REPORTS

The Excavation of Iron Age, Roman, Medieval, and Civil War Features South of the Vineyard, Abingdon, Oxfordshire

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SUMMARY

Excavations at the British Gas and Penlon sites on the northern outskirts of the historic core of Abingdon have revealed a sequence of activity dating from the middle Bronze Age to the Civil War. Minimal evidence was found for prehistoric settlement including pits, ditches, and a penannular gully. This was followed by the burial of human remains during the Roman period, which suggests that the area may have been on the western edge of a larger cemetery complex. Activity was most intense during the medieval period, and principally comprised rubbish/quarry pits and probable tenement boundaries. In comparison, post-medieval activity was relatively limited, with a stone-built structure and hearths being the only features present. During the Civil War the development area was the location of part of the town's defences, as represented by three large ditches.

The British Gas and Penlon sites are located close to each other, within the historic core of Abingdon (Fig. 1). The British Gas site lies on the south side of the Vineyard, close to its junction with the Radley Road, and occupies an area of approximately 0.65 ha between the Old Morlands Malthouse to the west and the site of the Pavlova leather works to the east. The Penlon site is located immediately to the east of the British Gas site (Fig. 2).

A programme of exploratory fieldwork was undertaken in 1998 by AOC Archaeology Group on part of the Penlon site, in response to a development application by Bellway Homes Ltd, and in accordance with a brief prepared by Hugh Coddington (Deputy County Archaeologist) of Oxfordshire County Council Archaeological Services.[1] In 2003 further work was required in response to another (successful) planning application by KingsOak Thames Valley, for the adjacent British Gas site fronting the Vineyard.

Following the granting of planning permission for residential redevelopment of the British Gas and Penlon sites by the Vale of White Horse District Council, and in accordance with the brief prepared by Deputy County Archaeologist Hugh Coddington, Oxford Archaeology undertook field evaluations in the summer of 2003 on both sites for CgMs Consulting, on behalf of KingsOak Thames Valley.[2] The results of the evaluations (including the original 1998 work) indicated that the surviving features were of sufficient importance to be the subject of a recording action in order to ensure their preservation by record and subsequent analysis and publication of the results. Consequently in the spring of 2004 OA was commissioned by CgMs Consulting, on behalf of

[1] J. Moore and I. Grundon, 'An archaeological evaluation at the Penlon Site, Radley Road, Abingdon, 1998' (AOC TS report).

[2] 'British Gas site, the Vineyard, Abingdon' (OA TS report, 2003).

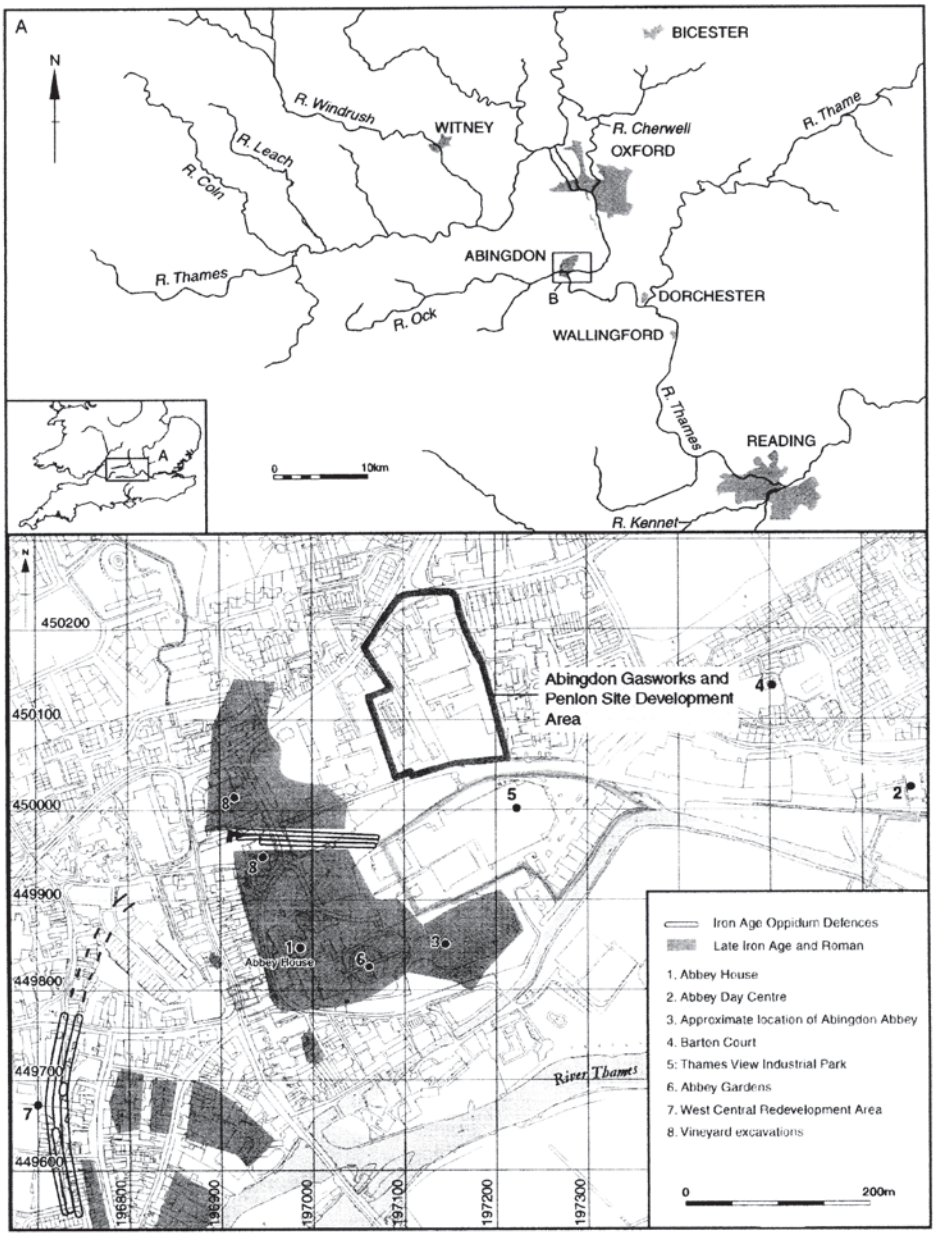

Fig. 1. Location of Penlon and British Gas sites

KingsOak Thames Valley, to carry out excavations on the Penlon site and at five discrete areas within the British Gas site.

Geology, Geography, and Topography

The British Gas site lies between 56 and 58 m ordnance datum, and the Penlon site is at approximately 55 m ordnance datum. The underlying geology of both sites is second terrace gravel over Kimmeridge clay. The river Thames lies some 250 m to the south of the sites.

Archaeological Background

A scatter of artefacts dating from the Mesolithic to the Bronze Age has been recovered from around Abingdon and suggests localized activity throughout this time. The early Iron Age saw the establishment of a permanent settlement at Abingdon south of the Vineyard, while settlement during the middle Iron Age was both larger and more densely occupied. By the late Iron Age the settlement had developed into an *oppidum* (an enclosed proto-town) surrounded by two or three parallel defensive ditches, which were in use until at least the early second century AD.[3] The approximate location of these ditches in relation to the development area is shown in Figure 2.

Much of the area was densely occupied in the early Roman period, with an internal rectilinear layout and high-status finds. By the second century AD the defensive ditches had been filled in and the town expanded northwards over them.[4] The remains of at least three Roman masonry buildings have been discovered, and ditches, pits, ovens, and burials have all been identified.[5]

Sixth-century Anglo-Saxon sunken-floored buildings were found beneath Abbey House to the south-west of the sites, and another Saxon settlement was found beneath the Abbey Day Centre to the south-east.[6] Substantial early Anglo-Saxon settlement was found at Barton Court Farm[7] and at Radley Barrow Hills,[8] roughly 400 m and 700 m, respectively, to the east of the present site.

The medieval abbey, a reformed Benedictine house, was founded in 955.[9] The foundation dates to AD 675,[10] although no trace of the middle Saxon monastic site has yet been found. Barton Court, to the east of the Penlon site, marks the location of the medieval abbey farm (barton meaning farmstead), and this was possibly also the site of a farm in the Saxon period (SAM 219).

The abbey precinct grounds lay to the south of the sites, and although nothing remains above ground, geophysical survey has subsequently recovered a clear plan of the church and cloister.[11] Limited evaluation has been carried out to the south-east of the abbey church, and this found

3 T. G. Allen, 'Abingdon Vineyard 1992: areas 2 and 3, the early defences', *SMidlA*, 23 (1993), pp. 64–6; T. G. Allen, 'Abingdon: West Central Redevelopment Area', *SMidlA,* 27 (1997), pp. 47–54.

4 Ibid.

5 J. Y. Ackerman, 'Note', *Proceedings of the Society of Antiquaries of London*, ser. 2, 145 (1867), pp. 202–3; John Moore, personal communication; T. G. Allen, 'Abingdon, Vineyard redevelopment', *SMidlA*, 20 (1990), p. 74; T. G. Allen, 'Abingdon Vineyard area 6', *SMidlA,* 36 (1996), pp. 51–5; R. Wilson,'Excavations in Abingdon: a Romano-British cremation, an inhumation, a medieval kiln and lead weights at 56–86 The Vineyard, Abingdon, Oxon.', Abingdon Area Archaeological and Historical Society, Occasional Paper 1 (1984).

6 Allen, ' Abingdon, Vineyard redevelopment', n. 5, pp. 74–5; G. D. Keevill, 'An Anglo-Saxon site at Audlett Drive, Abingdon, Oxfordshire', *Oxoniensia*, 57 (1992), pp. 55–79.

7 Philip Armitage and David Miles, 'Archaeology at Barton Court Farm, Oxon.', OAU Report 3, CBA Research Report 50 (Oxford, 1984).

8 R. A. Chambers and E. McAdam, *Excavations at Barrow Hills, Radley, Oxfordshire, 1983–5,* 2: *The Romano-British Cemetery and Anglo-Saxon Settlement* (OA, Thames Valley Monograph, forthcoming).

9 S. E. Kelly, *Charters of Abingdon Abbey*, pt 1 (Oxford, 2000), p. 153.

10 J. Stevenson, ed., *Chronicon Monasterii de Abingdon,* Rolls Series, 2 vols (London, 1858), p. 68, Appendix 2, nos 2–4.

11 A. Bartlett and A. Boucher, 'Geophysical survey of Abbey Gardens and Abbey Close Car Park', in Scott Wilson, 'Abbey Meadows, Abingdon restoration management plan' (TS report for Vale of White Horse District Council, Abingdon, 1999); A. Bartlett, 'Abingdon Abbey: report on resistivity survey 2001' (TS report for OA on behalf of the Vale of White Horse District Council, 2001).

