin hoards may have been deposited as a means of disposal of devalued currency, or conversely for safekeeping in times of political uncertainty. Both a decline in the silver content of Roman coins and a series of army revolts are known to have occurred in the later Roman period. Finds of 4th century coins and other material indicate continued habitation in the area, but it is likely that the established Romano-British way of life underwent a slow decline (Lobb and Rose 1996, 92). Formal Roman administration ceased in AD 410, when the province of *Britannia* was officially abandoned.

Although there is some historical evidence for Saxon (AD 410-1066) settlement in and around Newbury (Astill 1978), the nature of this settlement is little understood. Saxon settlements are known from 9th and 10th century charters at Speen and Thatcham (Peake 1931), but only limited evidence has been discovered for a similarly dated settlement at Newbury. The manor of *Ulvritone*, noted in the Domesday survey of 1086, has not been found. It is possible that it formed the nucleus of the subsequent medieval town of Newbury, which is first recorded in documents dated to *c.* 1080 (Vince et al 1997).

The Bypass route passes through several parishes, which would have formed part of the rural hinterland of the medieval (AD 1066-1499) town of Newbury. The town developed steadily throughout the 12th and 13th centuries. After a short decline in its fortunes during the late 13th and 14th centuries, it reached its peak as a centre for the wool and cloth producing industries during the 15th and 16th centuries, possessing not only fulling mills but also a merchants' guild and weavers company (Astill 1978).

The Berkshire County Sites and Monuments Record details two scatters of medieval pottery close to the Bypass route at Wash Common. The route also passes close to the 14th century castle and probable manorial centre at Donnington.

The Bypass route crosses the western limits of the sites of two Civil War battlefields. Wash Common was the site of the first Battle of Newbury, which took place on the 20th of September 1643. Royalist troops were deployed along a line extending from the River Kennet to Wash Common in the south (Smurthwaite 1984). The most southerly of the Parliamentary forces were stationed on areas affected by the Bypass route, although most of the fighting was concentrated around Round Hill, to the east of the route. The second Battle of Newbury took place around Speen on the 27th October 1644. In an attempt to relieve besieged forces at Donnington Castle, the Royalists deployed an army to the north of Newbury, with strongholds at Shaw House and Speen (ibid.). Once again, the Parliamentarian forces may have been stationed in areas affected by the Bypass, but the fighting was concentrated to the east of the route.

Historically the battles were of considerable local importance, although neither can be regarded as a turning point in the Civil War. From an archaeological viewpoint, little if any evidence relating to these battles is likely to survive on the battle sites themselves.

Major post-medieval developments in the area were centred on new transport systems. The town was a popular staging post on the London to Bath road (A4). The Newbury – Kintbury section of the Kennet and Avon Canal was opened in 1797 and the Great Western Railway in 1847. The Southampton to Didcot railway line was constructed in the mid-late 19th century. These are all crossed or, in the case of the latter, partly followed by, the Bypass route.

Stages of Archaeological Fieldwork and Recording

The three stages of archaeological fieldwork were focussed on the road corridor selected for construction following the public inquiry.

Stage 1 evaluation

The first stage of archaeological evaluation was intended to identify areas of archaeological potential along the route and propose appropriate methods of further investigation.

During the summer of 1991, Wessex Archaeology staff were present while 55 geotechnical pits were being dug to test the underlying geology and natural deposits beneath the road corridor. This 'watching brief' was intended to observe and record any archaeological remains revealed during the test pitting, in order to provide background information as to where such finds might later be encountered. This was followed in November 1991 by a desk-top study of documentary sources, aerial photographs and information held on the Hampshire and Berkshire County Sites and Monuments Records. This examined existing data relating to a corridor 1km wide centred on the proposed Bypass route, in order to identify the archaeological potential of the area within or adjacent to the new road.

A programme of field evaluation was then carried out, between December 1991 and January 1992. This consisted of the excavation of 362 hand-dug test pits on land under pasture and woodland to recover artefacts from the topsoil, the field-walking of ploughed land to collect surface finds, and an auger survey in the Kennet valley. The latter was intended to establish the presence and nature of alluvium and peat, which might conceal archaeological sites, and identify any higher 'islands' in the underlying gravel where archaeological sites might be located. In addition, a walkover survey was undertaken through areas of woodland to identify any possible archaeological sites which might survive as earthwork features.

The results of the field evaluation provided evidence of artefact scatters of varying densities, which when combined with the results of the desk-top study, allowed several areas of higher archaeological potential to be identified. These were: an area of medieval activity around Reddings Copse; the Kennet and Lambourn valleys; and the northern slope of the Lambourn valley above Bagnor.

Stage 2 evaluation

Following the identification of these areas of higher archaeological potential by the Stage 1 evaluation work, a second stage of evaluation was undertaken between August 1993 and April 1994. The objective of this Stage 2 evaluation was to identify, characterise and define the limits of archaeological sites along the route, in order to determine the likely impact of the construction of the Bypass and allow appropriate mitigation strategies to be developed to alleviate this impact.

The Stage 2 evaluation consisted of the mechanical excavation of 422 trial trenches along the Bypass route, together with additional hand test-pitting and auger survey, and a geophysical survey to locate any buried remains at selected locations along the route. In the areas of higher archaeological potential identified by the Stage 1 evaluation, a 2% sample of the road corridor was investigated using machine trenches. In all other areas, a 1% sample was investigated. This work was undertaken prior to the issue of the compulsory purchase orders (CPOs) for the land and the clearance of woodland along the Bypass route, and consequently access was not available to some parts of the route.

The machine trenching was supplemented in areas where the results were unclear by geophysical survey. This employed non-intrusive, remote-sensing techniques to identify possible buried archaeological features, which could then be targeted for further investigation by additional machine trenches.

In the Kennet valley floodplain, the results of the Stage 1 evaluation suggested that 'islands' in the underlying river gravels might exist, sealed below peat deposits, and that Mesolithic deposits could survive *in situ* on such 'islands'. A series of targeted hand-dug test pits was therefore excavated to investigate this possibility.

The Stage 2 evaluation confirmed the existence of archaeological remains at ten sites (Great Pen Wood, Enborne Street, Wheatlands Lane, Enborne Road, Elmore Plantation, Bath Road, the Lambourn Valley, Hills Pightle, Swilly Copse and Curridge Road). Two of these sites, early Roman material at Enborne Road and *in situ* Mesolithic deposits in the Lambourn Valley, were thought to be of regional or national importance, and a medieval site at Enborne Street/Wheatlands Lane was

thought to be of regional importance. All the other sites were considered to be of local importance only.

Stage 3 fieldwork

Following purchase and clearance of the land, the Stage 3 fieldwork sought to complete the field evaluation process in those parts of the route to which access had not been available during the previous stages of work, and subsequently to mitigate the impact of the road construction on the archaeological sites identified during the evaluations.

Three different mitigation strategies were employed. At Enborne Road and the Lambourn Valley, sites which were thought to be of regional or national importance, it proved practicable for the design of the road construction requirements to be amended so as to allow archaeological remains to be preserved *in situ*. At the other sites, where the new road would destroy all the remains, mitigation took the form of archaeological investigation and recording, prior to construction works. Finally, an archaeological watching brief was maintained over all groundworks undertaken along the Bypass route, in order to allow any features of archaeological interest not meriting more formal mitigation, or any sites not identified by the evaluations, to be recorded prior to their destruction.

At the outset of the Stage 3 fieldwork, a total of 37 further machine trenches were excavated to complete the evaluation of those areas to which access had not previously been available, and to investigate possible features identified by the trial trenching and geophysical survey at Enborne Street, Bath Road and Swilly Copse. At the same time, during May to June 1996, a programme of 'strip and record' investigations was undertaken by Wessex Archaeology. Full excavation of part of the Lambourn Valley Mesolithic site which could not be preserved was undertaken by York Archaeological Trust (YAT) between July and October 1996. Additional field-walking was also undertaken at Curridge Road.

The strip and record investigations entailed the removal of topsoil from large areas, in order to define the nature and limits of the previously identified archaeological sites, and allow an appropriate level of recording to be undertaken, prior to the commencement of construction works in these areas. On the basis of the results of the evaluations, it was originally proposed to employ this technique at Great Pen Wood, Wheatlands Lane, Bath Road and Swilly Copse. Following the completion of the machine trenching, however, it was decided that the same strategy would be employed at two further sites, those at Enborne Street and Elmore Plantation.

The final extent of the strip and record areas was dependent on the findings, and was determined on site. Stripping was continued until the full extent of a located archaeological site along and within the route corridor was defined. The stripping was conducted using a tracked mechanical excavator equipped with a toothless bucket, working under continuous archaeological supervision. The spoil was removed from site by dumper truck. Stripping continued to the surface of the drift geology or archaeological deposits, whichever was encountered first. Following the removal of the topsoil, the sites were cleaned by hand where necessary, and all features were investigated by hand excavation.

The excavation of that part of the Lambourn Valley Mesolithic site which lay on the line of the new road was undertaken by YAT, in accordance with a detailed brief

prepared by Wessex Archaeology and approved by English Heritage. The methodology employed is described in Chapter 2.

A number of fields adjacent to the present course of the A34 at Curridge Road were field-walked for the surface recovery of artefacts. The fields were ploughed and left to 'weather', to allow the soil to settle and artefacts to become visible at the surface.

The watching brief on topsoil stripping in advance of construction started in July 1996 and continued until July 1997. During the watching brief, the areas to be preserved, at Enborne Road and at the Lambourn Valley, were closely monitored to ensure they were not damaged. An on-site archaeological presence was maintained to ensure communication with the various work crews and supply background information and advice where necessary.

Any archaeological remains encountered during the watching brief, which required more detailed investigation and recording, were dealt with under separate instruction. In this way a small site of Romano-British date, which was not found in the evaluation, was excavated and recorded at Bagnor Road. The watching brief also resulted in the recording of a small number of features of archaeological interest at Enborne Street, to the north of the A4 Bath Road, to the east of Swilly Copse and at Curridge Road, together with many features which proved to be of modern or natural origin.

Written, drawn and photographic records were made of all details of excavation and/or demolition likely to reveal material of archaeological significance, using Wessex Archaeology's standard recording system. Where possible features were revealed, these were investigated by hand excavation and fully recorded. Where more recent features, notably parts of the disused railway and agricultural drainage systems, were affected by the stripping, a full photographic record was made, augmented by plans and sections where necessary.

Establishing the ancient environment

A general policy of taking ten-litre samples of the soil from a range of dateable features at each site was employed for the recovery of charred plant remains and charcoal. This, it was hoped, would provide the basis for determining the local farming economy, the available natural resources, and the function of the sampled feature or deposit. This was particularly important in view of the lack of similar environmental investigation previously in the area beyond Newbury itself.

Where appropriate, the sediments and soils encountered were described *in situ* or as intact block samples in the laboratory. These descriptions provide specific interpretation of the processes which led to the formation of the sites, and the nature of the soil and sediment history of the excavated area.

The combination of these analytical approaches allows us to attempt a limited interpretation of the wide landscape in which the prehistoric, Roman, and medieval sites operated, and the farming economy beyond the confines of the excavated areas.

The only exception to this was the excavations in the Lambourn Valley, where a more site specific sampling policy was employed (YAT 1996).

In order to undertake this scientific programme it was important to be able to recover charred seeds and charcoal, often of microscopic scale, from the soils, and to select the appropriate samples for analysis. Following this identification analyses of the remains were performed by a series of specialists using standard techniques, which are described in Appendix 1.

Assessment and reporting

Following completion of the Stage 3 fieldwork, a post-excavation assessment of the results was undertaken by Wessex Archaeology in order to determine the potential of the evidence recovered to contribute to further research. The results of the Lambourn Valley excavation were assessed separately by YAT (YAT 1996).

Following discussions with English Heritage and the Highways Agency, Wessex Archaeology prepared an assessment report (Wessex Archaeology Report No. 36494, 1997) which put forward proposals for analysis and publication of the evidence from all sites investigated along the route of the Bypass, including the Lambourn Valley excavation.

The full details of the observations recorded during fieldwork and reports of analyses and research undertaken on the objects found have been combined into an archive of the project. This record has been left in the care of Newbury Museum (accession numbers NEBYM 1996.51 (Lambourn Valley) and NEBYM 1998.61 (all other sites)) so that it can be examined by anyone wishing to explore the evidence further. This report is based upon the reports contained in the archive and is written in a style as free as possible of excessive technical language, so as to make it understandable to a wide readership. Although some technical detail is necessary to support the interpretations presented in the main text, this has been displaced as a series of appendices so that a more succinct narrative can be presented.

In line with modern approaches to archaeology, the investigation of the line of the A34 Newbury Bypass has been viewed as an opportunity to consider the evolution of the landscape and the part that people have played in its management and inhabitation. The evidence recorded for a continuous human presence in the Newbury area is spread thinly through a wide time period and is concentrated spatially in a number of discrete 'sites'. These sites are described in chronological order, albeit that a number of sites contain evidence for different episodes of activity, sometimes widely separated in time. The results of this study alone make it impossible to write a continuous history of land use, but when they are combined with previous work in the region, a sound framework can be established which can be refined in the future as other opportunities for site investigation are taken.

2. THE PREHISTORIC PERIOD (8,500 BC - AD 43)

Although finds of Palaeolithic date (500,000-8,500 BC), mostly flint hand-axes, have been recovered in the Newbury area, no finds of this date were recovered during any stage of this archaeological project, and this period is therefore not considered further here.

As discussed above, the Kennet valley around Newbury is particularly renowned for its finds of Mesolithic date (c. 8,500-4,000 BC), with concentrations of material found to the west of the road line at Wawcott near Kintbury (Froom 1972 and 1976), and to the east at Greenham and Thatcham (Wymer 1962, Healy et al. 1992). It is thought that the Kennet Valley, with an abundance of fish and wild fowl, represented a desirable location for hunter-gatherer communities during the Mesolithic period (Richards 1978).

Although the Berkshire County Sites and Monuments Record details many finds of Neolithic (4,000-2,400 BC), Bronze Age (2,400-800 BC) and Iron Age (800 BC-43 AD) date in the vicinity of the Bypass route, most of these are chance finds and are not associated with known settlement sites.

Four sites of prehistoric date were investigated along the Bypass route. These were an extensive flint scatter and deposits of Mesolithic and later date in the Lambourn valley, a dispersed scatter of Late Neolithic-Early Bronze Age flintwork at Curridge Road, a small number of features of Early-Middle Bronze Age date to the south of Swilly Copse close to the Curridge Road site, and a small number of scattered features of Bronze Age date at Bath Road. An ancient buried soil of possible Late Bronze Age date was found at the base of a series of deposits on the Romano-British site at Elmore Plantation; this is described in Chapter 3.

In addition to the above sites an assemblage of prehistoric material, mostly worked flint of Mesolithic, Neolithic and Bronze Age date, was recovered from features and deposits of later date along most of the route. Although this material had been redeposited by later activities, such as ploughing, it does indicate more widespread prehistoric activity in the area than the distribution of prehistoric sites along the route suggests, particularly at the southern end of the route. These rather ephemeral traces are not described in detail in this report.

The Lambourn Valley Figs. 3-7
Mesolithic (8500 – 4000 BC)
OS Grid Reference SU 455 6905

This site was located on the south side of the River Lambourn on a gentle north-east facing slope. It lay at a height of between 81m and 84m OD, approximately 30-60m from the bank of the southern river channel, a small artificial mill stream.

The underlying drift geology comprised river and valley gravels, overlain by alluvial 'brickearths'.

During the Stage 2 evaluation, a single machine trench (trench 297) identified possible *in situ* Mesolithic deposits. Other evaluation trenches (trenches 294, 296 and 500) nearby also found a dense scatter of Mesolithic flintwork, within a plough-disturbed subsoil. Although similar sites of Mesolithic date are known in the Newbury area, undisturbed Mesolithic deposits are nationally rare.

The deposits in trench 297 were situated off the main road line, in an area where a balancing pond was to be constructed. In view of the potential national importance of this material, it was decided, in consultation with Mott MacDonald, that the balancing pond should instead be constructed further to the south, allowing the *in situ* component of the site to be preserved. However, the plough-disturbed flint scatter lay directly on the road line and could not, therefore, be preserved. Accordingly, a strategy for the excavation of an area of 0.4ha centred on evaluation trench 294 was drawn up by Wessex Archaeology, and approved by English Heritage. In June 1996, York Archaeological Trust (YAT) was commissioned by Mott MacDonald, on behalf of the Highways Agency, to undertake the excavation of this area. The excavation was carried out between July and October of 1996 by YAT's nominated subcontractor, Southern Archaeology.

The *In situ* Deposits

The 25m long evaluation trench 297 (Fig 3) was excavated by machine to a depth of 0.60m, at which level a concentration of worked flint and burnt flint was found on the surface of a silty clay loam deposit. The flint was concentrated at the west end of the trench, petering out after *c.* 12m. Finds were collected from the surface of the deposit, but no excavation was undertaken. A total of 411 worked flints were recovered, as well as quantities of burnt flint and a large piece of burnt sarsen, possibly a hearth stone. The fresh condition of the worked flint when compared to flint recovered from the overlying deposit, together with the density of the concentration, indicated that this might have been an *in situ* deposit (i.e. undisturbed by ploughing or other activity). The flint-bearing layer was overlain by a 0.30m thick silty clay sub-soil, possibly a plough-disturbed natural brickearth.

Among the large flint assemblage were 15 identifiable tools, and possible debris from flint 'knapping'. The tools present are generally indicative of a Mesolithic date. On the basis of the flint assemblage alone, little can be said about the nature of this site other than that it appears to have been primarily a flint-working site. The high proportion of flint knapping debris (i.e. the waste left over from working down flint nodules to make implements) and few diagnostic tool types, suggests that the manufactured artefacts were taken away from the site for use elsewhere. Apart from the remains of a possible hearth, all the indications are of temporary, although possibly repeated, occupation on the site.

The YAT Excavation

The aims and objectives of the excavation strategy approved by English Heritage can be summarised thus:

- to determine whether the deposit represented an *in situ* Mesolithic layer
- to determine the spatial extent and sediment stratigraphy of the site within the excavation area

- to define the nature of the Mesolithic environment during the occupation of the site and the general character of the environment in the Lambourn valley during the early post-glacial period
- to define the typological and technological characterisation of the flint assemblage recovered from the site and its distribution across the excavation area
- to interpret the site in terms of relative date, processes responsible for site information, intrasite spatial organisation, and the relationship of the site to its environmental setting and other known Mesolithic sites in the region.

Method

A series of hand dug test-pits was excavated across the site to provide an initial assessment of the nature of the subsurface deposits and their artefact content. All overlying topsoil and subsoils were then mechanically stripped, exposing a plough-disturbed subsoil containing Mesolithic flintwork. All possible archaeological features were investigated by hand, and five areas, each measuring 12m x 12m, were then selected for sample excavation. Each of the five areas was divided into a grid of 2m x 2m squares, which were then excavated in 'spits' (level layers of equal depth) 0.20m deep, in order to investigate the spatial patterning of artefact distributions within the subsoil deposit. A 20% sample by volume of each spit was dry-sieved on site to recover any small flint-knapping debris, which hand excavation alone might have missed.

Deposits beneath the plough-disturbed subsoil were sample excavated in the same way. Finally, two machine trenches were excavated to establish the stratigraphic sequence of the site in relation to the underlying river terrace.

Results

Overlying the terrace gravels was a silty clay alluvial brickearth, which extended across the whole of the excavation area and gently sloped south-west to north-east. Overlying this was a buried ancient subsoil of argillic brown earth. Argillic brown earths, or forest soils, develop over hundreds if not thousands of years (Courty, Goldberg and Macphail 1989, p158); it is therefore possible that this deposit was an *in situ* Mesolithic soil. This deposit was confined to a natural hollow or erosion gully in the brickearth in the north-western area of the site, and continued beyond the limit of excavation. Worked and burnt flint was recovered from this and from all of the overlying deposits.

Colluvium, or 'hill wash', partially overlay the argillic brown earth. The formation of colluvium typically results from destabilisation of the local vegetation leading to erosion of the soils, which gradually move down slope and accumulate to some depth over a period of time. This soil erosion can be increased with agricultural or other human activity, such as tree clearance, but can also be caused by natural processes alone. Like the argillic brown earth, the colluvium was also confined to the north-western area of the site, and extended to the west and south-west beyond the limit of excavation. Burnt flint, worked flint and small fragments of charcoal were recovered from this layer together with a small assemblage of Neolithic and Middle Bronze Age pottery.

A second colluvial layer sealed the lower colluvium and extended across most of the excavation area. This appears to have been formed by ploughing, the underlying geological, argillic and colluvial deposits being mixed together. It was this layer which contained the majority of the Mesolithic and later flintwork along with small quantities of Iron Age, Roman, medieval and post-medieval pottery. The upper colluvium was directly below the modern topsoil.

Many features cutting into the various subsoils were recorded; these proved to be mostly natural, resulting from tree falls, some of which contained Mesolithic flintwork. Apart from post-medieval and modern disturbances only one archaeological feature was recognised, a posthole of Middle Bronze Age date (1,500-1,100 BC). This containcd a small quantity of burnt flint and sherds of Middle Bronze Age pottery from a thick-walled bucket urn, a vessel type that is found in both funerary and domestic (household) contexts.

The Middle Bronze Age posthole was cut into the argillic brown earth deposit, and was sealed below the lower colluvial deposit. From this it can be inferred that the argillic brown earth had formed before the Middle Bronze Age and that the lower colluvial deposit was of Middle Bronze Age date or later.

The spread of worked flint within these layers was all that survived of the Mesolithic activity in the main area of excavation. Most of the other excavated Mesolithic assemblages in the Newbury area appear to occur within alluvial deposits, often sealed below peat (Wymer 1962, Healy et al 1992 etc.). It appears that the Lambourn Valley Mesolithic material might have occurred in a similar alluvial context, which has since been reworked by ploughing.

In addition to the worked flint of probable Mesolithic date, a small number of later pieces were recovered. The presence of a possible leaf-shaped arrowhead and a 'chisel' arrowhead, along with small quantities of Neolithic pottery, suggests some Neolithic activity. The presence of a fine plano-convex knife in a fairly fresh condition in the upper colluvium and a small assemblage of pottery suggests Early Bronze Age activity in the neighbourhood of the site.

The horizontal distribution of all the worked flint is shown in Fig. 4, by density of pieces. This shows a general background scatter of flint across the site, though this seems to tail off towards the east. Two distinct concentrations about 30 m apart can be distinguished from the general background scatter. The northern concentration (Site 1) lay on the north-western edge of the excavation area and probably continued beyond it, while the southern concentration (Site 2) lay entirely within the excavation area. The distribution of all the constituent parts of the worked flint assemblage followed the same general pattern, suggesting that the majority of the worked flint recovered from the excavated area was derived from these two concentrations, which might therefore represent either separate sites, or discrete areas of activity within a single site.

Not all the flint artefacts were in a similar condition, with flint at the top of the stratigraphic sequence being in a much more worn condition than the material in the lower deposits, due to damage from ploughing. This difference in condition was most

pronounced in the two concentrations: elsewhere almost all the flint was in a worn condition, having been derived from the concentrations and moved around the site by ploughing. Both flint scatters seem to have spread out along the contours rather than across them, which suggests that little movement down slope had occurred. This was confirmed by the vertical distribution of the material.

Taking these various observations together with the evidence from the soils and stratigraphy, it seems likely that the lower part of the two concentrations, though probably not *in situ*, were only slightly disturbed.

The Flintwork

The flintwork was dated on the basis of diagnostic tools and knapping waste. The raw material used for flint working on the site is likely to have been in the form of nodules present in the river gravels on or near to the site. The flint nodules would have been shaped into cores (Fig. 5, 1, 2, 6 and 7) from which blades and flakes could then be removed in a controlled manner and then further modified into specific tool types.

A hard hammer (probably a stone as hard as, or harder than, the flint) was generally used in the earlier stages of raw material testing and core preparation and shaping, with a softer hammer being used for blade (long parallel-sided flakes) production once the core was satisfactorily prepared. No hammers were recovered from the site, so it is unclear whether the soft hammers were of soft stone or of organic material such as wood, bone or antler. The presence of microburins, a distinctive waste product of microlith manufacturing, provides direct evidence for the production of tools on the site (Fig. 6, 16-17). The microliths indicate that direct percussion on an anvil was sometimes used for retouching the edges of the tools.

The tools mostly comprised obliquely blunted points and a smaller number of geometric forms of microlith (small stone artefacts typical of the period), mainly rods (Fig. 6, 10-15 and 18-25). Although obliquely blunted points are common in earlier Mesolithic assemblages, they also occur in later industries, dated post-6500 BC, alongside geometric forms, which only began to be made after this date (Jacobi 1987, 164). The majority of the obliquely blunted points were on quite small narrow blades, which may indicate a later date in line with the decrease in overall size of these forms over time (Pitts and Jacobi 1979, 169-70). There were also a number of larger obliquely blunted points in the assemblage, but it is not clear whether these reflect an earlier component. The fact that all the microlith types occurred together, clustered in the two concentrations, suggests that they are probably all of the same later Mesolithic date.

The composition of the flint assemblages from both concentrations is similar, which suggests that broadly similar activities are represented. Most of the flint recovered could be identified as discarded core preparation and trimming flakes and blades. The presence of small abrasion chips and other small pieces characteristic of flint working debris suggests that flint was both knapped, and the waste products discarded, on site. The number of 'end products' appear to be under-represented in both concentrations, suggesting that they were removed for use elsewhere.

Although the worked flint assemblages from both concentrations were very similar, there were one or two differences. The northern concentration has a slightly higher

proportion of tools than the southern concentration and there is a much wider range of different tool types present (Table 7), suggesting a range of different domestic activities. There is no direct evidence for this range of activities, but skin working is suggested by the presence of scrapers (Fig. 7, 26, 27 and 31), which may have been used in cleaning and preparing skins. There is little direct evidence for the subsistence base of the site, because of the absence of animal bone due to soil acidity. However, one obliquely blunted point had an impact fracture at the tip which may have resulted from its use as a projectile point. The point may have been carried back to the site in the carcass of a dead animal (Barton and Bergman 1982, 242), suggesting that hunting formed one part of the food procurement activity. In terms of its size and composition, the northern concentration can be regarded as a 'home base' from which a wide range of activities took place, including hunting and domestic tasks (Mellars 1976). The presence of large quantities of burnt flint and a number of burnt flint artefacts points to the former existence of hearths, which probably formed the focus around which most tasks were undertaken. The site would probably not have been permanently occupied, but may have seen a number of occupation episodes according to season, over an uncertain period of time.

A much more restricted range of tools was present in the southern concentration. There were no scrapers in the assemblage, which may be significant as scrapers were the second most numerous tool type present in the northern concentration. The southern concentration may therefore represent a much more restricted set of activities, and may primarily have been an industrial site exploiting the river gravel flint. Nevertheless, the presence in the southern concentration of large quantities of burnt flint and a number of tools suggests that it is more than a purely industrial site, and some domestic activity is implied. It is possible that it is, in fact, similar to the northern concentration, but simply smaller in scale or just less frequently occupied.

Although the two concentrations both belong to the same period, it cannot be determined if they were in use at the same time, or whether one succeeded the other. There is nothing to indicate the duration of occupation, nor the frequency of that occupation.

The location of the Lambourn Valley site was probably partly determined by the ready availability of raw material in the form of river gravel flint, and the exploitation of this flint forms the major part of the surviving evidence for activity on the site. It is extremely difficult on the basis of the flint assemblage alone to determine the full range of activity on the site, particularly as microwear studies have shown that similar artefacts can have a multitude of different functions (Healy *et al.* 1992). Nonetheless, some insight into the broader use of the site has been gained from environmental evidence.

Human exploitation of the natural resources in prehistoric times

Lambourn Valley was the only site to provide environmental information of this ancient period. Unfortunately, the general unsuitability of the soils encountered for sampling at this site has hindered our interpretation of both the physical landscape and the use of plants and animals in that riverside environment.

The limited palaeo-environmental information from this Mesolithic site relates specifically to the locality. The soils alone provide information of the local and site

environmental conditions and history, and are discussed in detail in Appendix 2. Although no palaeo-environmental analyses were conducted here other than the soil and sediment descriptions, the environments of the Kennet valley at this time are well-analysed and understood (Churchill 1962; Scaife 1992; Healy and Allen 1992), and allow us to extrapolate to the Lambourn Valley. In the Kennet Valley, open pine and hazel woodland covered the majority of the floodplain with sedges and marshes on the lower floodplain nearer braided fresh-water streams. Dense deciduous oak and elm woodlands cloaked the drier slopes overlooking the valley floor. There is no reason to suspect that the Lambourn valley was significantly different at this time.

It is significant that there is much clearer evidence of Middle Bronze Age or later soil erosion from the identification of a colluvial ('hillwash') element in the soil profile. From this we can infer that this soil disturbance was probably associated with the removal of trees and other activities. This indirect indication of the clearance of vegetation and exposure of soil leading to localised erosion occurs some four thousand years later than the more extensive archaeological evidence for Mesolithic activity.

Curridge Road Fig. 8
Late Neolithic- Early Bronze Age (3000 – 1500 BC)
OS Grid Reference (centre) SU 47250 71150

This site lay at the northern end of the Bypass route in a large north-south dry valley, at between 91m and 107m OD, in a mixture of arable and pasture fields on either side of the present A34, which runs along the base of the valley. The underlying natural substrata comprised Upper Chalk, overlain in the majority of the area by gravels of the Reading Beds, or Plateau Gravels.

The Stage 1 and Stage 2 evaluations identified a scatter of Late Neolithic or Bronze Age worked and burnt flint, covering an area of approximately 12.06 hectares. However, machine trenching located only four features within this area, none of which was datable. It appears that evidence of any settlement has been badly disturbed by ploughing. This is not uncommon on sites of this period, as many activities associated with settlement can leave only ephemeral traces in the archaeological record. For example, structures may have been relatively flimsy, not penetrating deeply enough for postholes or other features to survive modern agricultural activity. The density of the finds was not great but was extensive enough to be of significance.

As this site was almost entirely contained within the modern topsoil, it was investigated by field-walking. To facilitate this the entire *c.* 12ha of the site was ploughed and left to weather before field-walking. The field-walking was undertaken by two people over a period of two days. Collection units were laid out on the Ordnance Survey Grid, within which complete hectares were subdivided into 25m long 'stints' at 25m intervals. In total 115 stints were walked. The visibility of artefacts on the surface was hampered by direct sunlight and glare, but generally good ground conditions prevailed. The work concentrated on the recovery of worked flint and pottery. Modern material was noted in the field but was not collected.

The general level of modern debris across the field surfaces was very low, apart from two localised areas of disturbance at the foot of the embankments for the existing A34 and opposite to the 'Fox and Hounds' public house. From this it can be assumed that the field surfaces have not been generally disturbed by the addition of material in recent times. However, small quantities of medieval pottery were found over much of the area. This is probably the result of material 'imported' during manuring of the arable fields, and is of little importance save to indicate activity in the general area.

The distribution of the worked flint (Fig. 8) shows a general background scatter with a slight concentration in the base of the dry valley.

Within the field-walking site, approximately 45m to the west of the A34 Oxford Road and 20m to the south of its junction with Arlington Lane, at SU 47100 71250, a small circular feature was recorded during the watching brief. The large quantity of charcoal noted in the basal fill of this feature and the slight reddening of the surrounding natural sub strata indicate that this was probably a hearth. Other features located during the Stage 2 evaluation were all badly damaged by ploughing and their functions remain uncertain.

The finds recovered from the field-walking indicate Late Neolithic - Early Bronze Age activity in the general area; however, ploughing over a period of many years appears to have destroyed any physical remains. It is possible that the few badly disturbed features represent domestic activity of this date, but the lack of dating evidence and clear functions means that this is uncertain.

Swilly Copse Figs. 8 and 9
Middle Bronze Age (1500 – 1100 BC)
OS Grid Reference SU 46840 70400

This site was located on the western slope of a large dry valley, to the south-east of the Curridge Road fieldwalking site in the same valley, at a height of between 104m and 105m OD. The underlying drift geology comprises Reading Beds Gravels overlying Upper Chalk.

During the Stage 2 evaluation, a single complete Middle Bronze Age Globular Urn (Fig. 9) was found in a shallow scoop or pit. Further trenching in the vicinity of this find failed to discover any related vessels, nor any features to which to relate its burial. In order to investigate further, an area of approximately 20m x 20m was stripped of topsoil over the immediate area of the evaluation trenches.

The only feature encountered within the stripped area, apart from the small scoop or pit that contained the Globular Urn, was a small circular hearth containing a charcoal-rich primary fill, but no datable finds. During the watching brief, however, a single small pit or posthole was recorded 6m to the north of the excavated area. A small quantity of Early-Middle Bronze Age pottery was recovered, and small quantities of charcoal. It is probable that the feature is associated with the small hearth and the complete Globular Urn.

The burial of a single Globular Urn is unusual, as these are usually found in association with small cremation cemeteries which tend to occur in discrete clusters of 10-50 burials, although more than 25 is rare (Ellison 1980). No traces of a cremation burial were found with the urn, so a funerary context appears unlikely. A domestic context is possible, although if a settlement had been in this area more features and finds might have been expected. It is possible that settlement remains may survive outside the road corridor and this small group of features represents limited activity on the settlement periphery. The site is close to the Curridge Road fieldwalking site, and may, therefore, be associated.

Bath Road
Later Bronze Age (1100 – 700 BC)
OS Grid Reference SU 44980 68150

The area around the Bath Road site comprises the top and upper slopes of a ridge between the Lambourn and Kennet valleys, lying at between 108m and 119m OD. The underlying geology was Upper Chalk overlain by plateau gravels.

A shallow feature, of uncertain form and function, was found during the Stage 2 evaluation, containing a small assemblage of Late Bronze Age pottery. A limited strip and record excavation of approximately 20m x 20m centred on the evaluation trench was undertaken in this area to clarify the form, extent and possible function of this feature and to investigate any others. This revealed a shallow irregular feature, probably a tree throw.

During the watching brief, a hearth and a single posthole were recorded, a few metres beyond the area of the strip and record excavation. The base and sides of the sub-rectangular hearth were clearly heat affected, which had caused a distinct reddening of the natural gravels into which it was cut. A relatively large quantity of pottery (33 sherds) of Middle Bronze Age date was recovered from this. Four metres to the west was a shallow posthole; although no datable material was recovered, it is likely that it was associated with the nearby hearth.

On the southern edge of Whittle Copse, *c.* 220m to the north-east of the strip and record area, centred on SU 45100 68340, an extensive spread of burnt flint and charcoal some 20m in diameter and up to 0.50m thick was recorded. This overlay a thin layer of dark peat, possibly a buried turf line, and a layer of bluish grey clay which directly overlay the natural sand and gravel sub strata. No datable artefacts were recovered from any of these deposits, which are interpreted as the plough-damaged remains of a mound of burnt flint. Various explanations for the function of these 'burnt mounds' have been put forward on the basis of anthropological analogy. These include large hearths serving possible group feasting sites, or 'sauna'-type bathing sites where stones were heated in a fire and cold water poured on them to create steam. Burnt mounds are commonly attributed to the Bronze Age, and it is possible that these deposits are also of that date.

Together the features recorded at Bath Road indicate the possible presence of a later Bronze Age settlement in the area; however, if this lay within the Bypass corridor, ploughing appears to have removed all but a few small traces of it.

3. THE ROMANO-BRITISH PERIOD 43-410 AD

During the Romano-British period the area around Newbury appears to have supported a fairly large agricultural community, probably occupying a series of small settlements, farmsteads and villas along the sides of the Kennet Valley. Industrial activity is represented by pottery kilns at Hampstead Marshall (Rashbrook 1983) to the west of the route and a possible tile production site at Shaw (Swan 1984), to the east of the route.

The location of the Roman government station of *Spinis* has been tentatively identified with the modern village of Speen (Rivet and Smith 1979). The regional centre of government was at *Calleva Atrebatum* (Silchester), approximately 18km to the south-east.

Four sites of Romano-British date were found along the route of the Bypass. These were: a small group of pits in an area of badly disturbed land at Great Pen Wood; ditches of very early Romano-British date (43-70 AD) and later settlement remains on the southern side of the Kennet valley at Enborne Road; a small group of features preserved within a colluvial (hill wash) deposit on the northern side of the Kennet valley at Elmore Plantation; and the remains of a small farmstead and field system on the southern bank of the river Lambourn at Bagnor Road.

Because of its early date and the possible importance of the Enborne Road site, a design solution was developed to preserve the site *in situ* beneath an embankment. The two small groups of features at Great Pen Wood and Elmore Plantation were subject to strip and record excavations prior to the commencement of road construction. The Bagnor Road site was found during the watching brief and was excavated alongside construction work.

Enborne Road (Fig. 10)
Early Roman **(AD43 – 150); Late Roman (AD250 – 410)**
SU 4490 6650

This site was located on the south side of the Kennet valley between Enborne Road and the London-Penzance railway line, at a height of between 79m and 83m OD, on the shallow east facing slope of a small valley running north-east towards the River Kennet. The underlying natural drift geology comprised terrace gravels.

During the Stage 2 evaluation, a series of features and layers of 1st to 4th century date was found in eight evaluation trenches, covering an area of approximately 1.8ha within the road corridor. Pottery of early Roman date was recovered from a subsoil in Trench 160 in the adjacent field to the south-east, and two ditches of possible Romano-British date were noted in Trench 175 in the same field.

Ditches up to 3m wide were recorded in six of the trenches. Early Roman (1st century AD) and Late Roman (3rd to 4th century AD) pottery was found in discrete areas of the site, however, suggesting that the ditches were not all of the same date. Although no

clear pattern could be detected from the position and orientation of the ditches, a number lay approximately at right angles and may have formed enclosures. The majority of the ditches ran down the slope towards the stream at the bottom of the valley, and may therefore have acted as boundaries dividing the slope into fields.

In trench 165 the northern edge of a ditch, over 1.4m wide running east-west, was recorded at the eastern end of the trench. It contained Romano-British pottery and glass fragments from a Hofheim type bowl, both dating from around the Conquest period in the mid-1st century (c AD 40-70). The pottery consisted of bead rim jars in both flint-tempered, handmade, Silchester Ware and hard-fired, wheel thrown grog-tempered greywares, together with Black Burnished ware and fragments from a pale orange-buff coloured butt beaker. The presence of wheel thrown greywares in association with the handmade Silchester Ware vessel suggests that the assemblage is not likely to represent Late Iron Age occupation of the 1st century BC to early 1st century AD, but rather belongs to the latest pre-Roman Iron Age to early Roman Conquest period in the mid 1st century AD.

A further eight ditches, on various alignments, were found in Trenches 164, 166, 170, 172, 173 and 175, varying between 0.90m and 3.0m in width. Although not all of these produced datable finds, the majority could be dated to between the 2nd and 4th centuries AD, and the undated ditches are therefore assumed to be of a broadly similar date.

Several pits and postholes, indicating settlement activity, were also found, particularly towards the north and west of the site. Of particular interest was a large sub-circular pit found near the southern end of Trench 174. This was approximately 1.90m in diameter and 0.70m deep with irregular sides and base. In addition to a small assemblage of coarseware pottery, datable to the 2nd or 3rd century AD, it also produced a large quantity of Romano-British roof tiles (*tegulae* and *imbrices*), two large dressed sarsen blocks, mortar fragments and numerous flint nodules. The dressed stone blocks and flint nodules probably originated from the walls or foundations of a substantial building, and the tiles from its roof.

An extensive dump layer, possibly a midden deposit, up to 0.45m thick was found in Trenches 164 and 170/4. The two ditches in Trench 164 were sealed below this, but the features in Trenches 170, 172, 173 and 174 were cut through it. This indicates that the ditches in Trench 164, although only broadly datable to the Romano-British period by pottery, are earlier than the 2nd-3rd century features which cut through the dump layer and may therefore be associated with the 1st century AD ditch in Trench 165.

Large quantities of ceramic building material (tile and brick) were recovered from the topsoil, dump layers and features, especially in the north-west of the site (Trenches 170, 173 and 175). The large quantities of building material and possible demolition debris appear to further indicate the presence of a substantial building or buildings either on or close to the site.

Two distinct phases of activity on the site can be identified from the excavated features. The majority of the dating evidence from the site suggests occupation during the later Romano-British period (3rd to 4th century AD). However, there is also a small element of significantly early Romano-British activity dated to the pre-Flavian period

(before 69AD). Evidence of this date is rare, and may be either associated with military activity as part of the campaigns and consolidation immediately post-conquest, or be evidence of early settlement. No evidence of continuity between the two phases of activity was recovered from the features excavated.

In Trench 165, where only 1st century AD pottery was recovered, no Roman ceramic building materials were found, while large quantities were recovered from later features. It is likely that, as on other Romano-British sites, in the early phase of activity any buildings would have been of timber construction and used a roofing material other than tile, for example thatch. Although no traces of later buildings were found, the quantity of ceramic building material from the late Roman contexts, as well as the presence of dressed sarsen blocks, traces of mortar and numerous flint nodules, points to the presence on or close to the site of a substantial building.

A number of pits and postholes, as well as an extensive layer of dumped material, possibly a midden containing domestic refuse further points to the proximity of a settlement. The range of pottery wares included only one imported vessel, a Central Gaulish samian ware mortarium of late 2nd-mid 3rd century AD date, suggests, however, that the settlement, while extensive, was not necessarily of high status.

It is likely that the settlement represented was an extensive Romano-British farmstead, one of a number of small settlements along the southern side of the Kennet Valley. A possible villa site is known approximately 1.2km to the east (Peake 1931).

Because of the nature and possible importance of the site, a strategy was developed to allow the site to be preserved *in situ* beneath an embankment. Apart from the monitoring of the construction works, no further archaeological work was undertaken

Great Pen Wood **(Fig. 11)**
Early Roman **(AD43 – 150)**
OS Grid Reference SU 45200 62600

This site lay within pine woodland immediately adjacent to a disused railway embankment on flat, very waterlogged land at the south of the route. The ground surface varied very little in height, between 105m and 105.2m OD. The underlying drift geology was London Clay.

During the Stage 2 evaluation, three possible archaeological features were found in a single machine trench between Great Pen Wood and the dismantled railway line to the north. The features were not excavated during the evaluation because of very wet ground conditions, and the area was therefore selected for further investigation by strip and record. An area of approximately 2000 square metres, centred on the evaluation trench, was stripped of topsoil following the removal of all tree stumps. Ditches and sumps were dug to drain ground water from the area of excavation. The underlying clay had been heavily disturbed by tree roots and a logging track.

A total of five archaeological features - the remains of pits - were identified. The pits were all sub-circular, between 0.50m and 1.50m in diameter, and survived up to 0.2m in depth. Small quantities of tile, fired clay and pottery, datable to the 1st to 2nd

century AD, were recovered from three of them. The pottery assemblage included just four sherds of fine samian tableware, which were recovered from the topsoil; the remaining pottery comprised coarsewares of both sand and grog tempered varieties. Samian wares were made in central Gaul (now France) from the mid 1st century to the end of the 2nd century, and are often closely datable owing to the development of distinctive forms over time. The presence of these sherds indicates that the inhabitants of the site had access to imported finewares and the means to acquire them.

The assemblage of fired clay was predominantly recovered from pit 6034 and the topsoil. The association of the material with Romano-British pottery from the pit suggests a similar date range. A total of 18 fragments have flat surviving surfaces though no other diagnostic features. It is likely that they are structural or remnants of building material. The other fragments are small and featureless. Apart from three fragments which have organic temper and are highly burnt, the rest of the fired clay is coarse grained and grog tempered.

If the features at Great Pen Wood represent Romano-British settlement or industrial activity, then the main focus appears to lie outside the road corridor. The presence of small quantities of building material may suggest a structure in the general area. The very waterlogged ground conditions prevalent today may not have been present in the Romano-British period, but the underlying clay geology and the poor soils in this area mean that it would probably always have been marginal land for agriculture, and would not have been a favoured area for settlement. The only other trace of Romano-British activity in the general area is recorded in the Hampshire County Sites and Monuments Record, which states that finds of Romano-British pottery and other occupation material were "unearthed" at Horris Hill approximately 1km to the north-east.

Elmore Plantation **(Fig. 12)**
Romano-British **(AD 43 – 410)**
OS Grid Reference SU 45920 67770

This site lay on the south facing slope of the Kennet Valley, between the A4 to the north and the Kennet flood plain to the south, at between 87m and 93.5m OD. The area was bisected by a trackway leading from the A4 to the river Kennet. To the east of this track the land was wooded, while that to the west was pasture. The underlying natural substrata comprised a mixture of sands and clays of the Reading Beds, with outcrops of weathered Upper Chalk.

Evaluation trenching located a number of Romano-British features and a buried ancient topsoil within a thick sequence of colluvial (hill wash) deposits, apparently confined to a small area of the hillside. The evaluation also revealed a thick deposit of oyster shells, apparently below the Reading Beds natural sub-strata. These deposits are described more fully in Appendix 5. To investigate further a geophysical survey was undertaken over the site, which suggested the presence of possible pits. The site was selected for further investigation by the 'strip and record' strategy.

An area of approximately 1800 square metres was stripped of topsoil, a colluvial deposit and a buried soil horizon of Romano-British date, to the surface of an

underlying colluvium. This exposed a number of archaeological features, which were cut into the lower colluvium. The sequence of colluvial deposits was confined to a small coombe or bowl shaped depression approximately 30m long and 23m wide, towards the north-western side of the stripped area. A cross-shaped baulk was left unexcavated during the stripping across this area of the site, in order to allow the complete sequence of deposits to be recorded and sampled for evidence of its deposition. A sondage or test pit was dug through the lower deposits to the surface of the mixed clay and weathered chalk natural substrata.

Most of the south-eastern part of the stripped area was found to have been completely destroyed by a large backfilled quarry of post-medieval date.

Directly overlying the natural sub-strata was a 0.2m thick layer of sandy silty clay, an ancient buried soil. This was tentatively dated, on the basis of a single sherd of coarse, flint gritted pottery, to the Late Bronze Age. Overlying the buried soil was a 0.45m thick colluvial deposit. The massive and sandy nature of this suggests a relatively rapid, but not catastrophic, accumulation, possibly occurring over several centuries rather than several millennia. Evidence of possible seasonal waterlogging was noted in the two lowest deposits.

Sealing this sandy colluvial deposit was a buried topsoil of Romano-British date. This sealed most of the archaeological features, which were cut into the underlying colluvium, and represents a period of stability caused by a local cessation, or decrease in the rate, of colluvial deposition. The buried topsoil was in turn sealed by further deposits, probably of colluvial origin. It is perhaps significant that no signs of waterlogging were evident in this Romano-British buried soil or the overlying colluvium, suggesting that drier conditions, more suitable for permanent habitation, now prevailed.

The formation of colluvium can be accelerated by human activity, and colluvial deposits are often, therefore, taken as evidence of ploughing (Bell 1983; Allen 1992). However, the sandy local soils are highly prone to erosion (cf. Harris and Boardman 1990), and it is more likely that the footslope deposits of hillwash at Elmore Plantation are the result of a number of activities in the vicinity, particularly on the slope, including the removal of trees. This activity may be prehistoric in date, but could represent the earliest phase of Romano-British activity on the site.

A number of archaeological features, sealed below the Romano-British buried soil, were excavated. Six postholes, located towards the centre of the stripped area in two discrete groups of three, did not appear to form any coherent structure. Only one post-hole could be broadly dated; however, on the basis of the grouping of the postholes and their similarity of form they are all assumed to be of a similar Romano-British date.

Two possible pits, irregular in shape with steep, irregular sides were probably the result of disturbance caused by tree roots, although both features contained pottery datable to the 3rd or 4th century AD.

A short linear feature, possibly a beam slot from a timber building, was located towards the north-east of the stripped area. Romano-British pottery of 3rd or 4th century date was recovered, along with small quantities of iron slag, tile and stone.

A small sub-circular pit had been cut through the Romano-British buried topsoil, and possibly through the overlying colluvium, in the extreme north-east of the area of excavation where the colluvial deposits were only some 0.20-0.30m deep. Two sherds of medieval pottery were recovered. No other features of this date were found and only two further sherds of this date were recovered during the machining. The nature of the activity which this feature represents is therefore unclear.

The Romano-British features excavated at this site only appear to have survived within the colluvial deposits, which built up within the small coombe during the later prehistoric and Romano-British periods. The colluvial deposits are probably an indirect result of human activity, such as ploughing or tree clearance. The two soil horizons may therefore represent breaks in the continuity of these activities in the immediate vicinity of the site, possibly caused by a change from agricultural to domestic and/or industrial use. The Romano-British features themselves appear to represent the remains of a small farmstead.

The Oyster Bed

To the east of the track an 'L'-shaped trench, a total of 39 metres long, was excavated in order to expose the oyster-shell deposits encountered during the evaluation. This confirmed that the deposits occurred below the Reading Beds, which are of fluvial/marine origin. The oyster shells have been identified as *Ostrea* cf. *edulis*, the common flat or native marine oyster. This indicates a natural former marine inundation of geological date. The lack of other freshwater species in the bulk sample confirms this.

Bagnor Road (Figs. 13 - 17)
Romano-British (AD43 – 410)
OS Grid Reference SU 45441 68944

This site lay on a gentle north-east facing slope at between 85.0m and 87.0m OD, within a field of rough pasture to the south of the River Lambourn on the eastern side of Bagnor Road. The underlying drift geology comprised mixed alluvial deposits overlying river gravels. The land to the east of the site had been subject to gravel extraction earlier this century.

During the watching brief, part of a small, Romano-British farmstead of the 1st- 4th centuries AD, represented by part of the settlement and its associated fields, was found during groundworks for a balancing pond. As the balancing pond had been repositioned to preserve the *in situ* Mesolithic deposits in the Lambourn valley, no evaluation work had been undertaken in this area.

The archaeological deposits and features occupied a strip of land approximately 110m long and 20m wide along the western side of the road corridor. Some of the features were sealed below a buried soil, of probable post-medieval date, which covered much of the northern half of the site. This was investigated both by machine trenching, hand

dug test pits and a metal detector survey before being removed by machine to reveal the underlying archaeology. Machine excavation on the western side of Bagnor Road revealed similar material, possibly a remnant of the same soil layer, but no further archaeological features or deposits were identified.

Following the removal of the post-medieval buried soil several archaeological features of Romano-British date were revealed. These comprised several ditches, numerous possible pits and postholes and a well preserved corn drier.

Ditches

The ditches probably represent field or property boundaries, aligned approximately east-west. The earliest of these (9133) lay towards the northern end of the site, extending for only *c.* 3m from the western limit of excavation. A single sherd of pottery, probably of Late Iron Age (100 BC – AD43) date, was recovered from this ditch (Fig. 16, 35), together with small quantities of animal bone, and worked and burnt flint. The early date suggested by the pot sherd may indicate that the Romano-British settlement, represented by the other features on the site, had a Late Iron Age predecessor.

Two other ditches had been allowed to silt up before being re-established along the same lines (9172/9028 and 9037/9036). At the south of the site, finds from the earlier ditch 9037 and the later ditch 9036 mostly comprised undiagnostic coarseware pottery, which can be broadly dated to the earlier Romano-British period (mid 1st century – 3rd century AD). In the north of the site, the earlier ditch 9172 produced a larger assemblage of pottery of broadly Romano-British date, but including a small quantity of more diagnostic finewares. This included imported southern Gaulish samian ware, and part of a 'poppy head' beaker. Vessels of this type were common in the 2nd century AD (Fig.15, 9).

The later ditch 9028 contained pottery of 1st and 2nd century date, but also later finewares (Fig.15, 1-6 and 8-19). These include imported Lower Rhineland colour-coated wares (Tyers 1996, 147-148), dating to the mid 1st century – mid 3rd century AD, and a cup-mouthed flagon and a ring-necked flagon, both of which may have been made in Oxfordshire in the late 2nd or early 3rd century AD (Young 1977, 100, types W5 and W6).

From this it can be inferred that ditches 9172/9028 and 9037/9036 were probably already silted up by at least the late 2nd century AD. Ditch 9028 was re-established at some time after this, and eventually fell out of use and was allowed to fill up no earlier than the mid 3rd century. One sherd of central Gaulish samian ware, datable to the 1st or 2nd centuries AD, recovered from ditch 9028 had a small rivet hole in it, a probable repair, indicating that such finewares were probably kept for a long time and may well have been many years old when finally discarded.

Ditch 9168, towards the centre of the site, could only be broadly dated to the 2nd century AD or later. The narrow, elongated feature 9009, at the south of the site, may represent the remains of a 3rd-4th century AD ditch, on approximately the same alignment as the earlier ditches.

The Corn Drier (Fig. 14, Plate 1)

A roughly rectangular spread of flint and chalk rubble towards the southern end of the site was revealed by excavation to be a well preserved "T"-shaped corn drying oven (9104). Corn driers were structures which employed a similar principal to the hypocaust (under floor heating) system, passing hot air over grain – and possibly other crops – either to dry the crop prior to transport or storage, or to halt germination of grain as part of the process of malting. The structures typically consisted of an arrangement of flues constructed in the ground, the fire beneath them being fed by a stoke hole, with an above ground superstructure containing one or more drying floors. In this case, the below ground structure comprised a horizontal flue with a stoke hole at its southern end, crossed at the other by two shorter vertical flues, so that in plan the heat channels appear as a T-shape. Heat and smoke from the fire in the stoke hole would have travelled along the horizontal flue and up the two vertical flues. Better preserved examples show that a complex arrangement of additional flues would have heated the drying floor(s) within the superstructure before flowing out through a chimney cut into a wall. The heat would have been regulated by adjusting flues at the stoke hole and the outlet (Goodchild 1943).

It has been suggested that corn driers were built to treat grain before transport in quantity (Morris 1979) or before storage, purposes which may reflect circumstances of climate and/or agricultural organisation on a local or regional level. However, experiments have shown that the temperatures that could have been achieved over the floor of similar structures could average some 60-70° Centigrade, which would have been ideal for malting (Reynolds 1979). It is possible that these structures served both purposes in rural settlements, as required.

The corn drier was constructed in a large irregular hole, lined with walls of chalk, flint and mortar, all showing distinct signs of heat discoloration, which formed the internal shape of the structure. A 1.60m length of the drying floor survived intact, consisting of ceramic and limestone tiles set on edge and mortared together to form a low arch. The presence of peg holes, which would have been used to fix the tiles to a roof, in some of the ceramic tiles and the limestone tiles, indicates that they were re-used in the construction of the corn drier. The tiles were probably originally used to roof a building at or nearby the site. No closely datable finds were recovered from the remains of the construction phase of the corn drier.

