

Iron-Age, Roman and Medieval Activity from Investigations at Abingdon Museum Lift Pit

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SUMMARY

Excavation in advance of the installation of a new lift at Abingdon Museum revealed three ring gullies cutting the natural deposits. The gullies suggest the presence of round houses which probably pre-date the foundation of the late Iron-Age oppidum. The gullies were apparently not contemporary and indicate an extended period of occupation, possibly from the early Iron Age. The gullies were cut by a series of fairly substantial post holes, possibly representing a structure, perhaps of middle Iron-Age date. The excavation confirmed the presence of a series of early Roman compacted gravel surfaces revealed within an evaluation trench, the uppermost surface being of limestone cobbles. The surfaces showed some evidence for a camber and deposits potentially representing run-off along the edge of a much-resurfaced street. The artefactual evidence indicates intensive settlement in the first and early second centuries AD with a change in the settlement pattern in the later Roman period. Some late Roman features were sealed by a layer of late- to post-Roman dark earth, the upper part of which appeared to have been re-worked.

In October 2011 Oxford Archaeology carried out a small-scale archaeological excavation (Fig. 1) at Abingdon Museum, formerly the County Hall of Berkshire, subsequent to an evaluation in 2009 which had revealed a sequence of archaeological deposits and features.¹ The museum, located at NGR SU 4979 9705, stands on a raised plinth above the current ground level which is approximately 54 metres OD. The excavation area was at the south-west corner of the building in the location of a new lift shaft which will provide disabled access to part of the building. Following the mechanical removal of c.0.7 metres of modern overburden, the archaeological sequence was hand-excavated to the top of the underlying natural geology, which comprises second terrace gravel overlying Kimmeridge Clay.²

ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

Abingdon's development has been strongly influenced by its role since the end of the Anglo-Saxon period as a market town attached to one of the premier abbeys of England.³ However, the origins of settlement and human activity within Abingdon considerably pre-date the supposed foundation of the abbey (c.AD 675). In the Iron Age, large settlements developed either side of the Stert and the Larkhill Stream, with widespread use of the lower-lying terrace

¹ 'Abingdon Museum Lift Pit, Abingdon, Archaeological Evaluation Report', unpublished Oxford Archaeology report (2009).

² *British Geological Survey*, 1:63,360, Sheet 253 (1971).

³ 'Oxfordshire Historic Towns Survey, Abingdon; Historic Environment Assessment', unpublished OA report (2008).

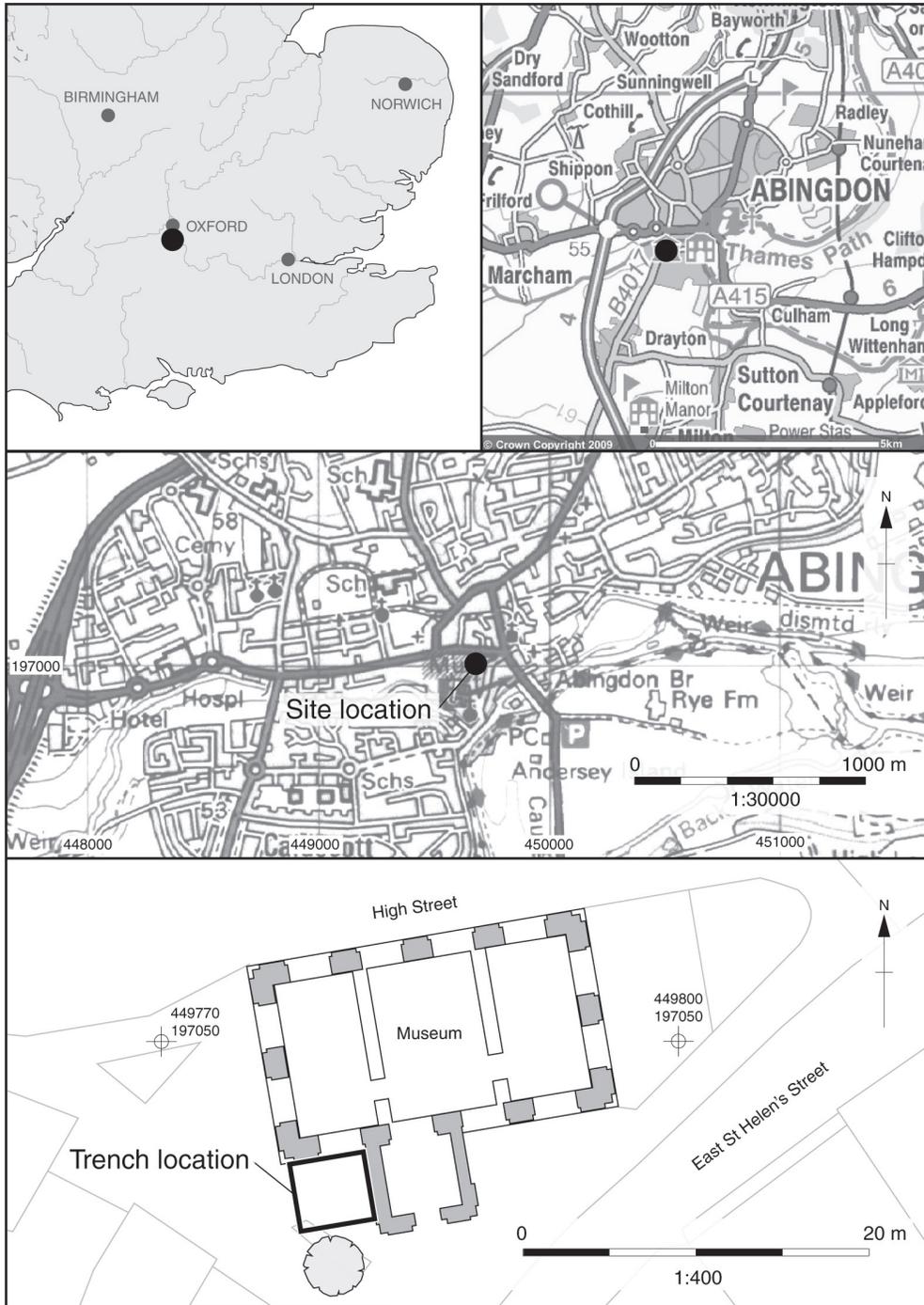


Fig. 1. Site location.

and floodplain of the Thames at Thrupp to the east.⁴ Towards the end of the Iron Age, defensive ditches were dug around the settlement at the junction of the Thames, Stert and Ock (the present town centre), creating a valley fort or oppidum with dense internal occupation and a probable market function.⁵ Much of the circuit of these ditches appears to have remained open to be utilised for enclosure of the later Anglo-Saxon and medieval towns.

Both pottery and coin finds show particularly intensive activity in the first century AD, with Romano-British occupation extending north beyond the limits of the defended oppidum in the late first/early second century AD.⁶ From some time in the second century, however, settlement activity at Abingdon seems to become less intensive but extended over a wider area, and included several relatively high-status buildings. The settlement context of these is uncertain, but it is possible that they belonged to an extensive villa complex. Activity in the Abingdon area appears to have continued well into the fifth century.

There appears to have been little, if any, chronological gap in the settlement of the area following the collapse of Roman rule in the early fifth century, although there was a marked cultural discontinuity. Tradition has it that the abbey and a sister nunnery were founded at Abingdon in the seventh century. Recent documentary research has cast serious doubt upon these supposed middle Saxon foundations,⁷ but by the tenth century, when the abbey was refounded by Æthelwold, it is likely that St Helens church was already an important minster church serving Abingdon and its hinterland.⁸

Thereafter, Abingdon's fortunes were inextricably linked to those of the abbey, to which the town belonged from the tenth century. Abbey and town prospered during the eleventh century, and although land and income were lost following the Norman Conquest, these were gradually regained, and Abingdon continued to expand throughout the medieval period, with much of the wealth based on malting, the wool trade and tanneries. The abbey was the main employer in the town, particularly through the continual programme of new building there. It also owned and maintained many buildings in the town, and the dissolution of the abbey in 1538 must temporarily have hit the town's fortunes hard.

During the post-medieval period, Abingdon recovered to become an important market and administrative town for Ock hundred, the Vale of the White Horse and north Berkshire, with its wealth based increasingly on the flax and hemp industries, in addition to its traditional reliance on malting.⁹

It has been suggested that Abingdon County Hall was designed by Sir Christopher Wren, although there is no clear evidence for this view, but it was certainly constructed between 1678 and 1682 by two men he respected and worked with closely: Christopher Kempster, master mason, and John Scarborough, Wren's clerk of works.¹⁰

DISCUSSION OF THE RESULTS

The elevation of the top of the gravel within the trench (c.52.30 metres OD) is consistent with the location of the site on the periphery of an outcrop of second terrace gravel.¹¹ The top

⁴ T.G. Allen, 'The Iron Age Background', in M. Henig and P. Booth, *Roman Oxfordshire* (2000), pp. 11–12.

⁵ Idem, 'Abingdon, Abingdon Vineyard 1992: Areas 2 and 3, the Early Defences', *SMdIA*, 23 (1993), pp. 64–6; idem, in Henig and Booth, *Roman Oxfordshire*, pp. 22–6.

⁶ R. Thomas, 'Roman Abingdon: An Assessment of the Evidence', University of Southampton undergraduate dissertation (1979); Allen, 'Abingdon Vineyard', pp. 64–6.

⁷ S.E. Kelly (ed.), *Charters of Abingdon Abbey: Part 1* (2000), pp. cciv–ccx; P. Booth et al., *The Thames Through Time: The Early Historical Period, AD 1–1000*, Thames Valley Landscapes Monograph, 27 (2007), pp. 140–1.

⁸ J. Blair, *Anglo-Saxon Oxfordshire* (1994), p. 65.

⁹ K. Rodwell (ed.), *Historic Towns in Oxfordshire*, Oxfordshire Archaeological Unit Survey, 3 (1974), p. 33.

¹⁰ N. Pevsner, *The Buildings of England: Berkshire* (1966), p. 56.

¹¹ *British Geological Survey*, Sheet 253.

of the gravel was recently observed at 52.72 metres OD during an archaeological evaluation adjacent to Bury Street c.125 metres to the north,¹² suggesting a gradual fall to meet the floodplain terrace to the south. A post-glacial loessic subsoil which overlay the gravel has also been recorded during a number of previous archaeological investigations,¹³ and from the gravel terraces of the upper Thames more generally.¹⁴

Iron Age

The excavation revealed three curvilinear gullies cutting both the natural gravel and the overlying post-glacial subsoil. They may also have cut a buried topsoil horizon, although this relationship was less clear. The gullies are likely to represent drip or drainage gullies indicative of round houses, and a terminus at the southern end of one of the earlier gullies may suggest a west-facing entrance. The limited artefactual evidence indicates that the gullies date broadly to the middle Iron Age, although it is possible that the earliest of these features was of early Iron-Age date. Their proximity to one another – together with the fact that they appeared to be intercutting – suggests that they were not contemporary. A pit to the west of the latest of the gullies, and possibly contemporary with it, produced fragments from a globular bowl characteristic of the later part of the middle Iron Age. Occupation of the site may have extended through a significant part of the middle Iron Age and perhaps began even earlier. If so, this reflects the broader pattern of mixed farming settlement seen in this area.¹⁵

The gullies had been cut by at least two of a series of six post holes, which the pottery again suggests date to the later part of the middle Iron Age. The small excavated area means that the nature of the structure(s) represented by these features is uncertain, but similarities in diameter and depth may suggest that they are part of a single phase of activity. Four of the features (including one re-cut) perhaps formed a north-west to south-east alignment, but other configurations are possible.

A relatively large quantity of fired clay with wattle impressions was recovered from one of the post holes (see Booth, Fired Clay, below), and may have derived from an oven structure. This may have originated from an earlier phase of activity (possibly represented by one of the curvilinear gullies described above) and been used as packing in one of the later post holes. Alternatively, it is possible that the fired clay was deposited following the removal of the post.

Late Iron Age to Second Century AD: Surfaces and Associated Deposits

In contrast to the indications of habitation evident in the early phases within the stratigraphic sequence, the great majority of the remaining deposits indicated a distinct change in the nature of the activity within the site. This was characterised by successive surfaces, a number of which displayed a distinct camber suggesting the existence of a thoroughfare on a north-east to south-west alignment. The phasing of these surfaces is discussed in more detail in the stratigraphic summary presented below.