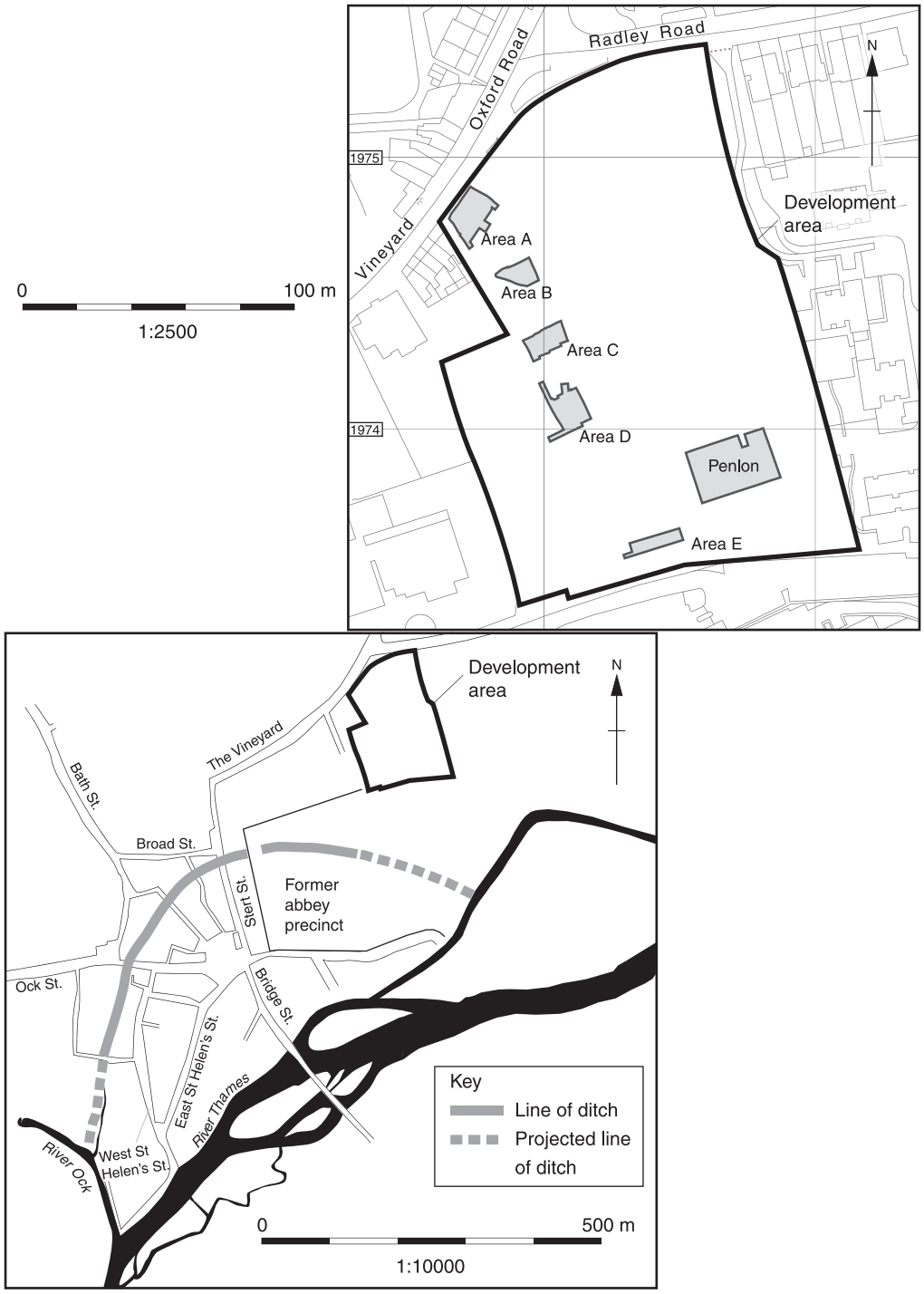

Fig. 2. Areas of excavation and known extent of prehistoric and Roman ditches (after T. G. Allen, 'Abingdon: West Central redevelopment area', *SMidlA*, 27 [1997])

both human burials and medieval walls at shallow depth.[12] These can be linked to the infirmary and the monks' graveyard. Excavation carried out beneath Abbey House, to the north-west of the church, revealed the lay cemetery, a free-standing octagonal bell-tower, and a chapel.[13]

Early references to the Vineyard (*winyerd*) can be found in the cartulary of the abbey in various charters relating to its tenements.[14] It would appear that once the route of the Vineyard was established, a series of tenements was laid out along its southern side, backing on to the monks' vineyard, from which the road derived its name. After the dissolution the abbey lands were divided up and used as pasture, arable, and orchards, and some of the abbey stone was used for a new mansion at Barton Court, part of which is still standing (SAM 219).

During the Civil War, Barton Court was attacked several times.[15] The abbey site was confiscated by Parliament, and an orchard to the north-west was used as a Nonconformist cemetery.[16] There was a ring of defences on the east side of the town, including 'Abbey-guard', and Brinkley suggests that the moat and channels to the south-east of the sites (within the Thames View Industrial Park) correspond to these documented earthworks.[17]

The railway was constructed to the south of the area under study in the 1860s. In 1922 the abbey gardens were bought by Abingdon Borough, leading to the excavation of trenches to locate the buried church and cloisters and their designation as a Scheduled Ancient Monument (SAM 218). The area to the south-east of the sites was still shown as wooded on the 1922 sale map, and on Ordnance Survey maps thereafter until 1960, at which time many of the trees had been cleared and the first factory building (the Burgess Print Works) appeared.

GENERAL DISCUSSION

There follows a summary and discussion of the archaeological results. Details of the stratigraphy and full finds and environmental reports can be found in Appendices 1 to 11 below. Evidence for activity ranging in date from the middle Bronze Age to modern times was recovered during the excavations. The discussion will consider the results from the six excavation areas by phase. The archaeological phasing was determined by a combination of stratigraphy, artefactual evidence, and spatial relationships. Seven distinct phases were identified, from prehistoric to modern.

Archaeological features dating from the middle Bronze Age through to the post-medieval period were observed, with the medieval activity being the most prevalent (Fig. 3). This often truncated features of prehistoric and Roman date, although in many cases the latter were still apparent. The stratigraphic location of some of the pottery and human remains indicates that a degree of mixing had taken place. In the areas of excavation modern intrusion was limited, with just a few pipe trenches and postholes being present.

Phase 1: Prehistoric (1800 BC–AD 43)

Evidence for prehistoric activity within the development area was limited. The small flint assemblage suggests low-level activity in the area during the Neolithic/Bronze Age. However, corresponding features of this date were limited to the series of pits located in Area A that are dated by a single sherd of middle Bronze Age pottery and overlain by Roman burials. Prehistoric activity continued into the early/middle Iron Age, with the presence of a gully in Area C and a

[12] M. R. Roberts, 'Abingdon, Abbey Grounds, children's playground', *SMidlA,* 25 (1995), p. 47.

[13] Allen, 'Abingdon, Vineyard redevelopment', pp. 76–7, n. 5.

[14] E.g., Gabrielle Lambrick and C. F. Slade, eds, *Two Cartularies of Abingdon Abbey*, OHS, 2 vols, ns 32–3 (1990–2), 1, pp. 192–3, 201; 2, p. 301.

[15] Meineke Cox, *The Story of Abingdon:* pt 3: *Peace and War, Abingdon 1556–1702* (Abingdon, 1993), p. 116.

[16] Allen, 'Abingdon, Vineyard development', p. 45.

[17] B. Brinkley, 'English Civil War fieldworks in the Thames Floodplain, Abingdon' (GCSE Archaeology Dissertation, Abingdon, 2002), p. 23.

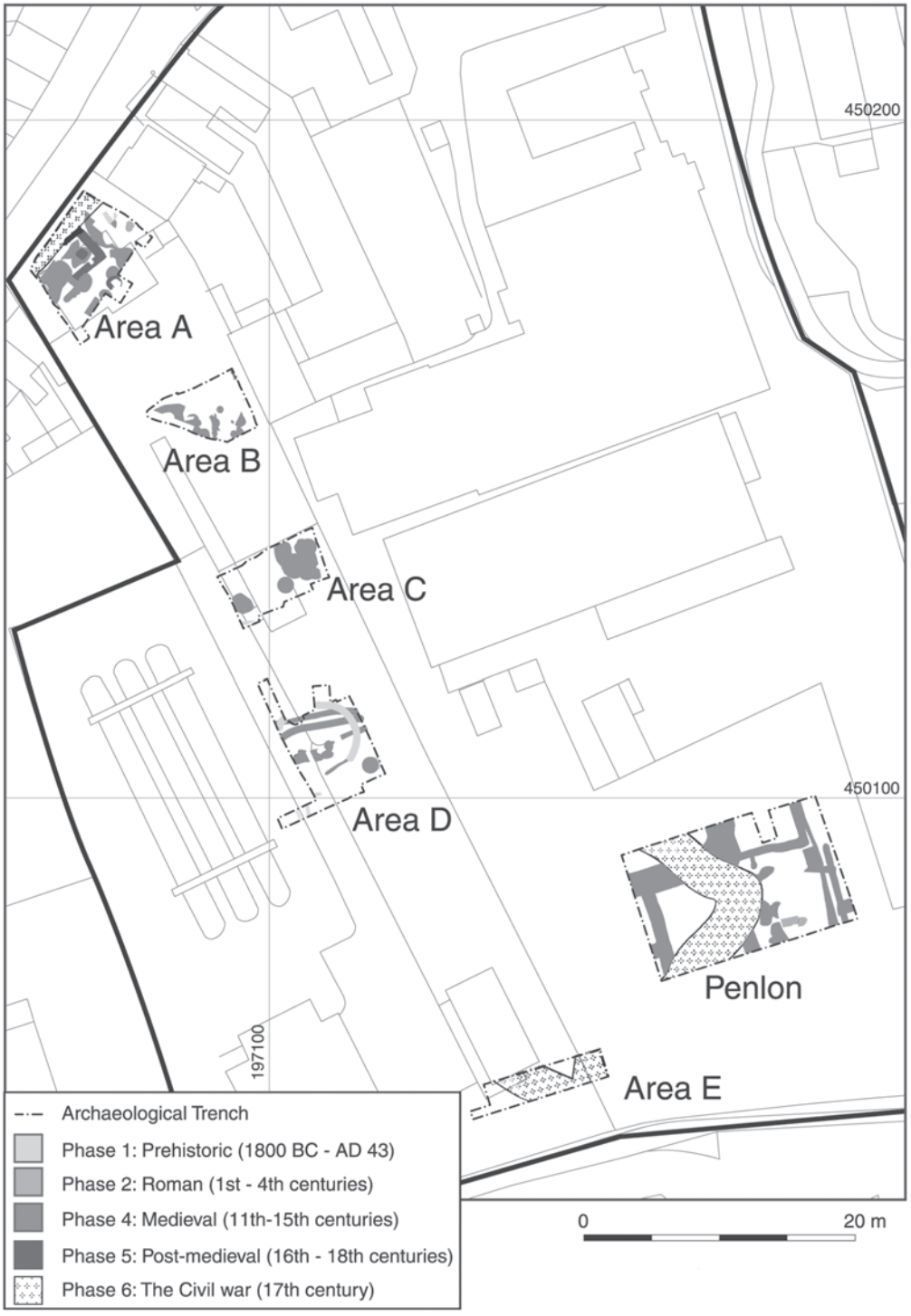

Fig 3. Phase plan of all periods

penannular ditch in Area D. The gully may be part of a field system or boundary ditch, and the penannular ditch was possibly a drainage gully surrounding the site of a roundhouse, although internal features to support this were not identified. While located in different excavation areas, the relative proximity of these features suggests they may have been associated (Fig. 2), and the pottery dates suggest contemporaneity.

The development site is located to the north of, and is therefore external to, the late Iron Age defences (Fig. 2), which may explain the limited evidence for activity at the site during this period. In comparison, more intensive Iron Age activity was seen during the excavations at the Vineyard and Abbey House to the south and west.[18] The presence of early Iron Age activity at the British Gas and Penlon sites may suggest a shift in focus towards the river between the early and late Iron Age, or could indicate that activity here was more peripheral to the core. It should be borne in mind that evidence for more intensive prehistoric activity, as seen elsewhere in Abingdon, may have been substantially truncated by the intensity of medieval activity identified at the site. However, the relatively small amount of prehistoric pottery recovered during the excavations suggests a real lack of Iron Age activity in the immediate area.

Phase 2: Roman (First to Fourth Centuries)

Apart from the small assemblages of pottery and building material, and the possible Roman ditch observed in Area D, the only evidence for Roman activity at the development site was the inhumations and assortment of disarticulated human remains recovered from Area A. The lack of more substantial remains is perhaps unsurprising, given that the core of Roman Abingdon was located further south and west. The presence of human remains and the small artefactual assemblages (and the potential 'extra-mural' location) suggest that the site may be on the edge of a Roman cemetery, possibly one associated with a small settlement. Unfortunately, due to the lack of grave goods and associated finds, a common feature of Roman cemeteries, more precise dating on this basis is not possible. However, where dated, decapitated Roman burials identified elsewhere in Oxfordshire are all late Roman, and so a similar date can be inferred for the inhumations discovered in Area A.[19] Likewise, the only Roman pottery recovered from the excavations that could be more accurately dated was middle to late Roman.

Few Roman burials have been found in this part of Abingdon. A group of four inhumations was recovered during the excavation of Area 4 of the Vineyard redevelopment, although, unlike those present at the British Gas site, these were wealthy individuals, buried in wood and lead coffins.[20] It is possible that despite their apparent difference in implied status, these two groups of burials may represent parts of a single larger cemetery. Two other cemeteries have been extensively investigated, at Barton Court Farm[21] and Radley Barrow Hills,[22] but both are at a considerable distance from Roman settlement at Abingdon.

Phase 3: Post Roman/Anglo-Saxon (Fifth to Tenth Centuries)

Substantial evidence for early Anglo-Saxon occupation has been discovered from numerous sites in the vicinity of Abingdon, with important sites at Barton Court Farm and Barrow Hills. Anglo-Saxon finds, burials, and dwellings have also been recovered previously from within the core of Abingdon, although the extent and density of settlement is not yet known.[23] The recovery of a

[18] Allen, 'Abingdon, Vineyard redevelopment', p. 73, n. 5.

[19] A. Witkin, 'The human bones' in Philippa Bradley, Bethan Charles, Alan Hardy, and Daniel Poore, 'Prehistoric and Roman activity and a Civil War ditch: excavations at the Chemistry Research Laboratory, 2–4 South Parks Road, Oxford', *Oxoniensia*, 70 (2005), pp. 183–4.

