

Farmoor to Blunsdon Water Main: Excavations along the Pipeline Route, 2001 to 2004

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SUMMARY

Between 2001 and 2004 Cotswold Archaeology (CA) undertook archaeological recording along the route of the Farmoor to Blunsdon Water Main. The route runs parallel to and within a kilometre to the south of the River Thames and archaeological remains were discovered on the river terrace, on the floodplain and on the northern edge of the Corallian Ridge. They included Mesolithic flints recovered from the Corallian Ridge, middle Neolithic and early Bronze Age pits found on the gravel terrace, the peripheries of Iron-Age, Roman, Anglo-Saxon and early medieval farmsteads on the terrace and floodplain, and a medieval sheepcote on the floodplain. The Iron-Age remains included notable evidence for structured deposition within a ditch; this comprised the burial and subsequent burning of a box containing fruits and cereals. Associated with this act was the deposition of a horse pelvis, a lump of slag and a curated polished Neolithic stone axe. A Saxon sunken-featured building found at Broad Blunsdon (Wilts.) is reported on elsewhere.

Between July 2001 and August 2004 Cotswold Archaeology undertook archaeological recording along the Farmoor to Blunsdon Water Pipeline (NGR SP 4510 0790 to SU 1470 9020; Fig. 1). The pipeline route includes 29 km within Oxfordshire and 8.5 km within the borough of Swindon. This report details the findings within the Oxfordshire section. A brief note on the findings near Swindon will be published in the *Wiltshire Archaeological and Natural History Magazine*. The work constituted permitted development under the terms of the Town and Country Planning Act, with Thames Water Utilities Ltd commissioning the archaeological recording in accordance with the Code of Practice on Conservation, Access and Recreation, published as a result of the 1989 Water Act. The work was guided by detailed project designs produced by CA and approved by Mike Lang Hall (Lang Hall Archaeology), archaeological advisor to Thames Water, Hugh Coddington (Planning Archaeologist, Oxfordshire County Council), and Roy Canham (the then archaeological advisor to Swindon Borough Council).

The pipeline begins 0.8 km north of Farmoor, by Beacon Hill Reservoir (NGR SP 4510 0790; Fig. 1) at 133 metres OD on a limestone outcrop of the Corallian Ridge, a low range of Cretaceous sand and limestone hills. From here it runs southwards, parallel to and within 1–2 km of the Thames, descending to cross the Oxford Clay east of the Farmoor Reservoir. Where the Thames turns to run westwards between Appleton and Northmoor, the pipeline runs parallel, and the route skirts the northern edge of the Corallian Ridge. Just west of Kingston Bagpuize, the pipeline again descends to the Oxford Clay, which it crosses for the remainder of the Oxfordshire section.

Archaeological interest in the route arises from its location within the upper Thames valley, an area of known archaeological remains. The brief for archaeological recording included

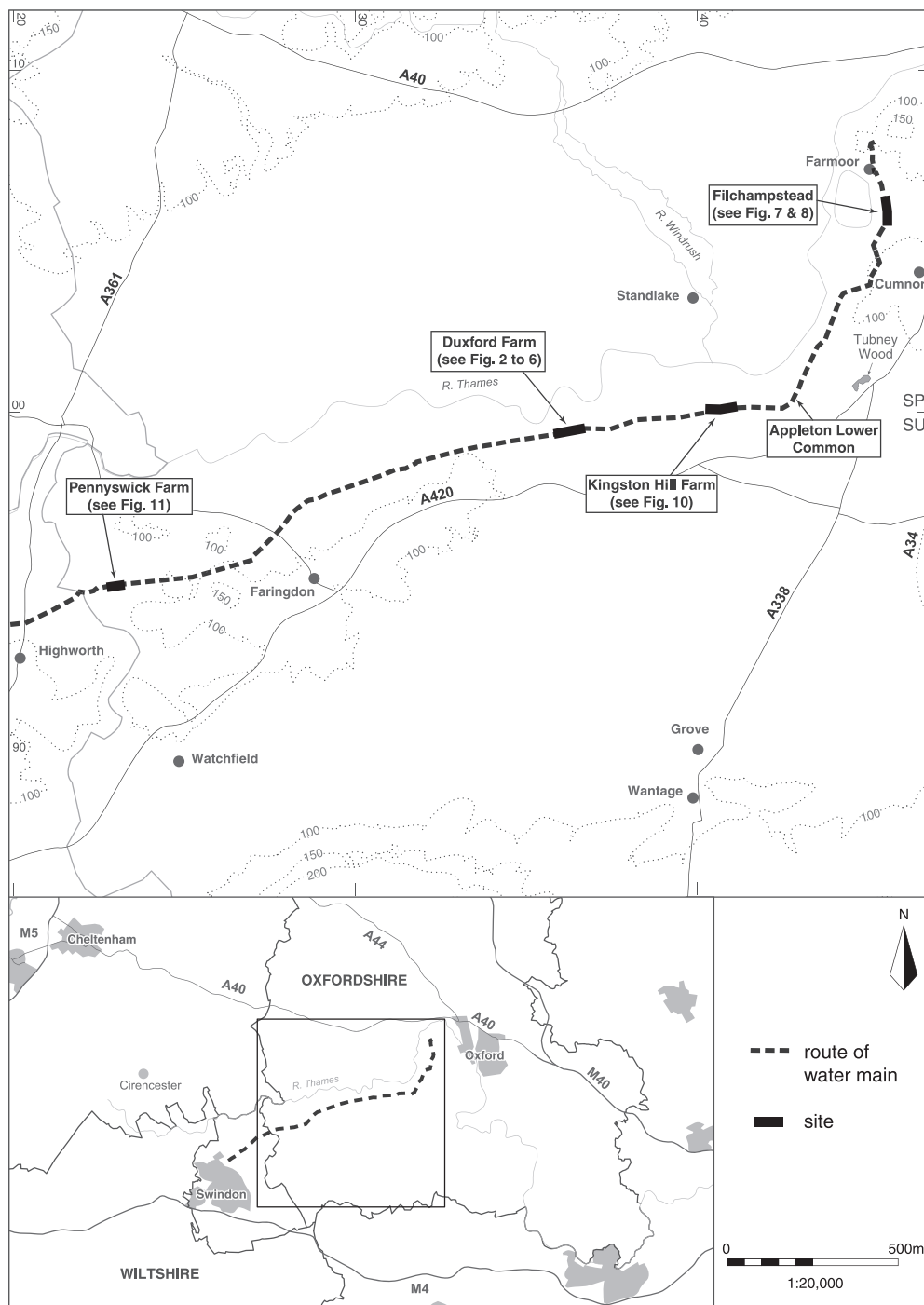


Fig. 1. Pipeline route, showing site locations.

a survey of the Oxfordshire and Wiltshire Historic Environment Records. Following this, aerial photographic and geophysical surveys were undertaken within areas of archaeological potential.¹ This preliminary work identified probable archaeological remains at Filchampstead, Cumnor (SP 4520 0572), and at Duxford Farm, Hinton Waldrist (SU 3620 9940). Possible remains identified at Kingston Hill Farm, Kingston Bagpuize-with-Southmoor (SP 4060 0010) were investigated further through the excavation of ten evaluation trenches. The discovery of remains at all of these sites meant that they were subsequently excavated to the full available width of the pipeline easement (10–14 metres). Additionally a watching brief was undertaken along the pipeline route. This identified one area of significant artefact concentrations (Appleton Lower Common, Appleton-with-Eaton (SP 4280 0040)) and subsoil features at Pennyswick Farm, Coleshill (SU 2293 9495). All topsoil and subsoil stripping was undertaken using 360° mechanical excavators equipped with toothless grading buckets, under archaeological supervision. The archaeological features were hand-excavated.

DISCUSSION OF THE RESULTS by JONATHAN HART

Mesolithic

At Appleton Lower Common, an assemblage of sixty-five worked flints was recovered from the topsoil and subsoil during the watching brief. No subsoil features were identified. The site is on the northern edge of the Corallian Ridge, with the Thames 700 metres to the north, although the ridge itself forms part of the watershed of a tributary of the Thames, the River Ock, which flows 4 kilometres south of the site. The assemblage includes both débitage and tools. None of the débitage represents primary knapping, but this is probably due to the recovery techniques which comprised hand collection during machine stripping rather than a programme of sieving. Although much of the assemblage includes items dateable to the Mesolithic or early Neolithic periods, ten bladelets are more closely dateable as Mesolithic and this dating is suggested for the assemblage as a whole, although closer dating within the Mesolithic is not possible.

Mesolithic occupation on the Corallian ridge, particularly overlooking the Thames valley, is well attested and it is likely that during the early Mesolithic the higher ground was less densely wooded than the river valley floors, with the latter becoming increasingly wooded and prone to episodic flooding into the later Mesolithic.² The site would therefore have provided access to a mixture of resources along water courses and the valley floor and at clearings on the higher ground which could have attracted game for hunting or plant species for gathering. Due to the nature of the watching brief conditions, it is not possible to estimate the spatial extent of this flint scatter, but the site is only 2 km west of extensive early Mesolithic flint scatters recovered from Tubney Wood. At that site, four scatters of flints have been recorded, and an estimate of the total number of flints represented by the two most recently recorded scatters, had they been fully sampled, is c.45,000–50,000 flints.³ The Tubney Wood assemblage included both débitage and tools and the large quantity of both is suggestive of prolonged, probably periodic, occupation.⁴ Although it is not possible to assess the completeness of the assemblage

¹ Air Photo Services, 'Farmoor to Blunsdon Main, Stage 1: Aerial Photographic Interpretation & Mapping: Archaeology', unpublished report, 164 (2001); GeoQuest Associates, 'Geophysical Survey on the Route of the Farmoor to Blunsdon Water Main, Stage 3', unpublished report (2002); Stratascan, 'Kingston Hill to Farmoor Main, Oxfordshire: Geophysical Survey Report', unpublished report, J1829 (2004).

² G. Hey and M. Robinson, 'Mesolithic Communities in the Thames Valley: Living in the Natural Landscape', in A. Morigi et al., *The Thames Through Time: Early Prehistory to 1500 BC*, Thames Valley Landscapes Monograph, 32 (2011), pp. 205–8.

³ A. Simmonds et al., 'Excavations at Tubney Wood Quarry, Oxfordshire, 2001–9', *Oxoniensia*, 76 (2011), p. 108.

⁴ *Ibid.* p. 109.

from Appleton Lower Common, it is likely that only a small proportion of the total number of flints in the vicinity was recovered and thus possible that another location of prolonged Mesolithic activity is represented. At Tubney Wood, the range of flints present suggested that the scatters represented base camps where a variety of activities were undertaken, perhaps during the winter months, with more task-specific sites having been located closer to the various resources being exploited.⁵

Middle Neolithic and Middle Bronze Age

Significant Neolithic remains were found at Duxford Farm, comprising a cluster of at least fourteen pits, with at least one further pit outlying this group. Two of the pits were associated with radiocarbon dates within the last three quarters of the fourth millennium BC (3334–2938 and 3339–3029 cal. BC; 95.4 per cent probability; SUERC-52050 and -52051), dating consistent with the Peterborough Ware pottery found within the pits. Shallow bowl-shaped Neolithic pits are widely distributed, with thousands of examples having been recorded within the upper Thames valley and beyond. Most dated examples belong to the middle or late Neolithic, although early Neolithic and early Bronze-Age examples are also known.⁶ Most seem to have been backfilled soon after they were excavated,⁷ and although not all contain finds, collectively these groups of pits usually yield small assemblages of fairly mundane artefacts and ecofacts, which can be seen as typical domestic debris. The pits found at Duxford fit well with this model, and consisted of shallow irregular to bowl-shaped cuts which collectively yielded pottery, flints and food waste including hazelnut shells, a few cereal grains and animal bones.

Such pits are commonly interpreted as having been deliberately excavated to dispose of small, representative samples of domestic waste, with the pit digging and burial of the waste representing acts of closure commemorating periods of occupancy within a site.⁸ This model should be placed within the context of the Neolithic landscape, which still comprised extensive woodland and settlement occurring within small man-made clearings which would have been grazed and occupied, but then allowed to regenerate as settlement shifted to a new clearing.⁹ The pits at Duxford Farm seem to have been excavated within just such a clearing and contained molluscs dominated by species associated with grazed or trampled grassland in the immediate vicinity, whilst the charred plant remains within the pit fills suggest that the edge of these clearings included shrubby species with the wider landscape having been wooded. In the early Neolithic period, such sites seem to have been marked by middens, and it has been suggested that these were not simply waste heaps, but represented a link to the past, with the implication that former clearings were re-cleared and re-occupied episodically.¹⁰ The middle- and late-Neolithic pits can be seen as successors to these middens, with the end of each period of occupancy being commemorated by the excavation of a few such pits and the burial of a few handfuls of debris representative of everyday domestic life. As such, these pits would then have remained in the collective memory, conceptually and, in some cases, physically since pits sealed by cairns have been recorded, marking the site as part of a community's long-term heritage.¹¹ Not all of the finds within such pits are mundane, however, and there is evidence that some of these closure events were marked by ceremonies which

⁵ Ibid.

⁶ G. Hey and M. Robinson, 'Neolithic Communities in the Thames Valley: The Creation of New Worlds', in A. Morigi et al., *The Thames Through Time*, pp. 241–5.

⁷ J. Thomas, *Understanding the Neolithic* (1999), p. 65.

⁸ D. Garrow et al., 'Pit Clusters and the Temporality of Occupation: An Earlier Neolithic Site at Kilverstone, Thetford, Norfolk', *Proceedings of the Prehistoric Society*, 71 (2005), p. 151; J. Thomas, 'Introduction: Beyond the Mundane?', in H. Anderson-Whymark and J. Thomas (eds.), *Regional Perspectives on Neolithic Pit Deposition; Beyond the Mundane*, Neolithic Studies Group Seminar Paper, 12 (2012), p. 2.

⁹ Hey and Robinson, 'Neolithic Communities in the Thames Valley', p. 225.

¹⁰ Hey and Robinson, 'Neolithic Communities in the Thames Valley', p. 240.

¹¹ Thomas, *Understanding the Neolithic*, p. 72; Thomas, 'Introduction: Beyond the Mundane?', p. 9.

included feasting and the burial of special items. Bones from at least one red deer were found within one of the pits at Duxford Farm. Although these were meat-poor leg bones, they were perhaps token representations from a feast associated with the end of a period of occupation. If so, the ceremonies that accompanied this act of closure may have occurred over several days, beginning with a hunting party leaving the settlement to catch the deer, then the preparations for the feast, with the accompanying smells and sight of cooking meat and, finally, the burial of selected remains to commemorate these events and the period of occupation. It is a reasonable supposition that the arrowhead and flint axe fragment found within the same Duxford Farm pit as the deer bones were specially deposited during these ceremonies, and perhaps had specific connotations, most obviously in the case of the arrowhead, to do with hunting.

It has been noted that the pits within the upper and middle Thames valley almost always occur in small clusters of up to three pits, presumably with each cluster representing the end of a period of habitation within a clearing. The Duxford Farm pits therefore represent an atypically large group, but this is paralleled beyond the region. At Kilverstone (Norf.) several pit groups were present and radiocarbon dating of these groups suggested episodic settlement over a period of at least 400 years.¹² At Duxford Farm, conjoining pottery sherds were shared across five of the fourteen dated Neolithic pits and whilst this might simply reflect redeposition from a midden deposit at different times, it is possible that these five pits represent one phase of closure, with the remaining pits representing at least one other phase. Unfortunately, although the two radiocarbon dates are from pits within each of these suggested minima of two phases, the date ranges overlap and provide no further support for this suggestion.

No structural remains were found at Duxford Farm, and houses are generally rarely found on Neolithic sites, particularly after the middle of the fourth millennium BC.¹³ This may simply reflect the construction techniques used: broadly rectangular gaps between the early Neolithic pit groups at Kilverstone were interpreted as the locations of rectangular buildings, constructed in a form which left no direct trace.¹⁴ No such building locations could be identified at Duxford Farm, although whether this reflects true absence or the narrow extent of the excavated area is not known.

At least two of the pits at Duxford Farm were Bronze Age in date. One of these contained an unabraded middle Bronze-Age Globular Urn sherd, whilst the other included a cylindrical loomweight comparable to middle Bronze-Age forms found elsewhere and in this case buried alongside Neolithic flints, including flakes from a polished stone axe and two scrapers. The loomweight was deposited intact and unused and is unusual in being decorated, which together suggest that it may have been specially deposited, perhaps alongside deliberately curated Neolithic flints. Aside from two residual early Bronze-Age arrowheads found within a Roman ditch no other Bronze-Age remains were found. The Bronze-Age remains at Duxford Farm are more akin to the middle Neolithic settlement model than to middle Bronze-Age open or enclosed roundhouse settlements seen elsewhere in the Thames valley and beyond. However, whilst the tradition of digging small pits on periodically occupied sites seems to be a phenomenon of the Neolithic and early Bronze Ages,¹⁵ Lambrick postulated that the discovery of early and middle Bronze-Age pits would indicate that the transition from less to more sedentary occupation was probably variable and it is likely that the middle Bronze-Age examples at Duxford Farm provide evidence for this late survival of an early prehistoric tradition.¹⁶

¹² Garrow et al., 'Pit Clusters and the Temporality of Occupation.'

¹³ G. Chaffey and E. Brook, 'Domesticity in the Neolithic: Excavations at Kingsmead Quarry, Horton, Berkshire', in Anderson-Whymark and Thomas (eds.), *Regional Perspectives on Neolithic Pit Deposition*, p. 210; Hey and Robinson, 'Neolithic Communities in the Thames Valley', p. 234.

¹⁴ Garrow et al., 'Pit Clusters and the Temporality of Occupation.'

¹⁵ Hey and Robinson, 'Neolithic Communities in the Thames Valley', p. 241.

¹⁶ G. Lambrick, 'Settlements and Settlement Patterns', in G. Lambrick and M. Robinson, *The Thames Through Time: Late Prehistory, 1500 BC–AD 50*, Thames Valley Landscapes Monograph, 29 (2009), p. 92.

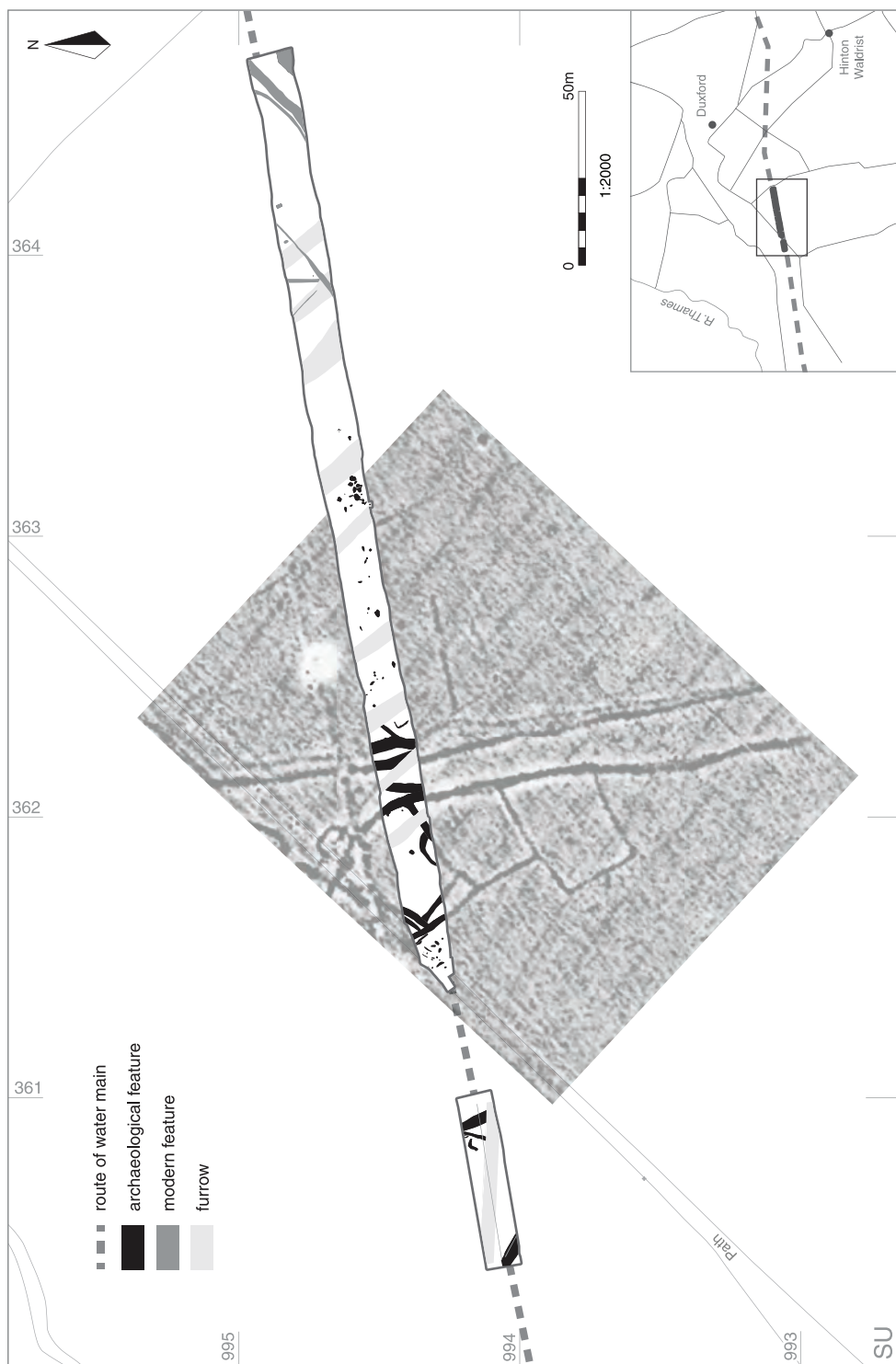


Fig. 2. Duxford Farm: site location plan and geophysical survey plot.