There was some ephemeral evidence for occupation on the periphery of the earliest metallated surface, which overlay the fills of the features described above. It is possible that this indicates a change from relatively dispersed settlement in the middle Iron Age to more centralised habitation within the oppidum in the late Iron Age, and that the area of the trench had become a thoroughfare within the newly established settlement. The fact that the north-east to south-west alignment of the early (and subsequent) surfaces runs roughly parallel

¹² 'Abbey Centre, Abingdon', unpublished OA report (2011).

¹³ M. Roberts, 'Excavations at Mr Warrick's Arms Hotel and the Crown Public House, 83–88 Ock Street, Abingdon', *Oxoniensia*, 62 (1997), p. 165; B. Wilson and J. Wallis, 'Prehistoric Activity, Early Roman Building, Tenement Yards and Gardens Behind Twickenham House, Abingdon', *Oxoniensia*, 56 (1991), p. 4.

¹⁴ M. Robinson, in A. Morigi et al., *The Thames Through Time: Early Prehistory to 1500 BC*, Thames Valley Landscapes Monograph, 32 (2011), p. 175.

¹⁵ Allen, in Henig and Booth, *Roman Oxfordshire*, p. 11.

with the course of the River Thames at this point may also indicate a degree of organisation in the layout of the new settlement. If this interpretation is correct, it is likely that the early surface represents a late Iron-Age predecessor to the more intensive first- to second-century occupation of the town reflected in the Phase I and II surfaces described in more detail below. Evidence that the compacted gravel layers revealed within the trench represent a road rather than courtyard surfaces was provided by the alignment of the edge of the deposits, and particularly by the camber which was consistently present in the surfaces of Phases I and II.

The character of the Phase III surfaces differed from that of the earlier surfaces, in that they extended across the whole of the trench and showed no evidence for a linear configuration or camber. Additionally, the uppermost surface of limestone cobbles was distinctly different in composition from the earlier layers which were exclusively of compacted gravel. It is possible that the later surfaces are indicative of a change in the settlement pattern, and that the earlier street had fallen out of use in the later Roman period to be replaced by a courtyard surface. This is consistent with what is understood of the development of the Roman settlement at Abingdon, with activity becoming less intensive from some point in the first half of the second century (see above). A reduction in intensity is suggested by the character of the majority of the pottery groups, which are dated from the mid to late first to early to mid second century. Most are too small to allow their upper date limit to be established closely, but provisional assessment (undertaken in 1991 and unpublished) of the much larger assemblages from the nearby Vineyard site suggested a distinct change in both ceramic and site character within the first half of the second century. This can potentially be associated with a major hiatus in the development of many settlements in the upper Thames valley assignable to precisely this period.¹⁶ The present evidence seems to be consistent with a significant change in the character of activity in Abingdon at this time.

Second to Fifth Centuries AD: Late Roman Features and Dark Earth Deposit

As already mentioned, the latest in the sequence of Roman surfaces was different in character from the earlier ones, although the limited associated dating evidence suggests that this was laid no later than the second century (before c.200 AD). A gully (1010), previously identified within evaluation test pit A and there interpreted as indicating the alignment of the putative street surfaces, in fact ran perpendicular to the probable street alignment and may have served as a drain/boundary associated with yard surfaces.

A silty clay deposit (1003) also recorded within evaluation test pit A was present across the whole of the lift pit trench. This had previously been interpreted as a post-Roman soil accumulation or 'dark earth' deposit. The majority of the dating evidence from the excavation suggests that this deposit represents a third- to fourth-century soil, which – assuming that this material is residual – would be consistent with the 'dark earth' interpretation. Alternatively, the accumulation of this deposit could be indicative of a period of reduced activity within the late Roman period.

It is worth noting the similarity between the stratigraphic sequence here and that recorded during the excavations at Twickenham House in the late 1980s.¹⁷ The terrace gravel at the latter site was also overlain by the post-glacial loess, over which was a 'grey-brown loam' which produced early to mid Iron-Age pottery and may equate to the possible buried topsoil recorded during the recent excavation. In addition, a sequence of at least six compacted gravel surfaces was encountered within trench II of the Twickenham House investigations, and it is feasible that these correlate with the sequence in the Museum lift pit trench – particularly given their stratigraphic relationship with the underlying deposits. These surfaces were considered to be more likely to represent a courtyard rather than a road, but the apparently linear nature of the deposits as seen in the recent investigations, and the similarity of the

¹⁶ Henig and Booth, *Roman Oxfordshire*, pp. 106–8; Booth et al., *The Thames Through Time*, pp. 43–52.

¹⁷ Wilson and Wallis, 'Prehistoric Activity, Early Roman Building', pp. 1–15.

two sequences, may indicate that the alternative interpretation is more likely than previously considered.

Post-Roman

The Twickenham House excavations apparently produced more evidence for medieval and post-medieval activity than was encountered at the museum site. At the latter a group of pits in the south-west corner of the trench is assigned to the medieval period. The function of these pits is uncertain, although the composition of the lowest excavated fill (1121) of the most substantial of the features (1024) suggested that it may have been used as a cesspit. The only other evidence for medieval activity was from the deposits recorded in evaluation test pit A, interpreted as medieval soil horizons. These had been heavily truncated within the lift pit trench (see stratigraphic summary below) and consequently no further characterisation of these deposits was possible.

The relative lack of evidence for significant activity post-dating the deposition of the 'dark earth' layer may indicate that substantial truncation had occurred within and around the footprint of the County Hall in the latter part of the seventeenth century, and that the soil horizons were effectively post-medieval levelling layers associated with its construction. However, the lack of building debris from these deposits (and of post-medieval finds in general), together with the homogeneous nature of their composition, seem to suggest that this is unlikely. The relatively small quantity of medieval finds is perhaps surprising given the proximity of the site to the medieval market place. Interpretation of these deposits and features as being located within a medieval tenement yard or in an open space adjacent to the market place seems most likely.

STRATIGRAPHIC SUMMARY

Fieldwork Methodology

An initial watching brief was maintained during the excavation of a trench around the limits of the lift pit to facilitate the installation of 7 m long trench sheets. A 7.5 tonne 360° mechanical excavator fitted with a toothless ditching bucket and positioned to the west of the trench was then used to remove the modern overburden to the top of the first significant archaeological horizon, as identified in the earlier evaluation. As discussed above, the potential medieval soils had been heavily truncated by modern features and consequently further mechanical excavation was undertaken to the base of the majority of these features, which corresponded approximately with the top of the 'dark earth' deposit (1003).

Middle Iron Age

Natural gravel (1123) was encountered at c.52.30 m OD and was overlain by a c.0.2-m thick layer of friable light reddish brown clay silt (1091). This was not dissimilar in composition to the glacial loessic subsoil which overlies the second (Summertown–Radley) gravel terrace at Oxford, and it is possible that deposit 1091 is of similar origin. This subsoil was overlain by a layer of friable, light greenish grey sandy silt (1085) 0.1 m thick, which may have represented the remnant of a buried topsoil horizon.

A number of features (Figs. 2 and 3) were seen to cut the natural gravel and the overlying loess, although the similarity between the fills of these features and the composition of the possible buried topsoil was such that establishing a relationship between the majority of the features and deposit 1085 was problematic. Furthermore, where intercutting features were present the relationships between many of them were uncertain and consequently the phasing of the Iron-Age features has to be treated with caution.

The earliest features appeared to be two curvilinear gullies, group 1108 and gully 1111. Group 1108 comprised a c.4-m length of the southernmost arc of a gully 0.54 m wide with a

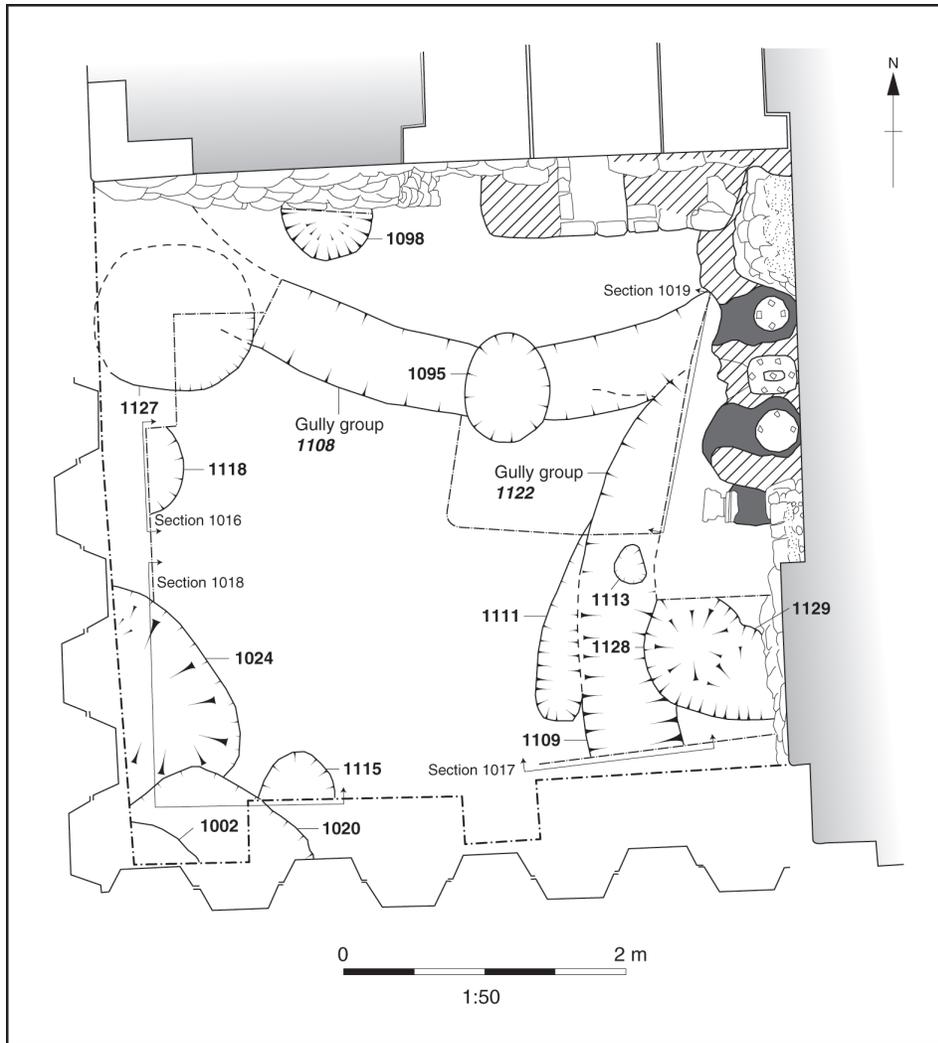


Fig. 2. Post-excavation site plan and section locations.

roughly ‘U’-shaped profile, which had survived to a depth of 0.20 m. Gully 1111 was aligned roughly north–south and terminated at its southern end c.0.80 m from the southern edge of the trench. Where the full profile was visible, it was also ‘U’-shaped, with the gully measuring at least 1.4 m long by 0.35 m wide and 0.40 m deep. The relationship between group 1108 and gully 1111 was uncertain since both had been truncated by the eastern arc of a third curvilinear gully (1109). Gully 1109 had a ‘V’-shaped profile (Fig. 5, section 1017), was at least 3.4 m long by 0.65 m wide, and survived to a depth of 0.40 m. Where it truncated gully 1111, gully 1109 also cut a vertically sided post hole (1113), approximately 0.20 m in diameter and surviving to a depth of 0.25 m. It is possible that this feature was cut into the base of the earlier gully, and that the fills of both were cut by group 1109.

In the north-west corner of the trench, gully group 1108 was cut by a pit (1127) which produced sherds from a globular bowl (see Booth, Pottery, below). The pit was of indeterminate function and measured 1.04 m in diameter by 0.56 m deep.



Fig. 3. View of completed excavation looking south-west.