[20] Allen 'Abingdon, Vineyard redevelopment', p. 74, n. 5.

[21] Armitage and Miles, 'Archaeology at Barton Court Farm', n. 7.

[22] Chambers and McAdam, 'Excavations at Barrow Hills'.

[23] Ibid, pp. 74–5; Keevill, 'Anglo-Saxon site at Audlett Drive'; Harold Peake, *The Archaeology of Berkshire* (London, 1931), pp. 135, 172; K. Rodwell, *Historic Towns of Oxfordshire: a Survey of the New County* (Oxford, 1975), p. 33.

small amount of Anglo-Saxon pottery from the investigation area (including a single sherd from the original 1998 evaluation) is consistent with this wider pattern of activity.[24] The existence of a potential later Roman cemetery, which may still have been visible during the Anglo-Saxon period, could explain the lack of more substantial remains.

Phase 4: Medieval (Eleventh to Fifteenth Centuries)

The topographical and historical development of Abingdon in the medieval period is almost entirely bound up with that of Abingdon Abbey. The line of the Vineyard effectively defines the northern boundary of the abbey precinct, and beyond lay the open fields of the town. While the southern part of the precinct contained the church and claustral complex, the northern part was set aside for the lay cemetery, gardens, and the abbey vineyard. The exclusivity of the precinct meant that development of the settlement would radiate from the market place outside the west gate of the abbey.

The influence on the site landscape of Abingdon Abbey cannot be directly observed at the British Gas or Penlon sites, although its influence is apparent. The precinct boundary is believed to have been located just to the south of the development area[25] (on approximately the same line as the now-defunct railway), and the archaeological evidence is consistent with the setting out of a number of tenements on the strip of land between the boundary ditch and the Vineyard.

The existence of tenements along the Vineyard is documented as early as the twelfth century.[26] The terms of tenancies in Abingdon by the thirteenth century are very characteristic of urban tenancies belonging to religious houses, with money rents far exceeding work service agreements.[27] The documentary evidence does not obviously indicate elevated wealth or status of the occupants of the tenements alongside the Vineyard, except for one holding on the north side of the road, belonging to William Vaylant (Charter C257).[28]

The archaeological evidence is characteristic of domestic activity in the back plots of tenements. The main features are intercutting quarry/rubbish pits (present at the Penlon site and in each of the British Gas site areas except Area E) and ditches that are thought to be associated with tenement boundaries (Penlon site, Area D). The pits varied in size, shape, and deposition patterns, although all are generally characteristic of domestic rubbish pits. The larger pits may have started life as quarry pits, most probably for the extraction of sand or gravel, and were later utilized for rubbish disposal. The pits contained a range of finds typical of utilitarian activity, consisting of pottery and animal bone, along with a variety of other finds in smaller quantities. However, the faunal remains suggest some industrial activity in the slaughter and butchery of animals, and possibly leather-working.

The pottery, ceramic building material, and worked stone assemblages from this period suggest predominantly local sourcing and production, with many of the pottery fabrics being unique to Abingdon (see Wheeler below). The bias of the source was interesting, and very much weighted towards the south and west (Berkshire and Wiltshire), and opposed to the north and north-east (Buckinghamshire). How far this weighting of trade and influence towards the south and west was influenced by the abbey is debatable, although it is pertinent to note that the abbey's holdings were generally situated south of the river Thames, and south of Oxford.[29]

It is suggested that the rubbish pits are related to the tenement boundaries which together represent an area of medieval settlement. The alignment of the boundaries seen at the Penlon

[24] Moore and Grundon, 'Archaeological evaluation at the Penlon site', p. 5.
[25] Allen, 'Abingdon, Vineyard development', p. 44, fig. 1.
[26] Rodwell, *Historic Towns*, p. 33, n. 23.
[27] Lambrick and Slade, *Two Cartularies of Abingdon Abbey,* no. 37.
[28] Ibid., pp. 222–3.
[29] James Bond, 'The reconstruction of the medieval landscape; the estates of Abingdon Abbey', *Landscape History*, 1 (1979), figs 1 and 2, pp. 61–2.

site and in Area D (Fig. 3) does not appear to have changed over time. This suggests that the layout of the properties remained the same as might be expected from the history of the area and is reflected in the range of dates provided by the pottery. The potential area occupied by the tenements is hard to estimate as the boundaries are not seen elsewhere in the development area, although the presence of pits in other areas suggests extensive occupation throughout the site. The alignment of the tenement boundaries broadly respects the present-day line of the Vineyard and is consistent with surviving property boundaries seen in the immediate area, including the modern boundaries of the development site, suggesting a high degree of continuity through the intervening period.

A similar occupation pattern has been identified during other excavations along the Vineyard, for instance, where intercutting pits of medieval and post-medieval date were recovered at the rear of probable tenements[30] and at the West Central Redevelopment site, where pits dating to the eleventh and twelfth centuries were probably dug for gravel extraction and reused to deposit domestic refuse.[31] The evidence seen at the British Gas and Penlon sites can therefore be seen as a continuation of Abingdon's medieval settlement as witnessed elsewhere.

Phase 5: Post-medieval Activity (Sixteenth to Eighteenth Centuries)

Overall post-medieval activity at the development site is limited when compared with the abundance of medieval activity. This can be seen in both the number of features and the volume of pottery, which decreases from the fifteenth century onwards. This may suggest a partial abandonment of the area during the post-medieval period; while towns commonly suffered contraction and depopulation in this period, the demise of the abbey may have exacerbated the decline of the immediate neighbourhood. According to Roger Amyce's survey of 1554, the north end of Abingdon, including the Vineyard, was by then rural in nature, and elsewhere many houses were dilapidated and beyond repair, with small-scale industries being located in empty plots,[32] a pattern of occupation that seems to be reflected in the archaeological evidence. Certainly, by the time of the Civil War the area would have been on the outskirts of the settlement, as indicated by the presence of the defensive ditches.

The only features dated to the post-medieval period (apart from the Civil War ditches) were the rectilinear stone building and hearths located in Area A, close to and aligned with the Vineyard frontage (Fig. 5). With an approximate external width of 6 m and a length of at least 6 m, the building would have been quite substantial. The remaining masonry, which comprised three courses of roughly hewn, but well packed, limestone blocks, also suggests a degree of solidity. The masonry was robbed away during the post-medieval period, and the structure was truncated by a Civil War ditch, which suggests a relatively short lifespan. The hearths to the south appear to be external to the building and do not seem to be associated with other structures. The purpose of the structure and hearths is unclear and could potentially be domestic or industry related. A similarly robbed out stone building was observed in Area 6 during the Vineyard excavations to the west,[33] and the robbing of walls was also evident at the West Central Redevelopment site, both of which are thought to be post-medieval in date.[34] Like that at the British Gas site, the structure at the Vineyard overlay a dense arrangement of intercutting medieval pits. The function of the building was unclear.

30 Allen, 'Abingdon, Vineyard development', p. 45, n. 25.

31 Kate Brady, Alex Smith, and Granville Laws 'Excavations at Abingdon West Central Redevelopment. Iron Age, Roman, medieval and post-medieval activity in Abingdon', pp. 107–202 below.

32 Cox, *Story of Abingdon*, pp. 7–10, n. 15.

33 Allen, 'Abingdon, Vineyard development', p. 45, n. 25.

34 Allen, 'Abingdon, Vineyard redevelopment', p. 51, n. 5; Brady et al., 'Abingdon West Central Redevelopment', p. 118.

Phase 6: The Civil War

The large ditches observed at the Penlon site and in Areas A and E of the British Gas site are very probably Civil War defensive ditches. Each cuts the medieval stratigraphy and early post-medieval stratigraphy, and apart from modern intrusions are the latest features in the stratigraphic sequence. The large ditch in Area A borders the road, but seems far too substantial to be a drainage ditch, and its construction destroyed the early post-medieval stone building in the centre of the area. The short duration of the earlier post-medieval structures in Phase 5 (see above) may suggest that there was a deliberate clearance of standing structures in the vicinity of the defensive works, thus maximizing the field of fire and denying cover to attackers. Certainly the alignment of the ditches seen in two areas in the south of the site bears no relation to the apparent arrangement of tenement boundaries, supporting the idea that the earthworks were defending an area, rather than an extant layout of properties.

The right angles seen in the ditches at the Penlon site and Area E are comparable with those seen in the Civil War defences excavated at the Chemistry Research Laboratory in Oxford.[35] Contemporary maps by de Gomme[36] and Loggan[37] show the location and arrangement of the Oxford defences and may suggest a defensive arrangement on the north side of Abingdon of similar design, if not on the same scale. The ditches observed in Abingdon were not as large: for instance, just 6 m wide and 1 m deep at the Penlon site, compared with 11 m wide and 2.4 m deep at the Research Laboratory.[38] Similarly evidence for the presence of a bank on the south side of the ditch was recovered in Oxford, a feature that cannot clearly be demonstrated by the stratigraphy at Abingdon.

A single musket ball (SF 3) was recovered from the fill of the Civil War ditch at the Penlon site and is the only find that can be directly associated with the war. This meagre evidence is paralleled in the results of the excavations at the Research Laboratory in Oxford, where musket balls were the only finds with military associations.[39]

Despite the proximity of the large right-angled ditches in the Penlon site and Area E, it is by no means clear that they are part of the same defensive ditch. Their alignments are distinctly different, and while neither was fully excavated, the excavator interpreted the fills of the ditch in Area E as the result of silting, whereas the ditch in the Penlon site was judged to have been backfilled. It seems possible, therefore, that the ditches are part of two separate (or successive?) ditch sequences, perhaps one representing part of a single, isolated square earthwork serving as a gun position, and one being part of a bastion incorporated into a linear defence system.

However, it is worth pointing out that there is nothing to say that both ditches must belong to the same defence works, and, with the dramatic history of the late spring of 1644 in mind, it is not impossible that one ditch could have been part of the Royalist defences, while the other was part of the Parliamentarian defences.

Abingdon was a vital part of the Royalist defensive ring around Oxford and as such was heavily fortified by a garrison of 6,000 troops.[40] Defences on the east side of the town included the 'Abbey-guard' – which Brinkley suggests might correspond to the moats and channels seen at the Thames View Industrial Park[41] – and the 'Wayne-guard' (Vineyard),[42] which might relate to the Civil War ditches at the British Gas and Penlon sites. Unfortunately contemporary map evidence, which

35 Bradley et al., 'Prehistoric and Roman activity and a Civil War ditch', p. 149.

36 R. T. Lattey, E. J. S. Parsons, and I. G. Philip, 'A contemporary map of the defences of Oxford in 1644', *Oxoniensia*, 1 (1936), pp. 161–72; J. Munby, 'The siege of Oxford and the revolution of 1688', *Oxoniensia*, 53 (1988), pp. 346–7.

37 David Loggan, *Oxonia Illustrata* (Oxford, 1675).

38 Bradley et al., 'Prehistoric and Roman activity and a Civil War ditch', p. 161, n. 35.

39 L. Allen, 'The metalwork' in Bradley et al., 'Prehistoric and Roman activity and a Civil War ditch', p. 170.

40 H. Beamish and J. Munby, 'Tithe House, 15 Church Street, Marcham (Berkshire), historic building and archaeological assessment' (OA TS report, 2004), pp. 5–8.