Iron Age and Roman

Iron-Age remains were found at two sites along the pipeline route, at Filchampstead and at Duxford Farm. At both sites, the peripheries of agricultural settlements would seem to have been exposed. At Filchampstead the site was located on Oxford Clay overlain by gravel bands, the latter probably underlying drier soils. One of these gravel bands was the location of two possible small rectilinear enclosures containing a waterhole and a four-post structure associated with early to middle Iron-Age calcareous pottery. Further pottery of this type was recovered from a cylindrical pit found on the clay 45 metres to the south. The site is 1 km east of early and middle Iron-Age remains revealed at the Farmoor reservoir, which included early Iron-Age storage and refuse pits on the gravel terrace, along with three small middle Iron-Age farmsteads, each comprising a roundhouse within a small enclosure and associated with small paddocks for stock.¹⁷ The remains at Filchampstead are comparable to the stock enclosures and included limited evidence for grain use or consumption: the single steep-sided pit could have been for grain storage, whilst the four-post structure might have been a raised grain store, but was perhaps more probably a hayrick for livestock and, as with the Farmoor sites, keeping livestock was probably the dominant part of the economy at Filchampstead. In common with the earlier remains at Farmoor, no house locations were identified at Filchampstead but daub within the Farmoor pits may have been used to clad buildings and it is possible that houses at both sites were built in a form that left no trace, or simply lay beyond the excavated areas. In either case, the range of finds at both sites suggests proximity to settlement.

The late Iron-Age site at Filchampstead included the establishment of a boundary which was successively re-cut. Although this implies some longevity, the ditches were fairly shallow and might have filled rapidly during seasonal flooding, so that this re-cutting could in fact point to seasonal use of the site. This is also suggested by molluscs from the boundary which reveal that the site was periodically inundated. This parallels the middle Iron-Age farmsteads at Farmoor which were also prone to seasonal flooding and were probably used seasonally during the spring and summer grazing of the valley floor. The boundary ditch at Filchampstead had been re-cut at least four times, perhaps suggesting occupation over five successive spring/summer seasons, a duration comparable to that proposed for each of the farmsteads at Farmoor.¹⁸ In this respect, it is interesting to note clear evidence for structured deposition at Filchampstead. Most convincing was a small cut excavated into the second fill of one of the boundary ditch re-cuts. An oak box containing cereals and fruits had been placed into the cut and then burnt in situ using kindling placed inside the box. During this ceremony, three objects were placed together in the ditch alongside the box: a lump of slag, a complete horse pelvis and a polished Neolithic stone axe, the latter a curated item that had been burnt at or near the ditch (see flint report, below). It is tempting to see this ceremony as having occurred at the end of a period of summer occupation, when the ground was still dry enough for the box to have burnt within the ditch. The remains of a wooden box represent a rare discovery, and are without direct parallel for the Iron Age. However, recent excavations at Burrough Hill Iron-Age hillfort (Leics.) revealed a pit containing the remains of a chariot laid out in a way that implied that they had been buried within a box of which no physical trace survived.¹⁹ The chariot parts had been laid on a bed of chaff and then burnt in situ in a ceremony redolent of that at Filchampstead. At Filchampstead two further horse pelvises and a horse skull found within the fills of other late Iron-Age ditches might also have been closure deposits. Given that only a small number of features were exposed within the confines of the

¹⁷ G. Lambrick and M. Robinson, *Iron Age and Roman Riverside Settlements at Farmoor, Oxfordshire*, Oxford Archaeological Unit Report, 2 (1979).

¹⁸ Lambrick and Robinson, *Iron Age and Roman Riverside Settlements at Farmoor*, p. 1.

¹⁹ J. Thomas and J. Taylor, University of Leicester press release at <http://www2.le.ac.uk/offices/press/press-releases/2014/october/university-of-leicester-archaeologists-discover-bronze-remains-of-iron-age-chariot> (accessed February 2015).

pipeline easement, the presence of three horse pelvises and a horse skull seems significant, although whether these suggest that the economy included horse breeding or that horses were specially selected (either dead or alive) as part of closure ceremonies is not known. However, it is interesting to note that although the Filchampstead ceremony was a humbler version of that at Burrough Hill, both included equine references.

At Farmoor, evidence for late Iron-Age occupation was absent and the site seems to have been utilized for unenclosed and uninhabited grazing land into the early Roman period. Whilst the remains at Filchampstead reveal that the floodplain continued to be the location for what were presumably small, seasonal pastoral farmsteads into the late Iron Age, the small quantity of Roman finds from the site are less easy to interpret and could represent some continuity into the early Roman period, or abandonment of the farmsteads with the land given over to general grazing.

Iron-Age rural remains were also found at Duxford Farm on the gravel terrace 1 km south of the Thames. Here the exposed remains comprised a transect through Iron-Age and Roman routeways and a series of Roman sub-rectangular enclosures revealed during a geophysical survey. Evidence for early Iron-Age occupation was absent and use of the site seems to have begun in the middle Iron Age (c.400–100 BC) at which time a trackway/droeway and a possible hollow way were laid out leading across the terrace towards the river. Finds from these features were few in number, suggesting an agricultural character to this activity, and indicating that any settlement was focused elsewhere. Objects continued to collect in these features into the late Iron Age and a small 'L'-shaped ditch containing charcoal, burnt stones, burnt clay and fifty-five sherds of late Iron-Age pottery was perhaps the location of a working area which included heating processes, with the ditch possibly having been the structural trench for a windbreak or shelter.

Duxford Farm, in contrast to the site at Filchampstead, was used during the Roman period. Two phases of Roman activity were noted, dating to the earlier and later Roman periods. During the earlier Roman period the Iron-Age trackway was re-used, although on a slightly different alignment, and its northern end was re-modelled to funnel out into what may have been a large enclosure located to the north of the excavated area and partially recorded during the geophysical survey. On both sides of this trackway, sub-rectangular enclosures were added. A curvilinear ditch within one of these was poorly dated and of uncertain function. The later Roman activity was more confidently dated, with pottery and coins within ditch fills suggesting use into the later fourth century. During the later Roman period, the trackway ditches and adjoining paddocks were maintained with a few modifications and the finds assemblage from these includes pottery, coins, animal bone, iron objects and a rotary quern fragment which together suggest that the exposed remains were on the periphery of a settlement, perhaps a farmstead located within the putative enclosure north of the site. It seems likely that Duxford provides further evidence of the pastoral Iron-Age economy, which was in this case retained or renewed in the Roman period, although an agrarian element is evidenced by charred grains present within a Roman pit. There are indications that older sheep and cattle were kept during the Roman period at Duxford, presumably for milk and wool, which seems to represent a change of practice from the Iron-Age occupation. Based on the parallels with the Farmoor settlements, it may be that the site at Duxford was used for seasonal grazing in the spring and summer, with the trackway having led across the floodplain from pastures on the Corallian Ridge. Interestingly, the alignment of the trackway, assuming it continued without deviating, would lead it via a combe up the Corallian Ridge to Cherbury hillfort, 3.2 km south-east of the site. This hillfort was constructed in the fifth to fourth centuries BC and was probably abandoned by the first century BC,²⁰ but might perhaps have remained in use as a focus for collecting livestock during movements to and from spring/summer grazing.

²⁰ J.P.S. Bradford, 'The Excavation of Cherbury Camp, 1939: An Interim Report', *Oxoniensia*, 5 (1940), pp. 13–20.

Early to Middle Saxon

At Appleton Lower Common an assemblage of 125 sherds of hand-built early and early to middle Anglo-Saxon pottery was hand collected from the topsoil during machine watching. To this can be added the 503-sherd assemblage of (mostly later) Roman pottery and five coins. A glass bead of late Roman to early Anglo-Saxon date was also found at the same location (Fig. 17). No cut features of this date were identified but the finds are suggestive of proximity to settlement, rather than simply being inclusions deposited during manuring. The site is 2.3 km east of Kingston Hill Farm and also lies on the northern edge of the Corallian Ridge.

Medieval (by Jonathan Hart and Matilda Holmes)

At Kingston Hill Farm a medieval field system was discovered on the northern edge of the Corallian Ridge, 1.2 km south of the Thames. Aside from a few residual Roman pottery sherds, there was no evidence for Roman occupation, although a Roman farmstead is believed to have existed in the vicinity of the present day Kingston Hill Farm and a few early Saxon sherds were found at the same location.²¹ The current site, which is 200 metres west of the present farm, was shown to have been used from at least the tenth century AD, when boundaries were constructed defining fields or paddocks. At least one of these boundaries may have been in the form of a hedge-bank. Finds within the ditch fills were sparse, suggestive of deposition through manuring rather than having derived from occupation in the immediate vicinity. The not inconsiderable quantity of early to middle Saxon pottery from this site gives grounds for suspecting activity in the eighth or ninth century or earlier, but little if any of this pottery appeared to be in its primary context, most being found alongside medieval sherds. The field system was modified later, perhaps from the eleventh century, when sub-rectangular paddocks were laid out on a grid. A small number of pits of unknown function were also present during this later phase of use but the site seems to have remained on the periphery of settlement to judge by the small number of recovered finds.

Overall, the site can be placed within the context of the agricultural intensification of later Anglo-Saxon period. The small paddocks at Kingston Hill Farm suggest that the site was part of the specialized cattle economy that has been proposed for the mid to late Saxon upper Thames region,²² although it is of course possible that arable farming was undertaken elsewhere within the same estate.

At Pennyswick Farm, in the Oxford Clay Vale, a long and narrow rectangular ditched feature compares well with the shape and dimensions of sheepcotes described by Christopher Dyer. These were long, narrow structures, with cited examples ranging from 23 metres long and 8 metres wide to 65 metres long and 8–9 metres wide.²³ The example at Pennyswick Farm was 46 metres long and 5.5 metres wide. Dyer's cited examples all survived as low earthworks within the Cotswolds but they are recorded across England and parts of the continent and almost every manor probably had at least one.²⁴ Both upland and lowland sheepcotes are recorded,²⁵ and the Pennyswick sheepcote is an example of the latter.

Excavated sheepcotes cited by Dyer had rubble foundations but the building methods used for the Pennyswick example are not readily apparent. The structural ditch had a shallow, flat-based profile and contained a highly compact silty fill which could have been the base of cob walls, packing around plank walling or have supported stone footings. Minety roof tiles found at Pennyswick suggest how the sheepcote might have been roofed, although it is possible that such structures were long-lived and underwent changes during their use, including in

²¹ J. Moore, 'Kingston Bagpuize, Kingston Hill Farm', *SMidLA*, 31 (2001), p. 44.

²² P. Booth et al., *The Thames Through Time: The Early Historical Period, AD 1–1000*, Thames Valley Landscapes Monograph, 27 (2007), p. 330.

²³ C. Dyer, 'Sheepcotes: Evidence for Medieval Sheep Farming', *MedArch*, 39 (1995), pp. 136–64, table 1.

²⁴ *Ibid.* p. 150.

²⁵ *Ibid.* fig. 1.

the materials used for roofing. For this reason, it is unknown whether the Minety roof tiles, dateable to the fourteenth century, provide a full indication of the antiquity of the Pennyswick sheepcote and the only other dating evidence from the site comprised a post-medieval or later harness fitting or machine component from the surface of the sheepcote. A Henry V penny recovered from the topsoil had no certain association with the sheepcote but Dyer cites twelfth- to the eighteenth-century documentary references to sheepcotes,²⁶ and comparably broad dating must be accepted for the current example, with the acknowledgement that it was certainly in use during the fourteenth century.

The finds assemblage from the Pennyswick sheepcote is dominated by the bones of sheep/goat, with all identifiable examples being sheep. The presence of at least two lambs in the bone assemblage indicates that the sheepcote was used during lambing in late winter or spring. However, documentary sources cited by Dyer suggest that sheepcotes served a variety of functions throughout the year, including as shelters for overwintering livestock, traditionally between November and April, and as centralized locations for stores, the administration of an estate's livestock and the accumulation of manure.²⁷ The majority of the animal bones at Pennyswick were from older sheep and displayed little evidence for butchery, suggesting that these were the remains of animals that had died during the winter and were disposed of without being butchered. In a treatise on the rural economy of Gloucestershire in 1796, it was observed that sheep were allocated one square yard per animal.²⁸ Using this formula, the Pennyswick sheepcote could have housed c.480 sheep. Contemporary illustrations depict tightly packed sheep in similar buildings, such as that of the *Très Riches Heures* commissioned by the Duc de Berry in the fifteenth century (Fig. 19), and documentary sources indicate that sheep were allowed out to graze during clement weather.²⁹

EXCAVATION RESULTS by JONATHAN HART

Duxford Farm

The site (centred on SU 3620 9940) lies within the Thames valley at 65 m OD, 1 km south of the River Thames (Fig. 1.). Aerial photographs and the geophysical survey revealed enclosures either side of a wide driveway/trackway which apparently funnels out into a wider enclosed area at its northern end (Fig. 2.). The east-west extent of these features was exposed across two fields along the pipeline easement to a width of 14 m. Grey-brown sandy gravel substrate, part of the river terrace, was exposed throughout the site, sealed by 0.4 m of topsoil. The absence of any subsoil suggests some degree of truncation by ploughing, although relationships between intercutting features were generally established with confidence. The majority of the archaeological features lay within the western half of the site, with the eastern end containing only modern features.

Middle Neolithic. A concentration of Neolithic pits was identified towards the centre of the site, the majority cut into a red-brown palaeochannel fill or palaeosoil (Figs. 3 and 4). Most of the pits were dated to the middle Neolithic period based on two radiocarbon determinations, the presence of Peterborough Ware and characteristically Neolithic flint assemblages. However, two pits in this part of the site were dated by finds to the middle Bronze Age (see below) and several undated examples in the vicinity might belong to either period. There was considerable variability in the size and morphology of these pits. They ranged in size from 0.45 m–2.2 m wide and 0.1 m–0.55 m deep and consisted of oval to

²⁶ Ibid. pp. 136, 151.

²⁷ Ibid. pp. 150–55.

²⁸ Ibid. p. 151.

²⁹ Ibid. p. 152.

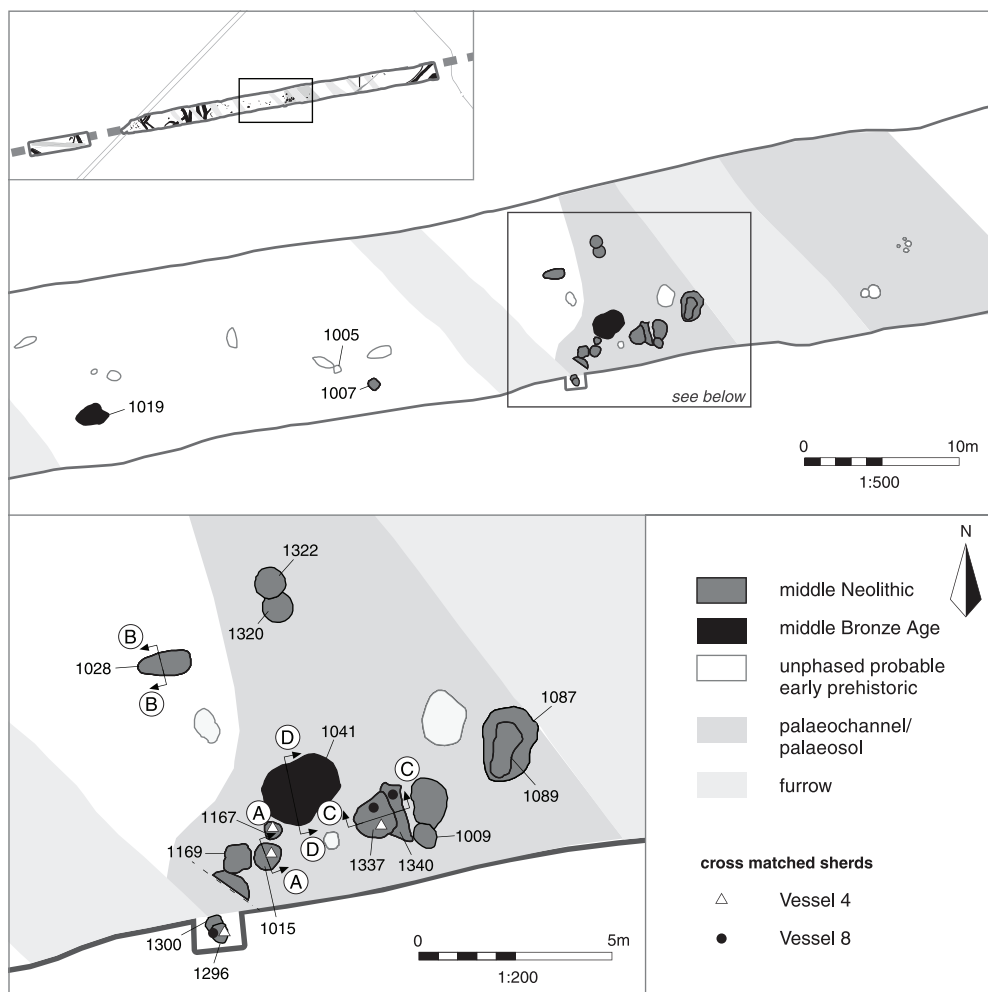


Fig. 3. Duxford Farm: plan of middle Neolithic and middle Bronze-Age pits.

circular cuts with irregular, bowl-shaped or steep-sided profiles (Fig. 5, sections AA–CC). The majority contained up to two red-brown sandy silt fills which frequently included charcoal, fragmented animal bone, worked flints and Peterborough Ware pottery. Pottery sherds probably from the same vessel (Vessel 4) came from pits 1167, 1337, 1015 and 1296 whilst sherds from a second vessel (Vessel 8) were shared across pits 1296, 1337 and 1340. Pit 1007, 15 m west of the main cluster, had a notably different lower fill, comprising ashy clay, which was overlain by an orange-brown sandy clay with animal bone, flints (including an arrowhead and a re-worked fragment of a Neolithic polished flint axe) and Peterborough Ware pottery. This pit yielded most of the Neolithic animal bone found on site, the majority of which within pit 1007 were leg bones of a single red deer. The bones present suggest that the carcass was butchered on site, and this was also true of the remains of cattle, sheep/goat and pig, which were found in smaller numbers within the pits. Collectively, the Neolithic pits also yielded a large assemblage of charred hazelnut shells and a smaller assemblage of cereal grains, three of which may have been naked barley. Charred hazelnut shells from pits 1015 and 1009 gave radiocarbon dates of 3334–2938 cal. BC and of 3339–3029 cal. BC respectively



Fig. 4. Duxford Farm: middle Neolithic and middle Bronze-Age pits, looking east.

(95.4 per cent probability; SUERC- 52050 and 52051 respectively; Table 1), dates compatible with the Peterborough Ware pottery.

Samples from the pits produced mollusc species indicating that these pits were cut at a time when the immediate vicinity had already been cleared of trees and was characterized by very dry grassland which was grazed or trampled. Charred plant remains and charcoal from the pits suggest that the wider environs comprised mixed mature woodland, with the presence of shrubby species suggestive of localized clearings.

Middle Bronze Age. Pit 1019, west of the Neolithic pits (Fig. 3.), contained an unabraded middle Bronze-Age Globular Urn sherd. Pit 1041 (Fig. 5, section DD), found at the same location as the Neolithic pits, contained a Bronze-Age decorated cylindrical loomweight (Fig. 16), alongside Neolithic flints, including flakes from a polished stone axe and three scrapers (Fig. 14). In addition, two early Bronze-Age arrowheads (Fig. 13) were found within a Roman ditch and it is possible that some of the undated pits may have been Bronze Age rather than Neolithic in date.