Both gully 1109 and group 1108 had been cut by substantial post holes (1129 and 1095 respectively), which may have formed part of a roughly linear north-west to south-east configuration of features, all with similar profiles and of comparable dimensions and depth (1128; 1129; 1095; 1098). Features 1115 and 1118, to the west, also had similar dimensions and profiles to these features and may have been related to them, but if they were part of a single alignment this was not parallel to that formed by 1128 etc. The size of the excavated area precludes meaningful interpretation – whether the post holes formed part of a building or buildings, whether they supported one or more fence lines, and whether they were all of a single phase cannot be answered with certainty, although at least approximate contemporaneity seems very likely. While post hole 1113 also appeared to correspond with the eastern line of features, its relationship with the later of the gullies (1109) was fairly certain – as was that between group 1108 and post hole 1095 – so it would seem that post hole 1113 is probably related to the earlier phase of activity.

Later Middle to Late Iron Age

The fills of these features and the possible buried topsoil deposit 1085 were overlain by a mixed but predominantly greenish-grey sandy silt layer (1079) which probably represented the reworking or trample of the upper part of the buried topsoil and the upper fills of the features which are likely to have cut through it. This layer was of a noticeably darker and siltier composition in the north-east corner of the trench (1092), probably due to the concentration of intercutting features at this point. Each of these deposits produced a single sherd of pottery, respectively middle and possibly early Iron Age in date.

This deposit(s) was overlain by a layer of compact gravel (1078) 0.03 m thick, the southern extent of which was on a north-east to south-west alignment, possibly suggesting a rudimentary

road or trackway surface with a barely perceptible camber dropping to the south-east. This was overlain by a sandy silt deposit (1077), which was 0.02 m thick where it overlay surface 1078 but up to 0.11 m thick where it extended beyond the southern limit of the surface. A number of ephemeral cuts were visible in the surface of deposit 1077, including part of a possible ring gully (1081), two possible post holes (1084 and 1086) and a possible stake hole (1089). While these were in no discernible configuration, it is possible that they represent occupation to the south of the surface represented by deposit 1078. Pottery assemblages from 1077, and from 1078 in particular, were dated to the late Iron Age/early Roman period on the basis of characteristic 'Belgic type' material, but included redeposited middle Iron-Age sherds as well.

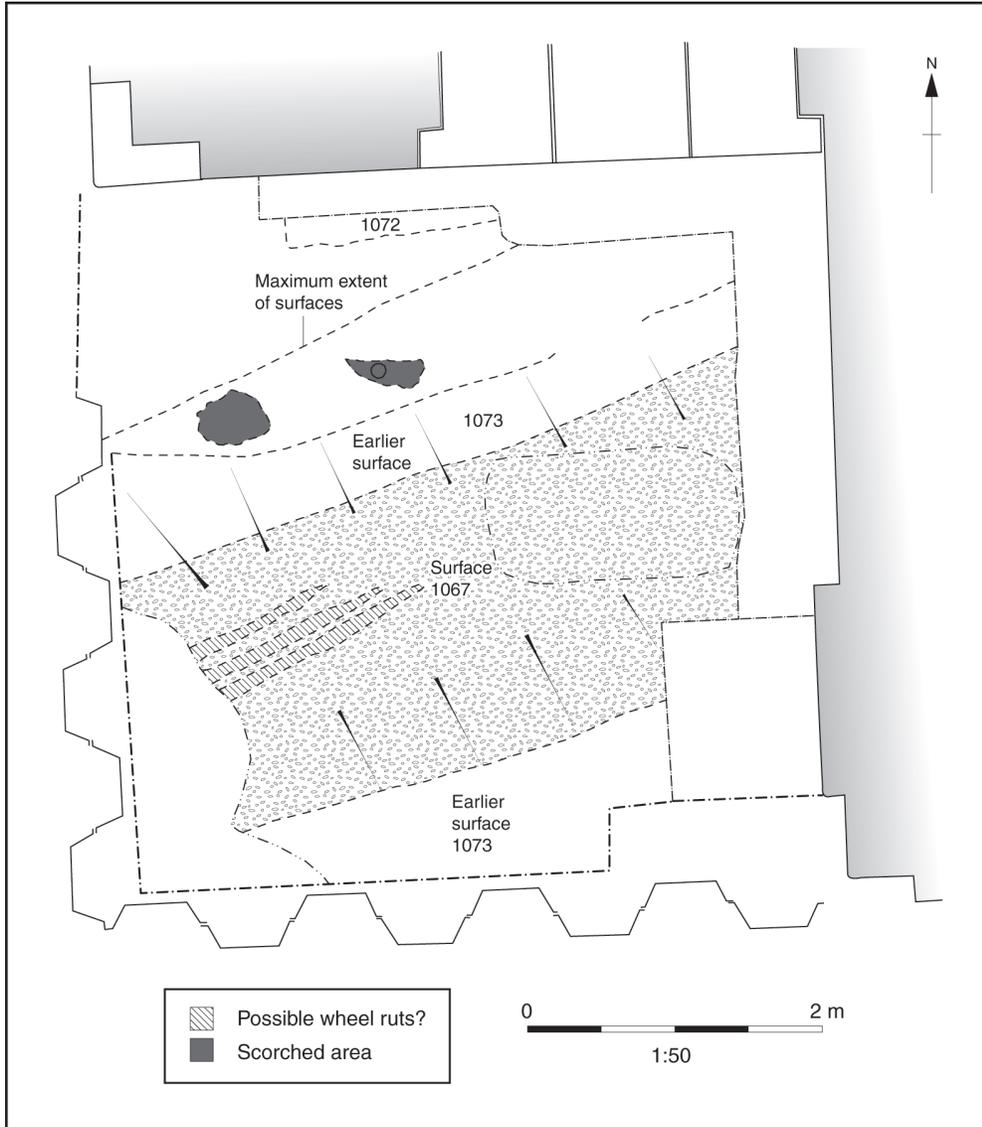


Fig. 4. Plan showing location of principal road surfaces.

These deposits were overlain by a flat laid compacted gravel surface (1073) which was present across the majority of the trench (Figs. 4 and 5). The northern limit was apparent in the north-west corner of the trench, and although it was not very well defined it appeared to be on a similar north-east to south-west alignment to the earlier surface (1078), suggesting that the possible trackway had been re-surfaced but had migrated southward. Some further evidence for occupation – this time to the north of the later surface – was apparent in the form of a pit (1076) cut into the edge of the compacted gravel (1073). The pit and northern extent of surface 1073 had then been overlain by a compacted clay layer (1068) which was cut by a number of gullies (1064, 1071), one of which was possibly curvilinear in plan (1066). A small group of pottery from 1073, if not intrusive, suggests at least an early post-conquest date for this surface, and the occasional sherds from the fills of the associated features are consistent with a late Iron-Age or early Roman date.

Roman: First to Second Centuries AD

Surface 1073 was overlain by a further compacted gravel deposit (1067) on the same alignment as the earlier surfaces. At 2 m wide this was now significantly narrower than its predecessors, and had a distinct and fairly sharp camber and reasonably well-defined limits to the north and south. A number of striations were visible in the surface of the compacted gravel and may have represented wheel ruts. Surface 1067 was the first in a series of compacted gravel surfaces on the same alignment. There appeared to be three distinct phases of deposition of these surfaces (Fig. 5):

Phase I Surfaces. Surface 1067 was overlain by a bedding layer of loose reddish-brown sandy gravel (1058) supporting a surface of compacted gravel (1057). Deposit 1058 created a yet more pronounced camber and was up to 0.20 m thick at the southern limit of the trench, which seemed to be its deepest point. The northern limit of surface 1057 was c.2.20 m north of the southern edge of the trench, and assuming a symmetrical profile the centre line of surface 1057 would lie to the south of the trench. There was some evidence for lamination within deposit 1058 (1059), although this was not consistent across the trench and is likely to have been a construction horizon within the bedding deposit rather than a surface proper.

Phase II Surfaces. The down-sloping northern edge of the probable street was overlain by a series of silty clay layers (1055, 1054, 1053) which may have represented run-off from the centre of the street surface; there was no indication of a roadside ditch. At the top of the camber, the first of the Phase II surfaces (1046) directly overlay the uppermost Phase I surface (1057), but along the northern extent it overlay the silty clay layers described above. Surface 1046 was consistently 0.08 m thick and was present across the majority of the trench, with its northern edge c.0.80 m south of the northern limit of excavation. The lack of a camber on 'surface' 1046 was in contrast to the earlier surfaces and to the surface immediately overlying it (1040/1044/1045), and it is possible that 1046 was deposited as a consolidation layer over the softer silty deposits along the edge of the earlier surfaces prior to the deposition of surface 1040/1044/1045. This latter surface was at least 5 m wide and once again had a distinct – if shallow – camber, dropping just 0.06 m to either side of the 2 m wide flat top of the surface, which ran from the south-west corner to the north-east corner of the trench. An overlying silty deposit (1043) may have represented a trample layer over the top of the surface. Associated pottery was broadly of later first to early second century date.

Phase III Surfaces. It was initially thought that a roughly linear spread of limestone rubble (1041) may have represented the base of a robbed out wall, but in the absence of evidence for a construction or robber trench it seems more likely that the rubble was deposited to level out the camber along the northern edge of surface 1040, prior to the deposition of later surfaces 1035 and limestone 'cobbles' (1017). Surface 1017 was consistently present across the whole

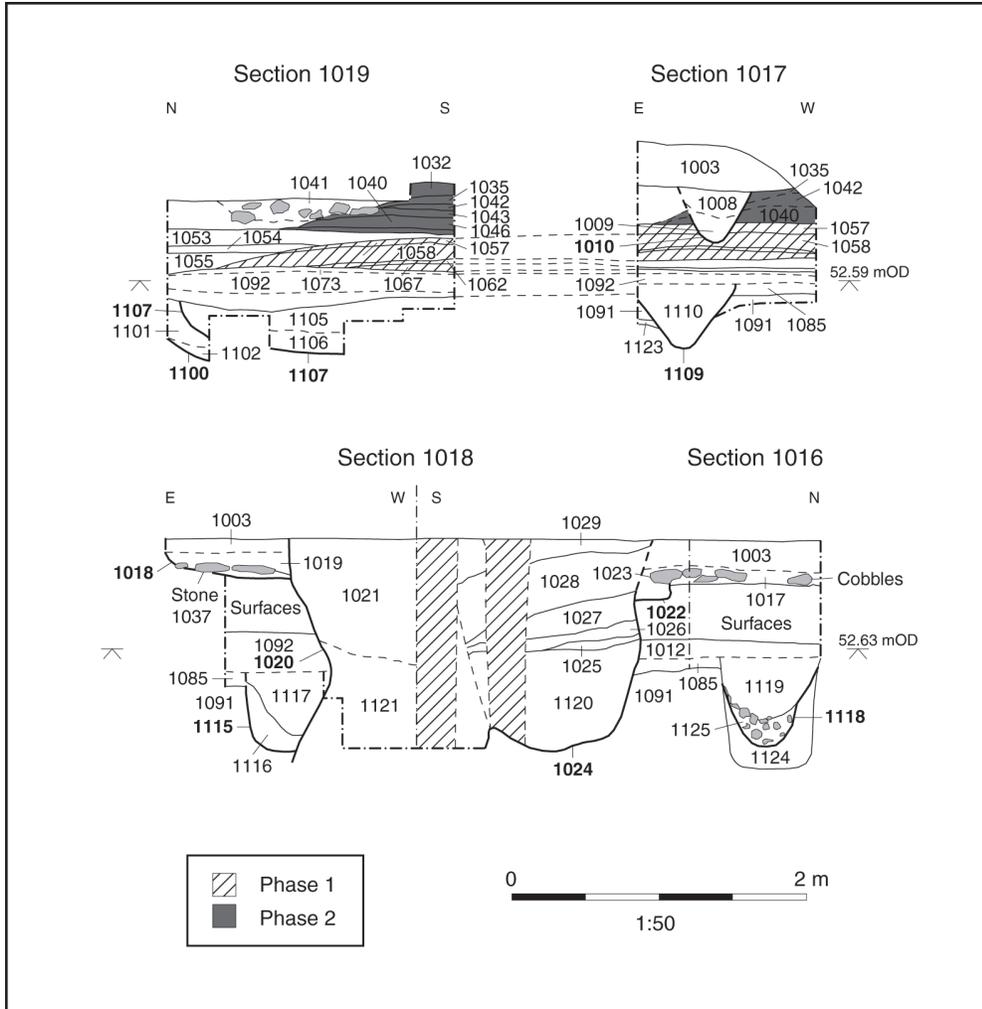


Fig. 5. Selected sections.

trench, except where truncated by later features (see below). The layers overlying deposit 1041 were noticeably different from the earlier surface deposits in that they did not appear to be linear in nature, possibly suggesting that they formed a yard rather than a road surface.