41 Brinkley, 'English Civil War fieldworks', n. 17.

42 Cox, *Story of Abingdon*, p. 115, n. 15.

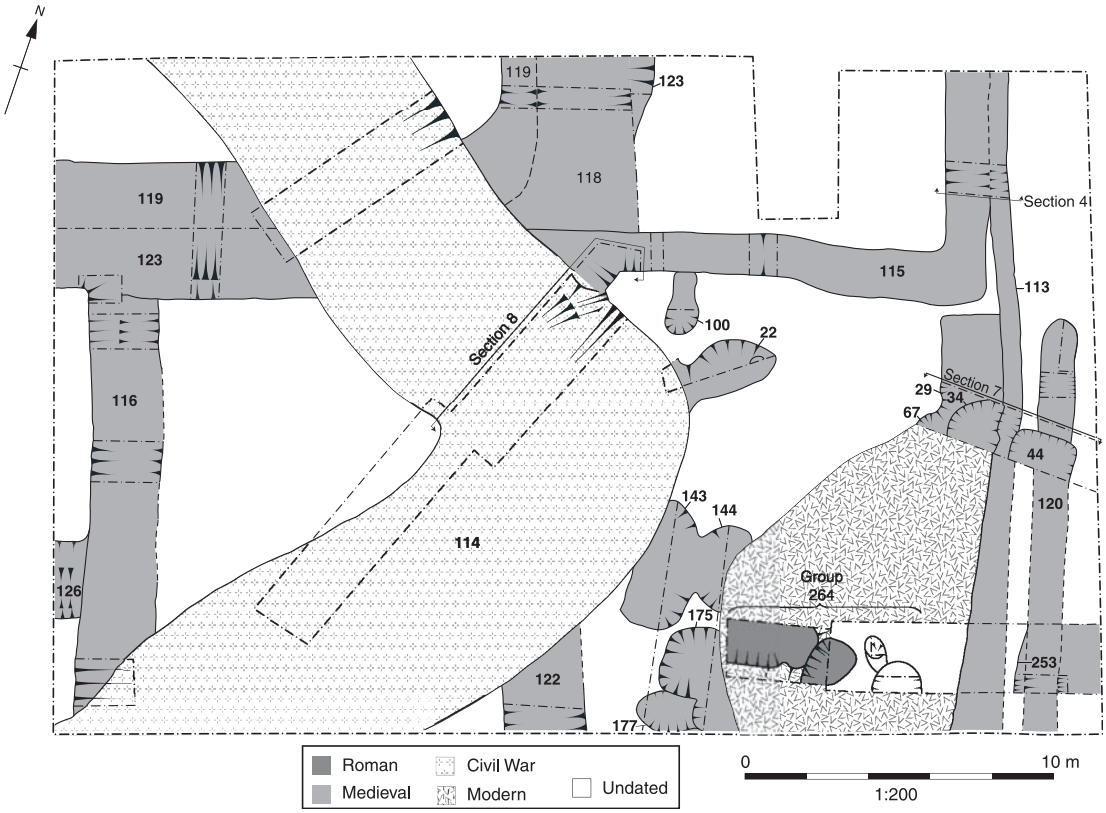

Fig. 4. Penlon site plan

might have clarified the location of the ditches, has not survived. In April 1644 the Parliamentarians marched towards Oxford from London, with only Abingdon blocking their passage. However, the garrison hurriedly withdrew, and the town was rapidly taken by the Parliamentarian army on 26 May. In retaliation the Royalist Oxford garrison attacked Abingdon on 29 May, but were driven off.[43] While it seems likely that the same defensive earthworks would have been used by both sides, given the short interlude between the two attacks (which could be taken as supporting the contention that the ditches in Area E and the Penlon site are part of the same line), it is not inconceivable that the Parliamentarian forces would have added their own hurriedly constructed earthworks to the existing ones. The defences present at the British Gas and Penlon sites may well have played an important role in the action, as the Royalist soldiers are said to have hidden overnight at Barton Court, to the east of the sites, and launched an attack from there.[44]

APPENDIX 1: ARCHAEOLOGICAL DESCRIPTION

METHODOLOGY

Following the results of the evaluation, the six discrete areas within the development site were subject to a formal programme of excavation. The areas were machine stripped under close archaeological supervision, and all exposed archaeological features were subject to full hand excavation and recording, all in accordance with standard OA

[43] Beamish and Munby, 'Tithe House', p. 6, n. 40.
[44] Cox, *Story of Abingdon*, p. 116, n. 15.

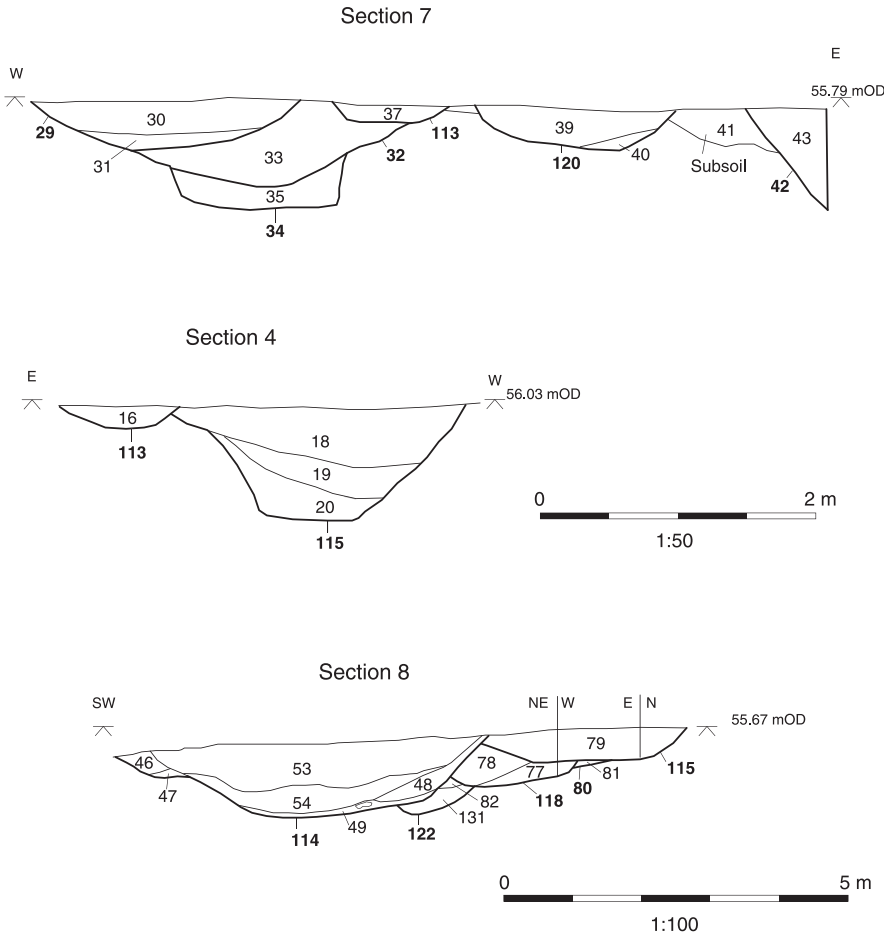

Fig. 5. Penlon sections

procedures.[45] All fieldwork was monitored by Deputy County Archaeologist Hugh Coddington of Oxfordshire County Council Archaeological Services.

RESULTS

Phase 1: Prehistoric

Area A (Fig. 6). The earliest dated feature in the development area was a single pit (633) located at the east end of Area A. The feature was circular in shape, with a flat base, and measured 2.0 m wide and 0.6 m deep. The pit contained two fills, both comprising a reddish-brown sandy silt with gravel inclusions, the nature of which suggests alluvial deposition. The upper fill contained a sherd of a middle Bronze Age quartzite-tempered urn and a single, serrated flint flake. Further pits excavated in the eastern half of Area A may be of a similar date (for example 1777, 1781, 1785, and 1788). These pits are stratigraphically cut by a Roman grave and contain similar fills to that seen in pit 633, with the addition of fine layers of alluvium in pits 1771 and 1788 (Fig. 11, section 88). The only finds recovered from these pits were a flint side scraper and a possible utilized pebble.

[45] D. Wilkinson, ed., 'OAU Field Manual' (Oxford, 1992).