Quantities of charcoal in the base of the stoke hole and flue probably represent the remains of the final firing of the corn drier. Samples from the stoke hole identified a range of woods that were used as fuel including maple, hazel, holly, blackthorn/cherry and oak. These relatively close-grained, dense woods are capable of providing a hot, brisk fire and may, therefore, have been sought out in favour of less efficient woods. The local environment would almost certainly have supported a wider range of trees than that represented in the fuel deposits. Samples from the base of the vertical flues produced a large number of charred cereal grains, mostly wheat (*Triticum spelta*) but with barley (*Hordeum* sp) accounting for approximately 20% of the identifiable seeds (Appendix 7). This probably either indicates that the crop was a mixture, or that the debris represents two separate episodes of use of the drier. It is possible that the barley could have been a weedy component of a wheat crop, which was allowed to grow on to add bulk to the harvested grain amount.

From the floor and drying end of the drier the evidence indicates that it was used for drying wheat grain in spikelet form following harvesting, probably before fine sieving has occurred (as suggested by Hillman (1984, 5, figure 3)). Some of the grain had sprouted, probably accidentally in storage. The percentage of grain showing sprouting is too low to indicate use of the drier for malting, at least in the final firing represented by the excavated deposit.

Pottery recovered from the deposits representing the probable final use of the drier comprised a small assemblage of coarseware pottery, including a form of Black Burnished ware, datable to the late 3rd to 4th century AD (Fig 16, 31).

Following its final use, the grain drier appears to have been deliberately demolished. Thick layers of tile, masonry and mortar rubble, presumably remnants of the superstructure, overlay the deposits representing this final use. Parts of the drying floor appear to have collapsed into the underlying flue and stoke hole. A deposit of fine silty clay loam overlying the partially collapsed floor possibly indicates a period of disuse before the final demolition of the superstructure. Among the large assemblage of pottery found in this deposit were sherds from an Oxford late Roman beaker type (Young 1977, 152, type C22), and a tall, ovoid jar with an upright neck and a very hooked rim, both of 4th century AD date (Fig 16, 34). Two sherds of Oxfordshire parchment ware (Young 1977, 80), from the base of an open bowl with a form of red painted decoration on the interior which became more common from the mid 3rd century AD onwards (Young 1977, 80), were also found.

A small bronze coin (an *Urbs Roma*/Wolf and Twins coin from Lyons), datable to AD 332-4, was among the large assemblage of finds recovered from the demolition debris. The small die and irregular mint mark on this coin may indicate that this is a copy or forgery. Copies of bronze coins were very common in the 3rd – 4th centuries in the northern Roman provinces, as official small change was in short supply. Another notable find from the demolition deposits was a spoon bowl (Fig. 17). This had a tinned upper and lower surface and can be dated to the 3rd or 4th century AD. Pottery, including Oxford colour coated fine wares, datable to the late 3rd or 4th century (Fig. 16, 25), was also recovered from the demolition debris along with fired clay and nails, possibly part of the superstructure.

Other Features

Immediately to the north of the corn drier were the remains of a number of small hearths, datable only broadly to the Romano-British period. In the northern part of the site three possible pits were excavated, but no datable material was recovered from these. An undated hearth and three postholes, of broadly Romano-British date, were also found in the same area of the site. The postholes did not appear to represent any discernible structure.

Three large pits were found along the western limit of excavation. The two smaller features (9075 and 9077) were very irregular in plan and contained, in addition to several iron nails (both structural and hobnails) and fragments of tile, substantial assemblages of pottery datable to the late 3rd and 4th centuries. The largest of the pits was 9080, a large oval feature nearly 5.0m long, 2.60m wide and up to 0.50m deep, with irregular sides and a concave base. A sample taken from the bottom fill produced large quantities of burnt grain - a mixture of wheat and barley - and chaff. As barley

and wheat are unlikely to have been processed together, the grains may have either been deposited from more than one source, or accidentally burnt together (if both grains were used in a food dish, for example). The chaff may have been associated with the wheat grains, indicating a burning episode from the drying or parching of spikelets. As the quantity of chaff present was too great for the number of grains, however, it is likely that the deposit also contained an element of burnt crop processing waste (chaff and weed seeds), perhaps representing fuel for a domestic hearth.

A large quernstone fragment, several nails and a small assemblage of pottery, including a flagon or bottle with a moulded, collared rim datable to the 4th century AD (Fig.16, 29) and sherds of a necked jar with a collared, hooked rim (Fig.15, 7), were recovered from pit 9080 along with two bronze coins. Only one of the coins was closely datable, to AD 350-360, a very badly damaged copy of a *Fel Temp Reparatio* (Fallen Horseman 4) type, with a depiction of a soldier spearing a fallen horseman. The other, a small illegible *follis*, was only broadly datable to the 3rd or 4th centuries AD.

The Settlement

This site seems to represent part of a settlement, probably a farmstead, of unknown size, which appears to have been largely destroyed within the road corridor by modern gravel extraction, although it may survive beyond this. The site appears to have been in use from the 1st to 4th centuries AD, and may have developed from an Iron Age precursor.

The economic base of the settlement appears to have been primarily arable agriculture, in particular the growing of wheat and probably barley. This interpretation is supported by the quantities of wheat and barley grains and chaff recovered from the environmental samples and by the investment in a carefully constructed grain drier. The very poor preservation of animal bones on the site means that no information on domesticated animals and their possible contribution to the economy was recoverable.

Some of the finds, in particular fineware pottery from central and southern Gaul and pottery and fragments of lava quernstones from the Rhineland, indicate continental trade links, presumably indirect. The majority of the pottery assemblage from the site contains the usual range of fabrics and forms typical of a Romano-British community in southern England. However, the percentage of finewares (10.9%) appears comparatively high for a rural community. The proximity of the Roman road from Cirencester to Silchester and the village of Speen, which has been associated with the Roman posting station *Spinis* recorded in the *Antonine Itinerary* (Rivet and Smith 1979, 176), may explain this apparent accessibility of imported goods to the inhabitants of the Bagnor Road site. The quality of the assemblage may imply that the settlement was something more than a small-scale, low-status rural farming community.

Most of the pottery, however, comprised a range of more functional coarsewares. Black Burnished ware, manufactured in the Poole Harbour area, is a common find on Romano-British sites in southern England, and the presence of pottery manufactured in the Oxfordshire, Alice Holt and smaller production sites in Berkshire is also unremarkable. Much of the pottery must have come from other, more local sources.

These may include the Hampstead Marshall kilns, in use from the mid 2nd to 4th century AD (Rashbrook 1983). Possible production sites have also been identified at Kintbury, *c.* 6.5km west of Newbury (Swan 1984, mf. 1.217), and Shaw, on the northeast outskirts of Newbury, although this may have been more involved in tile production. Slightly further afield, 2nd to 3rd century kilns are known at Bradfield and Pangbourne (Swan 1984, mf. 1:214 and 217).

The expansion of Romano-British farming into low-lying valley soils

The majority of the palaeo-environmental evidence from the by-pass route is relevant to the Roman and Medieval periods. From this we can gain a flavour of some of the activities performed by the local inhabitants, the nature of the environment within which they occurred, and the resources available to the farmers and villagers.

There is clear evidence of small farms from the Romano-British sites. The settlements themselves were situated on higher ground above the watertable and potential flooding (Bagnor Road and Elmore Plantation), but the activity involved in farming, construction, woodland clearance, and cultivation led to localised soil erosion especially on the steeper slopes (Elmore Plantation).

Unfortunately, we have no evidence of any animal husbandry due to the lack of preservation of animal bone. The plant remains and features associated with farms, however, indicate cultivation, predominantly of wheat (spelt), complemented with barley and oats. Recorded proportions of cereals may, however, be biased because all the samples examined were related to the corn drier at Bagnor Road, or its stoke hole, the latter containing burnt crop-processing material dumped into it. Crops were grown in fields with damper soils, indicated by stinking mayweed (*Anthemis cotula*). This could have occurred very close to the excavated area because the site is situated in the river valley on alluvium.

From the limited evidence available, we can see the development of small-scale rural farms, their fields largely situated on the edge of the lower-lying alluvial soils, but with settlement located on higher ground (footslopes or spurs). The introduction of the plough, rather than the ard, for cultivation and of a different (Romanised) agricultural regime, may have allowed viable cultivation on damper alluvial and valley soils. The combination of available woodland, with a variety of species locally (ash, poplar, elm, alder, and willow) and oak, hazel, maple, etc. on the slightly drier land, fertile and cultivable (though clay-rich) soils and ideal grazing and browse provide an ideal environment for low intensity farming.

Although there is a lack of surviving animal bone, we can postulate that cattle, in particular, may have been an important part of the farming economy and would be suited to the wetter valley soils. However, it is significant to note that samples of carbonised grain did not indicate processing for hay or animal bedding, and hence the suggestion that the economy was mixed remains speculative.

4. THE MEDIEVAL PERIOD 1066-1499

Newbury itself does not appear in the Domesday survey and is first mentioned in a document of *c.* 1080. The documentary evidence suggests that it was founded, probably as a planned settlement, shortly after the Conquest, by its Norman lord, Arnulf de Hesdin (Astill 1978). The town appears to have developed steadily throughout the 12th and early 13th centuries and thrived as a wool and cloth centre, possibly suffering a decline in the late 13th and 14th centuries. Wider political events at this time led to the construction of one of the area's most visible monuments: in 1396, Sir Richard Abberbury was granted a royal licence to fortify the castle on this manor at Donnington. The 15th century saw a revival in the town's fortunes, and Newbury reached its peak as a centre of wool and cloth production in the late 15th and 16th centuries.

Three sites of medieval date were found on the Bypass route, these were a small group of pits and ditches, possibly indicating a settlement near Hill's Pightle, and two pottery and tile production sites at Enborne Street and Wheatlands Lane.

The Enborne Street and Wheatlands Lane sites lie only some 550m apart, separated by Reddings Copse. On both sites, the features were found to contain large quantities of pottery and tile dating to the 13^{th} –14^{th} century, the fragile and poorly-fired condition of which suggested that it represented waste material from kilns. The features present on the sites might represent the remains of these kilns and/or associated structures, into which the waste material had apparently been dumped. Given the close proximity of the two sites, their similar dating and nature, it is evident that they represent a dispersed ceramics industry, exploiting the London Clay. The results from these two sites are therefore considered together below.

Enborne Street and Wheatlands Lane

The sites lay on either side of a low ridge of London Clay running from south-west to north-east between Red Hill Common and Wash Common. The Enborne Road site lay in an arable field (formerly three fields, The Pightle, Great Pigeons and Battens Meadow) on a south facing slope immediately below the crest the ridge, at between 108.7m and 112.5m OD. The other site lay either side of Wheatlands Lane. To the south it lay in an area of woodland (Redding's Copse) on a north facing slope at the toe of the ridge at between 97.5m and 101.0m OD, while to the north it lay on fairly flat land within an arable field (Sandy Ground) at between 95.0m and 97.0m OD. The underlying drift geology comprises London Clay to the south with mixed Reading Beds sands and gravels to the north.

Large quantities of medieval pottery and tile were recovered from both sites during all stages of the evaluation. Geophysical survey indicated the position of possible structures and pits, but subsequent trenching showed these anomalies to be of natural origin. In view of these findings, both sites were subject to investigation by strip and record prior to the road construction.

Enborne Street Figs. 18 and 19
Earlier medieval (12th – 13th century)
OS Grid Reference SU 44370 64050

A total area of approximately 1900 square metres was stripped of topsoil, revealing a number of features of medieval and post-medieval date. These comprised five ditches/gullies, two groups of intercutting pits and two possible clamp kilns with an associated spread of burnt material, all of medieval date, and five ditches of post-medieval date. (Fig.18).

The Kilns (Fig. 19)
The two possible kilns (7004 and 7054) found at Enborne Street were represented by sub-circular, bowl shaped pits between 1.05m and 2.60m in diameter and approximately 0.20m deep. Both contained large quantities of charcoal and displayed signs of burning, causing a bright red discoloration of the surrounding natural clay.

A posthole (7012) on the northern side of kiln 7004 cuts, and therefore post-dates, the backfilling of the kiln. On the western side of 7004 was a shallow, irregular feature, 7014; the relationship between the two features could not be discerned because of the very similar nature of their fills.

Immediately to the north-east of kiln 7054 was a thin (<0.05m thick) layer of greyish brown silty clay (7055) which contained large quantities (approximately 80%) of charcoal. In addition to a small assemblage of 13th century pottery and tile fragments, 29 pieces of fired clay were also recovered from this deposit. The majority of these had smooth, flat surfaces and were blackened through heating or burning. It is possible that they represent the covering, lining or kiln furniture (material used as spacers to separate or hold the pots during firing) associated with one of the possible kilns. The spread of burnt material is likely to represent the fire debris 'raked out' of the kilns after a firing.

Samples of charcoal taken from the base of kiln 7004 consisted of oak sapwood and twigs, birch and alder. Oak and birch are high energy fuels, but alder wood burns slowly and with less heat. Ethnographic studies of pottery production employing similar firing techniques indicate the use of a wide range of fuels, including straw, animal dung, sawdust and twigs, with a preference for slow burning fuels for firing calcite tempered pottery (Rye 1981). The samples also contained a small quantity of charred cereals and weeds, which offer a glimpse of the agricultural economy of the potters (Appendix 9; below).

Although having the appearance of kiln waste, none of the pottery recovered from the possible kilns was demonstrably fired in them; it is more likely that they were filled with material from existing waste heaps. All of the pottery is datable to the mid-late 13th century and consists almost entirely of chalk-/flint-tempered wares (Newbury Group B wares, see below).

The amount of subsequent damage due to ploughing on the site is uncertain. It is possible that, in both cases, almost the entire kiln had been destroyed and all that remained was the base of the stoke pit. However, it is more likely that the pits were

the remains of simple 'clamp' kilns, in which the pots would have been stacked in a shallow pit with the fuel and covered with turves or some similar material for firing. Such kilns would not have required a superstructure. This interpretation is supported by the characteristically 'patchy' surface colouring of the pots themselves, which indicate variable firing conditions. The pottery and tile assemblages from both Enborne Street and Wheatlands Lane are discussed in Appendix 8.

The Pits

Two groups of intercutting pits were found on the site, one towards the centre of the site (group 7061), to the east of the kilns, and one close to the western limit of the road corridor (group 7094), to the south of the kilns.

Group 7061 comprised three intercutting sub-rectangular pits varying in length from 3.00m – 2.30m, in width from 2.50m – 1.50m and in depth from 0.70m - 1.15m. All had vertical sides and flat bases.

The original function of these pits is uncertain; it is possible that they were clay extraction pits, but as they intercut this is unlikely. The pits may instead have been used for clay preparation. Documentary evidence of post-medieval pottery industries record that clay was prepared for working by *"steeping it in water in a square pit, till it be of a due consistence"* (Plot 1686); a similar process, known as puddling, was still in use in the 19th century Verwood industries in Dorset (Young 1979). Whatever their original use, they were subsequently used as dumps for kiln waste, in the form of underfired tiles and pottery.

The earliest of the three pits (7071) produced relatively small quantities of pottery and tile, as well as charcoal of oak, birch, hazel, ash, and cherry, a similar combination of high energy fuel woods to that found with the kilns. The second pit (7031), the smallest of the three, however, produced over 9kg of pottery, including a near complete necked jar or cooking pot (Plate 2). The latest (7030) contained very large quantities of underfired tiles, with one fill (7043) being comprised almost entirely of a 0.30m thick dump of tile fragments (Plate 3): a 0.50m wide slot excavated through this fill produced 30.7kg (346 fragments) of tile.

The group of pits close to the western limit of the road corridor (7094) comprised three small intercutting pits, all with irregular, sub-rectangular shapes, steep concave sides and irregular bases. These varied in depth between 0.30m and 0.70m. Only the smallest and most recent (7027) could be clearly seen in plan. This was approximately 0.90m long and 0.80m wide. The largest (7024) was approximately 2.10m long and 1.30m wide. Large quantities of pottery (220 sherds; weighing 2kg) and tile (425 fragments, weighing 31.6kg) were recovered from this group of pits. These were smaller and shallower than the pits in group 7061, possibly indicating a different function.

The pit groups produced a very large assemblage of later 13th century pottery, mostly Newbury Group B wares, but with a significant percentage of flint-tempered Group A wares (see Appendix 8). The poor condition of the assemblage indicates that it is largely kiln waste. The most common vessel forms comprise jars, bowls and dishes, together with a cauldron (Fig. 25, 52), a possible hearth cover or 'curfew' and a

possible pitcher. In addition, there is one internally glazed dripping dish (Fig. 25, 67), and a slip-decorated jug (Fig. 25, 66), both in non-local fabrics.

Ditches and Gullies

A total of five ditches and gullies were datable to the 13th century. The most substantial of these was ditch 7017, on an approximately north-south alignment. It was traced for 20m across the eastern part of the site and was on average 1.90m wide and 0.80m deep with a regular V-shaped profile. It was interpreted as a field or property boundary. Apart from two small gullies, all of the medieval features lay to the west of this ditch.

The two small gullies to the east of ditch 7017 were aligned at right angles to each other, one north-south (7042) and one east-west (7040). They varied between 0.25m and 0.50m in width and were approximately 0.20m deep with regular U-shaped profiles.

Two further gullies of 12th-13th century date were located to the west of ditch 7017. The most northerly of these (7001), on an east-west alignment, was traced for approximately 18m in the strip and record area and in an earlier trial trench. It varied between 0.70m and 0.90m in width and between 0.20m and 0.40m in depth, becoming wider and deeper towards the west. Towards its western limit within the road corridor it contained a dense concentration of pottery (100 sherds, weighing 3.6kg), although very few finds were recovered from elsewhere along its length.

Immediately to the south of pit group 7061 was a small curving gully (7033) on an approximately north-south alignment. It was between 0.50m and 1.00m wide and between 0.25m and 0.40m deep, becoming progressively wider and deeper as it continued down slope to the south. The northern terminal of this feature was almost completely filled with a dense deposit of pottery fragments (1723 sherds, weighing 19.5kg) which terminated abruptly 2.00m to the south of the terminal (Plate 4). Very little material was recovered from the remainder of this gully.

The two gullies to the west of ditch 7017 are presumably drains to keep ground water away from the kilns and working area. The localised concentrations of pottery fragments found in these gullies are less easy to interpret. It is possible that they functioned as a form of soakaway, possibly where they passed below structures or surfaces, or that waster dumps, since removed by ploughing, were positioned over them after they fell out of use. An alternative interpretation is that these gullies were utilised in the clay puddling process.

Similar concentrations of pottery in gullies have been found on other medieval kiln sites, for example at Harefield Lane, Nuneaton, Warwickshire (Moorhouse 1981), where a drain constructed of pots was also excavated.

Post-medieval

Several post-medieval ditches were also excavated. The three intercutting ditches in the south of the site appear to represent the establishment and maintenance, albeit on slightly differing alignments, of a field boundary shown on an Estate Map of 1775 and the 1841 Tithe Map. The two more northerly ditches were of comparable size to the

field boundaries (between 1.0m and 1.50m wide and 0.50m-0.90m deep) with similar regular V-shaped profiles. The function of these ditches is unclear.

Wheatlands Lane (Fig. 20)
Earlier medieval (12th – 13th century)
OS Grid Reference SU 444 647

Approximately half the width of the road corridor here had been disturbed by the railway embankment. A total area of approximately 4600 square metres to the west of this disturbed area was stripped of topsoil by machine on both sides of Wheatlands Lane. Tree roots had disturbed most of the area to the south of Wheatlands Lane, but the area to the north appeared to have suffered a degree of disturbance due to ploughing.

In the southern area two small gullies were identified. In the northern area a single ditch and a possible pit were identified, together with two spreads of pottery and one of burnt flint noted within the topsoil. As at Enborne Street, large amounts of kiln waste were recovered; however, no possible kilns were found at this site.

The two features identified in the southern area comprised a small curvilinear gully (6017) which was traced for *c.* 7m. It ran from the western limit of excavation then turning towards the south (down slope) where it became impossible to discern, as the fill was indistinguishable from the natural sandy clays. Indeed, the fill along its entire length was the result of natural silting; the feature was only discerned because of dense concentrations of pottery (460 sherds, 4.8kg) within the fill.

Approximately 2m to the west of gully 6017, was a short length of gully (6022) which was traced for a total length of 6.00m on a north-south alignment. This was only discernable as a linear concentration of pottery (138 sherds, 1.5kg), as the fill of the gully was indistinguishable from the surrounding natural London Clay. It was interpreted as the base of a small drainage gully, approximately 0.90m wide and between 0.10m and 0.20m deep.

Both of these shallow gullies were very similar to the two western gullies at the nearby Enborne Street site, which also contained dense concentrations of pottery.

To the north of Wheatlands Lane, a slightly curving ditch was recorded on a north-south alignment (6024). This was probably a silted up field boundary ditch, and contained a small assemblage of 13th century pottery. The only other feature (6103) recognised in this area was very irregular, possibly a tree throw hole, from which a small assemblage of medieval pottery was recovered.

Test pits were excavated into the substrata in the areas where the concentrations of pottery and burnt flint were noted during the topsoil stripping. No features were discerned, and these spreads may represent material from features that have been completely destroyed by ploughing.

Medieval Pottery and Tile Production in the Newbury Area

The excavations at Enborne Street and Wheatlands Lane, albeit limited in scale, have revealed important evidence for pottery and tile production in an area where such activity had not previously been suspected. Due to this importance, the pottery is discussed in greater detail in Appendix 7, while a resumé is contained in this narrative. Until the present excavations, the only known pottery production sites in Berkshire were the 13th and 15th/16th century kiln group at Camley Gardens, Maidenhead (Pike 1965-6) and the early 13th century kiln at Ashampstead at the foot of the Berkshire Downs (Mepham and Heaton 1995).

Evidence for flat roof tile production in the Newbury area is also limited. Documentary sources record the establishment of a tile kiln at Highclere, to the south of Newbury, in 1291, although the manor there had been using tiles from at least 1268 (Hare 1991, p88). There is also documentary evidence that the same kiln produced pottery. Evidence for tile production, in the form of kiln waste, has also been found in Newbury itself on archaeological excavations at Bartholomew Street and Cheap Street (Vince et al. 1997).

In view of the results of the archaeological investigations at the Enborne Street and the Wheatlands Lane sites, a documentary search was undertaken for this area. A number of field names, and the name of the small village/hamlet of Crockham Heath, which lies approximately 1km to the west of the route, appear to indicate a local ceramic industry. The earliest documentary reference to Crockham Heath (*Crokeham Hethe*) appears in a Land Revenue document, dated 1547, held at the Public Records Office, Kew. The same document details several field names in the area which also relate to ceramic production, such as Potters Pightle, Pug Pits (pug is clay prepared for brickmaking) and Brick Kiln Piece.

A short newspaper article, dated February 1885, states that "*On Mr. Valpy's estate at Enborne an immense number of pieces of Roman pottery ..... were dug up in the clay a few years since, which had every appearance of being the refuse of pottery kilns*", Mr. Valpy's estate included both the Enborne Street and the Wheatlands Lane sites, although no records of the exact location and circumstances of the discovery, or the current location of the material, have been found. It is possible that the pottery was misidentified as Roman due to its poorly fired nature. The reference to the fact that they were "*dug up in the clay*" could indicate that they were discovered during the construction of the railway cutting immediately to the east of the Enborne Street site, which was excavated between 1882 and 1885. The only other possible location would be the large clay pit to the west of Oaken Copse, approximately 500m to the north-east of the Wheatlands Lane site. This was excavated at some time between 1841 (when the site is recorded as pasture on the Tithe Map) and 1911 (when it first appears on OS map).

Significance of the Enborne Street and Wheatlands Lane sites

Very little of the pottery and tile recovered at Enborne Street was found physically associated with the kilns themselves. Nonetheless, the quantities of pottery and tile recovered from other contexts and features on both sites, which by their condition may be identified as kiln waste, are sufficient to postulate pottery and tile production on some scale either on the sites or in the near vicinity.

Both sites seem to represent relatively short-lived episodes of production in the latter part of the 13th century on the basis of the fabric types and vessel forms recovered. There is some evidence to suggest that the site at Wheatlands Lane may have been in operation slightly earlier than Enborne Street, with some possible chronological overlap between the two.

The products of this local industry have been identified as comprising three main pottery forms: necked jars (such as that illustrated in Fig. 21, 13), necked bowls (such as that illustrated on Fig. 24, 43) and bowls/dishes with inturned rims (such as that illustrated on Fig. 23, 29.). Other forms are present but in much smaller quantities; these forms, such as jugs and curfews, were presumably not produced on a regular basis. A cauldron from Enborne Street (Fig. 25, 52) is a 'one-off' whose elaborate decoration suggests that this was an experimental piece, or was possibly specially commissioned.

The tiles are all roof tiles, the majority of which are flat with a small percentage of plain, unglazed ridge tiles. No decorated ridge tiles, finials or louvers (the form of tiles often manufactured at pottery production sites) were recovered.

The pottery and tile production industry represented by these sites appears to be located where the raw materials necessary for pottery and tile production – clay, water and fuel for firing - would have been readily accessible. The London Clay of the underlying drift geology is suitable for potting and has been exploited at various locations since the Romano-British period, for example at Hamstead Marshall (Rashbrook 1983), and the post-medieval pottery at Inkpen (Vince et al. 1997, 65).

The original stimulus for the industry can probably be traced back to the founding, in the late 11th century, and subsequent growth of the planned settlement of Newbury, the market that the industry was supplying. The production of pottery and tile in the Newbury area was probably being carried out at small, dispersed production sites. Tile making, and possibly potting, were seasonal occupations, normally undertaken in the summer and usually carried out alongside another occupation – such as farming (Drury 1981, Cherry 1991). The apparent small scale of the industry and the lack of the more sophisticated structures and technology found at other pottery production sites of a similar date would seem to indicate that this was the case here.

The scale and organisation of the local industry

Although no evidence for pottery production in this area of Berkshire had previously been recognised, it seems logical to suppose that such production must have taken place on some scale. The sites at Enborne Street and Wheatlands Lane are unlikely to represent isolated production sites; rather they are likely to be part of a larger, dispersed local industry.

It might be expected, therefore, that other small production sites similar to Enborne Street and Wheatlands Lane existed at other points along the London Clay outcrop above the Kennet valley. A sherd concentration identified during fieldwalking in 1976-7 in a similar topographical position, approximately 1.5 km to the north-east of Wheatlands Lane (Lobb and Rose 1996, Appendix 5.3, PRN 3617), may be evidence of this. Although the possibility of pottery production here was not considered at the time (although the presence of 'Potter's Piddle' as a field name in Enborne parish was

noted: *ibid.*, appendix 2), a re-examination of the sherds for the purposes of this analysis revealed a level of abrasion and condition generally consistent with the kiln waste recovered from Enborne Street and Wheatlands Lane. The small collection of sherds (88 sherds in total) consisted mainly of chalk-/flint-tempered wares with a smaller proportion of flint-tempered wares, in a ratio of approximately 5:1; vessel forms included jars (type 1) and bowls (type 3).

The archaeological evidence, albeit disturbed by ploughing and tree roots and in some cases ambiguous, indicates that the technology employed during pottery production on these sites would have been at the most basic level. Evidence for the kilns themselves is slight, but they are likely to have been simple 'clamp' kilns rather than formal structures. There is no evidence for any superstructure or internal kiln furniture; the pots would have been simply stacked within the clamp with the fuel, and discarded waste sherds may have been used to separate the pots within the stack.

The lifespan of such simple kilns is difficult to estimate. An estimate of five years for the life of each of the more formal structures at the Laverstock kilns outside Salisbury, based on one firing per week during the summer months (Musty *et al.* 1969), may be an over-estimate, but theoretically the clamp kiln could have functioned more or less indefinitely with regular cleaning out, since there was no superstructure to maintain. Although the ceramic evidence suggests a relatively limited timespan, this cannot be narrowed down on the basis of either fabrics or vessel forms within the broad period of the later 13th to early 14th century. A short lifespan might be explained by any one of a number of factors, including a change in the ownership of the holding or the exhaustion of the most easily accessible clay sources. With the latter point in mind, it is tempting to postulate a gradual movement along the plateau edge away from Newbury (i.e. from Wheatlands Lane to Enborne Street) as clay sources were exhausted. It would be interesting to pursue this theory in areas of London Clay to the south-east of Newbury, but as yet no comparable evidence is known.

As for the associated features of the potter's working area which might be expected, there is practically no archaeological evidence. Several large pits at Enborne Street (above), later filled with kiln waste, could originally have functioned as clay puddling pits. The function of the narrow gullies, some of them densely packed with kiln waste, is more ambiguous; these could have resulted from clay extraction, or have been used for drainage, or possibly both. There is no evidence for workshop structures, although this could have been removed by subsequent ploughing.

This picture of an industry operating at a very basic level is supported by the ceramic evidence. The vessels themselves are handmade, although showing some degree of skill in the forming and finishing; there is no glaze and decoration is at a minimum. Clay 'recipes' are used which have the advantages of a relatively 'open' texture with inclusions that would strengthen the vessels against the thermal shock encountered during use as cooking pots while limiting the necessity to eliminate all accidentally occurring impurities in the clay or tempering agents. The impression gained is one of severely utilitarian, 'no frills' production of everyday kitchen wares, aimed at the lower and middle class market. These are basic vessel forms (jars and bowls) which could have fulfilled a multitude of different functions, not necessarily all purely domestic. Even less common and more specialised forms, such as the curfew and the

cauldron (Fig. 25, 52 and 55), are simply adaptations of forms within the main repertoire; the necked bowl and the necked jar respectively.

The failure to take advantage of such technological improvements as the use of the wheel and more formal kiln structures is symptomatic of the early medieval pottery industry in England as a whole and is not unexpected here. It is consistent with the evidence from documentary sources of the generally low social and economic status of potters, who were drawn largely from the peasantry, and whose access to the capital necessary for investment in such technological advances was obviously limited. That this did not unduly affect the success of the local industry can be seen in the predominance of its products in Newbury itself.

While the manufacture of pottery and plain roof tiles at the same site is unusual, there was a tendency for the earlier tile centres to be associated with pottery sites (Hare 1991, 99). The documentary reference to the production of roof tiles and pottery at Highclere (see above), approximately 5km to the south of the Enborne Street site, demonstrates that in this particular area it may have been a recurrent practice.

Hills Pightle (Fig. 26)
Earlier medieval (12th – 13th century)
OS Grid Reference SU 46200 70000

This site lay within the base of a dry valley at between 110.0m and 113.0m OD, in an arable field with two 'sink-holes' immediately to the north. The underlying natural strata comprised a variety of interleaving fluvial deposits such as very pale brown weathered chalk, pale yellowish brown sands containing sub-angular gravels, tabular flint beds and stiff orange brown clays with only intermittent drainage. The presence of such varied natural strata and the proximity of the two sink-holes cause the dry valley to waterlog during wet periods.

Finds and possible features of 12th-13th century date were found in a number of Stage 2 evaluation trenches in this area. These were sealed below a depth of up to 1m of colluvium. As a result of the evaluation findings, this site was subject to investigation by strip and record before road construction commenced. Natural drainage channels were redirected and an area of 4000 square metres (80m x 50m) was stripped. Valley base deposits composed of topsoil, subsoil and colluvium to a depth in excess of 1m were removed by machine.

Two ditches and three pits, all of medieval date, were excavated, along with two probably natural features which also produced small quantities of medieval pottery. All of the features were cut into the mixed natural substrata and were sealed below a thick series of colluvial and subsoil deposits, which lay below the modern topsoil.

The larger of the two ditches (7529) was traced from the eastern limit of excavation across the entire width of the stripped area and continued beyond the western limit of excavation. It varied between 0.80m and 1.30m in width and was between 0.25m and 0.45m deep, becoming narrower and shallower towards the west. A small assemblage of medieval pottery, probably of 13th century date, was recovered along with small quantities of ceramic building material, worked flint, burnt flint and animal bone. All

of the other features encountered were located to the north of this feature, suggesting that it may represent an enclosure or property boundary.

A short, shallow ditch (7507) of uncertain function, orientated north-east to south-west, was located towards the north-western limit of excavation. The feature was on average 0.85m wide and 0.20m deep with slightly irregular sides and a flat base. It was exposed over its complete length within the area of excavation, and terminated at its south-west end in a sub-circular pit, approximately 1.30m in diameter and 0.40m deep, in the base of which was a small post-hole; these appeared to be contemporaneous features. Towards the north-east, ditch 7507 became progressively shallower, to a depth of 0.05m at the north-east terminal. A small assemblage of medieval pottery was recovered, along with small amounts of ceramic building material, burnt flint and animal bone.

Three pits, all of medieval date, were also excavated. A large sub-circular pit (7501), 1.80m in diameter and 0.25m deep, was located towards the eastern side of the site. The basal fill of pit 7501 comprised a 0.10m thick layer of stiff, silty clay, possibly a deliberate clay lining, suggesting a storage function. The remainder of the pit was filled with a greyish brown loam from which a small assemblage of medieval pottery was recovered.

Approximately 20m to the west of this, two intercutting sub-circular pits were recorded. The earliest of these (7525) was approximately 1.20m in diameter and 0.70m deep, and contained a small assemblage of medieval pottery. Pit 7525 was partly cut away by pit 7523, which was 1.50m in diameter and 0.60m deep. A small assemblage of medieval pottery was also recovered from pit 7523, along with large quantities of burnt flint associated with a distinct charcoal deposit, and two fragments of burnt sarsen stone. The charcoal had come from the burning of a variety of different woods. All the trees represented, including oak, blackthorn or cherry, elder, hazel, and hawthorn are likely to have been growing locally. Birch charcoal was also found and also probably grew in areas of leached topsoil over the chalk bedrock or in patches of colluvium in the valley bottom.

Samples taken from these two pits produced some carbonised grain (Appendix 10) and a large assemblage of snail shells, which can provide some indication of the environmental conditions within the immediate vicinity of the site. The land snail evidence in this case reflects typical occupation and 'garden' habitats, but the presence of small numbers of species more typical of marshes (*Zonitoides nitidus* and *Vertigo moulinsiana*) is interesting. If these snails were local and indigenous, they might indicate the presence of damp marshes, sedges and fens in the base of the valley. However, the snails may have been incorporated amongst debris discarded into the pit, suggesting that they were brought onto the site, possibly with mud from the riverside, or on reeds which might have been cleared from floor levels or thatch. Such interpretations have been made from Iron Age pits at Winklebury (Thomas 1977) and Balksbury (Allen 1995), both in Hampshire.

A shallow feature (7502) approximately 8.00m long and 4.00m wide with very irregular sides and base, containing small quantities of medieval pottery, worked flint, animal bone and a probable iron nail, was interpreted as a remnant subsoil which had accumulated in a slight depression in the natural substrata. A further natural feature in

the north-east corner of the site appeared to be a small, shallow pond or animal 'wallow'. Two small sherds of medieval pottery were recovered from this along with two pieces of worked flint and a single piece of burnt flint.

The small assemblage of pottery recovered from this site (Fig. 27) has marked similarities with the larger assemblages from the production sites at Enborne Street and Wheatlands Lane. The most noticeable difference is in the condition of the pottery, which in this case is relatively well preserved, if fragmentary, indicating that this represents a normal domestic assemblage rather than kiln waste.

The assemblage is too small for close dating, but the visual similarity and the obvious affinities with the pottery from the production sites at Enborne Street/Wheatlands Lane suggests a similarly restricted date range in the second half of the 13th century for Hills Pightle. The occurrence at Hills Pightle of other (sandy) pottery fabric types indicates that while the wares of the Kennet valley industry were predominant, other sources were also used.

The nature of the site is difficult to interpret, but the environmental and finds evidence both indicate a domestic function; the site probably represents the scant remains of a small croft or farmstead.

5. THE POST-MEDIEVAL PERIOD 1500 AD-Present

Newbury grew rapidly in the later medieval period, expanding to the north so that Speenhamland was regarded as part of the town by the 17th century. The town received its first charter of incorporation in 1596, with main companies represented on the governing body: the clothiers, mercers, tanners, braziers and cloth workers (Astill, 1978). By the end of the 16th century, however, the cloth industry on which the fortunes of Newbury had been built was suffering a major decline, from which it never fully recovered.

During the Civil Wars of the mid-seventeenth century, Newbury witnessed significant action (Money 1881). The first battle occurred on 20th September 1643 in the area between the new by-pass route and the modern southern extension of the town. The area is now registered by English Heritage as an Historic Battlefield. The King had intended to stop Parliamentary forces returning from Gloucester to London. Although they had the initiative, the Royalists made the tactical mistake of allowing their enemy to occupy the higher ground at Round Hill. Despite robust attacks mainly from Wash Common to the east, the Parliamentarians held their defensive positions and the King was denied a victory. Due to heavy losses, (including the King's secretary, Lord Falkland) and a shortage of ammunition, the Royalists withdrew towards Oxford, permitting the Parliamentarians to proceed south of the Kennet to Reading and then London.

Before leaving Newbury, the King placed a garrison at Donnington Castle, which was strengthened with new earthworks while positions potentially defensible by the enemy nearby were cleared. In July 1644, the castle was besieged. Until Royalists from the West Country could make an attempt to relieve it on 27th October, they positioned themselves between Speen and Newbury and at Shaw House, but in the afternoon were surprised by attacks first from the west and then from Clay Hill to the east. This, second battle of Newbury was indecisive; the attacks were abandoned, the King withdrew and the siege of Donnington Castle continued until the garrison was ordered to surrender on 30th March 1646.

The programme of archaeological work conducted in advance of the construction of the Newbury By-pass found no trace of these important historical events. Perhaps ironically, it is contemporary accounts of the battles which help us to corroborate the picture of the landscape derived from the archaeological evidence. These accounts tell us that during the first battle of 1643, the Royalists were unsuccessful largely because their cavalry was frustrated by the marshy ground on the Kennet floodplain, and the pattern of small fields and lanes to the south. Such eye-witness accounts fit comfortably with the picture of small dispersed rural farmsteads gleaned from the archaeological evidence.

The siege of Donnington Castle led to the destruction of many buildings and trees in attempts to aid its defence. No evidence of this was discovered on the route of the by-pass, probably because the events took place to the south and east of the castle. Similarly, the scene of the second battle was not impinged upon by the road. Possibly those displaced by the fighting sought refuge in Newbury itself, thus effecting a growth in the population of the town.

Newbury's location at the crossing of the Kennet saw it benefit from the development of new transport systems. In the 18th century, the town became a popular staging post on the London to Bath road, and a large number of coaching inns opened in Newbury, and in particular Speenhamland, to serve this trade. The opening of the Newbury – Kintbury section of the Kennet and Avon Canal in 1797 brought greater commercial development, however, with silk and paper mills and iron foundries active in the town in the 1830s. The Great Western Railway was opened in 1847, but did not transform the local economy to the same extent.

Two landscape features of post-medieval date were recorded where they were affected by the Bypass route. An earthwork boundary feature to the west of the Wantage road was identified and recorded during strip and record works at the nearby Hill's Pightle site. The earthwork extended for some 1400m in total, and formed the boundary of fields to the west of the road; the absence of this feature on the 1730-1740 survey of Speen manor suggests that it post-dates the survey.

A photographic record was made during the watching brief of features associated with the former Southampton – Didcot railway line, which the Bypass route follows.

The Earthwork at Wantage Road
OS Grid Reference SU 46300 70100

A small ditch and bank earthwork was crossed by the road corridor to the west of the Wantage Road, close to the strip and record site at Hill's Pightle. The earthwork runs approximately north-south along the steep, heavily wooded eastern side of a small dry valley. Within the road corridor it lay at a height of approximately 121m OD. The underlying drift geology comprised mixed sand and clay Reading Beds.

The earthwork was examined during the strip and record phase of works, prior to the commencement of road construction. Much of its length within the road corridor had been severely disturbed by tree felling and subsequent stump removal. To compliment the physical recording of the monument a limited desk-based study of maps and documents held in the County Records Office was undertaken.

A single machine trench was excavated across the earthwork at the best surviving point. The earthwork was found to comprise a broad shallow ditch, *c.* 2.50m wide and 0.40m deep, and a low bank *c.* 2.80m wide and 0.40m high on the western down slope side. No datable material was recovered from either the primary fill of the ditch or from the bank, although modern (20th century) pottery and fragments of concrete were noted in the uppermost fills of the ditch. Ash trees up to 1.00m in diameter were noted growing on the bank to the north of the corridor, which suggest an earlier date than the finds recovered from the ditch.

The earthwork was traced for *c.* 300m to the north where it turned to the north-west, crossing the dry valley and continuing up the western side of the valley. To the south it was traced for *c.* 1100m to the northern edge of the village of Donnington. It was noted that the earthwork formed the western boundary of the properties and fields along the western side of the B4494 Wantage Road.

The current edition 1:10,000 OS map of the area shows the line of the earthwork as a continuous property/field boundary. The southern end of this same boundary was also noted on the 1730-1740 survey of Speen Manor, however, on this document it did not appear to form a continuous boundary. The area where it is crossed by the Bypass route lies beyond the northern extent of the survey.

It appears, therefore, that the earthwork is the remains of a lengthy property/field boundary, and the presence of mature (*c.* 1.00m in diameter) trees growing on the bank indicate that it is far from recent. However, the interrupted appearance of this boundary on the 1730-1740 map may indicate that the earthwork is later than this.

The Railways (Fig. 1)

The first railway to cross Berkshire was the line designed by I. K. Brunel and built by the Great Western Railway Company between 1836 and 1841 to link London, via Didcot and Swindon, to Bristol. Branch lines from Reading reached out to Newbury and Hungerford by 1847, thus largely replacing water transport (the Kennet Navigation from 1723 and the Kennet and Avon Canal) as the principal means of conveying goods to the capital. In 1873 Parliament gave consent to a scheme to create a north-south route linking Oxford to Southampton, via Didcot (and its junction with the GWR), Newbury and Winchester (and its junction with the London and South Western line). Construction of the northern section as far as Newbury was delayed until 1879 but it opened in 1882, while the southern section as far as Winchester opened in 1885. The link to Southampton was never made.

The 12-mile (20km) Lambourn Valley Railway which approached Newbury along the southern flank of the River Lambourn and through Speen, was completed in 1898.

Its construction offers a salutary lesson to transport engineers because work was seriously delayed by the discovery of a major Anglo-Saxon cemetery at East Shefford, 12km from Newbury.

The main line from Hungerford to Reading continues in use, and is now crossed by a new bridge built for the by-pass. However, the Newbury and Didcot line closed in 1964 and the stretch of Lambourn Valley line from Welford to Newbury in 1972. The by-pass utilises the route of the dismantled Newbury to Winchester railway line, from the point where it leaves the existing A34 in the south as far as Enborne Road. During the programme of archaeological works a photographic record was made of any structures that might be connected with the railway, although no significant remains were encountered.

6. DISCUSSION

The preceding chapters have summarised the archaeological fieldwork undertaken on the Newbury Bypass. This chapter seeks to discuss the results of the work and their significance, in a wider archaeological context.

The Bypass corridor creates a transect across a number of topographical/geological zones. The archaeological potential of some of these landscapes was already well established prior to the archaeological investigations, while little was known of that of others owing to a lack of previous archaeological work. The road corridor transect has permitted the investigation of a sample of these landscapes, which has provided valuable data which allow the perceived archaeological potential of the different zones to be re-examined. However, the restricted width of the transect means that, in many cases, the extent or nature of the archaeological sites remains uncertain as only those parts of sites or potential sites which were directly affected by the Bypass could be investigated. Nevertheless, the data provides an invaluable tool with which to review perceptions of human activity across varying landscapes over a long period of time.

Mesolithic

The earliest activity represented on the Bypass route comprised a dense concentration of Late Mesolithic flintwork recovered from subsoil and colluvial deposits overlying valley floor terrace gravels at the Lambourn Valley site alongside the possible *in situ* deposits located during the evaluation, which were preserved. Small quantities of Mesolithic flintwork were also found in later deposits during the evaluation and subsequent strip and record excavations elsewhere along the Bypass route.

The Mesolithic material excavated at the Lambourn Valley site comprised only worked flint and burnt unworked flint. Fortunately, it sits within a region which is rich in evidence for Mesolithic activity (Wymer 1977, 1978), making it possible to put them into a wider regional context.

The Kennet and Lambourn valleys around Newbury are well known for the presence of Mesolithic sites, which would have been occupied by hunter-gatherer groups exploiting local resources. These sites principally survive as flint scatters, which have often been disturbed by agricultural and other activity over the succeeding millennia; the survival of Mesolithic deposits *in situ,* though well attested locally, is rare nationally.

A number of early Mesolithic sites are known at Thatcham, less than 5km to the south-east. These lie on the edge of the terrace gravels overlooking the River Kennet floodplain, and have evidence for flint knapping and microlith production on site (Peake and Crawford 1922, Wymer 1962). There was also evidence for bone and antler working. Other early Mesolithic sites have been excavated at Greenham Dairy Farm (Sheridan *et al.* 1967) and the adjacent Faraday Road (Wessex Archaeology 1997), 3km south east of the Lambourn Valley site. These also lie on the terrace gravels.

In the Wawcott area, 7km to the west of the Lambourn Valley site, over 50 possible sites, of both early and late Mesolithic date have been recorded. These were situated on the floodplain, on the edge of the terrace gravels and also on the lower slopes of the river valley (Froom 1963; 1965; 1970; 1972; 1976). It can therefore be seen that the Lambourn Valley sites sit in the same topographic position as a number of early and later Mesolithic sites in the area.

Environmental evidence from individual sites and from the wider Kennet valley region indicates that in the earlier Mesolithic period the floodplains supported a predominantly open fen vegetation with some willow scrub. The lengthy duration of open conditions in the floodplains may in part be due to the effects of the grazing of large animals such as red deer, aurochs, horse, elk and wild boar (Holyoak 1980). There is also some evidence for the burning of the fen vegetation during this period at Thatcham, which may be the result of deliberate management by the Mesolithic population to improve grazing and encourage the herds of large animals (*ibid.*). On the terrace on the edge of the floodplain, the Thatcham sites were located in small dry grassy clearings, within pine and hazel woodland. On the higher ground of the valley sides, small birch woods gradually gave way to pine and hazel woodland and later to elm and oak. By the later Mesolithic period alder carr had developed on the floodplain (*ibid.*), possibly due to reduced human intervention, and the higher ground had become well-wooded with elm and lime.

Both the early and the later Mesolithic sites in the region appear to occupy similar topographical and environmental niches, with a number of the Thatcham and Wawcott sites having been interpreted as 'home base' sites in which a wide range of activities were carried out using a varied tool kit (Wymer 1962, Froom 1972; 1976). The Lambourn Valley site has also been interpreted as a 'home base' site of later Mesolithic date, although in common with many of the sites in the area, it also had strong evidence for gravel flint exploitation and tool production.

It seems that in both the early and later Mesolithic, a similar settlement pattern existed which concentrated in the river valleys. In contrast there is very little evidence for Mesolithic activity on the higher ground of the Berkshire Downs, despite the availability of good quality flint (Richards 1978). The density of the sites in the valleys, as well as the time span of occupation, may suggest that there was at least a semi-sedentary lifestyle exploiting the wide range of animal and vegetable resources available in the river and forest environments. It has been suggested (Clarke 1976; Mellars 1976) that the advantage of a river valley environment was the availability of storable food resources such as nuts, berries and roots together green water plants and other riverine resources during the difficult winter months when supplies of vegetable foodstuffs were at their lowest.

The density of Mesolithic sites in the Lambourn and Kennet Valleys appears to reflect not only the concentration of fieldwork in this area but also the great importance of this region in Mesolithic times. Further east in the Kennet Valley, the density of sites is much lower and in general the sites appear to be much smaller in size (Lobb and Rose 1996).

The evidence from the Lambourn Valley excavation comprised two concentrations of flintwork, which might indicate two separate 'sites' or just discrete areas of activity

within a single site. The presence of a wider range of tools in one of the concentrations might suggest a broader range of domestic activities than that represented by the other concentration, which seems to have been more involved with the manufacture of flint tools.

The possibly *in situ* deposits located to the west of the excavated area during the evaluations also seem to represent a site on which tools were made. As these deposits were not excavated, no more detailed comparison in terms of the date or nature of the activities represented can be made. It is not clear whether the Lambourn Valley assemblages can be seen as separate concentrations within one large site, perhaps resulting from a zoning of activities or occupation, or as discrete sites occupied at different times and possibly with differing functions.

Although the majority of known Mesolithic settlements in the Newbury area are confined to the valley floors, it is unlikely that activity in the Mesolithic would have been topographically restricted. Isolated finds of Mesolithic flintwork were also recovered from both the chalkland and valley sides during both the evaluation trenching and strip and record operations. Finds of this date are also recorded in the Berkshire Sites and Monuments Record in all of the topographic zones, although the majority of these lie in the valley floor zone. The hunter-gatherers of the time probably exploited resources in all topographic zones. The preponderance of settlement evidence from the valley floors might suggest that they represent home bases in favourable locations from which several resource areas might have been exploited on a seasonal basis.

These sites can be seen as either semi-permanent settlements, exploiting a wide range of raw materials and foodstuffs in the immediate environs, or as probable winter camps of more widely ranging groups exploiting the Kennet and Lambourn valleys as one part of a seasonal cycle. The evidence from the Lambourn Valley sites fits neatly into this established model of the Mesolithic settlement pattern.

Neolithic and Bronze Age

Evidence for Neolithic and Bronze Age activity along the Bypass route comprised the flint scatter at Curridge Road, Middle Bronze Age features at Swilly Copse, a group of Middle and Late Bronze Age features at Bath Road and colluvial deposits of Middle-Late Bronze Age date on the Lambourn Valley and Elmore Plantation sites. The absence of any certain evidence for settlement dating to these periods may reflect the often ephemeral nature of such sites, particularly those of Neolithic date, which leave little trace in the archaeological record and are particularly vulnerable to damage by agricultural activity. Alternatively, it may simply be that the isolated features located are peripheral to settlement sites beyond the road corridor.

The Berkshire County Sites and Monuments Record details finds of Neolithic polished flint axes in and around the village of Bagnor and a small assemblage of Neolithic pottery was recovered from the lower colluvium at the Lambourn Valley site. Although no features of this date were found, the presence of Neolithic material could perhaps indicate a settlement of this date in the general area of Bagnor, possibly to the west of the Bypass route, where the majority of the findspots lie.

The absence of Early Neolithic activity is perhaps to be expected. The floodplain and gravel terraces of the Middle and Lower Kennet valley appear to have been abandoned during this period, possibly due to inundation (Lobb and Rose 1996). This may have been caused by large-scale woodland clearance on the Berkshire Downs and upstream in the upper Kennet valley (Butterworth and Lobb 1992), which could have resulted in a shift in population to the higher chalklands to the north. Some signs of activity during this period, in the form of an episode of woodland clearance, are known in the chalkland zone approximately 1km to the north-west of the route at Snelsmore Common (Waton 1982), although this was followed by woodland regeneration.

The apparent low level of settlement activity of Later Neolithic and Early-Middle Bronze Age date is perhaps surprising, as numerous settlement sites of this date are known to the north of the area on the Berkshire Downs, and to the east in the Kennet floodplain towards Reading. The activity of this date within the Bypass corridor, represented by the flint scatter at Curridge Road and the few features at Swilly Copse, indicates that either traces of the settlement have been largely destroyed by agricultural activity, or that the focus of the settlement lies beyond the Bypass corridor.

The Middle-Late Bronze Age deposits at the Lambourn Valley and Elmore Plantation sites lie approximately 1.4km apart on either side of a ridge of chalk, overlain by plateau gravels, between the Kennet and Lambourn valleys. These were the result of human activity, possibly the removal of tree cover, settlement activity or ploughing further upslope. The few features of Middle and Late Bronze Age date recorded at the Bath Road site lay on the top of the chalk ridge between Elmore Plantation and the Lambourn Valley site. These indicate the possible presence of a Middle-Late Bronze Age settlement in the area. The probable hearth and other possibly domestic features may even represent the few surviving traces of part of dispersed ridge top settlement of this date. It is possible that the activities represented by the Bath Road site were also responsible for the formation of the lower colluvium at the Elmore Plantation and the Lambourn Valley sites.

Evidence from several sites within the Kennet valley indicates an intensification of landuse in the Later Bronze Age and Early Iron Age. Settlement sites excavated to the east of Newbury, at Hartshill Copse (Miles and Collard 1986), Dunston Park and Coopers Farm (Barnes et al 1995), were all situated on marginal land. This may reflect increasing pressure on land, perhaps because of soil exhaustion and population increase, necessitating expansion onto poorer soils and new areas. A similar pattern of expansion onto marginal land during this period has also been observed in the lower Kennet valley, close to its confluence with the Thames (Lobb and Rose 1996).

On Snelsmore Common, approximately 1km to the north-west of the route, pollen evidence indicates woodland clearance in this period. There is also some evidence for clearance and reoccupation of land which had previously been cleared and left to regenerate in the Early Neolithic (Waton 1982). The possible settlement remains excavated on the Bath Road site appear to fit into this pattern of expansion onto the more marginal land of the plateau gravels.

Although all of the prehistoric sites were found to the north of the Kennet, isolated finds of worked flint and other material were found throughout the route during the evaluation. The quantity of finds was higher to the north of the Kennet, and relatively low to the south. This may reflect the heavy soils of the London Clays on the plateau to the south of the Kennet, which would have been difficult to plough and poorly drained, making the area one of marginal agricultural land. The chalkland zone may therefore have been a favoured area for settlement in the prehistoric period. However, the barrow cemetery at Wash Common does indicate that the area between the Enborne and Kennet was at least the focus of Bronze Age funerary activity. However, the distribution of findspots of this date recorded in the Berkshire County Sites and Monuments Record suggests that this was mostly confined to the higher ground of the spur of plateau gravels to the east of the Bypass route.

Iron Age

The complete absence of any features or artefacts of Early and Middle Iron Age date on the Bypass route reflects the apparent low level of earlier Iron Age activity in the Newbury area. Traces of Early and Middle Iron Age settlement are, for the most part, confined to the hillforts of the chalk uplands to the north and south of the route. The closest of these to the Bypass route is Bussock Camp, which lies approximately 1km to the north. Other hillforts in the area include Grimsbury, 3.5km to the north-east, the possible hill top enclosure at Borough Hill, 3.5km to the north-west, Beacon Hill, 4km to the south and Walbury Hill, 7km to the south-west.

The only known traces of open settlement of this date in the area comprise a group of pits and hearths discovered during gravel extraction on Boxford common, approximately 2.5km to the north-west (Peake and Coghlan 1932-5). All of these sites lie in the chalk uplands to the north and south of the route. An archaeological survey of the Kennet valley (Lobb and Rose 1996) proposed a shift in settlement away from the river valleys during this period. It is possible that that most of the population of the area was absorbed into hillforts in the Early-Middle Iron Age. A similar shift in settlement has been noted elsewhere in the south of England (Sharples 1991).