Roman: Second to Fifth Centuries AD

Cobbled surface 1017 was truncated by a number of features, including a north-west to south-east aligned gully (1010) (Fig. 6) and an adjacent small pit (1013) containing fragmentary remains of a human infant. A series of pits (1022, 1018 and 1020), originally thought likely to be Roman date, were most probably medieval, although the fills of all three features contained only Roman pottery of rather indeterminate second century or later date (see below). The upper fill (1014) of another possible pit, 1016, together with the upper fill of gully 1010, were the only deposits to produce coherent, if small pottery groups of late Roman date.

The upper fills of the gully, the possible grave and the pits were similar in composition to a c.0.25-m thick layer of mid to dark blueish-grey silty clay (1003) which also overlay surface



Fig. 6. Cobbled surface 1017. The ranging poles are placed on the fill of gully 1010.

1017, and had been interpreted in the evaluation as a post-Roman soil accumulation or 'dark earth'. As a consequence of this similarity, the relationship between deposit 1003 and the pits was uncertain. On other criteria, however, it is likely that pits 1022, 1018 and 1020 were later features.

Medieval and Later Periods

Pits 1018 and 1022 were relatively shallow at 0.26 m and 0.40 m deep. The former, but less certainly the latter, had been cut by a more substantial feature (1020). Pit 1020 appeared to be square cut, and measured at least 1.2 m by 0.80 m and was in excess of 1.6 m deep. The undercut edges of the pit were more likely to be a result of the collapse of the pit sides than indicating its excavated profile. Deposit 1003 and pits 1022 and 1020 were cut by a further pit (1024), 1.5 m deep (Fig. 5, section 1018), which measured at least 1.50 m by 0.80 m in plan, the function of which was unclear. Of this sequence of pits only 1024 produced a small amount of pottery of thirteenth- to fourteenth-century date (pottery from the other pits in this group was exclusively of Roman date), but fill 1023 of pit 1022 contained an iron key of medieval form. Moreover, a soil sample (sample 1) from the same deposit produced substantial quantities of free-threshing wheat grain and a smaller amount of rye, characteristics shared with material from pit 1024 (see Boardman, below). This strongly suggests that pit 1022, as well as pit 1024, was of medieval date, since in this region rye is at best extremely rare in the Roman period.¹⁸ Overall, it is likely that all the pits in this group in the south-west corner of the site were of thirteenth- to fourteenth-century date.

¹⁸ Booth et al., *The Thames Through Time*, p. 293.

Table 1. Summary quantification of pottery by period

	No. sherds	Weight (g)	Mean sherd weight (g)	No. context groups in period with contemporary material
Iron Age	39	872	22.4	8
Late Iron Age to Roman	564	6933	12.3	37?
Medieval	16	225	14.1	4
Total	619	8030	13.0	

The evaluation had identified a series of deposits overlying the 'dark earth', which were interpreted as possible medieval soils. These survived in the location of evaluation test pit A and also under the footings of the flag-stoned area of the County Hall loggia, but had been heavily truncated across the majority of the excavation area, primarily by service trenches. The truncation included a rectangular pit containing a copper earthing-plate for a redundant lightning conductor; a number of relatively modern services which had been diverted prior to the installation of the trench sheets around the lift pit; and a c.6" cast iron pipe which fed into a hydrant which truncated the foundations of the County Hall tower and was formerly the source of the town's water supply (seen projecting in Fig. 3).

The base of the foundations of the County Hall tower was at approximately 1.80 m below former ground level (c.52.09m OD). However, where the foundations of the loggia were revealed, it was only the column in the north-west corner of the trench that had any substantial footing, which was of similar depth and build to that of the tower. The footings beneath the flag-stoned area were c.0.7 m below ground level (at c.53.19 m OD) and had been truncated in the north-east corner of the trench by relatively modern services, presumably feeding into the museum basements.

POTTERY by PAUL BOOTH

The excavation produced some 619 sherds (8,030 g) of Iron-Age, Roman and medieval pottery, broken down as follows (Table 1):

The pottery was recorded using codes in the OA later prehistoric and Roman pottery recording system.¹⁹ Medieval pottery was not examined in detail; only seven medieval sherds were securely stratified.

Iron Age

Iron-Age pottery fabrics were defined in terms of (usually) their two most common inclusion types and an indicator of fineness on a sliding scale of 1 (very fine) to 5 (very coarse). The definition of fabrics using this system does not necessarily serve to identify production sources, since these are generally unknown for Iron-Age material within the region. Nor does it automatically follow that identically coded sherds were from the same (unknown) source, merely that their makers exploited very similar clay and tempering resources, indicating a uniformity of potting tradition. Quantification of the material by individual fabric is shown in Table 2. The identifying letters of the inclusion types present are as follows:

- A Quartz sand
- C Rounded Calcareous grit

¹⁹ P. Booth, 'Oxford Archaeology Roman Pottery Recording Guidelines', unpublished OA document (2008).

Table 2. Quantification of Iron-Age pottery fabrics

Fabric	No. sherds	Weight (g)	Comment
AI3	1	30	
AN2/3	14	409	Includes 1 decorated globular bowl
AP3/4	1	23	
A(S)3, A(S)3/4	7	123	3 ?jar rims
AS2	1	4	
AS3, AS3/4	7	43	
CA4	1	21	
SA4	1	18	
SA5	1	4	
SGA4	1	66	
SIA4	3	126	
SPA5	1	5	

- G Grog
- I Oxide minerals, mainly iron oxides
- N None visible
- P Clay Pellets
- S Shell

Quantification of the identified fabrics is shown in slightly condensed form in Table 2. The assemblage is dominated by sand-tempered fabrics, but shell was a significant secondary component (shown in the table in brackets where particularly sparsely represented). A few sherds with relatively coarse shell as the principal inclusion type (fabrics SA4, SA5, SGA4, SIA4 and SPA5) are most likely to be of early Iron-Age date,²⁰ but have no diagnostic characteristics apart from fabric, which on its own is not conclusive. Sand-tempered fabrics are most characteristic of the middle Iron Age, but equally are not confined exclusively to this period. The limited evidence of vessel forms in fabrics A(S)3 and A(S)3/4 (two jars and a possible bowl, with simple slightly outslipping or upright rims) is consistent with a middle Iron-Age date, however. More diagnostic are sherds of a globular bowl (Fig. 7, no. 1) in fine sand-tempered fabric AN2/3. Such vessels are particularly characteristic of the later middle Iron Age in this region. Apart from this vessel, which was burnished internally and externally and had tooled and impressed decoration, six other sherds (three very small) had burnished external surfaces and one other had burnish on the interior and may have been from a bowl.

Twenty-three sherds (645 g) of the Iron-Age pottery came from contexts assigned to this period. These include some of the probable early Iron-Age sherds as well as later material. It is possible that the earliest features on the site were of early Iron-Age date, but the overall quantities of pottery are too small to sustain a definite conclusion either way. Pit 1127 is certainly of the middle Iron Age as it contains the globular bowl. The mixed layers 1079 and 1092, which are stratigraphically later than 1127 and must be of later middle Iron-Age date, produced only two sherds between them, one each of early and middle Iron-Age fabric.

Late Iron Age and Roman

The fabrics are placed in major ware groups, defined on the basis of significant common characteristics. The ware groups can be combined to constitute two main classes of material,

²⁰ See, for example, G. Lambrick, 'Pitfalls and Possibilities in Iron Age Pottery Studies – Experiences in the Upper Thames Valley', in B. Cunliffe and D. Miles (eds.), *Aspects of the Iron Age in Central Southern Britain*, Oxford University Committee for Archaeology Monograph, 2 (1984), pp. 162–77.

fine and specialist wares on the one hand, and on the other the rest of the coarse wares.²¹ The fine and specialist ware groups (identified by the initial letter of the fabric code) are: samian ware (S), fine wares, colour-coated, lead glazed, mica coated etc (F), amphorae (A), mortaria (M), white wares, other than mortaria (W), and white slipped wares (Q). The remaining coarse ware groups are: 'Belgic type' (broadly in the sense of Thompson 1982, pp. 4–5), usually grog-tempered, fabrics (E), 'Romanised' oxidised coarse wares (O), 'Romanised' reduced coarse wares (R), black-burnished ware (B) and calcareous- (particularly shell-) tempered wares (C).

Within these classes are hierarchically arranged subgroups, usually defined on the basis of principal inclusion type, and individual fabrics/wares are then indicated at a third level of precision, both levels of subdivision being expressed by numeric codes. Thus R20 is a general code for sandy reduced coarse wares, while R21 is a specific sandy reduced Oxfordshire product. For the bulk of the present assemblage, fabric identification was at the intermediate level of precision. Quantification of the pottery by fabric/ware is set out in Table 3. Only summary fabric descriptions are given here, but where appropriate these are cross-referred to codes in the National Roman Fabric Reference Collection,²² in parentheses in bold. More complete descriptions are included in the project archive.

The assemblage is dominated by reduced coarse wares, almost all of which are likely to have been local products, whether from 'mainstream' production centres within the Oxford industry from the later first century or from other, perhaps even more local (but unknown) sources, particularly of first-century date. Fabrics in the R10 and R20 groups were all in production in the first century, and the sandy fabrics of the R20 group are particularly characteristic of this period, though not confined exclusively to it. The R30 fabric group is more important from the second century onwards, but could include earlier material. Apart from reduced wares the only other significant component of the coarse wares was the 'Belgic-type' fabrics, of pre-conquest origin and continuing in use up to c.AD 70, and principally represented here by grog-tempered (E80) fabrics. These are closely related to the grog-tempered fabrics of the R90 group, used for large storage jars, many of which are likely to have been of first-century date, but which are separated out as the tradition of their manufacture continued throughout the Roman period.²³ Other links are between fabrics in the E30 and R20 groups; the latter develop out of the former, the differences between them relating to firing and ultimately form repertoire, rather than the composition of the fabrics themselves. Oxidised coarse wares were a very minor component of the assemblage, and the small quantities of black-burnished and shell-tempered wares occurred only in late Roman contexts. The latter consisted entirely of late products of the Harrold industry;²⁴ more local earlier Roman shell-tempered fabrics, relatively common in the region, were not present here.

The 'fine and specialist' wares formed a fairly substantial 17.2 per cent of the total sherds, but more than half of this comprised sherds in the sandy W20 fabric group, which are really more closely similar to the R20 fabric group discussed above than to the other white wares (see further below). Nevertheless the remaining fine and specialist wares comprise a variety of material, even if some of the earlier pieces were residual in later contexts. Samian ware was comparatively well represented by sherd count. The South Gaulish material included the only decorated samian ware sherd, from a Drag 29 bowl. The only early Roman fine ware was Terra Nigra, known from other sites in Abingdon but not common in the region. Two rims in this fabric were from a cup and a dish. As well as fabric group W20, white wares W10 and W12 and all the white-slipped (Q) fabrics will have been of early Roman date, but occurred

²¹ Cf. P. Booth, 'Quantifying Status: Some Pottery Data from the Upper Thames Valley', *Journal of Roman Pottery Studies*, 11 (2005), pp. 39–52.

²² R. Tomber and J. Dore, *The National Roman Fabric Reference Collection: A Handbook*, Museum of London Archaeology Service Monograph, 2 (1998).

²³ C.J. Young, *The Roman Pottery Industry of the Oxford Region*, BAR BS, 43 (1977).

²⁴ A. Brown, 'A Romano-British Shell-Gritted Pottery and Tile Manufacturing Site at Harrold, Beds', *Bedfordshire Archaeology*, 21 (1994), pp. 19–107.