Middle Iron Age. A small number of Iron-Age features were found towards the western end of the site. Although much of the pottery from these features was only broadly dateable as Iron Age, overall the assemblage is suggestive of a middle Iron-Age date (c.400–100 BC). The features focused on a north–south aligned trackway, defined by ditches 1124 and 1173, both c.1.2 m wide and 0.5 m deep with rounded bases and 12 m apart (Fig. 6). Internal surfacing was absent but the stepped profiles of these ditches are suggestive of successive re-cutting. Finds from the ditch fills were restricted to small quantities of middle Iron-Age pottery, with some late Iron-Age/early Roman material from an upper fill. Along its eastern side, the trackway was adjoined by another Iron-Age ditch, 1122, a broad round-based ditch c.1.45 m wide and 0.35 m deep, probably part of an adjacent field system. A larger feature, 2013

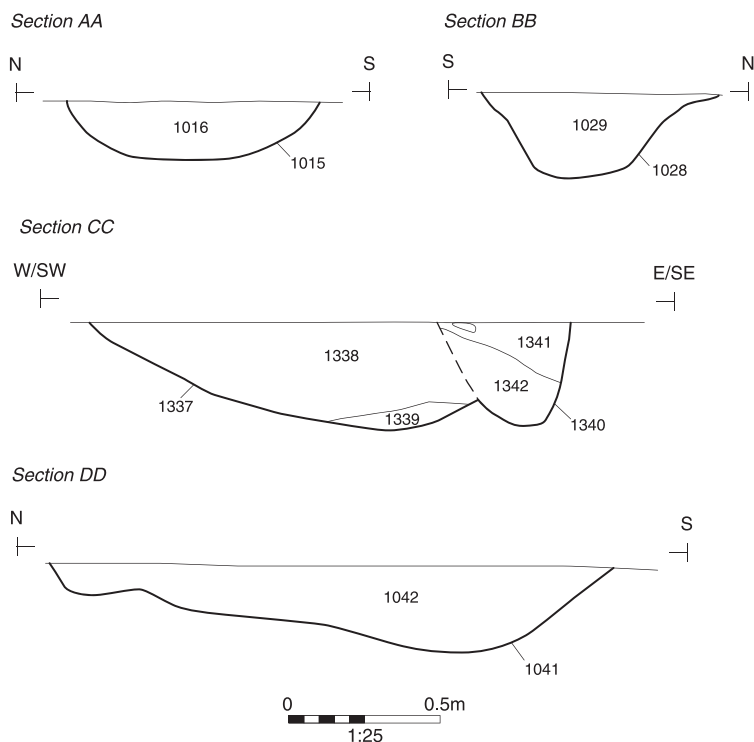


Fig. 5. Duxford Farm: sections through middle Neolithic and middle Bronze-Age pits.

was found 125 m west of the trackway and was a broad north-west to south-east aligned cut 4 m wide and 0.95 m deep with steep sides. The broad, flat-based profile of this feature may suggest that it was a hollow way rather than a ditch. It contained silty sand fills which included middle Iron-Age pottery and an iron reaping hook (Fig. 18.1). West of this, ditch 2007 was 3.4 m wide and 1 m deep with a stepped profile suggestive of re-cutting and may have been a field boundary.

Pit 1013, 20 m east of the trackway, also included middle Iron-Age pottery, alongside frequent charcoal and burnt and unburnt animal bone. It was oval in shape, 1.6 m long, 0.85 m wide and 0.35 m deep with a rounded base. Shallow pit/posthole 1218 (0.45 m in diameter and 0.1 m deep), 60 m west of the trackway contained possible Iron-Age pottery.

Late Iron Age. Late Iron-Age activity was restricted to two features at the western end of the site, and a few pottery sherds of this date from the upper fills of some middle Iron-Age ditches. 'L'-shaped ditch 2021 was 4.5 m long and had been re-cut along its length by a ditch 1.2 m wide and 0.55 m deep. The original cut yielded charcoal and Iron-Age pottery, whilst the fills of the re-cut were dark and contained burnt stones, charcoal, burnt clay and late Iron-Age pottery. An adjacent shallow pit or ditch terminal (2028; 0.45 m across and 0.15 m deep) with Iron-Age pottery was perhaps associated with this feature.

Early Roman. Roman activity included two stratigraphic phases, associated with early and late Roman pottery respectively. During the early Roman period, the Iron-Age trackway was re-used or maintained but was slightly re-aligned and was also re-modelled at its northern end to lead into what seems to have been a large enclosure beyond the excavated area visible on the

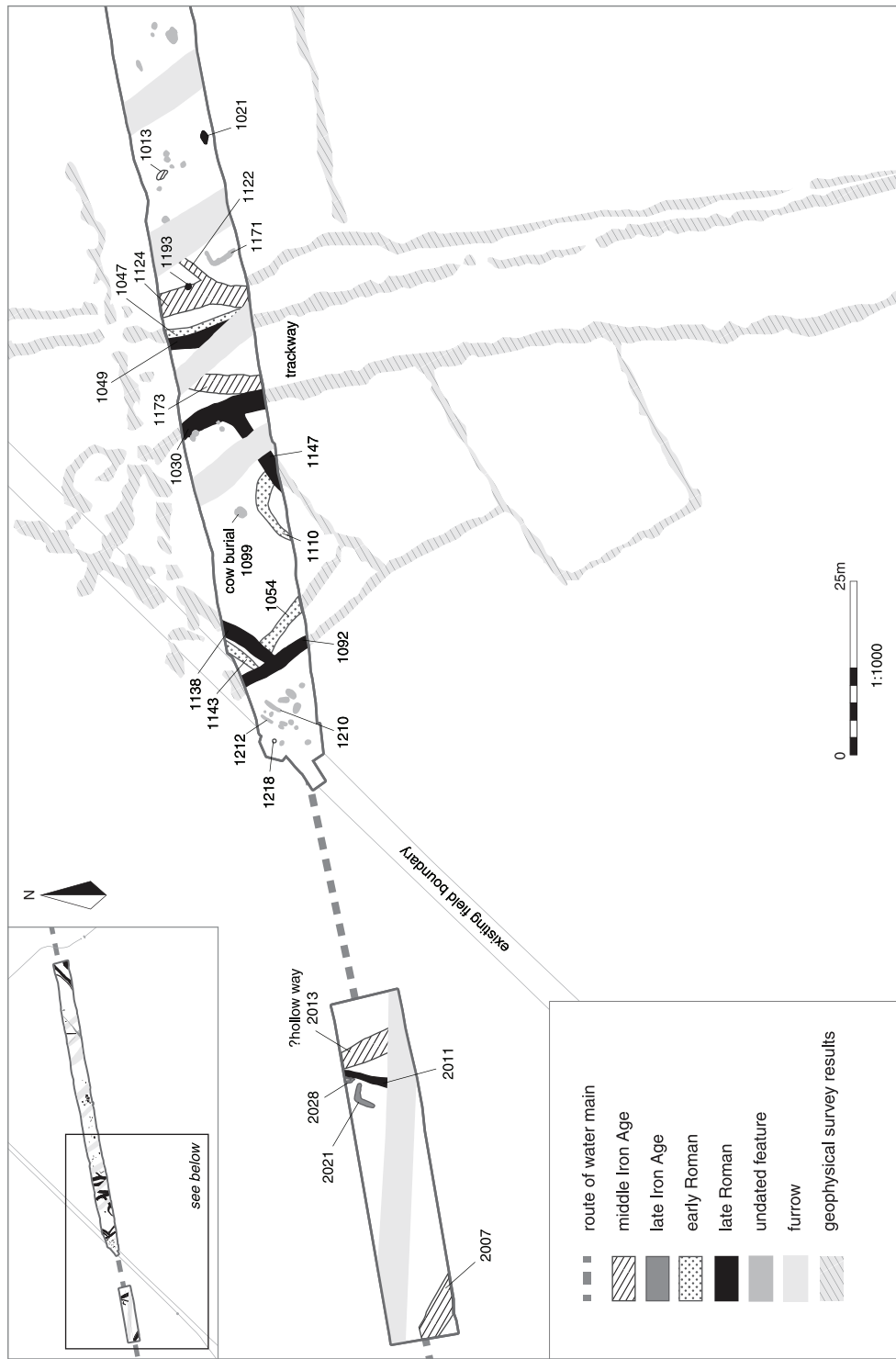


Fig. 6. Duxford Farm: plan of Iron-Age, Roman and undated features.

geophysical survey plot. The re-alignment of the trackway was evidenced by the presence of partly surviving ditch 1047, which flanked the eastern side of the re-aligned trackway which contained first-century AD pottery. It had been largely re-cut in the later Roman period by a large ditch (1049) 2.4 m wide and 1.2 m deep with a 'V'-shaped profile. Any corresponding western ditch must have been entirely re-cut during the later Roman period.

Some 50 m west of the trackway were ditches 1054 and 1143 which were set out at right-angles to one another and correspond to an enclosure visible on the geophysical survey plot adjoining the western side of the trackway. Ditch 1054 had been heavily truncated, but 1143 was found to be 1.8 m wide and 0.95 m deep. Within the area thus enclosed curvilinear ditch 1110 was partially exposed within the site. This ditch was a 'U'-profiled cut up to 1.85 m wide and 0.4 m deep and contained a small sherd of Iron-Age pottery and three small sherds of Roman pottery, one dateable to the second century AD. This feature does not appear on the geophysical survey plot and may have been the site of a roundhouse or small enclosure, but it is of uncertain date.

Late Roman. Features with late Roman finds were discovered towards the western end of the site. The early Roman trackway ditch was re-cut and was paralleled by ditch 1030 10 m to the west, a large feature 3 m wide and 1.2 m deep with a stepped profile suggesting re-cutting. The fills of these ditches yielded third- to fourth- and late fourth-century pottery, and a coin of c.AD 364–78. The latest finds comprised sherds of shelly ware dateable to the last quarter of the fourth century or later. Other finds from the ditches included charcoal, animal bone and a small iron cube of unknown function. The trackway was adjoined on its western side by contemporary ditch 1147, 2.5 m wide and over 0.6 m deep. Comparison with the geophysical survey plot shows that this ditch was, along with ditches 1092 (1.2 m deep) and 1138 (0.8 m deep) to the west, part of a remodelled enclosure west of the trackway. The fills of these enclosure ditches contained fourth-century pottery, two mid to late third-century Radiate coins, a fragment of iron sheeting, an iron nail, animal bone and a late Iron-Age/Roman rotary quern fragment. Ditch 2011 at the western end of the site (1.3 m wide and 0.5 m deep with a rounded profile) was probably the boundary of another enclosure. Two pits (1021 and 1193) contained Roman pottery. Pit 1193, 0.8 m in diameter and 0.4 m deep, with vertical sides and a flat base, contained fourth-century pottery and a possible pitchfork as well as a dump of charred grain (mostly barley), burnt clay and burnt stones. Pit 1021 was shallow and irregular.

Undated. Undated features were found throughout the western half of the site. The majority were pits but these could not be related to any specific period, given the presence of comparable pits nearby of Neolithic, Bronze-Age, Iron-Age and Roman date. A cow burial in pit 1099 was of unknown antiquity. 'L'-shaped ditch 1171, found east of the Iron-Age/Roman trackway, was 0.6 m wide and 0.05 m–0.25 m deep and was potentially a beam slot, or a ditch surrounding a small structure or work area. Two parallel flat-based ditches found 2 m apart at the western end of the site (ditches 1210 and 1212) might also have been beam slots, perhaps for a small agricultural structure.

Filchampstead

The site (centred on SP 4520 0572) lies within the Oxford Clay Vale at 60 m OD. It is near Iron-Age and Roman occupation examined prior to construction of the Farmoor Reservoir and a geophysical survey conducted in advance of the pipeline construction identified features within the site, which was stripped to a width of 10 m across two adjacent fields (Fig. 7). Green-grey clay was exposed across the site, overlain by bands of gravel and sealed by 0.55 m of topsoil and subsoil.

Early to Middle Iron Age. Early to middle Iron-Age calcareous ware pottery was recovered from a small number of features and these, alongside others associated on spatial or

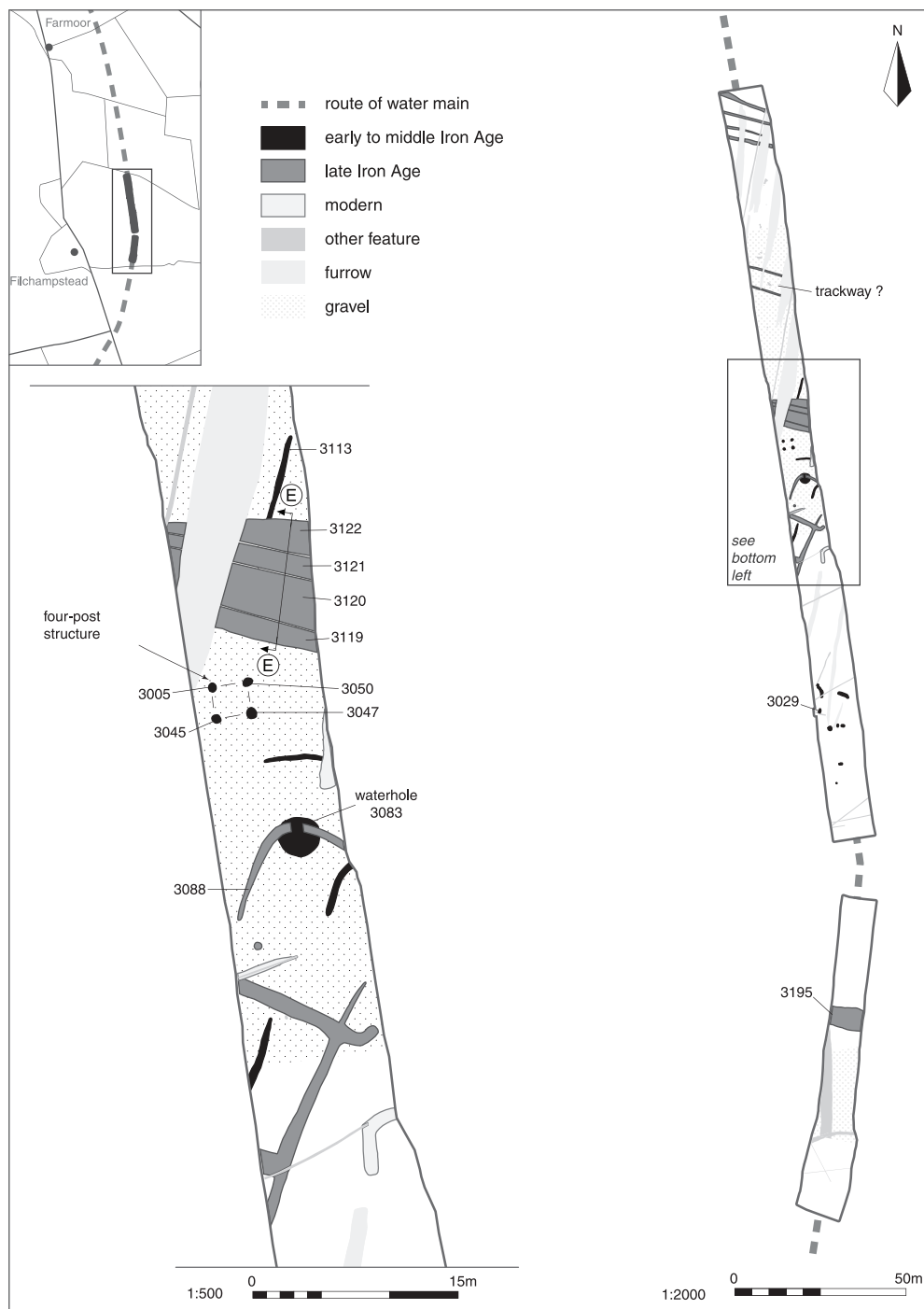


Fig. 7. Filchampstead: plan of Iron-Age features.

stratigraphic grounds, represent the earliest activity on the site. The northernmost of these early features occupied a gravel band and included a four-post structure, a waterhole and ditches. The four-post structure (postholes 3005, 3045, 3047 and 3050) had a ground plan 2.5 m by 2.5 m in extent. Calcareous ware pottery was recovered from the post-packing of one posthole whilst first-century AD/Roman pottery came from a disuse deposit within the same posthole. Waterhole 3083 was 8 m to the south and comprised a circular cut 2.4 m wide and 0.6 m deep with a rounded profile. Above a primary fill was a mottled silty clay deposit suggestive of waterlogging. Although the upper fills of this feature contained late Iron-Age pottery, this relates to late backfilling and the waterhole probably dates to the early to middle Iron Age. Three small ditches partially exposed to the north and south of the waterhole were poorly dated but perhaps defined part of an enclosure containing the waterhole within its north-eastern corner. Part of the southern edge of the waterhole was notably eroded, perhaps suggesting that cattle accessed it from the open (southern) part of this putative enclosure. Ditch 3113, north of the four-post structure, perhaps represents part of another enclosure.

The southernmost early to middle Iron-Age features were 45 m to the south and consisted of pits and tree-throw holes. The best dated of these, pit 3029, was oval in plan, 1.4 m long, 0.6 m wide and 0.3 m deep with steep sides and a flat base. Its fills included charcoal, burnt clay, burnt stones, animal bone and calcareous-ware pottery.

Late Iron Age. Late Iron-Age activity was represented by ditches and enclosures. The early to middle Iron-Age waterhole was backfilled during this period and was truncated by a ditch (3088) which formed part of a series of small rectilinear enclosures which superseded the possible earlier enclosures. Finds from the enclosure ditch fills were few in number but included late Iron-Age to first-century AD pottery, a Roman vessel glass fragment and a horse pelvis.

To the north of these enclosures, four north-west to south-east aligned ditches (3119, 3120, 3121 and 3122) ran across the gravel band. These ditches were not intercutting at the excavated level, although the latest finds, comprising Roman pottery, came from the southernmost ditch, perhaps indicating that these ditches represent successive re-cuts from north to south (Fig. 8). The northernmost (and putatively earliest) two cuts were up to 2.25 m wide and 0.45 m deep and contained sandy silt fills with small quantities of late Iron-Age to first-century AD pottery, alongside a horse pelvis (from the upper fill of ditch 3122). Ditch 3120, perhaps the third in the sequence, was the most substantial, being 3.6 m wide and 0.95 m deep. Its lower fills (3109, 3111 and 3126) had accumulated naturally, although fill 3111 contained a possible quartzite hammerstone. The ditch had been re-cut to this level and the lowest fill of this re-cut, fill 3110, had possibly slumped from a bank along the ditch's southern edge and included a horse skull. Above this was a clay silt fill, 3125, which probably represents a period of natural infilling, and into the top of this a distinctive box-shaped cut had been excavated (Figs. 8 and 9). This box-shaped cut was only recognized in section but had well defined right-angled corners and straight edges and was 0.55 m wide and 0.25 m deep. Its base and sides were lined with charcoal, dominated by oak but with other charred plant remains also present. It is likely that the oak represents the remains of a wooden box, with the other charcoal deriving from its contents which included a small number of cereals and fruits, together with kindling, the latter suggesting that the box and contents were deliberately burnt in situ. The box also contained a mollusc assemblage indicative of periodic flooding. The fired box was sealed by dark layer 3073 which both filled the remainder of the semi-collapsed box and extended over the base of the partially infilled ditch. Within this layer a lump of slag, a complete horse pelvis and a burnt polished Neolithic stone axe (Fig. 12) had been placed together. The fragile burnt surface of the axe was intact, suggesting that it was burnt in situ as part of this deposition. The uppermost ditch fills contained late Iron-Age to late first-century AD pottery, animal bone and burnt and unburnt stones. The southernmost, and possibly latest, ditch was far less substantial and included Roman pottery within its upper fill.

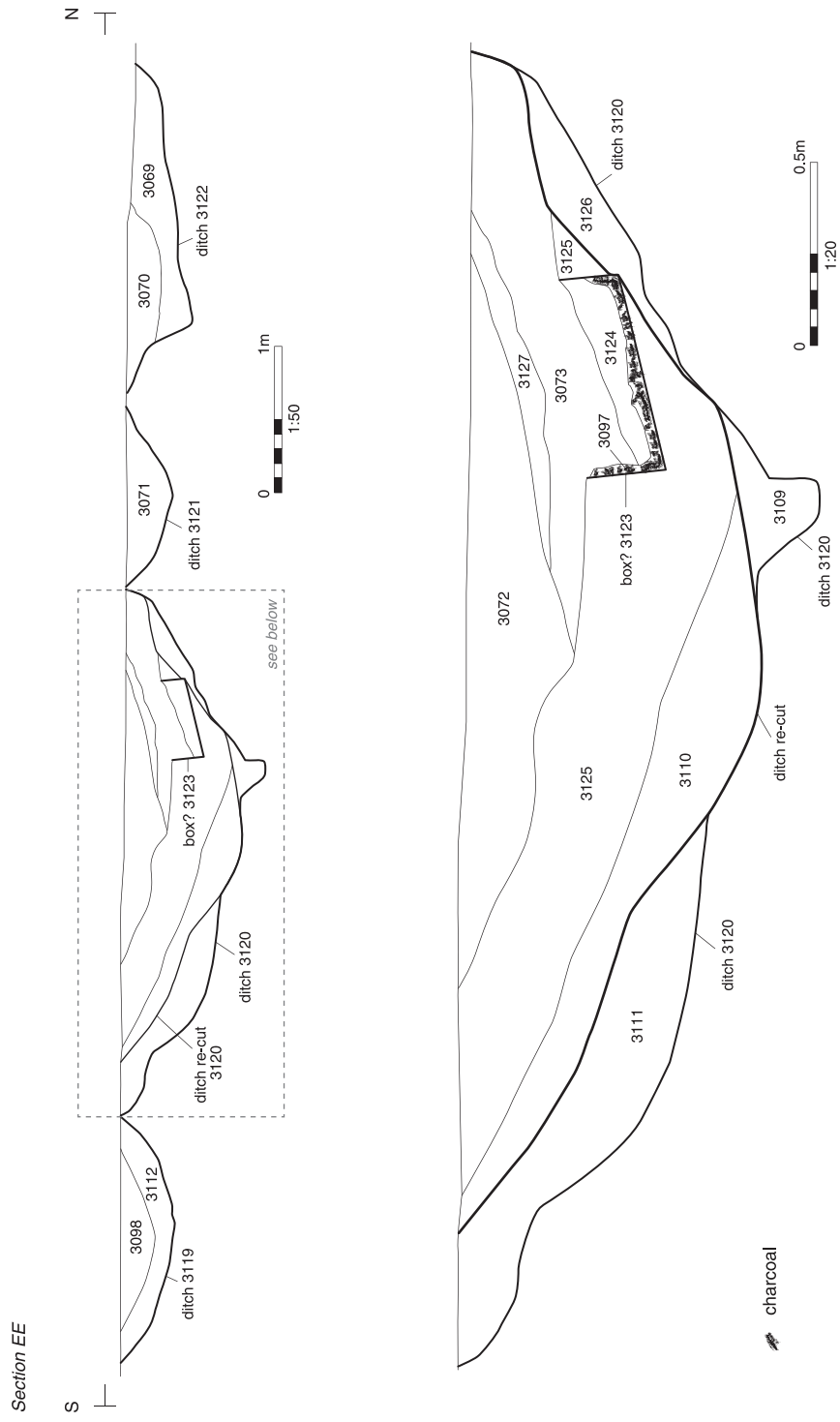


Fig. 8. Filchampstead: section EE through late Iron-Age ditch sequence.