The lack of excavation of the hillforts in the area makes it difficult to assess their status in the landscape and the length of time over which they were occupied. If the hillforts all served a defensive function, or represented power bases, their frequency suggests a politically fragmented social organisation. This contrasts markedly with the centralised control represented by the Late Iron Age *oppidum* or tribal centre at *Calleva* (Silchester).

The last 150 years before the Roman conquest was a time of rapid change. The hillfort centred settlement pattern of the earlier Iron Age gave way to new patterns of landuse which included the development of large centres or *oppida,* such as *Calleva,* and the appearance of small farming settlements, both enclosed and open (Cunliffe 1994).

Only one feature of Late Iron Age date was recorded on the Bypass route, a ditch on the Bagnor Road site. The Berkshire County Sites and Monuments Record lists several findspots of Late Iron Age material in the surrounding area and 36 sherds of Iron Age pottery were recovered from the upper colluvium and topsoil on the Lambourn valley site. This may indicate the presence of a Late Iron Age settlement in the immediate area.

Several findspots listed by the County Sites and Monuments Record of Late Iron Age coins and pottery in the area, especially in the bottom and sides of the Kennet valley, suggests activity of this date in the area. A few sites of Late Iron Age date have been excavated in the Kennet valley to the east of Newbury. The most extensively excavated site, at Ufton Nervet, was occupied from the Late Iron Age to the 4th century AD (Manning 1974). Other sites of Late Iron Age date in the Kennet and Thames valleys also continue into the Romano-British period.

The very early date of some of the features recorded on the Romano-British site at Enborne Road, and the recovery of a Late Iron Age coin to the west of this site (M. Spanswick pers. comm.) possibly indicates a Late Iron Age settlement or farmstead precursor to the known early Romano-British settlement.

Many cropmark sites, with rectangular enclosures and associated field systems, are known on the river gravels along the Kennet valley (Lobb and Rose 1996). By analogy with excavated sites in the Upper Thames valley, many of these enclosures may date to this period, although the lack of excavated sites makes confirmation uncertain.

An important factor, which must have influenced the pattern, nature and economy of settlements in the Newbury area, is the rise in power of the tribal centre of *Calleva Atrebatum* at Silchester, approximately 18km to the south-east, in the 1st century BC. This may have influenced the apparent increase in activity in the valley bottoms and valley sides in the Newbury area during this period.

The Romano-British Period

There is much in common between the Late Iron Age and the Romano-British patterns of landuse and settlement. The Roman conquest inevitably brought change, but it is the continuity which spans the 1st century AD that is most noticeable. *Oppida* developed into towns while rural farmsteads and settlements were maintained, many becoming 'Romanised' with the construction of masonry buildings, mosaics and hypocausts.

Four sites of Romano-British date were excavated in advance of the Bypass construction. The sites at Bagnor Road and Enborne Road appear to represent farmsteads of unknown size. The Bagnor Road site probably originated in the Late Iron Age and continued in use over most of the Romano-British period; the very early date of some of the features on the Enborne Road site possibly indicate that this was also the case here. The nature of the activity represented by the Romano-British remains recorded at Elmore Plantation is less clear, however, it is probable that this too was a farmstead. The very disturbed remains recorded at Great Pen Wood lay on the low plateau to the south of the Kennet valley. The heavy clay subsoil and waterlogged ground conditions would have made this an unpromising area for agriculture or settlement, however, the nature of the activities represented on this site is uncertain.

Many of the known sites and findspots of this date, listed in the County Sites and Monuments Record, appear to be clustered along the sides of the Kennet valley and along the Roman road between *Calleva Atrebatum* (Silchester) and *Cunetio*

(Mildenhall, Wiltshire), both important transport routes during this period. Important Romano-British settlements in the Newbury area include the extensive settlement at Thatcham Newtown, which straddles the Roman Road, and the Roman roadside station called *Spinis*, which was probably sited somewhere in the vicinity of the present day village of Speen. The site at Thatcham Newtown was observed during building work in the 1930's. (Harris 1937). The exact nature of this settlement is uncertain because of the way in which it was discovered, however, on the basis of its size, and the evidence for craft specialisation, it is suggested that this is a small town rather than a purely agricultural settlement. Pottery recovered from this site appears to indicate a 3rd or 4th century date.

The apparent concentration of Romano-British sites in and around Newbury can be explained to some extent by chance discoveries during construction work involved in the expansion of the town in the 19th and 20th centuries creating a bias towards the developed area. However, they must also reflect the density of settlement in the area. The distribution of sites and findspots appears to indicate a preferred location on the valley floor zone. The Enborne Road site is one of a number of known sites along the southern side of the Kennet valley which are spread at intervals of between 0.5km to 1.5km. All of these are on terrace gravels in the valley floor zone or, like Enborne Road, on the valley sides immediately above the valley floor. The Bagnor Road site also occupied a similar position within the Lambourn valley.

It is perhaps significant that the valley side settlements discovered on the Bypass route, are sited close to the base of the slope and are in an area where the well-drained terrace gravels are of very restricted size. Where the terrace gravels are more extensive, to the east of the route settlement appears to concentrate on the valley floor. The site at Great Pen Wood provides some evidence for further expansion during the Early Romano-British period into more marginal land.

The plateau gravels of the chalkland zone also appear to have been a popular settlement area in the Romano-British period, although they were probably not as densely populated as the valley floor zone. The results of fieldwalking surveys undertaken as part of the Kennet valley survey (Lobb and Rose 1996) suggest a number of sites on the edge of the plateau gravels to the north of the Kennet valley.

Whether on the valley sides or the valley floor, these settlements were utilising a range of land with varying potential from floodplain to plateau or chalkland. The potential of these areas as we know them today suggests that the floodplain would have been used for meadowland and the terraces and valley sides for cultivation. However, in the Romano-British period, their use may have been determined by other factors.

The distribution and size of the settlements in the Newbury area suggests an intensely farmed landscape, probably occupied by numerous small settlements, farmsteads and villas. The distribution and economic base of these was probably influenced by the proximity and authority of the Roman town of *Calleva Atrebatum* (Silchester) and the presence of the Roman road between *Calleva* and *Cunetio* (Mildenhall, Wiltshire), which crosses the Bypass route to the north of the Kennet valley. The Roman town would have provided a ready market for consumables, which may have encouraged the profitable production of surpluses in the Newbury area.

Understanding of the nature of the agricultural economy represented by the sites at Bagnor Road, Elmore Plantation and Enborne Road is severely hampered by the lack of preservation of animal bones. Environmental evidence from other sites within the Kennet valley suggests a predominantly pastoral economy with very limited arable (*ibid.*). However, the grain drier excavated at the Bagnor Road site and the plant remains recovered from this and other features indicate cultivation of cereals, predominantly of wheat (spelt), complimented with barley and oats. Weed seeds recovered from the same deposits suggest that at least some of these crops were grown on damp soils, possibly the valley bottom, which would have been more suited to pastoral agriculture. The importance of arable agriculture to the overall economy of the settlement cannot be estimated.

The slight traces of iron working recorded at the Elmore Plantation site indicate at least small scale industrial activity, probably producing or repairing equipment for use within the settlement. Other industrial sites of this date known in the Newbury area comprise the pottery kilns at Hampstead Marshall (Rashbrook 1983), the tile kilns at Shaw (information in County Sites and Monuments Record) and the craft specialisation noted at Thatcham Newtown (Harris 1937).

The Medieval Period

Evidence for post-Romano-British and Saxon settlement in the area around Newbury is very scarce. A few finds of Early-Middle Saxon pottery were recovered from shallow pits excavated at Enborne Gate Farm, approximately 1km to the east of the route. Several local place names, such as Boxford, Donnington, Enborne, Hamstead, Greenham and Thatcham, are of Saxon origin, although no archaeological remains of this date have so far been located within or around these villages. A Saxon settlement is known from a 10th century charter at Speen. The place name Speen may be a survival of the Romano-British *Spinis*, if so this could imply a continuation of the settlement beyond the Romano-British period.

If small farming communities also continued into the Saxon period, the land units within which they functioned may well have survived with them, to be taken over in due course by the Saxons. It is clear from the charter evidence that by the 10th century, at the latest, the area was divided into estates which formed the basis for the medieval manors and parishes, which are still reflected in the present day parish boundaries. No features or deposits of post Romano-British or Saxon date were found within the Bypass corridor.

Three sites of medieval date were located within the Bypass corridor. These comprised a small group of pits and ditches, possibly indicating a settlement in the general area, at Hill's Pightle and two pottery and tile production sites at Enborne Street and Wheatlands Lane.

During the medieval period the area of the road corridor would have been part of the immediate hinterland of the market town of Newbury. Newbury, or the 'new market town', is first mentioned in a grant of *c.* 1080 and probably developed rapidly after this date (Astill 1978). The countryside around Newbury was probably an area of nucleated settlements and dispersed farmsteads, with open fields and common

meadowlands along the valley floors and sides, and areas of woodland and heathland on the more marginal plateau and chalklands (Lobb and Rose 1996).

The remains excavated at Hill's Pightle probably represent a small croft or farmstead, situated in a dry valley within the chalkland zone. Environmental evidence recovered from this site indicates the cultivation of cereal crops, primarily oats with some barley, wheat and rye, on the heavy, damp soils. Again, the lack of survival of animal bones means that the relative importance of arable and pastoral agriculture and thus the economic basis of this and other similar settlements in the area, cannot be estimated.

The discovery of the pottery and tile production sites at Wheatlands Lane and Enborne Street provided a valuable insight into the scale, importance and organisation of the pottery and tile production in the Newbury area and the wider region of the Kennet valley and surrounding areas. Both sites appear to represent relatively short-lived episodes of production in the latter part of the 13th century, although there is some evidence to suggest that the Wheatlands Lane site may have been in operation slightly earlier than Enborne Street.

Potting and tile making were probably seasonal occupations, normally undertaken in the summer (Drury 1981, Cherry 1991) alongside other occupations – such as farming – and the presence of wheat, barley, rye and oat seeds recovered from some of the features indicate that this was almost certainly the case here.

Both the Wheatlands Lane and the Enborne Street sites lay on the low clay plateau to the south of the Kennet valley. The damp, heavy soils made this marginal land for agriculture, but the clay substrata, water and copses in this area provide all the raw materials for ceramic production. It is probable that these sites represent small farmsteads which supplemented their, probably poor, agricultural economy with seasonal pottery and tile production.

Review

The project enabled an examination of the way in which the changing patterns of land use and settlement relate to the geological and topographic diversity of the Bypass route.

In the medieval period, documentary sources indicate that the settlements were situated within land units which ran from the valley floors to the chalklands to the north or the low plateau to the south. Within these units land use was closely related to the topography, geology and soil type, which governed the agricultural potential of the varying localities. The series of Romano-British settlements along the valleys imply similar patterns of land use. Late Iron Age settlement appears, superficially, to follow a similar pattern to that of the Romano-British period. Continuity of settlement between the Late Iron Age and Romano-British period is suggested on two sites dated to this period (Bagnor Road and Enborne Street), but little can be inferred from the sparse remains of Late Iron Age date discovered within the Bypass corridor.

During the earlier Iron Age, there appears to have been a decline in population and exploitation of the Kennet and Lambourn valleys, possibly as a result of a shift in

settlement to the chalk downlands to the north and south of the route, or inundation of the valleys during this period (Lobb and Rose 1996). Late Neolithic and Bronze Age settlement activity along the route was generally confined to the chalkland zone to the north of the Kennet valley, although finds of this date within later deposits indicate fairly widespread activity on all geologies. Evidence from the Kennet Valley Survey (*ibid.*) supports this impression. Evidence for Late Neolithic and Bronze Age settlement in the valley floor zone was very sparse within the Bypass corridor: this is probably a reflection of the narrow strip of land sampled, rather than the actual settlement and exploitation patterns of the period.

No evidence of Early Neolithic activity was found within the Bypass corridor; the paucity of findspots of this date in the County Sites and Monuments Record appears to confirm the dearth of activity of this period in the general area. This may be because Early Neolithic activity was concentrated on the chalk downlands to the north and the more extensive terrace gravels of the Thames valley, in areas where extensive, light, well drained soils were available.

This lack of evidence from the Early Neolithic contrasts sharply with the wealth of evidence from the Mesolithic period. Mesolithic sites excavated in the area suggest relatively permanent base camps on the valley floor exploiting the rich resources of the valleys and surrounding area.

The project also enabled an assessment of the validity of the data gathered during the Kennet Valley Survey (Lobb and Rose 1996). This was one of the largest fieldwalking campaigns ever carried out in southern England, and provided a wealth of data on potential sites in the Kennet valley. Three potential sites were identified by the survey within the Bypass corridor. At Enborne Road, cropmarks to the west of the Bypass route and fieldwalking within the Bypass corridor indicated the possible presence of a Romano-British site. This was confirmed during the evaluation and the site was preserved (see Enborne Road above). Prehistoric worked flint and Iron Age pottery were recovered during fieldwalking of the field that contained the Bath Road site. Although the site appeared to either have been largely destroyed by ploughing or to lie beyond the Bypass corridor, a small number of Bronze Age features were found in the fieldwalked area and Iron Age activity in the area was confirmed at the nearby Bagnor Road site. In only one of the areas of archaeological potential identified by the survey within the Bypass route, a possible cropmark site on the northern side of the Lambourn valley, were no archaeological features found. A number of natural features, probably erosion gullies of periglacial origin, were located during the stage 2 evaluation in this area, and it seems probable that the cropmarks were the result of these features.

Scatters of medieval pottery were recorded during the survey to the east of the Bypass route, along the same ridge of London Clay, and in similar topographic positions to the Enborne Street and Wheatlands Lane sites. A subsequent re-examination of the finds suggested that these were possibly kiln waste similar to that found within the Bypass route.

The Effectiveness of the Evaluation

The archaeological investigations employed a staged approach to assess the likely impact of the Bypass on archaeological remains and provide a means of planning the

best way of dealing with the likely consequences. These stages of work employed a range of techniques to enhance existing knowledge of the archaeological resource, within the framework imposed by access restrictions. All existing material was reviewed to provide baseline data. This was then enhanced by field evaluation employing both intrusive and non-intrusive techniques to confirm the presence and significance of remains and allow the potential impact of the new road upon them to be mitigated.

A staged approach to archaeological evaluation in this way is now widely employed on larger scale developments, including roads. The intention is to distinguish the more important remains from lesser remains and to assess the need for their protection or the level to which they should be investigated. The latter is determined from the capability of specific sites to help resolve questions about the past. Thereafter, the resources necessary for proper investigation and commensurate with the site's importance can be marshalled. The principal advantage of this approach is flexibility, allowing resources to be targeted by selecting areas for investigation using specific techniques where appropriate, according to access, ground conditions, topographical zone etc. and the archaeological questions posed. The evaluation of a necessarily small sample by area of the route inevitably leaves scope for some sites to be missed, in particular where these sites are represented by a small number of features, where they are masked by deep soil deposits, or where features have been damaged by agricultural activity. The location of archaeological remains is not totally predictable and the methods of detection imperfect, consequently on the Newbury Bypass, a small number of features, which had not been found during the evaluation, were recorded during the watching brief. At Bath Road, for example, a small number of Late Bronze Age features and a possible burnt mound were found, but the features were isolated and any wider archaeological site to which they relate must lie outside the Bypass corridor.

Only one archaeological site, part of the Romano-British farmstead at Bagnor Road, had been missed by the evaluation. This was discovered as a result of the need to relocate a balancing pond to allow the preservation of important Mesolithic remains, in an area which was peripheral to the main line of the road and which had therefore not been included in the evaluation trenching programme. Although part of the site had already been destroyed by modern quarrying activity, the surviving archaeological features were easily distinguishable and would probably have been located had the evaluation included this area.

Given the extent of the Bypass corridor, the discovery of only a single 'unexpected' site indicates that the evaluation proved successful in locating archaeological sites. This success was supported by the employment of the 'strip and record technique' in mitigation, which ensured that sites located by the evaluation were recorded over their full extent within the road corridor.

This general absence of archaeological discoveries during the watching brief, beyond a small number of isolated features, indicates that the level of archaeological activity across large parts of the route was relatively low, and further demonstrates the success of the evaluation and strip and record techniques in locating and defining the extent of sites.

APPENDIX 1: Environmental Method

Soil sample processing

The palaeo-environmental sampling strategy is outlined in Chapter 1. All samples for charred plant remains and charcoals were processed by standard flotation. Samples of generally 10 litres were processed by standard bulk flotation methods and the flots retained on a 0.5mm mesh and the residues on a 1mm mesh. All residues were fractionated (4.6mm, 2mm and 1mm) and the coarse fraction sorted by eye, weighed and discarded. The fine fractions (2mm and 1mm) were only sorted from samples selected for analysis (see assessment below). Sorting to extract and separate charred plant remains and charcoals was undertaken using a x10 – x30 stereo-binocular microscope. Unsorted flots and extracted material were presented to specialists for analysis.

Assessment

After processing the flots were scanned under a x10 – x30 stereo-binocular microscope to quantify the presence of grain, chaff, weed seeds, charcoals, intrusive material and modern roots. The presence and diversity of remains was examined in relation to the archaeological context and date, the possible functional relationship between the remains and the context/feature and the revised project/site aims. A selection of samples was then made for analysis and the residues of all such selected samples sorted.

Analysis Method Statements

Where analysis has been performed on a single site (eg. soils at Lambourn Valley or land snails at Hills Pightle), the method statement is included within the report. However, to avoid repetition, where analysis was conducted on several sites the analytical method statements are summarised below.

Charred Plant Remains - Joy Ede

The residues were sorted at Wessex Archaeology and any carbonised remains picked out. All flots were sorted by the author. Charred items were identified using up to x100 magnification and terminology follows Clapham et al (1981). Terminology about crop processing stages follows Hillman (1984).

Charcoals - Rowena Gale

The fragments from each sample were fractured to expose fresh transverse surfaces and sorted into groups based on the anatomical features observed using a x20 hand lens. Representative fragments from each group were selected for further examination under high magnification. Freshly fractured surfaces were prepared in the transverse, tangential and radial planes, supported in sand and examined using a Nikon Labophot incident-light microscope at magnifications of up to x400. The anatomical structure was matched to reference material.

APPENDIX 2: Evaluation of the soil sequence at the Lambourn Valley site

by Richard I Macphail and Michael J. Allen

Introduction

The brief for the excavations of the Mesolithic site in the Lambourn Valley required that a possible *in situ* Mesolithic soil identified during the evaluation should be described and sampled for analysis of the soil micromorphology. Accordingly, the site was visited by R.I. Macphail and two sections were described and sampled following Hodgson (1974) and Courty *et al.* (1989).

The soils

The site is located on sloping ground above the river Lambourn and has a mapped cover of typical argillic brown earth soils formed in loamy river terrace drift (Hucklesbrook soil association; Jarvis *et al.* 1983). The main soil cover, however, here appears to have formed out of a predominantly fine loamy drift, with sands, gravels, and flinty and chalky river terrace deposits also being present in the base of several test pits. It is probable that recent soil erosion and resulting local truncation, through ploughing, have differentially exposed the natural soils and their parent materials. Modern ploughsoils have become mixed with the eroding subsoils of the site. Erosion and colluviation have probably been active across the site and this accounts for the mixed artefact assemblage recovered from the lower ploughsoil. Recent soil truncation is also responsible for the differential exposure of the natural subsoil horizons that have formed on the site.

Argillic brown earths, sometimes known as *sol lessivé* or brown forest soils, have formed on the site. Under woodland, loamy sediments become decalcified and the upper subsoil horizon (Eb or A2) becomes depleted in clay and iron, hence the pale buff (pink 7.5YR7/4) colours. This horizon is in contrast to the resulting clay-enriched lower subsoil Bt horizon, which is more chocolate brown in colour (strong brown 7.5YR4/6).

Method and aims

Exposed sections of the soil sequence were described and sampled (Table 1) in order to elucidate the possible colluvial history and the natural environmental and human agencies through which colluviation occurred. Field description proved sufficient to allow the nature and history of soil development on the site to be discerned, and following post-excavation assessment, it was decided that micromorphological analysis was not appropriate.

The soil investigations were primarily directed at the main horizon containing the majority of the artefacts (context 1120), which apparently buried the natural argillic brown earth upper subsoil horizon (context 1053). A subsidiary aim of the soil investigation was the examination of a section through a possible gully or tree hollow.

The soil development and history relating to the archaeology

The soil sequence

The soil profile is a typical argillic brown earth, in which both pedological development and archaeological events can be discerned.

The basal soil horizon (context 1053) contained translocated clay (Bt) and Mesolithic artefacts. This horizon seems to represent a buried natural argillic brown earth upper subsoil horizon (buried Eb and Bt(g) horizons), indicating the presence of deep *sols lessivés* or forest soils, which had probably formed under woodland. Localised gleying may have occurred during formation of the horizon or developed subsequently, to due to soil pores becoming infilled with clay; neither process would be surprising in the low-lying environment of the Lambourn Valley. The Mesolithic flints are likely to be more or less *in situ*, though some vertical movement is likely to have occurred (Langhor 1993).

Overlying this was the Eb2 horizon of the modern soil (context 1120). This horizon contained Mesolithic artefacts and was interpreted in the field as a colluvial occupation soil of that date. However, flintwork typical of Late Neolithic/Early Bronze Age industries, and pottery of Neolithic, Early Bronze Age and Middle Bronze Age date were subsequently recovered from the horizon. Field descriptions (Table 1) indicate a strong colluvial component to this horizon, which may be seen as the erosion of argillic brown earths from upslope. The most likely mechanism for this destabilisation and disruption of the soil surface is clearance of woodland and vegetation, associated with Middle Bronze Age settlement or exploitation activities.

Above this, the Eb1 horizon again displays a clear colluvial component (Table 1). This horizon (context 1051) contained Romano-British artefacts, clearly post-dating the prehistoric activity. The colluviation here probably results from intensive settlement and cultivation of the surrounding landscape in the Romano-British period.

The gully/tree hollow

The section through this feature revealed a pale overlying soil, which appeared to relate to natural leaching of the upper subsoil. Complete excavation showed the morphology of the feature to be closer to a tree hollow than a gully, and included artefacts suggest a possible Mesolithic (Atlantic) date. The soil descriptions suggest the presence of mixed subsoils (Eb and Bt horizons) typical of tree throw features (Macphail and Goldberg 1990; Macphail 1992). The nature of these mixed soils are not incompatible with the disturbance of the identified argillic brown earths in the Mesolithic period (Langohr 1993). Elsewhere across the site, a number of large pale soil patches were present, which could have a similar origin.

Conclusions

Although the nature of the former pedological regime and local environment can only be hinted at by the detailed descriptions and interpretations presented here, a series of archaeological events can be clearly defined within the modern soil profile.

It may be suggested that Mesolithic occupation is likely to have occurred on a more-or-less *in situ* deposit, with only limited colluvial input. A largely wooded

environment, in which the argillic brown earth soils developed, is suggested in this period. More invasive activity is indicated in the Middle Bronze Age, with disturbance of the woodland and floodplain vegetation and associated activity leading to highly localised colluviation, which was largely responsible for the burial, and therefore survival, of the argillic brown earth.

More aggressive activity occurred during the Romano-British period resulting locally in the physical disturbance and mixing of the soils, which in turn led to further colluviation. The activities responsible for this episode are likely to have been the preparation of the ground for tillage and the cultivation of fields relating to the adjacent Romano-British site at Bagnor Road.

Table 1: Lambourn Valley 96 - soil samples

Monolith sample	Depth OD of top of sample	Associated bulk sample	Stratigraphy *Field interpretation*
			1.1. Spit 3132
			1.2. 0-15 cm: removed topsoil. *Ap*
	15-20 cm Ap	x la	15-22 cm (context 1050): base of Ap; brown (7.5YR4/4 moist)(pink 7.5YR7/4 dry) firm sandy silt loam; moderately stony with medium to large flints; occasional "brick" fragments; common earthworm burrows; abrupt to clear, horizontal boundary. *Mixed Ap with homogenised Eb and Bt soil.*
Monolith 1 (Sample 40303) 25496.055E 19065.252N	**(38-78 cm)** OD81.582 40-45 cm Eb1	x lb	22-45 cm (context 1051): strong brown (7.5YR4/6 moist)(strong brown 7.5YR5/6 dry) firm sandy silt loam to clay loam; moderately well developed medium to coarse prisms; few medium stones (with occasional "brick" fragments); common earthworm burrows; few to common charcoal; common fine pores; possible thin clay coatings; clear to gradual, horizontal boundary. *Ancient colluvial Ap, with homogenised Eb and Bt soil.*
Monolith 1 **Lateral control monolith 2;** (sample 40306; 25496.062E; 19064.203N)	**(38-78 cm)** **(59-67 cm;** OD81496 bEb2 50-60 cm	x lc	45-58 cm (context 1120, Mesolithic flints): dark yellowish brown to brown (10YR4/4-7.5YR4/4 moist) firm clay loam; possibly slightly heterogeneous; moderately well developed medium to coarse prisms; occasional earthworm burrows; common fine to coarse charcoal; probable clay coatings; abrupt, horizontal boundary. *Colluvial occupation soil.*
Monolith 1	**(38-78 cm)** 65-75 bEb&Bt(g)	x ld	58-81 + cm (context 1053): brown (7.5YR5/4 moist)(pink 7.5YR7/4) weak sandy silt loam and brown to dark yellowish brown (7.5YR4/4 - 10YR4/4 moist)(yellowish brown 10YR5/6 dry) moderately firm clay loam; stone free; poorly formed medium to coarse prisms; rare, faint, medium mottles; rare flecks of charcoal; very earthworm burrows; very few probable clay coatings. *Buried ancient Eb&Bt(g) horizon.*
			<u>Gully/Tree hollow section</u> 0-35 cm: *removed topsoil and top of ancient Eb & Bt.*
Monolith 3 (sample 40305) 25502.239E 19069.969N	(35-55 cm) OD 8 1. 101 35-40 cm bEb	x 3a	35-40 cm: yellowish brown (10YR5/6 moist)(pink 7.5YR7/ and yellow 10YR7/6) firm sandy silt loam; coarse prisms; very few stones; abrupt, horizontal boundary. *Ancient leached Eb.*
Monolith 3	**(35-55 cm)** 45-55 cm bEb&Bt	x 3b	40-90(110) cm: mottled (heterogeneous bands and patches) brown (7.5YR5/4 moist) (pink (7.5YR7/4 dry) and strong brown (7.5YR4/6 moist, 5/6 dry) moderately firm sandy silt loam; rare medium stones; rare earthworm burrows; coarse prisms; possible clay coatings; gradual, irregular boundary. *Fill of coarsely mixed upper subsoil Eb and lower subsoil Bt?.*
Monolith 4 (sample 40306) 25502.203E 19069.915N	85-89 cm **(85-95 cm)** OD 80.591	x 4a	
Monolith 4	**(85-95 cm)** 90-95 cm bBt	x 4b	90-(110) + cm: strong brown (7.5YR4/6) clay loam; probable clay coatings. *Ancient subsoil Bt horizon.*

APPENDIX 3: An interpretation of the Lambourn Valley Mesolithic site based on an analysis of the flint artefacts
by Peter S Bellamy

Introduction

The nature of the stratigraphy and the recovery strategies used to collect the worked flint have a great impact on the potential of the flint assemblage to provide meaningful information about the nature of the site, the range of activities represented and other site formation processes.

No *in situ* occupation layers were recognised during the excavation and consequently the flint was treated as an unstratified scatter and recovered using fairly coarse collection units. The post-excavation analysis of the stratigraphy has raised the possibility that some of the deposits may have been largely intact and of Mesolithic date. However, in the absence of a more refined recovery strategy with close spatial control over the recovery of the artefacts, the potential to examine the possible *in situ* deposits in detail is constrained. It is not possible to analyse the spatial organisation of the site except in the broadest of terms, nor is it possible to reconstruct in detail the nature of the activities during the Mesolithic occupation of the site. Nonetheless, some potential does exist for the assemblage to tell us about the overall range and character of activities undertaken on the site. A description of the general character of the total flint assemblage from the excavation can broadly elucidate the nature of the worked flint from the site, with regard to its raw material type, technology and function. This could show up variations within the assemblage which may indicate different site formation processes and post-depositional changes affecting different parts of the assemblage. The recovery of a number of typologically datable artefacts (primarily microliths) means that there is some possibility for the dating of periods or episodes of site activity. Arguably the most important contribution the study of the flint assemblage can make is in allowing comparison with the assemblages from other sites of a similar date in the Lambourn and Kennet valleys and, therefore, may allow the site to be placed within the regional settlement and landuse systems.

The main bulk of the flint comes from the manual collection of material from digging of spits on a 2m by 2m square grid during the stage 2 fieldwork. A smaller quantity of flint comes from sieved samples and a small quantity was recovered from the excavated fills of cut features.

The main restrictions in the quality of the data from spit-digging are the lack of fine stratigraphic and locational information, the 2m by 2m by 0.2m unit being too coarse to allow any precise spatial or stratigraphic analysis.

Artefacts were also recovered from specific soil samples by wet or dry sieving through mesh sizes of 2 mm, 4 mm and 8 mm. The sample size taken from each 2 m by 2 m spit was initially 30 litres and later increased to 50 litres. Only the material from the 8 mm mesh and a small number of the 4 mm mesh samples have been sorted and quantified. Such samples were not taken from every spit unit, particularly in the lower spits. The artefacts recovered from the samples have been quantified and presented separately to the manually recovered material in the consideration of the

overall assemblage. A small number of spit samples have also been looked at in greater detail in order to recover the full size range of material from potentially *in situ* contexts.

The character of the total worked flint assemblage

The whole assemblage was studied and quantified (by number) on site during the excavation, by Diane Holmes. This data has formed the basis of the description of the total assemblage below. Only a specific number of contexts (primarily from the colluvium and subsoil) was re-examined during the post excavation process by Peter Bellamy. Inevitably, there are some differences in the recording between the two specialists. Specifically, the number of broken versus whole pieces is underestimated in the quantifications undertaken on site. In addition, a number of flakes and blades have been reclassified as miscellaneous debitage during the post excavation re-analysis on the basis that they may be accidental breakages and spontaneous flake removals occurring during the knapping process.

Raw Material

The raw material used for the whole of the stratified assemblage was exclusively flint. Many pieces were from nodular flint with a worn cortex, which on some examples was worn very thin and smooth. A smaller number of pieces were more rounded and rolled, with ancient patinated thermal fractures. The internal flint colour ranged from light grey to mottled grey-brown. Many pieces had pale grey coarse inclusions and sometimes crystalline inclusions. Many of the pieces had a high incidence of thermal fractures, though this was uneven. The flint ranged from material of reasonable knapping quality to fairly poor quality. All of this material is likely to have been derived from the river gravels on or near to the site.

Assemblage composition

The overall composition of worked flint from the site is shown in tabular form on Table 2 and the tool types on Table 3. The incidence of material from the broad stratigraphic units on site is also shown. Owing to the difficulties outlined in the introduction above, this must be seen as being very crude and approximate. Half of the flint (49.8%) comes from the topsoil and the colluvial layers, but there is also a small but significant proportion of material (10.7%) from the base of the colluvium or the top of the subsoil. However, expressing the proportion of the assemblage from each stratigraphic unit as a straightforward percentage of the total assemblage is misleading, as an equal volume of each layer was not excavated. In fact, a decreasing volume of soil was excavated down the stratigraphic sequence. Very approximate volumes of soil excavated from each stratigraphic unit are shown on Table 4 along with the density of worked flint per cubic metre. It can be seen from this that the density of worked flint increases dramatically towards the bottom of the stratigraphic sequence in the lower colluvium and the top of the subsoil.

The assemblage comprises primarily of items of debitage, with waste flakes and chips dominating (64.1%). Blades (length = twice width) and bladelets (width less than 12 mm) comprised 18.5% of the assemblage total, though there are comparatively few regular examples. The cores form about 2.5% of the total assemblage and the ratio of cores : flakes/blades is about 1:22.6 for the whole assemblage, but this ratio increases

down the stratigraphic sequence rising from 1:35.6 for the topsoil, through 1:20.8 and 1:22.1 for the upper and lower colluvial layers to 1:10.9 at the base of the colluvium and top of the subsoil. The cores generally result from the production of blade and bladelet cores (*c.* 58%), the remainder are classed as flake cores but their morphology suggests that they are merely exhausted blade cores and probably form part of a single reduction technology producing blades and bladelets. Single-platformed cores predominate (56%) with a smaller number of two opposed-platform blade cores (8%),and include a number of nodules with only one or two flake removals, probably representing the testing of raw material for its knapping suitability. The presence of irregular core shatter (about 5% of the assemblage) is an indication of the poor, fracture-prone nature of much of the gravel flint used on site.

The material recovered from sieved residues is presented separately on Table 2. This includes data from all of the 8 mm mesh and a small number of the 4 mm mesh samples (see below for further detail of the 4 mm mesh samples selected for examination). The discrepancy between the material from the sieved residues and the manually recovered assemblage is immediately apparent. The nature of the flint working is the same but the proportion of the artefact types is different. The much larger proportion of chips and small fragments is to be expected, but the core component is very much reduced and there are fewer artefacts than might be predicted from the evidence of the manually collected sample. In other words, the largest components (cores) and the more distinctive items (tools) seem under represented. A cursory examination of many of the sieved samples suggested that many of the larger flakes and blades were also under represented. In conclusion, it seems likely that the sieved material on its own is not representative of the whole assemblage, but taken in combination with the manually recovered flint, it can add some further information on the very smallest items in the assemblage, which may assist in determining whether there is evidence of *in situ* flint working on the site.

The tools recovered from the site were distributed throughout the stratigraphic sequence (Table 3) and form about 1.9% of the total assemblage. This percentage remains relatively constant throughout the stratigraphic sequence. The greatest range of forms came from the topsoil. Many of these were in a worn condition and were often fairly rudimentary, and may possibly have been the result of accidental damage rather than deliberate manufacture. The implements were primarily flake tools with only a very small number of core tools present. Scrapers were the most numerous tools in the assemblage but it is clear that the majority come from the topsoil where over 78% are in a worn condition, and probably arrived on site as the result of colluvial movement from further upslope: they are therefore peripheral to the understanding of the activities which took place on site. The same is also true of the piercers, which again were mostly fairly rudimentary examples in a worn condition. In contrast, the microliths and serrated blades are generally in a fresh condition and are concentrated towards the base of the stratigraphic sequence. The existence of a number of microburins indicates that microliths were probably being manufactured on the site. Among the knives is one fine example of a plano-convex knife from the upper colluvium. The projectile points are both arrowheads – one rough or unfinished possible leaf arrowhead in a rolled condition and a chisel transverse arrowhead. The miscellaneous flake tools include 12 truncated flakes and blades, 6 backed flakes, 3 denticulates, and 2 notches. The core tools included 2 broken flake axes (in both cases

the blade end is missing so it is uncertain whether they were tranchet axes or not), one pick, or possibly an unfinished axe roughout, and 4 miscellaneous core tools which are little more than broken nodules with some signs of utilisation or perfunctory retouch. The presence of tranchet axes on site is attested by a single tranchet axe sharpening flake from the upper colluvium. Overall, the composition of the tool assemblage does not suggest a specialist site, but rather that a wide range of different activities were practised.

Chronology

The only chronological indicators available are a small number of tool types. The presence of microliths and microburins in a fresh condition, indicates that there is a Mesolithic component to this site. They include obliquely blunted points and a smaller number of geometric forms, mainly rods. Although obliquely blunted points are common in earlier Mesolithic assemblages, they also occur in later industries dated post- *c.* 8500 BP, alongside geometric forms which only began to be made after this date (Jacobi 1987, 164). The majority of the obliquely blunted points are on quite small narrow bladelets which may indicate a later date in line with the decrease in overall size of these forms over time (Pitts and Jacobi 1979, 169-70). There are also a number of larger obliquely blunted points in the assemblage as well (Fig. 6), but it is not clear whether these reflect an earlier component. The fact that all the microlith types occur together, clustered in two concentrations, suggests that they may all be of the same later Mesolithic date.

In addition to the material of probable Mesolithic date, there are a small number of artefacts which attest to later activity. The presence of a possible leaf arrowhead and a chisel transverse arrowhead suggest some Neolithic activity. The ?leaf arrowhead is in a worn condition and may have been transported to the site by colluviation, but the chisel transverse arrowhead is in a fairly fresh condition and was found in the lower colluvium near the northern concentration. The presence of a fine plano-convex knife in a fairly fresh condition in the upper colluvium points to some Early Bronze Age activity in the neighbourhood of the site.

Spatial Patterns

The horizontal distribution of all the worked flint is shown in Fig. 4. It clearly shows that there is a general background scatter of flint across the site, though this seems to tail off towards the east. Two distinct concentrations about 30 m apart are easily recognised standing out from the general background scatter, Site 1 in the north and Site 2 in the south. Neither concentration was fully excavated.

The distribution of cores, core rejuvenation flakes and irregular core shatter follows the pattern for the total flint, again clustering in two concentrations, with a general background scatter across the rest of the site. The same pattern is exhibited by the tools, particularly by the microliths and other lightweight tools. A similar marked distribution of heavyweight tools also exists, particularly if the more worn miscellaneous retouched pieces and rudimentary tools, many of which may have accidental damage rather than deliberate retouch, are ignored. The distribution of all the constituent parts of the worked flint assemblage follow the same general pattern, indicating the likelihood that the majority of the worked flint recovered from the

excavated area was derived from two small, discrete 'sites' spaced about 30 m apart. Both sites contain a significant quantity of cores, core rejuvenation flakes and irregular core shatter, derived from the testing and working of cores. Both sites also have a number of finished artefacts, suggesting a range of other activities were being undertaken at these sites.

Post-depositional processes

The flint assemblage can aid an assessment of the amount of post-depositional modification of the sites. The appraisal of the amount of post-depositional disturbance and movement can be approached through an examination of the condition of the flint and its horizontal and vertical distribution through the stratigraphic sequence, to assess whether the concentrations of flint were still roughly in their original position or whether there was much movement through colluviation or cultivation.

Not all the flint artefacts were in a similar condition and this difference appears to be related to their position in the stratigraphic sequence. As may be expected, the flint at the top of the sequence was in a much more worn condition than the material in the lower deposits. In the topsoil and upper part of the colluvium, the flint was mainly well-worn with a glossy sheen and extensive edge damage, though a few pieces were in a fresher condition. The difference in condition was most pronounced in the two concentrations: elsewhere, almost all the flint was in a worn condition.

An assessment of how much disturbance or mixing has taken place in the two concentrations is necessary in order to determine how much reliance can be placed on the evidence and the integrity of any further analysis. The condition of the flint from the lowest spits (Spits 4–6) is in a fresh condition, while in the upper spits there is an increasing number of worn and rolled pieces, although much of the material is still fairly fresh. It is also notable that the number of large heavy pieces such as cores and preparation flakes are proportionately more numerous. The same appears to be true of the tools, with very similar tools occurring in Spits 2–5 and very few which may be intrusive later material or derived from elsewhere, judging from their character and condition. The intrusive material included a fine plano-convex knife of probable Early Bronze Age date which was recovered from spit 2 on the south-western edge of the concentration. The increasing density of flint, its fresh condition and the lack of obvious intrusive material, suggests that the site was relatively undisturbed below spit 3 (or spit 2 in some squares). A cursory examination of the material from the 4 mm and 2 mm sieved residues indicated a difference in the smallest material between the upper and lower parts of the stratigraphic sequence. In the upper spits the chips were mainly spalls, many fairly fresh, with a significant number with patinated or cortical dorsal surfaces. Many of these may be accidental removals from natural flint gravel in the soil. In the lowest spits there were many more bladelet fragments and spontaneous debitage, and more significantly a number of very small abrasion chips. These are completely absent from the upper spits. A small number of refits (up to 3 refitting pieces) were recognised on Site 2 but none on Site 1, although a number of pieces of flint appear to have come from the same nodule.

Both flint scatters seem to have become spread out along the contours rather than across them which suggests that there has not been much movement down slope. This is confirmed by the vertical distribution of the material. Site 1 was only just visible as

a very slight increase in flint density and Site 2 was not visible at all in the uppermost spit, but both became more and more pronounced further down the stratigraphic sequence. The flint concentrations remained in the same horizontal position in all spit levels, although the restricted number of squares dug in the lowest spits makes it difficult to be certain of this.

Taking these various observations together with the evidence from the soils and stratigraphy, it seems likely that the lower part of the two concentrations, though probably not *in situ*, were only very slightly disturbed, but much of the material from the upper layers is likely to have come down the hill through colluvial processes and may not be derived from the sites at all.

Further analysis of the flint industries from Sites 1 and 2

The examination of the total assemblage has indicated the probability that the majority of the worked flint was derived from two discrete areas of the site. The fact that much of the material was not *in situ* and potentially had later intrusive material mixed in with it meant that the scope for undertaking detailed metrical and attribute analysis, and any spatial analysis, was extremely limited. It was felt that the potential presence of later intrusive material would skew the results and any metrical analysis would have a spurious accuracy. Therefore, it was decided to define two equal sample areas of 6m by 6m within each concentration and to quantify and describe the material from the whole of the stratigraphic sequence in terms of its condition, raw material type, and debitage type. A smaller sub-sample at the base of the excavated sequence was also examined for its main technological attributes, such as the presence or absence of all stages of the core reduction sequence, hammer mode, presence of platform preparation and core modification and renewal. Although this lacks the authoritative weight of full metrical analysis, it still allows the character of the flint industry to be described and enables comparisons to be made with other flint industries in the region. Some attempt at refitting was undertaken within selected contexts, though no attempt was made to refit material across collection unit boundaries.

The results of the flint analyses will be presented by spit only. A total of six spits were excavated in Site 1 and four in Site 2. Although the total assemblage was divided roughly into stratigraphic units, the data are not sufficiently precise to allow this to be attempted in any great detail within a specific area with any degree of confidence. Instead, presentation by spit does allow the vertical dimension to be taken into account even if the relationship with the stratigraphy is not known.

Flaking Mode

Core reduction was probably achieved using a combination of direct percussion by both hard and soft hammers, based on the criteria defined by Ohnuma and Bergman (1984). A hard hammer was generally used in the earlier stages of raw material testing and core preparation and shaping and then a softer hammer was used for blade production once the core was satisfactorily prepared. The microliths and microburins indicate that direct percussion on an anvil was sometimes used for retouching. No hammers were recovered from the site, so it is unclear whether the soft hammers were of soft stone or of organic material such as wood, bone or antler.

Cores

One hundred and twenty cores were recovered from the sample areas, 81 from the north and 39 from the south (Table 5). This gives a core to waste ratio of 1:45 for Site 1 and 1:69 for Site 2. The difference is due in part to the much greater quantity of small chips recovered from the sieved samples in the southern site. If the chips from the sieved residues are not included, the core to waste ratio of the two areas is more similar at 1:34 and 1:42.

The cores all appear to be gravel flint, with fragments split by frost fractures being selected rather than cobbles. Very occasionally, thick flakes were utilised. Many nodules had coarse or crystalline inclusions, and/or faults and thermal fractures, making the raw material difficult to work. The large number of fragments of core shatter are presumably a direct result of this fractured nature of the raw material. The precise number of nodules represented is not known, but a number of cores are manufactured from very similar raw material, suggesting they may have come from the same nodule. A small number of cores reutilised core fragments which had shattered along thermal fractures.

The range of core types was similar in both sites and they were present in similar proportions. Single platform cores predominate and most were prepared for the production of blades/bladelets. Many of the cores classed as flake cores in Table 5 have some evidence of earlier blade/bladelet removals. Other cores had an additional opposed striking platform. A number of cores had two or three separate platforms in varying positions depending on the shape of the raw material but a good number of these had only a few removals from the additional platforms. The platforms were either unprepared thermal surfaces (43%), or were prepared by the removal of a single flake from the flaking surface (57%).

Despite the irregular nature of the raw material, it is evident that the cores were carefully prepared and controlled (Fig. 5). Where suitable thermal surfaces were present, these were used unmodified as a striking platform. It is difficult to know how much initial core trimming and shaping took place, but there was little evidence for the modification of the sides, back and base of most cores. The presence of a small number of unifacially crested blades indicates careful trimming to guide the initial blade. Natural crests were also used for this purpose. Platforms were renewed by the removal of a core tablet, generally by a blow to the flaking face. In a smaller number of cases, the edge of the platform and the face of the flaking surface was removed by a blow directed from the side of the core. The edge of a striking platform was also used as a crest to guide the first blade from a new platform. The striking platforms were almost always strengthened by abrading the edge of the core during blade production but there is no evidence for the faceting of the platform to modify the flaking angle.

The majority of the cores appear to have been abandoned because of problems over irregularities in the raw material. Hinge fractures, often occurring just below the striking platform also contributed to core rejection. A very small number of cores continued to be used to produce bladelets after they had been reduced to a very small size, though in general the cores were abandoned when they were much larger.

Flakes and blades

The character of the flakes confirms the observations made on the cores above. There is no evidence for the deliberate production of flake blanks. The large majority of flakes were waste by-products from the trimming and shaping of cores. The overall size of the flakes was much larger and thicker than the blades and there is a much greater proportion of primary and secondary flakes present (ie flakes with either completely or partially cortical or thermal dorsal surfaces) (Table 6). The flakes exhibit a wide range of shapes and are often very irregular. The majority of them have thick plain butts and the overwhelming proportion of primary and secondary flakes were removed with a hard hammer (Table 6). There is comparatively little evidence for platform abrasion. Many of the tertiary flakes (with no cortical or thermal dorsal surfaces) are smaller and thinner but largely appear to be products of core trimming as well.

The blades are generally much smaller and thinner than the flakes, and tertiary removals (with no cortical or thermal dorsal surfaces) predominate (Table 6). The secondary blades also include a large number which have only a small proportion of cortex remaining, usually along one edge or at the distal end. A significant proportion of secondary blades appeared to be the result of core trimming to remove irregularities during blade production. All the blades have plain narrow butts, often linear or punctiform, and the vast majority have evidence of careful platform preparation before removal.

Chips and miscellaneous debitage

The chips from the sample areas include both fragments of flakes and blades (primarily broken bladelets) and also small spalls and chips which are probably the result of spontaneous accidental removals during the knapping process or the result of later damage. In a small number of sieved samples a fairly large number of small platform abrasion and retouch chips have been noted.

The miscellaneous debitage largely comprises unclassifiable irregular knapping debitage, often a result of the irregular quality of the raw material used.

Tool production

The presence of a number of microburins provides direct evidence for the production of tools on site (Fig. 6, 16-17). These occur in the Site 1 sample area (Table 7), where one butt microburin notched on the right-hand-side and one tip microburin notched on the left-hand-side were found. The ratio of microburins to microliths is 1:7.5. One possible burin spall (but no burins) was also recovered from the Site 1 sample area. No microburins or burin spalls were recovered from the Site 2 sample area.

The occurrence of other tool types in both sample areas indicates that a range of other retouched pieces were possibly being manufactured on site (Fig. 7). It is clear that blades with no or very little cortex were selected for microliths and serrated blades. The other tool types, however, were made on a wide range of flakes and blades. The scrapers, for example, were made on blanks between 20–68 mm long, 21–74 mm wide and 6–39 mm thick and included core preparation flakes, thermal blanks and broken pieces. The majority of scraping edges were made by direct regular/irregular retouch, primarily on the distal end, but occasionally on one side. The retouch was

often fairly minimal, emphasising a naturally steep edge. The other tool types were present in such small numbers to make it difficult to assess the range of preferred blanks.

The Nature of Sites 1 and 2

Although the flint industries from both sites were indistinguishable, there are some differences apparent in the assemblages which may allow interpretation of the nature of the sites and the activities carried out.

Site size and position
It is difficult to be precise about the absolute limits of the sites as inevitably, the edges of the concentrations are blurred. However, since the background scatter of flint across the site had a density generally less than 25 pieces per 2 m by 2 m square, any 2m by 2 m square with greater than 50 pieces of worked flint was included as part of the concentration.

Using this criterion, Site 1 had an excavated area of roughly 64 m2. This is not the total area of the site since it continued further to the west and north-west beyond the excavated area. Given that the density of worked flint increased towards the edge of the site, it is possible that it continued for some distance and that the main focus lay outside the excavation. Within the excavated area the site was slightly elongated in a north-west/south-east direction, running roughly along the contours at about 81.8 m above OD.

Site 2 had an excavated area of approximately 32 square metres, approximately half the excavated area of Site 1. In common with Site 1, the full extent of Site 2 has not been fully defined by excavation as the concentration appears to continue to the north-west beyond the excavated part of the site. However, unlike Site 1, it seems unlikely to continue much further as no trace of it was visible in the excavated area 8 m to the north-west. Again, the site seems to have been slightly elongated north-west/south-east, roughly along the contours. It lay about 30 m from Site 1, higher up the slope at about 82.70 m OD.

Site Activity
The composition of the flint assemblages from both sites is similar, suggesting that it represents broadly similar activities on Sites 1 and 2. The bulk of the flint assemblage provides evidence for the exploitation of river gravel flint as raw material for producing blades. The majority of the flint recovered from both sites was discarded core preparation and trimming flakes and blades. The presence of small abrasion chips and other small knapping debris suggests that flint was both knapped and the waste products discarded on site. However, given the poor quality of some of the raw material, the relatively small proportion of tested nodules (5–6% of cores) and core shatter (just over 60% of all core material) within the assemblage is surprising. It might indicate that the preliminary testing of raw material was carried out elsewhere. The number of blade 'end products' appear to be under-represented in the samples examined from both sites, and it is suggested that these were removed for use, either elsewhere on the sites (ie within the unexcavated area) or taken off site completely for use in another location.

There are, however, one or two small differences which suggest that the two sites are not identical. For example, there is some evidence for the manufacture of microliths on Site 1 (though the number of microburins present is not large) but no microburins were found on Site 2 (although a single microburin was found immediately to the south, in the upper part of the colluvium). It seems that microlith production using the microburin technique was absent from, or a very insignificant part of, the activity carried out on Site 2.

The range of tools present illustrates further differences between the two sites. Site 1 has a slightly higher proportion of tools than Site 2 and, more importantly, there is a much wider range of different tool types present (Table 7) suggesting a range of different domestic activity. In other words, Site 1 was not purely an industrial site manufacturing flint artefacts. In the absence of any potential for microwear analysis, it is not clear what activities are being represented, especially since there are very few specialised tool types present, other than microliths. There is no direct evidence for bone working, but skin working is suggested by the presence of scrapers and by the presence of two miscellaneous core tools which have deliberate smoothing and rounding on one edge and which may have been used in cleaning and preparing skins. There is little direct evidence for the subsistence base of the site. However, an obliquely blunted point with a burin-like break (impact fracture) at the tip which may have resulted from its use as a projectile point, and which may have been carried back to the site in the carcass of a dead animal (Barton and Bergman 1982, 242), may indicate that hunting formed one part of the food procurement activity.

Site 2 has a much more restricted range of tools, many of which are rudimentary retouched fragments. In common with Site 1, microliths predominate amongst the classified tool assemblage. In contrast, there are no scrapers present, which seems quite significant since scrapers are the second most numerous tool type present on Site 1. It seems likely that a much more restricted set of activities was being practised on Site 2, which has to be seen as being primarily an industrial site.

Chronology

Both Sites 1 and 2 appear to belong to the same period. The similarity of the flint industries has already been noted. The technological characteristics compare well with other Mesolithic flint industries, particularly those from the later Mesolithic period (Froom 1976, Harding 1997, Healy *et al* 1992, Pitts 1978, Pitts and Jacobi 1979). A likely date in the later Mesolithic period is also suggested by the presence of rods and other geometric microliths. The majority of microliths (Table 8) are obliquely blunted points which are found throughout the Mesolithic period as are microburins, serrated blades, and tranchet axes/adzes. Therefore, it is possible that there is an earlier Mesolithic component to the site. However, there are no clear technological differences recognised in the assemblages unlike at Thatcham where the early and later assemblages were clearly distinguishable (Healy *et al.* 1992). Therefore, it is considered more likely that the whole assemblage is dated to the later Mesolithic, ie in the period after *c.* 8500 BP. In the absence of radiocarbon dates it is impossible to be more precise.

Interpretation (Relationship between Sites 1 and 2)

In terms of its size and composition, Site 1 can be regarded as a home base where a wide range of activities took place, including hunting and domestic tasks (Mellars 1976). The presence of large quantities of burnt flint and a number of burnt flint artefacts (5%) points to the former existence of hearth(s) which probably formed the focus around which most tasks were undertaken. The location of the site on the first river terrace was probably partly determined by the ready availability of flint raw material in the form of river gravel flint and the exploitation of this flint forms a major part of the surviving evidence for activity on this site. It was also in a good position to exploit a wide range of resources including varied vegetation, congregating deer and other animals in winter, and fish (Mellars 1976). It is extremely difficult on the basis of the flint assemblage alone, particularly without the aid of microwear studies, to determine the full range of activity on the site, particularly as microwear studies have shown that similar artefacts can have a multitude of different functions (Healy *et al.* 1992). Without the survival of organic materials, it is difficult to be certain of the relative importance of hunting, fishing and plant gathering. It has previously been emphasised by Clarke (1976) and Mellars (1976) that plant foods form an extremely significant part of the diet of hunter-gatherer communities in temperate latitudes and Grace (in Healy *et al.* 1992) has shown that presence of microliths does not necessarily imply projectile points and provide proof of hunting, nor does it allow a simplistic correlation between the number of microliths and the relative importance of hunting.

In contrast to Site 1, Site 2 appears to be a small site, primarily industrial in function, again exploiting the river gravel flint. The presence of large quantities of burnt flint and a number of tools suggests that it is more than a purely industrial site and some domestic activity is implied.It is possible that Site 2 is in fact similar to Site 1 but smaller in scale or just less frequently occupied.

Although the two sites both belong to the same period, it cannot be determined if they were in use at the same time or whether one site succeeds the other. There is nothing to indicate the duration of occupation on either site, nor the frequency of that occupation. Also, it must be borne in mind that these two sites are only part of a larger area of Mesolithic occupation along the southern edge of the River Lambourn. Further evidence for broadly contemporary, possibly *in situ* Mesolithic flintworking was recovered from the Stage 2 evaluation trench 297, about 70 m to the west of the present site (Wessex Archaeology 1994). The nature of this site was very similar to Site 1, with evidence for the exploitation of the river gravel flint for blade production on site, as well as a possible hearth and a range of tools including microliths (both rods and obliquely-blunted points), serrated blades and burins.