Table 3. Summary description and quantification of Roman pottery fabrics

Ware code	Summary description	Sherd count		Weight (g)		REs	
		No.	%	No. (g)	%	No.	%
S20	South Gaulish samian ware, including (LGF SA).	7	1.2	33	0.5	0.08	1.3
S30	Central Gaulish samian ware, including (LEZ SA 2).	11	2.0	88	1.3	0.04	0.7
<i>S subtotal</i>		18	3.2	121	1.7	0.12	2.0
F11	Terra Nigra (GAB TN 1)	2	0.4	11	0.2	0.13	2.1
F51	Oxford red colour-coated ware (OXF RS).	5	0.9	36	0.5	0.10	1.6
<i>F subtotal</i>		7	1.2	47	0.7	0.23	3.8
A10	buff amphora fabrics (unsourced)	2	0.4	63	0.9		
A11	South Spanish (Dressel 20 etc) (BAT AM 1) and (BAT AM 2)	1	0.2	106	1.5		
<i>A subtotal</i>		3	0.5	169	2.4		
M41 (subtotal)	Oxfordshire red colour-coated mortarium fabric (OXF RS)	2	0.4	48	0.7	0.07	1.1
W10	fairly fine white fabric(s), source uncertain (Oxfordshire?)	7	1.2	68	1.0		
W11	Oxfordshire parchment ware	1	0.2	9	0.1		
W12	Oxfordshire fine white ware (OXF WH)	2	0.4	5	0.1		
W20	sandy white fabric(s), source uncertain but probably local	51	9.0	557	8.0	0.21	3.4
W23	Oxfordshire burnt white ware	1	0.2	2	+		
<i>W subtotal</i>		62	11.0	641	9.2	0.21	3.4
Q10	Fine oxidised white-slipped fabrics, ?early Roman	1	0.2	4	0.1		
Q21	Oxfordshire oxidised white-slipped fabric WC (OXF WS)	2	0.4	16	0.2		
Q25	?Verulamium sandy oxidised, white slip	1	0.2	2	+		
Q40	coarse tempered white-slipped fabrics	1	0.2	7	0.1		
<i>Q subtotal</i>		5	0.9	29	0.4		
<i>Fine & specialist subtotal</i>		97	17.2	1055	15.2	0.63	10.3
E20	'Belgic type' fine sand-tempered fabrics	1	0.2	3	+		
E30	'Belgic type' medium to coarse sand-tempered fabrics	1	0.2	52	0.8		
E50	'Belgic type' calcareous-tempered fabrics	1	0.2	8	0.1		
E80	'Belgic type' grog-tempered fabrics (SOB GT)	30	5.3	256	3.7	0.12	2.0
<i>E subtotal</i>		33	5.9	319	4.6	0.12	2.0
O11	Oxfordshire fine oxidised 'coarse' ware	3	0.5	20	0.3		
O20	coarse sandy oxidised wares	1	0.2	3	+		
O30	common fine/medium sand-tempered coarse wares	1	0.2	18	0.3		

Table 3. (Continued)

Ware code	Summary description	Sherd count		Weight (g)		REs	
		No.	%	No. (g)	%	No.	%
O80	coarse grog-tempered oxidised wares, Oxfordshire	1	0.2	83	1.2		
O81	pink grogged ware (PNK GT)	1	0.2	80	1.2		
<i>O subtotal</i>		7	1.2	204	2.9		
R10	fine (slightly sandy) reduced coarse wares, mainly Oxfordshire	55	9.8	359	5.2	1.42	23.2
R11	fine Oxfordshire reduced ware (OXF FR)	36	6.4	266	3.8	0.99	16.2
R17	fine sandy reduced ware 'Abingdon type'	1	0.2	12	0.2		
R20	coarse sandy reduced wares, mainly Oxfordshire	100	17.7	789	11.4	0.86	14.1
R21	coarse sandy Oxfordshire reduced ware	3	0.5	42	0.6	0.15	2.5
R29	large-grained coarse sandy reduced ware	8	1.4	94	1.4		
R30	medium sandy reduced wares, mainly Oxfordshire	103	18.3	1153	16.6	1.44	23.6
R85	fine/medium sandy reduced, very micaceous	1	0.2	27	0.4		
R90	coarse grog-tempered reduced wares, Oxfordshire	109	19.3	2545	36.7	0.31	
<i>R subtotal</i>		416	73.8	5287	76.3	5.17	84.6
<i>B11 (subtotal)</i>	<i>Dorset BB1 fabric (DOR BB 1).</i>	6	1.1	39	0.6	0.13	2.1
<i>C11 (subtotal)</i>	<i>Roman shell tempered ware, Harrold?, includes (HAR SH).</i>	4	0.7	62	0.9	0.06	1.0
Total		564		6933		6.11	

only as body sherds. Amphora body sherds were less closely dated and occurred in later Roman contexts; the A10 sherds were in a probable variant of the standard Dressel 20 olive oil amphora fabric (A11). Standard late Oxfordshire products (fabrics F51, M41, W11 and W23) were present in the small number of contexts of this date.

A simplified correlation of vessel type classes with fabrics is presented in Table 4. The total number of vessels is relatively small (an estimated 65 vessels are represented by rims), so the significance of the breakdown of vessel types in some of the less common fabrics is limited, but the broad character of the assemblage is clear. Jars (class C) dominate, as would be expected, and are particularly prominent in reduced wares as well as in fabrics W20 and C11. A further 5 per cent of the assemblage consists of rims from vessels which could be either jars or bowls (class D), including one in Oxford colour-coated ware. Beakers (class E) occur entirely in fine reduced fabrics and are early Roman types, characteristically in the form of small jar-like vessels with everted rims. Cups (class F) also occurred in fine reduced fabric R11, consisting of a single imitation samian ware form, Young type R62.²⁵ The samian ware original (Drag 27) was present in South Gaulish fabric, with one rim and body sherds of at least two other examples. No other cup forms were noted in samian ware, but Terra Nigra provided an example of

²⁵ Young, *The Roman Pottery Industry of the Oxford Region*, p. 224.

Table 4. Quantification of Roman vessel classes by fabric/ware (row % of RE totals)

Ware code	Vessel class								Total
	C	D	E	F	H	I	J	K	
S20				75.0			25.0		0.08
S30							100		0.04
<i>S subtotal</i>				50.0			50.0		0.12
F11				53.8			46.2		0.13
F51		80.0				20.0			0.10
<i>F subtotal</i>		34.8		30.4		8.7	26.1		0.23
<i>M41 (subtotal)</i>								100	0.07
<i>W20 (subtotal)</i>	100								0.21
<i>Fine & specialist subtotal</i>	33.3	12.7		20.6		3.2	19.0	11.1	0.63
<i>E80 (subtotal)</i>		100							0.12
R10	51.4	5.6	17.6		21.1	2.1	2.1		1.42
R11			22.2	21.2	15.2	13.1	28.3		0.99
R20	94.2					5.8			0.86
R21	100								0.15
R30	96.5	3.5							1.44
R90	100								0.31
<i>R subtotal</i>	65.6	2.5	9.1	4.1	8.7	4.1	6.0		5.17
<i>B11 (subtotal)</i>	46.2						53.8		0.13
<i>C11 (subtotal)</i>	100								0.06
Total	3.72	0.33	0.47	0.34	0.45	0.23	0.50	0.07	6.11
%	60.9	5.4	7.7	5.6	7.4	3.8	8.2	1.1	

Cam type 56A,²⁶ unfortunately from a probable late Roman context (1019). Bowls, dishes and indeterminate bowl/dish types (classes H, J and I respectively) were also mainly present in fine reduced fabrics. Bowls in these fabrics included probable hemispherical and segmental types (Young types R68 and R70),²⁷ while dishes included R71. A late first- to mid second-century date range is likely for all of these, and samian ware dish forms included a South Gaulish Drag 18 and a Central Gaulish ?Drag 18/31. A second Terra Nigra vessel was a dish of Cam form 16.²⁸ The South Gaulish Drag 29 bowl mentioned above did not have a rim and so does not appear in Table 4. Later dish types were confined to two simple rimmed vessels in black-burnished ware. These are generally dated to the third to fourth centuries, although they can occur as early as the mid to late second century.²⁹ The only certain mortarium (class K) rim sherd in the assemblage was of Young type C97, dated 240–400, although two Central Gaulish samian ware body sherds may have been from a gritless mortarium/bowl of type Curle 21.

²⁶ C.F.C. Hawkes and M.R. Hull, *Camulodunum: First Report on the Excavations at Colchester 1930–1939*, Report of the Research Committee of the Society of Antiquaries of London, 14 (1947), plate LIII.

²⁷ Young, *The Roman Pottery Industry of the Oxford Region*, p. 226.

²⁸ Hawkes and Hull, *Camulodunum*, plate XLIX.

²⁹ N. Holbrook and P.T. Bidwell, *Roman Finds from Exeter*, Exeter Archaeological Reports, 4 (1991), pp. 99–100.

Discussion: Chronology and Character

The majority of the late Iron-Age and Roman pottery came from contexts of early Roman date. The quantity of E wares is relatively modest and need not necessarily reflect occupation in the pre-conquest period as their use probably continued up to about AD 70. On this basis it is possible that there was a hiatus in the occupation sequence between the later part of the middle Iron Age and about the middle of the first century AD, but the size of the excavated area and the resulting assemblages is such that this conclusion cannot be pressed very far. The pottery indicates that the late Iron-Age to early Roman sequence begins with a gravel surface (1078) laid over possible occupation layers (1079 and 1092) which together contained four handmade Iron-Age sherds. The complex sequence that follows seems to be almost entirely of early Roman date, potentially up to and including layers sealed by cobbled surface 1017 and its bedding layers 1032 and 1034. A sherd of Central Gaulish samian ware from the latter perhaps suggests a date of about the mid second century. Although small assemblages from some of the underlying deposits have quite wide date ranges, none need have been later than the first quarter of the second century. Some of the fills of features later than surface 1017 also produced groups with late first to mid second century dates, but much of this material was presumably redeposited. Typically it was only upper fills (for example 1008 in ditch 1010 and 1014 in pit 1016) and an overlying dark earth deposit (1003) which produced material certainly of later third to fourth century date. These three groups contained about 16 per cent (by both sherd count and weight) of all the late Iron-Age and Roman pottery from the site, and a small number of demonstrably later contexts (including medieval pit 1024) produced a little more, but in both cases there was a significant proportion of redeposited early material. Middle Roman activity is barely represented at all in the range of pottery present and diagnostic late material is much less common than early Roman pottery.

Given that the overall quantity of late Roman pottery in the assemblage is very small, the dominance of the early Roman assemblage by reduced coarse wares is particularly marked. Combined with the relative scarcity of E wares this suggests a concentration of occupation in the Flavian and Trajanic periods (AD 69–96 and AD 98–117, respectively), although pre-Flavian activity is indicated not only by the E wares but also by a few specific occurrences such as the Terra Nigra cup, the single small sherd of fabric R17, one of a suite of early 'fine coarse wares' previously identified at Abingdon,³⁰ and perhaps some of the South Gaulish samian ware, although the Drag 29 bowl is probably of early Flavian date, as could be the Terra Nigra Cam 16 dish.

The first- to early second-century assemblage thus contains a number of indicators of above average status for this period. This is in line with the findings of a wider analysis of assemblages in the region in these terms,³¹ which showed that fine and specialist ware representation in the early Roman period was characteristically below 5 per cent of sherd count in lower status settlements, and that higher representations usually correlated with other types of site. Superficially the present assemblage is well above that level. If W20 is excluded from the fine and specialist wares (see above) and the obvious late Roman elements are also omitted, a reduced fine and specialist ware figure of c.7.5 per cent of sherds results. This is still indicative of a site that is definitely not a typical rural settlement in this period; the closest comparable early Roman figures are for the roadside settlement/'small town' at Asthall and the earlier villa phases at Roughground Farm.³² The present assemblage is too small for further detailed analysis, but these general comparisons are suggestive.

The character of the present assemblage is consistent with that of other groups from

³⁰ J.R. Timby et al., 'A New Early Roman Fineware Industry in the Upper Thames Valley', unpublished OAU report (1997).

³¹ Booth, 'Quantifying Status: Some Pottery Data from the Upper Thames Valley', pp. 39–52.

³² Ibid. p. 43.