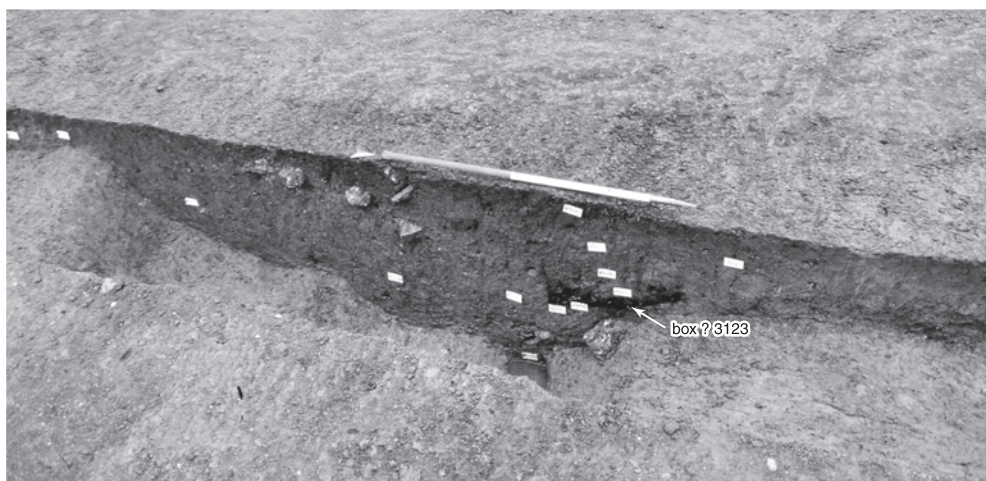


Fig. 9. Filchampstead: ditch 3120, showing possible box, looking south-west. Scale 1 metre.

To the north, the clay was cut by a further series of north-west to south-east aligned ditches. All were undated by finds, but were parallel to the dated late Iron-Age ditches and were possibly of this period. Amongst these, two ditches 5 m apart, may have flanked a trackway. Within the southern part of the site, ditch 3195 was also found on this alignment. It was 6.5 m wide and 1.15 m deep and was perhaps a hollow way.

Kingston Hill Farm

The site (centred on SP 4060 0010) lies on the edge of the Corallian Ridge at 90 m OD. The geophysical survey and evaluation had identified medieval ditches, and an area 220 m long and 10 m wide was therefore machine-stripped, revealing ditches and pits cut into the yellow-brown clay silt substrate. These features were sealed by 0.45 m of topsoil but subsoil was absent and the site had probably been truncated by recent ploughing. Although the site extended across two fields, with the exception of furrows and two modern pits, all of the features were contained within the westernmost of these (Fig. 10). In addition to the features described below, a few Mesolithic and Neolithic or early-Bronze Age flints were found as residual items. A relatively large group of hand-made early to middle Saxon pottery (30 sherds from evaluation and excavation) would appear to be entirely redeposited. A small quantity of Roman pottery was also residual.

Later Saxon (Ninth to Tenth Centuries AD). The only feature to contain exclusively hand-made Saxon pottery was banana-shaped ditch or elongated pit 2018 on the eastern side of the site. This was 'U'-profiled, 3.25 m long, 0.65 m wide and 0.3 m deep and contained two sherds (6 g) of pottery and a shears blade. On balance this seems likely to be a medieval feature with redeposited pottery, but the possibility that this is an early or middle Saxon feature should not be overlooked.

On the western side of the site, early phase ditch segment 2065 contained a large sherd of Oxford Ware suggesting that this alignment (with ditch 2078) may have commenced as early as the ninth century. Two more sherds of Oxford Ware from ditch 2042 to the west give grounds for suggesting that this ditch, together with 2036 and 2030, formed an early phase of east-west aligned ditches. They were typically 0.8 m wide and 0.1 m–0.3 m deep with steep sides and flat bases. An apparent gap along the length of the southernmost ditch was probably due to truncation. They contained homogenous dark grey clay silts with frequent charcoal and

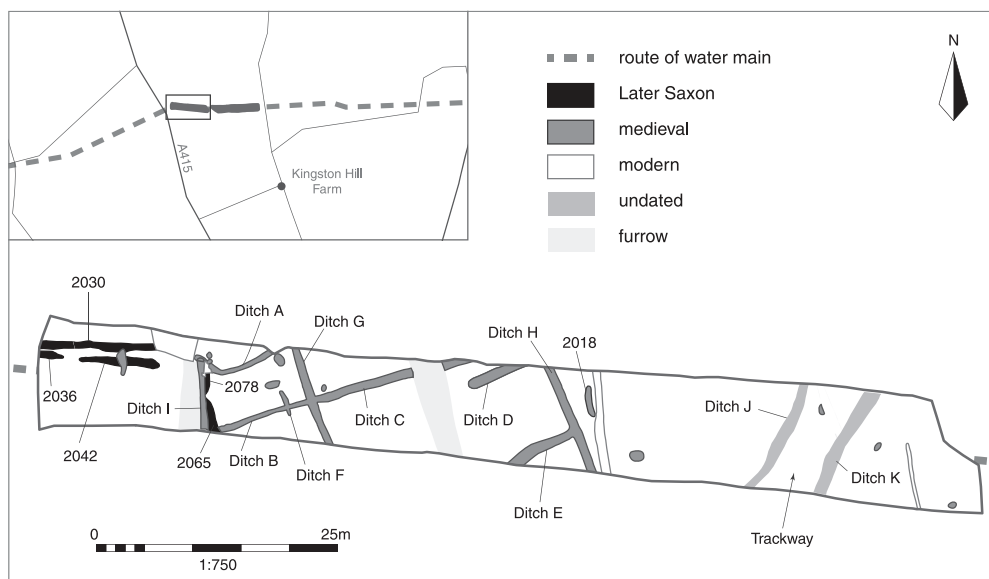


Fig. 10. Kingston Hill Farm: plan of later Saxon and medieval features.

small quantities of animal bone. Together ditches 2030, 2036/2042, 2065 and 2078 perhaps defined the north-eastern corner of an enclosure and the pairing of the east-west aligned ditches along the north edge of this are suggestive of a hedge-bank boundary.

Medieval (Eleventh to ?Fourteenth Centuries). The ceramic record shows that the site continued into at least the eleventh century. Features containing eleventh to fourteenth-century pottery (mainly Cotswold-type and North-East Wiltshire wares), or associated with such pottery on spatial or stratigraphic grounds, were found throughout the westernmost field and included ditches (ditches A–I) and a small number of pits. Ditches A–I defined a series of rectilinear enclosures laid out on a north-west to south-east alignment. Where largely exposed, the enclosures were sub-rectangular in plan and ranged from 10 m by 5 m to 25 m by 12 m in size. The ditches varied in size, even along the length of each ditch, but were generally 0.6 m wide and 0.1 m–0.3 m deep with ‘U’-shaped profiles. All contained grey clay-silt fills which together produced a small assemblage of animal bone and pottery as well as a possible whetstone, a fragment of a pin made from a sheep/goat ulna and a fragment of a comb made from a rib from a large mammal. Residual Roman and early to middle hand-made Anglo-Saxon pottery was also present. It is not entirely clear when the ditches fell out of use as the medieval pottery has a broad date range.

Several pits were present, both as isolated features and within loose clusters. Most were undated, but three contained medieval pottery and two contained Roman pottery. However, since most were morphologically similar, comprising steep-sided, flat-based cuts, all may be medieval in date with the Roman finds being residual. One of the pits was cut through the fill of Ditch A, whilst another was located within an undated trackway (see below) but, given the lack of distinction between the pottery assemblages from the pits and the ditches, it is not known whether the pits represent a later phase of medieval activity or protracted but episodic activity broadly contemporary with the enclosures.

Undated. Ditches J and K were found 15 m east of the medieval enclosures, on a north-east to south-west alignment. They were 5 m apart and may have flanked a trackway. Ditch K was

unexcavated, but Ditch J was up to 1.2 m wide and 0.4 m deep with a 'U'-shaped profile and contained a brown clay silt fill which included charcoal and animal bone.

Pennyswick Farm, Coleshill

The site (centred on SU 2293 9495) is located within the Oxford Clay Vale at 80 m OD, 1 km north-west of high ground at Coleshill. No archaeological remains have been recorded previously within the locality and the site was identified during the watching brief. The natural green-grey clay substrate was covered by 0.3 m of topsoil; the absence of subsoil suggests that the site may have been truncated by ploughing. In addition to the remains described below, a worn silver Henry V penny was recovered from the topsoil.

A single feature was found, comprising a shallow ditch (2017) laid out on a rectangular ground plan and enclosing an area 46 m long and 5.5 m wide internally (Fig. 11). The ditch was 0.65 m–0.95 m wide and 0.05 m–0.1 m deep with vertical sides and a flat base and included a 10-m wide entrance along its south-eastern corner. Internally, narrower ditches (2019 and 2022) of comparable depth sub-divided the enclosed area into two cells of unequal size comprising a 39-m long cell accessed directly from the entrance, and a 7-m long cell accessed via 2-m wide entrance along the internal division. The greater extents of both cells were surfaced using angular limestone fragments set into the underlying clay substrate (surface 2005).

The ditches were entirely filled by a single deposit of very compact pale clay silt from which Minety roof ridge tiles dateable to the fourteenth century and iron nails were recovered.

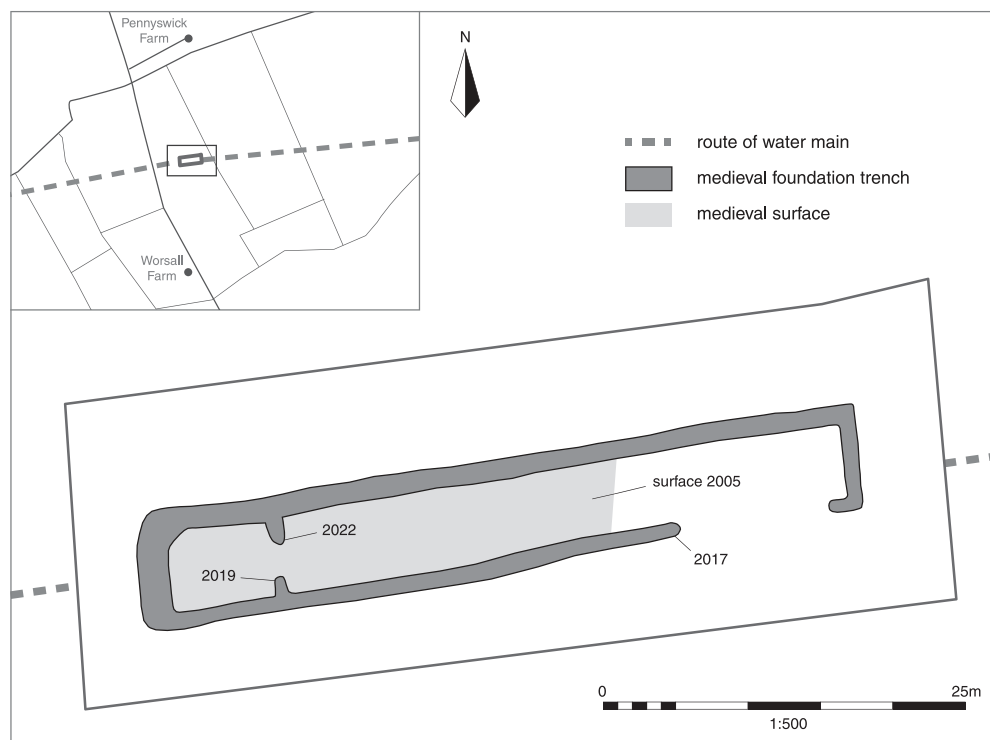


Fig. 11. Pennyswick Farm: plan of medieval sheepcote.

Table 1. Radiocarbon results from Duxford Farm

Feature	Lab No.	Material	$\delta^{13}\text{C}$	Radiocarbon Age	95.4% probability	68.2% probability
Fill 1016	SUERC-	Charred	- 26.0‰	4446 ± 30 yr	3334-3212 cal BC	3317-3273 cal BC
Pit 1015	52050	hazelnut		BP	(37.7%)	(13.0%)
		shell <i>Corylus</i>			3190-3153 cal BC	3266-3237 cal BC
		<i>avellana</i>			(6.5%)	(13.6%)
					3135-3009 cal BC	3168-3165 cal BC
					(48.1%)	(0.8%)
					2982-2938 cal BC	3111-3023 cal BC
					(3.2%)	(40.8%)
Fill 1010	SUERC-	Charred	- 22.9‰	4477 ± 30 yr	3339-3205 cal BC	3328-3218 cal BC
Pit 1009	52051	hazelnut		BP	(54.4%)	(49.2%)
		shell			3197-3086 cal BC	3178-3159 cal BC
		<i>Corylus</i>			(35.2%)	(7.8%)
		<i>avellana</i>			3061-3029 cal BC	3122-3096 cal BC
					(5.8%)	(11.2%)

Further Minety roof tiles and nails were also recovered from the internal surfacing, along with a post-medieval or later harness fitting/machine component. Other finds from the feature were restricted to two dense concentrations of animal bone at its western end, one inside the smaller cell, the other immediately outside the western end of the feature. The animal bone assemblage was dominated by sheep/goat remains, of which those closely identifiable were all from sheep, along with a small quantity of cattle, dog and horse bones.

DUXFORD FARM RADIOCARBON DATING by SARAH COBAIN

Radiocarbon dating was undertaken in order to confirm the dates of Neolithic pits 1009 and 1015 (Table 1, above). The samples were analysed during April 2014 at the Scottish Universities Environmental Research Centre (SUERC), Glasgow and were successfully dated using the AMS method. The uncalibrated dates are conventional radiocarbon ages. The radiocarbon ages were calibrated by SUERC using the University of Oxford Radiocarbon Accelerator Unit calibration programme OxCal 4.1.7 and the IntCal13 curve.³⁰

WORKED FLINT AND STONE AXE-HEAD by JACKY SOMMERVILLE

Mesolithic/Early Neolithic Surface Scatter at Appleton Lower Common

Sixty-five worked flints were hand collected from the topsoil and subsoil at Appleton Lower Common. The raw material comprises reasonable to good quality flint. The cortex was chalky on 72 per cent of items, suggesting a primary (chalk) source and on 28 per cent it was abraded, indicating a secondary source such as river gravel. One flake was made on Bullhead flint, from a primary or secondary source in the Thames basin.

³⁰ C. Bronk Ramsey, 'Bayesian Analysis of Radiocarbon Dates', *Radiocarbon*, 51(1) (2009), pp. 337-60; P.J. Reimer et al., 'IntCal13 and Marine13 Radiocarbon Age Calibration Curves 0-50,000 Years cal BP', *Radiocarbon*, 55:4 (2013), pp. 1869-87.

Table 2. Breakdown of the lithics assemblage from Appleton Lower Common

Primary technology	
Blade	4
Bladelet	10
Chip	2
Core	1
Core rejuvenation flake	1
Flake	44
Secondary technology	
Retouched flake	2
Truncated blade	1
Total	65

One fully worked out, dual opposed-platform blade-core dates to the Mesolithic or early Neolithic period. Aspects of Mesolithic or early Neolithic technology are also present on some of the débitage, including soft hammer percussion (identified on 25 per cent of débitage), platform preparation (on 20 per cent), and one core rejuvenation flake. The débitage includes four blades, and the flakes are mostly thin and regular, which supports a Mesolithic or early Neolithic date. The recovery of ten bladelets enables more precise Mesolithic dating.

Of the 37 items of débitage classified according to reduction stage, none are primary; 18 (49 per cent) are secondary and 19 (51 per cent) are tertiary. However, as the assemblage is small and the soil in which they were found was not sieved, the assemblage will be unrepresentative of the true quantity and breakdown of the lithics on site. Only two chips (débitage ≤ 10 mm), indicative of on-site knapping, were recovered but this probably understates the true figure. Three items (5 per cent) featured secondary working: a truncated blade and two retouched flakes (Table 2).

Polished Neolithic Stone Axe-Head from Filchampstead

A polished stone axe-head from Filchampstead is complete but small (79 mm x 50 mm x 25 mm) and burnt. The surface is reddened and slightly spalled (Fig. 12.). It is highly polished and the blade edge shows evidence of use. As the surface of the axe is well preserved, it is likely that it was burnt at the time of deposition. Identifying the raw material is not possible due to the discolouration by heat; however it is a dark-coloured, fine-grained igneous rock. Potential sources include Langdale, Cumbria (Group VI) or Penmaenmawr, north Wales (Group VI).³¹

Duxford Farm Prehistoric Occupation

Some 135 worked flints were hand-recovered from 50 separate contexts, 47 of them from pits dated to the middle Neolithic. Five other pieces were unstratified. A further 44 worked flints, and one burnt, unworked piece were recovered from soil samples. The 32 chips recovered provide evidence of in situ knapping. Reasonable to good quality flint was used, although a few items featured large, cherty inclusions. A sizeable proportion (36 per cent) was made on very pale whitish-grey, uncorticated flint. The cortex is chalky on 71 per cent of items, indicating a primary (chalk) source. On 29 per cent it was abraded, which is typical of secondary sources.

³¹ T.H.M. Clough and W.A. Cummins, *Stone Axe Studies: Volume 1* (1979); T.H.M. Clough and W.A. Cummins, *Stone Axe Studies: Volume 2* (1988); M. Pitts, 'The Stone Axe in Neolithic Britain', *Proceedings of the Prehistoric Society*, 62 (1996), pp. 311–72.



Fig. 12. Polished Neolithic stone axe from Filchampstead. Scale 1:1.

Cores and Hammerstone. One irregular, multi-platform flake core and one core fragment were recorded from a furrow and from middle Neolithic pit 1337 respectively. Only a few flakes had been removed from the complete core and it was not a diagnostic type. Approximately half of a pebble of pale, whitish-grey gravel flint, which had been used as a hammerstone, was recovered from prehistoric pit 1005.

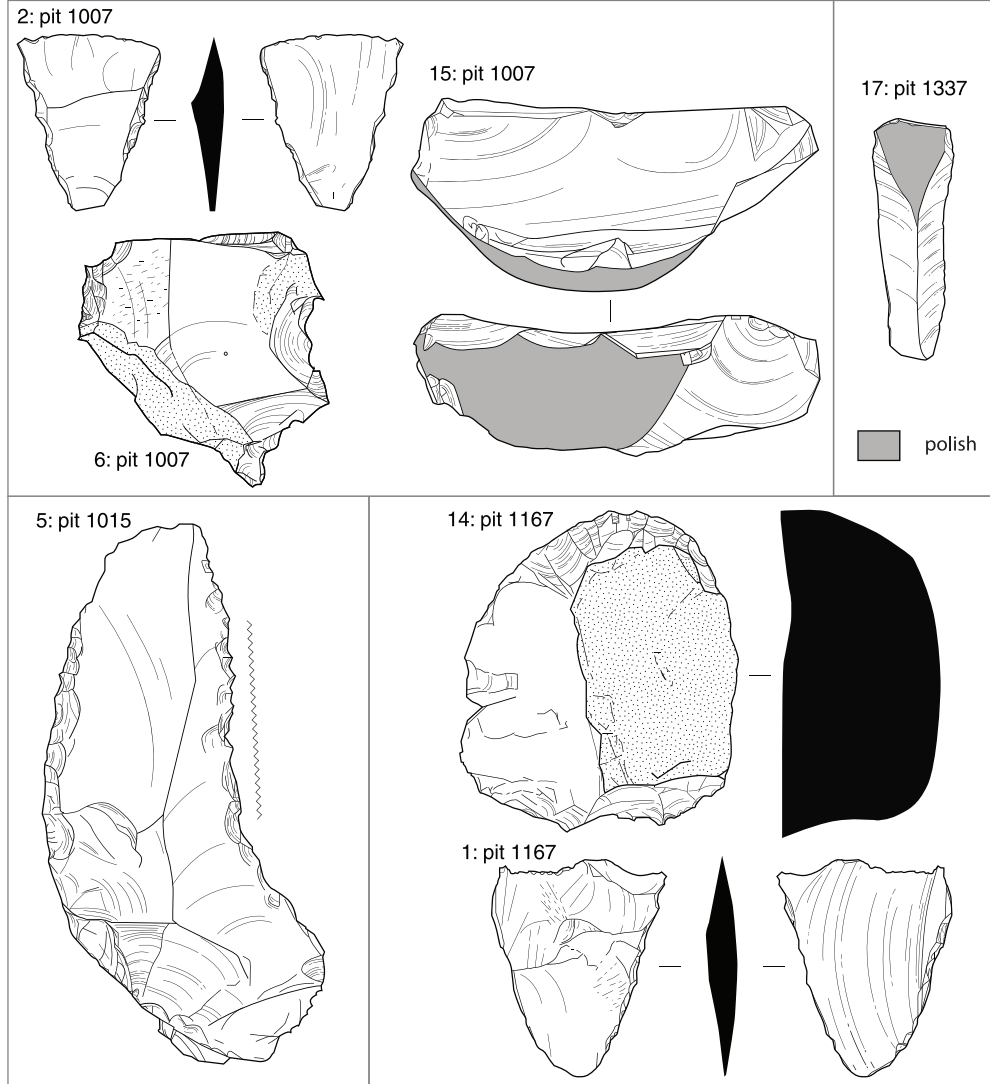
Débitage. Aspects of core reduction indicating a Mesolithic or Neolithic date include soft hammer percussion (on 25 per cent), platform preparation (on 7 per cent) and blade technology (seven were recorded). Seven Mesolithic bladelets were also recovered. Ninety-two items of débitage (excluding the chips mentioned above) were classed according to reduction stage: none are primary, 51 per cent are secondary and 49 per cent are tertiary. This suggests that initial knapping took place elsewhere. The lack of cores and refits support this view. Flakes struck from polished flint axes were recovered from middle Neolithic pits 1007 (Fig. 13.15) and 1337 (Fig. 13.17) and from Bronze-Age pit 1041 (Fig. 14.16). All displayed fine polish, with no flake scars visible on the polished surfaces.