Comparison with other sites in the region

The sites excavated on the southern slope of the Lambourn valley in advance of the Newbury bypass comprise only worked flint and burnt unworked flint. Fortunately, they sit within a region which is rich in evidence for Mesolithic activity (Lobb and Rose 1996; Richards 1978; Wymer 1977), making it possible to put them into a wider regional context and possibly fill in some of the gaps missing from their archaeological record. A number of Mesolithic sites in the Kennet and Lambourn valleys have been excavated (including Thatcham, Wawcott and Greenham Dairy

Farm/Faraday Road) and these can provide comparative data to try to flesh out the evidence of the Lambourn valley sites. An attempt will be made below to place the sites within their contemporary environment and make an assessment of their place within the contemporary subsistence-settlement systems of the region.

At Thatcham, less than 5km to the south-east, there are a number of sites on the edge of the alluvial gravel terrace overlooking the River Kennet floodplain, which have evidence for flint knapping and microlith production on site (Peake and Crawford 1922, Wymer 1962). These are dated in part to *c.* 9800–9400 BP (Gowlett *et al.* 1987, 127; Healy *et al.* 1992) and have a microlith assemblage dominated by obliquely-blunted points. Other tool types include larger retouched forms such as scrapers, burins, serrated blades and piercers and also tranchet axes (and axe sharpening flakes). There was also evidence for bone and antler working. The excavation of a site belonging to the later Mesolithic, broadly contemporary with the Lambourn Valley sites, at Thatcham (Healy *et al.* 1992) suggests that occupation continued in this area for a considerable length of time. At Greenham Dairy Farm (Sheridan *et al.* 1967) and the adjacent Faraday Road (Wessex Archaeology 1997), 3km south east of the Lambourn Valley site, there is an early Mesolithic site with a tool assemblage dominated by microliths, the vast majority of which are obliquely-blunted points. A worked (red deer?) antler was also recovered. Two radiocarbon dates of 8779±110 BP (Q-0973) and 8160±100 BP (OxA-0956) have been obtained from Greenham Dairy Farm. This site also sits on the lower alluvial gravel terrace. In the Wawcott area, 7km to the west of the Lambourn Valley site, over 50 possible sites have been recorded on the floodplain, on the edge of the lower alluvial gravel terrace and also on the lower slopes of the river valley (Froom 1963; 1965; 1970; 1972; 1976). These range in date from early Mesolithic sites dominated by obliquely-blunted points, to later Mesolithic sites with a significant geometric microlith component including rods and scalene triangles. A radiocarbon date of 5260±130 BP (BM-449) has been obtained from Wawcott I and a date of 5860±113 BP from Wawcott XXIII (Froom 1972; 1976). Thus, it can be seen that the Lambourn Valley sites sit in the same topographic position as a number of early and later Mesolithic sites in the area. Further evidence from findspots and fieldwalking (Wymer 1977; Lobb and Rose 1996) serves to underline the significance of this topographical zone.

The sources of evidence for the Mesolithic environment comprise a vegetational history of the wider Kennet valley region (Holyoak 1980) and some palaeo-environmental evidence from the excavations at Thatcham (Churchill 1962; Scaife in Healy *et al.* 1992) and Faraday Road (Wessex Archaeology 1997). These sources indicate that in the Pre-Boreal period, the floodplains supported a predominantly open fen vegetation with some willow (*Salix*) scrub, which appears to have persisted until after 9700 BP in the Thatcham area. The lengthy duration of open conditions in the floodplains may in part be due to the effects of the grazing of large animals such as red deer (*Cervus elephas*), aurochs (*Bos primigenius*), horse (*Equus*), elk (*Alces*), and wild boar (*Sus scrofa*) (Holyoak 1980, 263).There is also some evidence for the burning of the fen vegetation during this period at Thatcham, which may be the result of deliberate management by the Mesolithic population to improve grazing and encourage the herds of large animals (Holyoak 1980, 297). On the terrace on the edge of the floodplain, the Thatcham sites were located in small dry grassy clearings, within pine (*Pinus*) and hazel (*Corylus*) woodland with areas of deciduous oak (*Quercus*) and

elm (*Ulmus*) woodland. On the higher ground of the valley sides, small birch (*Betula*) woods gradually gave way to pine and hazel woodland and later elm and oak.

Later in the Boreal period, the Kennet valley floodplain appears to have become inundated. This may have lead to the abandonment of the area which resulted in the growth of peat over the occupation levels at Thatcham and the deposition of silts over some of the sites at Wawcott. By about 7500 BP, alder carr had developed on the floodplain of the Lower Kennet (Holyoak 1980; Healy *et al.* 1992), possibly due to reduced human intervention (Lobb and Rose 1996). The higher ground by this time was well-wooded and dominated by elm (*Ulmus*) and lime (*Tilia*).

Both the early and the later Mesolithic sites in the region, therefore, appear to occupy similar topographical and environmental niches. For the early Mesolithic, a number of the Thatcham sites appear to be 'home base' sites in which a wide range of activities were carried out using a varied tool kit. Several hearths were found and there was a suggestion that there were shelters, perhaps constructed from branches and hides (Wymer 1962, 336). There is evidence for the exploitation of red and roe deer and wild pig, as well as other animals to a lesser degree (King in Wymer 1962). There is also evidence for the consumption of hazelnuts and a range of other vegetable sources (Healy *et al.* 1992). At Wawcott several of the sites are of a similar non-specialised type and several hollows have been discovered which have been interpreted as dwellings (Froom 1972; 1976). Two sites, however, do not fit into this category. The southern site in the most recent excavations at Thatcham appears to have been a more specialised site involving the processing of antler and bone (Grace in Healy *et al.* 1992) and the Faraday Road site has been interpreted as a kill site involving the initial butchery of animals (particularly juvenile pig) by a hunting party (Wessex Archaeology 1997). The evidence for the later Mesolithic also indicates the general 'home base' character of many of the sites. The later Mesolithic site at Thatcham is of this type (Healy *et al.* 1992), as are Wawcott III and XXIII (Froom 1972; 1976). Wawcott XXIII produced faunal remains which suggested the exploitation of wild cattle, red deer and pig. The Lambourn Valley Site 1 has been interpreted as a 'home base' site and Site 2 may tentatively be included in this category of site also, though in common with many of the sites in the area, it also had strong evidence for gravel flint exploitation and blade and other artefact production.

It seems that in both the early and later Mesolithic, a similar settlement pattern existed which concentrated in the river valleys. In contrast there is very little evidence for Mesolithic activity on the higher ground of the Berkshire Downs, despite the availability of good quality flint (Richards 1978). The density of the sites in the valleys, as well as the time span of occupation, may suggest that there was at least a semi-sedentary lifestyle exploiting the wide range of animal and vegetable resources available in the river and forest environments. It has been suggested (Clarke 1976; Mellars 1976) that the advantage of a river valley environment was the availability of storable food resources such as nuts, berries and roots together green water plants and other riverine resources during the difficult winter months when supplies of vegetable foodstuffs were at their lowest. Mellars (1976) also points out that during the winter months, red deer populations tend to congregate into much smaller areas, preferably in river valleys which combine protection from adverse weather conditions with a concentration of accessible food supplies. It has already been noted above that the

Mesolithic population may have deliberately tried to improve grazing and encourage herds of large animals.

The density of Mesolithic sites in the Lambourn and Kennet Valleys appears to reflect not only the concentration of fieldwork in this area but also the great importance of this region in Mesolithic times. Further east in the Kennet Valley, the density of sites is much lower and in general the sites appear to be much smaller in size (Lobb and Rose 1996). The area can be regarded as a natural routeway between the chalklands to the west and the East Anglian and Wealden sites (Lobb and Rose 1996, 73) to the east.

In conclusion, the settlement and subsistence pattern of the area can be summarised as follows. The Mesolithic sites were concentrated in the river valley bottom and can be seen as either semi-permanent settlements exploiting a wide range of raw materials and foodstuffs in the immediate environs or as probable winter camps of more widely ranging groups exploiting the Kennet and Lambourn valleys as one part of a seasonal cycle. The evidence from the Lambourn Valley sites fits neatly into this established model of the Mesolithic settlement pattern.

Table 2: Sample areas worked flint assemblage (No./weight in grammes)

spit	cores	broken cores	core shatter	Core rejuvenation flakes	flakes	Broken flakes	blades	broken blades	tool man ufac ture	tools	broken tools	chips	Misc. debitage	Burnt artefacts	total
SITE 1 SAMPLE AREA															
MANUAL COLLECTION															
1	4/405	1/29	8/173	4/41	7/718	81/365	12/89	26/67	0	5/89	4/164	102/70	58/303	15/61	327/2574
2	14/1941	3/202	40/1023	4/96	147/1964	114/533	63/425	74/180	0	6/79	5/8	191/106	76/358	35/158	772/7073
3	16/2218	5/294	77/2565	3/65	207/2504	127/549	82/287	102/210	1/1	14/84	8/70	165/111	89/471	60/175	956/9604
4	27/2833	5/276	27/1213	4/34	86/2218	51/321	35/241	39/138	0	5/19	3/3	91/53	35/287	14/42	422/7678
5	3/169	2/130	9/463	7/132	51/454	28/144	24/119	34/89	1/1	5/462	1/1	78/46	16/133	37/130	296/2473
6	0	0	0	0	5/43	3/4	2/1	2/65	0	0	0	4/2	3/5	1/1	20/121
Total	**64/7566**	**16/931**	**161/5437**	**22/368**	**503/7901**	**404/1916**	**218/1162**	**277/749**	**2/2**	**35/733**	**21/246**	**631/388**	**277/1557**	**162/567**	**2863/29252**
8mm and 4mm SIEVED RESIDUES															
1	0	0	8/98	0	17/72	5/8	2/6	1/1	0	0	0	352/65	7/36	6/15	398/301
2	1/133	0	3/181	0	8/46	15/47	3/3	8/8	0	0	3/2	238/49	9/25	16/3	304/497
3	0	0	4/60	0	6/27	15/72	2/3	8/3	1/1	0	1/1	209/33	5/13	13/5	264/218
4	0	0	1/3	0	1/3	4/5	1/1	1/1	0	0	0	67/7	0	4/33	79/53
5	0	0	0	0	0	3/3	1/5	2/5	0	0	0	36/3	2/6	3/1	47/23
Total	**1/133**	**0**	**16/342**	**0**	**32/148**	**42/135**	**9/18**	**20/18**	**1/1**	**0**	**4/3**	**902/157**	**23/80**	**42/57**	**1092/1092**
SITE 2 SAMPLE AREA															
MANUAL COLLECTION															
1	1/46	0	0	0	14/209	6/55	2/34	5/4	0	0	0	4/3	2/24	0	34/385
2	4/334	0	9/302	4/70	71/695	34/107	33/201	28/48	0	3/11	0	23/9	13/32	13/93	235/1902
3	27/3246	5/406	50/2713	17/418	252/5973	143/575	112/726	114/293	0	7/573	8/5	235/118	80/847	46/325	1096/16218
4	1/105	0	4/91	1/1	13/252	13/74	6/19	10/28	0	1/3	3/5	10/5	10/41	2/8	74/632
Total	**33/3731**	**5/406**	**63/3106**	**22/489**	**350/7129**	**196/811**	**153/980**	**157/383**	**0**	**11/587**	**11/10**	**272/135**	**105/944**	**61/426**	**1439/19137**
8mm and 4mm SIEVED RESIDUES															
1	0	0	0	0	2/7	7/34	1/6	1/1	0	0	0	381/79	8/24	0	400/151
2	1/46	0	1/7	0	10/52	9/17	0	5/6	0	0	1/1	340/74	4/11	0	371//214
3	0	0	3/48	0	12/97	18/48	11/20	22/15	0	0	0	424/75	18/125	43/32	551/460
4	0	0	3/78	0	4/22	7/16	2/1	8/3	0	0	0	88/11	3/6	4/1	119/138
Total	**1/46**	**0**	**7/133**	**0**	**28/178**	**41/115**	**14/27**	**36/25**	**0**	**0**	**1/1**	**1233/239**	**33/166**	**47/33**	**1441/963**

Table 3: Total Tool Assemblage

	microliths	micro-burins	serrated blades	scrapers	piercers	burins	Burin spalls	Knives	misc. flake tools	misc. retouch	utilised	projectile points	axes	tranchet flakes	Misc. core tools	total
Manual Collection																
Topsoil	1	2	2	18	2	1			7	15	1	1	2			52
Upper colluvium	8	1	3	8	1	1		2	5	12	2	1		1	1	46
Lower colluvium	13	2	4	2				1	9	13	5				1	50
Subsoil	4	1	1	2					2	6	3				2	21
Other	4			3					1	3			1			12
Posthole 1414											1					1
Test pits								1		2						3
Tree holes	2	2	1		1				1							7
Total	**32**	**8**	**11**	**33**	**4**	**2**	**0**	**4**	**25**	**51**	**12**	**2**	**3**	**1**	**4**	**192**
8mm and 4mm Sieved residues																
Topsoil		1		2						5						8
Upper colluvium	2								1		1					4
Lower colluvium	1	1					1									3
Subsoil																0
Other	1															1
Total	**4**	**2**	**0**	**2**	**0**	**0**	**1**	**0**	**1**	**5**	**1**	**0**	**0**	**0**	**0**	**16**

Table 4: Density of worked flint

Stratigraphic unit	Volume of soil excavated (m^3)	Density of worked flint (No./m^3)
Topsoil	161	16.21
Upper colluvium	133	21
Lower colluvium	38	66.31
Subsoil	14	83.14

Table 5: Sample area core typology

Spit	Single-platform blade cores	Opposed platform blade cores	Other blade cores	Tested nodules etc.	Single-platform flake cores	Multi-platform flake cores	Uncertain/ fragmentary cores	Mean wt. Of complete cores (g)
SITE 1 SAMPLE AREA								
1	1	0	0	0	1	2	1	102
2	5	4	3	1	0	0	5	139
3	7	1	1	0	3	1	8	118
4	10	4	3	3	0	3	9	173
5	1	0	1	1	0	0	2	52
Total;	**24**	**9**	**8**	**5**	**4**	**6**	**25**	**117**
SITE 2 SAMPLE AREA								
1	0	0	0	0	0	1	0	47
2	1	1	1	1	0	0	1	79
3	10	4	3	1	2	2	10	110
4	1	0	0	0	0	0	0	108
Total	**12**	**5**	**4**	**2**	**2**	**3**	**11**	**86**

Table 6: Sample areas flake and blade reduction sequence and mode

context	Primary flakes	Secondary flakes	Tertiary flakes	Primary blades	Secondary blades	Tertiary blades	Flake hammer mode			Blade hammer mode		
							hard	soft	indet	hard	soft	indet
SITE 1 SAMPLE AREA												
2957					1	1				1	1	
2970		1	1				1		1			
2966		3	2			2	2		2		1	1
2969						2					1	1
2961	8	25	16		11	11	24	7	18	2	5	3
2965	4	16	8		8	4	16	3	9	2	3	7
2963	7	10	4		2	2	15		6	1		3
2951	9	22	5	1	10	6	19	1	16	2	8	7
Total	**28**	**77**	**36**	**1**	**32**	**28**	**77**	**11**	**52**	**8**	**19**	**22**
SITE 2 SAMPLE AREA												
2887		2	1				2		1			
2888		7	4	2	4	1	5		6	2	2	3
3201		4		1	1	1	2	1	1	1	1	1
2860		1	2			3	2		1		1	2
2874	1	2	1				3		1			
2870	1	3	3		3	3	3	2	2	1	3	2
2886	4	8	4		5	3	7	1	8		5	3
2879	9	10	7	5	12		12	3	11	1	10	6
2864	12	37	18	1	6	19	34	6	27	3	13	10
2868		5	3		1	5	4	1	3		4	2
2875	3	5		1	3	5	4		4	1	4	4
2863	9	19	2		11	21	24		6		26	6
Total	**39**	**103**	**45**	**10**	**46**	**61**	**102**	**14**	**71**	**9**	**69**	**39**

Table 7: Sample areas tool assemblage

Spit	Microliths	Micro-burins	Serrated blades	Scrapers	Burins	Burin spalls	Knives	Misc. flake tools	Misc. retouched	Utilised	Axes	Misc. core tools	Total
SITE 1 SAMPLE AREA													
1				4					4		1		9
2	4		1	3					5			1	14
3	7	1	3	1		1		5	4	3			25
4	3			1				1	1	2			8
5	2	1	1	1								2	7
6													0
Total	**16**	**2**	**5**	**10**	**0**	**1**	**0**	**6**	**14**	**5**	**1**	**3**	**63**
SITE 2 SAMPLE AREA													
1													0
2	2				1					1			4
3	4		1				1		6	2		1	15
4								1	2	1			4
Total	**6**	**0**	**1**	**0**	**1**	**0**	**1**	**1**	**8**	**4**	**0**	**1**	**23**

Table 8: Microlith typology

Context	Obliquely blunted points	Edge-blunted points	Rods	Scalene triangles	Atypical/ fragmentary
Site 1	7	3	1		7
Site 2	3		1		3
Other	6	1	1	1	2
Total	**16**	**4**	**3**	**1**	**12**

APPENDIX 4: The Prehistoric Pottery from Lambourn Valley and Finds from Swilly Copse and Bath Road

LAMBOURN VALLEY: THE PREHISTORIC POTTERY

by Frances Raymond

Introduction

The small assemblage of prehistoric pottery from the Lambourn Valley site comprises 86 sherds (375 g). These range in date from the Neolithic to the Late Iron Age. For the most part the sherds are small and heavily abraded: a condition typical of prehistoric pottery recovered as a residual element within colluvial deposits. The assemblage includes only six featured sherds, representing 7% of the total group, and in fact three of these are from the same vessel. For this reason the identification of the pottery has focused almost entirely on fabric characteristics.

Methods

A general record was made of the weight, type, main characteristics, likely date and condition of each sherd (information held in archive). No attempt was made to undertake a detailed fabric analysis, but the most common inclusion types within the various wares were recorded. These were identified with the aid of a binocular microscope (X40 magnification).

Condition was assessed using a crude index of abrasion, according to which sherds were grouped into one of the four broad categories defined below.

Degree of abrasion	*Definition*
Fresh	Surfaces unabraded and fractures crisp
Light	Surfaces unabraded and fractures rolled
Moderate	Surfaces partially abraded and fractures rolled
Heavy	Surfaces removed and fractures rolled

The Neolithic pottery

The three sherds of Neolithic pottery, all in relatively good condition, are made from fabrics which are typical of the period and which would be unusual in assemblages of any other date. It is not possible to refine their attribution any further, since all are undecorated body sherds. Parallels for the fabrics exist amongst earlier Neolithic assemblages, but can also be found within later Neolithic collections of Peterborough ware. The absence of decoration does not necessarily indicate that the sherds are earlier Neolithic in date, since they are small and could be derived from the undecorated zones on Peterborough Ware vessels.

At least two different fabrics are represented, both containing ill-sorted flint. One of these also includes sparse quantities of slightly micaceous sub-rounded sand. Such inclusions would have been available nearby and indeed, with the exception of earlier Neolithic gabbroic ware which occurs on sites well to the west of the Lambourn Valley, most Neolithic ceramics seem to have been produced locally.

The Early Bronze Age pottery

The six Early Bronze Age sherds have been assigned to this period with absolute confidence. The four from the same context (1261) are part of a Collared Urn, decorated with twisted cord impressions arranged in horizontal rows. So little of this vessel survives that it is not possible to reconstruct the overall form, or to comment on the decorative design. Collared urns are most commonly found on funerary sites (Burgess 1986), although they are not restricted entirely to such contexts. All sherds are in poor condition, displaying moderate to heavy abrasion.

The fabric consists of a ferruginous clay, containing a micaceous sand and a high proportion of grog. This same ware was used to produce the undecorated sherds found in 2390 and 2941. There is a relatively large quantity of mica in the clay. Although mica does occur in secondary clays, it is just possible that this fabric was produced non-locally.

The Middle Bronze Age pottery

All of the Deverel Rimbury pottery consists of unfeatured body sherds, ranging from lightly abraded to examples with signs of moderate to heavy abrasion. However, the fabrics are typical of the Middle Bronze Age and their attribution carries a high level of confidence. The pottery from 1414, 2930 and 3159 is probably derived from barrel or bucket urns. Ceramics of this type are found in both funerary and domestic contexts.

At least two fabrics are represented and both are tempered with large quantities of crushed flint. In one case sub-rounded sand is also present. These materials would have been available nearby and as with the Neolithic pottery, local production is likely.

The Late Bronze Age pottery

The ten sherds of Late Bronze Age pottery are all unfeatured. The fabric characteristics displayed by this material compare well with Plain Ware assemblages dated securely to the Late Bronze Age. However, some of the fabric types were in use over a more extended period of time, including wares which appear to have had a Middle Bronze Age origin. The sherds recovered from 2939 and 3138 are made from fabrics of this kind. Similarly, other wares continued to be used to produce early All Cannings Cross ceramics (Early Iron Age), although firing methods and surface treatments underwent a substantial change. The dating of these sherds should, therefore, be viewed with a measure of caution. Condition is in general moderately to heavily abraded.

The presence of Late Bronze Age plain ware on the site is not surprising, particularly in association with Deverel Rimbury pottery. The two ceramic types are found together in a number of other locations including, for example, sites on Salisbury Plain (Bradley, Entwistle and Raymond 1994) and on the Marlborough Downs (Gingell 1992). This association seems to be indicative of a high degree of continuity in the location, although not necessarily in the form, of Middle and Late Bronze Age settlement.

Several fabrics are represented, all containing flint, but with various other inclusion types comprising slightly micaceous and, non-micaceous sand, and some calcareous particles, probably chalk. All these materials would have been available nearby, and as with other sites of the period, production appears to have been locally based.

The Iron Age pottery

The highest proportion of identifiable prehistoric pottery dates to the Iron Age. Most of these are body sherds made from fabrics which could have been produced at almost any time within this period. The various wares represented display characteristics typical of Iron Age pottery and they can be assigned to this period with a high level of confidence. The only exceptions are some of the Late Iron Age fabrics which were also produced after the Conquest.

Only eleven of the 36 sherds could be dated more closely and all were made between the Middle and Late Iron Age. The only diagnostic Middle Iron Age sherd was a small rim fragment, probably derived from a saucepan pot. A second rim and a neck from two different jars (3116), may also be of Middle Iron Age date, but so little survives that they could equally be of Late Iron Age origin.

The only featured sherds attributed to the Late Iron Age are a bead rim and part of the neck of the same vessel (2905). The remaining six sherds have been assigned to this period on the basis of fabric characteristics, and three of these, including one grog-tempered sherd reminiscent of Savernake ware, could in fact be of early Romano-British date.

Most of the Iron Age fabrics are tempered with sand, some of which is slightly micaceous. Flint, grog, chalk and vegetable tempering were also used. While all of these materials would have been available locally, analogies with other sites of the period would suggest that it is likely that some of the pottery was imported from outside the immediate area.

The majority of the Iron Age pottery is in poor condition, exhibiting signs of moderate to heavy abrasion. The only exceptions are the sherds from the bead rim jar from 2905, which are only lightly abraded; and a single large sherd (weighing 66 grammes) from a vessel of Middle to Late Iron Age date from 3116, which is in fresh condition.

SWILLY COPSE: THE FINDS

The pottery
by Lorraine Mepham

Sherds of a single vessel were found in Trench 410, where it had been deposited in an inverted position within a small scoop (3215). The vessel has been identified as a Globular urn of Middle Bronze Age date.

The sherds are in a soft fabric tempered with common (20-30%), fairly well sorted, subangular fragments of crushed, calcined flint (<2mm); both exterior and interior surfaces have been smoothed. Most of the vessel profile survives, although the base is

missing. It is relatively small (external rim diameter 110 mm), with a fairly even wall thickness of 6-7 mm. There is a very slight 'shoulder' about 35 mm below the rim. Apart from two opposed bosses, applied just below this 'shoulder', the vessel is plain.

Globular urns form part of the Deverel-Rimbury ceramic tradition of the Middle Bronze Age in southern England. They are often found in fabrics which are finer, and/or better finished than those used for other Deverel-Rimbury vessel types such as the bucket and barrel urns; decorated examples are considered to represent the 'fineware' element within the tradition (Ellison 1980). While Globular urns are frequently associated with funerary contexts (as are other Deverel-Rimbury types), either as containers for cremated bone or as accessory vessels, they are also known from domestic contexts. No cremated bone was found with this example, which would appear to rule out a funerary use, but nor is there any supporting evidence for a domestic interpretation for this apparently isolated deposit, beyond some slight traces of a possible sooted residue on the interior surface of the vessel.

Illustrated vessel (Fig. 9)
Part profile of globular urn; two applied bosses. Obj. No. 7402, context 3214, scoop 3215.

BATH ROAD: THE FINDS
by Emma Loader

During the watching brief two small collections of finds were made, one to the north of the A4 Bath Road and at Whittle Copse.

North of Bath Road

To the north of the A4 Bath Road, a hearth produced 33 sherds (225 g) of coarse, flint-tempered pottery. All are plain body sherds. Such flint-tempered fabrics are characteristic of the Deverel Rimbury ceramic tradition of the Middle Bronze Age in southern England.

Whittle Copse

At Whittle Copse, a total of 6388g of burnt unworked flint was recovered from what may be the remains of a 'burnt mound'. So-called 'burnt mounds' have a wide geographical and chronological distribution and a correspondingly wide range of interpretations, including the remains of cooking places and as saunas (O'Drisceoil 1988). One such 'burnt mound' was excavated in the Kennet valley at Anslows Cottages, Burghfield (Butterworth and Lobb 1993, 166-7).

APPENDIX 5: The Finds from Enborne Road, Great Pen Wood, Elmore Plantation and Bagnor Road

ENBORNE ROAD: THE FINDS

by Emma Loader

The small finds assemblage recovered from this site includes metalwork, pottery, ceramic building material, stone and worked bone.

The Metalwork

The metalwork assemblage consists of 27 iron objects, recovered from four trenches (165, 170, 172 and 174). These comprise five hobnails and 22 nails or nail fragments, all of which are recognisable Romano-British forms. The majority of the nails are comparable with Manning's type 1b, with a square shank, and a flat round or rectangular head (1985, fig. 32). These nails are a common find of sites of this period, and would have be used for a variety of woodworking purposes, depending on their length; generally the smaller sizes are more common. The hobnails are also common finds, and their use may either have been on boot soles, or as an embellishment on wooden objects.

The Pottery

The pottery assemblage recovered from Enborne Road consists of 144 sherds (1624 g). Of this total, 38 sherds (652 g) were recovered from the topsoil and subsoil, and are not considered further here. The rest of the assemblage derives from linear features (56 sherds, 431 g), layers (20 sherds, 179 g), pits (4 sherds, 70 g) and features of unknown interpretation (26 sherds, 292 g).

Pottery recovered from trench 165 is early Roman, dating from around the conquest period in the mid-first century AD (c. AD 40-70). The assemblage from this trench includes bead rim jars in both flint-tempered Silchester ware and in wheelthrown grog-tempered wares, as well as Black Burnished ware (BB1) sherds and fragments from a fine oxidised (pale-firing) butt beaker. Three coarseware sherds of a similar date range were also recovered from the topsoil at Trench 160.

Trenches 170 to 174 produced a range of pottery dating from the 3rd or 4th century AD, and the range of types present is comparable to those from enclosure III at Ufton Nervet to the east of Newbury (Manning 1974, fig. 24). The assemblage from these trenches includes grog-tempered coarsewares, oxidised sandy coarsewares and coarse greywares, and Oxfordshire colour-coated vessels and parchment ware. The latter include mortaria fragments. The greywares include dropped flange bowls, upright necked jars with hammerhead or square rims and flat topped rims, and everted jars. One very large fragment from a Central Gaulish Drag 45 samian mortarium sherd was recovered from Trench 170, and dates to the late 2nd to mid 3rd century AD.

Four undiagnostic coarseware sherds were recovered from Trench 175.

The Ceramic Building Material

The ceramic building material consists of 399 fragments (33,178 g). Of this total, 149 fragments (12374 g, 37% of the total weight) were recovered from the topsoil and subsoil. The rest of the assemblage is summarised in Table 9.

All of the ceramic building material has been identified as Romano-British and includes tegulae, imbrices and miscellaneous undiagnostic brick and tile fragments (Table 10). Six fragments of tegula have concentric finger-smeared 'signatures' on their surfaces – a common marking found on this type of tile (Brodribb 1987, 99). One tegula also has a circular peg hole, centred 35 mm from one short edge.

It may be noted that ceramic building material was not recovered from trenches 160 and 165, where only 1st century AD pottery was recovered. This would suggest that during the early phases of activity on the site any existing buildings would have used some other roof covering, for example thatch. In contrast, the quantity of building material, in particular the large quantity of tegulae, recovered from the later phases (2nd to 4th century AD) would indicate that there was at least one substantial building, on or close to the site.

Table 9: Ceramic Building Material at Enborne Road, by feature type

Feature	Number	Weight	% Of Weight
linear	165	16037	48
topsoil	129	11326	34
layer	71	3317	10
pit	12	1442	4
subsoil	20	1048	3
ditch	2	8	1
Total	**399**	**331789**	**100**

Table 10: Enborne Road, Ceramic Building Material Types

Type	Number	Weight (g)
Brick	4	2640
flat tile	123	6592
Imbrex	33	3658
Tegular	110	18786
Unknown	129	1502
Total	**399**	**33178**

The Worked Stone

Five fragments of worked stone were recovered from this site (7307 g), comprising one quern fragment and four other fragments which could have been utilised as building stone.

One fragment from the lower stone of a Romano-British rotary quern, in a quartz conglomerate, was recovered from Trench 174.

Two large worked sarsen blocks were recovered from a pit in Trench 174, which is dated as late Romano-British. Two further fragments of sarsen stone were recovered

from Trenches 170 and 174 respectively. These are not obviously worked, but it is possible that these are fragments from quern stones or perhaps dressed blocks of building material.

The Worked Bone

A complete bone pin was found in Trench 170 (Fig. 17). The pin has a cylindrical head with two parallel incised lines around the top. Half of the head is missing on one side, which appears to be intentional. No direct parallels have been found, but associated pottery indicates a later Romano-British date.

Illustrated object (Fig. 17)
Bone pin. Obj. No. 7201, context 2041, ?pit 2268.

GREAT PEN WOOD: THE FINDS

by Emma Loader

A small quantity of finds was recovered from this site, comprising ceramic building material, fired clay and pottery, all of Romano-British date.

The Pottery

The small pottery assemblage comprises 42 sherds (523 g), all of Romano-British date. Of this total, 20 sherds (416 g) were recovered from unstratified contexts, and the remaining sherds came from pit 6034 (9 sherds, 62g), pit 6038 (3 sherds, 14g) and pit 6040 (3 sherds, 6g).

The majority of the assemblage comprises coarsewares, but four sherds of samian, from a platter of form Drag 18 or 18/31, are present; the latter were unstratified finds. The remaining sherds include both sandy and grog-tempered coarsewares, and the overall date range of the assemblage is 1st to 2nd century AD.

The Ceramic Building Material

The ceramic building material consists of a total of six fragments (530 g), of which five were found unstratified. The sixth fragment came from pit 6034, and is likely to be of Romano-British date.

The Fired Clay

The fired clay consists of a total of 66 fragments (362 g), of which 11 fragments (144g) were recovered from unstratified contexts. The remaining 55 came from Romano-British pit 6034. Some of the latter fragments have surviving flat surfaces but no other diagnostic features; it is likely that they may be of structural origin.

ELMORE PLANTATION: THE FINDS

The Metalwork

by Emma Loader

The assemblage of metal work consists of one copper alloy object, recovered from the hill wash and five iron objects, of which two were unstratified, two came from the buried topsoil (6075) and one from a tree-bowl. The iron objects are all nails, and are all probably of Romano-British date. The copper alloy item is a small, hollow, dome-headed stud; similar Romano-British studs have been found at Colchester (Crummy 1983, 117).

The Slag
by Phil Andrews

The slag consists of 149 fragments (4827 g). Most of this derives from unstratified or undated contexts. The assemblage is generally undiagnostic iron-working slag, but also includes some iron concretions of natural origin. A few pieces (unstratified) may derive from iron smelting and may be of Romano-British origin, but this cannot be demonstrated.

The Pottery
by Rachael Seager Smith

A total of 184 sherds (1564 g) was found. Of these three sherds (11 g), were found in the Stage 1 test-pits while 37 sherds (190 g), were recovered from the Stage 2 evaluation trenches. With the exception of one sherd (26 g), found during the watching brief, the remainder were all from the Stage 3 area excavation (Table 11).

The assemblage is predominantly Romano-British but two prehistoric, two medieval and three post-medieval sherds were also recognised; only the prehistoric and Romano-British wares are discussed here. The material is in poor condition, the mean sherd weight is only 8.9g and all the sherds are battered and abraded. Many of the softer fabrics, such as the samian and Oxford red colour-coated ware, have entirely lost their surfaces.

Prehistoric
Both the prehistoric sherds are undiagnostic body sherds in coarse flint-gritted fabrics and probably belong to the Late Bronze Age. One was found in the colluvium 6078, and as the only sherd from this context, provides valuable dating evidence. The second sherd was found, together with Romano-British sherds, in the buried topsoil 6075.

Romano-British
Sandy grey and grog-tempered coarsewares dominate the Roman assemblage. In addition there are two very badly abraded sherds of samian and a few sherds of Oxfordshire red colour-coated fineware including three sherds from mortaria forms. On the basis of the Oxfordshire finewares and a greyware dropped flange bowl, a characteristic late Roman form, the assemblage can be broadly dated to the later 3rd–4th centuries AD. Although unstratified, an Oxfordshire mortarium sherd dated to c. AD 325-400 + (Young 1977, type C100) and two possible sherds of Overwey/Tilford type ware (perhaps better known as Porchester D ware: see Fulford 1975b, 299) may

suggest that activity continued into the 5th century AD. However, the samian and perhaps also the softer, thin-walled grog-tempered sherds, suggest the presence of at least some residual early Roman material. Rims from an oxidised sandy ware beaker with grooved decoration and a grey ware butt beaker, from the Stage 2 evaluation (linear 1060 and layer 1242 respectively), are also of 1st-2nd century AD date.

One sherd of Black Burnished ware from the Wareham/Poole Harbour region of Dorset was found in the buried topsoil 6075. The other coarsewares are difficult to provenance. Coarse oxidised and reduced sandy wares were produced at Hampstead Marshall, some 4 km to the south-west, during the 2nd and 3rd centuries AD with small-scale production, including some Overwey/Tilford type wares, continuing into the 4th century AD (Rashbrook 1983). Another possible kiln has been identified at Kintbury c. 6.5 km away (Swan 1984, mf 1.217). No centres producing grog-tempered fabrics are known in this area, but these wares too are likely to have been made locally.

Table 11: Elmore Plantation – pottery by context

Feature	Context	Prehist. Pottery	R-B pottery	Med. pottery	P-med. pottery
Stage I (W457)			3/11g		
Stage II (628)			37/90g		
Unstrat.	6041		39/438g	2/22g	2/40g
Linear 6047	6046		26/366g		
Pit 6049	6048			2/19g	
Pit 6051	6050		7/34g		
	6053		1/40		
Posthole 6055	6054		8/32g		
Hill-wash	6067		1/6g		
Pit 6070	6069		1/12g		
Buried topsoil	6075	1/5g	30/223g		
Hill-wash	6077		5/16g		
Pit 6081	6080		6/54		
Tree bowl 6083	6082		3/10g		
Tree bowl 6085	6084		4/10g		
Posthole 6088	6086		2/4g		
Layer	6089		2/4g		
Watching brief					1/26g
Totals		2/7g	175/1450g	4/41g	3/66g

The Ceramic Building Material

by Emma Loader

The ceramic building material recovered consists of 81 fragments (3201 g). Of this total, 13 fragments (297 g) were recovered during the Stage 1 evaluation. All these fragments were recovered from topsoil during a field walking and test-pitting exercise, and are probably medieval or post-medieval in date. The remaining ceramic building material (68 fragments; 2904 g), recovered during the Stage 2 and Stage 3 fieldwork, is all of Romano-British date and includes eight fragments of tegula and three flue tile fragments. The material from Stages 2 and 3 derived from both

unstratified and stratified contexts (ditch 1060, layers 1242, 1246, linear 6047, pit 6070), and from the subsoil and buried topsoil.

The Worked and Burnt Flint
by Emma Loader

Worked Flint
The flint assemblage consists of 66 pieces, and was recovered mainly from unstratified and colluvial deposits during the stage 3 fieldwork. The raw material is locally exploited gravel flint, and the majority of the flint is patinated and edge damaged.

The assemblage includes flakes, broken flakes, blade fragments and a blade core. The flakes are not chronologically distinctive, but the presence of blades and blade core would indicate that there is at least an element within this small lithic assemblage which could be of Neolithic date.

Just under half of the flint derived from hillwash and colluvial deposits (27 pieces), with a further 21 pieces unstratified or from topsoil; other pieces were found scattered in small quantities in various features across the site, and are likely to be largely if not all residual in these contexts.

Burnt flint
In addition a small quantity (821 g) of burnt, unworked flint was recovered, mainly from hill wash and colluvial deposits. This material type is intrinsically undateable, but is frequently associated with prehistoric activity. In this instance it was found in Romano-British contexts, although the presence of worked flint would indicate prehistoric activity in the vicinity of the site.

Other Finds
by Emma Loader

Other finds comprise eight fragments of fired clay (140g), and six fragments of sandstone (996 g). All are likely to be of Romano-British date. Several of the fired clay fragments have a visible surface and may be fragments of building material or structural pieces. The sandstone fragments are all flat (15-20 mm in thickness), and it seems likely that they represent building material such as tiles.

BAGNOR ROAD: THE FINDS

The Pottery
by Rachael Seager Smith

Introduction
With the exception of a single probable Late Iron Age sherd, all the pottery from this site is Romano-British. The assemblage contains a typical range of grey and oxidised sandy wares and grog-tempered coarsewares as well as smaller quantities of fineware, including samian and Oxfordshire products. The material reflects activity on this site dating from the mid-2nd until at least the late 4th century AD.

A total of 1232 sherds, weighing 19,826 g, was recovered. The condition of the sherds is generally very good with only a few sherds (less than 1%) showing any significant degree of surface abrasion. Numerous large, refitting sherds were also noted both within and between contexts belonging to the same feature, although many of these involved fresh breaks caused by the rapid excavation techniques used. The mean sherd weight was 16g.

Methods

The assemblage has been analysed in accordance with the standard Wessex Archaeology guidelines for the analysis of pottery (Morris 1992). In addition to a group of 'established wares', distinctive fabrics of known provenance or type (group E), the sherds were divided into four broad groups based on the predominant inclusion types; flint-gritted wares (group F), grog-tempered wares (group G), sandy wares (group Q) and micaceous wares (group M). These groups were examined using a binocular microscope (x 20 power) and further subdivided into 13 different fabric types based on the range and coarseness of the inclusions. Each of the fabrics has been assigned a unique fabric code. The following terms are used here to describe the quantity of inclusions present; rare less than 2%; sparse 3-7%; moderate 10-15%; common 20-25%; abundant 30%+. Fabric totals are given in Table 12.

The pottery has been quantified using both number and weight of sherds of each fabric type by context, and details of vessel form, size, surface treatment, decoration and manufacturing technique have been recorded. Other information concerning surface abrasion, residues and evidence for reuse and repair has also been noted. Pottery fabric totals for each feature are shown in Table 13; percentages of fabrics given in this report derive from sherd count alone. A site-specific vessel type series has been constructed (below) and Table 12 summarises the vessel forms represented by rim sherds by fabric type. The number of examples of each vessel type shown here has been calculated on the number of occurrences in a particular fabric. Within each context, single sherds or groups of joining sherds have been counted as one 'occurrence', while non-joining sherds of the same rim form are counted separately.

Late Iron Age Pottery

A single rim from a fairly slack-shouldered bead rim jar (Fig. 16, 35) made from a fine flint and sand tempered fabric, was found in ditch 9133. The sherd is probably of Late Iron Age date (1st century BC – 1st century AD) and as the only sherd from this feature may be of particular chronological significance.

Fabric F1: Soft to moderately hard fabric, containing common, moderately well sorted quartz grains and moderate iron particles, both up to 0.5 mm across, in addition to rare–sparse crushed flint up to 1.5 mm across. Handmade; exterior surface roughly smoothed. Unoxidised throughout; dark brownish-grey in colour.

Romano-British Pottery - Finewares

Together, the finewares account for 10.9% of the sherds from the entire assemblage. The only imported finewares are two sherds of Lower Rhineland colour-coated ware and 14 sherds of samian from both southern and central Gaulish sources. Six other fineware fabrics, all of British origin, were also identified.

The Lower Rhineland colour-coated wares sherds, more traditionally known as 'Cologne ware', have roughcast decoration and probably derive from a beaker. These vessels were exported to Britain from the Claudio-Neronian period into the mid 3rd century AD (Tyres 1996, 147-8). The sherds were found in the secondary fill of ditch 9028 and are likely to be contemporary with the majority of sherds from this feature which date from the mid 2nd century AD onwards.

All the samian derives from plain forms. Two joining sherds from a southern Gaulish Drag. 18 platter of late 1st century AD date were found in ditch 9028. Traces of the sand used to prevent vessels sticking together prior to firing survive on the underside of the basal chamfer although the sherds are now comparatively battered and abraded.

The remaining sherds are all from central Gaulish sources. These include sherds from three separate Drag. 18/31 platters from ditch 9028, one of which has a partially surviving rivet hole and a small fragment from the rim of a Drag. 35 cup or Drag. 36 dish from pit 9075. Three rim sherds, all in good, crisp condition, from a Curle 23 dish were found in various contexts in corn drier 9104, and may all be from the same vessel.

Fabric E132: Lower Rhineland colour-coated ware (Tyres 1996, 147-8)

Fabric E301: South Gaulish samian

Fabric E304: Central Gaulish samian

Two of the British fineware fabrics are from a known source, the colour-coated wares and parchment wares of the Oxfordshire region, but the other four are unprovenanced.

Fabric Q104: Coarse oxidised sandy wares containing moderate to common quartz < 0.75 mm across and rare iron particles up to 1 mm across. Wheelmade.

Fabric Q105: Fine oxidised sandy wares. Soft to moderately hard fabrics containing moderate to abundant quartz < 0.25 mm across and rare iron particles up to 0.75 mm across. Wheelmade. Exterior surface sometimes coated in a white slip, now very abraded.

Fabric Q106: Fine sandy white ware. Hard or very hard, brittle fabric, very fine grained containing moderate to common quartz, < 0.25 mm across, and rare iron particles, < 0.5 mm across. Wheelmade.

Fabric M100: Mica dusted ware. Hard, fine-grained fabric containing abundant quartz and white mica up to 0.125 mm across and iron particles up to 1 mm across. Wheelmade. Predominantly oxidised, dark reddish brown in colour. Coated in a fine, micaceous slurry, now very abraded.

Fabric E170: Oxfordshire colour-coated wares (Young 1977, 123).

Fabric E172: Oxfordshire parchment ware (Young 1977, 80)

The coarse and fine oxidised sandy wares (fabrics Q104 and Q105) are both likely to encompass the products of several production centres. Part of a small, globular-bodied beaker decorated with applied dots (type R105) from ditch 9028 is the only recognisable rim form in the coarser oxidised ware. Vessels of this type were common in the 1st century and first half of the 2nd century AD. Some of the fine sandy ware sherds show evidence of a white slip on the exterior surface, now often very abraded.

These include a flagon rim (type R127) found in pit 9080. Similar vessels were made in grey fabrics in the Oxfordshire region *c.* AD 300-400+ (Young 1977, 209, type R8) although white colour-coated flagons appear only to have been made pre- *c.* AD 250 (ibid., 117). A late Roman date for this vessel would fit with that of the rest of the material from this feature.

Three vessel forms were recognised in the sandy white ware fabric (fabric Q106). With the exception of two plain body sherds from ditch 9168, all the sherds of this fabric were found in ditch 9028. Two forms, the cup-mouthed flagon (type R116) and ring-necked flagon (type R117) can be paralleled among the Oxfordshire white wares (Young 1977, 100, types W5 and W6, dated from *c.* AD 150-240 and *c.* AD 100-240 respectively) and indeed may have derived from this region. No parallels have been found for the open bowl (type R120), although it too is likely to be of 2nd or early 3rd century AD date.

One sherd of mica-dusted ware (fabric M100), a badly damaged bowl rim, was found in ditch 9028. Mica-dusted wares were most common in the later 1st and early 2nd centuries AD (Marsh 1981, 137).

The Oxfordshire colour-coated wares are by far the most numerous fineware fabric present at this site, alone accounting for almost 4% of the total number of sherds. A rim from the standard Oxford late Roman beaker type (Young 1977, 152, type C22) was found in the upper fill of the stokehole of corn drier 9104. Vessels of this type were made from *c.* AD 240-400 but were perhaps most common during the 4th century AD. An uncommon 4th century AD beaker type, indented with applied barbotine scale decoration on the ridges (ibid., 154-6, type C32) was also found, in pit 9075. Other sherds of brown colour-coated ware include part of the base of a flat, open form, found in the buried soil 9067.

The red colour-coated ware forms recognised were all prolific, widely distributed types and are indicative of activity well into the 4th century AD at this site. Sherds from a necked bowl (Young 1977, 164-6, type C75) dated *c.* AD 325-400, were found in pit 9074. Examples of types C45 (ibid., 158 - shallow bowls copying samian form Drag. 31 dated from *c.* AD 270-400+), C55 (ibid., 160 - hemispherical bowls copying samian type Drag 37, dated *c.* AD 240-400+) and C81 (ibid., 166 - wall-sided, carinated bowls, prolific from *c.* AD 300-400 but perhaps starting a little earlier) were all recovered from corn drier 9104.

Only two Oxfordshire parchment ware (Young 1977, 80) sherds were recognised, found in the upper fill of the stokehole of corn drier 9104. The sherds are from the base of an open bowl with red painted decoration on the interior, a form of decoration which became more common from the mid 3rd century AD onwards (Young 1977, 80).

Mortaria
All the mortaria sherds derived from the Oxfordshire industry.

Fabric E209: Oxfordshire white ware mortaria (Young 1977, 56)

Fabric E211: Oxfordshire colour-coated ware mortaria (Young 1977, 123)

The three white ware sherds were found in ditch 9028. Two are from the flange of an Oxfordshire M2 or M3 vessel which date to *c.* AD 100-200 (Young 1977, 68); the other is a plain body sherd.

Three sherds from a mortarium with an upright rim and angular flange, dated from *c.* AD 300-400 (Young 1977, 174, type C100), as well as an additional plain body sherd, were found in corn drier 9104. Other colour-coated ware body sherds were found in pits 9075, 9080 and 9164.

Although mortaria occurred only in negligible quantities in this assemblage, their presence does imply a level of Romanisation sufficient to encompass Roman cooking methods from the 2nd century AD onwards (or at least access to traded samples).

Coarsewares

Ten coarseware fabrics were identified, including two of known type or source. The remaining fabrics are all 'catch-all' types and include the products of more than one source.

Fabric E101: Black Burnished ware (Williams 1977, group 1).

Fabric E181: Overwey/Tilford type wares (Clarke 1949; Fulford 1975b, 229).

Fabric F100: Coarse flint-gritted ware. Soft to moderately hard fabric with moderate to common crushed flint up to 4 mm across and rare iron particles <0.5 mm across. The matrix may contain moderate microscopic quartz/white mica. Hand-made. Variably fired.

Fabric F101: Fine flint and sand gritted wares. Hard fabric with common quartz <1 mm across and sparse flint 0.5-1 mm across. Wheel-made. Unoxidised.

Fabric G100: Coarse grog tempered ware. Soft to moderately hard fabric containing sparse grog up to 5 mm across and rare iron particles up to 1 mm across in a matrix often containing common microscopic quartz/white mica. Hand- and wheel-made. Variably fired.

Fabric G101: Coarse grog and sand tempered wares. Hard fabric containing sparse to moderate quartz, 0.5-1 mm across, sparse grog, up to 5 mm across, and rare iron particles, <0.5 mm across. The matrix may contain moderate microscopic quartz/white mica. Hand- and wheel-made. Variably fired.

Fabric Q100: Sandy grey wares, all types from soft, relatively coarse, dark-surfaced wares copying BB1 to the more Romanised hard, brittle, blue-grey wares. Generally contain moderate to abundant quartz from 0.5-1 mm+ across and rare iron particles, 0.5 mm across. Hand- and wheel-made. Predominantly unoxidised.

Fabric Q101: Fine, smooth sandy micaeous wares. Hard fabrics; the matrix contains common microscopic quartz/white mica with additional larger quartz and iron particles, <5 mm across. Wheel-made. Predominantly unoxidised but with a tendency to have darker surfaces than core.

Fabric Q102: Coarse sandy micaceous wares. Hard fabrics containing moderate to common microscopic quartz/white mica, sparse to moderate quartz up to 1 mm across and rare iron particles < 0.5 mm across. The rounded quartz grains give these fabrics a rather pimply texture. Wheel-made. Predominantly unoxidised but may be sandwich fired.

Fabric Q103: Fine sandy wares. Fabrics vary from soft and powdery to hard and brittle but all contain moderate to abundant quartz and rare iron particles < 0.25 mm across with rare soft, white non-calcareous particles up to 1 mm across. Wheel-made. Predominantly unoxidised.

Two of the fabrics can be positively attributed to a known type or source; Black Burnished ware from the Wareham/Poole Harbour region of Dorset and the Overwey/Tilford type wares. The latter wares, perhaps better known as Porchester D ware (Fulford 1975, 299) appear to have been made, perhaps by itinerant potters, at Alice Holt and a variety of small centres south of the Thames during the 4th century AD (Lyne and Jefferies 1979, 35). Similar wares were made at Hampstead Marshall, some 4 km to the west of Newbury, at least on a small scale during the 4th century AD (Rashbrook 1983). The hooked rim jars (type R106; Fig. 15, 7) are the typical form made in this fabric although convex-sided dishes, colanders and dropped flange bowls/dishes are also occasionally found.

Black Burnished ware represents 15% of the coarseware sherds or 13.5% of the entire assemblage. The seven forms recognised include the most characteristic and widely distributed products of this industry. With the possible exception of the small bead rim jars (type R112; Fig. 15, 14) which continued to be produced from before the Roman conquest until well into the 3rd century AD, all the forms present can be dated to after the expansion of the industry in *c.* AD 120. The flat flange bowls/dishes (type R114, Fig. 15, 16), some with chamfered bases (type R110; Fig. 15, 12), and the everted rim jars (type R101; Fig. 15, 1) are all mid 2nd – 3rd century AD forms. The attenuated jars (type R129; Fig. 16, 31), the dog-dishes (type R122; Fig. 16, 24) and the dropped flanged bowls/dishes (type R123; Fig. 16, 25) are the typical late 3rd to 4th century AD forms.

The sandy grey wares (fabric Q100-103) were the most important component of the assemblage, accounting for 72% of the coarseware sherds (64.5% of the whole assemblage. No attempts were made to divide these wares into specific fabric types due to the well-known and extreme difficulties of attributing sandy grey wares from non-production sites to any particular kiln group. Fabrics Q100 and Q103 especially can be considered 'catch-all' fabric groups encompassing products from more than one source over a wide date range.

Sources are likely to include the Oxfordshire region (Young 1977, 202-28), suggested by the presence of other Oxfordshire fabrics and parallels amongst the vessel forms although many of the smaller production sites known in Berkshire also made similar vessels (Swan 1984, mf. 1:214-219). Alice Holt (Lyne and Jefferies 1979) wares have been identified elsewhere in the area and are probably present here too. Other sources perhaps forming minor components in the supply of pottery to this area may include the kilns to the west of Swindon (Anderson 1979) and the New Forest (Fulford 1975a). Much of the pottery must have come from other, more local sources. These may include the Hampstead Marshall kilns, in use from the mid 2nd to 4th century AD (Rashbrook 1983). Possible production sites have also been identified at Kintbury, *c.* 6.5 km west of Newbury (Swan 1984, mf. 1.217), although the 1st-2nd century AD kilns at Shaw, on the north-east outskirts of Newbury may have been more involved in tile production. Slightly further afield, 2nd to 3rd century AD kilns are known at Bradfield and Pangbourne (Swan 1984, mf. 1:214 and 217).

The two grog-tempered fabrics together account for 10% of the coarseware sherds (9% of the whole assemblage). These fabrics were most common in ditch 9028 (Table 13) while the majority of the grog and sand tempered (fabric G101) sherds from corn

drier 9104 probably derive from a single thick-walled storage jar. The use of grog-tempered fabrics probably extends throughout the Roman period; vessels such as the high, round-shouldered jar (type R113) being of 2nd century AD date while the dropped flange bowls (type R123) belong to the late 3rd-4th century AD onwards. Although broadly comparable fabrics have been identified elsewhere in the area (Mepham 1991, mf. D3; Mepham 1996, 40; Timby 1992, 82-85) all these wares are likely to have been fairly locally produced. With the exception of thick-walled body sherds from storage jars, no forms were identified among the Fabric G100 sherds.

The flint-tempered wares account for less than 1% of the coarseware assemblage. Fabric F100 probably belongs within the 'Silchester ware' tradition. These wares were current at Silchester from the late 1st century BC, reaching a floruit in the Claudio-Neronian period (Fulford 1984, 135; Timby 1989, 85). The four fabric F100 sherds found at Bagnor Road are in poor condition and were probably residual in the contexts in which they were found, although they do serve to indicate 1st century AD activity somewhere in the vicinity of the excavated features. The five fine flint- and sand-tempered sherds (fabric F101) all derive from a single sharply shouldered or carinated form. Its provenance remains uncertain although smallish vessels in fairly coarse sandy fabrics with sparse flint tempering were made in the Hampstead Marshall kilns (Rashbrook 1983).

In all, 27 vessel forms were recognised amongst the coarsewares. These encompassed a wide range of forms although 22 were each only represented by a single example. Only the everted rim jars (type R101), necked jars (type R102), necked jars with collared or hooked rims (type R106), 'dog-dishes' (type R122), dropped flange bowls/dishes (type R123) and attenuated jars (type R129) are represented by more than five rim sherds (Table 12). Jars dominate the assemblage although the bowls (types R104, R109 and R130), 'poppy-head' and ovoid beakers (types R108 and R111) and flagons or bottles (types R127 and R127) do indicate the presence of a finer 'tableware' element. The samian and other finewares, of course, provided the true fine tablewares.

Discussion

Overall the Romano-British pottery from this site dates from around the middle of the 2nd century AD onwards. No early Roman (1st to early 2nd century AD) groups were identified although the 'Silchester-type ware' and south Gaulish samian may indicate such activity beyond the limits of this excavation. These wares however, occurred in such small quantities that the possibility of their being derived from manuring cannot be excluded.