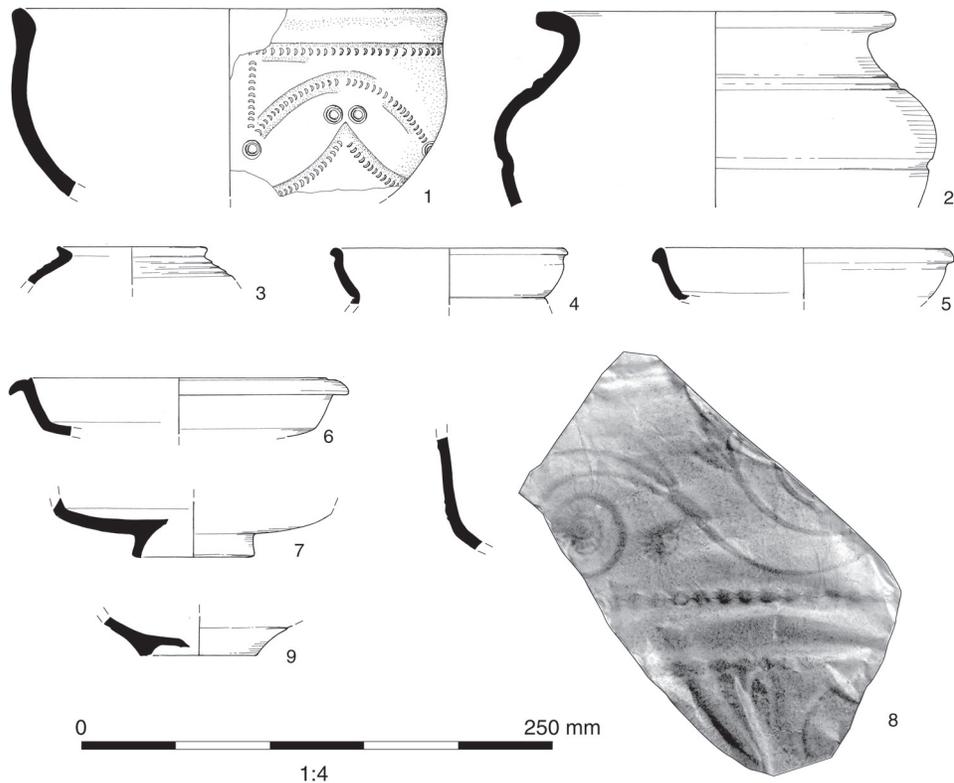


Fig. 7. Pottery.

Abingdon, particularly from the Vineyard,³³ which contained significant amounts of both imported and locally produced fine wares of the pre-Flavian period,³⁴ although the large assemblage from that site has not been analysed and so there was no comparative quantification that could be included in the 2004 review. Rapid assessment of this assemblage (in the early 1990s) suggested a significant break in the occupation sequence in the early second century, with lesser quantities of later Roman pottery. Material from the West Central Development, some 150 m west of the present site, had some of the same characteristics but less pronounced indications of early Roman fine wares, although some of these are seen rather further west at Ashville.³⁵ The West Central Development assemblage also contained substantially more pottery of both middle and later Roman date than the present site,³⁶ although it is possible that the scarcity of deposits of these periods at the County Hall is a result of truncation rather than of an actual absence of occupation.

³³ For example, T.G. Allen, 'An "Oppidum" at Abingdon, Oxfordshire', *SMIDL*, 21 (1991), pp. 97–9.

³⁴ Timby et al., 'A New Early Roman Fineware Industry in the Upper Thames Valley'.

³⁵ C.D. De Roche, 'The Iron Age Pottery', in M. Parrington, *The Excavation of an Iron Age Settlement: Bronze Age Ring-Ditches and Roman Features at Ashville Trading Estate, Abingdon (Oxfordshire) 1974–76*, CBA Research Report, 28 (1978), pp. 64–7, nos. 345–6, 373–4.

³⁶ E. Biddulph, 'Iron-Age and Roman Pottery', in K. Brady et al., 'Excavations at Abingdon West Central Redevelopment: Iron Age, Roman, Medieval and Post-Medieval Activity in Abingdon', *Oxoniensia*, 72 (2007), pp. 143–50.

Illustration Catalogue (Fig. 7):

- (1) Fabric AN2/3. Globular bowl, burnished internally and externally, with impressed decoration between lightly tooled horizontal and curving lines ('swags') and impressed multiple ring motifs at the junctions of the swags. A very similar bowl from Frilford is illustrated by Harding,³⁷ but that vessel has single ring impressions linking the swags, whereas in the present example these impressions are paired. 1126, fill of pit 1127. Selected vessels from the middle part of the sequence of early Roman deposits:
- (2) Fabric R30. Medium mouthed jar with heavy outturned rim, cordon at base of neck and girth groove. Burnished overall down to girth groove. 1043
- (3) Fabric R11. Small 'jar beaker' with angled everted rim and multiple grooves on shoulder. Burnished overall. 1043
- (4) Fabric R11. Campanulate cup imitating Dragendorff 27. Burnished overall. 1052 and 1054
- (5) Fabric R11. Dish with beaded rim. Burnished overall. 1043
- (6) Fabric R11. Dish with bead and downturned flange rim. Burnished overall. 1045
- (7) Fabric R11. Base of dish with tall footring. Burnished overall. Probably not the same vessel as No. 6. 1045

Samian ware:

- (8) South Gaulish. Fragment of Drag 29 bowl. Tendril scroll and rosettes above cordon defined by bead rows; tendril and leaf scroll below. 1009, lower fill of ditch 1010
- (9) Central Gaulish. Simple base with recessed central area. The footring, which is grooved on the underside, is well worn. Internal gloss suggests that this is an open form, and a body sherd of Curle 21 (or less likely Drag 43) comes from the same context. The base is therefore possibly from a variant of this form, which typically has a more 'normal' footring.³⁸ 1003 ?late Roman 'dark earth'

FIRED CLAY by PAUL BOOTH

The excavation produced just over 3 kg of fired clay from five contexts, of which all but 70 g of amorphous fragments was from a single context (1125), the fill of an Iron-Age post hole or small pit. The material from 1125 was highly fragmented (in excess of 200 pieces), but clearly derived from a single object/structure, in a fairly soft, fine fabric with occasional inclusions of fine sand, calcareous grit and iron oxides. The firing is for the most part a consistent light grey-buff colour. A number of the fragments have one surviving flat surface, and one piece appears to represent part of a straight edge (two faces meeting almost at right angles), but none of the fragments seems to have survived to its full original thickness, although pieces with a single flat surface had minimum thicknesses in excess of 50 mm. A significant number of the fragments have partial impressions of wattles; these were very incomplete, to the extent that estimation of approximate diameter of the wattles was difficult, but minimum dimensions (in other words, based on less than 50 per cent of the circumference of the wattle) suggest a range from > 12 mm to > 22 mm, with a minimum estimated diameter of c.15 mm for most. In all the observed examples of cases where a fragment had more than one wattle impression these ran in the same direction, though slight differences in alignment in relation to the flat surface (where this survived) might suggest interweaving with further wattles at right angles. Despite the lack of survival of more direct evidence for the latter, they would surely have been necessary to give rigidity to a wattle 'skeleton'. The nature of the structure is not certain, but

³⁷ D.W. Harding, *The Iron Age in the Upper Thames Basin* (1972), plate 67F.

³⁸ For example F. Oswald and T.D. Pryce, *An Introduction to the Study of Terra Sigillata* (1920), plate LXXIII, no. 1.

the consistent firing and lack of any detectable curving elements suggest a flat 'slab', perhaps roughly rectangular in shape, such as might have served as the base for an oven or similar structure³⁹ and was perhaps a prefabricated element (as suggested by the possible fragment of a finished straight edge) that could be replaced in the event of breakage from whatever cause. The lack of curving elements makes it unlikely that these fragments derived from the walls of an oven or larger structure.

COINS by PAUL BOOTH

Two late Roman coins were recovered from 'dark earth' layer 1003. One of these (SF 1002) was a heavily encrusted coin of AE3 size and can only be assigned a general later third- to fourth-century date. The second (SF 1000) is an AE4 issue of the period AD 388–402. It is in poor condition, but the reverse figure of victory, of the Victoria Aug. type, can just be discerned.

METAL AND MISCELLANEOUS FINDS by PAUL BOOTH

Four copper alloy and five possible iron objects were recovered, mostly in poor condition and from later Roman and later deposits. A fragment of copper alloy domed sheet, perhaps from a stud, came from first century context 1073. A pierced disc (identified from X-ray) and a tapered strip, possibly part of a pair of tweezers, came from dark earth deposit 1003, and an eroded curving strip fragment from post-medieval context 1001. Iron finds comprised amorphous fragments, perhaps no more than concreted lumps, from early to mid second-century layer 1052 and probable medieval pit fills 1021 and 1023. The latter deposit also contained the sole iron object of any significance, an iron key, identifiable only in X-ray. This was c.65 mm long, of a form consistent with a medieval date,⁴⁰ but cannot be assigned to one of Goodall's types because it is unclear if the stem was solid or hollow and the detailed form of the bits is not clear. The X-ray shows fine decorative bands of non-ferrous material on the stem. Medieval pit fill 1027 contained a fragmented nail.

Two struck flints were recovered from Iron-Age deposits; an undatable flake (13 g) from 1092 and a smaller flake (5 g) from 1085. The latter had relatively long narrow removal scars which suggest a Mesolithic to early Neolithic date.

Miscellaneous finds included flint, ceramic building material, glass, slag and stone. A small ceramic bead came from the upper fill (1117) of Iron-Age post hole 1115. The bead was roughly spherical, with a diameter of 8 mm. The fabric was fired to a hard dark grey-black and appeared fine, but occasional very small sand grains were evident on the surface. There was a central fine perforation c.1 mm across.

Nine fragments of Roman ceramic building material (430 g) came from six different early Roman and later deposits, the earliest occurrence being a fragment in layer 1053, for which a late first-early second century date is likely. Tegulae, an imbrex, a possible box flue tile and a possible brick were represented in fabrics with variable amounts of sand temper and occasional other inclusions. The material is likely to have been redeposited in these contexts. A single flat limestone fragment, probably from a roof stone, came from late Roman ditch fill 1008.

A single tiny fragment of thin pale green-colourless glass, probably of Roman date, came from fill 1027 of medieval pit 1024. The same fill produced an oyster shell and a fragment of light slag-like material. A larger ?slag lump (40 g) from a layer (1085) cut by Iron-Age features 1111 and 1113 was the only other piece of material of this type from the site.

³⁹ C. Poole, personal communication.

⁴⁰ Cf., for example, I.H. Goodall, *Ironwork in Medieval Britain An Archaeological Guide*, Society for Medieval Archaeology Monograph, 31 (2011), p. 240.

Table 5. Quantification of numbers of fragments of animal bone by period

	No. hand collected frags	Weight (g)	No. frags from soil samples	Weight (g)
Middle Iron Age	3	52	1	11
Late Iron Age to Roman	89	927	1	24
Mid-late Roman	33	337	0	0
?Late Roman	12	156	1	65
Medieval	10	104	1	34
Total	147	1576	4	134

Table 6. Number of identified hand collected animal bone fragments (NISP)

	Later Prehistoric (middle Iron Age)	Late Iron Age-early/ mid 2nd century AD	Mid-late Roman	? Late Roman	Grand Total
Cattle	1	6	4	2	13
Pig		2			2
Sheep/goat		10	1		11
Large mammal	1	53	14	9	77
Medium mammal	1	14	6	1	22
Small mammal (?cat)		1			1
Human			7		7
Total	3	86	32	12	133

ANIMAL BONE by REBECCA NICHOLSON

A small assemblage of animal bone (150 fragments; 1,755 g) was recovered from middle Iron-Age, Romano-British and medieval features (Table 5). All was in good to fair condition, although highly fragmented. The animal bone was recorded following the protocol and zoning method outlined in Serjeantson.⁴¹ Where possible, fragments were identified to species using the Oxford Archaeology zooarchaeology reference collection. Fragments that could not be identified to species were put into categories: large mammal sized (cattle, horse or large deer) and medium mammal sized (sheep, goat, roe deer, dog and pig). Condition was recorded on a 6 point scale, where grade 0 equates to very well preserved bone and grade 5 indicates that the bone had suffered such structural and attritional damage as to make it unrecognisable. In all cases the bones were assigned to grades 1–3. Tooth wear stages were recorded according to Grant.⁴² Fusion data was analysed according to information from Silver.⁴³ All bone was fully recorded on a Microsoft Access database and the data are available as part of the site archive. No bones were measureable.