Tools. A high proportion of pieces with secondary working were recorded (36 items, 29 per cent). One chisel arrowhead (Fig. 13.1.) was recorded from pit 1167 and one petit tranche derivative arrowhead (Fig. 13.2) from pit 1007. Both are middle Neolithic and the latter type is commonly associated with Peterborough Ware.³² Slight evidence of use was noted on the blade edge of the chisel arrowhead. Two barbed and tanged arrowheads (Figs. 13.3 and 13.4), dating to the early Bronze Age, are residual. Of the 15 scrapers in the assemblage, five are burnt and three of these are also broken. The horseshoe (Fig. 14.10) and disc scrapers (Fig. 14.11) are Neolithic although they were found within Bronze-Age pit 1041.³³ Two other scrapers found as residual finds both conform to Riley's early

³² H.S. Green, *The Flint Arrowheads of the British Isles: Part I*, BAR BS, 75(i) (1980), p. 108.

³³ C. Butler, *Prehistoric Flintwork* (2005), pp. 125, 168.

Flints from middle Neolithic pits



Residual flints. Arrowheads

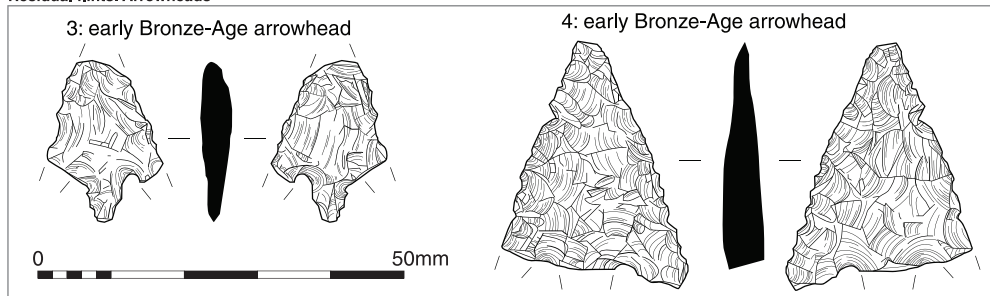
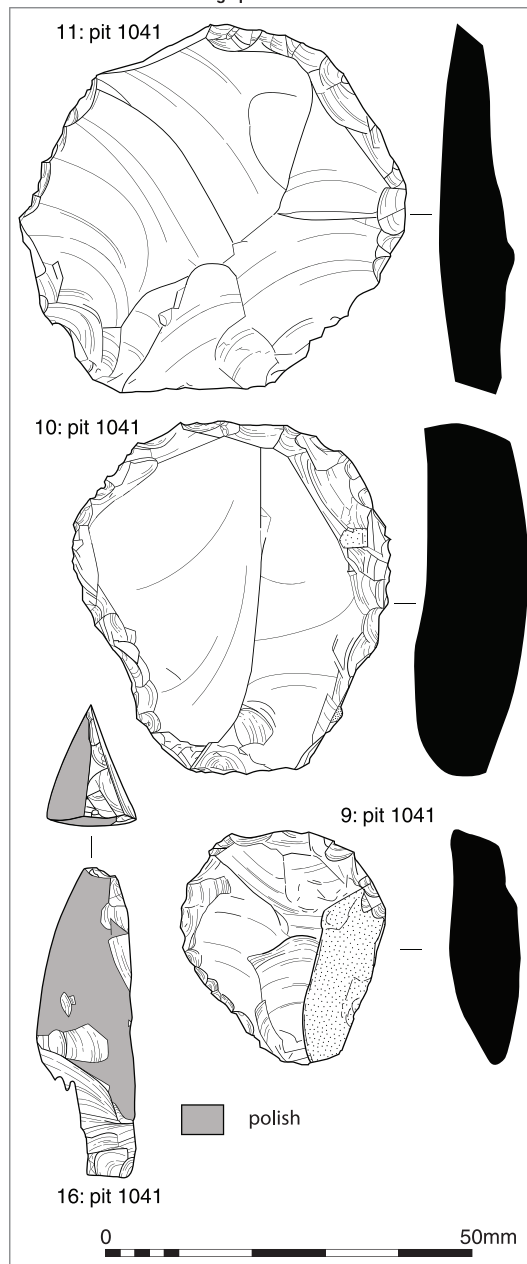


Fig. 13. Flints from middle Neolithic pits and early Bronze-Age residual arrowheads at Duxford Farm. Scale 1:1.

Flints from middle Bronze-Age pit



Residual flints

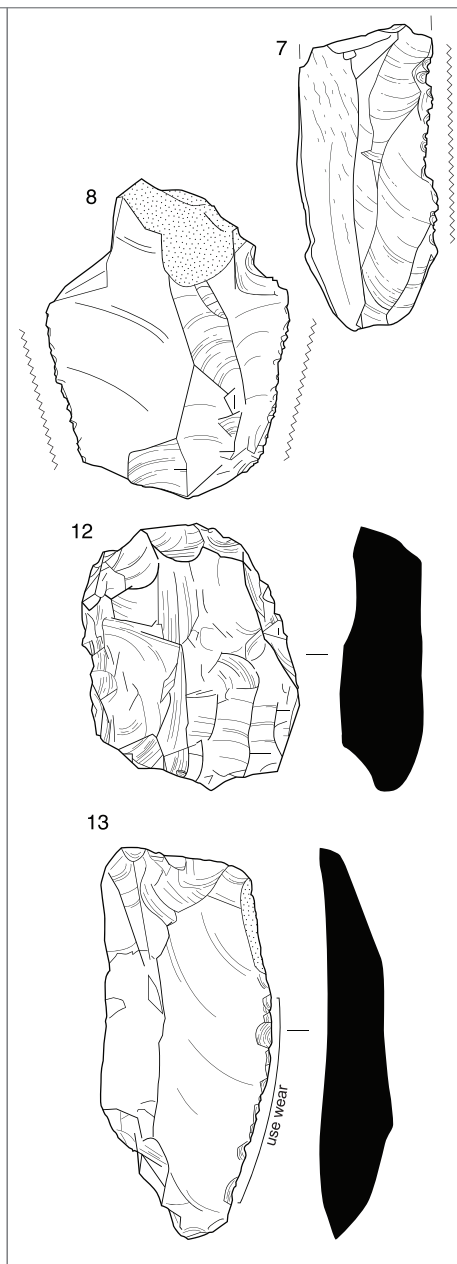


Fig. 14. Flints from middle Bronze-Age pit and residual flints at Duxford Farm. Scale 1:1.

Table 3. Reworked lithics from Duxford Farm middle Neolithic and middle Bronze-Age pits

Cut	Fill	Item
1007	1008	Petit tranchet arrowhead (Fig. 13.2); Spurred piece (Fig. 13.6); Polished flint axe fragment (Fig. 13.5); Retouched flake
1015	1016	Backed knife; Retouched flake
1041	1042	End scraper (Fig. 14.9); Horseshoe scraper (Fig. 14.10); Disc scraper (Fig. 14.11); Polished flint axe fragment (Fig. 14.16)
1167	1168	Chisel arrowhead (Fig. 13.1); Double end scraper (Fig. 13.14)
1296	1297	Serrated flake
1337	1339	Polished flint axe fragment (Fig. 13.17); Retouched flake

Neolithic Class 3,³⁴ defined as having a length/breadth ratio of *c.*1:1, but without the fine, invasive retouch of a thumbnail scraper. The other scrapers (including Figs. 14.9, 14.12–13) did not display distinctive features and are broadly dateable as prehistoric. Other non-diagnostic tool types include a knife (Fig. 13.5) and a spurred piece (Fig. 13.6). The different types of tools indicate a variety of activities: serrated flakes/blades (Figs. 14.7 and 14.8) for plant processing, scrapers for hide- and wood-working and arrowheads for hunting.

Provenance. The majority of hand-recovered lithics were residual within later deposits. However, 11 pits (pits 1007, 1009, 1015, 1028, 1089, 1167, 1296, 1320, 1322, 1337 and 1340) dated to the middle Neolithic, contained small assemblages of one to 11 flints, making a total of 57 items. No refits were found either within or across these pits. The majority of these items (74 per cent) were made on whitish grey opaque flint, demonstrating that this resource was preferentially chosen during the middle Neolithic. Fifteen of the 57 flints (26 per cent) were reworked tools (Table 3), comprising a typical breakdown for middle Neolithic pits.³⁵ Bronze-Age pit 1041 contained ten flints in variable condition. These included three diagnostic Neolithic items: a polished flint axe fragment (Fig. 14.16); horseshoe scraper (Fig. 14.10); and disc scraper (Fig. 14.11). Pit 1007 produced 15 chips (*débitage* ≤10mm), suggestive of in situ knapping. Neolithic pits in the upper Thames valley region typically contain only a few flints each,³⁶ and a high proportion (typically 10–20 per cent) of retouched tools.³⁷ Only 12 of the 40 flints in these pits retained cortex; on two it was abraded and on 10 it was chalky, indicating a mix of flint sources which (along with the lack of refits) suggests that the flints deposited were not obtained from single knapping events. This is also a common feature of artefacts deposited in Neolithic pits.³⁸

Catalogue of Illustrated Pieces (Figs. 13 and 14):

- 1 Chisel arrowhead. Finely made, with vertical retouch on both edges continuing almost to the base (direct retouch on the left edge, inverse retouch on the right edge). Middle Neolithic pit 1167 (fill 1168).

³⁴ H. Riley, 'The Scraper Assemblages and Petit Tranchet Derivative Arrowheads', in J. Richards, *The Stonehenge Environs Project*, English Heritage Archaeological Report, 16 (1990), pp. 225–28.

³⁵ J. Pine and S. Ford, 'Excavation of Neolithic, Late Bronze Age, Early Iron Age and Early Saxon Features at St. Helen's Avenue, Benson, Oxfordshire', *Oxoniensia*, 68 (2003), p. 159; Garrow et al., 'Pit Clusters and the Temporality of Occupation', p. 145; K. Powell et al., *Evolution of a Farming Community in the Upper Thames Valley: Excavation of a Prehistoric, Roman and Post-Roman Landscape at Cotswold Community, Gloucestershire and Wiltshire. Volume 1: Site Narrative and Overview* (2010), pp. 13–17.

³⁶ H. Lamdin-Whymark, 'Worked Flint', in K. Powell et al., *Evolution of a Farming Community*, p. 90.

³⁷ E. Healey and R. Robertson-Mackay, 'The Lithic Industries from Staines Causewayed Enclosure and their Relationship to other Earlier Neolithic Industries in Southern Britain', *Lithics*, 4 (1983), p. 21.

³⁸ Lamdin-Whymark, 'Worked Flint', p. 90.

- 2 Petit tranchet derivative arrowhead. Squared-off base and slight evidence of utilisation on the cutting edge. Vertical, direct retouch on both edges. Middle Neolithic pit 1007 (fill 1008).
- 3 Barbed-and-tanged arrowhead. A small probable Sutton Type B arrowhead.³⁹ The tip is missing and both barbs are broken. It has been invasively retouched on both faces, but not finely. Residual within Roman ditch 1079 (fill 1080).
- 4 Barbed and tanged arrowhead. A large Sutton Type Bk arrowhead,⁴⁰ with broken barbs and tang and a missing tip. Both faces display high quality, fully invasive pressure flaking. Residual within Roman ditch 1114 (fill 1115).
- 5 Backed knife/serrated flake. Made on a large, blade-like flake, this tool features semi-abrupt retouch along the convex left dorsal edge, and the concave right dorsal edge has been serrated. Middle Neolithic pit 1015 (fill 1016).
- 6 Spurred piece. A thick flake with a prominent spur formed from crude retouch on the right dorsal edge. Middle Neolithic pit 1007 (fill 1008).
- 7 Serrated blade. A thin, broken blade with coarse but small-toothed serrations created along the left dorsal edge. Residual within Roman ditch 1049 (fill 1050).
- 8 Serrated flake. A thick, broken flake with fine serrations formed along both dorsal edges. Residual within Roman ditch 1114 (fill 1115).
- 9 End scraper. Made on a flake and neatly shaped, with fine, regular, abrupt retouch around the dorsal distal edge. Bronze-Age pit 1041 (fill 1042).
- 10 Horseshoe-shaped scraper made on a thick flake with large, cherty inclusions. It features quite fine, abrupt to semi-abrupt retouch around most of the circumference, with the exception of the butt. Bronze-Age pit 1041 (fill 1042).
- 11 Disc scraper. Sub-circular on a large flake, with fine, abrupt to semi-abrupt retouch along the majority of the edge, excluding the butt. Bronze-Age pit 1041 (fill 1042).
- 12 End-and-side scraper. Made on a thick flake, with abrupt to semi-abrupt, irregular retouch along the distal edge and portions of both dorsal edges. A flake has also been removed from the distal edge, on the ventral face. Residual within Roman ditch 1116 (fill 1117).
- 13 End scraper. Made on a blade-like flake with a large, cherty inclusion. It features irregular, semi-abrupt retouch on the dorsal distal edge and use wear along the right dorsal edge. Probably residual within undated ditch 1368 (not illus., fill 1369).
- 14 Double end scraper. Made on a very thick flake. Steep, regular retouch on both dorsal edges: that on the distal edge is finer and more regular than on the proximal. Middle Neolithic pit 1167 (fill 1168).
- 15 Polished flint axe fragment retaining portions of both faces. Made on very pale, whitish-grey flint and has been further flaked. Middle Neolithic pit 1007 (fill 1008).
- 16 Polished flint axe fragment. A flake removed along the blade edge of a polished axe made on pale grey flint. The angle of the butt suggests the flake was removed from a broken axe. Bronze-Age pit 1041 (fill 1042).
- 17 Polished flint axe fragment. A very narrow blade struck from a polished flint axe, displaying a small area of polish on the dorsal face. It was made on pale grey flint, similar to the fragment from fill 1042. Middle Neolithic pit 1337 (fill 1339).

Flintwork from Other Areas

Nine worked flints were collected from other areas of the pipeline route. Four from Kingston Hill Farm included a Mesolithic bladelet and dual-platform core, which is Mesolithic or early Neolithic. From the field north of Appleton Lower Common came the long tip of a possible early Bronze-Age barbed and tanged or early Neolithic leaf-shaped arrowhead.

³⁹ Green, *The Flint Arrowheads of the British Isles*, p. 122.

⁴⁰ Ibid.

THE PREHISTORIC POTTERY FROM DUXFORD FARM

by EMILY EDWARDS

Some 160 sherds (644 g, minimum 8 vessels) were recovered. With the exception of a Globular Urn fragment from pit 1019, all comprised highly decorated Peterborough Ware deriving from middle Neolithic pits. Within this cluster, sherds apparently belonging to one vessel (vessel 4) were identified within four pits (1167, 1337, 1015, 1296; Table 4, Fig. 15. P7a–b and P4). In another case, rim and body sherds belonging to vessel 8 (pit 1296) (P5 – not illustrated) were identical in fabric, firing and decoration to smaller, more abraded sherds within intercutting pits 1340 and 1337, so were also probably all from the same vessel. This is an unusual occurrence within pits of this period.

The assemblage was quantified by weight and sherd number and characterized by fabric, form, surface treatment and colour. Only diagnostic sherds are listed in the catalogue. P-numbers refer to diagnostic sherds and groups of sherds from the same vessel and most are illustrated. The sherds were examined using a x20 hand lens and were divided into fabrics according to principal inclusions. Standard alphanumeric codes have been used to denote inclusion types,⁴¹ and the numbers used differentiate inclusion sizes (1: \leq 1 mm; 2: 1–3 mm; 3: $>$ 3 mm). Each letter stands for a particular inclusion type: A: Sand; C: Calcareous matter; F: Flint; G: Grog; M: Mica; S: Shell; NVI: No visible inclusions present.

The condition of the middle Neolithic material ranged from small, abraded crumbs to refitting featured rims and shoulders with a maximum size of 50 mm by 40 mm. Few contexts contained diagnostic elements and only those rim fragments from pit 1296 were sufficient to refit and provide details about vessel form. Despite small size, fragility and lack of rim sherds, decoration was intact on a significant majority of the material. The Globular Urn sherd was larger and sturdier, manufactured from well prepared clay, contained common amounts of flint and was well fired, with surfaces and decoration intact. Even so, no rim or base was present and the sherd was only 50 mm x 70 mm in size.

Fabric Descriptions and Vessel Forms

The Peterborough Ware was essentially manufactured from three distinct fabrics (despite the descriptions of five given below): one containing few inclusions but full of laminations, argillaceous inclusions and voids, one a coarse shelly fabric (S3), and one a micaceous fabric (M1). To elaborate on the first of these, fabrics S1 and G1 appear to comprise the same clay as NVI, with some minor differences (see descriptions below). The character and variation of these three fabrics (S1, G1 and NVI) is in keeping with the local Oxford Clays.

Vessel 8 (P6 and P10 [not illustrated]), manufactured from fabric NVI, was found in possibly more than one deposit, often alongside vessel 4 (Fig. 15. P4, P5 [not illustrated] and P7a–7b), which was manufactured from fabric M1. These two vessels had everted rims with slight internal lips; vessel 8 (P6) being a large, roughly finished vessel and vessel 4 (Fig. 15. P7a) being a neater, smaller, well finished product. P3 also constitutes a rim of a similar everted form. The coarsely shell tempered (S3), ‘T’-shaped Mortlake Ware rim (vessel 3, Fig. 15. P1) was from outlying pit 1007. Another useful sherd with a shoulder and cavetto zone from pit 1337 (P9) showed the thinning neck and wide, sharp-shouldered profile of Ebbsfleet and Mortlake bowls. The middle Bronze-Age Globular Urn sherd (vessel 1) from pit 1019 (Fig. 15. P11) has a sinuous profile with a widening just at the lug and a flare just above suggesting a profile not dissimilar to that from a vessel excavated at Kingsmead Quarry, Berkshire.⁴²

⁴¹ *The Study of Later Prehistoric Pottery: General Policies and Guidelines for Analysis and Publication*, Prehistoric Ceramics Research Group Occasional Papers, 1 and 2 (1997).

⁴² Wessex Archaeology, <http://www.wessexarch.co.uk/blogs/news/2013/09/03/kingsmead-quarry-horton-2013-phase-11-north> (2013).

Table 4. Quantification of early prehistoric pottery from Duxford Farm

Pit	Context	No.	Weight (g)	Vessel ID
<i>Middle Bronze-Age</i>				
1019	1020	1	81	V1 (P11)
<i>Middle Neolithic</i>				
1009	1010	34	133	V2 (P2)
1322	1323	1	2	
1089	1090	5	7	
1007	1008	22	61	V3 (P1)
1167	1168	11	17	V4 (P5, not illustrated)
1340	1341	13	33	V8? (P10)
1337	1338	8	36	V8? V4?
1337	1339	13	23	V8? (P9)
1015	1016	5	28	V4 (P4) And V7 (P3)
1296	1297	47	223	V4 (P7a and b) V8 (P6), and also P8
Total		160	644	

- S1: poorly prepared clay with naturally occurring shell and grog-like material (33 sherds; 133 g).
 S3: 20 per cent shell, up to 6 mm, poorly sorted and misaligned, probably naturally occurring (22 sherds; 61 g).
 NVI: no temper or visible inclusions. Poorly prepared clay sometimes containing voids and/or argillaceous inclusions/grog-like material (92 sherds; 352 g).
 G1: 10 per cent black, grog like material (11 sherds; 17 g).
 M1: close, inclusion free, micaceous clay (4 sherds; 42 g).
 F2: 10 per cent poorly sorted angular flint. Globular Urn (1 sherd, 84 g).

Decoration

The Peterborough Ware vessels were decorated with schemes comprising nested chevrons, lattice and horizontal bands, using incised lines, impressed whipped and twisted cord and stab marks. The cavetto zones and rims were decorated internally and externally in addition to the rim tops. Vessel 2 (Fig. 15. P2) from pit 1009 was decorated with a nested chevron design in which the downward strokes were embellished with small, sharp stabbed marks reminiscent of comb impressions; one body sherd shows evidence of the potter's hand having slipped during this process. The middle Bronze-Age globular urn, vessel 1 (Fig. 15. P11) was a Class IIb sherd decorated with neatly excised chevrons and horizontal bands, above and below a pierced lug.