Re-cut ditch 9064, post-hole 9083, hearth 9107 and ditch 9168 each contained only small quantities of undiagnostic sherds and cannot be assigned anything more than a general Romano-British date. Ditches 9009, 9028, 9036 and 9037 all contained pottery dating from the mid 2nd to 3rd centuries AD (Fig. 15, 1, 2, 4-6, 8-12, 14-19; Fig. 16, 20-22). Pits 9075, 9077, 9080 and 9164 (Fig. 15, 3, 7; Fig. 16, 23, 24, 26-30) and corn drier 9104 (Fig. 16, 25, 31-4) contained pottery dating to the late 3rd to 4th centuries AD. As might be expected for a context of this type, the buried soil 9067 contained a mixed group of pottery, although the material was predominantly of late 3rd to 4th century AD date. The mean sherd weight for this material was also

significantly lower (9.4 g) than for other feature types (11.9 g, 16.1 g and 21 g respectively for the pits, ditches and the corn drier).

The assemblage contains a range of fabrics and forms typical of a Romano-British community in southern England. Nothing in the range of vessel types present suggests that the assemblage had any distinctive functional characteristics. However, the percentage of finewares appears comparatively high for a rural community, although the paucity of comparably quantified and accessibly published groups of Roman pottery from the area makes this difficult to assess. However, at Park Farm, Binfield, for example, the 'fine and specialist' wares (samian, mortaria, white and white-slipped fabrics) accounted for only 5% of the total sherds (Booth 1995, 107) while tablewares were virtually absent at Pingewood where the assemblage also spanned the entire Roman period (Hawkes 1983-5, 44). The proximity of the Roman road from Cirencester to Silchester and the village of Speen, which has been associated with the Roman posting station *Spinis* recorded in the Antonine Itinerary (Rivet and Smith 1979, 176), may explain this accessibility of traded goods to the inhabitants of the Bagnor Road site. No amphorae were, however, recovered.

The quality of the assemblage may imply the existence of something more than a small-scale low-status farming community in this vicinity, perhaps hinted at too by theinvestment in a carefully constructed graindrier. The presence of relatively well-preserved sherds, espcially from Ditch 9028 and graindrier 9104, implies that the archaeological resource in this area survives in comparatively good condition and has not yet been extensively damaged by agriculture or other agents.

Type R100: Rim fragments too small or incomplete to assign to a particular vessel type. Mostly from jar forms bur some bowls/dishes may be included.

Type R101: Cooking pots or small storage jars with everted rims, usually slightly beaded. The rim diameter is less than the greatest diameter of the body. Produced by the Black Burnished ware industry (Davies and Seager Smith 1993, 231 type 2) and widely copied elsewhere, including the Oxfordshire industry (Young 1977, 216, type R27). 2nd century AD onwards (Fig. 15, 1)

Type R102: Necked jar with a rim diameter less than that of its maximum girth. Cordons often occur at the base of the neck and many vessels have girth grooves. These vessels developed from the most common Belgic jars of the Upper Thames valley, and were one of the standard reduced ware products of the Oxfordshire industry (Young 1977, 216, type R24). 1st to 4th centuries AD (Fig. 15, 2, 3).

Type R103: Narrow-necked jars; the neck is short, the rim squat and everted often with a flat top but sometimes hooked. The high shoulder suggests a globular body shape. Grooves may occur at the junction of the neck and shoulder. Similar to the Oxfordshire type R17 (Young 1977, 212) which is probably of late Roman date although its dating is not well established. *c.* AD 240-400 (Fig. 15, 4).

Type R104: Shallow open bowl with an internally thickened, bead rim. Broadly copies samian form Drag. 31; a similar bowl in the Oxfordshire reduced ware type series (Young 1977, 226, type 74) was dated to *c.* AD 100-150. However, the exterior surface of this vessel is better finished than the interior suggesting that it may be a lid (Fig. 15, 5).

Type R105: Globular bodied beaker with a sharply out-turned rim. Decorated with incised grooves and/or barbotine applied dots. Similar vessels were made in fine grey ware fabrics, as well as in oxidised and white wares during the 1st century and the first half

of the 2nd century AD, in the Oxfordshire region (Young 1977, types W37, O22 and R31). *c.* AD 50-150 (Fig. 15, 6).

Type R106: Necked jar with a collared, hooked rim, often with all-over horizontal body rilling. Paralleled by the class 3C vessels of the Alice Holt industry which date from *c.* AD 220-420 (Lyne and Jefferies 1979, 45, fig. 29) while at Porchester these vessels date from *c.* AD 325-420 (Fulford 1975b, 299) (Fig. 15, 7).

Type R107: Narrow-necked jars or jugs with upright or slightly everted rims. Internal diameter of the rim < 100 mm (Fig. 15, 8).

Type R108: 'Poppy-head' beakers. Known to have been produced at a variety of centres in Britain, including Highgate Wood, London (Tyres 1978, 62) and the Oxfordshire potteries (Young 1977, 217, type R34). 2nd century AD (Fig. 15, 9).

Type R109: Carinated bowl with a short, flat rim, sometimes with horizontal rilling on the exterior just beneath the rim, a low single or double foot-ring base. The interior surface remains comparatively unfinished, with the wheel-throwing spirals clearly visible. Probably 2nd century AD (Fig. 15, 10, 11).

Type R110: Straight-sided bowl/dish with a flat flange and a chamfered base. The form was current in the Black Burnished ware industry of Dorset *c.* AD 100-200 (Davies and Seager Smith 1993, 235, type 23) and was widely copied elsewhere. Comparable with the reduced ware types C43 and C57 made in the Oxford region (Young 1977, 220 and 224) both of which were common during the 2nd century AD (Fig. 15, 12).

Type R111: Rim, probably from an ovoid beaker, with a short, upright neck and a flared, slightly thickened rim. Broadly comparable with the Cam.112 beaker types but this example is probably of 2nd century AD date (Fig. 15, 13).

Type R112: Bead rim jar; the high shoulder suggests a fairly globular body. 1st century BC/AD possibly continuing into the mid 3rd century AD (Davies and Seager Smith 1993, 231, type 7) (Fig. 15, 14).

Type R113: Cooking pot or small storage jar with an upright or very slightly everted rim, often beaded, and a high, rounded shoulder. Copied from the 1st century BC/AD- *c.* mid 2nd century jars of the Black Burnished ware industry but the dating of the copies themselves is less than clear (Fig. 15, 15).

Type R114: Straight-sided bowls and dishes with a flat flange and a flat base (Davies and Seager Smith 1993, 233, type 22) dated from the 2nd –early 3rd centuries AD. Copied by the Oxfordshire industry *c.* AD 100-300 (Young 1977, 220, type R46) and elsewhere (Fig. 15, 16).

Type R115: Jar or large beaker with a very slightly everted 'pulled' bead rim and a high shoulder. Part of one applied rod handle survives. Similar vessels (Britnell 1974, fig. 23, 244 and 246), dated to the mid 2nd to 3rd century AD, were found in the north ditch of enclosure III at Ufton Nervet (Fig. 15, 17).

Type R116: Cup-mouthed flagon; possibly with a ring-neck (insufficient survives to be certain). Resembles vessels made in the Oxfordshire white ware fabric, dated *c.* AD 150-240 (Young, 1977, 100, type W5) (Fig. 15, 18).

Type R117: Ring-necked flagon. Comparable vessels were made in Oxfordshire white ware, *c.* AD 100-240 (Young 1977, 100, types W2-6) (Fig. 15, 19).

Type R118: High-shouldered jar with an inturned, triangular rim. Burnished line lattice decoration above the shoulder, its lower limits defined by an incised groove (Fig. 16, 20).

Type R119: Shallow, straight-sided dish with a slightly beaded rim. Comparable with types R52 and R52 of the Oxfordshire type series, where they are dated from the late 2nd century to late 3rd century AD (Young 1977, 222) (Fig. 16, 21).

Type R120: Round-bodied open bowl with a short neck and a flared rim. An incised groove decorated the maximum diameter of the body (Fig. 16, 22).

Type R121: Shallow, convex-sided bowl or dish; plain or slightly beaded rim; flat base. Produced by the Alice Holt industry *c.* AD 270-420 (Lyne and Jefferies 1979, class 6A.8-.11) (Fig. 16, 23).

Type R122: Shallow, straight-sided dishes with plain rims and flat or very slightly chamfered bases; 'dog-dishes'. One of the most typical late Roman forms produced in a variety of fabrics including Black Burnished ware (Davies and Seager Smith 1993, 233, type 20), and grey wares from the New Forest (Fulford 1975, type 19), Oxford (Young 1977, 222, type R53) and Alice Holt industries (Lyne and Jefferies 1979, class 6A). Production may have begun as early as the late 1st century AD, but the form achieved the height of its popularity during the later 3rd to 4th century AD (Fig. 16, 24).

Type R123: Straight-sided bowls/dishes with a dropped flange. Wide range of flange forms and positions. Another of the typical late Roman forms, produced in a variety of fabrics from the late 3rd to 4th century AD (Davies and Seager Smith 1993, 235, type 25; Fulford 1975, types 5and 6; Young 1977, 220, type R47; Lyne and Jefferies 1979, class 5b; Rashbrook 1983, fig. 4, 9 and 10) (Fig. 16, 25).

Type R124: Necked jar or bowl with an out-turned rim, the upper surface of which is rilled (Fig. 16, 26).

Type R125: Narrow-necked jar with a lid-seated rim. Some vessels have a high, bulbous rim while others are flanged, giving a trefoil appearance to the rim as a whole. Cordon at junction of neck and shoulder. Similar jars but without the lid-seat, were made at the Foxcombe Hill site in the Oxford region, *c.* AD 250-400 (Young 1977, 212, type R18) (Fig. 16, 27).

Type R126: Lids; all forms (Fig. 16, 28).

Type R127: Flagon or bottle with a moulded, collared rim; slightly cupped internally. Similar grey ware forms were made in the Oxford region *c.* AD 300-400+ (Young 1977, 209, type R8) but this was never a common type (Fig. 16, 29).

Type R128: Flagon or bottle with an upright rim and a small collar (Fig. 16, 30).

Type R129: Cooking pots or jars with very everted rims, flaring from the shoulder; rim diameter equal to or greater than the maximum diameter of the body. This was the typical late 3rd to 4th century Black Burnished ware jar form (Davies and Seager Smith 1993, 231, type 3). Also made by the Oxfordshire potters (Young 1977, 216, type R27.1) and by the Alice Holt industry (Lyne and Jefferies 1979, class 3B), although these vessels tended to be squatter and more bowl-like (Fig. 16, 31).

Type R130: Bowl copying samian form Drag. 30. The Oxford potters (Young 1977, 224, type R64) themselves copying the 'London ware' vessels found in southeast England made similar forms in grey sandy ware. Late 1st and 2nd century AD (Fig. 16, 32).

Type R131: Necked bowl; rim shape similar to that of the Type R102 jars with cordons at the base of the neck. Relatively shallow in comparison with diameter; rim diameter is equal to or greater than the maximum diameter of the pot (Young 1977, 220, type 38) (Fig. 16, 33).

Type R132: Tall, ovoid jar with an upright neck and a very hooked rim; a more extreme version of the Type R106 jars. Shallow girth grooves around the maximum diameter of the body. 4th century AD (Fig. 16, 34).

Type R133: Small, slack-shouldered jar with a simple externally expanded bead rim. Probably Late Iron Age (Fig. 16, 35).

Type R134: Colanders; only the perforated base sherds recognised in this assemblage. Vessels of this type were made by the Oxfordshire potters from the mid 1st to the end of the 3rd century AD at least (Young 1977, 228, type R80). Early Roman (later 1st to 2nd century AD) colander sherds were found at Ufton Nervet (Thompson and Manning 1974, fig. 16, 82, fig. 17, 106, fig. 20, 162). However, the Alice Holt colanders only became more important after AD 270 (Lyne and Jefferies 1979, class 5C) so the type clearly has a long life.

List of illustrated sherds (Figs. 15-16)

Fig. 15

1. Everted rim jar (R101), Black Burnished ware (E101). Contexts 9053/9054, ditch 9028.
2. Necked jar (R102) with neck and girth grooves, fabric Q100. Context 9053/9054, ditch 9028.
3. Necked jar (R102) with band of curvilinear combing, fabric Q100. Context 9082, pit 9080.
4. Narrow-necked jar (R103) with shoulder cordon, fabric G101. Context 9015, ditch 9028.
5. Shallow bowl with internally thickened rim (R104), fabric Q103. Context 9015, ditch 9028.
6. Globular beaker with out-turned rim (R105) decorated with incised lines and barbotine dots, fabric Q104. Context 9015, ditch 9028.
7. Necked jar with collared rim (R106), band of horizontal rilling on shoulder, Overwey/Tilford fabric (E181). Context 9081, pit 9080.
8. Narrow-necked jar or jug (R107), fabric Q100. Context 9016, ditch 9028.
9. 'Poppyhead' beaker (R108), fabric Q103. Context 9016, ditch 9028.
10. Carinated bowl with footring base (R109), fabric Q100. Context 9053, ditch 9028.
11. Carinated bowl with footring base (R109), decorated with incised chevrons, fabric Q103. Context 9053, ditch 9028.
12. Flat-flanged bowl/dish with chamfered base (R110), burnished lattice decoration, Black Burnished ware (E101). Context 9053, ditch 9028.
13. Small ovoid jar or beaker (R111), fabric Q100. Context 9043, re-cut 9047.
14. Bead rim jar (R112), Black Burnished ware (E101). Context 9053, ditch 9028.
15. Jar with upright rim (R113), fabric G100. Context 9053, ditch 9028.
16. Flat-flanged bowl/dish (R114), burnished lattice decoration, Black Burnished ware (E101). Context 9054, ditch 9028.
17. Tall jar or large beaker with 'pulled' bead rim and loop handle(s) (R115), burnished lattice decoration, fabric Q100. Context 9054, ditch 9028.
18. Cup-mouthed flagon (R116), fabric Q106. Context 9054, ditch 9028.
19. Ring-necked flagon (R117), Q106. Context 9054, ditch 9028.

Fig. 16

20. High-shouldered jar with triangular rim (R118), band of burnished lattice below rim, fabric Q103. Context 9053, ditch 9028.
21. Straight-sided dish with slightly beaded rim (R119), fabric Q100. Context 9056, ditch 9028.
22. Round-bodied bowl with everted rim (R120), fabric Q106. Context 9057, ditch 9028.
23. Convex-sided bowl/dish (R121), fabric Q100. Context 9081, pit 9080.
24. Straight-sided dish ('dog dish') (R122), Black Burnished ware (E101). Context 9074, ?posthole 9075.
25. Dropped flange bowl (R123), burnished arc decoration, Black Burnished ware (E101). Context 9131/9141, corn drier 9104.
26. Necked jar/bowl with out-turned, rilled rim (R124), fabric Q100. Context 9074, ?posthole 9075.
27. Narrow-necked jar with lid-seated rim (R125), fabric Q100, context 9082, pit 9080.
28. Lid (R126), fabric Q100. Context 9076, ?posthole 9077.
29. Flagon or bottle with collared rim (R127), fabric Q105. Context 9081, pit 9080.
30. Flagon or bottle with upright, slightly collared rim (R128), fabric Q100. Context 9082, pit 9080.

31. Jar with widely flared rim (R129), band of burnished lattice decoration, Black Burnished ware (E101). Context 9118/9149, corn drier 9104.
32. Bowl copying samian form Drag. 30 (R130), fabric Q100. Context 9118, corn drier 9104
33. Necked bowl with shoulder cordon (R131), fabric Q100. Context 9131, corn drier 9104.
34. Tall, ovoid jar with hooked rim (R132), band of horizontal rilling around girth, fabric Q101. Context 9148, corn drier 9104.
35. Slack-shouldered jar, Late Iron Age (R133), fabric F1. Context 9132, ditch 9133.

Table 12: Bagnor Road, pottery by vessel form/fabric

	Fabrics															
	LIA	Samian		British finewares					Mort.	Coarsewares						
Form	F1	E301	E304	Q104	Q105	Q106	M100	E170	E211	E101	E181	F100	G101	Q100	Q101	Q103
Curle 23			3													
Dr. 18		1														
Dr. 18/31			3													
Dr. 36			1													
C22								1								
C32								1								
C45								1								
C55								1								
C75								1								
C81								1								
C100									1							
R100				1			1			1		1		17		4
R101										9			1	3		2
R102													7	17	2	6
R103													3	1		
R104																1
R105				1												
R106											5			2		1
R107														3		
R108														1	1	2
R109														1		1
R110										1						1
R111														1		
R112										2						
R113													1			
R114										1						
R115														1		
R116						1										
R117						1										
R118																3
R119														1		
R120						1										
R121											1			1		
R122										9				1		
R123										10			2	5		
R124														1		
R125														2		
R126														1		
R127					1											
R128														1		
R129										10						
R130														1		
R131														1		
R132															1	
R133	1															
R134														2		

Table 13: Bagnor Road, pottery by context (No./weight in grammes)

Feature	LIA	Imported finewares		British finewares		Mortaria	Coarsewares					
	F1	E132	Samian	Unprov. finewares	Oxford wares	Oxfordshire	E101	E181	Flint tempered	Grog tempered	Sandy grey wares	Total
DITCH 9133	1/13											1/13
RE-CUT 9064										1/45	1/8	2/53
PH 9083				1/1							3/14	4/15
HEARTH 9107											1/3	1/3
DITCH 9168				2/7							18/208	20/215
DITCH 9009							2			2/129	6/54	10/278
DITCH 9028		2/2	7/44	34/277	1/9	3/83	45		2/24	56/1949	356/5543	506/8597
DITCH 9036					1/6		1			1/80	22/139	25/240
DITCH 9037									6/82		29/173	35/255
PIT 9075			1/5		14/187	1/12	46	2		8/216	65/645	137/1690
PIT 9077					2/8						6/88	8/96
Pit 9080			1/5	4/17	4/16	1/4	4	5	1/5	5/216	60/711	86/988
PIT 9164						1/9	4			1/28	13/138	19/208
GRAIN DRIER			5/109	2/7	22/320	4/53	58	3		35/1802	184/3137	313/6582
BURIED SOIL				16/48	5/82		6	4		3/72	31/327	65/611
Totals	**1**	**2**	**14/163**	**59/407**	**49/628**	**10/161**	**166**	**14**	**9/111**	**113/4355**	**795/11188**	**1232/19826**

The Ceramic Building Material
by Emma Loader

The assemblage of ceramic building material comprises 224 fragments (48,756 g), all of Romano-British date. The range of types includes tegulae, imbrices and box flue tile fragments.

The largest proportion of the assemblage comprises tegulae (134 fragments; 43,151 g; 88% of the total of the assemblage by weight). Of the tegulae, 20 fragments have cut-aways present on the flanges, 26 fragments have the remains of concentric ring groove 'signatures' on their surfaces and four fragments have the remains of peg-holes – two with round peg holes and two with square peg holes. One large fragment of tegula has a particularly clear dog's paw print on its upper surface.

The largest proportion of tile (65 fragments; 5838 g; 94% of the total weight) was recovered from the T-shaped corn drier 9104. A 1.60 m length of the drying floor 9100 was constructed from re-used tegulae and limestone roof tiles. The remaining tile used in this construction was recovered from the demolition layers of the structure.

The remaining fragments of ceramic building material were recovered in small quantities from a variety of features across the site.

The Stone
by Emma Loader

The assemblage of stone comprises 72 fragments (14,999 g), and includes both portable objects and building stone (Table 14). One fragment of sandstone is from an unidentified object. The stone types include greensand, quartz conglomerate, lava stone and fine-grained sandstone.

Portable Objects
by Emma Loader

This category includes 54 quern stone fragments and one whetstone fragment, all recovered from Romano-British features. The latter fragment has a smooth surface and is 15 mm thick, though it is too fragmentary to identify its original shape.

Of the quern stones, two are quartz conglomerates, one is greensand and the remaining 51 (all small fragments; total weight 1414 g) are lava stone. The latter fragments are continental imports, and lava querns are common find on Romano-British sites of this period. The greensand is also non-local. The Lodsworth quarry, West Sussex, is one of the few sites where it is known that greensand was being exploited for quern production in the Iron Age, through to the early Romano-British period (Peacock 1987), and it is possible that this quern stone originated from there.

Building Material
by Emma Loader

A total of 17 fragments (11768 g) of flat limestone tiles was recovered from the corn drier 9104. Their original use was probably as roofing material on a building in the vicinity of the site, and they were subsequently re-used together with the ceramic tegulae in the drying floor of the kiln. Several fragments have small nail holes surviving.

Table 14: Bagnor Road - Stone Types

Stone Type	Number	Weight
greensand	1	1775
lava stone	51	1414
limestone	16	11634
quartz conglomerate	2	670
sandstone	2	68
shelly limestone	1	134
Total	**73**	**15695**

The Metalwork

by Emma Loader

The metalwork assemblage comprises 119 iron objects, three copper alloy objects and two lead objects. The majority of the assemblage (87 objects) was recovered during a metal detector survey over the buried soil (9066), and consists mainly of iron nails. The presence of a modern cartridge case and other post-medieval artefacts noted in the field indicates that these objects are likely to be of relatively recent date and are not considered further here. This report will therefore concentrate on the 37 objects (36 iron and one copper alloy) recovered from stratified contexts.

Iron objects

A total of 28 nails, comprising 16 structural nails and 12 hobnails, was recovered from a variety of features and layers dated as Romano-British. All these objects are heavily corroded, although recognisable Romano-British types are present in the assemblage. The majority are comparable with Manning's type 1b, with a square shank, and flat round or rectangular head (Manning 1985, fig. 32).

Two cleats were recovered, one from pit 9081, and the other from a Romano-British layer. Both are quite small, and their size would indicate that they were probably from the boot soles rather than being structural.

A double loop-headed spike, comparable to Manning's type R41 (1985, plate 61) was recovered from ditch 9858. Such objects are common finds on Romano-British sites, and were used to form rings that could be attached to wood or masonry.

Five flat, moderately-corroded iron objects were recovered from ditch 9018, pit 9075, pit 9080 and corn drier 9104. The object from corn drier 9104 is flat, corroded, has no diagnostic features and its original use is unknown. The remaining fragments all have circular perforations, and are probably fragments of strips which may have been bindings or reinforcing on wooden objects or for joining pieces of wood.

Copper alloy object

One spoon bowl (Fig. 17) was recovered from corn drier 9104. It is white-metal plated, and the handle is completely missing. The upper surface of the bowl has longitudinal striations that appear to have been interrupted by wiping across the width of the bowl. The back of the bowl has similar striations, the majority longitudinal though diagonal marks are also visible. These striations are probably a result of polishing. Comparable spoon bowls have been found at Catsgore, Somerset (Leech 1982, fig 81, 35 and 36) and also Verulamium (Frere 1984 fig 15, 119). The spoon from Bagnor Road appears very well made, and was probably cast in a clay mould, then finished by cold working. It can be dated to the 3rd or 4th century AD.

Illustrated object (Fig. 17)

Copper alloy spoon bowl. Obj. No. 94, context 9093, corn drier 9104.

The Coins

by Nicholas Cooke

Four coins were recovered. Three can be relatively closely dated, while the fourth, a small illegible follis, cannot be dated any closer than the 3rd or 4th centuries AD. The remaining three all date to the 4th century, and are all relatively common types. All three may be copies of contemporary coinage – in all three cases the engraving is stylised, and the dies small.

The earliest, and best preserved of the three (Cat No. 1) is a possible copy of an *Urbs Roma*/Wolf and Twins coin from Lyons. The small die and irregular mint mark may indicate that this is a copy. Cat. No. 4 is a copy of a *Gloria Exercitus* type of the House of Constantine, depicting two soldiers and a central standard. The coin is too badly damaged and worn for either the emperor or the mint to be distinguished. However, the engraving of the soldiers and standard is very stylised. The latest coin (Cat. No. 3) is a very badly damaged copy of a *Fel Temp Reparatio* (Fallen Horseman 4) type, with a soldier spearing a fallen horseman. The name of the emperor and the mint mark are both illegible. The depiction of the two figures is relatively stylised and the flan small.

Catalogue of coins

LRBC = Late Roman Bronze Coinage

1. Obj. No. 89, context 9093, corn drier 9104.
   Obverse: Helmeted head l. Text: V_BS/RO_A (Urbs Roma). Slightly worn, corroded.
   Reverse: Wolf and Twins, two stars above. Slightly corroded.
   Mint Mark: Lyons
   Diameter: 16mm.
   Metal/Denomination: Cu Alloy Follis.
   Description: Small flan. Mint mark is irregular, and may indicate a copy. Coin in fair condition.
   Date: AD 332-4
   References: ?copy of LRBC I, 195.

2. Obj. No. 95, context 9081, pit 9080.
   Obverse: Head r. Otherwise illegible. Badly worn and corroded. Unknown emperor.
   Reverse: Illegible. V. badly worn and corroded.
   Diameter: Max: 12mm, Min. 9mm.
   Metal/Denomination: Cu Alloy Follis.
   Description: Very small, irregular and badly damaged flan. Coin in very poor condition.

Date: C3-C4 AD
References: /

3. Obj. No. 97, context 9082, pit 9080.
Obverse: Illegible – v. badly corroded. Unknown emperor (either Constans or Constantius II)
Reverse: Fallen Horseman (Type 4). Text: Illegible. Corroded.
Diameter: Max: 14mm, Min. 11mm.
Metal/Denomination: Cu Alloy Follis.
Description: Very small and badly damaged flan. Reverse is stylised, and therefore possibly a copy. Coin in poor condition.
Date: AD 350-60
References: ? copy as LRBC II, 660.

4. Obj. No. 100, context 9069
Obverse: Head r. Otherwise illegible – worn and corroded. Unknown emperor.
Reverse: 2 soldiers either side of a single standard (Gloria Exercitus type). Text: Illegible. Slightly worn.
Diameter: Max: 15mm, Min. 10mm.
Metal/Denomination: Cu Alloy Follis.
Description: Very small and badly damaged flan. Reverse is stylised, and therefore possibly a copy. Coin in poor condition.
Date: AD 335-45
References: ? copy as LRBC I, 87.

APPENDIX 6: The Geology of the Elmore Plantation site

The colluvial sequence
by Michael J Allen

Excavations revealed a colluvial footslope deposit containing a Romano-British site (Fig.12). The west-east section was described in the field and the descriptions were later augmented by more critical examination of the sequence as undisturbed monolith samples (1003 and 1004), in order to provide further interpretative statements about the sequence and occupation surface. These additional comments were recorded on the context records. Soil and sediment descriptions follow the notation given by Hodgson (1976).

Magnetic susceptibility

A magnetic susceptibility profile was created by measuring a series of 10g soil samples with a Bartington MS2B meter coupled to a MS2 coil. The results were recorded at the 1.0 sensitivity range and derived from an average of 10 readings. The buried soil (6075) produced a peak in the magnetic susceptibility profile. The readings for both colluvial horizons were relatively low, though evidence of gleying and iron staining in the lower colluvial layer (6077) was present. The basal horizon displayed suppressed magnetic susceptibility results, perhaps as a result of gleying and iron staining. The natural sands and gravels produced readings lower than all of the overlying deposits, with the exception of the lower readings in the basal stabilisation horizon.

Descriptions

0-0.22m (context 6042)	Dark yellowish brown (10YR 4/4) humic clay loam with rare medium flint gravel, moderate coarse blocky structure, abrupt smooth boundary. – TOPSOIL, PASTURE
0.22-0.54m (context 6974)	Dark yellowish brown (10YR 5/6) fine sandy clay loam, common small and medium subangular and subrounded flint gravel, weakly developed coarse subangular blocky structure, very few fine macropores, smooth clear boundary. – UPPER COLLUVIUM Magnetic susceptibility = 4 – 8 SI x10-8 SI/Kg (increasing with depth)
0.54-0.65m (context 6075)	Dark greyish brown (10YR 4/2) silty clay loam with fine sand, few to common small and very small flints, well developed medium subangular blocky structure, some charcoal flecks, 1% fine macropores, irregular abrupt boundary. – BURIED SOIL - STABILISATION HORIZON Magnetic susceptibility = 9 – 18 SI x10-8 SI/Kg
0.65-1.08m (context 6077)	Yellowish brown (10YR 5/4) sandy silty clay with coarse diffuse vertical mottles of dark yellowish brown (10YR 4/4) to strong brown (7.5YR 5/6), few stones and a very weakly developed very coarse blocky structure. Mottling and localised iron staining indicate localised gleying. Smooth clear boundary. – GLEYED COLLUVIAL FOOTSLOPE DEPOSIT Magnetic susceptibility = 4 – 6 SI x10-8 SI/Kg
1.08-1.27m (context 6078)	Dense yellowish brown (10YR 5/4) firm sandy silty clay with close well-defined medium ferruginous gley mottles of strong brown (7.5YR 5/8) to yellowish red (5YR 5/6). Dense deposit with moderately well

	developed medium subangular structure with some very fine interpedal ferruginous coatings and 0.5% fine macropores. – TRUNCATED BURIED SOIL OR STABILISATION HORIZON Magnetic susceptibility = 2 – 4 SI x10-8 SI/Kg
1.27-1.40+m	Yellowish brown (10YR 5/6) firm sandy loam to sandy clay loam with abundant small to medium flint gravel and rare large flint gravel, ferruginous (orangey) mottles and manganese staining. – NATURAL GRAVELS AND DRIFT GEOLOGY Magnetic susceptibility = 5 – 6 SI x10-8 SI/Kg

Interpretative comments

A gleyed stabilisation horizon or truncated buried soil (6078) was present over the natural sandy gravels (6079) at the foot of the steep gravel terrace escarpment. This horizon was moderately well developed with evidence of local, possibly seasonal waterlogging. Some of the gleying was post-burial (interpedal iron coatings due to iron mobilisation from upper horizons) indicating continued, if not increased, localised soil waterlogging.

This basal horizon was sealed by massive colluvial deposits (6077) derived from the sandy soils on the gravel escarpment which are highly susceptible to erosion. These showed extensive evidence of ground water gleying and rare localised manganese staining, which may have been confused with charcoal flecks in the field. The massive and sandy nature of this deposit may suggest relatively rapid, though not catastrophic, accumulation, possibly occurring over several centuries rather than several millennia.

Sealing the main colluvium was a well-developed structured buried soil horizon (6075) about 0.15m thick, containing a number of pedological features. This represents a stabilisation horizon and local cessation, or decrease in rate, of colluvial deposition, upon which Romano-British occupation was recorded. It was, however, sealed by further deposits (6074), probably of colluvial origin. It is perhaps significant that no gleying was evident in the Romano-British buried soil or the colluvial deposit above it.

The presence of Holocene colluvium indicates destabilisation of the local vegetation, and erosion was certainly accelerated by human activity. Colluvial deposits are often, therefore, taken as evidence of tillage (Bell 1983; Allen 1992). Here, however, that seems unlikely as the sandy soils are highly prone to erosion. It is more likely that the footslope deposits of hillwash recorded at Elmore Plantation are a result of long-term human activity in the vicinity, but this may simply be the removal of trees from the slope. This activity may be prehistoric in date, but could have been earlier Romano-British activity prior to the Roman-British occupation. Certainly by the time of this occupation, surface groundwater gleying is not present indicating more suitable conditions locally for permanent habitation.

Drift geology
by Michael J Allen and Sarah F Wyles

A trench at the base of the steep slope of the ridge revealed a complex sequence of drift geology and comprises:

- About 0.5 m of sands and sandy clay loams with a 0.1m band of iron staining and panning. No structures or laminations could be detected within the sands, but the iron panning tended to pick out weak laminations. The deposits were well sorted and probably of fluvial or marine origin.

- Massive stonefree clays (and silts) with no laminations. Some of these may be derived from the local hillslope, but the majority is probably alluvial, possibly channel deposits.

- At the foot of the slope was a minor linear depression created by the chalk rising. Within this depression was a layer of badly preserved partially decalcified oyster shells, largely within a greensand matrix. The shells were extremely fragile, and flaking to disintegration. Cursory examination on site indicated that they had a distinctly elongate form. One particularly well preserved and thick specimen was retained for identification (see below). No other species of shells were noticed within the calcareous detritus, but a 70 litre bulk sample was taken and sieved.

The bulk sample of 70 litres from the dense layer of marine shells was sieved to recover large shells, and a smaller 1000g subsample was processed by standard methods to recover small snail shells. The coarse fractions (>4mm) of the samples were sorted and were found to contain shells only of *Ostrea* cf. *edulis*, the common flat or native marine oyster.

The shells were all very fragmented and in poor condition. They were markedly elongated, which may be indicative of a soft substrate. They were generally thick, possibly as a result of both age, reflecting the annual growth of the oysters, and a restrictive area for growth. This possibility of a constricted natural oyster bed is also shown by a proportion of the shells displaying evidence of clumping and having shell fragments attached. There was, however, no trace of any cultch or any other marine shells on these shells. The *Ostrea* shells were generally heavily infested, many to the extent of having rotten backs. In archaeological assemblages this infestation would be attributed to the boring sponge *Cliona celata* which can be indicative of the likely source of the shells.

The overlying sequence seems to be largely of fluvial/marine origin. Identification of *Ostrea edulis* is important and indicates a natural former marine inundation of geological date. The lack of other freshwater species in the bulk sample seems to confirms this. However, the absence of freshwater species which have less robust shells might be in part due to the weakly calcareous nature of the deposits which accounts for the poor preservation of the oyster shells, otherwise considered a very robust species.

APPENDIX 7: Environmental Remains from Bagnor Road

The Charred Plant Remains from Bagnor Road
by Joy Ede

A series of five samples were selected for analysis. All were processed by Wessex Archaeology and were ten litres in size except for one sample (10048) from the corn-drier, which was of only 5 litres. In Table 15 the results of this small sample have been doubled to facilitate direct comparison with other samples. Terminology about crop processing stages follows Hillman 1984. The flots from two samples were large (samples 10033, 10047) and were subsampled. The flot from sample 10047 was subsampled and one quarter was initially identified, with a second fraction then identified to ensure consistency. In the rich sample 10033 only one eighth of the flot was identified, and a further one eighth scanned to ensure consistency. The results from the flots were multiplied (x2 and x8) to equate with the total sample and added to that from the residue. The remaining quantity of flot was scanned for any species not identified in the sub-samples. None were seen. Further, it is interesting to note that in the samples from the stokehole of the corn drier, between 40% and 45% of the total identified remains were extracted from the residues (results in archive) rather than present in the flot. Clearly, this material had not floated as easily as other samples from this site; this may be a function of the extreme burning this assemblage was subjected to.

Corn-drier 9104 (Fig. 14)
Four samples were analysed: one from the drying floor (context 9150, sample 10047), one in the flue (context 9149, sample 10048), and two from different levels within the stoke hole (contexts 9118, 9121, samples 10033 and 10040).

Results
Stoke Hole: The sample from the lowest fill (context 9121) contained a lot of chaff and a relatively high proportion of weed seeds. Identifiable grain was mainly wheat with a very small component of barley and oats. Although higher quantities of charred material were recovered from context 9118, a similar range and proportion of material was represented.

Most of the grain was identified as wheat (*Triticum* sp.), probably mainly spelt (*T. spelta*) but possibly including emmer (*T. dicoccum*), as these are indistinguishable from grain morphology alone. The small amount of barley (*Hordeum* sp.) and oat (*Avena* sp.) grains may have been left over from the previous use/firings of the drier, but more probably these, especially the oats, are accidental inclusions, perhaps representing a weedy component within the wheat crop. A number of grains were not well enough preserved to be identified and this could mask a higher presence of barley than indicated by the identified grains.

The chaff was largely wheat glume bases (of which seven were positively identified as spelt), and wheat spikelet forks and rachis fragments. A very small component of barley chaff (including one barley internode from a compact head) and some oat awn fragments were present.

Both samples contained similar assemblages of weeds. Significantly, however, the sample from context 9118 produced a high number of mineral replaced (mineralised) corn cockle (*Agrostemma githago*) seeds, all of which were recovered from residue. It also did not contain corn gromwell (*Lithospermum arvense*), scentless mayweed (*Tripleurospermum arvense*) nor rushes (Cyperaceae).

Overall, a relatively wide range of weeds were present including corn cockle (*Agrostemma githago*), corn gromwell (*Lithospermum arvense*), cleavers etc. (*Galium* sp), brome grass (*Bromus* sp), poppy (*Papaver* sp.), stinking mayweed (*Anthemis cotula*), scentless mayweed (*Tripleurospermum inodorum*) and a legume which may be a clover (*Trifolium* sp. type). Together these account for up to 32% of the total weed seed assemblages, all of which may have been incorporated accidentally during harvest of the cereal crops.

Other small seeds present do not come from plants with seed heads that may stay intact on harvesting. These include eyebright/red rattle (*Euphrasia/Odontites* sp), docks and sorrels (*Rumex* sp.), small grasses (Gramineae), small round seeded leguminous species (Leguminosae), and sedges of the spike-rush family (Cyperaceae). Small seeds account for over 60% of the weed seed assemblage, half of which may have been headed and therefore are from either the final hand cleaning of the crop, or more likely were separated by coarse sieving. As hand cleaning is indicated by the large seeds of *Agrostemma githago* and *Lithospermum arvense*, either explanation is plausible. The other small seeds indicate that fine sieving or winnowing debris is also present.

Flue: The small sample (5 litres) from the flue produced a relatively small amount of weed seeds and the carbonised plant remains were mainly chaff.

By far the largest component was chaff, comprised entirely of wheat glume bases and spikelet forks. Very low numbers of grain were recovered: barley (4 grains) wheat (3 grains) and unidentified (4 grains). Very few weed seeds were recovered, too few to interpret alone.

The drying end of the feature: One sample from the floor (context 9150) was examined.

Most of the identifiable grain was wheat (*c.* 78%) with a significant proportion of barley (almost 20%), but a high proportion remained unidentified. Some of the wheat grains were sprouted (12.7%). There was a very low component of oats. The combination of barley and wheat grains could suggest that the crop itself was a mixture of the two. Alternatively, the drier may have been used for two different crops at different times. A third explanation may be that the barley could have been a weedy component of a wheat crop, which was allowed to grow on to add bulk to the harvested grain.

The chaff was solely wheat and included both glume bases and spikelet forks. A single spikelet fork represents the presence of two grains, and a glume base corresponds to a single grain. From this we can calculate that the wheat chaff present equates to 193 grains. A total of 142 grains was definitely identified, but a large component of wheat grains might be expected in the unidentified grain. If the

proportions of identified grain are representative of the unidentified grain, then 4/5 of the total (163) = 130. The wheat chaff therefore represents less than the probable number of wheat grains in this sample. Chaff will be less likely to survive burning than grain; although the glume bases and spikelet forks are dense they have a proportionally larger surface area subjected to heat. This sample could, therefore, indicate the drying of wheat grain spikelets, this being the usual way to store wheat in damp climates as suggested by Hillman (1984).

A high number of weed seeds were found together with the cereal remains, and in particular small round legumes (possibly *Vicia* sp., vetches) which comprise up to 46% of the weed seeds recorded. Vetches are known to have been a crop in their own right, but are also common weeds of arable crops and this may account for their presence here.

Function and arable economy
The evidence from the floor and drying end of the feature indicates its use for treating wheat grain in spikelet form, probably before fine sieving had occurred (as suggested by Hillman (1984, 5, figure 3)). Some of the grain had sprouted, probably accidentally in storage: the proportion sprouting is too low to indicate malting.

The remains from the flue were mainly chaff with some grain and weed seeds, and probably represent general debris. The higher component of the very light chaff element may have been blown through the flue from the stokehole by the draught of hot air.

Both samples from the stokehole were very similar and the higher density of carbonised remains per litre in context 9118 probably represents longer use of the drier than was the case in the lowest layer. The samples were made up predominantly of fuel comprising chaff and seeds from the cleaning of cereal crops. These fuel components came from at least two different stages in crop processing: fine sieving or winnowing to separate grain from chaff and small weed seeds; and hand cleaning to remove the larger *Agrostemma githago* and *Lithospermum arvense* seeds, and flower heads of poppy, daisy-like *Agrostemma githago* and *Tripleurospermum inodorum* and the clover-like species. Although the headed species here might suggest the presence of debris from a third crop processing stage, coarse sieving (Hillman's stage 6 which may occur after storage of grain in spikelets), the lack of culm nodes is surprising and may indicate that small seeds were already free from their heads. This again indicates sieving and/or winnowing of free grain, and suggests that coarsely-sieved debris is not present here.

Weed seeds and chaff from crop processing debris were used to fuel the drier because they do not create smoke, which would alter the flavour of the grain. However, this sample also contained a moderate amount of charcoal in the flot, suggesting that wood was also used as fuel. The grain present may have been accidentally dropped into the stokehole as the drier was loaded or emptied, or it may be a component of the fuel, although the grains are fully developed.

It is notable that some *A. githago* seeds have been mineralised. Such mineral replacement (calcium phosphates) tends to indicate a high level of organic matter and the availability of calcium carbonate, possibly in calcareous soils (Green 1979) as is

demonstrated at East Chisenbury (McOmish 1996; Carruthers pers. comm), and to a lesser extent at Potterne (Allen in press; Carruthers in press). The corn drier itself was built of limey material (chalk) while the soils may well have been chalky having partly derived from the downland. Mineralised seeds are often found in cesspits, but it seems highly unlikely that faecal material would be found in this situation. The presence of these seeds must be due to particular conditions of the soil and the organic matter in this feature.

Anthemis cotula and the seeds of the Cyperaceae family typically indicate heavier or damper soils. The rest are commonly found weeds of arable and disturbed places such as field margins or areas around the settlement. *Agrostemma githago* and *Lithospermum arvense* are firmly associated with arable crops.

Reaping of just the cereal ears was probably not carried out because there are too many weed seeds in the processing debris. However, no ground growing plants were identified in the weed seed assemblage, suggesting reaping higher up the stalks. It would be particularly desirable to avoid *Agrostemma githago* plants during the harvest, as the seeds are time consuming to remove from the grain and give the resulting food an unpleasant taste.

Three different crops might have been dried in this structure - wheat (probably spelt), barley and vetches. These crops were grown on fields with some element of damp soil (indicated by the presence of *Anthemis cotula* in the fuel). This could have occurred locally as the site is situated in a river valley on alluvium. However there are no plant remains that absolutely point to cereal growing as part of the site's economy. Wheat in spikelet form could have been transported from elsewhere, as could the other crops. Only when large amounts of culm nodes, straw fragments and other coarser components are present in a crop-processing context can one be quite sure that growing crops occurred as part of the site economy.

Oats were a weed but did not cause a problem. Barley may also have been a weed in wheat crops but one sample (context 9150, sample 10047) suggested that it was also a crop in its own right.

Pit 9080

One sample from context 9082 was analysed; it contained many cereal grains and chaff, but few weed seeds.

The grain was a mixture of burnt wheat and barley. These either represent a single burning episode (for example, if they were both used in a food dish), or originate from more than one source. The presence of chaff associated with the wheat grains may in part indicate a burning episode from the drying or parching of spikelets in the drier. However, there is too much chaff for the number of grains present, so the sample probably also contains an element of burnt crop processing waste (chaff and weed seeds) used as fuel for a domestic hearth or a corn drier.

The weed seed assemblage is similar to that in the corn drier, and contained indicators of arable and disturbed ground, with an element of damp ground. The proportion of damp ground indicator species (*Anthemis cotula* and Cyperaceae) is larger than in the corn drier, with almost one half of the assemblage coming from this type of habitat.

This could indicate a higher use of damper ground for arable cultivation at this period. However, such an interpretation could only be sustained with a much higher number of samples from a wider variety of contexts.

Discussion

The pit contains dumped burnt crop processing material, possibly with an element of clean grain. However, the wheat grain, at least, could originate from the burning of spikelets in the same episode that provided much of the chaff and weed seeds. Even if the wheat represents one crop processing episode, at least one other episode of activity is necessary to account for the high percentage of barley grains, because barley and wheat are unlikely to have been processed together.

The pit belongs to an earlier period than the corn drier, so no direct comparison of the two can be made. There is some indication, however, that damper areas were being cultivated in this earlier period. Such a pattern was seen at Ashville Trading Estate, Abingdon (Jones 1978, 110), but this hypothesis cannot be sustained from the few samples available.

Table 15: Bagnor Road - plant remains analysis

(spr = sprouted)

	Feature	Corndrier				
		Stokehole		flue	floor	Pit 9080
	Context	9121	9118	9149	9150	9082
	Sample	10040	10033	10048	10047	10044
	Sample size (litres)	10 L	10 L	5 L (x2)	10 L	10 L
			x8 + res		x2 + res	
Triticum cf. *spelta* glume base	cf. spelt wheat	7	-	-	2	4
T. cf. *spelta* spikelet fork	cf. spelt wheat	-	-	-	-	2
T. cf.*dicoccum* glume base	cf. emmer wheat	-	-	-	-	1
Triticum sp grain	wheat grain	23	21	6	145 (18 spr)	70
glume base		373	675	158	83	188
spikelet fork		-	89	42	55	-
Hordeum sp grain twisted	6-row barley grain	-	-	-	-	7
grain straight	straight barley grain	-	-	-	2	28
grain indet.	barley grain	5	1	6	20 (3 sp)	2
cf. *Hordeum* sp		2		2	10	2
Hordeum sp chaff		1	16	-	-	1
Avena sp grain	oat	1	8	-	2	-
cf. *Avena* sp		-	8	-	-	-
awn frags		-	16	-	-	-
Indet grain	cereal indetermined	40	92	8	163	89
Indet frags		++	++	+	++	-
Chaff – silicified awn frag		-	8	-	-	-
Rachis frag		-	56	14	-	-
rachis/tops indet		+	23	12	1	-
TOTAL GRAIN		**71**	**130**	**22**	**342**	**198**
TOTAL CHAFF		**381**	**883**	**226**	**141**	**196**
Papaveraceae cf. Papaver sp	cf. poppy	12	-	-	32	-
Caryophyllaceae indet.	campion family	-	-	-	2	1 frag
Agrostemma githago (carb)	corn cockle	7	4	-	28	-
A. githago capsule frag (carb)		3	1	-	-	-
A. githago (replaced)		12	103	-	-	-
Chenopodium album	fat hen	1	-	-	2	-
Atriplex sp	orache	-	-	-	2	-
Chenopodicaeae indet		-	-	-	2	-
Leguminosae - Trifolium type	clover type legume	8	16	-	-	3
Leguminosae - cf Trifolium type		-	16	-	-	-
Leguminosae - indet round	vetches etc type legume	2	-	2	205	2 frags
cf. *Alchemilla/Aphanes* sp	lady's mantle/parsley piert	-	-	-	2	-
cf. *Euphorbia* sp	cf. spurge	-	-	-	2	-
cf Umbelliferae indet	umbellifer indetermined	2	-	-	-	-
Polygonum sp	knotgrass/bistort/persicaria	1	8	-	-	-
Rumex sp	docks/sorrel	16	17	-	35	1
cf. *Rumex* sp		3	-	-	2	-
Polygonaceae			8	-	3	-
Lithospermum arvense	corn gromwell	1 silcified	-	-	21	-
Euphrasia/Odontites *sp.*	eyebright/red rattle	39	40	2	2	2
Plantago lanceolata	lanceolate plantatin		16	-	-	3
Galium sp	bedstraws	2	8	-	8	-
Anthemis cotula	stinking mayweed	4	8	-	-	1
Tripleurospermum inodorum (Schultz Bip.)	scentless mayweed	10	-	-	34+ cf 10	-
Compositae indet	daisy family indetermined	-	8	-	-	-
Cyperaceae indet	rush/spike rush family	2	-	-	-	8
cf. Cyperaceae	cf. rush/spike rush family	-	-	-	-	1
cf *Bromus* sp	cf. brome grass	1	-	-	-	-
Gramineae	grasses	11	40	2	12-	-
Gramineae culm node		-	8	-	-	-
Corylus avellana nut fragment	hazel	-	-	2	-	1
misc indet	unidentified seeds	44	32	2	39	4
misc replaced		-	32	2	-	-
TOTAL WEED SEEDS		**178**	**357**	**10**	**445**	**25**

The Charcoal from Bagnor Road
by Rowena Gale

Charcoal was selected for analysis from 3 samples from Bagnor Road (Romano-British). Samples were associated with a corn-drier and pit species identification was undertaken to indicate the type of fuel used and to provide environmental evidence.

Materials and Methods
Bulk soils samples were processed by Wessex Archaeology and the charcoal extracted from the flots and residues to 2mm by Sarah Wyles. Most samples contained relatively small fragments; those measuring >2mm in radial cross-section were prepared for examination using standard methods, see technical introduction. Where appropriate the maturity (i.e. sapwood/ heartwood) of the wood was assessed.

The results are summarised in Table 16. The anatomical structure of the charcoal was consistent with the taxa (or groups of taxa) given below. It is not usually possible to identify to species level. The anatomical similarity of some related species and/ or genera makes it difficult to distinguish between them with any certainty, e.g. members of the Pomoideae. Classification is according to Flora Europaea (Tutin, Heywood *et al.* 1964-80).

Aceraceae *Acer* sp., maple
Aquifoliaceae *Ilex* sp., holly
Betulaceae *Betula* sp., birch
Corylaceae *Corylus* sp., hazel
Fagaceae *Quercus* sp., oak

Rosaceae
Pomoideae: *Crataegus* sp., hawthorn; *Malus* sp., apple; *Pyrus* sp., pear; *Sorbus* spp., rowan, service tree and whitebeam. These genera are anatomically similar.
Prunoideae: *Prunus* spp., which includes *P.avium*, wild cherry; *P.padus*, bird cherry; *P. spinosa*, blackthorn. It is often difficult or impossible (as in this instance) to differentiate between the species from their anatomy.

Results
This possible settlement or small homestead was sited on a gentle slope at the bottom of the Lambourn valley. The area was comparatively damp. Charcoal was examined from a hearth and the remains of a corn-drying oven.

The sample from hearth 9107 included a few small knotty fragments of oak (*Quercus*) and hazel (*Corylus*).

Stokehole 9123 and flue 9145, of a partially collapsed corn-drying oven or malting kiln, contained charcoal still in situ from its final (and possibly only) firing. Samples from these contexts included a range of woods used as fuel including: maple (*Acer*), hazel (*Corylus*), holly (*Ilex*), blackthorn/ cherry (*Prunus*), hawthorn etc (Pomoideae), and oak (*Quercus*) (narrow roundwood and heartwood). These relatively close-grained, dense woods are capable of providing a hot, brisk fire and may, therefore, have been sought out in favour of less efficient woods.

The local environment would almost certainly have supported a wider range of woody taxa than that represented in the fuel deposits. For example, alders (*Alnus*) and willows (*Salix*) probably grew in the damp valley bottom associated with the river. Other large trees growing here may have included ash (*Fraxinus*), poplar (*Populus*) and elm (*Ulmus*). With the exception of ash, wood from these taxa tends to smoulder and burn slowly.

Table 16: Bagnor Road: charcoal

Key: *Frax; Fraxinus*; Pom: Pomoideae; *Sam: Sambucus*
r: roundwood (diameter <20mm); s: sapwood; h: heartwood.
The number of fragments identified is indicated.

Feature	context	sample	**Acer**	**Alnus**	*Betula*	*Corylus*	**Frax**	**Ilex**	Pom	*Prunus*	*Quercus*	**Sam**
Hearth 9107	9103	10031	-	-	-	1	-	-	-	-	21	-
Corndrier 9123/9104	9093	10032	-	-	-	-	-	1	3	3	9rsh	-
Corndrier 9145/9104	9149	10048	1	-	-	1	-	-	-	3	2	-

APPENDIX 8: The Medieval Finds from Enborne Street, Wheatlands Lane and Hills Pightle

ENBORNE STREET AND WHEATLANDS LANE: THE FINDS

The Medieval Pottery
by Lorraine Mepham

Introduction
The total quantities of medieval pottery recovered from Enborne Street and Wheatlands Lane amount to 5297 sherds (66,016 g) and 1179 sherds (14,805 g) respectively. These totals include pottery from all stages of work on the bypass route. The two assemblages will be considered together in this report, since they share many characteristics, and the evidence that both represent largely the waste products of pottery manufacture will be discussed.

On both sites the pottery derived from a number of features, ranging from relatively deep pits to shallow and ephemeral cuts (above); it was apparent that, at Enborne Street at least, severe truncation had taken place, resulting in the disturbance and loss of a proportion of the original assemblage. Pottery was also collected in some quantity from unstratified contexts at both sites.

In both cases, the pottery recovered presented a visually homogeneous appearance. Sherds are overwhelmingly in variants of a single chalk-/flint-tempered fabric, with a smaller proportion of flint-tempered sherds, and occur in a limited range of vessel forms. Both assemblages are in markedly poor condition; surfaces and broken edges are severely abraded, calcareous inclusions have leached or burnt out, leaving pitted and vesicular surfaces, and the sherds have the soft, powdery texture of underfired or overfired pottery. Despite several large features groups, the level of reconstructability is low; although some complete profiles could be assembled the general condition of the material hampered such attempts.

The quantities of pottery recovered from the two sites, combined with its visual homogeneity and the general appearance of misfiring, suggest that both assemblages resulted from the discard of waste material from pottery manufacture, although the archaeological evidence is more ambiguous. The two main fabrics identified form part of a 'ware tradition' with a wide distribution across west Berkshire, north Hampshire and north-east Wiltshire. No production centres for this ware tradition have previously been located, although one putative centre in the Savernake Forest in north-east Wiltshire has been suggested (Vince 1981, 312; 1997).

The aims of the analysis of the pottery assemblages have therefore been three-fold:
- to characterise the range of wares being produced at these putative kilns
- to examine the implications of this discovery on the existing view of medieval pottery production and distribution in Berkshire and the surrounding region
- to place the kilns within the regional ceramic context of chalk-/flint-tempered and flint-tempered wares in central southern England.

Ceramic Background

Despite the recent publication of a number of key ceramic assemblages from the county, our understanding of medieval pottery production and distribution in the county is still far from complete, although broad trends have been identified, first in the pioneering work of Jope (1947) and recently updated for the west of the county by Vince (1997). It is worth pointing out first of all the limitations of the existing data. Evidence for pottery production in the county is extremely scarce, as is the number of sites producing well stratified assemblages of any size.

Until the present excavations, the only known production sites in Berkshire were the 13th and 15th/16th century kiln group at Camley Gardens, Maidenhead (Pike 1965-6) and the early 13th century kiln at Ashampstead at the foot of the Berkshire Downs (Mepham and Heaton 1995), although there are major production centres to the south-east on the Surrey/Hampshire border (Pearce and Vince 1988), and to the south-west at Laverstock outside Salisbury (Musty *et al.* 1969). Other industries are known in south Oxfordshire, such as Henley and Nettlebed (Mellor 1994, 88, 143). Stratified urban assemblages of moderate size are known from Reading (Moorhouse 1972; Underwood 1997), Windsor (Mepham 1993) and Newbury (Vince 1997; Hawkes 1997), although material from Maidenhead remains unpublished.