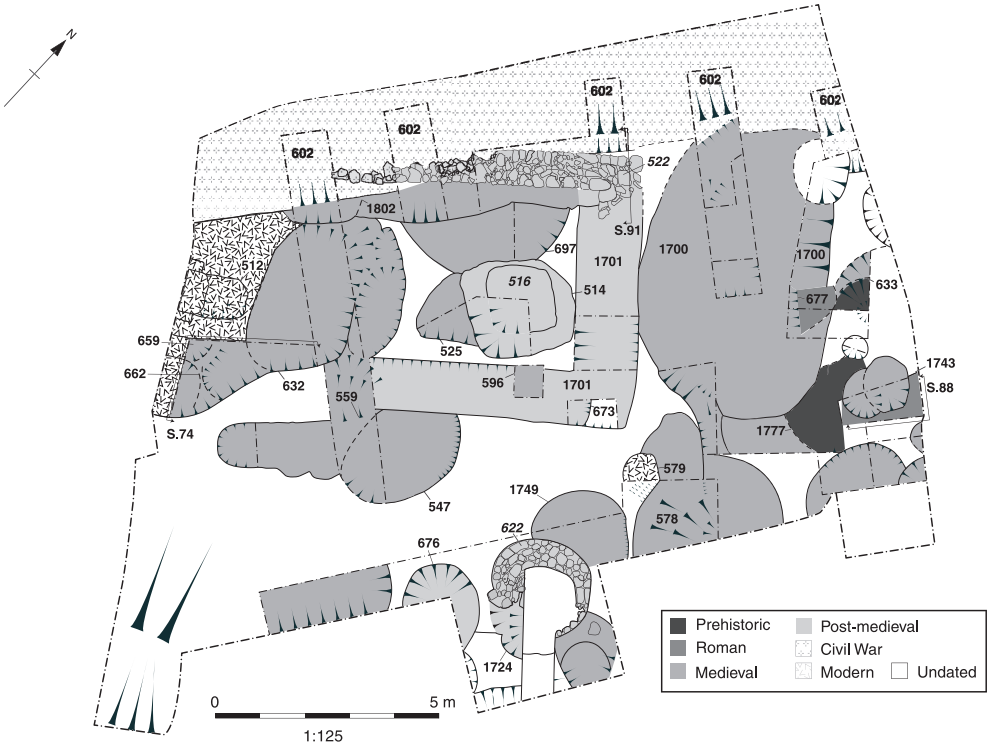

Fig. 6. British Gas site plan, Area A

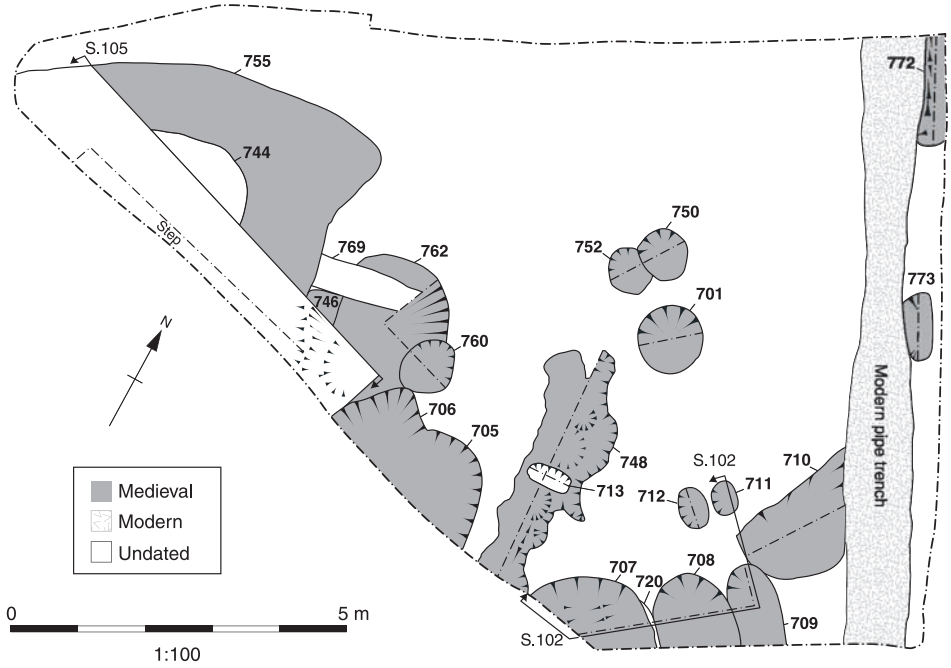

Fig. 7. British Gas site plan, Area B

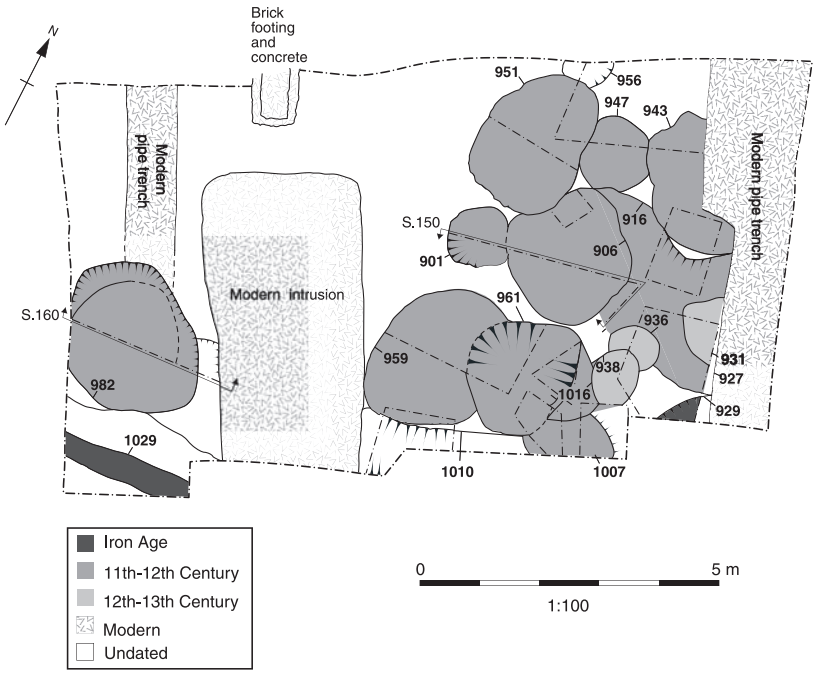

Fig. 8. British Gas site plan, Area C

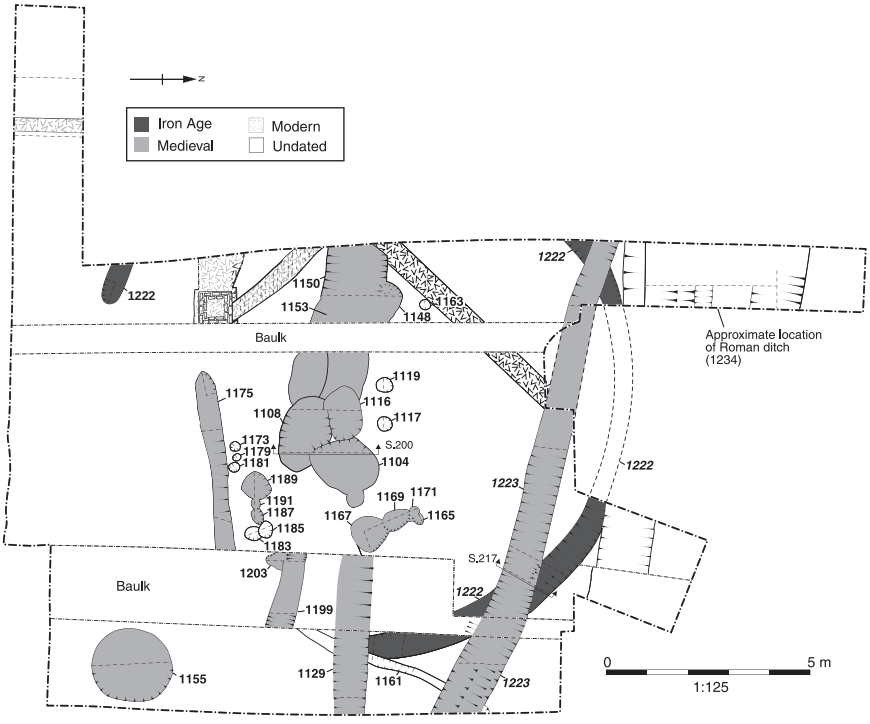

Fig. 9. British Gas site plan, Area D

Area C (Fig. 8). A length of gully (1029), orientated NE-SW, was revealed in the south-west corner. The exposed section measured approximately 2.0 m long, 1.1 m wide and 0.5 m deep. The gully had a rounded base, with a steep side on the south and a more shallow side on the north. The single fill, a mid-brown silty clay with frequent pebble inclusions, contained three sherds of shell-tempered ware pottery dated to the early Iron Age. A partially revealed and undated feature (1010) – possibly a shallow linear – was revealed to the north. It was cut by later medieval features.

Area D (Fig. 9). Sections of a curvilinear gully were exposed, representing a penannular ditch (1222). The feature was roughly circular, with an external diameter of about 13 m and a south-east facing entrance about 10 m wide. The width of the ditch varied from 0.6 m to 1.3 m, and the depth varied from 0.1 m to 0.5 m, the variation probably resulting from truncation (Fig. 11, section 217). The ditch had a concave base and sloping sides. The primary fill was mid-brown silty clay with occasional gravel inclusions, which in some areas was covered by a second fill of mid-yellowish brown silty clay with more frequent inclusions. A substantial quantity of early/middle Iron Age shell-and-sand-tempered pottery were located throughout the ditch fill, including a partially complete pot found near the eastern terminus.

A single sherd of shell-tempered pottery, from a barrel-shaped/slack-sided jar and dated to the early Iron Age, was recovered from context 326 (the fill of a possible Iron Age pit) during the evaluation at the British Gas site. No other definite Iron Age features were identified, although a scatter of residual prehistoric pottery was recovered from isolated contexts across the rest of the development area.

Phase 2: Roman

Area A (Fig. 6). Articulated inhumations were recovered from probable graves towards the eastern edge of Area A, which may represent the western edge of a cemetery, although no evidence for an associated boundary ditch was identified. The skeletons were orientated W-E and were both supine. Grave goods were not recovered, and the suggested dating is based on the stratigraphy. Skeleton 678 was recovered from a heavily truncated, steep-sided grave cut (677), about 0.25 m deep. The remains are that of an unsexed adolescent, with just the upper torso surviving. In addition, disarticulated remains were recovered from quarry pit 1700, which cuts grave 677. These also derive from an adolescent and are likely to be parts of skeleton 678, having been disturbed and redeposited during later activity. The second inhumation (skeleton 1744) was located a short distance to the south of skeleton 678. The grave cut (1743) had steep, almost vertical sides and measured approximately 1.7 m long, a maximum of 0.8 m wide, and about 0.95 m deep (Fig. 11, section 88). The skeleton was nearly complete and in excellent condition. The remains are thought to be that of an adult female, aged over 50 years.

Disarticulated remains (672) were recovered from pit 673, also in Area A; all of the bones are likely to be from the same individual, an adult female aged between 40 and 50 years. It is suggested that this deposit of bones derives from a former inhumation that was disturbed in the medieval period and reburied. In addition, small quantities of disarticulated human remains were recovered from various later features across Area A.

Area D (Fig. 9). A possible Roman ditch (1234) was identified at the northern edge of Area D. The ditch was orientated approximately W-E, had sloping sides, a flat base, and measured 2.0 m wide and 0.48 m deep. The two fills comprised a mid-brown silty clay and contained three sherds of an oxidized ware dating to the late 1st to late 2nd century AD. In addition, a NE-SW aligned sinuous gully (1161) cut the Iron Age penannular ditch (1222) and was cut by two early medieval ditches (1223 and 1129). The gully measured 0.32 m wide by 0.10 m deep, with a concave base and sides. Finds were not recovered from its single fill of dark orangey-brown clay silt, and so this potentially Roman feature remains undated.

Roman pottery (eight sherds) was recovered from isolated contexts across the development area. Half are unspecified Roman wares, and small amounts of sandy grey ware and Oxfordshire colour-coated ware (early 2nd century to late 4th century) were also present. Fragments of possible Roman ceramic building material (CBM) were also recovered. Those from the Penlon site were the sole finds in a group of pits (264) located at the south-east of the site, which may suggest the pits were Roman in origin.

Phase 3: Anglo-Saxon

Apart from twenty-three sherds of late Saxon pottery, recovered from features of later date, evidence of features relating to the Saxon period was not identified.

Phase 4: Medieval

The Penlon Site (Figs 4–5). One of the earliest groups of medieval features was a series of intercutting quarry pits (29, 34, 44, and 67) located near the eastern edge of the excavation area (Fig. 5, section 7). The pits were rectangular in shape with concave or flat bases, moderate to steep sides, and measured between 1.0 m and 3.0 m wide and 0.4 m and 0.8 m deep. A maximum of two fills was present within each pit, generally comprising a brown silt with occasional rounded pebbles and small lumps of blue clay. Numerous sherds of medieval pottery, a fragment of medieval CBM, and fragments of animal bone were recovered from the pits and provide clear dating evidence.

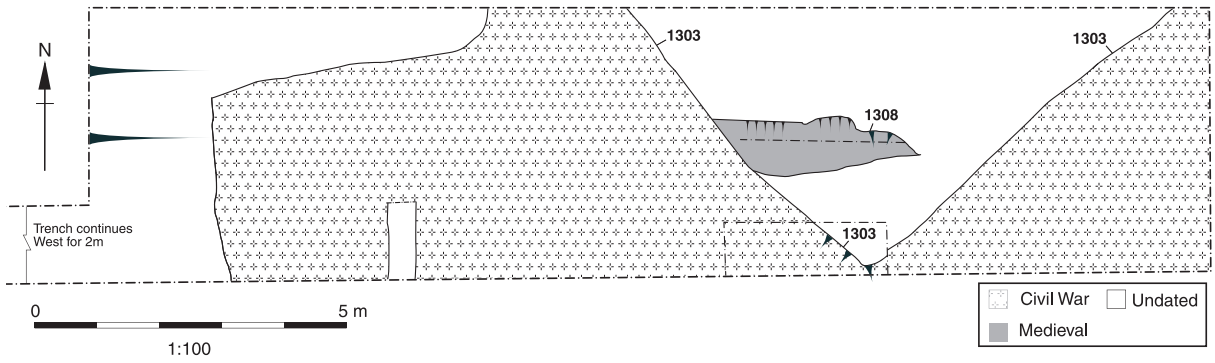

Fig. 10. British Gas site plan, Area E

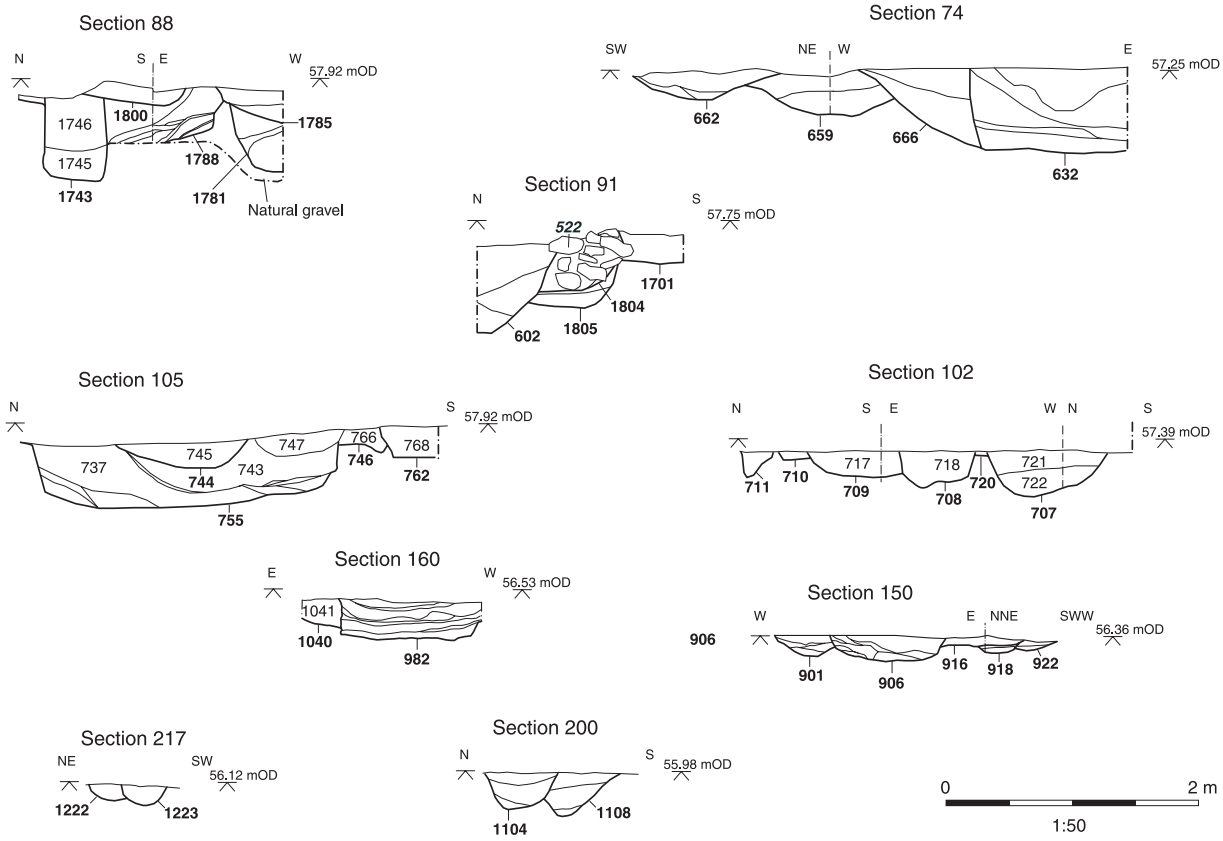

Fig. 11. British Gas site sections, areas A–E

The quarry pits were overlain by ditches 113 and 120, part of a grid-like pattern of linears (115, 116, 118, 119, 122, 123, and 126) broadly orientated NW-SE and SW-NE (Fig. 5. sections 4 and 7). The ditches had concave bases and steeply sloping sides and varied in size from 0.5 m wide and 0.1 m deep (113) to 2.34 m wide and 1.22 m deep (118). The fills were mostly silts with occasional gravel and stone inclusions. Finds included a large assemblage of medieval pottery and CBM, a copper alloy penannular ring (SF 1), numerous fragments of animal bone, and other debris. The regular spacing of the ditches suggests that they may have defined tenement boundaries, and the dates provided by the pottery suggest use throughout the medieval period.