Discussion

Large assemblages of Peterborough Ware, such as that from Duxford Farm, remain uncommon. Regionally, they are paralleled only at Yarnton and at Horcott Pit.⁴³ The presence of sherds from the same vessels but from different pits is unusual; the usual pattern is for no one vessel to appear in more than one context. Globular Urns were found in potentially domestic contexts

⁴³ E. Edwards, 'The Pottery', in H. Lamdin-Whymark et al., 'Excavation of a Neolithic to Roman Landscape at Horcott Pit near Fairford, Gloucestershire, in 2002 and 2003', *Transactions of the Bristol and Gloucestershire Archaeological Society*, 127 (2009), pp. 73–92.

at Mount Farm, near Dorchester-on-Thames, Oxfordshire⁴⁴ and with a crouched burial at Appleford Sidings,⁴⁵ whilst more generally, middle Bronze-Age material has been found within urnfield groups at Yarnton-Cassington,⁴⁶ Shorncombe,⁴⁷ Standlake,⁴⁸ and Stanton Harcourt.⁴⁹

Catalogue (Fig. 15):

Middle Neolithic: Peterborough Ware

- P1. Vessel 3. Mortlake style Peterborough Ware. Oblique angled, 'T'-sectioned rim. Fabric: S3. Decoration: impressed cord maggots. Pit 1007, fill 1008.
- P2. Vessel 2. Peterborough Ware. Two refitting body, 49 g (two of 34 sherds, 133 g). Fabric: S1. Decoration: Excised, nested chevrons, down strokes embellished with stabbed marks. Evidence of potters hand slipping, on the larger refitting sherd. Pit 1009, fill 1010.
- P3. Vessel 7. Mortlake Ware style rim (1 sherd, 12 g). Form: everted with slight internal lip. Fabric: NVI. Decoration: Rim and internal face decorated with impressed cord, external face decorated with dots made impressing a blunt, round tool. Pit 1015, fill 1016.
- P4. Body. Vessel 4? Fabric: NVI. Decoration: Impressed twisted cord. Pit 1015, fill 1016.
- P5. (Not illustrated) Vessel 4. Body. Fabric: G1. Decoration: horizontal and vertical lines of either impressed cord or excised lines. Pit 1167, fill 1168.
- P6. Vessel 8. Four Mortlake Ware style rim sherds (refitting, 39 g) and one shoulder sherd (12 g), also represented by two other body sherds (not illustrated). Form: everted with slightly internal lip. Fabric: NVI. Decoration: Incised lattice on reverse, incised chevrons on rim, incised diagonals on cavetto zone. Pit 1296, fill 1297.
- P7a – b. Vessel 4. Mortlake style rim (2, 10 g) and one body sherd (27 g). Form: everted with slight internal lip. Fabric: M1. Pit 1296, fill 1297.
- P8. Body (4, 27 g). Fabric: NVI. Argillaceous clay? Decoration: impressed whipped cord. Pit 1296, fill 1297.
- P9. Shoulder sherd (1, 17 g). Form: One sharp, wide shoulder and narrow, deep cavetto zone. Fabric: NVI. Decoration: chevrons comprising impressed cord. Feature 1337, fill 1338.
- P10. (Not illustrated) Vessel 8?. Body sherds (1, 33 g). Fabric: NVI. Decoration: incised nested chevrons. Feature 1340, fill 1341.

Middle Bronze Age

- P11. Vessel 1. Type 2b Globular Urn body with two applied lugs. Fabric: F2. Form: sinuous shaped. Appears to be shallow and rounded at the bottom and tall, straight and opened at the top. Decoration: excised nested chevrons above and below the lug. Pit 1019, fill 1020.

⁴⁴ A. Barclay, 'Appendix 4: Early Prehistoric Pottery', in G. Lambrick, *Neolithic to Saxon Social and Environmental Change at Mount Farm, Berinsfield, Dorchester-on-Thames*, OA Occasional Paper, 19 (2010).

⁴⁵ P. Booth and A. Simmonds, *Appleford's Earliest Farmers: Archaeological Work at Appleford Sidings, Oxfordshire, 1993–2000*, OA Occasional Paper, 17 (2009).

⁴⁶ A. Barclay and E.J. Edwards, 'The Prehistoric Pottery', in G. Hey et al., *Yarnton Floodplain*, Thames Valley Landscapes Monograph, in preparation.

⁴⁷ A. Barclay and H. Glass, 'Excavations of Neolithic and Bronze Age Ring Ditches, Shorncombe Quarry, Somerford Keynes, Gloucestershire', *Transactions of the Bristol and Gloucestershire Archaeological Society*, 113 (1995), pp. 21–60.

⁴⁸ D.N. Riley, 'A Late Bronze Age and Early Iron Age Site on Standlake Down, Oxon.', *Oxoniensia*, 11/12 (1946/7), pp. 27–43.

⁴⁹ A. Hamlin, 'Excavations of Ring Ditches and other Sites at Stanton Harcourt', *Oxoniensia*, 28 (1963), pp. 1–19.

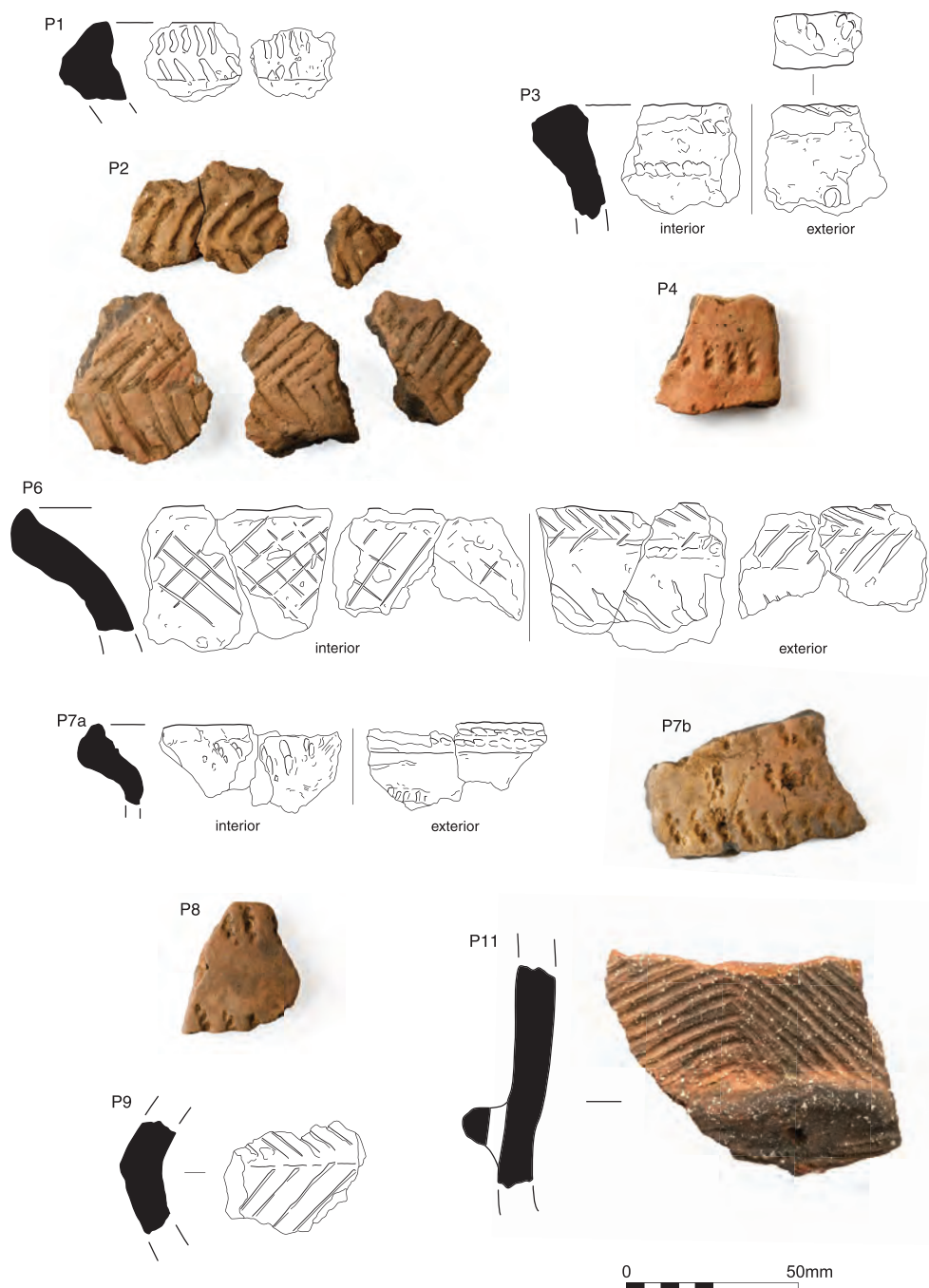


Fig. 15. Middle Neolithic (P1-9) and middle Bronze-Age (P11) pottery from Duxford Farm. Scale 1:2.

Table 5. *Iron Age pottery from Duxford Farm*

	Fabric	Description	No	No %	Wt	Wt %	EVE	EVE %
Calcareous	SH	shelly	9	5.7	124	8.1	10	24.4
	LISH1	dense limestone and fossil shell	11	6.9	32	2.1	6	14.6
	LISH2	sparse fine limestone/shell	1	0.6	12	0.8	0	0.0
	LI	oolitic limestone, some fossil	19	11.9	154	10.1	3	7.3
	MAL RE B	Palaeozoic limestone-tempered	1	0.6	39	2.6	0	0.0
Sandy/calcareous	SALI	sandy with limestone/shell	17	10.7	185	12.1	5	12.2
	SA2SH	glaucinitic sandy with shell	1	0.6	12	0.8	0	0.0
Sandy	SA	misc. sandy	1	0.6	2	0.1	0	0.0
	SA1	fine sandy ware	7	4.4	67	4.4	0	0.0
	SA2	glaucinitic sandy ware	71	44.7	706	46.3	7	17.1
	SA3	black with ill-sorted quartz sand	1	0.6	13	0.9	0	0.0
	SA4	very fine sandy ware	2	1.3	22	1.4	0	0.0
	SA5	iron-rich sandy ware	2	1.3	67	4.4	0	0.0
sandy/organic	SAOR	sandy with organic	13	8.2	58	3.8	0	0.0
grog	GR	grog-tempered ware	3	1.9	31	2.0	10	24.4
TOTAL			159	100.0	1524	100.0	41	100.0

IRON-AGE AND ROMAN POTTERY by JANE TIMBY

An assemblage of 1,245 sherds (11 kg) dating to the later prehistoric and Roman periods was recovered from Filchampstead and Duxford Farm, and a few residual sherds came from Kingston Hill Farm. A further 1,173 sherds (8.6 kg) were recovered from topsoil and subsoil deposits during the watching brief, the largest single group coming from Appleton Lower Common (see below).

Duxford Farm

The later prehistoric and Roman assemblage from Duxford Farm comprises 1,021 sherds (9,358 g; Tables 5–6). In total 159 sherds (1,524 g) of middle Iron-Age pottery were recovered with an overall average sherd weight of 9.6 g. The fabrics are dominated by sandy wares (SA1–5; 52.9 per cent), particularly glauconitic sandy wares, followed by oolitic-limestone tempered wares (11.9 per cent), and sandy with limestone wares (SALI; 11.3 per cent). Such wares typically replaced the mainly calcareous coarse wares of the earlier Iron Age in the upper Thames valley. The limited range of forms present also supports a middle Iron-Age date: round-bodied jars with simple everted, beaded or expanded rims and a bowl-shaped vessel comparable to material from Watkins Farm.⁵⁰ The only recognizable import is a single sherd of Malvernian limestone-tempered ware (MAL RE B). Of note are two decorated sherds, one with tooled diagonal lines which probably comes from a round-bodied bowl; the other a base sherd with an incised spiral. Some sherds show evidence of use in the form of sooting on the interior or exterior surfaces.

The next phase of occupation belongs to the Roman period, with some 834 sherds weighing 7,834 g. The assemblage comprises a mixture of continental and regional imports and more local wares and spans the second through to the fourth century with the emphasis on the later material. The earlier Roman is quite enigmatic with generally very small groups

⁵⁰ T.G. Allen, *An Iron Age and Romano-British Enclosed Settlement at Watkins Farm, Northmoor, Oxon.*, Thames Valley Landscapes Monograph, 1 (1990).

Table 6. Quantified summary of Roman wares from Duxford Farm

	Fabric	Description	No	No %	Wt	Wt %	EVE	% EVE
IMPORTS	LEZ SA	Central Gaulish samian	5	0.6	28.5	0.4	0	0.0
REGIONAL	ALH RE	Alice Holt grey ware	3	0.4	101	1.3	26	3.3
	DOR BB1	Dorset black burnished ware	71	8.5	951	12.1	119	15.3
	LVN CC	Lower Nene Valley colour-coat	3	0.4	18	0.2	0	0.0
	PNK GT	pink grog-tempered ware	1	0.1	12	0.2	0	0.0
	ROB SH	late Roman shelly ware	7	0.8	58	0.7	22	2.8
	SAV GT	Savernake ware	9	1.1	96	1.2	6	0.8
	SOW BB1	South-west black burnished ware	2	0.2	15	0.2	0	0.0
	SOW RE	South-west reduced ware	1	0.1	13	0.2	0	0.0
	WIL CC	Wiltshire colour-coated ware	1	0.1	7	0.1	0	0.0
	WIL OX	Wiltshire oxidized sandy ware	1	0.1	31	0.4	10	1.3
OXON	WIL RE	Wiltshire grey sandy ware	1	0.1	6	0.1	0	0.0
	WIL GR	Wiltshire grog-tempered	7	0.8	175	2.2	10	1.3
	OXF FR	fine grey ware	3	0.4	3	0.0	0	0.0
	OXF OX	Oxon oxidized ware	8	1.0	60.5	0.8	23	3.0
	OXF RE	Oxon grey ware	431	51.7	3710	47.4	363	46.6
	OXF RS	Oxon colour-coated ware	32	3.8	465.3	5.9	76	9.8
	OXF RS	Oxon colour-coated mortaria	18	2.2	112	1.4	31	4.0
	OXF WH	Oxon whiteware	26	3.1	425	5.4	20	2.6
	OXF WHM	Oxon whiteware mortaria	9	1.1	245	3.1	7	0.9
	OXF WSM	Oxon white-slipped mortaria	4	0.5	102	1.3	0	0.0
UNKNOWN	BB1COPY	black sandy BB1 copy	1	0.1	4	0.1	1	0.1
	BSOXID	black surfaced oxidized ware	2	0.2	10	0.1	0	0.0
	BW	black sandy ware	16	1.9	70	0.9	15	1.9
	BWF	fine black micaceous ware	17	2.0	64	0.8	10	1.3
	GREY	grey sandy wares	29	3.5	144	1.8	11	1.4
	GRSA	hand-made grog-tempered	21	2.5	227	2.9	0	0.0
	OXID	medium-fine oxidized sandy ware	9	1.1	56.75	0.7	0	0.0
	PNK SY	pink sandy ware	2	0.2	15	0.2	0	0.0
	SHELL	shelly wares	85	10.2	423.5	5.4	29	3.7
	MISC	miscellaneous	9	1.1	185	2.4	0	0.0
TOTAL			834	100.0	7834	100.0	779	100.0

and very little comprehensively diagnostic material. Pottery that dates to this phase includes Central Gaulish samian (LEZ SA); Savernake ware (SAV GT); some of the Oxfordshire grey wares (OXF RE); shelly wares and a small proportion of the Dorset black burnished ware (DOR BB1). The sherds are extremely small and most features only have one or two unfeatured pieces so dating is slightly inconclusive. Many of the chronologically earlier sherds occur in later deposits.

Table 7. Iron Age pottery from Filchampstead

Ware	Fabric	Description	No	No %	Wt	Wt %	EVE	EVE %
Calcareous	SH	shelly or with voids	3	1.7	7	0.5	0	0.0
	LISH1	dense limestone & fossil shell	28	16.3	134.5	9.0	10	16.4
	LISH2	sparse fine limestone/shell	1	0.6	19	1.3	0	0.0
Sandy/calc.	SALI	sandy with limestone/shell	55	32.0	612	41.0	18	29.5
Sandy	SA	misc. sandy	3	1.7	19	1.3	0	0.0
	SA1	medium-fine sandy	12	7.0	83	5.6	8	13.1
	SA2	glauconitic sandy	16	9.3	82	5.5	0	0.0
	SA4	very fine sandy	3	1.7	15	1.0	0	0.0
	SA5	iron-rich sandy ware	2	1.2	94	6.3	0	0.0
Grog	GRSA	sandy with grog	42	24.4	356	23.8	25	41.0
	GR	grog-tempered	5	2.9	60	4.0	0	0.0
	SAORGR	sandy with organic and grog	2	1.2	13	0.9	0	0.0
TOTAL			172	100.0	1495	100.0	61	100.0

The later Roman assemblage is more distinctive, with a significant number of Oxfordshire colour-coated wares (OXF RS) including several mortaria (types C97, C100).⁵¹ Other colour-coated forms include bowls C45, C51, C55 and C75 and beakers C26, C28, all dating to after the mid third century. Overall, products of the Oxfordshire industry are prominent with a high proportion of grey wares, white-ware mortaria and white-slipped mortaria. Amongst the white-wares are several sherds from a wall-sided flagon type W9 dated AD 240–300. Collectively the products of this industry account for 63.8 per cent of the Duxford Farm Roman assemblage. Other late regional imports include three sherds of Lower Nene Valley colour-coated ware (LNV CC), Alice Holt grey ware (ALH RE), Midlands late Roman shelly (ROB SH), pink grog-tempered ware (PNK GT) and Dorset black burnished wares (DOR BB1). This latter product accounts for around 8.5 per cent of the assemblage by sherd count and includes the profile of a jar (SF 58) from pit 1132. The presence of late Roman shelly ware (ROB SH) in ditch re-cuts places them at the end of the sequence in the last quarter of the fourth century or later.

Filchampstead

Filchampstead produced 219 sherds of pottery (1,647 g), 80 per cent dating to the later prehistoric period with a few Roman pieces present (Tables 7–8). Quantities within single deposits range from single sherds up to a maximum of 83 sherds. The material overall was poorly preserved with a low average sherd weight of 7.5 g. There are rims from only eight vessels. Calcareous wares account for 18.6 per cent by count, sandy ware with limestone 32 per cent, sandy wares 20.9 per cent and grog-tempered wares 28.5 per cent. The earliest material consists of shell and limestone-tempered ware typical of early Iron-Age assemblages which also continue into the early to middle Iron Age. The next ceramic phase comprised sandy wares with limestone, a fabric more typical of the middle Iron Age. The larger part of the overall assemblage belongs to the later Iron Age and is characterized by grog-tempered ware. The wares are all local with the exception of a fragment of amphora, probably a Dressel 1/2-4 type. Small quantities of Roman material present included 34 small sherds from a single flagon in a buff sandy ware, possibly a Verulamium-type ware, three sherds of Wiltshire grey ware and a fine grey ware. These wares date to the Flavian period or later.

⁵¹ C.J. Young, *Oxfordshire Roman Pottery*, BAR, 43 (1977).

Table 8. Quantified summary of Roman wares from Filchampstead

	Fabric	Description	No	No %	Wt	Wt %
IMPORT	AMP	amphora ?Dr 1/2-4 sp	1	2.1	13	8.6
REGIONAL	VER WH	Verulamium-type white ware	34	72.3	79	52.0
LOCAL	OXF RE	Oxfordshire grey ware	3	6.4	18	11.8
	OXF RS	Oxfordshire red slip	2	4.3	33	21.7
	BSSY	black surfaced sandy ware	1	2.1	1	0.7
	BWSY	black sandy ware	1	2.1	3	2.0
	GY	misc. grey sandy ware	1	2.1	2	1.3
	GYF	fine grey ware	1	2.1	0.5	0.3
	OXID	oxidized sandy	2	4.3	2	1.3
	OXIDF	fine oxidized sandy	1	2.1	0.5	0.3
TOTAL			47	100.0	152	100.0

Field-Collection from Appleton Lower Common

From Appleton Lower common 503 sherds of Roman pottery were hand collected from the topsoil/subsoil during the watching brief. Most is later Roman, with various Oxfordshire grey wares and colour-coated ware, Oxfordshire mortaria, Overwey white ware, later Roman shelly ware, Dorset black burnished wares and copies of BB1 forms present. One jar in the latter category has two post-firing cuts on the rim. From the same field, a carinated sherd with slash decoration is probably Iron Age.

Summary

The later prehistoric and Roman assemblages from Duxford and Filchampstead are typical of the other contemporary middle-late Iron-Age and Roman rural assemblages in the area. The range of later prehistoric fabrics and forms closely matches those reported on from sites such as Farmoor,⁵² Watkins Farm,⁵³ Claydon Pike,⁵⁴ Stanton Harcourt,⁵⁵ and Yarnton.⁵⁶

EARLY MEDIEVAL POTTERY by PAUL BLINKHORN

All post-Roman pottery was recorded using the conventions of the Oxfordshire county type-series.⁵⁷ Anglo-Saxon hand-built pottery of the fifth to mid ninth centuries is not covered by the type-series and for these the following fabrics were noted:

Fabric F1: Fine and lightly sandy with few visible inclusions except rare sub-rounded quartz <0.5 mm.