Pottery from these major sites provides the basic framework of the medieval ceramic sequence in the county, and serves to demonstrate that on ceramic grounds, the county may be broadly divided in two. Developments in the east of the county are largely independent of those in the west and owe more to influences from the east and south-east. At Windsor, for example, pottery from the local Camley Gardens sandy ware industry is augmented from at least the early 13th century by shelly wares, possibly from the London area (Mepham 1993), and it is apparent that the Camley Gardens industry, whose distribution covers most of east Berkshire as far west as Reading, faced increasing competition from the 14th century from the production centre of the Surrey/Hampshire border.

Meanwhile in west Berkshire, Newbury provides the key ceramic assemblage (Vince 1997; Hawkes 1997). Three major fabric groups have been defined, based on dominant inclusion type: group A (flint-tempered wares), group B (limestone-/flint-tempered wares) and group C (sandy wares). Group A wares are found from the earliest medieval contexts in the town (?10th/11th century) and this occurrence, combined with evidence from the early 11th century fortification of Silbury Hill, demonstrates a pre-Conquest origin for these wares (Vince 1997, 64). These wares were supplemented and later eclipsed by the group B wares which appear in the late 11th century, but do not occur in any quantity until the late 12th century. Both ware groups occur in similar vessel forms, mainly jars and bowls/dishes with some pitchers. Alongside these two groups run the sandy wares of Group C, occurring in smaller quantities from the late 11th century right through the medieval period. These sandy wares were also used for jars and bowls, but were used primarily for serving wares: tripod pitchers in the 12th century and later for a variety of glazed and decorated jugs (*ibid.*).

The distribution of group A wares extends from north Hampshire through west Berkshire to north-east Wiltshire, with a marked clustering along the Kennet Valley (*ibid.*, fig. 28). The similar, though wider, distribution of group B wares, again centred

on the Kennet Valley (*ibid.*, fig. 29), combined with the similarity of vessel forms between the two groups, has led to the obvious conclusion that both types had a similar source or source area. One possibility has been proposed in the Savernake Forest in Wiltshire, where the place name *Crockerstrope* is recorded in 1257 in the parish of Mildenhall (*ibid.*, 65), but the large size of the distribution area (approximately 80km east to west by approximately 65km north to south) in comparison to the average size of a coarseware industry (between 15 and 50km in diameter: see Vince 1981, 313) would suggest that more than one source was manufacturing these wares.

The group C sandy wares represent a more disparate and less easily characterised tradition, since sandy wares are found widely across east Berkshire, as we have seen, throughout west Berkshire and into south Oxfordshire (Vince 1981, fig. 21:1; Mellor 1994, 71-80), and it is apparent that they represent the products of more than one source. The Camley Gardens products do not seem to have penetrated west Berkshire; they have not been positively identified west of Reading, and are distinct, at least in vessel form, from the Newbury wares. The latter are much closer to the products of the Ashampstead industry, which was in operation at least from the late 12th century (Mepham and Heaton 1995), although the full date range and extent of production there is as yet unknown.

From the mid 14th century the expansion of the Surrey/Hampshire border industry is apparent in Newbury as it is in the east of the county. Group A wares are by this time almost eclipsed, although group B wares continued in use up to the late 15th century.

Methods

The medieval pottery has been analysed following the standard Wessex Archaeology recording system for pottery (Morris 1992), although detailed fabric analysis has not been carried out since the assemblage, with the exception of a very small proportion of sherds, is considered to represent just two fabric types. It is, however, acknowledged that there is variation within these fabrics, for example in the frequency and size of inclusions, and account will be taken of this in the ensuing descriptions and discussion. Fabric types have been allocated numbers within the Wessex Archaeology 'established ware' series (group E fabrics) where appropriate; others are defined on the basis of dominant inclusion type, ie. group Q (sandy).

Type series have been created for overall vessel forms, and for rim profile variants within each form. The definition of vessel forms and component parts (rims, bases, etc) follows nationally recommended nomenclature (MPRG 1998). Rim diameters and percentages have been recorded, to allow the calculation of EVEs (estimated vessel equivalents). Pottery has been quantified by context, including details of individual vessel form/rim form, vessel size, surface treatment, decoration and manufacturing technique. Pottery from unstratified contexts has been examined in slightly less detail, in that vessel forms have been grouped and recorded by rim percentage, without the fine detail of rim profiles.

Petrological analysis

In order to fulfil the third aim of this analysis as stated above, namely to examine the 'ware tradition' of the chalk-/flint-tempered wares, as exemplified by the products of these putative kilns, within the regional context, a series of fabric samples were

selected for petrological analysis. Samples of chalk-/flint-tempered fabrics (perceived to constitute a more geologically distinctive group of fabrics than the purely flint-tempered examples) were taken from Enborne Street, as well as selected sites in west Berkshire and beyond: Cheap Street, Newbury and Kintbury in west Berkshire, Devizes in north-east Wiltshire and Brighton Hill South near Basingstoke in north Hampshire.

The petrological analysis was carried out by Dr. David Williams, University of Southampton. His full report is held in the archive, and is summarised here. The results of the analysis were inconclusive. In thin section, there is a certain degree of homogeneity between the samples from Enborne Street and Cheap Street, Newbury in terms of the range and size of non-plastic inclusions (in this case quartz and flint). None of these three samples in thin section were seen to contain the limestone (?chalk) present in the samples from Kintbury and Brighton Hill South, but this may have been contained in the sub-rounded voids seen in the hand-specimens, in which case all five samples show a general similarity in fabric. The mineralogical association of quartz, flint and limestone (?chalk) seems to occur rather frequently in medieval pottery from the Newbury region, which suggests that many of the clays of this area are not lithologically variable. However, the sherd from Devizes does stand out as being different by virtue of a non-clean clay matrix, lack of flint and relatively high content of shell.

The kiln wares: fabrics

The overwhelmingly dominant fabric from both sites is a chalk-/flint-tempered fabric which falls into the range of Newbury group B wares, as discussed above. The fabric can be described as follows:

E442 A moderately coarse clay matrix containing a sparse to moderate amount of irregular voids <3 mm, representing leached/burnt out calcareous (chalk) inclusions (in a very small proportion of sherds these inclusions survive); rare to sparse subangular patinated flint <4 mm; sparse to common, subrounded quartz grains <1 mm; rare iron oxides and carbonaceous material.

The range of colouring is great and reflects a range of firing conditions: sherds vary from completely oxidised (buff/orange/red) to completely unoxidised (dark grey), although when more complete profiles are present it is apparent that it is rare for a single vessel to exhibit consistent firing throughout.

The fabric is generally soft (ie. can be scratched with a fingernail), although some examples, generally those which are in better condition and do not have the appearance of kiln waste, are harder.

Severe abrasion has removed much of the evidence for surface treatment, but it appears that the irregularities of the inclusions within the clay fabric were masked, and the surfaces smoothed, with applications of a surface slip or slurry, which appears as a thin 'skin', usually severely laminated.

Vince identified three specific fabric types within the overall limestone-/flint-tempered group at Bartholomew Street in Newbury (1997, 51); the fabric described here as E442 covers the range of variation encompassed by two of these (fabrics 4 and 39), the distinction being based on the coarseness of the limestone inclusions (<1 mm in fabric 39, larger in fabric 4). This distinction is hard to sustain, and no such subdivision has been attempted here. It may be noted also that the original subdivision of the same ware in south Oxford (Haldon 1977) into fabrics AJ (more flint than

limestone) and AQ (more limestone than flint) has now been superseded; both are now considered together (along with the flint-tempered fabrics of Vince's group A, for which see below) as 'early to late medieval east Wiltshire ware' (OXAQ: see Mellor 1994, 100-106). At the nearby site at Cheap Street, Hawkes attempted an even finer subdivision of the group B wares into 12 fabric types according to the density and size of flint and chalk inclusions, but noted that no significant chronological or other trends could be observed (1997, 118). At Faccombe Netherton in north Hampshire, the chalk-/flint-tempered wares are included within Fairbrother's fabric group 1, and fabric E442 as defined here appears closest to fabric A within the latter group (1990, 280).

Occurring in smaller but still significant quantities at both sites is a sandy, flint-gritted fabric which falls into the range of Newbury group A wares as defined by Vince (1997). This may be described as follows:

E441 A moderately coarse clay matrix containing sparse to moderate, subangular, patinated flint <4 mm; moderate to common, subrounded quartz grains <1 mm; rare to sparse iron oxides and carbonaceous material.

Fabric hardness and range of colouring is as described for fabric E442, and there are similar traces of a surface slip or slurry, applied to mask the coarse inclusions.

Vince's group A wares as defined at Newbury consisted of five fabric types, all of which contained the same inclusions but in differing proportions (1997, 46). No distinction has been made here between these fabric variants. As noted above, the flint-tempered fabrics of group A are grouped with the chalk-/flint-tempered wares of group B in south Oxforshire as 'early to late medieval east Wiltshire ware' (OXAQ). At Faccombe Netherton the only flint-tempered fabric without chalk is fabric P, although examples comparable to E441 may also occur within fabric D (Fairbrother 1990). Fabric totals for E441 and E442 by site are presented in Table 17.

Table 17: Enborne Street and Wheatlands Lane - pottery fabric totals

Fabric	ENBORNE STREET			WHEATLANDS LANE			TOTAL		
	No.	Wt.(g)	% of total	No.	Wt.(g)	% of total	No.	Wt.(g)	% of total
E442	5056	61861	93.7	809	9044	61.1	5865	70905	87.7
E441	180	3177	4.8	332	5227	35.3	512	8404	10.4
Q400	27	431	0.7	30	314	2.1	57	745	0.9
Q401	12	202	0.3	-	-	-	12	202	0.2
Q402	18	139	0.2	-	-	-	18	139	0.2
Q403	4	206	0.3	7	158	1.1	11	364	0.5
Q404	-	-	-	1	62	0.4	1	62	0.1
Q405	*	*		-	-	-			
Total	**5297**	**66016**	-	**1179**	**14805**	-	**6476**	**80821**	-

The kiln wares: forms

All of the vessel forms occurring in this fabric type are handmade and unglazed. A type series has been constructed for the vessel forms consisting of seven forms and one miscellaneous category:

1. Necked jars with rims thickened externally and sometimes internally
2. Smaller, rounded jars with simple everted rims
3. Dishes or shallow bowls with inturned rims

4. Bowls with out-turned necks and rims thickened externally and sometimes internally, as for the necked jars
5. Cauldron with tall tripod feet and sharply angled handles.
6. Pitchers or jugs, strap-handled, of unknown form
7. Curfews

Table 18 gives the overall number of rims, the number of measurable rims and the EVEs (Estimated Vessel Equivalents) for each type for the two sites. Within types 1, 3 and 4, an attempt was made to construct a type series for all rim variants (too few rims were encountered in types 2, 5, 6 and 7 to make this process viable). This resulted in the definition of 15, 12 and 6 rim variants respectively within types 1, 3 and 4. These are not presented in full here for the simple reason that the type series thus created was not felt to be valid, in the sense that the variants defined do not appear to be discrete and well-defined types but rather represent arbitrary divisions within a continuous range of variation. Certainly the attempt to construct a similar rim type series for Newbury (Cheap Street) revealed no significant chronological trends (Hawkes 1997, tables 19, 20).

Necked jars (Fig. 21, 3-16; 22, 17-26)
These are generally described in the literature as 'cooking pots' (see for example Vince 1997, 46, 52). The definition as 'jars' here follows recommended nomenclature (MPRG 1998, form 4.1), to avoid a functional connotation where none is implied. These were almost certainly multi-purpose vessels, used (and re-used) variously for storage, cooking, perhaps as chamberpots (see Moorhouse 1986; Fairbrother 1990, 328).

The basic profile of these jars is rounded or shouldered (MPRG 1998, forms 4.1.7, 4.1.8 respectively), with a sagging base and thickened rim on an upright or flared neck. The neck/body angle can be quite sharply defined, or more smoothly curving. Body wall thickness varies; the thicker examples tend to be more evenly finished, while the thinner vessels are more irregular.

Rim diameters range from 120 mm to 400 mm, with the majority falling between 220 mm and 280 mm (119 out of a total of 166 measurable rims). Only one jar has a complete reconstructable profile (Fig. 21, 13); the height of this vessel is 370 mm, and the rim diameter 330 mm.

Rims are generally thickened in some way. The simplest examples have a slightly thickened, simple rim (eg. Fig. 22, 22 and 26); more elaborate examples are more noticeably thickened internally and/or externally, giving a 'T'-shaped, hooked, rounded or squared profile (eg. Fig. 21, 9 and 11, 22, 19).

Decoration on these vessels is rare, and is restricted to thumbing around the rim on vessels in both E442 and (more commonly) E441 (eg. Fig. 21, 10 and 11; 22, 21-6) and, but only on jars in E442, impressed 'dimples' around the shoulder (eg. Fig. 21, 5, 7, 8, 13, 16); the incidence of either technique is low (30 and seven examples respectively).

Rounded jars (Fig. 21, 1, 2)

This form is extremely rare; only two examples were recorded at Enborne Street, and none at Wheatlands Lane. The profile is rounded, with a short, everted, simple rim, and the size is generally smaller than the necked jars. Neither of the examples are decorated. One has a measurable rim diameter (140 mm).

Dishes and shallow bowls (Fig. 23, 27-42; 24, 50- 51)
Dishes are defined here, following recommended nomenclature, as open vessels with a height of between one-third and one-seventh of their rim diameter, while bowls have a height of one-third or more of their rim diameter (MPRG 1998, forms 5.2 and 5.1 respectively). In this instance it has not always been possible to ascertain the height/rim diameter ratio, and so the classification has been left open.

The basic profile is flared or convex (*ibid.*, forms 5.1.5/5.2.5 and 5.1.4/5.2.4 respectively),with a sagging base and inturned rim. Rim variants range from a sharply angled rim inturn with no external thickening (Fig. 23, 27 and 29), through a more curving variant with external thickening to give a 'collared' effect (Fig. 23, 30 and 32), to examples that are both externally and internally thickened, to give a 'T' shape (Fig. 23, 36 and 40). One example has a deeply grooved, almost bifid rim (Fig. 23, 41).

Rim diameters range from 210-520mm, with the majority falling between 380 and 440mm (36 out of 48 measurable examples). Only two of these vessels are decorated, one with slight 'notching' around the top of the rim (Fig. 23, 28) and one with stabbing around the rim and on the underside of the base; the basal decoration on the latter is unusual but might suggest that it was actually used inverted, as a curfew (see below).

Necked bowls (Fig. 24, 43-49)
These vessels have a convex profile with a sagging base and thickened rim on a flared neck; there is a definite angle between neck and body. They have been described as 'steep-sided bowls' (Vince 1997, 50, 51). Rim variants are similar to those on the necked jars. Rim diameters range from 320-520 mm.

These are the most commonly decorated forms, with curvilinear combing around the inside of the neck, sometimes on the outside of the neck, and with occasional impressions on the top of the rim (eg. Fig. 24, 43, 47 and 49); a few examples have finger-impressed rims (eg. Fig. 24, 45).

Cauldron (Fig. 25, 52)
This form is represented by a single vessel from Enborne Street (E442). The basic form is a type 1 jar, with added tripod feet and rectangular-sectioned rod handles. Rim and handles are decorated with repeated comb-tooth impressions, and there are four applied vertical 'ribs' up each foot; the ribs are 'notched' and they are flanked by rows of stabbed dots. This vessel stands out by virtue of its elaborate decoration, a rarity amongst an almost severely plain assemblage, and it is tempting to see it as an experimental piece, or as a specially commissioned vessel (or more likely one of a batch of such vessels). Whatever the reason, the experiment was apparently not repeated, even as undecorated vessels.

Jugs (Fig. 25, 53)

These vessels have been identified largely on the basis of the presence of strap handles, since rim sherds are very scarce, although the possibility that at least some such handles may derive from curfews (see below) should not be ruled out. The term 'jug' is used here in preference to 'pitcher' (see MPRG 1998, form 3.1); the latter term has been used for vessels which are considered to fall within the 12th/early 13th century 'tripod pitcher' tradition of southern England, but is frequently extended to cover vessels of similar date where no evidence for tripod feet exists (eg. Vince 1997, 52). There is no such evidence here. Jugs from Newbury (described as 'pitchers') in chalk-/flint-tempered fabrics are large rounded vessels with pulled lips and finger-impressed strap handles, sometimes comb-decorated (Vince 1997, fig. 34, 49-54).

Curfews (Fig. 25, 55)

These vessels have been identified from strap handles with pre-firing piercings at the junction of handle and body, and from associated body sherds also with pre-firing piercing. No complete profiles were reconstructable, but it is most likely that the curfews took the form of inverted bowls of type 4 (MPRG 1998, form 8.5.1); examples are illustrated from Faccombe Netherton (Fairbrother 1990, fig. 8.47, 8.54). The decorated dish of type 3 (Fig. 23, 37: see above) should, however, be noted as another possible curfew form.

Other Vessels

Some miscellaneous rims may merely represent variants of forms already described, such as a decorated rim from a short-necked jar, perhaps of type 1 (Fig. 25, 54), and a second decorated rim probably also from a type 1 jar (Fig. 25, 61). A slightly inturned, flattened rim (Fig. 25, 59) seems to derive from a convex bowl.

Other vessels are suggested by the recovery of two straight handles, one solid (fabric E441) and one hollow (E442), probably deriving from skillets; both are decorated (Fig. 25, 56 and 57; compare Hawkes 1997, fig. 65, 40). In addition, one unusual thick-walled hollow pedestal base (E442) could be from a lamp (Fig. 25, 58).

A straight-sided vessel from Wheatlands Lane with a small rim diameter and pre-firing piercings is not paralleled in Newbury and is of uncertain function, although similar pierced vessels from west Oxfordshire are interpreted as 'fire buckets' or possibly chimney pots (Mellor 1994, fig. 12, 16, 18); the latter are, however, probably of significantly earlier date (c.12th century) than the Wheatlands Lane example.

Other fabrics and forms

Other fabrics occur in much smaller quantities and are unlikely to represent kiln products. These comprise five sandy fabrics:

Q400 Hard, moderately coarse matrix, containing common, well sorted, subangular quartz <0.25 mm; rare iron oxides; oxidised with unoxidised core (firing pale orange/pale grey); handmade.

Q401 Hard, fine matrix, containing sparse, well sorted, subangular quartz <0.25 mm; rare iron oxides; oxidised, firing white/grey; wheelthrown.

Q402 Hard, fine, slightly micaceous matrix, containing moderate, well sorted, subrounded quartz <0.5 mm; rare iron oxides; oxidised, firing mid orange; ?wheelthrown.

Q403 Hard, coarse matrix, containing common, fairly poorly sorted, subrounded quartz <1mm; 'pimply' surfaces; unoxidised; handmade.

Q404 Hard, moderately coarse matrix, containing common, well sorted, subrounded/subangular quartz <0.5 mm; both oxidised and unoxidised examples; handmade.

Q405 Hard, moderately coarse matrix, containing moderate, fairly well sorted, subangular quartz (iron-stained), <0.5 mm; rare iron oxides; oxidised, firing pale orange/salmon pink; wheelthrown.

Fabric Q405, which represents sherds of a single vessel from Enborne Street, a slip-decorated and glazed jug (Fig. 25, 65), is comparable to fine glazed wares of Brill/Boarstall type, produced in west Buckinghamshire and found widely over south Oxfordshire and central Berkshire from the late 12th century (Mellor 1994, fabrics OXAW, OXAM). Fabric Q401 again consists largely of a single decorated jug from Enborne Street (Fig. 25, 66), and is from a similar source area.

The medium coarse fabrics Q402 and Q404 compare well with pottery found at the Ashampstead kiln to the north-west of Newbury (Mepham and Heaton 1995). One internally glazed dripping dish in fabric Q404 was found at Enborne Street (Fig. 25, 67). The slightly finer-grained fabric Q400 is closer to the products of the Camley Gardens kilns at Maidenhead (Pike 1965-6), although it should be noted that such sandy wares, by virtue of their non-distinctive nature, are extremely difficult to characterise and to link to sources. The coarse 'pimply' fabric Q403 is broadly comparable to Laverstock-type coarsewares found in south-east Wiltshire and into west Berkshire (Musty *et al.* 1969; Mepham forthcoming, fabric E422a) although in the absence of diagnostic sherds attribution to source is not definite.

Table 18: Enborne Street and Wheatlands Lane: quantification of vessel forms
Nos. in brackets refer to number of measurable rims

		ENBORNE STREET		WHEATLANDS LANE		TOTAL	
Form type	Fabric	No. rims	EVEs	No. rims	EVEs	No. rims	EVEs
1: Necked jar	E442	185 (157)	18.91 - 19.80	65 (52)	4.87-5.11	250 (209)	23.78 – 24.91
	E441	18 (1)	0.27 – 0.31	32 (21)	0.91 – 1.11	50 (22)	1.18 – 1.42
2: Everted rim jar	E442	2 (1)	0.16 -0.22	-	-	2 (1)	0.16 - 0.22
3: Flared bowl	E442	86 (64)	5.21 - 5.82	20 (14)	1.06-1.20	106 (78)	6.27 – 7.02
	E441	2 (1)	0.09 – 0.11	12 (11)	0.61 – 0.68	14 (12)	0.70 – 0.79
4: Necked bowl	E442	36 (28)	1.48 - 1.56	10 (10)	0.68	46 (38)	2.16 – 2.24
	E441	2 (-)	-	-	-	2 (-)	-
5: Cauldron	E442	1 (1)	0.14	-	-	1 (1)	0.14
7: Jug	E442	1(1)	0.30	-	-	1 (1)	0.30

Pottery by context
The pottery from the kilns and associated major features is discussed below. Tables 19 and 20 give numbers of sherds and EVEs by fabric type within each feature.

Enborne Street
Pottery was recovered from both of the 'kiln' features (7004, 7054), and from the associated charcoal rich layer 7055, and these are, of course, the only pottery groups which can with a high degree of certainty be defined as resulting from on-site production. Other pottery from the site, while also likely to represent kiln waste, is less closely associated with the excavated kilns themselves.

The quantities of pottery within these kiln features, however, is low. Pit 7004 produced just seven sherds (54 g) from the basal fill (7007), three sherds (6 g) from the secondary fill (7006), and a further 49 sherds (353 g) from the upper fill (7005). All but one sherd (fabric Q400) is in fabric E442. Diagnostic sherds comprise one probable curfew handle (Fig. 25, 55) and one type 1 jar rim.

Pit 7054 was more productive, containing 109 sherds (1379 g), including four type 1 jars and one type 3 bowl. Layer 7055, which may represent the raked-out fire debris from 7054, produced 12 more sherds, including a type 1 jar rim in fabric E441 (Fig. 21, 6).

Large groups of pottery were recovered from pit group 7061. The three pits which made up this group each produced very similar material. Overall the pit group produced 1501 sherds (20,561 g), nearly all in fabric E442, although sherds of fabrics F400, Q400, Q401 and Q403 are also present. Vessel forms represented comprise type 1 jars (Fig. 21, 3-5, 7, 12 and 15), bowls of types 3 (Fig. 23, 28) and 4 (Fig. 24, 43), a cauldron (Fig. 25, 52), a possible curfew (comb-decorated body sherd with pre-firing piercing) and a possible pitcher (comb-decorated neck sherd). In addition, there is one internally glazed dripping dish in fabric Q404 (Fig. 25, 67), and a slip-decorated jug in Brill/Boarstall type fabric Q401 (Fig. 25, 65).

A second group of three intercutting pits (7021, 7024, 7027) produced smaller quantities of pottery (218 sherds: 1994 g), almost all in fabric E442, with a handful of sherds in fabric E441, Q400 and Q402. Vessel forms comprise type 1 jars (Fig. 21, 16) and type 3 bowls (Fig. 23, 34).

Pottery was also recovered from ditch 7017 and gullies 7042, 7040 and 7033, a total of 1876 sherds (20,292 g). With the exception of six sherds in fabric E441 from gully 7033, and one sherd in fabric Q400 from ditch 7017, all of the pottery from these linear features was in fabric E442. Ditch 7017 produced jars of type 1 (Fig. 21, 13), type 2 (Fig. 21, 1) and dishes/bowls of type 3 (Fig. 23, 27, 30 and 31), as well as a possible lamp base (Fig. 25, 58). The largest quantities, however, derived from gully 7033, where a dense deposit of pottery (1723 sherds) was recovered from a 2 metre stretch at the northern terminal of the gully (Plate 4), including jars of type 1 (Fig. 21, 9-11), and bowls of types 3 (Fig. 23, 29 and 33) and 4.

Wheatlands Lane

Both the quantities and the range of pottery recovered from features at Wheatlands Lane are more restricted than at Enborne Street. Pottery from four features is summarised in Table 20. Most of the pottery derived from gully 6017/6019 and ditch 6022, and this was mainly in fabric E442. Vessel forms comprise jars of type 1 (Fig. 22, 17-20) and bowls of types 3 (Fig. 23, 38, 40, 41) and 4 (Fig. 24, 46-8); a possible curfew handle came from gully 6022, and other possible curfew sherds from gully 6022. Eleven sherds of fabric E441 came from gully 6017 (including a type 1 jar and a type 3 bowl), and sherds in fabric Q400 from both features, including a jug rim from gully 6017 and a possible skillet handle from gully 6022.

Pottery from ditch 6024 and tree throw 6103 consisted entirely of sherds in fabric E441; vessel forms identified comprised one type 1 jar (6103) and one type 3 bowl (6024: Fig. 24, 51).

Chronology

The overall date ranges of the flint-tempered (group A) and chalk-/flint-tempered (group B) wares at Newbury are outlined above. Both appear at least by the 11th century (flint-tempered wares may be pushed back to the 10th century) and have a

long lifespan, flint-tempered wares continuing into the 14th century, and the chalk-/flint-tempered wares to the late 15th century.

Assigning a close date to the Enborne Street/Wheatlands Lane assemblage within this range is therefore not without problems. Even the assumption that the assemblage represents a restricted timespan could be challenged on the grounds that chronological progression may be masked by the perceived visual homogeneity of the assemblage, although the weight of probability, based on both archaeological and ceramic evidence, does rest with this premise.

Three aspects of the assemblage can be examined in an attempt to narrow down the dating:

- the relative proportions of the two main fabric types
- the range and variation of the vessel forms
- the presence of other (non-local) fabrics, and associated vessel forms

The sequence at Newbury has demonstrated that there is a long period of overlap in the use of the group A and group B wares (late 12th to late 14th century). During that period the proportions of the group B wares increase at the expense of the group A wares, but not overtaking the latter in popularity until the late 13th century (Vince 1997, fig. 26). Looking at the Enborne Street and Wheatlands Lane assemblages together, the overall ratio of the chalk-/flint-tempered E442 to the flint-tempered E441 is approximately 9:1, but if the two sites are considered separately the ratio varies widely; at Enborne Street the ratio is approximately 19:1, while at Wheatlands Lane it drops to approximately 2:1. The predominance of the chalk-/flint-tempered wares would suggest a date range for both assemblages no earlier than the second half of the 13th century (and probably no later than the beginning of the 14th century), with the Wheatlands Lane assemblage possibly dating slightly earlier than Enborne Street, although some chronological overlap between the two sites is entirely possible.

Such a date range would be supported by the evidence of the vessel forms in fabrics E441 and E442, although this evidence rests rather on the less commonly occurring forms. The range is generally limited to one jar and two bowl/dish forms (types 1, 3 and 4), with other types occurring so uncommonly as to represent 'one-offs'. No typological progression was noted within any of these vessel forms at Newbury, beyond an overall increase in the size of jars from the mid 12th century and a corresponding development of the rim form from plain unthickened to thickened internally and/or externally. The type 2 jars, smaller with simpler rims, could therefore be regarded as the survival of an archaic form within the 13th century assemblage. The necked jars and flared dishes/bowls both occur at Newbury from the 12th century, with necked bowls from at least the 13th century. Jope (1947) saw a chronological progression from the flared dishes of the 12th century to the deeper (necked) bowls in the 13th century, but at Faccombe Netherton the necked bowls certainly appear earlier, from the early/mid 12th century (Fairbrother 1990, fig. 8.35), and all three major forms (necked jars, necked bowls, flared dishes/bowls) are found together throughout the sequence at least to the mid 14th century. Curfews occur from the late 12th century (*ibid.*, fig. 8.43).

The cauldron is the only vessel form which can be dated any more closely within this wide date range, and this form suggests a date range within the later 13th or early 14th

century. This form was not recognised at Newbury, unless the examples described as 'handled cooking pots' and illustrated as single-handled are in fact cauldrons (Vince 1997, fig. 32, 24). It does, however, occur at Faccombe Netherton in the late 13th century, although not in the chalk-/flint-tempered or flint-tempered fabrics (Fairbrother 1990, fig. 8.59). The form was produced at the Laverstock kilns in the mid to late 13th century (Musty *et al.* 1969, fig. 11, 48), and in Kingston-type ware in the late 13th and early 14th centuries (Pearce and Vince 1988, 46).

The presence at Enborne Street of two slip-decorated jugs of Brill/Boarstall type (Fig. 25, 65 and 66), as well as a dripping dish in sandy fabric Q404, would also confirm the later 13th century/early 14th century date range, although the other sandy wares are not sufficiently distinctive for close dating.

Conclusions and discussion

The excavations at Enborne Street and Wheatlands Lane, albeit limited in scale, have revealed important evidence for pottery production in an area where such activity had not previously been suspected.

First, it is important to stress that very little of the pottery recovered was found physically associated with the kilns themselves at Enborne Street and therefore most likely to represent on-site production. However, the quantities of pottery recovered from other contexts and features on both sites, which by their condition may be identified as kiln waste, are sufficient to postulate pottery production on some scale either on the sites or in the near vicinity.

The products of this local industry have been identified as comprising three main forms: necked jars, necked bowls and bowls/dishes with inturned rims. Other forms are present but in much smaller quantities; these forms, such as jugs and curfews, were presumably not produced on a regular basis. The cauldron is a 'one-off' whose elaborate decoration suggest that this was an experimental piece, or possibly specially commissioned.

Both sites seem to represent relatively short-lived episodes of production in the latter part of the 13th century, and there is some evidence to suggest that the site at Wheatlands Lane may have been in operation slightly earlier than Enborne Street, with some possible chronological overlap between the two sites.

Terminology

The lack of a consistent nomenclature for medieval pottery has recently been highlighted (Mellor 1994b, 13-14). Terms such as 'wares', 'ware types' and 'ware traditions' are not always rigorously defined, and 'common names' are not always consistently used. This report, it is hoped, can go some way towards a solution by proposing a definition and common name for the pottery described here which would supersede earlier nomenclature.

The flint-tempered and chalk-/flint-tempered wares which have been identified on these sites (E441 and E442 respectively) appear under different common names in the literature. First defined as 'Newbury wares' (groups A and B), since this is where they were first recognised (Vince 1981; 1997), they are also known in Oxfordshire as 'early to late medieval east Wiltshire ware' on the basis of the putative source in the

Savernake Forest (Mellor 1994). The evidence presented in this report is sufficient to indicate that the wares thus described can now be defined as a 'ware tradition', with a wide regional distribution and including pottery from more than one source. A common name of ***'Kennet Valley wares'*** is proposed for this tradition, which has a wider and more appropriate connotation than either of the two definitions above; this can be subdivided into ***'Kennet Valley flint-tempered wares'*** and ***'Kennet Valley chalk-/flint-tempered wares'***. A correlation of fabric codes and common names used for these wares in selected reports is given in Table 21.

List of illustrated vessels (Figs. 21-25)

Fig. 21

1. Jar (type 2), fabric E441. Enborne Street, PRN (Pottery Record Number) 20, context 7011, ditch 7017.
2. Jar (type 2), fabric E441. Enborne Street, PRN 316, context 7069, pit 7070.
3. Jar (type 1), fabric E442. Enborne Street, PRN 45, context 7016, pit group 7061.
4. Jar (type 1), fabric E442. Enborne Street, PRN, 102, context 7019, pit 7031.
5. Jar (type 1), impressed shoulder 'dimples', fabric E442. Enborne Street, PRN 131, context 7032, pit 7031
6. Jar (type 1), fabric E442. Enborne Street, PRN 251, context 7053, kiln 7054.
7. Jar (type 1), impressed shoulder 'dimples', fabric E442. Enborne Street, PRN 121, context 7029, pit 7030.
8. Jar (type 1), impressed, elongated shoulder 'dimples', fabric E442. Enborne Street, PRN 167, context 7034, linear 7033.
9. Jar (type 1), fabric E442. Enborne Street, PRN 172, context 7034, linear 7033.
10. Jar (type 1), impressed rim, fabric E442. Enborne Street, PRN 173, context 7034, linear 7033.
11. Jar (type 1), finger impressed rim, fabric E442. Enborne Street, PRN 181, context 7034, linear 7033.
12. Jar (type 1), fabric E442. Enborne Street, PRN 129, context 7032, pit 7031.
13. Jar (type 1), impressed shoulder 'dimples', fabric E442. Enborne Street, PRN 356, context 8083, ditch 8084.
14. Jar (type 1), fabric E442. Enborne Street, PRN 21, context 7011, ditch 7017.
15. Jar (type 1), fabric E442. Enborne Street, PRN 328, context 7072, pit 7071.
16. Jar (type 1), impressed shoulder 'dimples', fabric E442. Enborne Street, PRN 93, context 7023, pit 7024.

Fig. 22

17. Jar (type 1), fabric E442. Wheatlands Lane, PRN 462, context 6016, gully 6017.
18. Jar (type 1), fabric E442. Wheatlands Lane, PRN 626, context 6101, gully 6019.
19. Jar (type 1), fabric E442. Wheatlands Lane, PRN 488, context 6018, gully 6019.
20. Jar (type 1), fabric E442. Wheatlands Lane, PRN 596, context 6021, gully 6022.
21. Jar (type 1), finger-impressed rim, fabric E442. Wheatlands Lane, PRN 558, context 6020, topsoil.
22. Jar (type 1), finger-impressed rim, fabric E441. Wheatlands Lane, PRN 542, context 6020, topsoil.
23. Jar (type 1), finger-impressed rim, fabric E441. Wheatlands Lane, PRN 543, context 6020, topsoil.
24. Jar (type 1), finger-impressed rim, fabric E441. Wheatlands Lane, PRN 546, context 6020, topsoil.
25. Jar (type 1), finger-impressed rim, fabric E441. Wheatlands Lane, PRN 564, context 6020, topsoil.
26. Jar (type 1), finger-impressed rim, fabric E441. Wheatlands Lane, PRN 556, context 6020, topsoil.

Fig. 23

27. Dish/bowl (type 3), fabric E442. Enborne Street, PRN 28, context 7011, ditch 7017.
28. Dish/bowl (type 3), fabric E442. Enborne Street, PRN 49, context 7016, pit group 7061.
29. Dish/bowl (type 3), fabric E442. Enborne Street, PRN 159, context 7034, linear 7033.
30. Dish/bowl (type 3), fabric E442. Enborne Street, PRN 29, context 7011, ditch 7017.
31. Dish/bowl (type 3), fabric E442. Enborne Street, PRN 71, context 7018, ditch 7017.
32. Dish/bowl (type 3), fabric E442. Enborne Street, PRN 233, context 7049, ditch 7051.
33. Dish/bowl (type 3), fabric E442. Enborne Street, PRN 157, context 7034, linear 7033.
34. Dish/bowl (type 3), fabric E442. Enborne Street, PRN 94, context 7023, pit 7024.
35. Dish/bowl (type 3), fabric E442. Enborne Street, PRN 276, context 7059, ditch 7091.
36. Dish/bowl (type 3), fabric E442. Enborne Street, PRN 288, context 7060, ditch 7090.
37. Dish/bowl (type 3), stabbed decoration around top of rim and underside of base, fabric E442. Enborne Street, PRN 410, unstratified.

38. Dish/bowl (type 3), fabric E442. Wheatlands Lane, PRN 482, context 6018, gully 6019.
39. Dish/bowl (type 3), fabric E442. Wheatlands Lane, PRN 519, context 6020, topsoil.
40. Dish/bowl (type 3), fabric E442. Wheatlands Lane, PRN 597, context 6021, gully 6022.
41. Dish/bowl (type 3), fabric E442. Wheatlands Lane, PRN 486, context 6018, gully 6019.
42. Dish/bowl (type 3), fabric E441. Wheatlands Lane, PRN 571, context 6020, topsoil.

Fig. 24

43. Bowl (type 4), curvilinear combing around inside of rim and outside of body, and impressed 'maggots' around top of rim, fabric E442. Enborne Street, PRN 46/106, context 7016/7019, pit group 7061.
44. Bowl (type 4), fabric E442. Enborne Street, PRN 349, context 7079, ditches 7081/7083.
45. Bowl (type 4), finger-impressed rim, fabric E442. Enborne Street, PRN 406, unstratified.
46. Bowl (type 4), fabric E442. Wheatlands Lane, PRN 460, context 6016, gully 6017.
47. Bowl (type 4), curvilinear combing around inside and top of rim and outside of body, fabric E442. Wheatlands Lane, PRN 491, context 6018, gully 6019.
48. Bowl (type 4), fabric E442. Wheatlands Lane, PRN 495, context 6018, gully 6019.
49. Bowl (type 4), curvilinear combing around inside of rim, fabric E442. Wheatlands Lane, PRN 523, context 6020, topsoil.
50. Bowl (type 3), fabric E441. Wheatlands Lane, PRN 567, context 6020, topsoil.
51. Bowl (type 3), fabric E441. Wheatlands Lane, PRN 616, context 6023, ditch 6024.

Fig. 25

52. Cauldron, comb tooth decoration over rim and handles; applied, notched 'ribs' up each tripod foot, fabric E442. Enborne Street, PRN 142, context 7032, pit 7031.
53. Pitcher rim, stump of strap handle, fabric E442. Enborne Street, PRN 411, trench 1, unstratified
54. ?Jar rim, 'notched' decoration around top of rim, fabric E442. Enborne Street, PRN 401, trench 1, unstratified
55. Curfew handle, finger-impressed decoration along edges; pre-firing piercing at handle/body junction, fabric E442. Enborne Street, PRN 6, context 7005, kiln 7004.
56. Tubular handle, stabbed decoration in horizontal rows, fabric E442. Enborne Street, PRN 416, trench 1, unstratified
57. Solid rod handle, stabbed decoration on handle end, fabric E441. Enborne Street, PRN 421, trench 1, unstratified
58. Hollow pedestal base, fabric E442. Enborne Street, PRN 78, context 7018, ditch 7017.
59. Rim from unknown vessel, slightly inturned and flattened, fabric E442. Wheatlands Lane, PRN 501, context 6018, gully 6019.
60. Plain upright rim, multiple pre-firing piercings in body wall, fabric E442. Wheatlands Lane, PRN 443, context 6014, subsoil.
61. ?Jar rim, externally thickened, curvilinear incised decoration around neck and around top of rim, fabric E441. Wheatlands Lane, PRN 570, context 6020, topsoil.
62. Jar rim, fabric Q400. Wheatlands Lane, PRN 584, context 6020, topsoil.
63. Rod-handled jug, diagonal slashing along top of handle; fabric Q404. Wheatlands Lane, PRN 532, context 6020, topsoil.
64. Jug with collared rim, horizontal 'rilling' below collar; no handle or spout survives; fabric Q400. Wheatlands Lane, PRN 505, context 6018, gully 6019.
65. Glazed and slip-decorated jug with strap handle; diagonal slashing on handle; fabric Q405. Enborne Street, PRN 425, trench 1, unstratified.
66. Glazed and slip-decorated jug with pulled lip and stump of ?strap handle; fabric Q401. Enborne Street, PRN 52/53/145, contexts 7016/7032, pit group 7061.
67. Dripping dish. Enborne Street, PRN 115/144, contexts 7019/7032, pit 7031.

Table 19: Pottery by context (Enborne Street)

Quantification of vessel forms is by EVEs

* indicates rim(s) present but not measurable; NJ = necked jar; ERJ = everted rim jar; B/D = bowl/dish (with inturned rim); NB = necked bowl

	CHALK-/FLINT-TEMPERED WARE (E442)						FLINT-T. (E441)		Q400	Q401		Q402	Q403	
Feature	**No. sherds/ wt. (g)**	**NJ**	**ERJ**	**B/D**	**NB**	**Other forms**	**No./ wt.(g)**	**All forms**	**No./ wt.(g)**	**No./ wt.(g)**	**All forms**	**No./ wt.(g)**	**No./ wt.(g)**	**All forms**
Kiln 7004	59/413	0.09												
Kiln 7054	109/1379	0.50		*										
Burnt debris 7055	11/110	-					1/8	Necked jar (0.01-0.05)						
Pit group 7061 [7071/7031/7030]	512/5540	0.47		0.30-0.31	0.28		2/30			7/75	Jug (*)			
Pit 7071	75/1156	0.54		0.07	0.01-0.05		5/53		1/21	1/4				
Pit 7031	677/9752	2.27		0.19	0.17	Cauldron (0.14)	9/91	Necked jar (0.15)	3/14	2/112		1/4	4/206	Dripping dish (*)
Pit 7030	204/3501	0.93					3/17			1/4				
Pit 7021	32/272	*					1/6					15/120		
Pit 7024	166/1567	0.71		0.08			1/10		1/4			1/7		
Pit 7027	-											1/8		
Ditch 7017	119/1551	0.44	0.12	0.19-0.20					1/4					
Gully 7042	3/16													
Gully 7040	12/124	0.01-0.05		0.04										
Gully 7033	1735/18274	6.25-6.35		1.69-1.71	0.21		6/323							
TOTAL	**3714/43655**	**12.21-12.35**	**0.12**	**2.56-2.60**	**0.67-0.71**	**0.14**	**28/538**	**0.16-0.20**	**6/43**	**11/195**	*	**18/139**	**4/206**	*

Table 20: Pottery by context (Wheatlands Lane)

Quantification of vessel forms is by EVEs

* indicates rim(s) present but not measurable; NJ = necked jar; B/D = bowl/dish (with inturned rim); NB = necked bowl

	CHALK-/FLINT-TEMPERED WARE (E442)					FLINT-TEMPERED (E441)			Q400	
Feature	**No. sherds/ wt. (g)**	**NJ**	**B/D**	**NB**	**Other forms**	**No./ wt.(g)**	**NJ**	**B/D**	**No./ wt.(g)**	**All forms**
Gully 6017/6019	459/5168	2.33 – 2.39	0.63 – 0.67	0.18	?curfew (*)	11/120	0.10	0.06 - 0.10	8/74	jug (0.30)
Gully 6022	127/1496	0.57 – 0.61	0.27 – 0.29	-	?curfew (*)	-	-	-	1/66	?skillet (*)
Ditch 6024	-	-	-	-	-	15/386	-	0.05	-	-
?Tree throw 6103	-	-	-	-	-	6/140	0.01-0.03	-	-	-
TOTAL	**586/6664**	**2.90 – 3.00**	**0.90 – 0.96**	**0.18**	*	**34/646**	**0.11 – 0.13**	**0.11 – 0.15**	**9/140**	*

Table 21: Correlation of Kennet Valley wares with selected published reports

Recommended common name	WA code	Equivalent names/codes
Kennet Valley flint-tempered ware	E441	Newbury fabric group A (fabrics 1-3, 12, 20) (Vince 1997; Hawkes 1997) Faccombe Netherton fabric group 1 (fabric P) (Fairbrother 1990) Foxcotte fabric 2 (Matthews 1985) Brighton Hill South fabrics 21, 22 (Rees 1995) Oxon: Early to late medieval east Wiltshire ware (OXAQ) (Mellor 1994)
Kennet valley chalk-/flint-tempered ware	E442	Newbury fabric group B (fabrics 4, 19, 39) Reading fabric LSF (Underwood 1997) Faccombe Netherton fabric group 1 (fabrics A, C, D) (Fairbrother 1990) Foxcotte fabric 1 (Matthews 1985) Brighton Hill South fabric 23 (Rees 1995) Oxon: Early to late medieval east Wiltshire ware (OXAQ) (Mellor 1994)

The Ceramic Building Material
by Emma Loader

The assemblage of ceramic building material recovered from excavations at Enborne Street and Wheatlands Lane comprises 1656 fragments (17,119 g). Of this total, 85 fragments (2737g) were recovered during Stage 1, all from the topsoil during a field walking and test-pitting exercise. These fragments are all probably medieval and post medieval in date, and are not considered further here.

It should be stressed that the total quantity represents only a sample of the total observed during the Stage 3 excavation at Enborne Street.

Methods
The ceramic building material has been recorded by context, quantifying the fabric, type, distinguishing features such as presence of glaze, presence of peg holes and dimensions where possible. This data is available in the archive.

Fabrics
Though a detailed fabric analysis has not been carried out on this assemblage, broad fabric groups were identified on the basis of visual examination and are as follows:

1. Very fine sandy fabric, with rare grog or natural clay pellet inclusions, oxidised, moderately soft powdery texture, some tile fragments having >3mm flint inclusions on underside.
2. Fine fabric with well sorted fine sand inclusions, hard texture, oxidised – some with unoxidised cores.
3. Hard fabric with natural clay pellets or grog inclusions, poorly wedged, oxidised.
4. Moderately coarse sandy fabric, oxidised.

The fabric types are summarised by count of fragments and by weight in Table 22. A total of 670 fragments (51,176g, 58% of the total weight) were recovered from pits

7021, 7030 and 7061. These were quantified by overall count and weight and not by fabric – however visual examination of the fragments confirmed the presence of the above groups, and no other fabrics were identified.

Many of the fragments are soft and abraded, and the majority have been fired in oxidising conditions, though some of the harder fabrics often have an unoxidised core. There appears little to distinguish the Romano-British fabric from the medieval fabrics, as the two are both quite soft and powdery in texture. The main identifier for the Romano-British material is its form, though it is possible that some of the more fragmented pieces may also be of Romano-British date. A large amount of the medieval material appears to be underfired (24,896 g, 65% of the overall weight of identified fabrics).

Forms

The range of ceramic building material types recovered is summarised in Table 22.

Flat roof tiles

The majority of the assemblage consists of flat roof tile fragments (6492g, 72% of the total weight recovered from stratified contexts). This includes 110 (9706g) tiles with round peg holes and 156 (12,582 g) fragments with clear or light olive lead glazed splashes or strips. An additional amount of 139 fragments of flat roof tile (weight unknown) was recovered during Stage 2, and it was noted that several pieces had round peg holes or were glazed. It should be noted that only the lower part of the upper surface of a peg tile would be glazed, and therefore a true ratio of the total amount of glazed tile cannot be calculated here.

The thickness of the tiles varies between 11 mm and 13 mm.

Bricks

Seven fragments of brick (1682g, 2% of the total weight recovered from stratified contexts) were recovered from ditch 7077, one of which is glazed.

Curved tiles

Two curved tile fragments (164g) were recovered from pit 7030, and probably derive from ridge tiles.

Floor tile

One fragment of plain, unglazed floor tile was recovered (227g).

Romano-British tile

Fragments of diagnostic Roman material, such as *tegulae* and soft, poorly-wedged brick fragments were noted, though these are residual. The lack of Romano-British pottery or other finds from the site indicates these fragments may have been deliberately collected from a nearby site for reuse.

Distribution

The majority of ceramic building material was recovered from medieval features (85,566 g, 96% of the total weight) and is associated with large quantities of 13th century pottery, and is assumed to be of a similar date. The remaining ceramic

building material, 3362g (4% of the total weight from dated contexts), was recovered from post-medieval features and the subsoil.

The largest proportion of stratified ceramic building material (92% by weight) was recovered from pits, a total of 1071 fragments (82,662 g). Fragments of flat roof tile represent the bulk of the material recovered from pits, with 1066 fragments (81,881 g, 99% of the total weight recovered).

The largest quantities of ceramic building material were recovered from pits 7021, 7030 and 7061, 304 fragments (24959g) from pit 7021, 356 (30968g) from 7030 and 194 (11435g) from 7061. Only a proportion of ceramic building material was collected from pits 7030 and 7061 – as these pits were filled almost entirely with this material. It is possible that these pits were originally dug to extract clay – but were then re-used for the disposal of kiln waste. Ceramic building material was also recovered in moderate quantities from ditches, linears and two possible kilns.

Conclusions and discussion

The quantity, condition and type of ceramic building material recovered and the lack of evidence of any structure from which the fragments may have originated, indicates that some sort of production of tile may have taken place on or near the site, as well as the pottery production discussed above, although whether both activities were exactly contemporaneous is unknown. There is also evidence of two possible clamp kilns, probably for pottery production, and associated features – including subrectangular pits, which may also have been part of the pottery/tile production process. The pits were then reused for the dumping of large quantities of inferior tiles.

The products of this site, if it can be identified as a production site, are almost exclusively flat roof tiles – made by a repetitive process of moulding the tile using a sanded board and 'form'. The presence of flint inclusions on the underside of many fragments of roof tile would indicate that flint fragments were also mixed in with the sand to prevent the clay adhering to the board. Though no true 'waster' tiles were noted during the analysis, a large proportion of the tiles appeared to be poorly fired, and fragmentary. Whether the breakages occurred post- or pre-firing is impossible to ascertain, though it seems likely from the samples recovered that the large dumps of tiles within the pits and ditches are tiles which were too poorly fired to be functional. No traces of mortar attached to the tiles, or any other evidence of use was found.

The quantities of other types (curved tiles, bricks, floor tile) are so small as to represent incidental finds incorporated in with the kiln waste, and probably not made on the site.

The ceramic building material itself is not susceptible to close dating; flat roof tiles were in use generally from the 12th century and in Newbury from at least the early 13th century. By association with the pottery, however, a date range within the later 13th or early 14th century may be suggested.

Medieval ceramic tile production in the Newbury area

The use of ceramic tile as a covering for roofs was introduced into Britain by the Romans, but the craft ceased at the end of the Roman period, to be revived again in Britain in the 12th century.

The earliest medieval tiles produced drew from the technology of the Roman roof covering – using *tegula*-type flanged tiles with curved ridge tiles between them to cover the join. There is also evidence that this technique was introduced into England by tilers working on Norman castles and abbeys, for example at Reading Abbey (Cherry 1991, 194). Other techniques for tiling employed flat peg tiles and shouldered peg tiles — though the production of shouldered peg tiles soon gave way to the smaller lighter flat peg tiles and flange and curved tile, as these two methods resulted in a lighter roof. By the late 13th century, the production of tile incorporated the complete range of plain tile fittings that are available to the modern tiler today and at the beginning of the 14th century the use of smaller peg tiles was widespread in South East England (Drury, 1981 p126).

Hare notes that tile production in this region was only of a limited scale, and appears to have been first established in north Hampshire, with documented kiln sites at Highclere, and later at Odiham amongst others (Hare 1991, 89). A kiln at Highclere was established by 1290 (Dunlop 1940, 71), and kilns here continued to produce tile into the late 15th century. Before 1290, however, the Bishop of Winchester was purchasing tiles for roofing at Highclere, presumably from another local source – perhaps from Enborne Street which is just 5 km to the north.

Many of these early tile production sites were connected to ecclesiastical or lay landowners, for example the Clarendon Palace floor tile kiln, with the sole intent of supplying their own requirements. Though little documentary evidence has been found for tile production before the 14th century in the Wessex region, archaeological evidence of tile production during the 12th and 13th centuries has been found at sites in Southampton, London, Reading and Battle (Hare 1991, 88; Cherry 1991, 194).

Evidence for flat roof tile production in the Newbury area is limited. Tile kilns are recorded at Great Bedwyn to the west of Newbury (Eames 1985, 4), though this relates to decorated floor tile production; and documentary evidence shows that decorated tiles were purchased at Newbury for Winchester College (Norton 1976). Ambiguous evidence for tile production has also been found at both Bartholomew Street and Cheap Street, where a small number of peg tile 'wasters' were recovered (Vince *et al.* 1997, 68, 129); the evidence is inconclusive since tile waste was frequently sold (Drury and Pratt 1975, 156-7). The evidence from Enborne Street and Wheatlands Lane would suggest that the production of tile in the Newbury area was probably being carried out, as for the pottery (see Mepham, above) at small, dispersed production sites, operated seasonally and probably on a short-term basis by individuals or small groups supplementing their agricultural income.

The modes of production of ceramic tile have been identified as being either itinerancy production or settled production (Stopford 1993; Drury 1981). Itinerancy production involved the craftsman moving from place to place, undertaking a series of contacts at sites where buildings were being erected. The kilns would be temporarily constructed at the building site and tiles would be produced as they were required. Once the building was complete, the craftsman would move onto the next site. It seems more likely, however, that the Enborne Street/Wheatlands Lane production site(s) operated as settled production, a mode in which kilns are set up near a source of continuous local demand (in this instance Newbury), and are dependent on this

local demand. This type of production required a good nearby supply of raw materials, clay, sand and fuel – all of which were available at this site.

Tile making is a seasonal occupation, usually carried out alongside another occupation – such as agriculture (Drury 1981; Cherry 1991). There is evidence of pottery production on this site, with poorly fired vessels being recovered alongside large quantities of ceramic building materials. However, Lewis (1987) notes that normal production of roof tiles along side of pottery production would be impractical due to the different organisational methods of manufacture. Pottery manufacture is more often associated with the manufacture of more decorative roof furniture. For example, ridge tiles, louvers and finials were being manufactured alongside pottery at the Laverstock kilns outside Salisbury (Musty *et al.*, 1969). There are few such items at Enborne Street, only a few curved tile fragments, and these are apparently plain and unglazed. It seems probable, therefore, that pottery and tile manufacture did not take place on the site simultaneously, but as separate episodes of activity. At Lyveden in Northamptonshire, within a settlement dominated by pottery making, one toft was used for both pottery and tile making in different phases, the changes probably occurring when the holding changed hands (Moorhouse 1981, 104).

Table 22: Enborne St and Wheatlands Lane - ceramic building material types total number of fragments and weights
(stratified contexts only)

CBM Type	Total	Total Weight (g)	% of total weight
Flat tile fragments	1168	86380	97.02
Tegula	2	390	00.44
Floor tile	1	227	0.26
Curved tile	2	164	0.18
Brick	7	1682	2
Unknown	5	36	0.04
Total	1185	88879	100

The Fired Clay
by Emma Loader

The assemblage of fired clay comprises 49 fragments (884 g). Of this total seven fragments (114 g) were recovered from the topsoil at Wheatlands Lane. The remaining fragments were all recovered from medieval features.

The fragments are all in similar, moderately coarse-grained sandy fabrics. Many fragments appear to be blackened through heating or burning, and 30 fragments (80% of the total weight) have smooth, flat surfaces and edges and the remaining fragments comprised of small featureless fragments. Two fragments also had possible stabbed perforations present.