⁴¹ D. Serjeantson, 'The Animal Bones', in S. Needham and A. Spence, *Refuse and Disposal at Area 16 East Runnymede. Runnymede Bridge Research Excavations, Volume 2* (1996), pp. 194–253.

⁴² A. Grant, 'The Use of Tooth Wear 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.

⁴³ I.A. Silver, 'The Ageing of Domestic Animals', in D. Brothwell and E.S. Higgs (eds.), *Science in Archaeology* (1963), pp. 250–68.

Results by Phase

The animal bone from Iron-Age and Roman contexts were identified where possible; the very small medieval assemblage was not examined in detail (Table 6).

Middle Iron Age. The hand-collected animal bone came from the fill of gully 1109 and the sieved material from pit 1115. Fragments included a juvenile cattle or red deer femur (proximal fragment, unfused), a fragment of large mammal rib and a medium mammal (sheep/goat sized) vertebra. Sieved fragments included a mouse (*Mus/Apodemus* sp.) pelvis fragment, probably intrusive, an indeterminate piece of burnt bone and tiny indeterminate unburnt fragments, all from sample 4 (1117), the fill of pit 1115.

Late Iron Age/Roman. The animal remains came from layers and gully fills largely dating to the early to mid second century AD. Most bones were encrusted with sediment and heavily fragmented. The bones from contexts 1043 (gravel surface) and 1053 (layer) comprised 12 and 38 fragments respectively. Both contained a large mammal (probably cattle) left scapula, in the case of 1053 from an animal of under 10 months old. While the epiphysis of the bone from 1043 was gnawed, it was of a similar size to that from 1053 suggesting that it too came from a young animal. The other bones included medium mammal limb bone fragments, non ageable, and isolated molar teeth from sheep/goat and molar as well as large mammal limb bone fragments. Contexts 1043, 1033 and 1083 each included an unfused head from a cattle femur, indicating ages of less than around three and a half years. The femur head from context 1083 fits with an unfused femur from middle Iron-Age gully context 1110; since the post hole cut overlies the gully it is possible that bone within it is residual from the earlier phase. Three cattle/large mammal bones from this phase had been chopped, probably to remove the marrow. A sheep/goat mandible fragment from layer 1032 came an animal of less than six months old based on the unworn nature of dp4, while an older animal is indicated by a mandible from context 1051 (P4, M1 and M2 in wear). The only sexable item from this assemblage was a canine tooth from a male pig in layer 1052. A tibia fragment from layer 1058 was probably cat.

Sieved fragments from sample 3 (layer 1052) included indeterminate fragments of large and medium mammal bone, some burnt.

Mid to late Roman. Most bones came from the fill of ditch 1010 and pit 1016 and were unremarkable in character, mostly coming from cattle and sheep/goat. Two cattle humerus fragments had been chopped through, again probably for marrow extraction. Seven fragments of human infant cranial bone came from the fill of grave 1013.

CHARRED PLANT REMAINS AND CHARCOAL by SHEILA BOARDMAN

Five bulk soil samples were collected for the study of charred plant remains and wood charcoal. They ranged in size from 20 to 40 litres. Two samples (4 and 5) came from different middle Iron-Age pits (contexts 1125 and 1117 respectively). One sample (3) came from an early Roman (early to mid second century) 'occupation' layer (1052). Two further samples came from a 'late Roman' pit fill (context 1023) and a medieval pit fill (1027). Both features contained some re-deposited earlier Roman artefactual material.

Methodology

The samples were processed at OA using a modified Siraf-type water separation machine. The flots were collected in a 250 micron mesh and the heavy residues in a 500 micron mesh. Flots and residues were sorted using a low power binocular microscope at magnifications of x10 to x20, for cereals grains, chaff, seeds and other quantifiable remains. Wood charcoal greater than 2 mm in size was removed. Charcoal fragments were fractured by hand and sorted into

groups based on features observed in transverse section at x10 to x40 magnifications. The fragments were then sectioned longitudinally along their radial and tangential planes and examined at magnifications of up to x400. Identifications of the wood charcoal were made with reference to Schweingruber, Hather, Gale and Cutler, and Godwin.⁴⁴ All wood greater than 4 mm in size was examined, together with a selection of the material in the 2–4 mm size range. Identifications of the charred grains, chaff and seeds were carried out at magnifications of x10 to x40, using standard morphological criteria for the cereals and other cultivated plants,⁴⁵ and by comparison with modern reference material. Classification and nomenclature of plant material follows Stace.⁴⁶

Results

Wood Charcoal. The wood charcoal results are listed by fragment count in Table 7. Most of the charcoal was fairly well preserved, although all samples contained some sooty and crumbly material that was more difficult to identify. Twelve taxa are listed in Table 7. The levels of identification reflect the anatomy of individual taxa, and their biogeographical range. Most numerous were fragments of *Quercus* (oak), *Corylus* (hazel), *Rhamnus* (buckthorn), *Acer* (field maple), *Fagus* (beech) and *Fraxinus* (ash). There are smaller amounts of Pomoideae (apple, pear, hawthorn, etc.) and *Prunus spinosa* (blackthorn) and/or *Prunus avium/padus* (wild/bird cherry), and traces of *Betula* (birch) *Salix/Populus* (willow/poplar), *Cytisus/Ulex* (broom/gorse), *Euonymus* (spindle) and *Alnus/Corylus* (alder/hazel). Larger quantities of these (and additional taxa) may be present among the indeterminate fragments or unidentified charcoal.

The three earlier samples (5, 4 and 3) were dominated by oak and hazel, probable components of the original primary woodland, with individual concentrations of ash, field maple and purging buckthorn, also presumably growing locally. There was generally a similar mix of tree and shrub taxa, and a mix of heartwood, sapwood and round wood, throughout the samples. Beech was only present in the two later samples (1 and 2). Meanwhile, the appearance of new taxa, such as broom/gorse and spindle, and slight increases in Pomoideae and blackthorn/cherry charcoal, in the later samples may point to changes in the structure and/or use of local woody resources.

Charred Plant Remains. The other charred plant remains are listed in Table 8. The counts are for individual grains, seeds, nutlets, etc. unless otherwise stated. The middle Iron-Age samples (4 and 5) produced moderate amounts of plant material. Cultivated plants are dominated by glume wheat grains and chaff. On the basis of the latter, this appears to be mostly spelt wheat (*Triticum spelta*), possibly with small amounts of emmer wheat (*T. dicoccum*). The other cereals were hulled barley (*Hordeum vulgare*) and oats (*Avena* sp.), represented almost entirely by grain. Rye (*Secale cereale*) is not present in these samples. Additional cultivated species may be represented by the large Viciae seeds that could include pea (*Pisum sativum*), common/fodder vetch (*Vicia* cf. *sativa*) and other important bean/pea species. The earlier Roman sample (3) from a possible occupation layer has an almost identical range of cereals and other cultivated plants, again dominated by spelt with small amounts of oat, barley and some larger seeded legumes. The two samples (1 and 2) from medieval pit fills have a wider range of crops and other useful plants, and of wild species. Free-threshing wheat and bread wheat chaff have replaced spelt as the main crop material present, and both rye grains and chaff are present. Peas, lentil and fodder vetch are also

⁴⁴ F.H. Schweingruber, *Microscopic Wood Anatomy*, 3rd edn (1990); J. G. Hather, *The Identification of the Northern European Woods: A Guide for Archaeologists and Conservators* (2000); R. Gale and D. Cutler, *Plants in Archaeology: Identification Manual of Vegetative Plant Materials used in Europe and the Southern Mediterranean to c.1500* (2000); H. Godwin, *The History of the British Flora: A Factual Basis for Phytogeography* (1956), table 1.

⁴⁵ For example, S. Jacomet, *Identification of Cereal Remains from Archaeological Sites*, 2nd edn (2006).

⁴⁶ C. Stace, *New Flora of the British Isles*, 3rd edn (2010).

Table 7. Summary of the charcoal remains

Context No.		1125	1117	1052		1023	1027
Sample No.		5	4	3		1	2
Sample Vol. (litres)		20	40	40		40	31
Feature		Pit	Pit	Occupation		Pit	Pit
Period		MIA	MIA	Roman		Medieval	Medieval
				early-mid 2nd			
<i>Fagus sylvatica</i>	beech					19	+
<i>Quercus</i>	oak	5hs	11hs	51hsr		20hsr	42hsr
<i>Betula</i>	birch			+			
<i>Corylus avellana</i>	hazel	29r	9	8r		33r	9
<i>Alnus/Corylus</i>	alder/hazel					+	
<i>Salix/Populus</i>	willow/poplar					3	
<i>Prunus avium/padus</i> type	wild/bird cherry					3	2
<i>Prunus spinosa</i> type	blackthorn		2				2
<i>Prunus</i> sp.	cherry/blackthorn		2				2
Pomoideae* (see key below)	syn. Maloideae	2	2	4		5	2
<i>Cytisus/Ulex</i>	broom/gorse					+	
<i>Euonymus europaeus</i>	spindle						+
<i>Rhamnus cathartica</i>	purging buckthorn		5	23		10	3
<i>Acer campestre</i>	field maple		21				
<i>Fraxinus excelsior</i>	ash	15					
Total Identified Fragments		51	52	87		95	64
Indet. twiggy fragments	small roundwood			4		2	
Indet. charcoal (all types)		10	7	6		7	4
Litres of soil processed		20	40	40		40	31

KEY

Symbols used in fragment counts:

h - heartwood

s - sapwood

r - roundwood

+ - based on single ID

*Pomoideae subfamily includes:

Pyrus (pear)

Malus (apple),

Crataegus (hawthorn)

Sorbus (rowan, service, whitebeam)

Table 8. Charred plant remains

Context No.		1125	1117	1052	1023	1027
Sample No.		5	4	3	1	2
Sample Vol. (litres)		20	40	40	40	31
Feature		Pit	Pit	Occupation layer	Pit	Pit
Period		MIA	MIA	Roman early-mid 2C	Medieval	Medieval
Cereal grain						
<i>Triticum dicoccum/spelta</i>	emmer/spelt grain		25	14	4	
<i>Triticum</i> spp.	free-threshing wheat grain		1	1	696	59
<i>Triticum</i> spp.	wheat grain	1	20	2	128	5
<i>Hordeum vulgare</i>	barley, hulled asymmetric grain	1	3	2	16	
<i>Hordeum vulgare</i>	barley, hulled straight grain			1	4	
<i>Hordeum</i> sp.	hulled barley	8	9	5	64	17
<i>Hordeum</i> sp.	barley	11	3	1	8	1
cf. <i>Hordeum</i> sp.	cf. barley	1	3		4	
<i>Secale cereale</i>	rye				24	8
cf. <i>Secale cereale</i>	cf. rye				12	1
<i>Secale/Triticum</i> spp.	rye/wheat grain				4	4
<i>Avena</i> sp.	oat grain		4	8	16	14
cf. <i>Avena</i> sp.	cf. oat		2	8	24	1
<i>Avena/Bromus</i>	oat/brome grass		2	3.5	4	
Cereal indet.	indeterminate cereal	6	15	15	92	6
Cereal chaff						
<i>Triticum spelta</i>	spelt wheat glume base	1	11	1		
<i>Triticum</i> spp.	glume base, emmer or spelt	4	21	15		4
<i>Triticum aestivum</i> type	bread wheat type rachis				60	1
<i>Triticum</i> cf. <i>aestivum</i>	cf. bread wheat type rachis				52	
<i>Triticum</i> spp.	wheat rachis				100	9
<i>Hordeum vulgare</i>	barley rachis		5		8	
<i>Secale cereale</i>	rye rachis			8	96	6
cf. <i>Secale cereale</i>	cf. rye rachis				44	
<i>Avena</i> sp.	awns (present)		+	+	+	+
Cerealia indet	detached embryos				+	+

Table 8. (Continued)