⁵² Lambrick and Robinson, *Iron Age and Roman Riverside Settlements at Farmoor*.

⁵³ Allen, *An Iron Age and Romano-British Enclosed Settlement at Watkins Farm*.

⁵⁴ G. Jones, 'The Iron Age Pottery', in D. Miles et al., *Iron Age and Roman Settlement in the Upper Thames Valley: Excavations at Claydon Pike and other Sites within the Cotswold Water Park*, Thames Valley Landscapes Monograph, 26 (2007), archive finds reports MF3.1.

⁵⁵ A. Hamlin, 'Early Iron Age Sites at Stanton Harcourt', *Oxoniensia*, 31 (1966) pp. 1–24.

⁵⁶ P. Booth, 'The Iron Age and Roman Pottery', in G. Hey et al., *Yarnton. Iron Age and Romano-British Settlement and Landscape*, Thames Valley Landscapes Monograph, 35 (2011), pp. 345–417.

⁵⁷ M. Mellor, 'A Summary of the Key Assemblages. A Study of Pottery, Clay Pipes, Glass and other Finds from Fourteen Pits, dating from the 16th to the 19th Century', in T.G. Hassall et al., 'Excavations at St Ebbe's', *Oxoniensia*, 49 (1984), pp. 181–219; M. Mellor, 'Oxford Pottery: A Synthesis of Middle and Late Saxon, Medieval and Early Post-Medieval Pottery in the Oxford Region', *Oxoniensia*, 59 (1994), pp. 17–217.

- Fabric F2: As F1, with rare to moderate organic voids.
 Fabric F3: Rare to moderate sub-rounded quartz up to 2 mm, angular limestone fragments up to 5 mm, scatter of fine silver mica, rare organic voids.
 Fabric F4: Moderate to dense organic voids up to 10 mm.
 Fabric F5: Moderate to dense calcite-cemented sandstone up to 1 mm, many 'free' angular quartz grains up to 0.5 mm.

Detailed quantifications of all post-Roman pottery are held in archive. The following is a summary of the Anglo-Saxon pottery from two sites.

Kingston Hill Farm

The pottery assemblage from the Kingston Hill Farm excavation includes early/middle Saxon hand-built material (8 sherds, 37 g) and also three sherds (46 g) of mid-late Saxon Oxford Ware (fabric OXB). All the Saxon pottery from the evaluation (a further 20 sherds, 74 g) is the former type, with Oxford Ware not noted, and all residual, with the sherds correspondingly small and worn (mean sherd weight 4.7 g). Some stratified material, particularly the Oxford Ware, occurred at the excavation stage, but the hand-built pottery again comprises mainly small and worn sherds (mean sherd weight 4.6 g). None of the hand-built pottery is decorated, and so is difficult to date other than to within the broad early-middle Anglo-Saxon period. The sherds of Oxford Ware include a large, well-preserved rimsherd. The presence of the Oxford Ware means that the hand-built pottery could conceivably be middle rather than early Saxon. At Little London, Lechlade (Glos.), most of the hand-built Anglo-Saxon pottery was residual, but a single context did produce an apparently stratified group which also contained Ipswich Ware.⁵⁸ The hand-built wares from the group were entirely organic-tempered types. At Maidenhead (Berks.), large quantities of both sand- and organic-tempered hand-built pottery was found in association with Ipswich Ware and eighth to ninth-century imported pottery.⁵⁹ However, none of the hand-built pottery from Kingston Hill Farm occurs in the same features as the Oxford Ware.

The later material from this site comes from a much larger collection of pottery potentially dating from the tenth to fourteenth centuries, including Cotswold-type and North-East Wiltshire wares (details in archive). In view of the presence of hand-built pottery and Oxford Ware, the medieval pottery probably dates to the earlier part of its range.

Appleton Lower Common

- Fabric F1: 39 sherds, 217 g.
 Fabric F2: 27 sherds, 92 g.
 Fabric F3: 11 sherds, 69 g.
 Fabric F4: 27 sherds, 117 g.
 Fabric F5: 21 sherds, 126 g.

The entire Anglo-Saxon surface assemblage of 125 sherds (621 g) comprises undecorated bodysherds, apart from a small rusticated sherd. This sherd shows a typical early Anglo-Saxon (fifth- to sixth-century) decorative technique. The rest of the assemblage may date to any time within the period AD 450–850. The range of fabric types is fairly typical of the pottery from contemporary sites in the region, such as that at Littlemore Science Park.⁶⁰ In addition there are 13 sherds of post-Conquest medieval pottery.

⁵⁸ P. Blinkhorn, 'Post-Roman Pottery', in D. Stansbie et al., 'The Excavation of Iron Age Ditches and a Medieval Farmstead at Allcourt Farm, Little London, Lechlade 1999', *Transactions of the Bristol and Gloucestershire Archaeological Society*, 131 (2013), pp. 49–54.

⁵⁹ P. Blinkhorn, 'The Anglo-Saxon Pottery', in S. Foreman et al., *Gathering the People, Settling the Land: The Archaeology of a Middle Thames Landscape*, Thames Valley Landscapes Monograph, 14 (2002), p. 35 and CD-ROM.

⁶⁰ P. Blinkhorn, 'Anglo-Saxon Pottery', in J. Moore, 'Excavations at Oxford Science Park, Littlemore, Oxford', *Oxoniensia*, 66 (2001), pp. 189–97.

LOOMWEIGHT FROM DUXFORD FARM by E.R. McSLOY

The single item described (Fig. 16.) belongs to a class of object commonly interpreted as weights for use with vertical, warp-weighted looms, a technology in use in Britain from the earlier Neolithic.⁶¹ In its cylindrical form, it resembles fired clay objects of middle Bronze-Age date recorded from a number of sites including Black Patch, East Sussex,⁶² where comparable objects were found on a rough line within a house. The object is smaller than the majority of comparably dated finds, although still within the ranges supplied by Woodward.⁶³ It is unusual and possibly unique in exhibiting a double line of impressed decoration, although at least two objects among the Bestwall, Dorset group featured a single line,⁶⁴ and an example from Blackbird Leys, Oxford features round-toothed comb impressions.⁶⁵ The object exhibits no obvious wear patterns relating to suspension; indeed the interior surface of the perforation bears the impression of the narrow branch around which the object appears to have been formed prior to firing.

Fired clay object of cylindrical form with rounded ends and perforated horizontally. Decorated with double row of ?fingernail impressions oblique to the horizontal. The Soft, buff coloured fabric with grey core. The fabric is commonly vesicular, the voids plate-like or sub-angular (leached calcareous rock?). Length 94 mm; external diam. 55–58 mm; internal diam. 20–21 mm; weight: 200 g. Middle Bronze Age pit 1041 (fill 1042).

COIN LIST by ANGUS CRAWFORD and E.R. McSLOY

Long Leys House, Near Cumnor (Unstratified Coin Recovered during Watching Brief)

1. Ag silver unit of Eppilus of the Atrebatas/Van Arsdel 417 (later first century BC to early first century AD). Obverse shows bearded portrait facing right within a pelleted border. Reverse shows lion right and the legend EPP COME.

Duxford Farm

2. Radiate (barbarous? AD 260–90). Diam. 17 mm. Obv. illeg. Rev. shows Pax. *Ra. 60.* Re-cut of ditch 1147.
3. Radiate (barbarous? AD 260–90). Diam. 16–17 mm. Obv. illeg. Rev. shows Providentia *Ra. 73.* Ditch 1147.
4. House of Valentinian. AE3. (AD 364–78). Rev. GLORIA ROMANORUM/Emperor with standard/kneeling captive. Details unclear. *Ra. 1.* Ditch 1030.

Appleton Lower Common (Hand Collected from the Topsoil/Subsoil)

5. Uncertain. (Prob. copy AD 337–48). The obv. shows the cowled (deceased) Constantine; the reverse is indeterminate. Diam. 15 mm.
6. Constantius II (copy AD 354–61). Diam. 15 mm. Rev. FEL TEMP REPARATIO/soldier spearing barbarian.

⁶¹ R. Mackey, 'Easington Round Barrow and Neolithic Settlement', *East Riding Archaeologist*, 10 (2001), pp. 69–73.

⁶² P. Drewett, 'Later Bronze Age Downland Economy and Excavations at Black Patch, East Sussex', *Proceedings of the Prehistoric Society*, 48 (1982), p. 371.

⁶³ A. Woodward, 'Fired Clay', in L. Ladle and A. Woodward, *Excavations at Bestwall Quarry, Wareham 1992–2005 Volume 1: The Prehistoric Landscape*, Dorset Natural History and Archaeological Society Monograph, 19 (2009), p. 297 and table 91.

⁶⁴ *Ibid.* p. 294, fig. 3.

⁶⁵ A. Barclay, 'The Decorated Cylindrical Loomweight', in P. Booth and G. Edgeley-Long, 'Prehistoric Settlement and Roman Pottery Production at Blackbird Leys, Oxford', *Oxoniensia*, 68 (2003), pp. 217–18.



Fig. 16. Bronze-Age loom weight from Duxford Farm. Scale 1:2.

7. Uncertain. Prob. Constantius II (copy AD 354–61). Diam. 11–12 mm. Rev. FEL TEMP REPARATIO/soldier spearing barbarian.
8. Gratian. AE3. CK 726/Rome (AD 364–67). Rev. SECURITAS REIPUBLICAE/victory with wreath.
9. House of Valentinian. AE3. (AD 364–78). Rev. SECURITAS REIPUBLICAE/victory with wreath. Details unclear.

Pennyswick Farm

10. Ag 'Long cross' penny of Henry V (1413–22). Clipped and worn. Spink class G: mullet and lys by crown.⁶⁶ Topsoil.

GLASS BEAD FROM APPLETON LOWER COMMON by E.R. McSLOY

Opaque 'appearing black' glass bead (Fig. 17.). Multi (x7)-lobed melon form.⁶⁷ Very dark/near black-coloured glass beads were common from the last decades of the Roman period and use continued into the Anglo-Saxon period. Comparable beads occur from graves of sixth- or seventh-century date, including from Butler's Field, Lechlade (Glos.),⁶⁸ and Beckford (Worcs.).⁶⁹ Ext. diam. 15 mm; int. diam. 7–8 mm; thickness 6.5–8 mm.

⁶⁶ P. Skingley, *Coins of England and the United Kingdom 2009* (2008).

⁶⁷ M. Guido, *The Glass Beads of Anglo-Saxon England, c. AD 400–700* (1999).

⁶⁸ A. Boyle et al., *The Anglo-Saxon Cemetery at Butler's Field, Lechlade, Gloucestershire. Volume 1: Prehistoric and Roman Activity and Anglo-Saxon Grave Catalogue*, Thames Valley Landscapes Monograph, 10 (1988), p. 252, no. 6.

⁶⁹ V.I. Evison, and P. Hill, *Two Anglo-Saxon Cemeteries at Beckford, Hereford and Worcester*, CBA Research Report, 103 (1996), p. 105, fig. 18, no. 1a.



Fig. 17. Glass bead from Appleton Lower Common. Scale 1:1.

METAL OBJECTS by E.R. MCSLOY

Some 55 objects of copper alloy (2) or iron (53) were recorded. The majority are iron nails (27) or fragmentary items where function/dating was indeterminate. The catalogue below describes selected iron objects, which are dateable by form or are of intrinsic interest. Details of the remainder can be found in the archive.

Duxford Farm (Fig. 18)

- 1 Iron reaping hook. Curved blade and flat socket with single rivet in situ. The reaping hook, a tool used for cutting cereals, is a common implement form in use across the Iron Age and Roman periods. The form of the 'socket' and curving blade (Manning's Type 2) are characteristics common to Iron-Age examples,⁷⁰ although Roman examples are also known.⁷¹ A comparable example from Hatford may be of Iron-Age or Roman date.⁷² The rivet securing the handle in no. 1 is in situ. Surviving length 164 mm; width at base of blade 43 mm. Middle Iron-Age ditch 2013 (fill 2014).
- 2 Iron forked implement (pitchfork?). Both tines are incomplete, the longer seeming to curve back outwards ('S'-shaped). Tanged pitchforks of Roman date are known from a number of sites and an example from Risingham, Northumberland is of similar form, though slightly larger.⁷³ Surviving length 96 mm; width 46 mm; thickness 5-7 mm. Roman pit 1193 (fill 1194).

Appleton Lower Common (Field AA)

- 3 (Not illustrated) Iron stylus. Slender, round-sectioned, stem with expanded section below simple, flared eraser. Manning's Type 1, although the thickened 'shoulder' is not typical.⁷⁴ Length 146 mm; thickness at shoulder 5 mm. Unstratified.

Kingston Hill Farm

- 4 (Not illustrated) Iron. Shears blade? The line of the handle is level with the blade back and angled slightly downwards. Too fragmentary for classification but compares

⁷⁰ L. Sellwood, 'Objects of Iron', in B. Cunliffe, *Danebury, an Iron Age Hillfort in Hampshire: Volume 2, The Excavations, 1969-78: The Finds*, CBA Research Report, 52 (1984), p. 347, fig. 7.8.

⁷¹ W.H. Manning, *Catalogue of the Romano-British Iron Tools, Fittings and Weapons in the British Museum* (1985), p. 55.

⁷² P. Booth, 'Metal Objects', in P. Booth and A. Simmonds, 'An Iron Age and Early Romano-British Site at Hatford Quarry, Sandy Lane, Hatford', *Oxoniensia*, 49 (2004), pp. 332-3.

⁷³ W.H. Manning, *Catalogue of Romano-British Ironwork in the Museum of Antiquities, Newcastle upon Tyne* (1976), p. 52, fig. 19, no. 87.

⁷⁴ Manning, *Catalogue of the Romano-British Iron Tools*, p. 85.

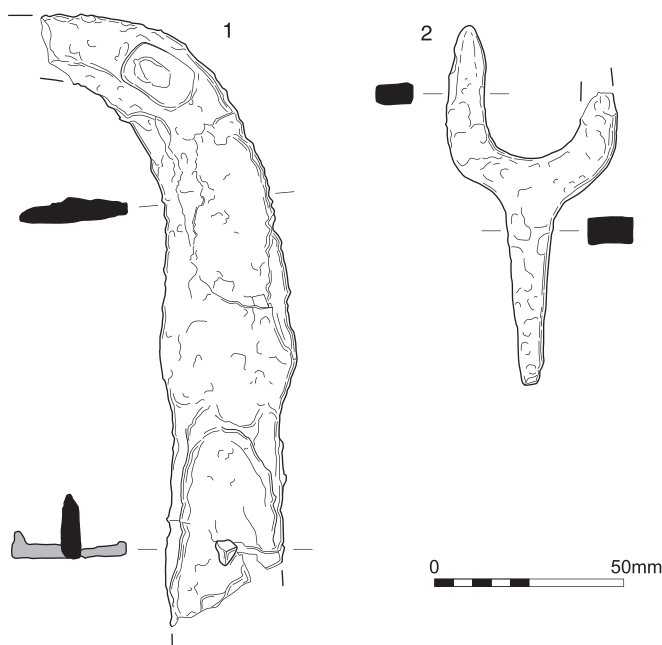


Fig. 18. Iron objects from Duxford Farm. Scale 1:2.

broadly with pre-Conquest and later (medieval) examples.⁷⁵ Width (max.) 20.5 mm; surviving length 170 mm. ?Medieval ditch 2018 (fill 2017).

ANIMAL BONES by MATILDA HOLMES

Several small assemblages of animal bone were recovered spanning the Neolithic to medieval periods. Sample sizes were generally too small to be useful for detailed analysis, falling below the minimum recommended 100 fragments identified to species,⁷⁶ although pertinent information from each site is discussed separately below. Bones were identified using the author's reference collection. Bones in the sheep/goat category lack specific identification.⁷⁷ Standard methods and guidelines were used.⁷⁸

⁷⁵ Cf. I.H. Goodall, 'Objects of Iron', in G. Beresford, *Goltho: The Development of an Early Medieval Manor c. 850–1150*, English Heritage Archaeological Report, 4 (1987), p. 179, fig. 157.70; J. Cowgill et al., *Medieval Finds from Excavations in London 1: Knives and Scabbards* (1987), p. 107, fig. 70.

⁷⁶ S.J.M. Davis, *The Archaeology of Animals* (1987).

⁷⁷ W. Prummel and H. Frisch, 'A Guide for the Distinction of Species, Sex and Body Side in Bones of Sheep and Goat', *Journal of Archaeological Science*, 13 (1986), pp. 567–77; S. Payne, 'Morphological Distinctions between the Mandibular Teeth of Young Sheep and Goats', *Journal of Archaeological Science*, 12 (1985), pp. 139–47.

⁷⁸ A. Grant, 'The Use of Toothwear as a Guide to the Age of Domestic Ungulates', in B. Wilson et al. (eds.), *Ageing and Sexing Animal Bones from Archaeological Sites*, BAR BS, 109 (1982), pp. 91–108; I.A. Silver, 'The Ageing of Domestic Animals', in D.R. Brothwell and E.S. Higgs (eds.), *Science and Archaeology* (1969), pp. 283–302; A. von den Driesch, *A Guide to the Measurement of Animal Bones from Archaeological Sites* (1976); D. Serjeantson, 'The Animal Bones', in S. Needham and T. Spence (eds.), *Refuse and Disposal at Area 16 East Runnymede: Runnymede Bridge Research Excavations* (1996), pp. 194–223; R. Lauwerier, *Animals in Roman Times in the Dutch Eastern River Area* (1988); N. Sykes, *The Norman Conquest: A Zooarchaeological Perspective*, BAR IS, 1656 (2007); R.L. Lyman, *Vertebrate Taphonomy* (1994), p. 355.

Filchampstead

The assemblage of 40 identified specimens was in good condition and came from Iron-Age deposits. A number of eel bones were recovered, and eels would have been available locally. Although it is unusual to find fish remains on Iron-Age sites, eels have been recorded at the Iron-Age site at Barton Court Farm.⁷⁹ Also of interest are the horse remains, which comprise four pelvises and a skull. A complete pelvis was recovered from ditch 3120 as part of a structured deposit and this overlaid a fill containing the horse skull, a deposit often associated with deliberate placement.⁸⁰

Kingston Hill Farm

Animal bone from Kingston Hill Farm was recovered from late Saxon and medieval deposits and amounted to 63 identified specimens and was in good condition. Some 20 per cent had been gnawed by dogs, and butchered and burnt fragments were observed. Of note are two horse bones (scapula and tibia) with butchery marks. Two worked bone objects were recovered: a fragment of bone pin made from a sheep/goat ulna, and a piece of bone comb possibly made using a large mammal rib.

Duxford Farm

The largest animal bone assemblages along the route of the pipeline were from Duxford Farm but even these were too small for detailed analysis (Table 9). The condition of bones varies considerably; the Neolithic material is poorly preserved, whilst that dated to Iron-Age and Roman periods is in a fair condition. Canid gnawing is evident for all periods, although there is a low ratio of loose teeth to those remaining in the mandible suggesting that burial of waste occurred fairly rapidly following disposal. The greatest evidence for burning came from Neolithic bones, of which a number had been exposed to high temperatures, resulting in calcined fragments, although a few fragments of burnt bone were also recovered from later features. Butchery was relatively uncommon, and surface traces may have been minimized due to the condition of and animal damage to the bones.

Middle Neolithic. The Neolithic assemblage was dominated by a group of red deer bones from pit 1007, and a single deer bone from pit 1340. They derived largely from the extremities (antler, tooth, metapodials, carpal, phalanges), although a fragment of femur was also recovered. This is typical of primary butchery waste resulting from carcass preparation. The few bones of cattle, sheep/goat and pig were from upper and lower limbs, more consistent with the processing of complete carcasses.

Iron Age. A narrow range of taxa were exploited during this period including the major domesticates (cattle, sheep/goat, pig, horse and dog; Table 9). Two associated bone groups were recorded from middle Iron-Age ditch 1124: the hind leg of a mature sheep, of which the calcaneus had been chewed and the limb bones from a lamb. The small amount of ageing data available suggests that cattle and sheep/goats were of prime importance for meat, being culled at sub-adult ages. A cut mark was observed on the proximal shaft of a horse radius, which may indicate the removal of meat, or disarticulation of the joint.

Roman. Again, only a limited suite of taxa were recorded, including the major domesticates, but also the remains of a small bird, probably a moorhen (Table 9). A more diverse range

⁷⁹ B. Wilson et al., 'Faunal Remains: Animal Bones and Shells', in D. Miles (ed.), *Archaeology at Barton Court Farm, Abingdon, Oxfordshire*, CBA Research Report, 50 (1986), fiche 8, A1-G14.

⁸⁰ J.D. Hill, *Ritual and Rubbish in the Iron Age of Wessex*, BAR BS, 242 (1995); R. Wilson, 'Displayed or Concealed? Cross Cultural Evidence for Symbolic and Ritual Activity Depositing Iron Age Animal Bone', *Oxford Journal of Archaeology*, 18:3 (1999), pp. 297-306.