These fragments could represent the superstructure or lining from the putative kilns. The majority of these fragments (29 pieces, 354g) were recovered from a spread of burnt material (7055) associated with the possible truncated kiln 7054, whilst pit 7030 also contained a moderated quantity (10 fragments, 374g). Objects of a similar fabric and form, identified as fire bars, were found at Ashampstead Common, Berkshire

(Mepham and Heaton 1995). The pieces from Enborne Street are too fragmentary for a direct comparison – though it is probable that they derive from a kiln.

The Worked and Burnt Flint
by Emma Loader

Worked Flint
The assemblage of worked flint comprises of 57 pieces (899g) of which 24 pieces (401g) were recovered from Enborne Street and 28 pieces were from Wheatlands Lane.

Of the flint from Enborne Street, 80% was recovered from features dated to the medieval period and the remainder was recovered from unstratified contexts. The assemblage comprises of patinated blade fragments and undiagnostic, therefore undatable flakes – all of which are edge damaged. The flint derives from a local gravel source.

The flint recovered from Wheatlands Lane was recovered mainly from an unstratified topsoil (26 pieces, 460g). The remainder was recovered from gully 6019 and 6024; both dated to the medieval period. The assemblage comprises of one core and several undiagnostic flakes and are all slightly patinated and show edge damage. As with the flint from Enborne Street, all the pieces are in local gravel flint.

Burnt Flint
Eighty-eight fragments (2595 g) of burnt, unworked flint were recovered from Enborne Street and 61 fragments (2582 g) from Wheatlands Lane. The largest proportions of burnt flint were recovered from unstratified contexts during initial clearance. Burnt, unworked flint is intrinsically undateable though it is frequently associated with prehistoric activity. While a prehistoric date cannot be discounted, it is possible that some of this material may have resulted from the industrial activities taking place on the site.

The Stone
by Emma Loader

The assemblage of stone comprises 27 fragments, of which 21 fragments (1282g) of local unworked sarsen was recovered from pit 7021.

Two fine-grained sandstone whetstones were recovered, one unstratified and the other from pit group 7061. The example recovered from pit group 7061 shows wear on one side and slight grooves are evident on its surface. Both objects are incomplete and neither object is closely datable on morphological grounds, although the object from pit group 7061 is likely to be of medieval date.

A third piece of fine-grained sandstone with a polished surface was recovered from pit 7030, although it is not certain whether this was a whetstone. The remaining stone consists of three unworked fragments of unidentified stone, possibly burnt, from linear 7014 and pit 7071.

HILLS PIGHTLE: THE FINDS

The metalwork
by Emma Loader

Five objects of iron were recovered from this site. One object from Stage 2 has been identified as a knife and was recovered from a layer dated as medieval. The form of the knife is unknown and is highly encrusted. Four highly encrusted iron objects were recovered from Stage 3, one from unstratified, the others from pit 7502, ditch 7515 and pit 7523. All are associated with pottery dated as medieval and are likely to be of a similar date. All the objects are highly encrusted.

One has been identified as a nail – with a flat topped diamond shaped head, and is comparable with nails found at Clarendon Palace, Wiltshire (Goodall in James and Robinson, 1988 fig 76: 45). This type of nail was used as a timber nail, and the shape of the head suggests that the nails use was not only functional but as some form as embellishment to the object it was attached too.

One tang fragment from a blade was also identified, though the form of the original knife is unknown. The final iron object consisted of a flat fragment whose function remains unknown.

The pottery
by Lorraine Mepham

The medieval pottery assemblage from Hills Pightle consists of 336 sherds (3420 g). This assemblage has marked similarities with the larger assemblages from the production sites at Enborne Street and Wheatlands Lane, but the most noticeable difference is in the condition of the pottery, which in this case is relatively well preserved, if fragmentary (mean sherd weight 10.2 g); there is no sign of the laminating surfaces, powdery texture and heavily leached surfaces of the pottery from the production sites. In other words, this is more likely to represent a normal domestic assemblage rather than kiln waste.

Fabrics and Forms
Seven fabric types were identified, of which five occur within the larger assemblages from Enborne Street and Wheatlands Lane (see above). Fabric totals are presented in Table 23. One fabric which is not paralleled within the Enborne Street/Wheatlands Lane assemblage is described as follows:

G400 A hard, moderately coarse clay matrix containing a moderate amount of subangular, poorly sorted grog <2mm; sparse subrounded quartz <0.5mm; sparse iron oxides; unoxidised with oxidised surfaces; handmade.

This grog-tempered fabric is unusual in a medieval context, and occurred only as two joining sherds from one context, but there is no reason to suppose that it is not contemporary with the remainder of the medieval assemblage.

The assemblage is dominated by the two fabrics which are associated with the Enborne Street/Wheatlands Lane pottery production site - the chalk-/flint-tempered

fabric E442, and the sandy flint-tempered fabric E441 - in a ratio of approximately 2:1 by weight. Other fabrics occur in small quantities only.

The correlation of vessel forms to fabric type is given in Table 24 (EVEs have not been calculated since the quantities are so small). Vessel forms are as decribed for Enborne Street/Wheatlands Lane. Only two forms were identified from rims, necked jars and flared bowls/dishes; as well as a rim sherd with pre-firing piercing, probably from a curfew, and a tubular handle, probably from a skillet. Most of the diagnostic forms occur in either E442 or E441 (Fig. 27, 1-2). The exceptions are one flared dish (fabric Q400), which has stabbed decoration around the rim (Fig. 27, 6), one necked jar (Q404) (Fig. 27, 3), and the skillet handle (Q404). One necked jar in fabric E442 has a finger-impressed rim (Fig. 27, 2).

Distribution

Much of the pottery came from unstratified contexts (236 sherds; 2528 g), and only small groups were recovered from stratified features. The largest groups derived from shallow feature 7502 (38 sherds; 385 g) and ditch 7529 (31 sherds; 252 g); both these groups included both necked jars and flared bowls/dishes. Scattered sherds were also recovered from pits 7501, 7523 and 7525 and ditch 7507. Most of the diagnostic material occurred amongst the unstratified pottery, and this group included the only occurrence of fabrics Q403 and Q404.

Discussion

The assemblage is too small for any patterning indicating chronological or functional differentiation to be discerned, but the visual homogeneity and the obvious affinities with the pottery from the production sites at Enborne Street/Wheatlands Lane suggests a similarly restricted date range in the first half of the 13th century for Hills Pightle. Given the proximity of the E442/E441 production centre, however, the occurrence at Hills Pightle of other (sandy) fabric types is interesting and could relate to a period of activity on this site at a time when the production centre was not active, perhaps later in the 13th century.

List of illustrated sherds (Fig. 27)

1. Jar rim. Rim 325, context 6025
2. Jar rim. Rim 324, context 6025
3. Jar. Rim 347, context 6025
4. Bowl rim. Rim 176, context 7513
5. Bowl rim. Rim 323, context 6025
6. Bowl. Rim 348, context 6025

Table 23: Hills Pightle - pottery fabric totals

Fabric	No. sherds	Weight	% of total
E442	179	2003	58.6
E441	112	1018	29.8
Q400	9	76	2.2
Q403	1	14	0.4
Q404	33	298	8.7
G400	2	11	0.3
TOTAL	**336**	**3420**	-

Table 24: Hills Pightle - vessel form by fabric type
(EVEs, nos. of rims in brackets)
* - present but no rims

Fabric	Necked jar	Flared bowl	Curfew	Skillet
E442	1.46-1.52 (21)	0.25-0.29 (6)	*	-
E441	0.19-0.21 (4)	-	-	-
Q400	-	0.06 (1)	-	-
Q404	0.03-0.05	-	-	*
TOTAL	**1.68-1.78**	**0.31-0.35**	-	-

The ceramic building material
by Emma Loader

The assemblage of ceramic building material consists of 93 fragments (4367 g). The ceramic building material recovered during Stage 1 was recovered from the topsoil during testpitting, and is of post medieval date.

The ceramic building material recovered from Stage 2 consists of 39 fragments (1666g) and can be dated as medieval, on the basis of fabric, form and association with medieval pottery. All fragments were recovered from medieval features, except four fragments (310g) which were recovered from the topsoil, and are of probable post medieval date

The ceramic building recovered during Stage 3 consists of 46 fragments (4460g). Of this total 38 fragments (1891g) were recovered from unstratified contexts. The remaining tile was recovered from ditches 7507, 7529, 7525 and feature 7502. The majority of the assemblage comprises 34 fragments (1169g) of flat undiagnostic tile.

The combed tile and *tegula* are of Romano-British date and are residual, though it is possible that these have been reused.

The flat roof tile fragments have a thickness range from 11mm to 15mm. Five have surviving round peg holes, and six have the remains of lead glaze. Though detailed fabric analysis was not carried out on this assemblage, the fabrics noted range from grog tempered and sandy fabrics, all of which are oxidised.

The worked and burnt flint
by Emma Loader

A total of 278 pieces (26642g) of burnt unworked flint and worked flint was recovered from excavations and evaluations at this site. A small assemblage of gravel and chalk flint was recovered from the site. Of this, half was recovered from unstratified contexts and the rest was residual in medieval features. The assemblage comprises of cores, blade fragments, and undiagnostic flakes. The majority of the assemblage is highly patinated and edge damaged.

A moderate quantity of burnt unworked flint was recovered – the majority of which derived from a lens of burnt material within the upper fill of pit 7523. This material type is intrinsically undateable but is frequently associated with prehistoric activity. However, all the burnt flint was recovered from features dated as medieval.

The stone
by Emma Loader

The assemblage of stone consists of a total of 35 fragments (1768g). Of this total, three fragments (92g) were recovered from the subsoil during Stage 2 and 32 fragments (1676g) were recovered during Stage 3. All pieces are fragments of sarsen, which would have brought into the site from south central England.

Of the stone recovered during Stage 3, 30 fragments (1476g) were from unstratified contexts are not discussed further here. Two fragments were associated with the burnt flint in pit 7523 and are associated with medieval pottery. There is no evidence of working on any of these fragments.

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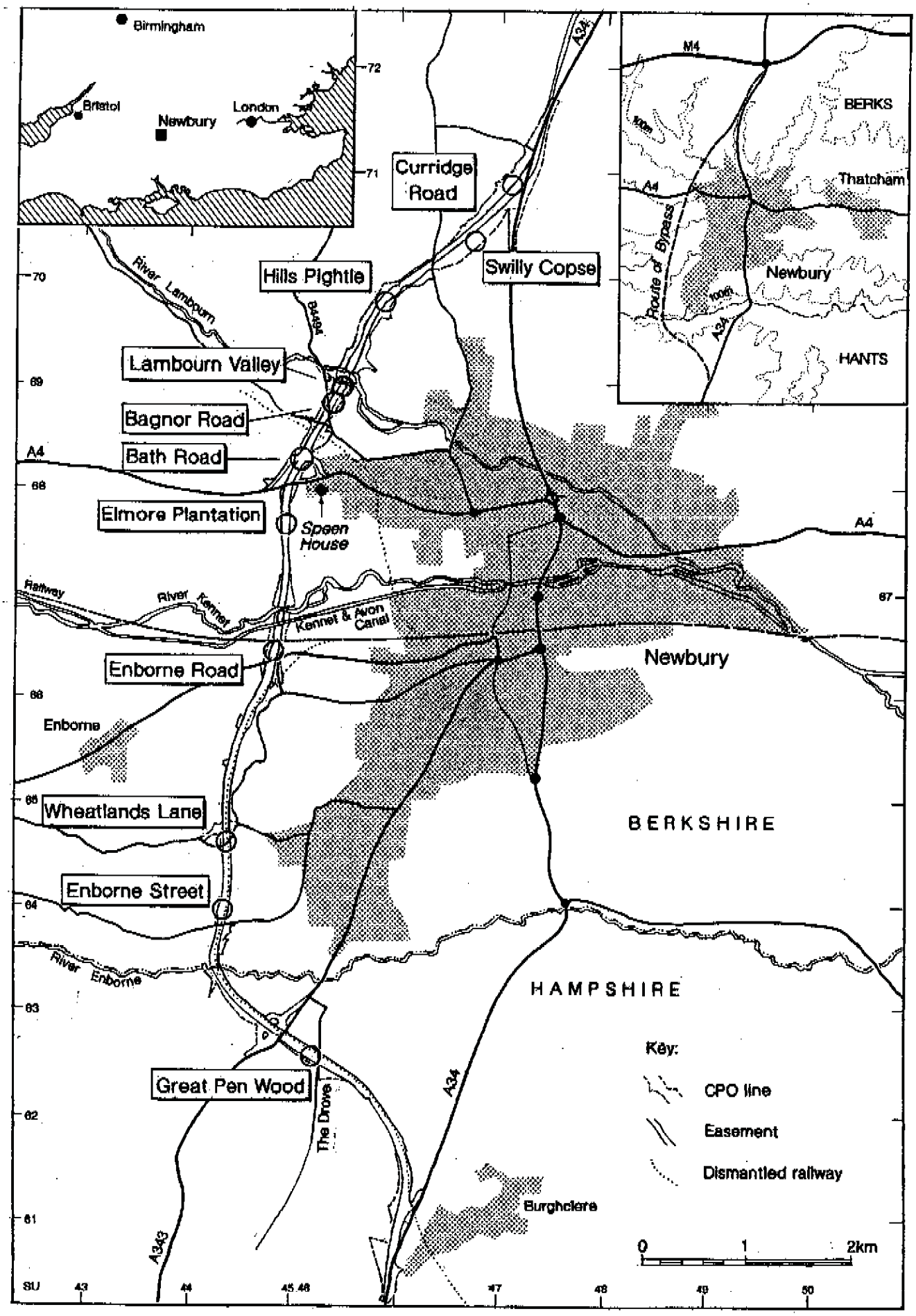


Figure 1: Bypass location map

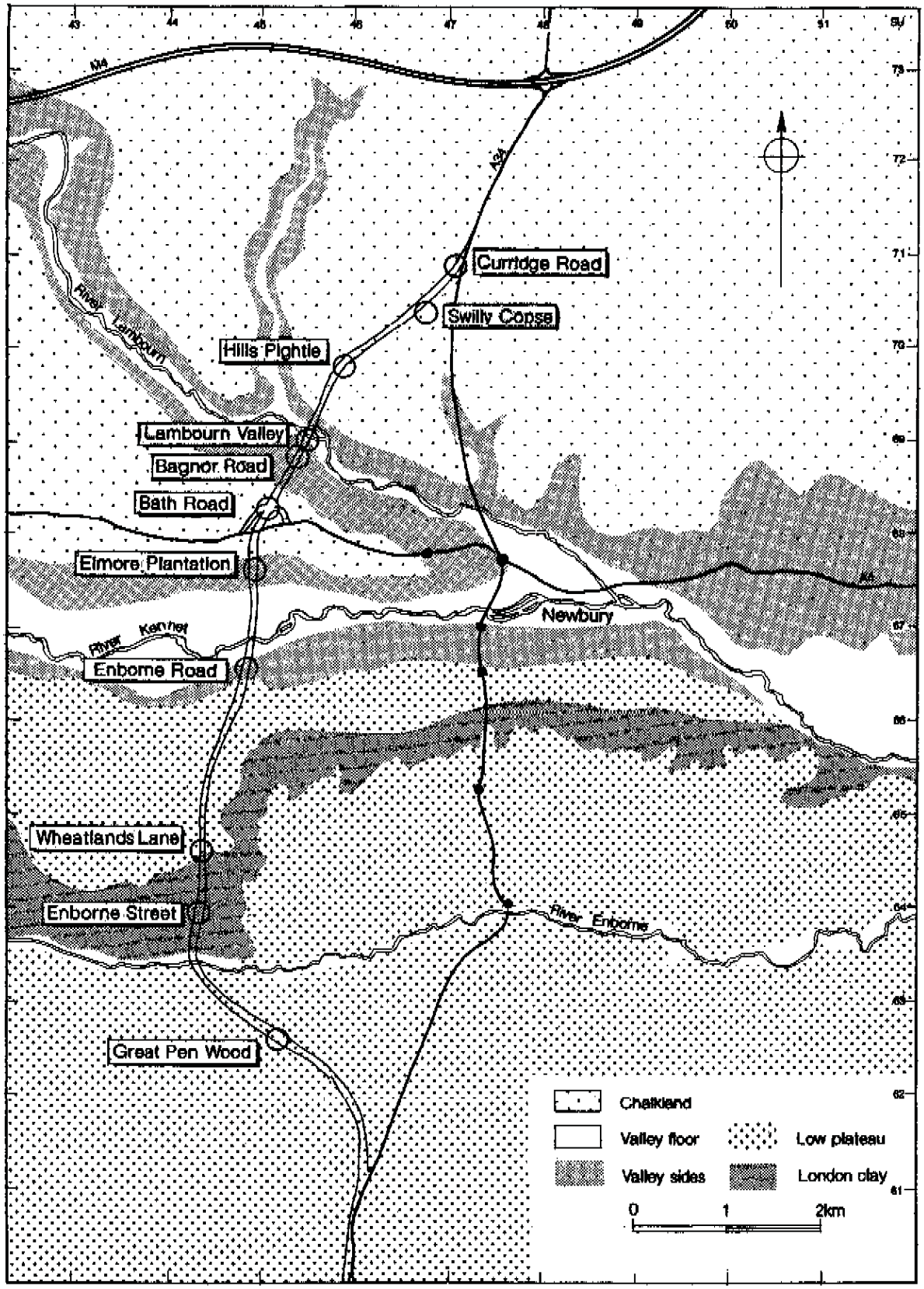


Figure 2: Topographic and geological zones

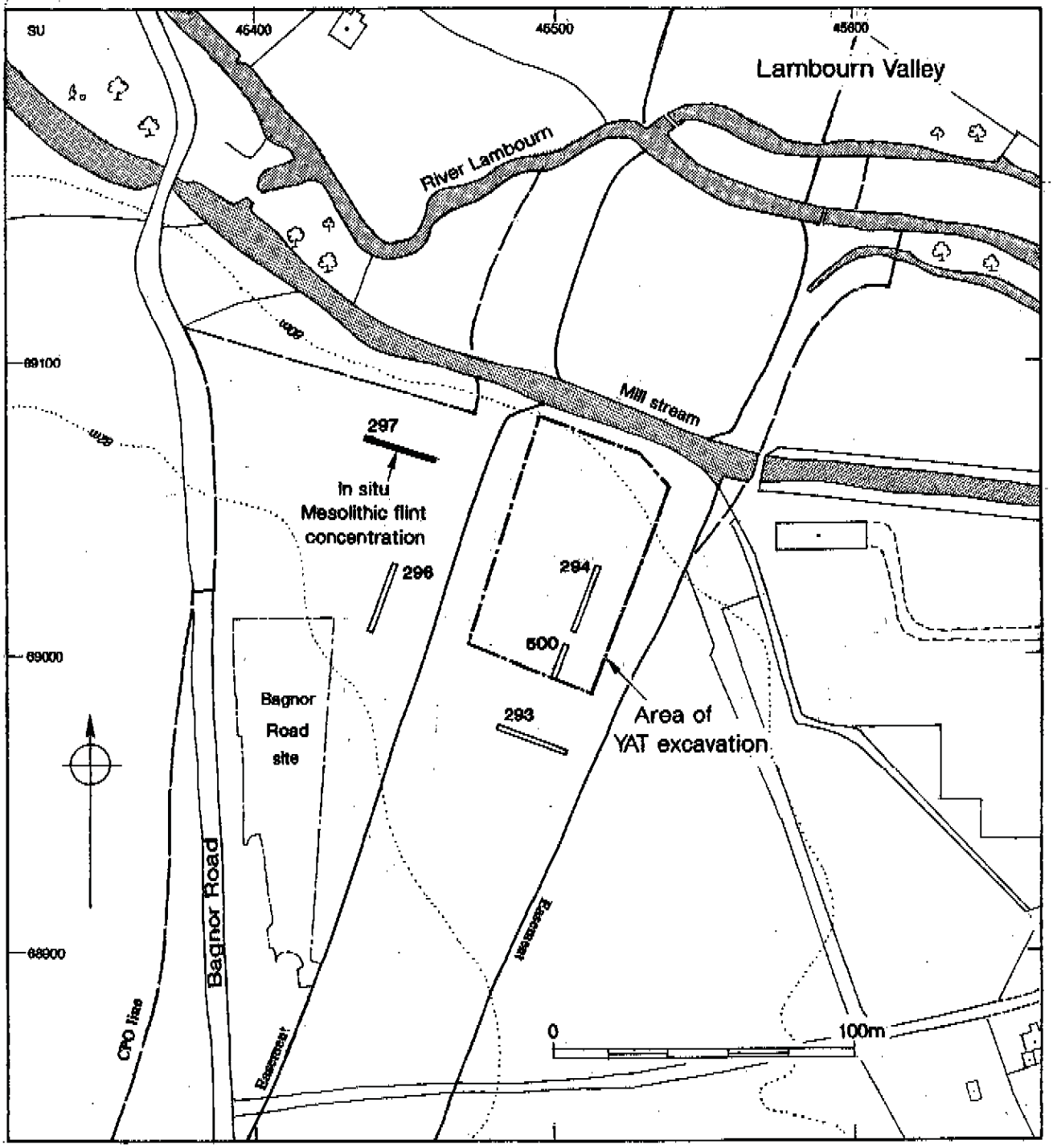


Figure 3: Lambourn Valley, site location plan

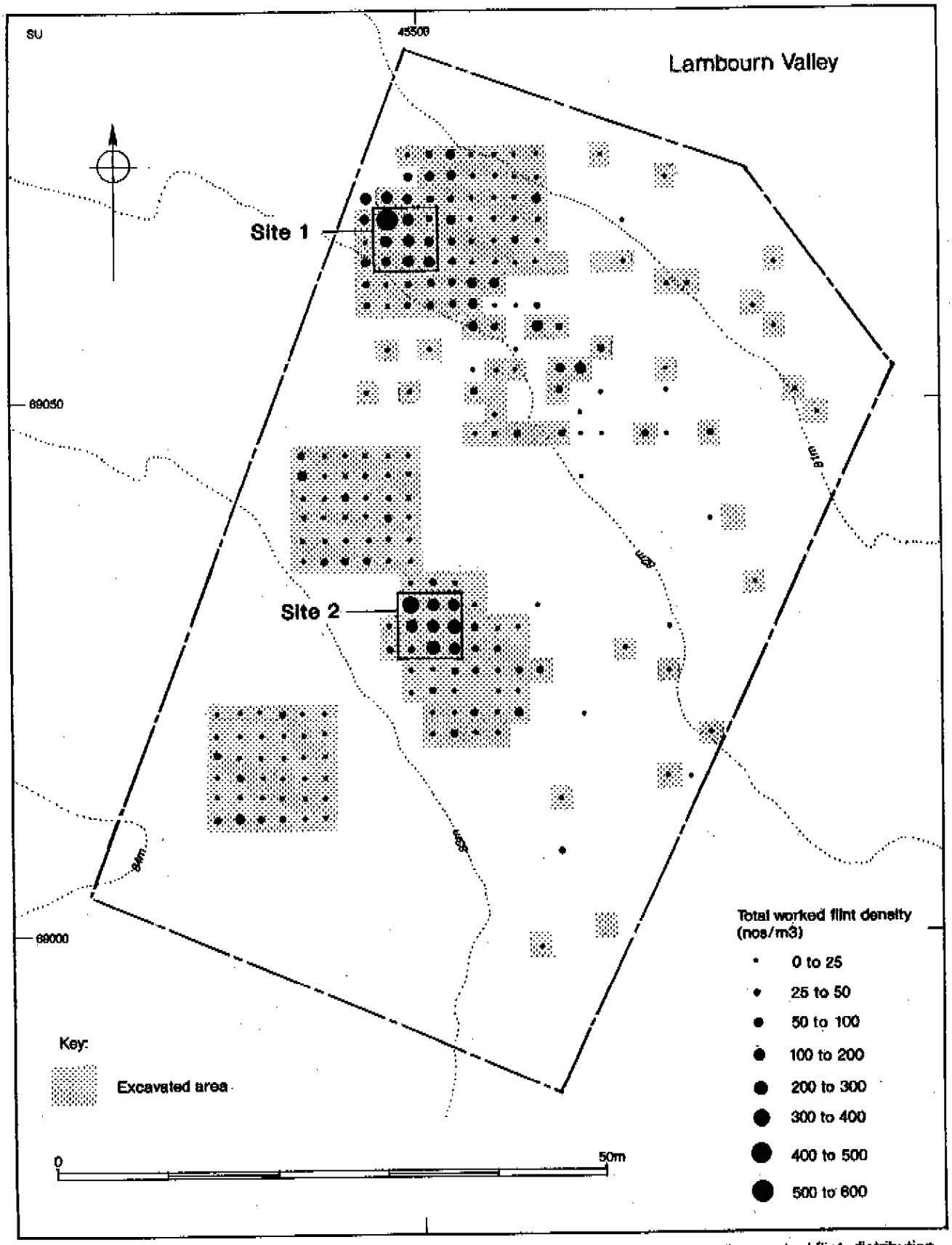


Figure 4 Lambourn Valley, worked flint distribution

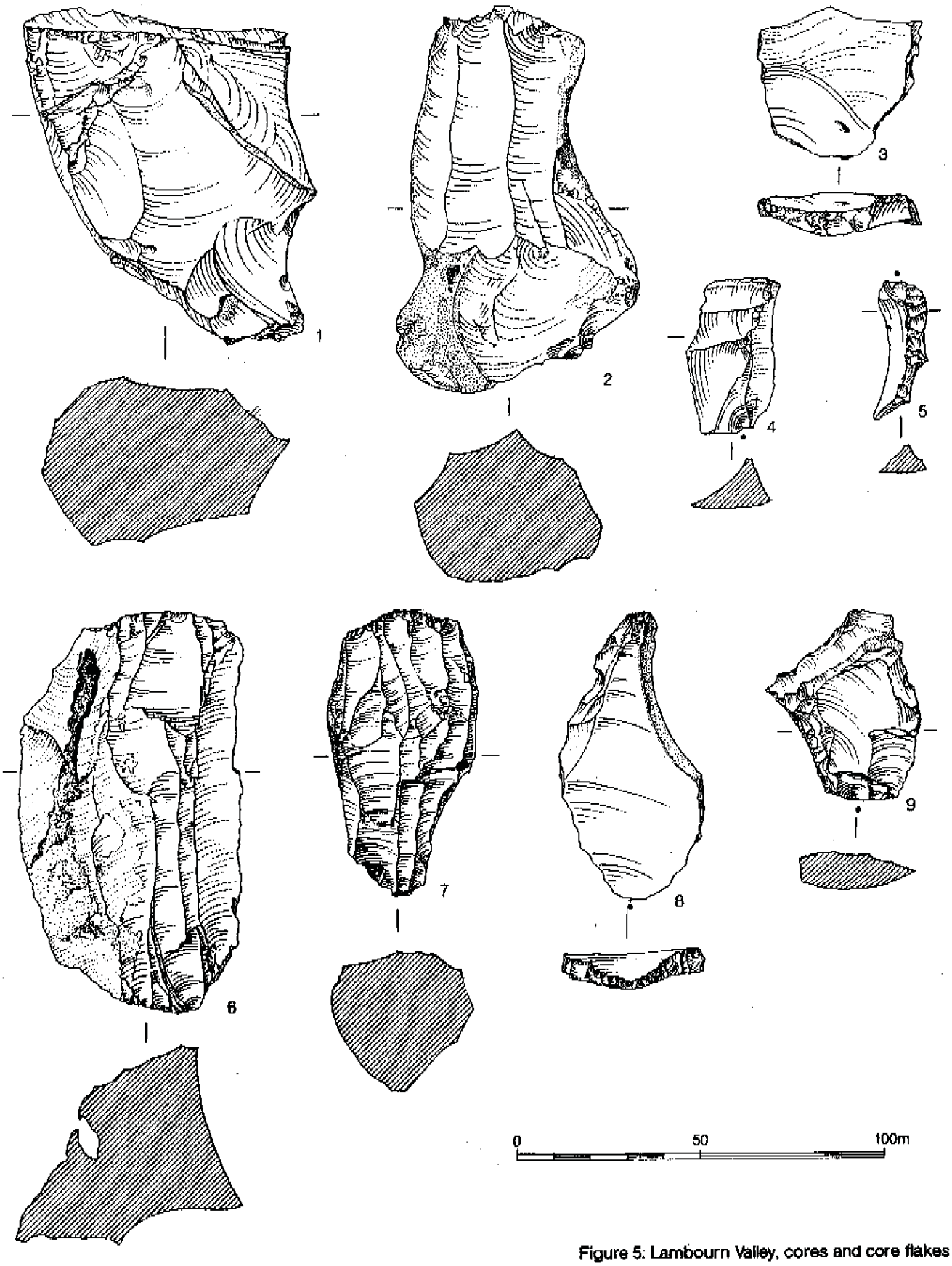


Figure 5: Lambourn Valley, cores and core flakes

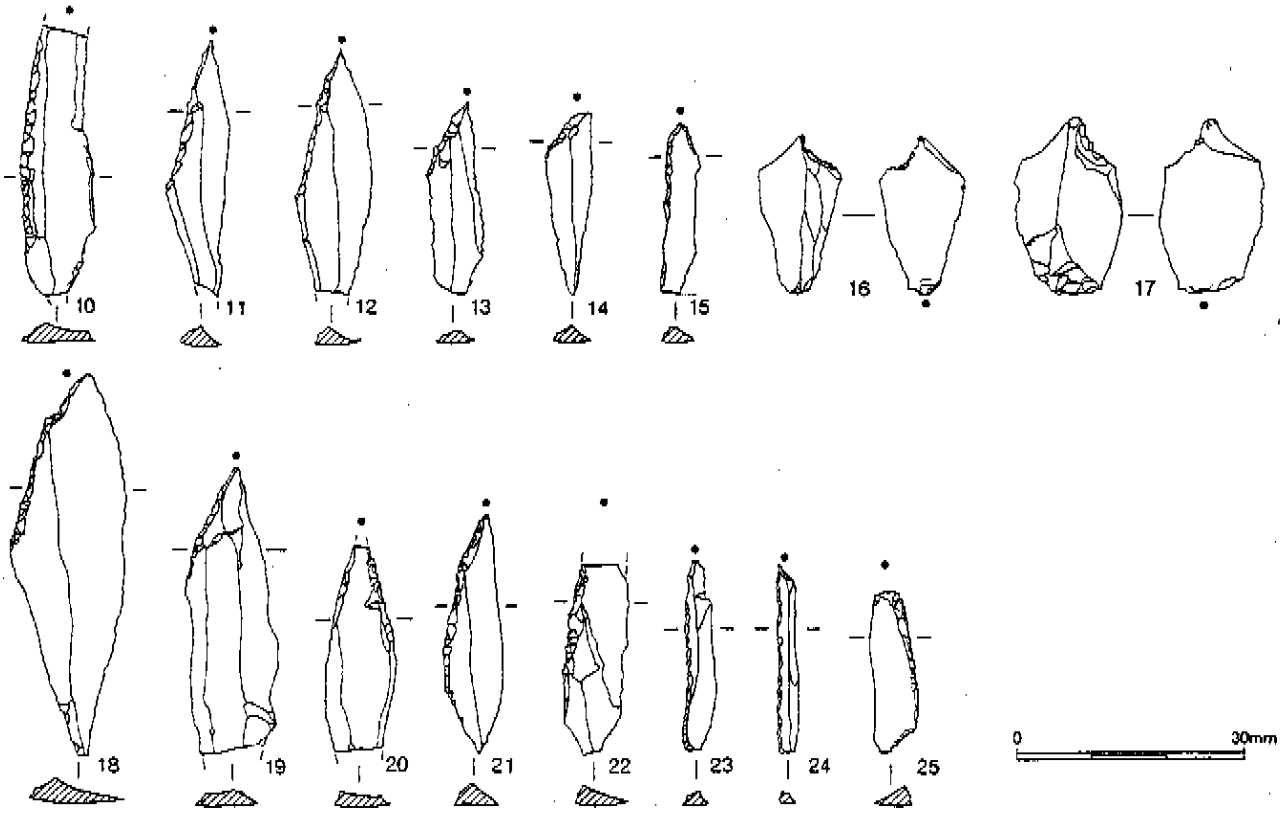


Figure 6: Lambourn Valley, microliths and microburins

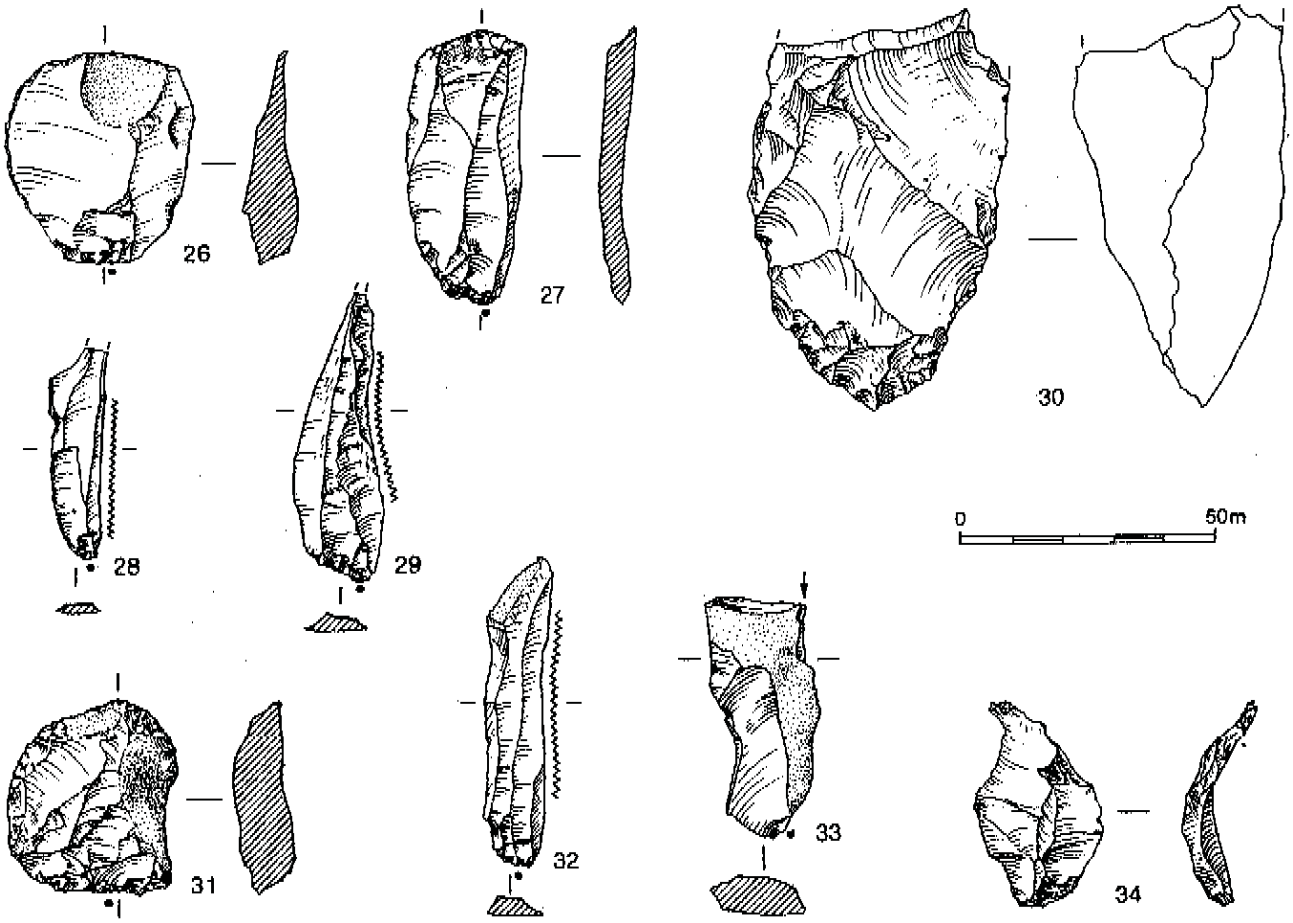


Figure 7: Lambourn Valley, miscellaneous tools

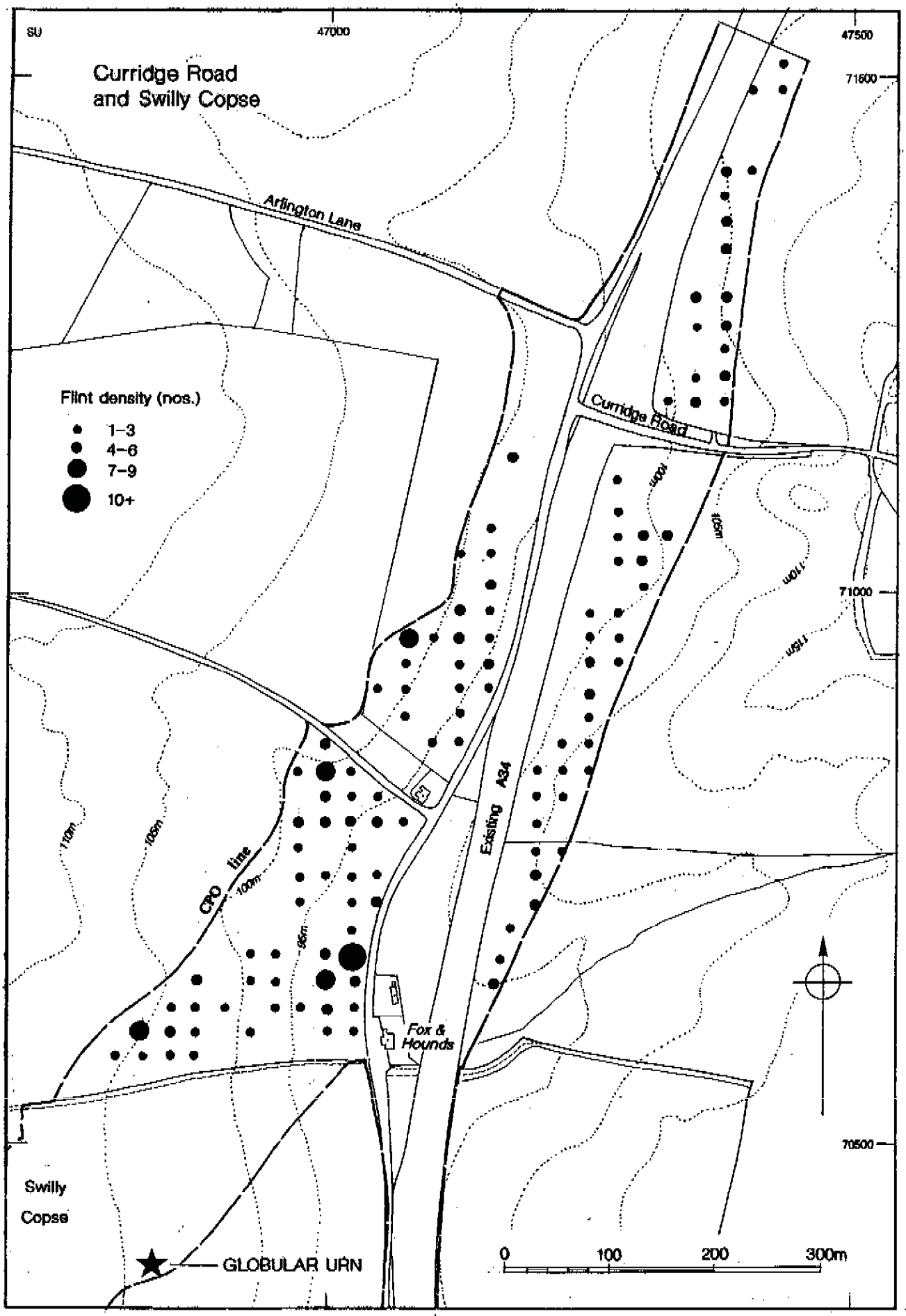


Figure 8: Curridge Road and Swilly Copse, site location plan and worked flint distribution