Located within the area delineated by the ditches in the eastern half of the site was a group of irregularly shaped pits (22, 100, 143, 144, 175, and 177), many of which cut the natural gravel. The pits varied in size from between 1.0 m and 2.0 m in length and between 0.12 m and 1.2 m in depth. Most of the pits had very few fills and contained a minimal amount of finds, just three sherds of medieval pottery and twenty-one fragments of animal bone. The pits are unlike rubbish pits seen elsewhere on the site and their function is unclear. In contrast, pit 253, partly revealed in the south-east corner of the site, had ten fills, contained six sherds of medieval pottery and six fragments of animal bone, and was clearly a rubbish pit.

Area A (Fig. 6). Medieval activity in Area A was represented by numerous intercutting pits (for example, 525, 547, 578, 632, 659, 662, 666, 697, 1747, and 1749) of various sizes, most probably sand or gravel quarry pits reused for rubbish disposal (Fig. 11, section 74). The largest (1700) measured approximately 6.6 m long, 4 m wide and over 1 m deep, with its varied fills containing a large assemblage of finds, including medieval pottery, CBM, animal bone, and metalworking and craft debris. The other investigated pits produced finds of a similar date and nature.

Area B (Fig. 7). The largest feature in Area B was a possible quarry pit (755). The pit extended beyond the southern edge of the excavation area, but measured at least 3.4 m by 1.2 m and approximately 1.0 m deep (Fig. 11, section 105). It had steeply sloping sides and a flat bottom. The numerous sandy silt fills varied in colour, thickness, and proportion of gravel inclusions. Finds comprised 11th-14th-century pottery and animal bone.

The rest of the pits can be divided into two groups. The first group (705–708, 746, and 762) all extended beyond the southern edge of the excavation area and varied in depth from 0.35 m to 0.68 m (Fig. 11, section 102). The pits had concave or flat bases and steep sides, and the fills appeared to be a mix of redeposited natural gravel and soil. Finds included early and late medieval pottery and animal bone.

The second group of pits (701, 750, 752, and 760), located to the north, were smaller in size, with diameters less than 1.2 m and depths less than 0.3 m, and roughly circular in shape. Single fills of greyish-brown or reddish-brown silty sand were present and contained 13th-17th-century pottery and an ironstone ring.

A possible ditch with a rounded terminus (709) extended beyond the southern edge of the excavation area. The ditch measured 0.8 m wide and 0.42 m deep (Fig. 11, section 102). The single fill, a dark bluish-brown sandy silt with occasional gravel inclusions, contained three sherds of 14th-15th-century pottery and two fragments of animal bone. However, it should be noted that the feature was cut by pit 708 which contained earlier medieval pottery.

More irregular features (710, 748, 772, and 773) seen in the eastern half of the site possibly relate to gardens. Each was filled by a reddish-brown sandy silt and contained a small amount of early medieval pottery. Also located in the eastern half of the site were three postholes (711, 712, and 713). These were oval in shape and quite shallow (Fig. 11, section 102). Single sherds of 11th- to 13th-century pottery and intrusive 18th-century pottery were recovered.

Area C (Fig. 8). Area C was dominated by numerous intercutting early medieval rubbish pits (for example, 901, 906, 951, and 959). One of the largest (982), located in the south-west of the site, was circular in shape, with steep sides and a flat base and measured 2.28 m wide and 0.66 m deep (Fig. 11, section 160). The many fills, comprising silty deposits with occasional gravels and charcoal inclusions, contained a large amount of early medieval pottery and animal bone. Although the size, shape, and deposition pattern of the rest of the pits varied greatly (Fig. 11, section 150), the range of finds was similar throughout. In addition, late 12th- to early 15th-century pottery was recovered from pits near the top of the stratigraphic sequence (931, 936, and 938) and may suggest continuation of activity into the later medieval period.

Area D (Fig. 9). Ditch 1223, aligned WNW-ESE, traversed the northern side of the site. Its maximum recorded width was 0.94 m and maximum depth was 0.36 m (Fig. 11, section 217). The single fill, a mid-greyish-brown silty clay with occasional gravel inclusions, contained 10th-13th-century pottery and fragments of slag and animal bone. Ironwork included a strip, with a triangular cross-section (possibly from a blade) and three conjoining fragments of a possible awl (SF 350, 351, and 352).

To the south of the ditch was a spread of intercutting pits and postholes (Fig. 11, section 200). The pits ranged in size from 0.6 m wide and 0.2 m deep (1203) to 1.8 m wide and 0.8 m deep (1116). Most had flat bases, steep sides, and contained up to three fills, which varied in composition and colour, but all included occasional gravel inclusions. Finds included pottery dating from the 10th to 15th centuries and fragments of animal bone. The postholes ranged in size from 0.25 m wide and 0.06 m deep (1191) to 0.45 m wide and 0.25 m deep (1185) and contained single fills of a similar nature to those seen in the pits. A small number of finds, including 10th–11th-

century pottery and animal bone, were recovered. However, many of the pits and postholes were undated, and it is possible that some relate to an earlier phase of activity.

A series of W-E orientated ditches was identified in the eastern part of Area D (1129, 1175, and 1199). The ditches varied in shape and size and contained a single fill of brown silty clay and a small amount of 11th–13th-century pottery. The ditches probably represent boundaries.

A single, isolated rubbish pit (1155) was located in the south-east of the site. The pit was circular in shape with steep sides and measured 2.3 m at the widest point and at least 0.83 m in depth (the base was not excavated due to waterlogging). The primary fill, a yellowish-brown silt with occasional gravels, probably accumulated by natural inwash, was devoid of finds. The second and final fills were a greyish-brown silt, with occasional gravels and charcoal, and contained 13th–17th-century pottery, CBM, and animal bone. On the basis of the pottery, this feature is potentially one of the latest in Area D.

Area E (Fig. 10). The only feature present in Area E that has been assigned to the medieval phase was tree throw hole 1308. Late 12th- to early 15th-century pottery and two sherds of residual middle Iron Age pottery were recovered from the fill.

Phase 5: Post-medieval

Area A (Fig. 6). Stratigraphically later than the quarry and rubbish pits was a rectilinear, represented on the north side by wall 522 and on the east and south sides by robber trenches (1701). The construction cut on the north side (1804) had vertical sides, a flat base, and measured 6.0 m by 0.75 m and 0.6 m deep (Fig. 11, section 91). The primary fill, a mid-reddish-brown sandy silt, and the upper fill, a mid-grey sandy silt, both contained frequent gravel inclusions. The fills formed a base on to which three courses of limestone blocks were placed (522), bonded in a matrix of brownish-grey clay silt (1807). The lowest course comprised large blocks (0.5 m x 0.5 m x 0.2 m) and was overlain by smaller (0.25 m x 0.25 m x 0.15 m) roughly hewn, but well-packed, blocks.

The east and south sides of the building were represented by a robber trench (1701). The cut had steep sides, a flat base, and measured a maximum of 1.8 m wide and 0.3 m deep (Fig. 11, section 91). The fill, a brown, sandy silt with occasional gravel inclusions and fragments of limestone, contained medieval and post-medieval pottery, animal bone, and metalworking debris. The human remains and medieval pottery derived from earlier activity in the area, although the later pottery indicates that the robbing of the stone took place in the post-medieval phase.

Within the area enclosed by the structure was a hearth (516). The construction cut (514) was shallow, sub-square in shape, with an irregular base, and measured 2.25 m wide and 0.14 m deep. Fills of mid-greyish-brown sandy silts with frequent charcoal inclusions formed a layer within the cut and contained 12th- to 13th-century and 18th-century pottery, CBM, and clay pipe. Set within the layers and surrounded by limestone rubble and lime mortar were two large limestone hearth stones (0.6 m x 0.4 m) both displaying signs of burning.

Further stone hearths, stratigraphically later than the medieval features, were observed in the centre and south of the site (622 and 676). Both were circular in shape with sandy fills and limestone blocks that showed evidence of burning. A single sherd of late 12th- to early 15th-century pottery was recovered from hearth 622. A robber trench (1724) defined the partially dismantled southern half of hearth 622. The hearth fills, which exhibited evidence of burning and probably derived from material that was removed when the stones were robbed, were devoid of finds.

Phase 6: The Civil War

Penlon site (Fig. 4.2). A substantial right-angled ditch (114), probably representing part of the Abingdon Civil War defences, ran from the north-west corner of the investigation area in a south-easterly direction before turning sharply to run in a south-westerly direction beyond the south corner of the site (Fig. 4). In profile the ditch had sloping sides, a slightly concave base, and measured approximately 6 m in width and over 1 m in depth (Fig. 5, section 8). The primary fill (49) was clayey in nature and contained some organic material forming a thin layer, approximately 0.1 m thick, along the base of the ditch. The secondary fills (48 and 54) were more silty in nature and contained a small percentage of stones. These deposits were thicker than the primary fill and lined the sides of the ditch, as if they had slumped in from the banks. Both deposits are likely to have formed by natural erosion. The upper ditch fills were much thicker and paler in colour and probably represent deliberate backfilling episodes. The ditch contained 16th–18th-century pottery, iron nail fragments, a lead musket ball, and a small amount of animal bone.

Area A (Fig. 6). Further possible evidence of Abingdon's Civil War defences was seen in the form of a substantial ditch, located across the north side of Area A (602). The ditch was not fully observed or excavated, but measured at least 3 m wide and over 1 m deep (Fig. 11, section 91). The ditch was filled with greyish-brown silty clays and reddish-brown sands and contained a large assemblage of medieval and post-medieval finds, much of which is likely to derive from the quarry and rubbish pits that the ditch truncates.

Area E (Fig. 10). A substantial right-angled ditch (1303), with a recorded depth of at least 0.92 m and an unknown width, was the main feature revealed in Area E. The sides sloped quite steeply, although the base itself was not

TABLE 1. SUMMARY OF THE LATER PREHISTORIC AND ROMAN POTTERY

Fabric	Description	NRFC	Sherd count	%	Sherd weight (g.)	%
Prehistoric (Site phase 1)						
AS2	Fine/moderate sandy and shelly fabric		53	66.2	361	47.6
AS4	Moderate/coarse sandy and shelly fabric		17	21.2	232	0.6
QA4	Moderate/coarse Quartzite and sandy fabric		1	1.36	34	4.4
Roman (Site phase 2)						
F51	Oxfordshire colour-coated ware	(OXF RS)	1	1.25	3	<1
M41	Oxfordshire colour-coated mortaria	(OXF RS)	1	1.36	6	<1
O20	Sandy oxidized ware		3	3.75	82	11
R10	Fine sandy grey ware		2	2.7	12	1.6
R20	Sandy grey ware		2	2.5	28	3.6
Total			80	100	758	100

fully exposed. The ditch was filled by various silty deposits, which suggests a natural infilling process as opposed to deliberate backfilling. Finds from the ditch were sparse, with just ten pottery sherds and one piece of CBM recovered, dating from the Roman through to the medieval period, indicating the redeposition of material from earlier activity.

Phase 7: Modern

Modern activity included footings, shallow hollows, and ditches. An overburden of brick rubble and concrete sealed the archaeological features and in some cases formed a levelling deposit on to which the foundations of modern structures were built. Pipe trenches truncated features in most areas, and a small assemblage of modern pottery and CBM was recovered from contexts across the site.

APPENDIX 2: PREHISTORIC AND ROMAN POTTERY by DAN STANSBIE

A total of eighty sherds of Iron Age and Roman pottery weighing 758 g was recovered during the excavations at the British Gas and Penlon sites (Table 1). The assemblage spans the Iron Age and Roman periods, but the bulk of the material dates to the early/middle Iron Age. The average group weighs 54 g, and the average sherd weight is 9.5 g.

Methodology

The pottery was recorded using Oxford Archaeology's standard system.[46] The assemblage was sorted macroscopically into fabric groups based on surface appearance and major inclusion types. A binocular microscope at x20 magnification was employed to aid fabric identification where necessary. Where possible, fabrics have been referenced to the National Roman Fabric Collection,[47] where fuller descriptions are given. Each fabric was recorded by weight, sherd number, and estimated vessel equivalents (EVEs, where relevant) for every excavated context and the data entered into an Access Database. Vessel forms were also classified using the Oxford Archaeology system.