Context No.		1125	1117	1052	1023	1027
Sample No.		5	4	3	1	2
Sample Vol. (litres)		20	40	40	40	31
Feature		Pit	Pit	Occupation layer	Pit	Pit
Period		MIA	MIA	Roman early-mid 2C	Medieval	Medieval
Cerealia indet	indet cereal rachis		1	4	128	6
Cerealia indet	indet cereal culm node				36	4
Pulses, edible plants						
<i>Pisum sativum</i>	pea				28	2.5
cf. <i>Pisum sativum</i>	cf. pea			1	12	
<i>Lens culinaris</i>	lentil					0.5
<i>Vicia sativa</i>	fodder vetch				12	
<i>Vicia</i> cf. <i>sativa</i>	cf. fodder vetch		1	3	8	1
<i>Vicia/Pisum</i>	bean/pea > 2 mm		3.5	6		
Vicieae	<i>Vicia/Lathyrus/Pisum</i>	1			8	6.5
<i>Malus/Pyrus</i>	apple/pear				4	
cf. <i>Malus/Pyrus</i>	cf. apple/pear				8	
<i>Corylus avellana</i>	hazel, nut shell fragments (F)				4F	8F
Wild plants						
<i>Papaver dubium/rhoeas</i>	poppy	1				
<i>Vicia/Lathyrus</i>	vetch/tare (> 2 mm)				8	
<i>Vicia/Lathyrus</i>	vetch/tare (< 2 mm)		2	14		
<i>Melilotus/Medicago/Trifolium</i>	small seeded legume			16	92	
Fabaceae – Trifolieae	small seeded legume	2	15	20	50	3
<i>Potentilla</i> sp.	cinquefoil				4	
<i>Urtica dioica</i>	common nettle		6	1	6	
<i>Urtica urens</i>	small nettle		4			
<i>Brassica</i> cf. <i>rapa</i>	cf. wild turnip				4	
<i>Brassica/Sinapis</i>	cabbage, mustard, etc			1		
cf. <i>Cardamine</i> sp.	cf. bitter-cress			4		2
Brassicaceae undiff.	cabbage family			8		
Brassicaceae undiff.	capsule fragments				20F	
<i>Raphanus raphanistrum</i>	wild radish capsule					1F

Table 8. (Continued)

Context No.		1125	1117	1052	1023	1027
Sample No.		5	4	3	1	2
Sample Vol. (litres)		20	40	40	40	31
Feature		Pit	Pit	Occupation layer	Pit	Pit
Period		MIA	MIA	Roman early- mid 2C	Medieval	Medieval
<i>Persicaria maculosa</i>	redshank			1		
<i>Polygonum aviculare</i> type	knotgrass		5	1		1
<i>Fallopia convolvulus</i>	black bindweed		5	2		
<i>Rumex acetosella</i>	sheep's sorrel				10	
<i>Rumex acetosa</i>	common sorrel				4	
<i>Rumex crispus/obtusifolius</i>	curled/broad-leaved dock				5	
<i>Rumex</i> spp.	docks		5	15	75	7
Polygonaceae undiff.	knotweed family		5	6	25	7
<i>Stellaria media</i>	common chickweed				8	
<i>Stellaria</i> sp.	stitchwort/ mouse-ear				4	2
<i>Stellaria/Cerastium</i>	stitchwort			1		2
<i>Agrostemma githago</i>	corncockle					2
Caryophyllaceae undiff.	pink family					1
<i>Atriplex</i> sp.	orache				3	2
<i>Chenopodium album</i> type	fat hen	1	8	17	> 100	1
<i>Chenopodium</i> sp.	goosefoot	1		4		
<i>Chenopodium/Atriplex</i>	goosefoot/orache			3		1
Chenopodiaceae undiff.	goosefoot family		5	4		3
Chenopodiaceae/ Caryophyllaceae	goosefoot/pinks					1
<i>Montia fontana</i> cf. ssp. <i>chondrosperma</i>	blinks					1
<i>Galium aparine</i>	cleavers		1	4		1
<i>Galium</i> sp.	bedstraw					1
<i>Lithospermum arvense</i>	field gromwell (*mineralised)			*1		
<i>Veronica hederifolia</i>	ivy-leaved speedwell					1

Table 8. (Continued)

Context No.		1125	1117	1052		1023	1027
Sample No.		5	4	3		1	2
Sample Vol. (litres)		20	40	40		40	31
Feature		Pit	Pit	Occupation layer		Pit	Pit
Period		MIA	MIA	Roman early-mid 2C		Medieval	Medieval
<i>Plantago lanceolata</i>	ribwort plantain		1			4	1
<i>Prunella vulgaris</i>	self-heal			4		3	
Lamiaceae undiff.	dead-nettle family					1	2
Orobanchaceae undiff.	broomrape family			4			
cf. <i>Cirsium</i>	cf. thistle					4	
<i>Centaurea cyanus</i>	cornflower					23	
<i>Centaurea</i> cf. <i>cyanus</i>	cf. cornflower					22	2
<i>Lapsana communis</i>	nipplewort					19	
<i>Anthemis cotula</i>	stinking chamomile	1	4	16		> 400	69
Asteraceae undiff.	daisy family					63	4
cf. <i>Apium</i> sp.	cf. marshwort						1
Apiaceae undiff.	carrot family						1
<i>Juncus</i> sp.	rush			12			2
<i>Eleocharis palustris</i>	common spike-rush			5		4	
<i>Carex pseudocyperus</i>	cyperus sedge			12		8	2
<i>Carex</i> sp.	sedge, three side nutlet		8	4		> 100	4
<i>Carex</i> sp.	sedge, two sided nutlet		1			> 200	5
Cyperaceae	sedge family			8		4	
Poaceae - <i>Poa</i> sp.	meadow grass type			36			
<i>Bromus hordaceus/ secalinus</i> type	soft-brome/ rye-brome					32	1
<i>Bromus</i> sp.	brome		2	4		40	4
<i>Anisantha sterilis</i>	barren brome					4	
Poaceae undiff.	grass family		4	36		> 100	8
Poaceae undiff.	grass family, culm node		1	5		> 200	3
<i>Pteridium aquilinum</i>	bracken, frond fragment (F)			4F			
Indeterminate	seed/fruit/nut	3	1	35		46	17
Indeterminate	bud		8	15			1

clearly present by this time. Pelling found largely spelt and a little emmer in Roman deposits at Abingdon West Central Development Area, while thirteenth- to seventeenth-century deposits there produced evidence for rivet wheat (*Triticum turgidum*) (absent here) as well as the more ubiquitous bread wheat (*T. aestivum*).⁴⁷

Medieval sample (1) produced the only evidence for orchard crops from these excavations, in the form of apple/pear (*Malus/Pyrus*) seeds. Apple and apple/pear seeds were also recovered by Pelling in mineralised form, from seventeenth- to eighteenth-century deposits at Abingdon (ibid.).

Discussion

Wood Charcoal. The fairly wide range of tree and shrub taxa present and the mixture of heartwood, sapwood and round wood in all samples is indicative of good access to mixed woody resources during the different periods. The continued presence of mature trees and/or hedgerows into the medieval period may suggest woodland management or conservation in some form. The slight increase in Pomoideae and blackthorn/cherry (*Prunus* spp.) charcoal in the medieval samples, together with the appearance of broom/gorse (*Cytisus/Ulex*) and spindle (*Euonymus*), may point to some increase in scrub vegetation. Spindle was used in charcoal production in the past.⁴⁸ Meanwhile, the presence of willow/poplar (*Salix/Populus*) and, possibly, alder (*Alnus*) hints at an increased use of riverine trees, which do not make good fuel wood unless seasoned.⁴⁹ The presence of beech (*Fagus*) in the later samples is noteworthy. This tree is generally poorly represented in charcoal assemblages, possible reflecting in part its poor durability as an outdoor construction material. Interestingly, beech has been identified in deposits at Abingdon and in the surrounding area from the Neolithic period, suggesting that it was firmly part of the regional woodland from this time.⁵⁰

Charred Plant Remains. The middle Iron-Age samples (4 and 5) contained few cereal grains, chaff and other remains, making it difficult to speculate about local patterns of crop production or crop storage.⁵¹ The early Roman sample (3) had an almost even ratio of spelt grain to chaff which may indicate that whole spikelets were burnt, either accidentally⁵² or deliberately with associated crop and weed material. The wild plants in this sample are generally larger seeded, not unlike what would be expected in a partially cleaned (threshed and winnowed) crop. The few smaller seeds of rushes, grasses and other grassland plants may represent hay or other collected material, rather than weeds of cultivation. The later samples (1 and 2), while richer in chaff and other remains, were dominated by cereal grains. They may represent refuse from a number of small-scale crop cleaning exercises, since many crops are present, together with deliberately burnt plant refuse. The wild plants in these final samples are again predominantly of the larger seeded variety, although more aerodynamic seeds (for example, *Centaurea* and *Anthemis*), together with free-threshing cereal chaff (of breadwheat

⁴⁷ R. Pelling, 'Appendix 13: The Charred, Mineralized, and Waterlogged Plant Remains', in K. Brady et al., 'Excavations at Abingdon West Central Redevelopment: Iron Age, Roman, Medieval, and Post-Medieval Activity in Abingdon', *Oxoniensia*, 72 (2007), pp. 190–202.

⁴⁸ H.L. Edlin, *Woodland Crafts in Britain: An Account of the Traditional Uses of Trees and Timber in the British Countryside* (1949).

⁴⁹ Ibid.

⁵⁰ A.C. Western, 'Charcoals', in H. Case and A. Whittle (eds.), *Settlement Patterns in the Oxford Region: Excavations at the Abingdon Causewayed Enclosure and Other Sites*, CBA Research Report, 44 (1982), p. 49; W. Smith, 'A Review of Archaeological Wood Analyses in Southern England', unpublished English Heritage Centre for Archaeology report, 75/2002 (2002).

⁵¹ Cf. C. Stevens, 'An Investigation of Agricultural Consumption and Production Models for Prehistoric and Roman Britain', *Environmental Archaeology*, 8:1 (2003), pp. 61–76; Pelling, 'Appendix 13'.

⁵² For example, during parching: G.C. Hillman, 'Reconstructing Crop Husbandry Practices from the Charred Remains of Crops', in R. Mercer (ed.), *Farming Practice in British Prehistory* (1981), pp. 123–62.

and rye) and cereal straw suggest that at least some unwinnowed crops reached the site from surrounding fields.

The wild species present in the five samples are mostly from very general ruderal plants which grow in a variety of disturbed habitats including around settlements. Some such as the nettles (*Urtica* spp.) may be incidental inclusions in domestic fires. Only corncockle (*Agrostemma githago*) is clearly a weed of cultivation. As elsewhere at Abingdon and at Ashville there are plenty of indicators of grassland in the charred plant assemblage.⁵³ Grass seeds/culm nodes and small seeded legumes (*Medicago/Melilotus/ Trifolium, Vicia/Lathyrus* and Trifolieae in Table 8) could point to cut grass or animal dung being brought onto site to burn as fuel, although the charcoal evidence does not suggest a shortage of local fuel woods. The legumes and other grassland species also may have grown at the margins of cultivated fields. Cultivation of heavier soils is suggested by large numbers of stinking mayweed (*Anthemis cotula*) seeds in some samples. Meanwhile damper conditions, possibly in or around fields, are indicated by rushes (*Juncus* spp.), common spike rush (*Eleocharis palustris*) and the sedges (*Carex* spp.).

Conclusions

The analysis of five samples from these small-scale excavations at Abingdon have provided further useful evidence for Iron-Age, Roman and medieval crops in the Abingdon area, and the nature and use of the surrounding woody vegetation. Local farmers were cultivating spelt wheat from the middle Iron Age, and bread wheat and rye in the medieval period, together with hulled barley, possibly oats and a range of legumes. It is not possible to say from this small assemblage whether changes in crop staples were associated with changes to the areas cultivated, although there is some evidence through the increasing presence of species such as stinking mayweed that later cultivation did occupy heavier ground. The wide range of tree and shrub taxa indicate some mature trees, woodland and/or hedgerows in the vicinity of the site throughout the period studied. Apparent increases in shrub taxa in the late Roman and medieval samples may reflect expansion of scrubby vegetation, possibly due to decreased pressure from farming. Conversely, more wood from shrubs may have been burnt as more optimal fuels were less available (for a variety of reasons) at these times, or simply because they best suited purposes here. Much larger charcoal assemblages, and supporting evidence from pollen and other types of environmental data such as insects and molluscs, would be required in order to address questions regarding detailed, long-term vegetation change and fuel use.

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⁵³ Pelling, 'Appendix 13'; M. Jones, 'The Plant Remains', in Parrington, *The Excavation of an Iron Age Settlement*, pp. 93–110.