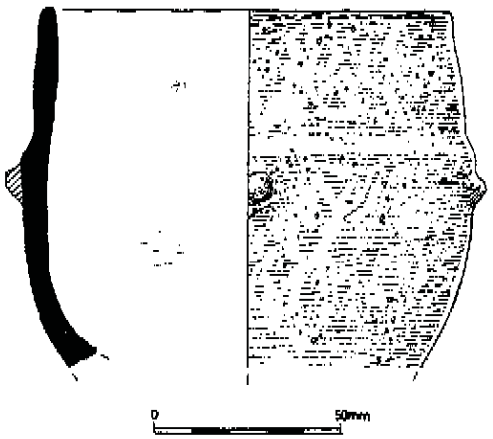


Figure 9: Swilly Copse, globular urn

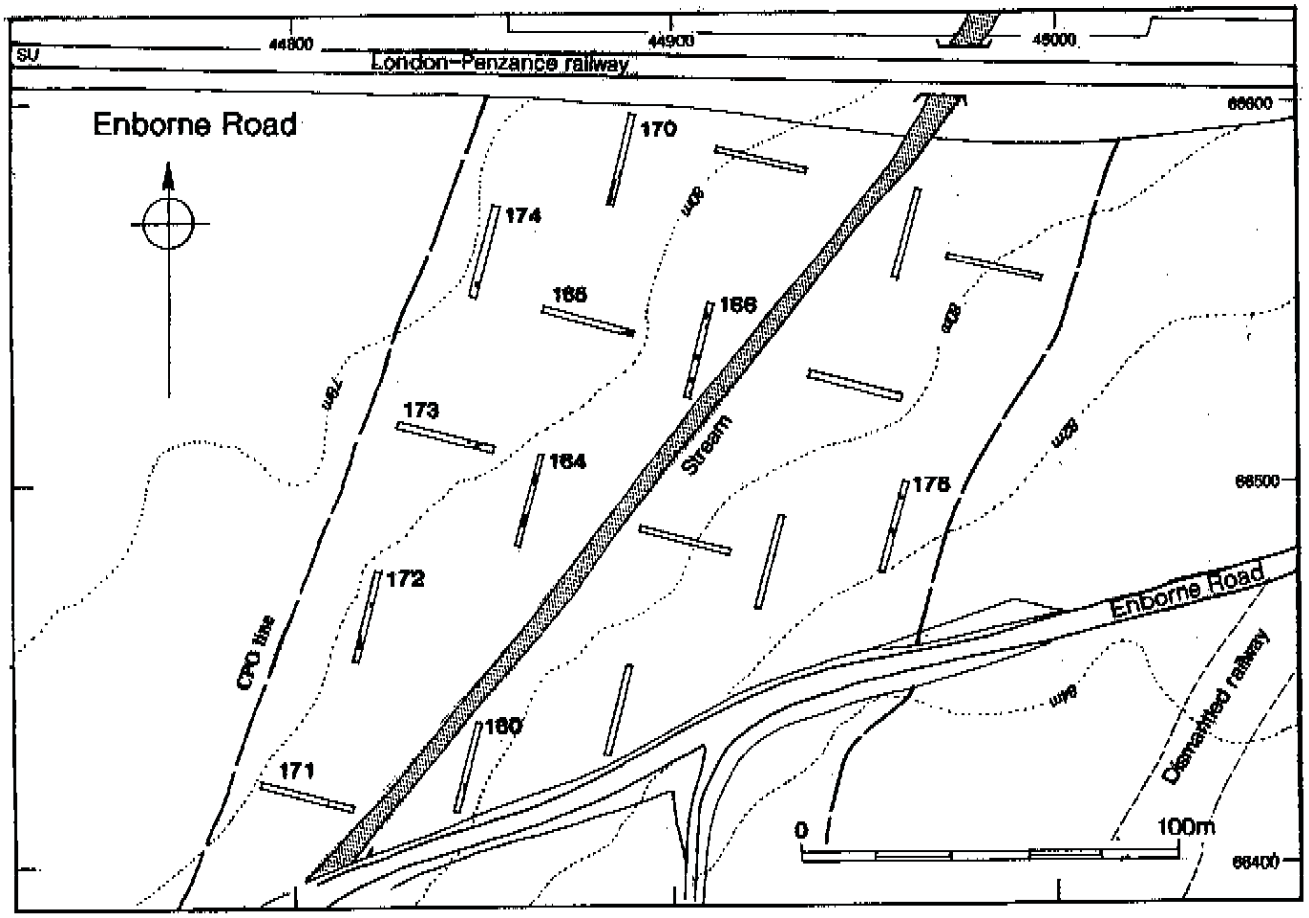


Figure 10: Enborne Road, site and trench location plan

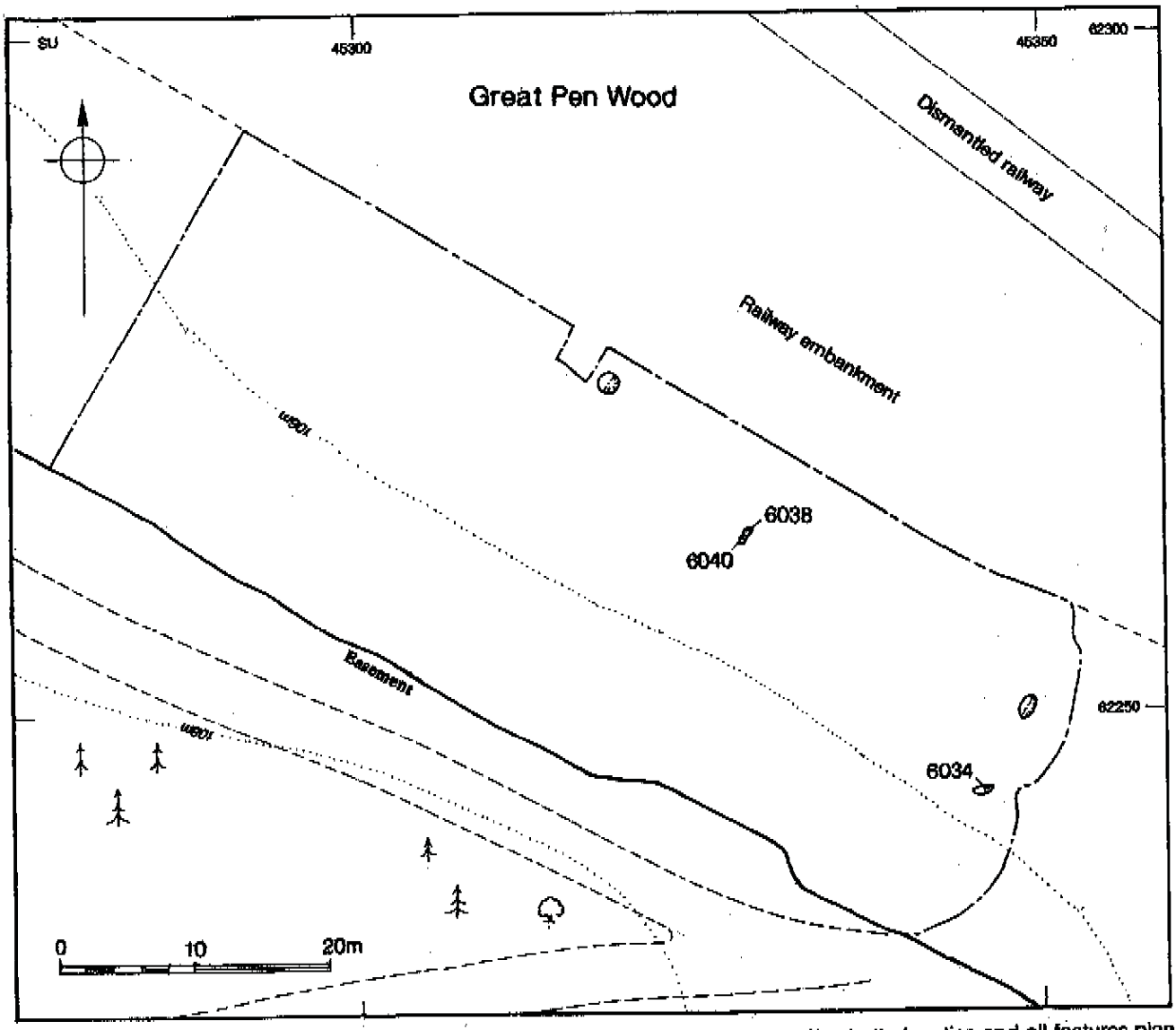


Figure 11: Great Pen Wood, site location and all features plan

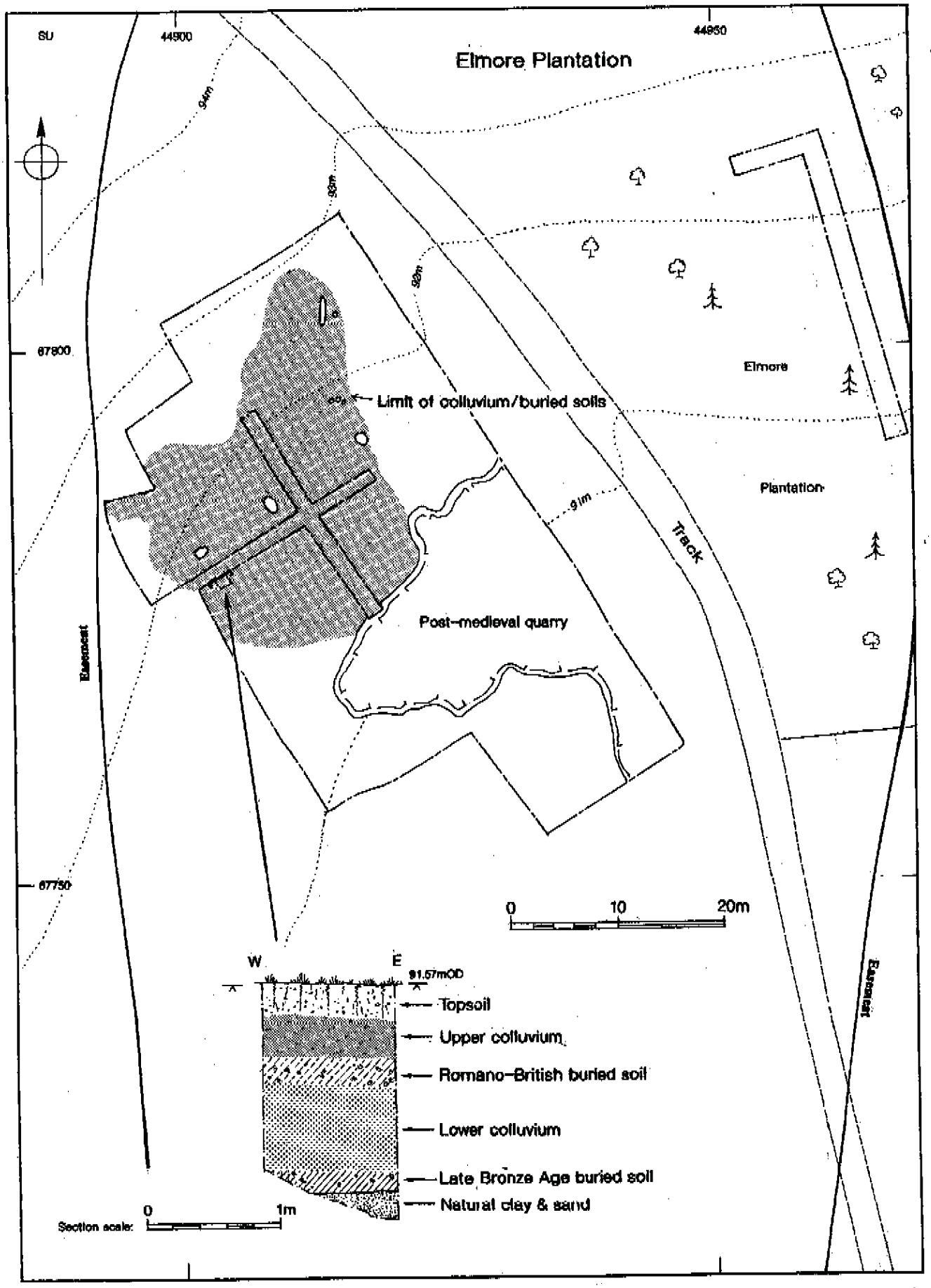


Figure 12: Elmore Plantation, site location and all features plan

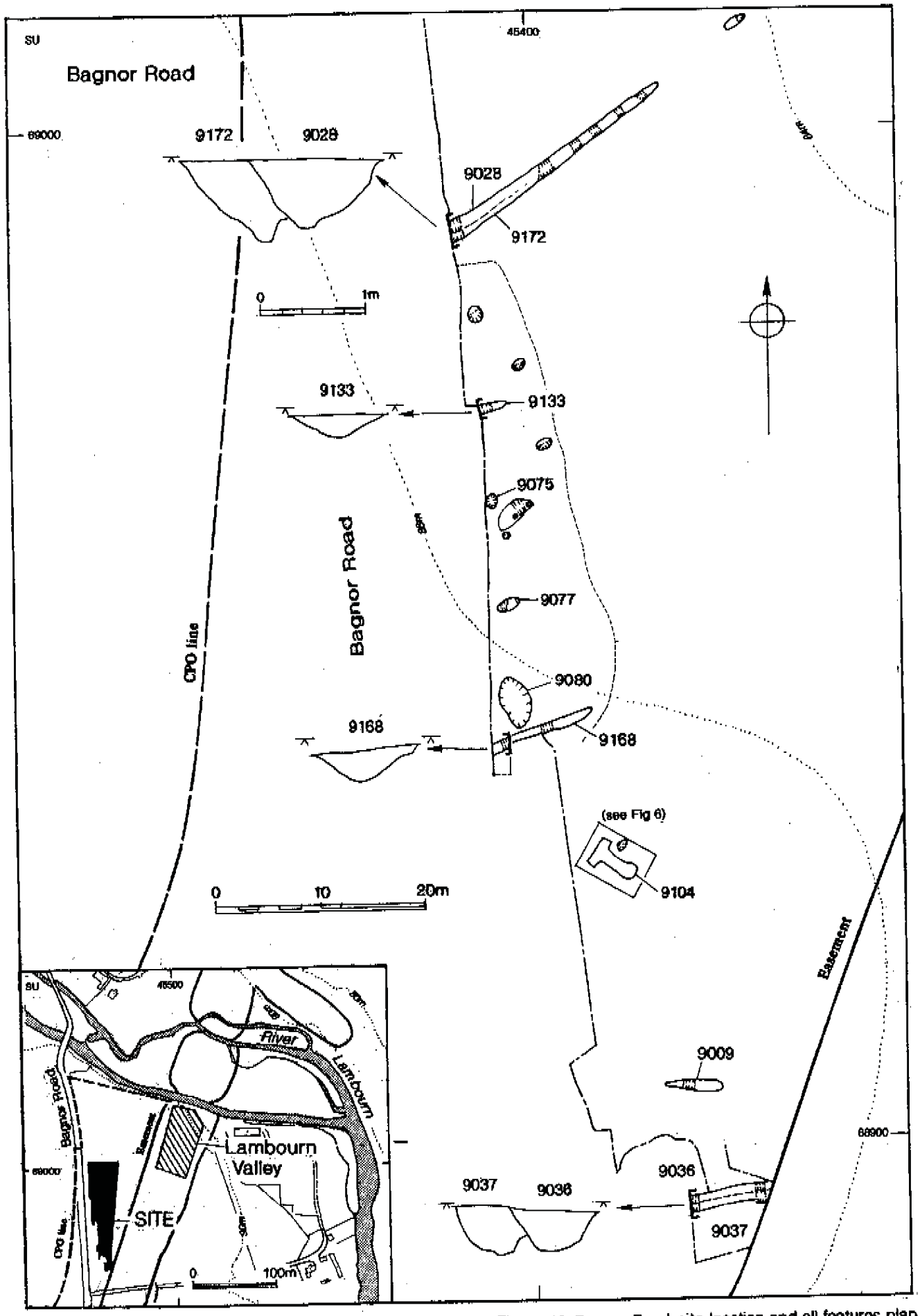


Figure 13: Bagnor Road, site location and all features plan

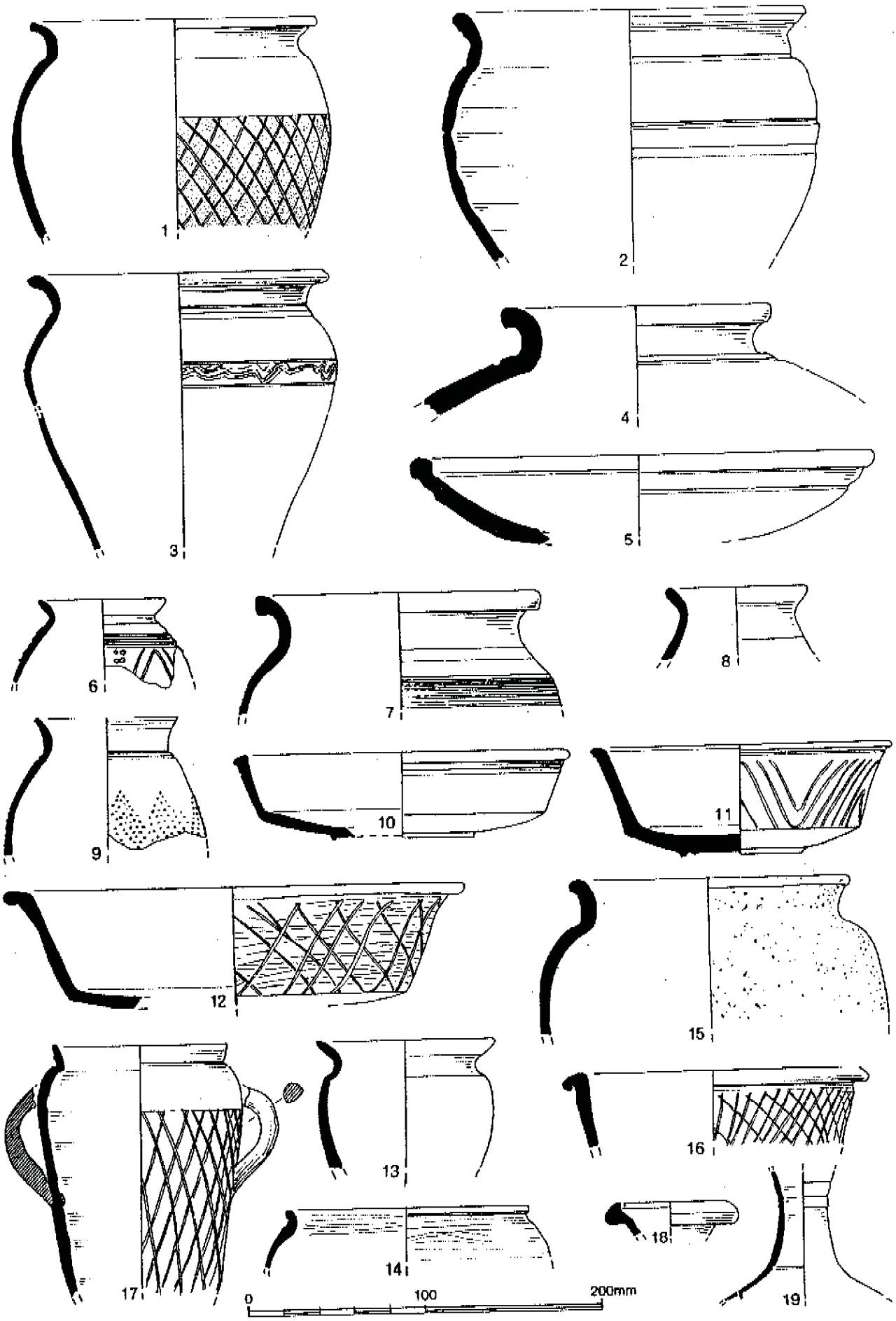


Figure 15: Bagnor Road, pottery

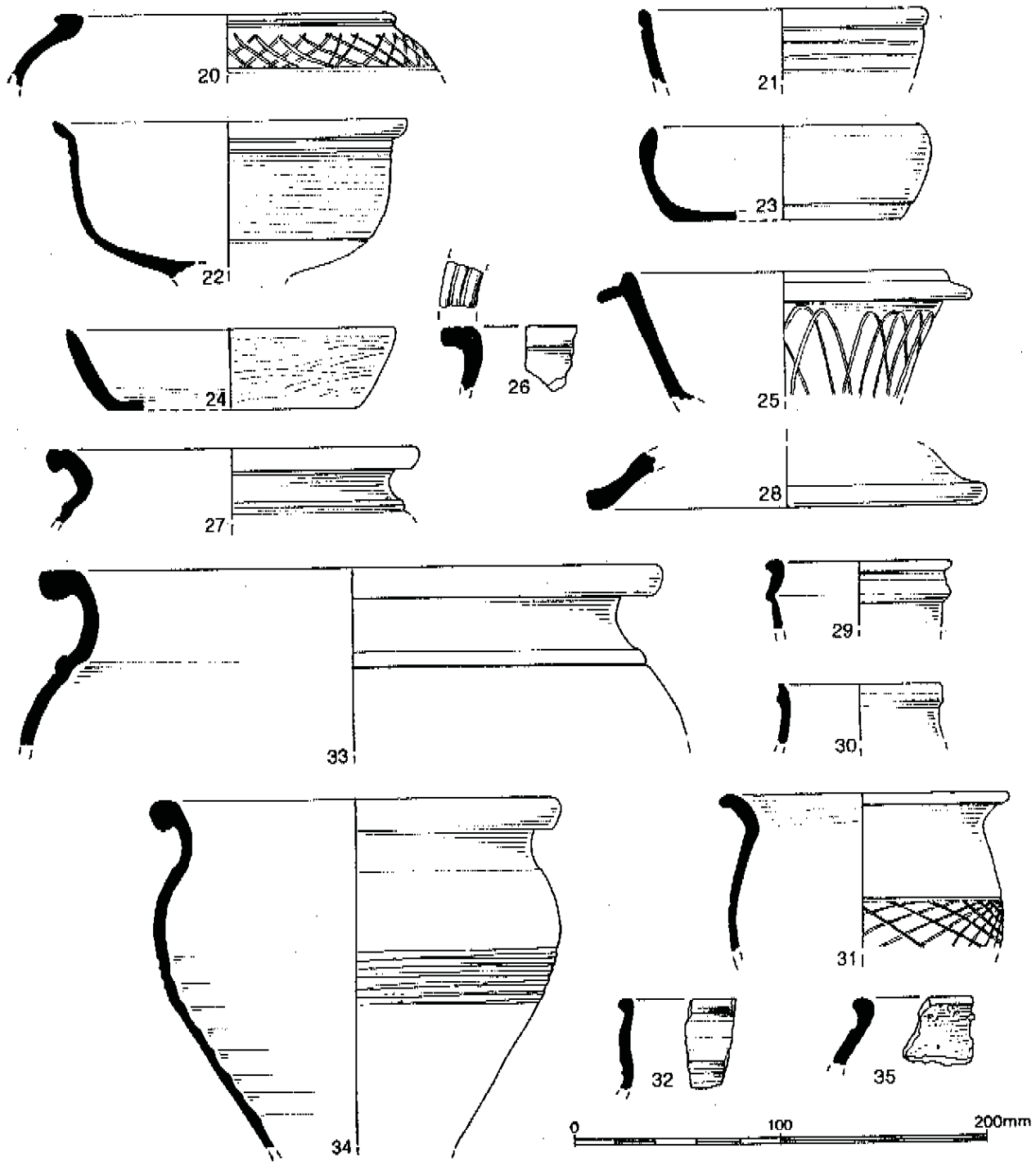
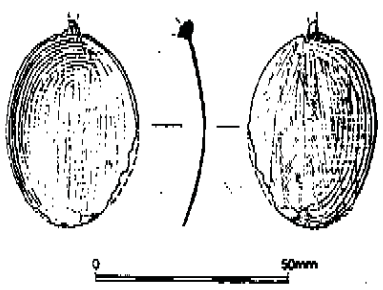


Figure 16: Bagnor Road, pottery



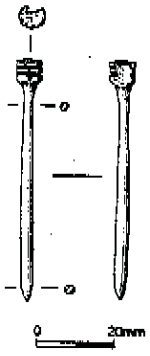


Figure 17: Bagnor Road and Enborne Road, special finds

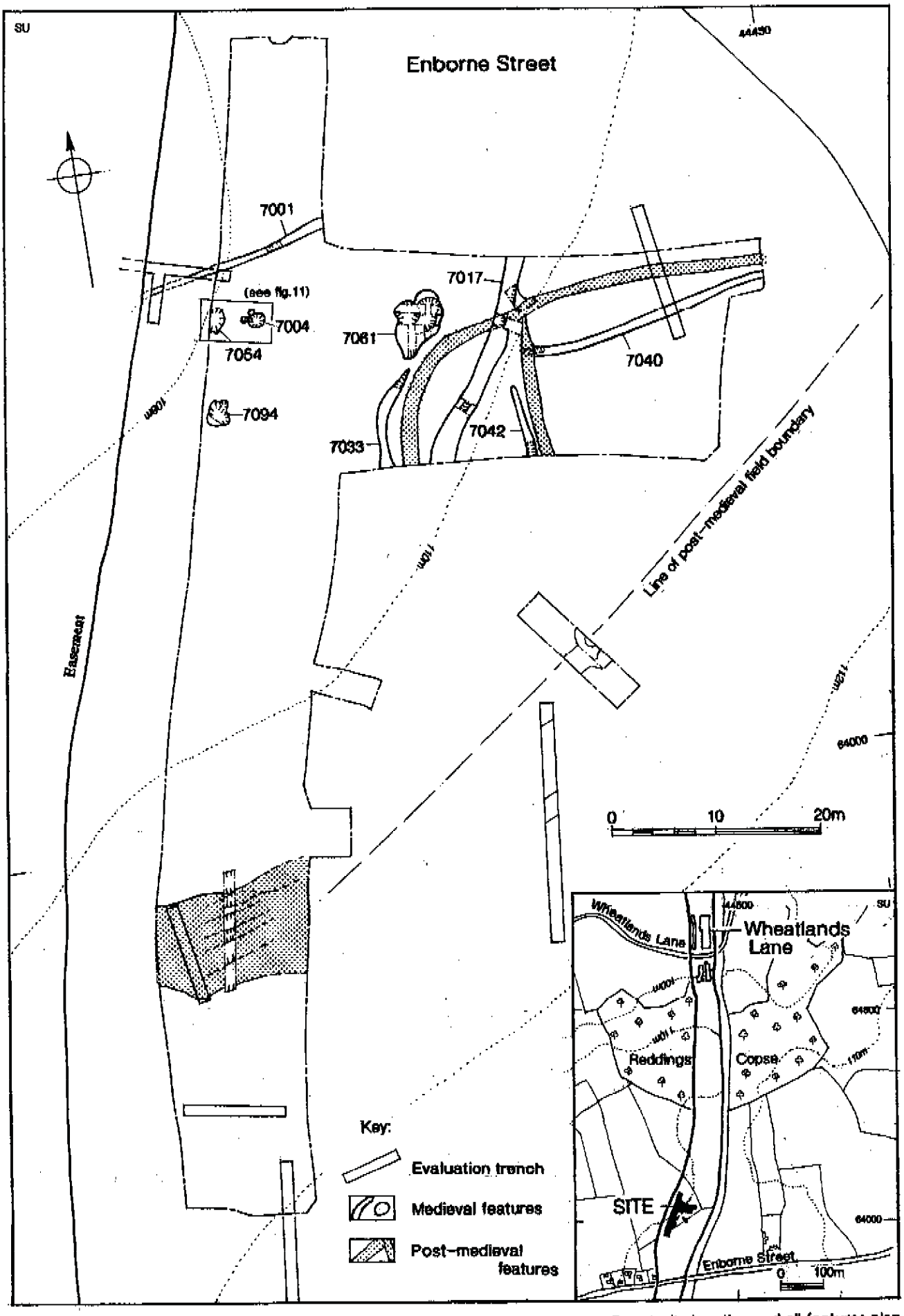


Figure 18: Enborne Street, site location and all features plan

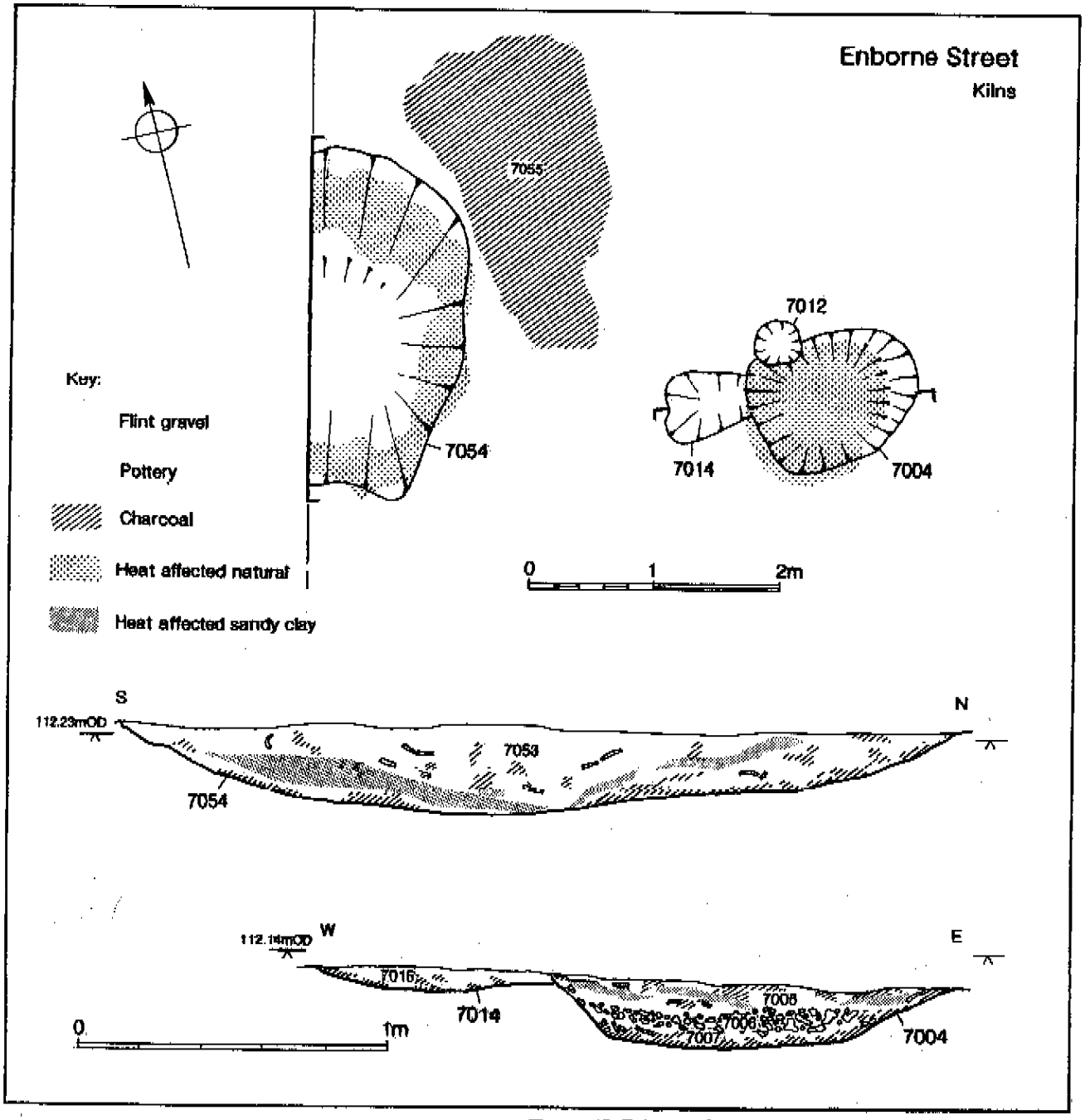


Figure 19: Enborne Street, possible kilns, plan and sections

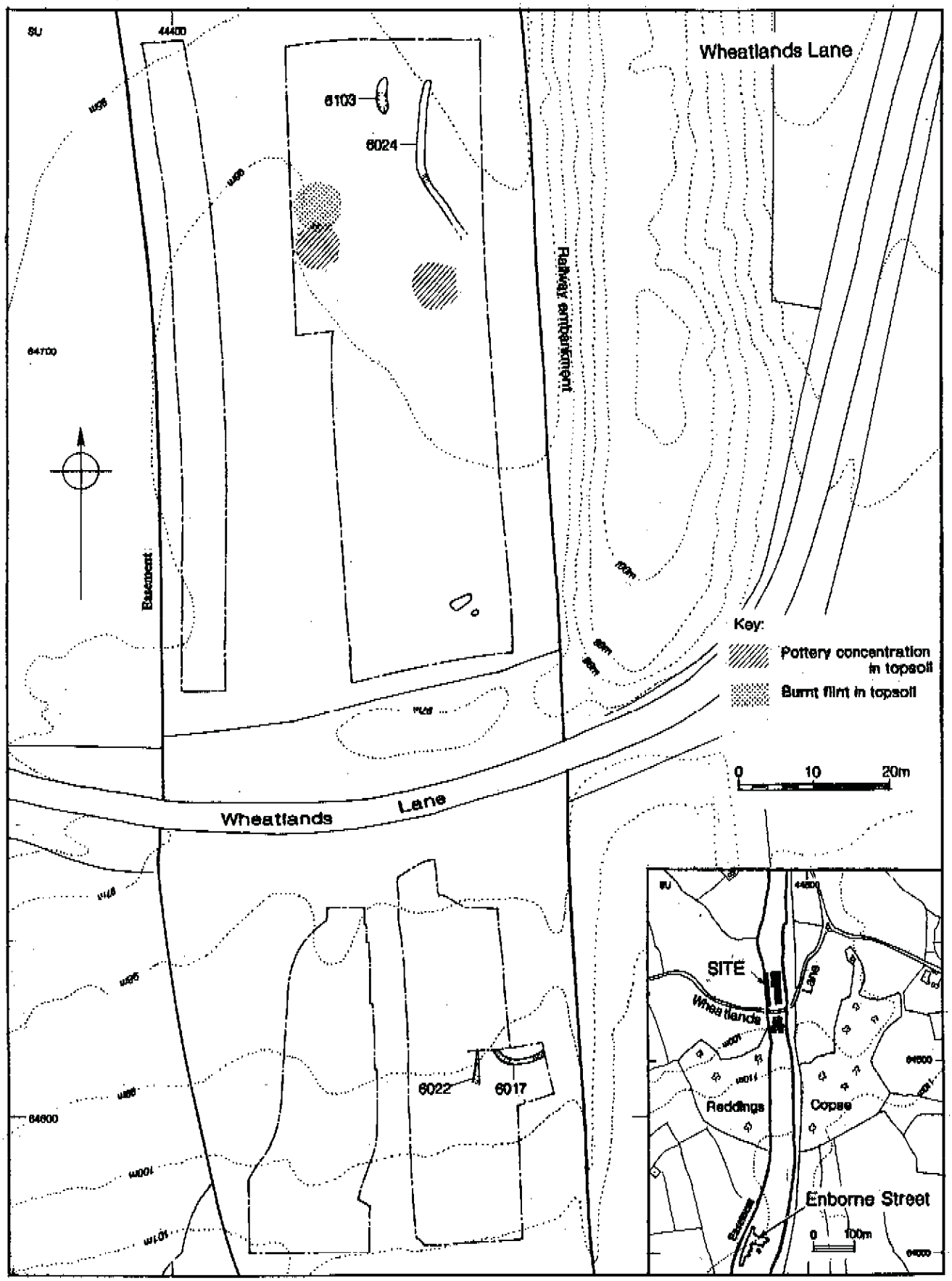


Figure 20: Wheatlands Lane, site location and all features plan

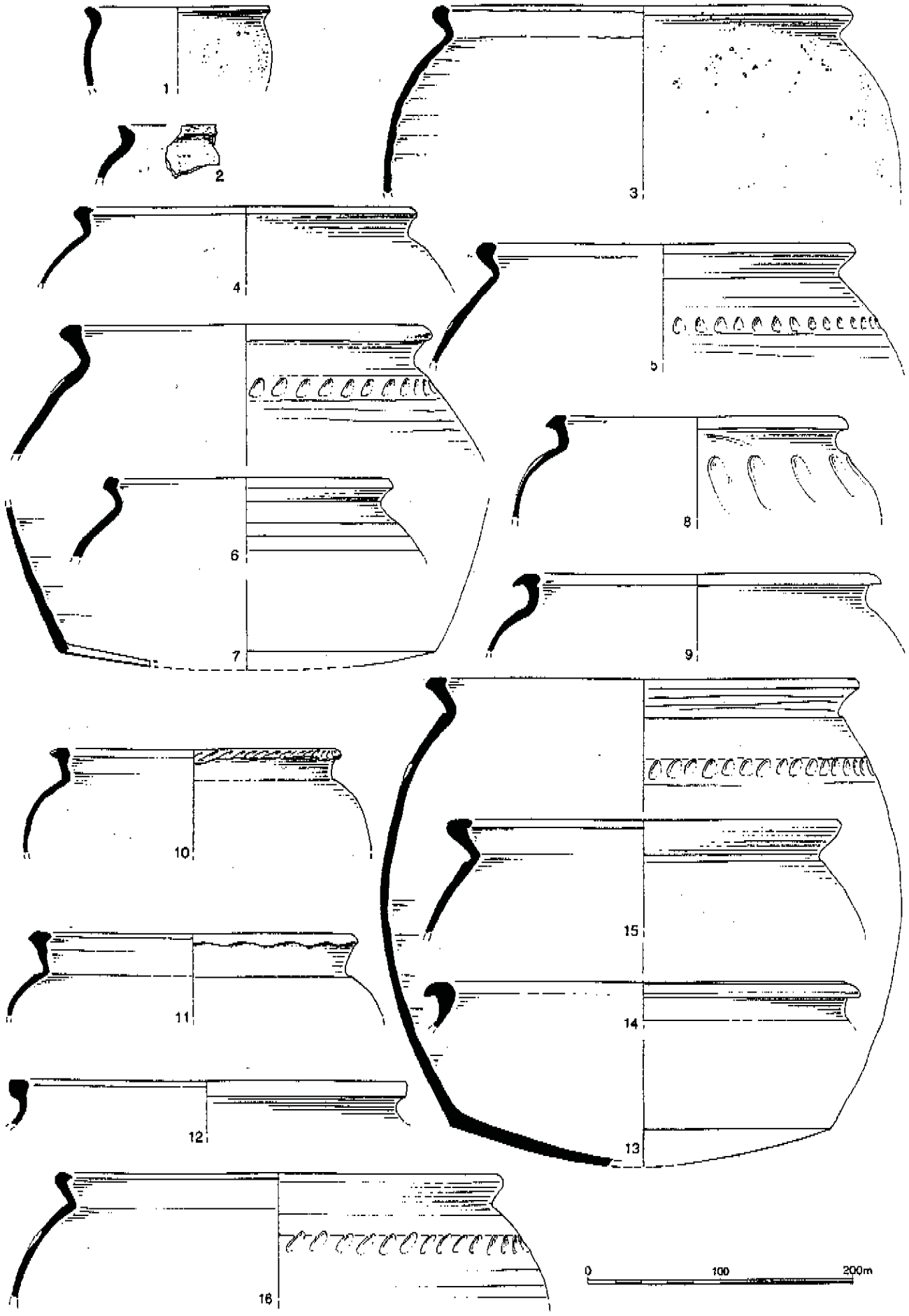


Figure 21: Enborne Street and Wheatlands Lane, medieval pottery

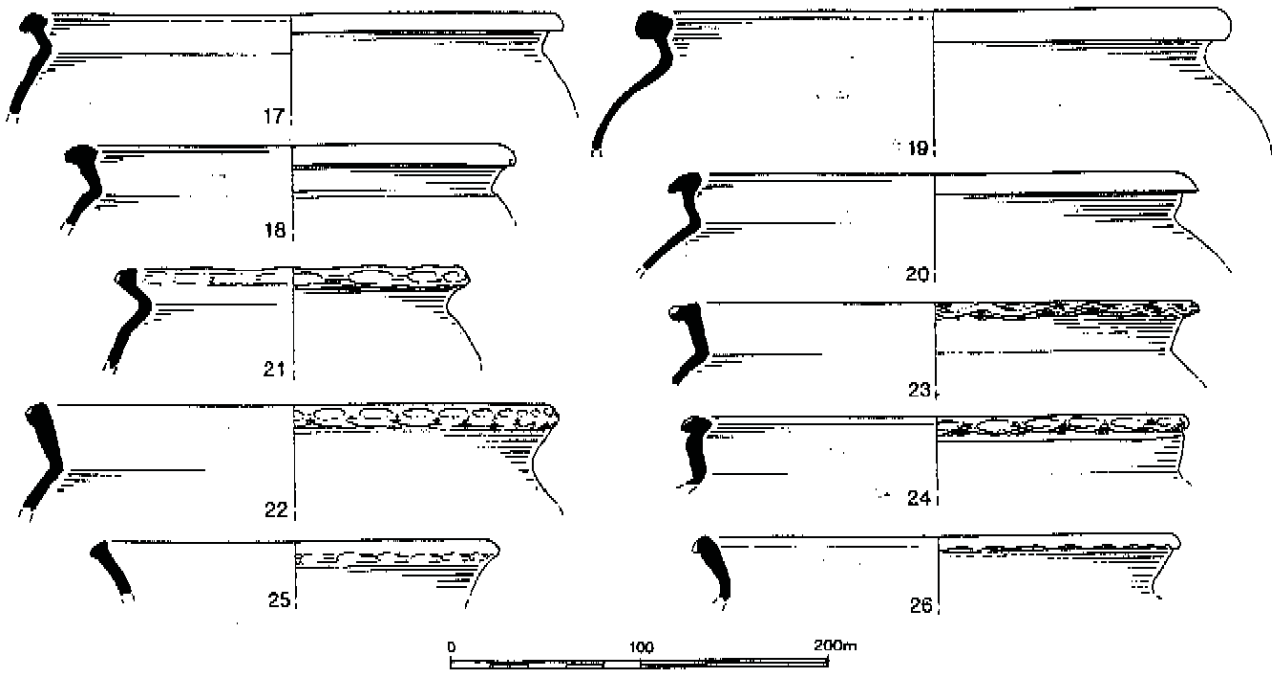


Figure 22: Enborne Street and Wheatlands Lane, medieval pottery

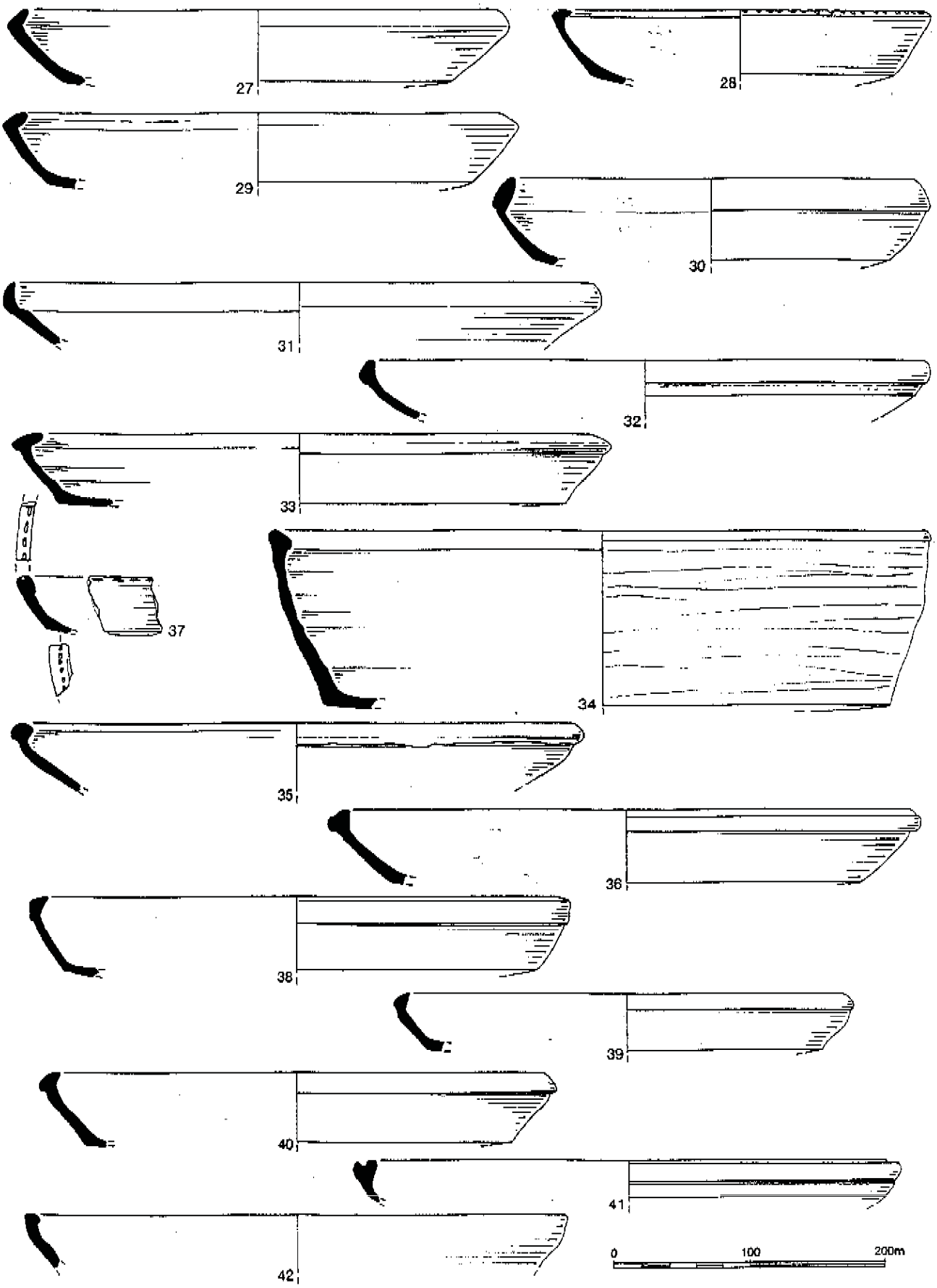


Figure 23: Enborne Street and Wheatlands Lane, medieval pottery

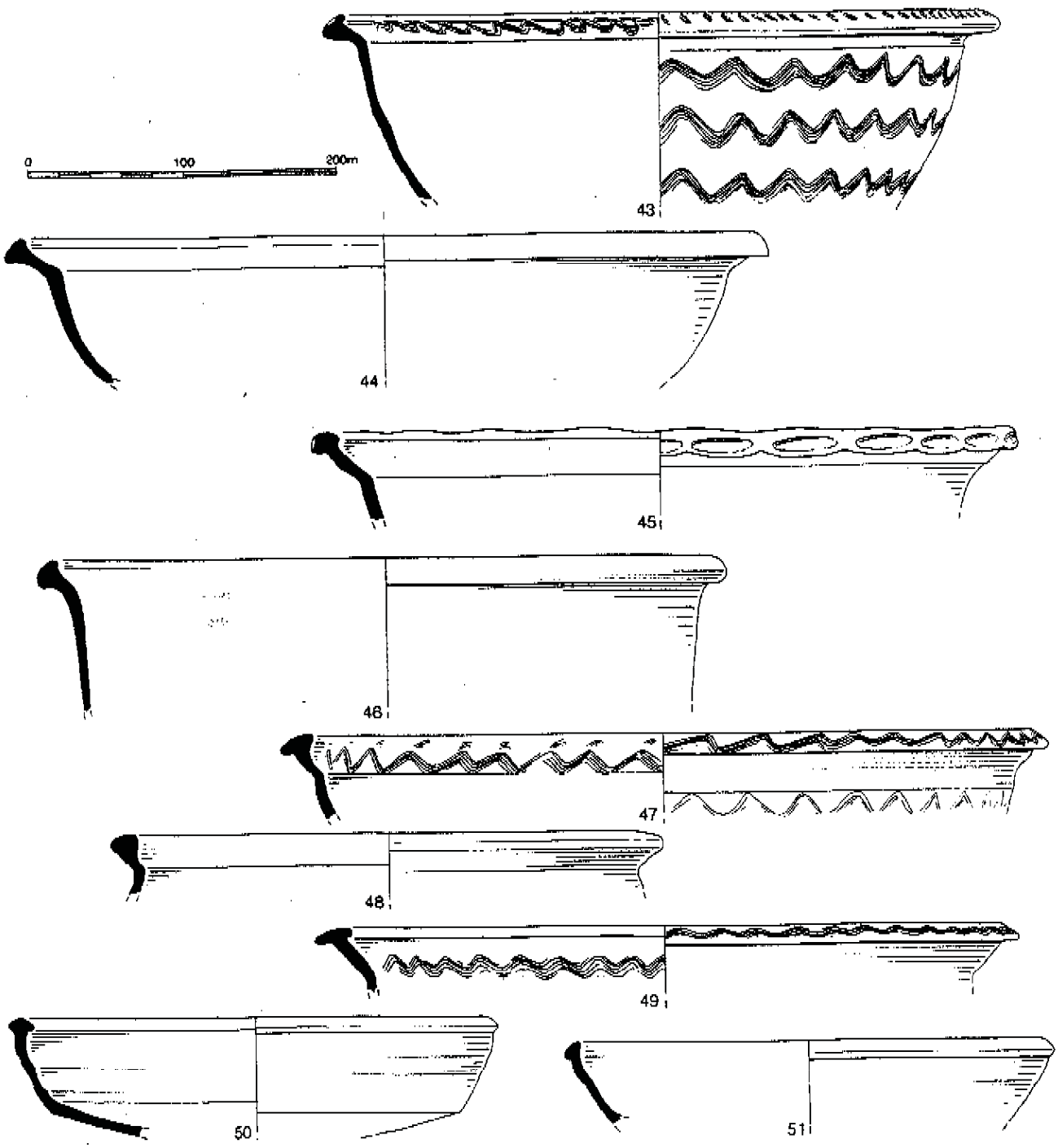


Figure 24: Enborne Street and Wheatlands Lane, medieval pottery

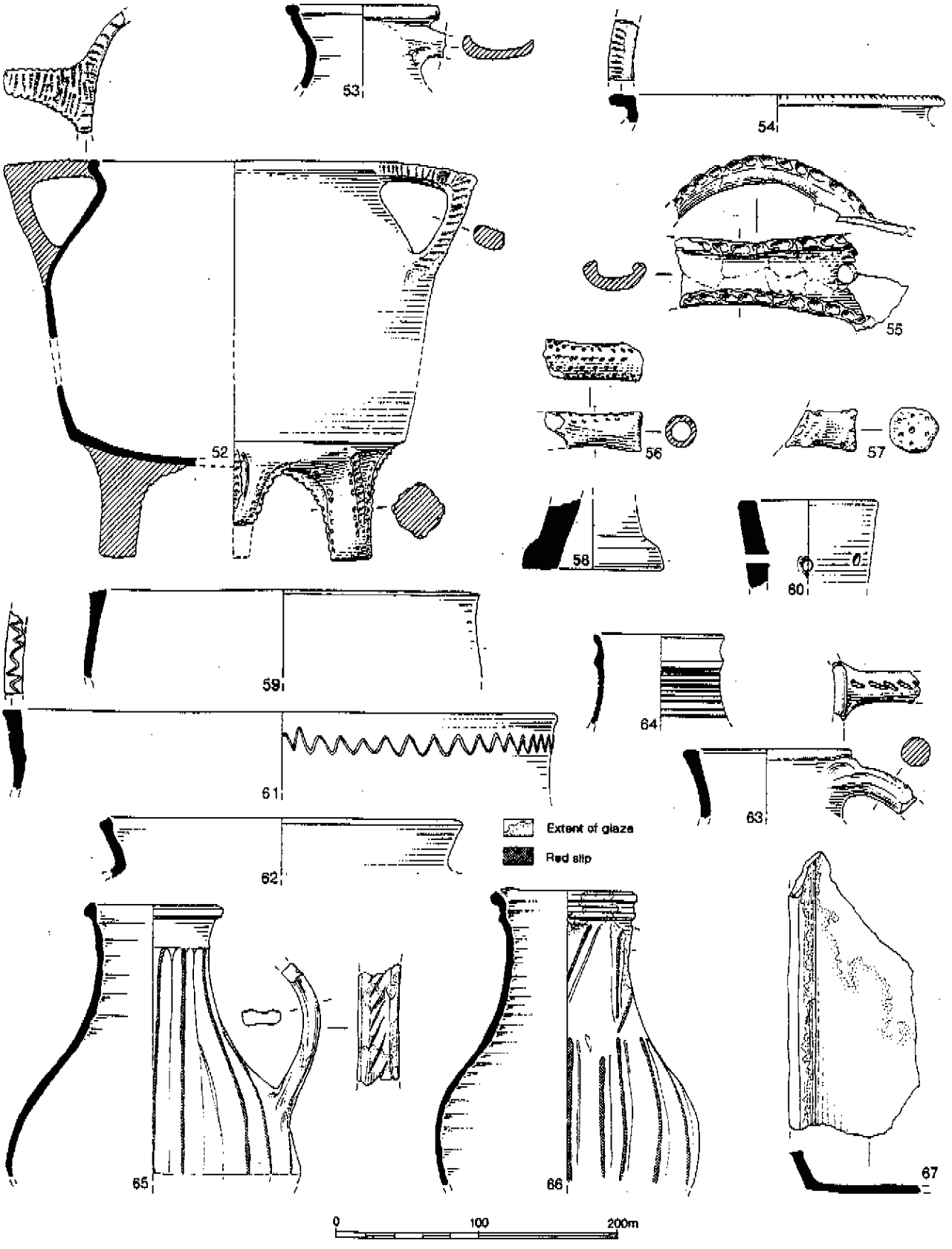


Figure 25: Enborne Street and Wheatlands Lane, medieval pottery

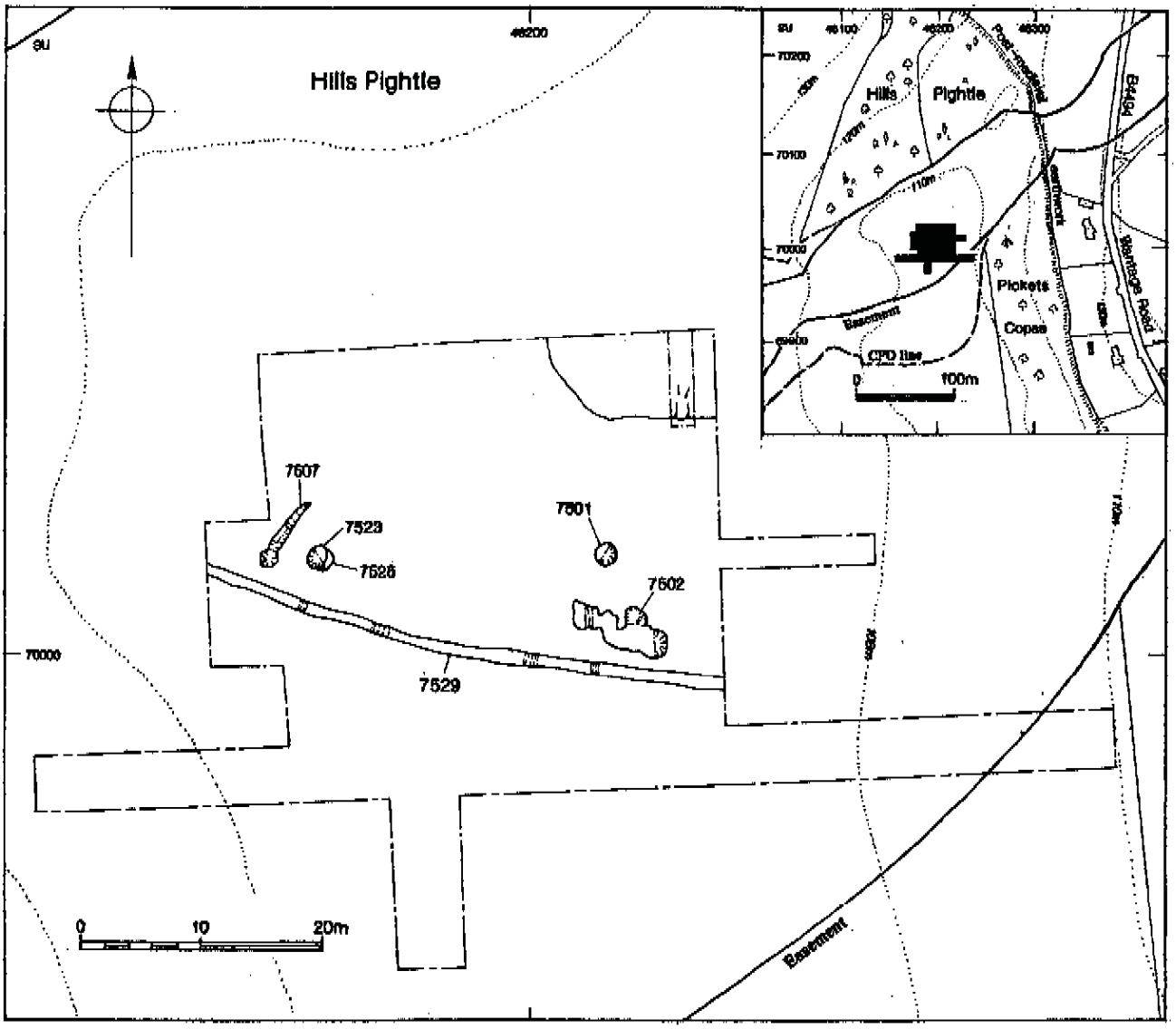


Figure 26: Hills Pightle, site location and all features plan

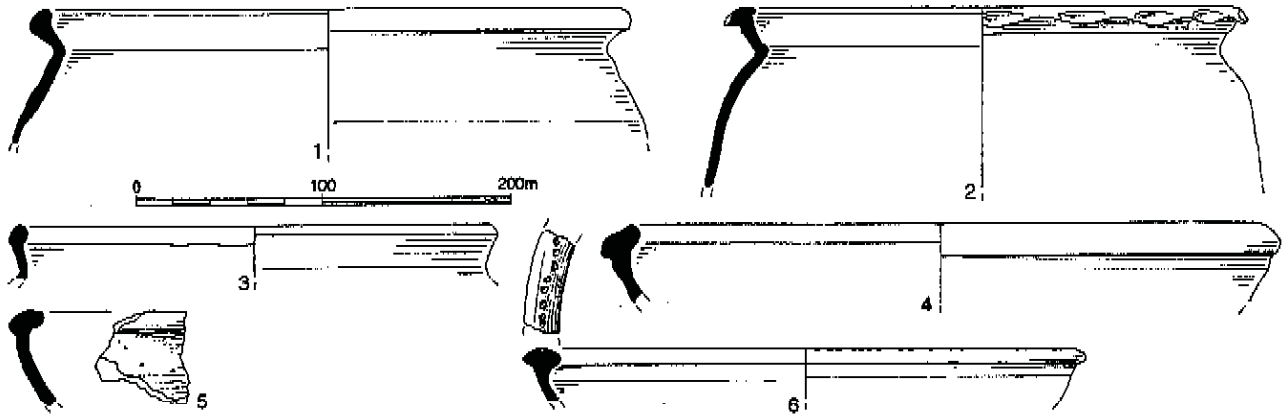


Figure 27: Hills Pightle, medieval pottery

PLATE 1.

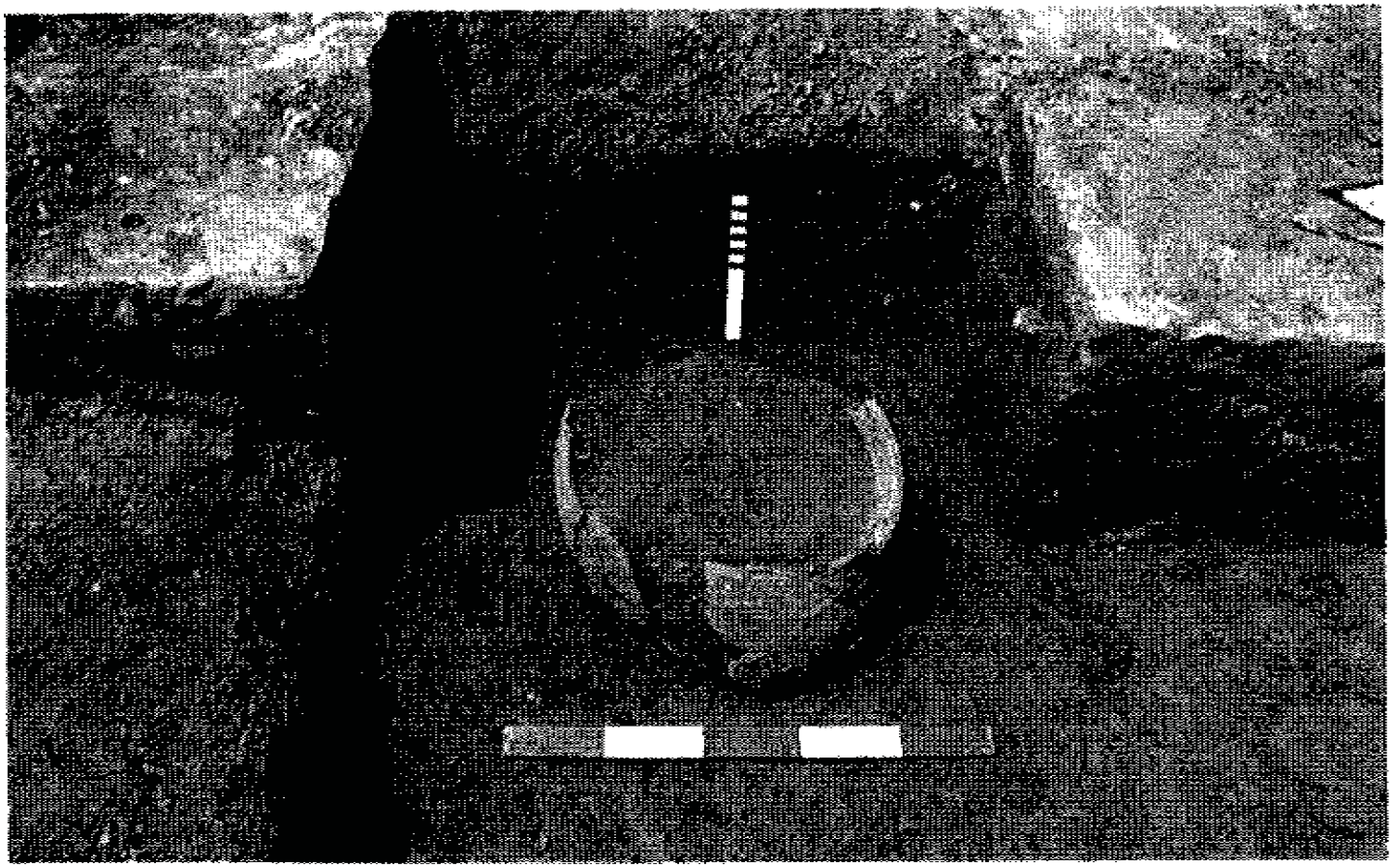


PLATE 2

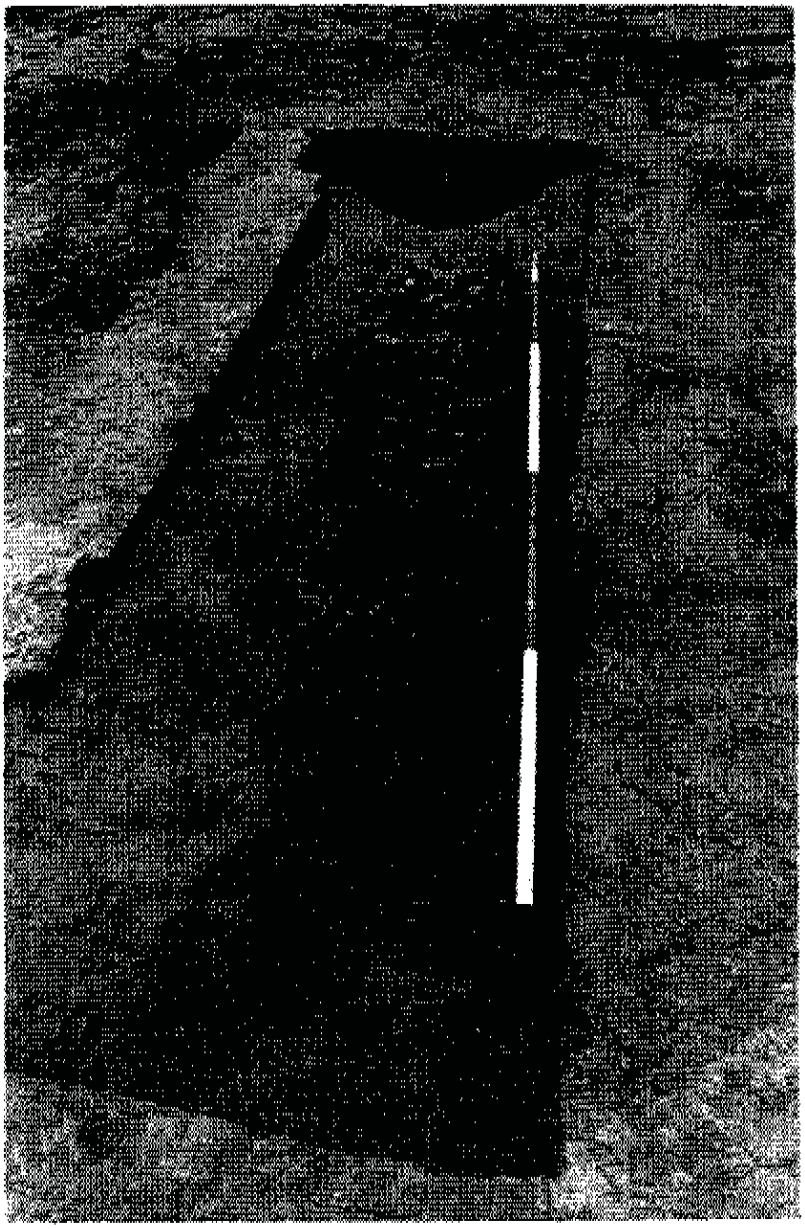


PLATE 3.

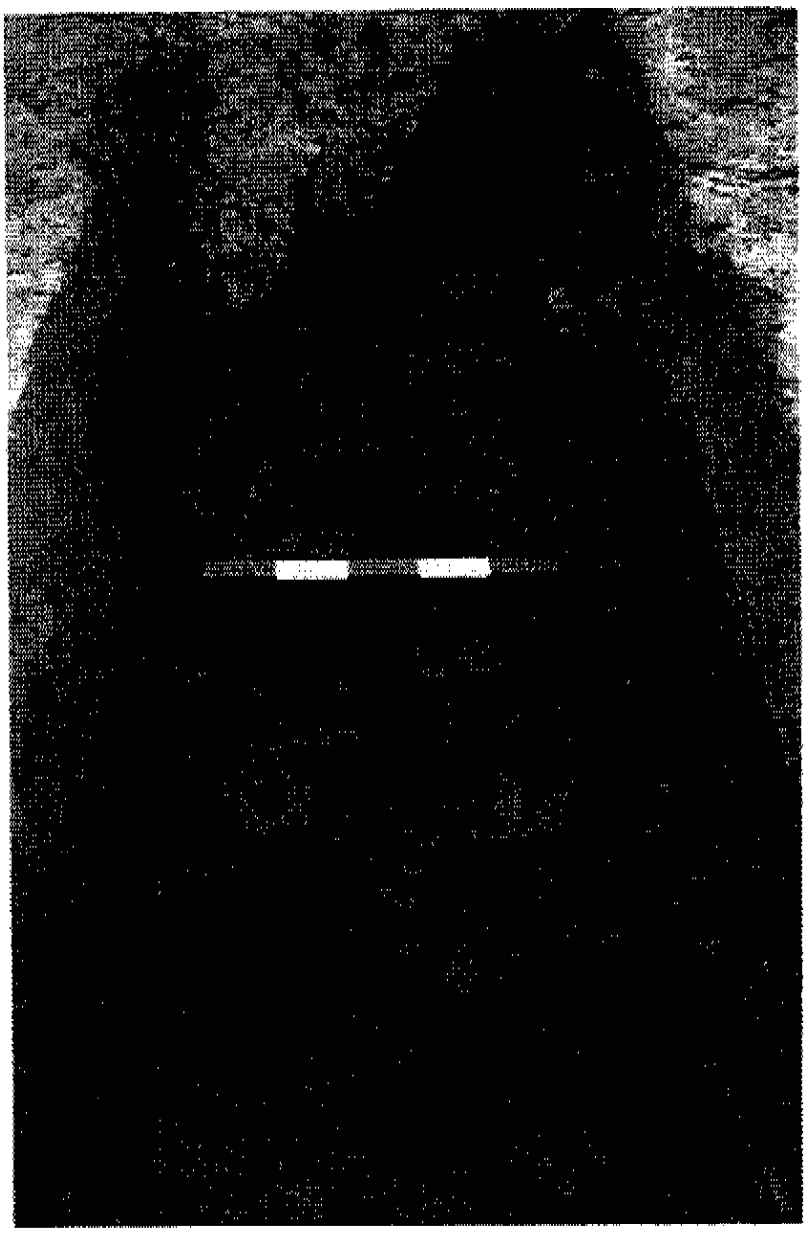


PLATE 4.