Later Prehistoric to Roman Pottery

The earliest material in the assemblage comprises a single sherd of quartzite-tempered urn (QA4), of uncertain form but probably of middle Bronze Age date from the fill of pit 633 (Area A). The early/middle Iron Age assemblage was dominated by material in a fine/moderate shelly and sandy fabric (AS2); fifty-two body sherds in this fabric were deposited in the fills of pit 325 (British Gas site evaluation) and penannular gully 1222 (Area D). The fill of pit 1220 (Area D) also produced a rim sherd from a barrel-shaped/slack-sided jar in the same fabric. In addition, the fill of pit 325 (British Gas site evaluation) produced a rim sherd from another barrel-shaped/slack-sided jar in a moderate/coarse shelly and sandy fabric (AS4), and the fill of pit 1220 (Area D) contained a further sixteen body sherds in the same fabric. The Roman assemblage includes a single sherd of Oxfordshire colour-coated *mortaria* (M41) from the fill of pit 1805 (Area A), a sherd of Oxfordshire colour-coated ware (F51) from the fill of pit 1218

[46] P. Booth, *Oxford Archaeology Roman Pottery Recording System: an Introduction* (Oxford, 2004).
[47] R. Tomber and J. Dore, *The National Roman Fabric Reference Collection: a Handbook* (London, 1998).

(Area D), both dating to later than AD 240, two sherds of sandy grey ware (R20) from the fills of pits 706 (Area B) and 1152 (Area D), three sherds of sandy oxidized ware (O20) from the fill of ditch 1234 (Area D), and two sherds of fine grey ware (R10) from the fills of pit 578 (Area A).

Discussion

Pottery supply appears to have been entirely local throughout the later prehistoric and Roman periods, and the forms of the rim sherds from the early/middle Iron Age phase are standard. With an average sherd weight of 9.5 g, the condition of the pottery is generally poor, and the surfaces of individual sherds are fairly abraded, particularly amongst the prehistoric material. The size of the assemblage is too small to provide any information on social status, or consumption patterns of pottery.

APPENDIX 3: MEDIEVAL POTTERY by CAROLE WHEELER

The post-Roman pottery assemblage comprised 1,578 sherds with a total weight of 21,558 g. The estimated vessel equivalent (EVE) by summation of surviving rim sherd circumference was 10.08. The bulk of the sherds date from the 11th–13th /14th centuries, with under 5 per cent (by number) dating to later than the 17th century, and only twelve Roman residual sherds appearing in medieval contexts. This assemblage is unusually well preserved, producing four near-complete vessels from medieval contexts.

Analytical Methodology

The sherds were recorded and analysed according to standard practice. The form types used are those set out in the Medieval Pottery Research Group Guidelines, and the statistical analyses conformed to the guidelines set for pottery analysis by Orton.[48]

Fabric Recording

The majority of the fabrics correspond to types commonly found in Oxfordshire and were recorded using the coding system and chronology of the Oxfordshire county type series.[49] The following fabrics were identified:

OXR	St Neot's ware-type. 10th–11th c. 63 sherds, 581 g. EVE = 0.45.
OXB	Late Saxon Oxford Ware. 10th–mid-11th c. 3 sherds. 18 g. EVE = 0.09.
OXBB?	Minety-type Ware. Early 13th c.–*c.*1540. 1 sherd, 31 g.
OXAC	Early Medieval West Oxfordshire Ware. 10th–mid 13th c., 100 sherds, 1,616 g. EVE = 0.33.
OXBF	Early Medieval South-West Oxfordshire ware. Mid-11th–early 13th c. 51 sherds, 933 g. EVE = 0.73.
OXY	Early Medieval Oxford Ware. Mid-11th–13th c. 142 sherds, 2,310 g. EVE = 1.28.
OXAG	Ashampstead ware. Mid-11th–13th c. 302 sherds, 4,219 g. EVE = 2.03.
ABA	Ashampstead-type. Mid-11th–13th c. 7 sherds, 100 g.
OXAW	Early Brill/Boarstall ware. Late 12th–mid-14th c. 30 sherds, 620 g. EVE = 0.48.
OXAM	Late Brill/Boarstall ware. 13th–15th c. 207 sherds, 3,163 g. EVE = 0.65.
OXAP	Late Brill/Boarstall Proto-stoneware. Mid-13th–16th/17th c. 1 sherd, 11 g.
OXAQ	Late Medieval East Wiltshire ware. Late 12th–early 15th c. 189 sherds, 2,671 g. EVE = 1.62.
OXBX	Late Brill/Boarstall ware. 13th–16th c. 2 sherds, 25 g.
OXBK	Northampton-type Shelly Ware. Late 12th–13th c. 1 sherd, 12 g.
OXBG/BN	Surrey Border Ware. 1500–1700. 17 sherds, 151 g.
REW	Post-medieval Redwares. 16th c.+. 15 sherds, 382 g. EVE = 0.45.
OXCE	Tin-glazed earthenware. 17th c. +. 12 sherds, 28 g.
WALL-type	Wallingford-type fabrics – III.18. No dated contexts as yet. 22 sherds, 281 g. EVE = 0.33.

In addition, eight new Abingdon fabrics were identified and are prefixed AB:

AB1	Rounded limestone and quartz tempered. Soapy texture. Wheel thrown. 1 sherd, 7 g.
AB2	Quartz tempered. Abundant sub-angular glassy and iron-stained quartz. Occasional clay grains. Black in fracture. Probable date 11th–13th c.? 11 sherds, 81 g. EVE = 0.10.

[48] 'A Guide to the classification of medieval ceramic forms', Medieval Pottery Research Group, Occasional Paper (1998); 'Minimum standards for the processing, recording, analysis and publication of post-Roman ceramics', Medieval Pottery Research Group, Occasional Paper 2 (2001); Clive Orton, *Pottery in Archaeology* (Cambridge, 1993), pp. 37–109.

[49] Maureen Mellor, 'Oxfordshire pottery. A synthesis of middle and late Saxon, medieval and early post-medieval pottery in the Oxford region', *Oxoniensia*, 59 (1994), pp. 17–217.

AB3	Moderate white sub-rounded, ill-sorted quartz, with limestone flakes and white flint. Coil-made. Part of same dispersed East Wilts/Savernake tradition. Late 12th-early 15th c.? 95 sherds, 1,392 g. EVE = 0.33.
AB4	Sub-round abundant glassy quartz grains. Black surface, mica dusted. Possible Continental Blackware import. 11th–13th c.? 2 sherds, 13 g.
AB5	Abundantly tempered with irregular limestone, sub-rounded glassy quartz with black-and-white flint. Handmade tradition. 11th/12th c.? 99 sherds, 1,297 g. EVE = 0.38.
AB6	Ill-sorted, sub-rounded white water-washed quartz. Hackerly in fracture. Distinctive pulled-across grains on outer surface of sherd, as though something has torn the surface of the clay. Fabric matrix is very like an early OXAG – 11th/12th c.? 33 sherds, 208 g.
AB7	Abundant sub-angular, ill-sorted quartz, sub-angular voids. Hard fired. Wheel thrown. Possible regional import? 14 sherds, 232 g.
AB8	Abundant sub-round, water-washed white and iron-stained quartz. The decorated sherds have white slip beneath apple-green glaze, typical of OXAG tradition – but the iron-stained grains make it likely to be a copy. 11th–13th c.? 2 sherds, 38 g.

The new Abingdon fabrics, recognized by Parrington and Balkwill[50] and amended by Bown,[51] and their association with the dispersed industries of the south and south-west are discussed fully in the Abingdon Cinema report.[52] The relationship of AB3 and AB5 to the East Wilts/Savernake Forest (OXBF/OXAQ) and the undoubted association of AB6, AB7, and AB8 with the Ashampstead-type tradition (OXAG/ABA) warrants further investigation. Overall, 55.4 per cent of the sherds (57.9 per cent weight) originate from the south (OXAG/ABA, AB 6, 7, and 8) and south-west (OXBF, OXAQ, AB3, and 5) dispersed fabric traditions, as against 24.1 per cent sherds (28.4 per cent weight) from the north Oxford/Buckinghamshire kilns (OXY, OXAW, OXAM, OXAP, OXBX). The importance of the south/south-west producers to medieval Abingdon again confirms the trading bias already noted on other sites south of Oxford.[53] Whether medieval supply was governed by monastic influence or control is the subject of current debate.[54]

Chronology

There is no established dating for Abingdon medieval pottery, and publications to date have been based on the well-known Oxford dating sequences, whilst recognizing that Abingdon belonged to a different distribution area that could change the earliest and latest dates for wares. The dating here, shown in Table 2, must still be broadly based on the Oxford chronology, but the more Abingdon sites that are published, the more exact a dating criteria can be achieved.

TABLE 2. CERAMIC PHASING: POTTERY OCCURRENCE PER PHASE BY NUMBER AND WEIGHT OF SHERDS, PLUS EVE

Site phase	Ceramic phase	Date	Number of sherds	Weight. of sherds (g)	EVE
3	LS (Late Saxon)	10th–11th	23	152	0.25
	1a	11thM–E13th	338	4448	2.19
	1b	12thL–E13th	168	2618	1.40
4	2	12thL–E15th	374	5587	2.42
	3	13th–14th	368	5905	2.56
	4	14thL–L15th	138	1132	0.71
5/6	5	16th–17th	95	666	–
	6	17th–18th	44	738	0.50
7	7	18th+	30	282	0.05

(N.B. eight sherds could not be allocated a date range)

[50] M. Parrington and C. Balkwill, 'Excavations at Broad Street, Abingdon', *Oxoniensia*, 40 (1975), pp. 5–58.

[51] L. Bown, 'Abingdon Vineyard area 1 and 6. Medieval pottery' (TS report for T. Allen, 'Abingdon Vineyard [in preparation], 2001).

[52] C. Wheeler, 'The medieval and post-medieval pottery', in Brady et al., 'Abingdon West Central redevelopment', pp. 151–2 below.

[53] C. Underwood-Keevill, 'Excavation of a medieval frontage at Friar Street, Reading', in S. Preston, ed., *Reading and Windsor, Old and New* (Reading, 2005), p. 26; P. Page, Kate Atherton, Alan Hardy, and Anne Dodd, *Barentin's Manor: Excavations of the Moated Manor at Harding's Field, Chalgrove, Oxfordshire 1976–9* (Oxford, 2005), p. 170; Maureen Mellor, 'Early Saxon, medieval and post-medieval pottery', in T. Allen et al., 'A medieval grange of Abingdon Abbey, Dean Court Farm, Cumnor, Oxon.', *Oxoniensia*, 64 (1994), pp. 325–57.

[54] C. Gerrard, 'Excavation of a medieval frontage at Friar Street, Reading', in Preston, ed., *Reading and Windsor*, p. 183.

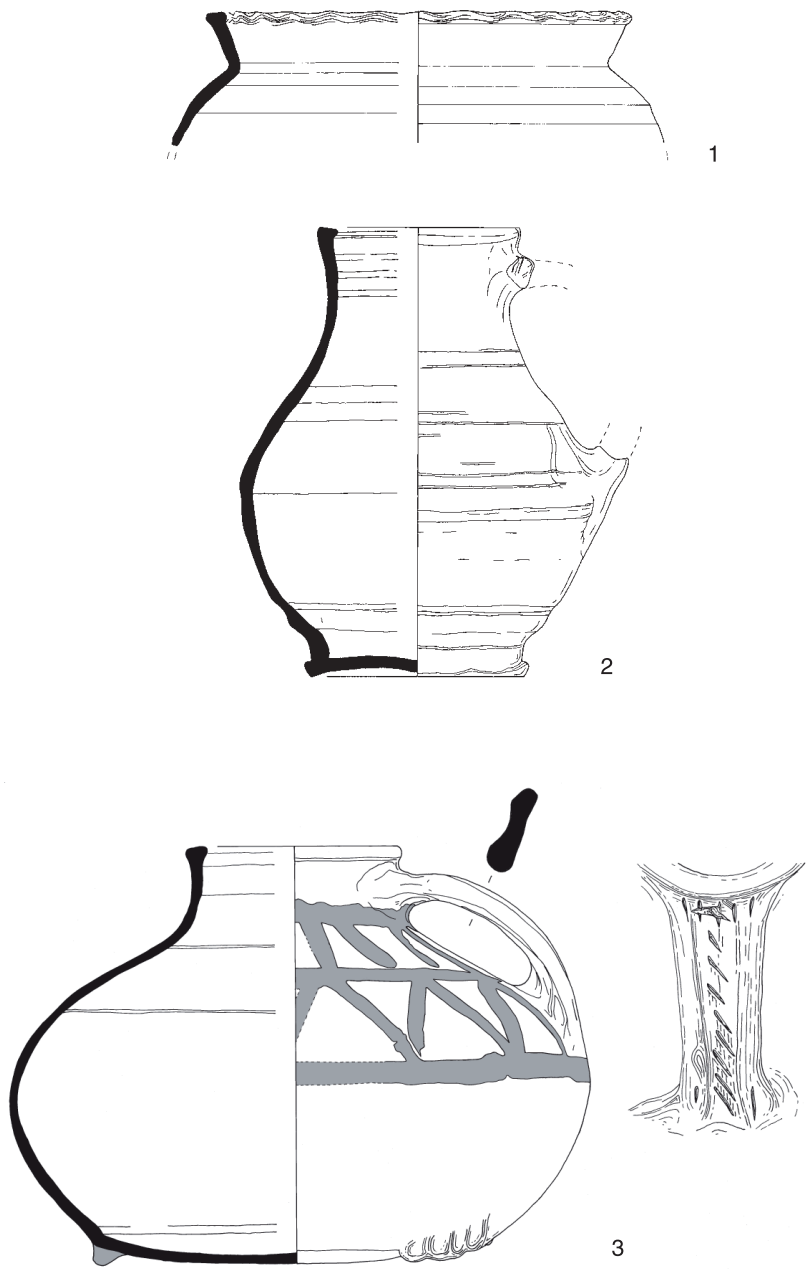

Fig. 12. Medieval pottery, 1

Outside the small but definite presence of the late Saxon (OXR) wares, the vast majority fall within the mid-11th–14th/early 15th centuries (79 per cent by number and 86 per cent by weight), with the post-medieval to modern period accounting for only 10 per cent by number (8 per cent by weight).