Table 9. Animal species represented at Duxford Farm (NISP) *h* = hand collected; *s* = sieved assemblage

	Neo		BA	E-M IA		L IA	L Roman	
	<i>h</i>	<i>s</i>	<i>h</i>	<i>h</i>	<i>s</i>	<i>h</i>	<i>h</i>	<i>s</i>
Cattle	3	–	–	12	–	9	45	–
Sheep/Goat	3	–	1	29	–	5	30	2
Sheep	–	–	–	1	–	1	2	–
Pig	1	–	–	2	–	–	4	1
Horse	–	–	–	2	–	1	4	–
Dog	–	–	–	–	–	1	2	–
Deer	–	1	–	–	–	–	–	–
Red Deer	13	–	–	–	–	–	–	–
Rodent	–	1	–	–	–	–	–	6
Field Vole	–	–	–	–	–	–	–	2
Wood Mouse	–	–	–	–	–	–	–	1
?Moorhen	–	–	–	–	–	–	1	–
Eel	–	–	–	–	–	–	–	2
Frog	–	–	–	–	2	–	–	3
Total Identified	20	2	1	46	2	17	88	17
Unidentified Mammal	22	–	–	33	–	20	29	–
Large Mammal	29	–	–	14	–	12	78	–
Medium Mammal	24	–	–	63	–	7	34	–
Unidentified Bird	–	–	–	–	–	–	1	–
Total	95	2	1	156	2	56	230	17

Key: Neo = Neolithic; BA = Bronze Age; E-MIA = early to middle Iron Age; LIA = late Iron Age; L Roman = late Roman

of small mammals were recovered from the samples, including field vole, wood mouse and frog, implying the presence of shrubby or wooded and damp habitats nearby. Two eel vertebrae were also recorded. All parts of cattle and sheep/goat carcasses were recorded, and it is likely that animals were kept, culled and processed at the site, with no evidence for the redistribution of joints of meat either in or out of the settlement. There is an apparent change from the previous phase, where some older sheep and cattle are observed in the fusion and tooth wear data and, although animals continued to be culled at prime meat age, some were kept into older age for wool, milk or traction.

Pennyswick Farm

Another small assemblage of animal bone (47 identified specimens) was recovered from the Pennyswick Farm sheepcote, and was dominated by sheep/goat remains (of which sheep were positively identified), but also included cattle, dog and horse bones (Table 10). The partial remains of a neonatal lamb were also found, comprising the tibia, metapodials and radius of both sides of the body.

Table 10. Animal species represented at Pennyswick Farm (NISP)

Taxa	Medieval
Cattle	3
Sheep/ goat	37
Sheep	3
Horse	1
Dog	3
Total Identified	47
Large Mammal	17
Medium Mammal	2
Total	66



Fig. 19. Sheepcote depicted on the fifteenth-century *Très Riches Heures du Duc de Berry*: February (Source: Public Domain Review).

LAND MOLLUSCS by MICHAEL J. ALLEN

Thirteen bulk samples from Duxford Farm and one from Filchampstead were selected for analysis of the molluscs using standard techniques and nomenclature.⁸¹ *Cecilioides acicula*,

⁸¹ R. Anderson, 'An Annotated List of the Non-Marine Mollusca of Britain and Ireland', *Journal of Conchology*, 38 (2005), pp. 607–37.

which occurs in large numbers, is burrowing species and thus is palaeo-ecologically insignificant; it is always ignored in palaeo-environmental interpretation and is excluded from the overall quantities in the accompanying tables.⁸²

Duxford Farm Middle Neolithic and Middle Bronze Age Pits

Mollusc assemblages from prehistoric pits (six middle Neolithic and one middle Bronze Age) were similar in composition and are likely to reflect the immediate environment of the site (Table 11). With the exception of middle Neolithic pit 1169, all pits contained open-country assemblages with more xerophilic *V. excentrica* being the dominant *Vallonia*. The assemblages included *Pupilla muscorum* and *Vertigo pygmaea* with the intermediate species *Trochulus hispidus*. These are assemblages typical of open short dry grassland. *Vallonia excentrica* dominated most assemblages (51–70 per cent) with *Helicella itala* occurring at surprisingly high percentages (20–39 per cent). This indicates immature assemblages, representing very dry open very short-turfed, grazed or trampled grassland. Although two pits contained a few species of *Pomatias elegans* which likes disturbed ground, these were not in significant quantities.

The assemblage from pit 1169 differs in that this contains a few shade-loving species (9 per cent). The majority (*Carychium tridentatum*, *Vitrea contracta*) are species that readily live in grassland,⁸³ and the only species that is therefore slightly out of place, is a single specimen of *Vertigo pusilla* which inhabits shady undisturbed places and open woodland, grassy banks,⁸⁴ hinting again at the presence of longer more mesic grassland. The overall lack of shade-loving and ruperstral species and nature of the intermediate taxa, suggests that this was an established pre-existing open environment when the pits were cut.

Duxford Farm Roman Occupation

Five samples were examined, one from curvilinear ditch 1110 and four from the north–south trackway ditch (ditch 1030 and re-cuts 1037 and 1003) (Table 11). All produced high shell numbers. The assemblages are dominated by open country taxa (63–95 per cent) but a significant shady element (6–8 per cent) is present along with intermediate species (13–27 per cent). The shade-loving component is principally *Oxychilus cellarius*, *Aegopinella nitidula* and *Carychium tridentatum*. Overall these tend to suggest some shadier habitats within, or adjacent to, the ditches, with the possibility of some leaf litter and vegetal detritus accumulating in the base of the infilling ditches. Also significant is the presence in all samples of between one and three freshwater species, albeit these represent a very low percentage (up to 1.8 per cent) of the whole assemblage. With the exception of *Bythina tentaculata*, which occupies large bodies of water, all were amphibious species⁸⁵ (*Galba truncatula* and *Anisus leucostoma* or *Planorbis planorbis*) which tolerate pools of water subject to seasonal drying. These indicate a seasonally flooded and wet floodplain, and periods of standing water in the ditches. The damper conditions created by the high groundwater level and locally mesic environments is confirmed by the presence of the species *Oxyloma elegans* and marsh species *Vertigo moulinsiana* and *V. substriata*.

Filchampstead Iron-Age Ditch

A single sample was examined from the box within Iron-Age ditch 3120 (Table 12). What is significant about this assemblage is that it contained a large proportion (77 per cent) of freshwater species. These reflect the ditch rather than the box microenvironments. The terrestrial assemblage is small (57 shells), and is dominated by open country species especially

⁸² J.G. Evans, *Land Snails in Archaeology* (1972).

⁸³ J.G. Evans, 'Stonehenge – The Environment in the Late Neolithic and Early Bronze Age and a Beaker Burial', *Wiltshire Archaeology and Natural History Magazine*, 78 (1984), pp. 7–30.

⁸⁴ Evans, *Land Snails in Archaeology*; M.P. Kerney, *Atlas of the Land and Freshwater Molluscs of Britain and Ireland* (1999).

⁸⁵ Cf. M. Robinson, 'Molluscan Evidence for Pasture and Meadowland on the Floodplain of the Upper Thames Basin', in P. Murphy and C. French (eds.), *The Exploitation of the Wetlands*, BAR BS, 186 (1988), pp. 101–12.

Vitrea spp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nesovitrea hammonis (Ström)	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aegopinella nitidula (Draparnaud)	-	-	-	-	-	+	-	-	-	-	-	-	-	-	5	3	8	2	-
Oxychilus cellarius (Müller)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	22	26	4	-
Limacidae	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-
Cecilioides acicula (Müller)	28	312	885	774	1190	1251	762	396	506	527	509	192	323	-	-	-	-	-	-
Cochlodina laminata (Montagu)	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-
Clausilia bidentata (Ström)	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	1	-
Canidula intersecta (Poiret)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-
Candidula gigaxii (L. Pfeiffer)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cernuella virgata (Da Costa)	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Helicella itala (Linnaeus)	-	11	13	27	24	22	15	18	86	27	15	61	41	-	-	-	-	-	-
Trochulus striolatus (C. Pfeiffer)	-	-	-	-	-	-	-	-	-	-	-	1	6	-	-	-	-	6	-
Trochulus hispidus (Linnaeus)	-	1	1	4	4	1	2	1	9	74	42	229	72	-	-	-	-	-	-
Arianta arbustorum (Linnaeus)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
Helicigona lapicida (Linnaeus)	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cepaea hortensis (Müller)	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
Cepaea spp.	-	-	-	-	2	-	+	1	1	5	4	11	3	-	-	-	-	-	-
Cepaea/Arianta spp.	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
Cornus aspersum (Müller)	-	-	-	-	-	-	-	-	-	+	1	-	-	-	-	-	-	-	-
FRESH-WATER SPECIES																			
Bithynia tentaculata (Linnaeus)	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
Galba truncatula (Müller)	-	-	-	-	-	-	-	-	-	3	-	1	1	-	-	-	-	-	-
Planorbis planorbis (Linnaeus)	-	-	-	-	-	-	1	-	-	-	-	-	2	-	-	-	-	-	-
Anisus cf. leucostoma (Millet)	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-
Taxa	4	10	7	6	13	6	7	8	12	17	15	19	21	-	-	-	-	-	-
molls per litre	0.9	5.5	3.5	4.9	8.4	4.6	3.6	3.7	31.6	37.2	36.0	60.9	23.2	-	-	-	-	-	-
TOTAL	8	55	57	68	117	94	51	48	506	483	396	974	325	-	-	-	-	-	-
% freshwater	0%	0%	0%	0%	0%	0%	0%	2%	0%	0.6%	0.3%	0.1%	1.8%	-	-	-	-	-	-
Grain					2					1	+	+	+	-	-	-	-	-	+

Table 12. Mollusca from Filchampstead, ditch 3120, deposit 3124

<i>Cochlicopa</i> cf. <i>lubrica</i> (Müller)	2
<i>Cochlicopa</i> spp.	1
<i>Vertigo pygmaea</i> (Draparnaud)	1
<i>Pupilla muscorum</i> (Linnaeus)	3
<i>Vallonia costata</i> (Müller)	12
<i>Vallonia pulchella</i> (Müller)	4
<i>Vallonia</i> cf. <i>excentrica</i> Sterki	20
<i>Vallonia</i> spp.	1
<i>Vitrina pellucida</i> (Müller)	1
<i>Ceciloides acicula</i> (Müller)	6
<i>Helicella itala</i> (Linnaeus)	3
<i>Trochulus hispidus</i> (Linnaeus)	9
<i>Galba truncatula</i> (Müller)	52
<i>Lymnaea stagnalis</i> (Linnaeus)	26
<i>Radix balthica</i> (Müller)	22
<i>Lymnaea</i> spp	17
<i>Planorbis planorbis</i> (Linnaeus)	25
<i>Anisus</i> cf. <i>leucostoma</i> (Millet)	49
<i>Segmentina nitida</i> (Müller)	1
Taxa	15
molluscs per litre	55.6
TOTAL	249
% freshwater	77%

V. excentrica, the most xerophile of the Vallonias. Only the presence of *V. pulchella* in this assemblage suggests moist habitats. The large freshwater assemblage (140 shells), comprises five species most of which are ubiquitous in freshwater habitats. *Galba truncatula*, *Planorbis planorbis* and *Anisus leucostoma*, representing 51 per cent of the aquatic assemblage, all live in bodies of water that can be subjected to seasonal drying,⁸⁶ and can live in ditches and small bodies of water. *Radix balthica* is generally ubiquitous and *Lymnaea stagnalis* is the only species present that requires large bodies of slow-flowing permanent water, typically rivers and drainage ditches. Although this assemblage may be partly autochthonous within the damp and seasonally wet ditch, some (*L. stagnalis*) must originate from floodwaters and therefore the majority of the assemblage is allochthonous.

PLANT MACROFOSSILS AND CHARCOAL by SARAH COBAIN

Thirteen bulk samples were selected for plant macrofossil analysis and six for charcoal analysis. Standard methods and identifications were employed.⁸⁷ The plant macrofossil and charcoal

⁸⁶ Kerney, *Atlas of the Land and Freshwater Molluscs of Britain and Ireland*.

⁸⁷ R.T.J. Cappers et al., *Digital Seed Atlas of the Netherlands*, Groningen Archaeological Studies, 4 (2006); R. Neef et al., *Digital Atlas of Economic Plants in Archaeology*, Groningen Archaeological Studies, 17 (2012); G. Berggren, *Atlas of Seeds; Part 3* (1981); A.-L. Anderberg, *Atlas of Seeds; Part 4* (1994); R. Gale and D.F. Cutler, *Plants in Archaeology; Identification Manual of Artefacts of Plant Origin from Europe and the Mediterranean* (2000); W. Schochet al., *Wood Anatomy of Central European Species* (2004); A. Wheeler et al., 'IAWA List of

remains were generally moderately to well-preserved with 16 individual plant and eight tree/shrub species identified. The detailed results of analysis are presented in Tables 13–15. Taxa have been identified as one of two possibilities (for example emmer/spelt wheat – *Triticum dicoccum/Triticum spelta*) where the two species exhibit similar morphology but cannot be further identified.

Duxford Farm

Middle Neolithic (Tables 13 and 15). Middle Neolithic pits 1007, 1009, 1015, 1067 and 1296 contained large assemblages of charred hazelnut (*Corylus avellana*) shells along with cereal grains, three of which were identifiable as possible naked barley (*Hordeum vulgare*) and four indeterminate. Despite the low quantity of charcoal within these pits, the wide variety of species identified including alder/hazel (*Alnus glutinosa/Corylus avellana*), hazel, oak, hawthorn/rowan/crab apple (*Crataegus monogyna/Sorbus/Malus sylvestris*) and cherry (*Prunus*) species is indicative of locally collected fuelwood. The charcoal was highly fragmented and it was not possible to ascertain whether the fuel consisted of twigs, roundwood branches or larger timbers, or whether woodland management was being undertaken. The plant macrofossil and charcoal assemblages suggest a mixed mature woodland landscape in the wider vicinity of the site, with more open areas for settlement, grazing and cultivation characterized by the presence of shrubby species including hazel, hawthorn/rowan/crab apple and cherry.

Late Roman (Table 14). Samples recovered from the ditches of the late Roman trackway contained small assemblages of charred cereal remains including emmer/spelt wheat grains, barley, spelt wheat glume bases, vetches/peas (*Vicia/Lathyrus*) seeds, and a grass species stem. This material most likely results from wind-blown hearth debris associated with crop processing or food production taking place in the vicinity. Pit 1193 contained a large assemblage of charred cereal remains, dominated by barley with smaller numbers of oat (*Avena*), emmer wheat and spelt wheat grains. The absence of cereal chaff and presence of only four weed seeds suggests this assemblage represents a burnt assemblage of clean grain. It is possible that the crop was accidentally burnt during food preparation or was used as fuel because the crop had spoiled. The dominance of barley within this assemblage is of interest. Generally in southern Roman Britain spelt was the dominant crop,⁸⁸ with barley cultivated but usually regarded as a fodder crop.⁸⁹ The use of barley purely for fodder has been disputed and there is evidence emerging for the use as barley as a consumable crop. For example, the analysis of barley bran (in faecal material) from military sites along Hadrian's Wall has shown that barley was a major source of consumed cereal crop.⁹⁰ A similar situation can be envisaged at Duxford Farm, where barley may have been cultivated and milled to produce bread, added whole to soups/pottages or malted for brewing.

Filchampstead

Late Iron Age (Tables 14 and 15). Two samples were recovered from the box (3123) within Iron-Age ditch 3120. Thin charcoal layer 3097 was dominated by oak (*Quercus*) with smaller amounts of cherry species, blackthorn (*Prunus spinosa*), hazel and ash (*Fraxinus excelsior*). The cherry, blackthorn and hawthorn/rowan/crab apple charcoal exhibited curved growth

Microscopic Features for Hardwood Identification', *IAWA Bulletin*, ns, 10 (1989), pp. 219–332; C. Stace, *New Flora of the British Isles* (1997).

⁸⁸ M. Fulford, *Solent Thames Research Framework Assessment; The Roman Period* (2010), http://thehumanjourney.net/pdf_store/sthames/phase3/Resourcepercent20Assessments/Romanpercent20Resourcepercent20Assessment.pdf (accessed October 2014), p. 12.

⁸⁹ K. Britton and J. Huntley, 'New Evidence for the Consumption of Barley at Romano-British Military and Civilian Sites, from the Analysis of Cereal Bran Fragments in Faecal Material', *Vegetation History and Archaeobotany*, 20 (2011), p. 42.

⁹⁰ *Ibid.*

Table 13. Plant macrofossil identifications: middle Neolithic

Site	Duxford		Duxford		Duxford		Duxford		Duxford	
	Farm		Farm		Farm		Farm		Farm	
Context number	1008		1025		1010		1016		1168	
Feature number	1007		1007		1009		1015		1167	
Sample number (SS)	2		3		10		6		7	
Flot volume (ml)	29		12		36		35		26	
Sample volume processed (l)	10		15		14		20		14	
Soil remaining (l)	0		0		0		0		0	
Period	M Neo		M Neo		M Neo		M Neo		M Neo	
Plant macrofossil preservation	Good		Good		Good		Good		Good	
Habitat Code	Family	Species	Common Name							
HSW	Betulaceae	Corylus avellana L.	++				++		+	
		Modern seeds								
		Hazelnut shell frags	368	84	202	59	44	763		
E	Hordeum vulgare L.	Barley grain (naked)			cf 1		cf 1		1	
E	Poaceae	Indet. cereal grain (fragment)		1		2	1			
Total			368	85	203	62	45	764		

Key

- + = 1-4 items; ++ = 5-20 items; +++ = 21-40 items; ++++ = 40-99 items; +++++ = 100-500 items; ++++++ = >500 items
A = arable weeds; D= opportunistic species; P = grassland species (possible pasture); HSW = hedgerow/shrub/woodland plant; E = economic plant
cf = morphology of seed/charcoal similar to this species
r/w = roundwood branch
indet. = indeterminate
All plant remains are carbonized, unless otherwise stated.

Table 14. (Continued)

Site	Duxford										Fildrampstead	
	Farm	Farm	Farm	Farm	Farm	Farm	Farm	Farm	Farm	Farm	Farm	Farm
Context number	1004	1036	1044	1038	1035	1194	3097					
Feature number	1003	1030	1030	1037	1037	1193	3123					
Sample number (SS)	17	19	22	18	21	11	3002					
Flot volume (ml)	28	23	36	43	41	27	331					
Sample volume processed (l)	13	14	16	11	25	5	7					
Soil remaining (l)	0	0	0	0	0	0	0					
Period	Rom	Rom	Rom	Rom	Rom	Rom	LIA					
Plant macrofossil preservation	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate					
Habitat Code	Family	Species	Common Name									
E		<i>Triticum spelta</i>	Spelt wheat grain									
E		<i>Triticum spelta</i>	Spelt wheat glume base									
E		<i>Triticum dicoccum</i> /	2	1	1	1	1	2	31	2		
		<i>Triticum spelta</i>	grain									
E		<i>Triticum dicoccum</i> /	Emmer/spelt wheat									
		<i>Triticum spelta</i>	glume base									
E		<i>Poaceae</i>	3						22			
			Indet. cereal grain (whole)									
E		<i>Poaceae</i>	17	3	8	8	5	299	2			
			Indet. cereal grain (fragment)									
E		<i>Poaceae</i>	+++	++	++	+	++	++++++	+			
			Indet. cereal grain (fragment <1 mm)									
E		<i>Poaceae</i>	Culm node (whole)									
E		<i>Poaceae</i>	cf grass spp stem									
D	Polygonaceae	<i>Polygonum aviculare</i> L.	Knotgrass									
D/A/P		<i>Rumex</i> L.	Docks									
HSW	Rosaceae	<i>Prunus</i> L.	Cherries pip fragments									
Total			27	7	15	10	15	527	14			

Table 15. Charcoal identifications

Site	Duxford Farm	Duxford Farm	Duxford Farm	Duxford Farm	Filchampstead	Filchampstead
Context number	1025	1010	1168	1297	3097	3124
Feature number	1007	1009	1167	1296	3123	3123
Sample number (SS)	3	10	7	15	3002	3003
Flot volume (ml)	12	36	26	61	331	89
Sample volume processed (l)	15	14	14	13	7	7
Soil remaining (l)	0	0	0	0	0	0
Period	M Neo	M Neo	M Neo	M Neo	LIA	LIA
Charcoal quantity	+++	+++	+++	+++	+++++	+++++
Charcoal preservation	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate
Family	Species	Common Name				
Betulaceae	<i>Alnus glutinosa</i> (L.) Gaertn./ <i>Corylus avellana</i> L.	Alder/Hazel	4	12	17	10
Fagaceae	<i>Corylus avellana</i> L. <i>Quercus petraea</i> (Matt.) Liebl./ <i>Quercus robur</i> L.	Hazel Sessile Oak/ Pedunculate Oak		1 3	2	4 82
Oleaceae	<i>Fraxinus excelsior</i> L.	Ash				2
Rosaceae	<i>Crataegus monogyna</i> Jacq./ <i>Sorbus</i> L./ <i>Malus sylvestris</i> (L.) Mill. <i>Crataegus monogyna</i> Jacq./ <i>Sorbus</i> L./ <i>Malus sylvestris</i> (L.) Mill. <i>Prunus</i> L. <i>Prunus</i> L. r/w <i>Prunus spinosa</i> L. r/w	Hawthorn/Rowans/ Crab apple Hawthorn/Rowans/ Crab apple r/w Cherries Cherries r/w Blackthorn r/w	2		2	
					4	
						6
						2
Total			10	16	20	12
					100	77

rings suggesting the presence of small roundwood branches/twigs. It also contained a small assemblage of charred plant remains, including barley, emmer and emmer/spelt cereal grains, a culm node, two cherry pip fragments, hazelnut shells and a possible acorn fragment. This charcoal layer appears to represent both the box, which was most likely made out of oak, and its organic contents, which included a small number of cereals and fruits, together with wood fuel.

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