The level of residuality is low across the medieval periods. The 11th–13th-century fabrics still appearing in ceramic phases 6 and 7 (OXR, OXY, OXAG) are from plough soil or Civil War ditch deposits.

Vessel Types

Jars, dishes, and jugs represent the usual domestic wares in a medieval urban assemblage. Jars and dishes dominate to the late 12th century, when the proportion of jugs increases rapidly. Overall, this assemblage suggests domestic occupation by those of modest status, with cooking and storage vessels outweighing finer tablewares.

Discussion by Site Area

Penlon site. The fills from three of the intercutting quarry pits (29, 32, and 34) contained mostly East Wilts/Savernake-type fabrics (Fig. 12.1). The intercutting ditches overlying the quarry pits (113 and 118) produced 11th–13th/14th century pottery and, of particular note, a near-complete Brill/Boarstall biconical jug (Fig. 12.2). Both form and glaze suggest a date slightly after mid-13th century.[55] A similar OXAM biconical jug was recovered during the evaluation. From this same context came a late 12th/early 13th-century OXAG Ashampstead ware squat jug (Fig. 12.3). Ditches (115, 120, 122, 123, and 126) all contain a similar mix of fabric types associated with the late 12th to 14th centuries.

List of Illustrations

Fig. 12.1 OXAQ jar rim – thumbed (30).
Fig. 12.2 OXAM Brill/Boarstall biconical jug, stabbed rod handle, mottle-brown glaze (113).
Fig. 12.2 OXAG Ashampstead 'squat' jug, slashed strap handle, white slip chevron and olive-green glaze. Convex base 'thumbed' out at intervals to create 'feet' (117).

Area A. This area is characterized by a number of intercutting pits, some of which are quarry pits. In the largest (1700), the sherds date from the 13th–early 15th century. The quarry pit assemblages stand out comprising large sherds of contemporary date – *c.* 13th century – suggesting they are primary discard deposits. The vessel forms include cooking and tablewares (Fig. 13).

List of Illustrations

Fig. 13.1 AB3 jar rim (613).

Area B. Again pits predominate. Pit group 2 (701, 752, 750) produced pottery with a date range of 12th-14th centuries. The largest feature was again a quarry pit (755), which produced large sherds of 13th-century pottery and included parts of individual vessels, suggesting a typical medieval rubbish pit (Fig. 13.2).[56]

List of Illustrations

Fig. 13.2 OXAQ jar rim, incised wavy line decoration (742).

Area C. The numerous intercutting pits date from the mid-11th–early 13th century, through to the early 15th century. The largest pit (982) produced three large shallow dishes and a jar (Fig. 13.3). Jars and dishes predominate.

List of Illustrations

Fig. 13.3 ?Henley/Chalgrove ?IB32-type large shallow dish (1033).

Area D. Ditch (1223) contained late Saxon OXR (10th–11th century) and the slightly later OXAC fabrics that extend into the 13th century. Over 40 per cent (twenty-six sherds) of the late Saxon recovered pottery came from this area. The series of intercutting pits dated uniformly from the 11th to 13th centuries. The single exception was an isolated rubbish pit (1155) to the south-east of the site, where the secondary fill produced a wider range of vessel forms and is likely to date from the late 14th to 15th century, or slightly later.

Area E. The twelve sherds from this area were small and abraded, emanating from the tree throw hole (1308) below the Civil War ditch, and probably dating from the late 12th to 14th century.

55 Mellor, 'Oxfordshire pottery', p. 127, n. 39.

56 V. Buteaux and R. Jackson, 'Rethinking the 'Rubbish Pit' in medieval Worcester', in S. Roskams, ed., *Interpreting Stratigraphy: Site Evaluation, Recording Procedures and Stratigraphic Analysis*, BAR IS (2000), p. 193.

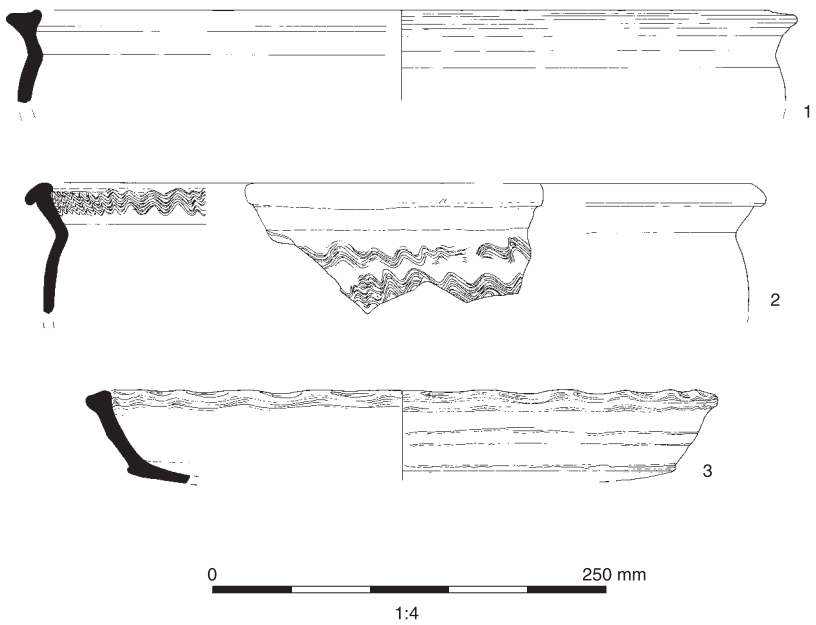

Fig. 13. Medieval pottery, 2

APPENDIX 4: FLINT by KATE CRAMP

A total of sixteen struck flints was recovered from twelve contexts during excavations at the British Gas site (Table 3). A single flint, consisting of a broken fabricator made on a reused flake, was recovered from the adjacent Penlon site (pit fill 197).

TABLE 3. STRUCK FLINT BY TYPE

	Area and context												
Excavation area			A			B			C		D		
Category	530	614	635	692	1786	763	915	968	976	999	1208	1211	Total
Flake		1		1		3	1	1		1		1	9
Blade-like flake	1					1							2
Irregular waste				1					1				2
End scraper											1		1
Side scraper					1								1
Serrated flake			1										1
Total	1	1	1	2	1	4	1	1	1	1	1	1	16
Number of burnt struck flints						1							1
Number of broken struck flints						2	1	1		1			5

The flintwork, which is mostly uncorticated and in a fresh condition, was thinly spread across the site, with few contexts producing more than one piece. No chronologically diagnostic types are present in the collection, and the flintwork cannot be closely dated on technological grounds. Some of the flakes may be Neolithic or Bronze Age; other pieces, such as the end scraper on a blade, may be earlier. The fabricator from the Penlon site probably dates to the Neolithic or Bronze Age, although the reused blank may be considerably older.

APPENDIX 5: WORKED STONE by RUTH SHAFFREY

The six pieces of worked stone comprise two whetstones, three probable quern fragments, and one item of indeterminate function. The querns include a fragment of upper rotary quern of Niedermendig Lava (SF 51, context 563, Area A) and two worked fragments of a gritty glauconitic sandstone. Lava was brought to Britain in large quantities during the medieval period,[57] although this fragment could equally well be residual from Roman activity on the site, as it bears no datable features. The sandstone is a type of Lower Greensand found at Culham approximately 12 km away. Culham Greensand was commonly used in this area during the Iron Age for saddle querns (for example, at Berinsfield Mount Farm and Appleford).[58] Indeed, at Gravelly Guy, some 15 km to the north-west of Abingdon, Culham Greensand accounted for a third of the early Iron Age and almost half of the middle Iron Age saddle querns on site.[59] A number of Culham Greensand saddle querns have also been found during previous excavations in Abingdon,[60] and it seems most likely that the two pieces from pit 559 in Area A are residual fragments of an Iron Age saddle quern.

TABLE 4. WORKED STONE

Description	Area	Context	Phase
SF. 1. Well used central fragment of elongate Norwegian Rag whetstone with sub-rectangular cross-section	British Gas site evaluation	Pit 112 (fill 113)	Medieval; probably 13th–14th century
SF. 2. Central fragment of elongate Norwegian Rag whetstone with irregular cross-section and with long deep grooves suggesting use as a point sharpener	British Gas site evaluation	Pit 112 (fill 115)	Medieval; probably 13th–14th century
SF. 51. Edge fragment of thin Lava upper rotary quern	A	563 (unknown)	Possibly late medieval to post-medieval
Two small fragments of Culham Greensand with worked surfaces: probably from saddle querns	A	Pit 559 (fill 560)	Probably residual Iron Age
Ring of ironstone. Natural but cut into a slice and possibly intended for use as a spindle whorl. Measures 25 mm diameter with central hole of 8–10 mm	B	Pit 760 (fill 761)	Undated but probably medieval or post-medieval

Whetstones of Norwegian Rag (Fig. 14, SF1 and SF2), a common medieval whetstone material, were recovered from pit 112 (contexts 113 and 115, British Gas site evaluation), while a small ring of ironstone (Fig. 14, ctx 761) was found in another pit (760, Area B). The ring has been cut from a naturally occurring tube of ironstone. Its function is not immediately obvious as it does not bear the marks of any wear consistent with being suspended or used in any way. Both the overall size of the ring and the diameter of its hole are appropriate for use as a spindle whorl;[61] it may be that the intention was to turn it into one, but that it was never completed. If so, the irregular but fairly wide hole (up to 10 mm) would suggest that it was fashioned during the Saxon or medieval periods.[62]

The worked stone assemblage from the British Gas site, comprising querns, whetstones, and a possible spindle whorl blank, is representative of simple domestic activity and fits well with what is known of stone use in the immediate vicinity. Locally available materials, such as the Lower Culham Greensand, were exploited during the prehistoric period, and imported materials, such as Lava and Norwegian Rag, appear during later phases.

57 D. L. Farmer, 'Millstones for medieval manors', *Agricultural History Review*, 40(1992), p. 97.

58 F. Roe, 'The worked stone', in A. Barclay and G. Lambrick, 'Report on Berinsfield Mount Farm' (in preparation); S. W. Browne, 'Querns', in J. Hinchcliffe and R. Thomas, 'Archaeological investigations at Appleford', *Oxoniensia*, 45(1980), pp. 81–3.

59 P. Bradley, F. Roe, and G. A. Wait 'Stone', in George Lambrick and T. G. Allen, *Gravelly Guy, Stanton Harcourt, Oxfordshire: the Development of a Prehistoric and Romano-British Community,* Thames Valley Landscape Monograph 21 (Oxford, 2004), p. 342.

60 F. Roe, 'The worked stone', in J. Muir and M. R. Roberts, eds, *Excavations at Wyndyke Furlong, Abingdon, Oxfordshire, 1994*, Thames Valley Landscape Monograph 12 (Oxford, 1999), p. 44.

61 L. Brown, 'Objects of stone', in Barry Cunliffe, *Danebury, an Iron Age Hillfort in Hampshire*', 2: *The Excavations 1969–78: the Finds*, CBA Research Report (London, 1984), p. 423.

62 P. Walton Rogers, *Textile Production at 16–22 Coppergate. The Archaeology of York,* 17: *Fascicule 11* (York, 1997), p. 1731.

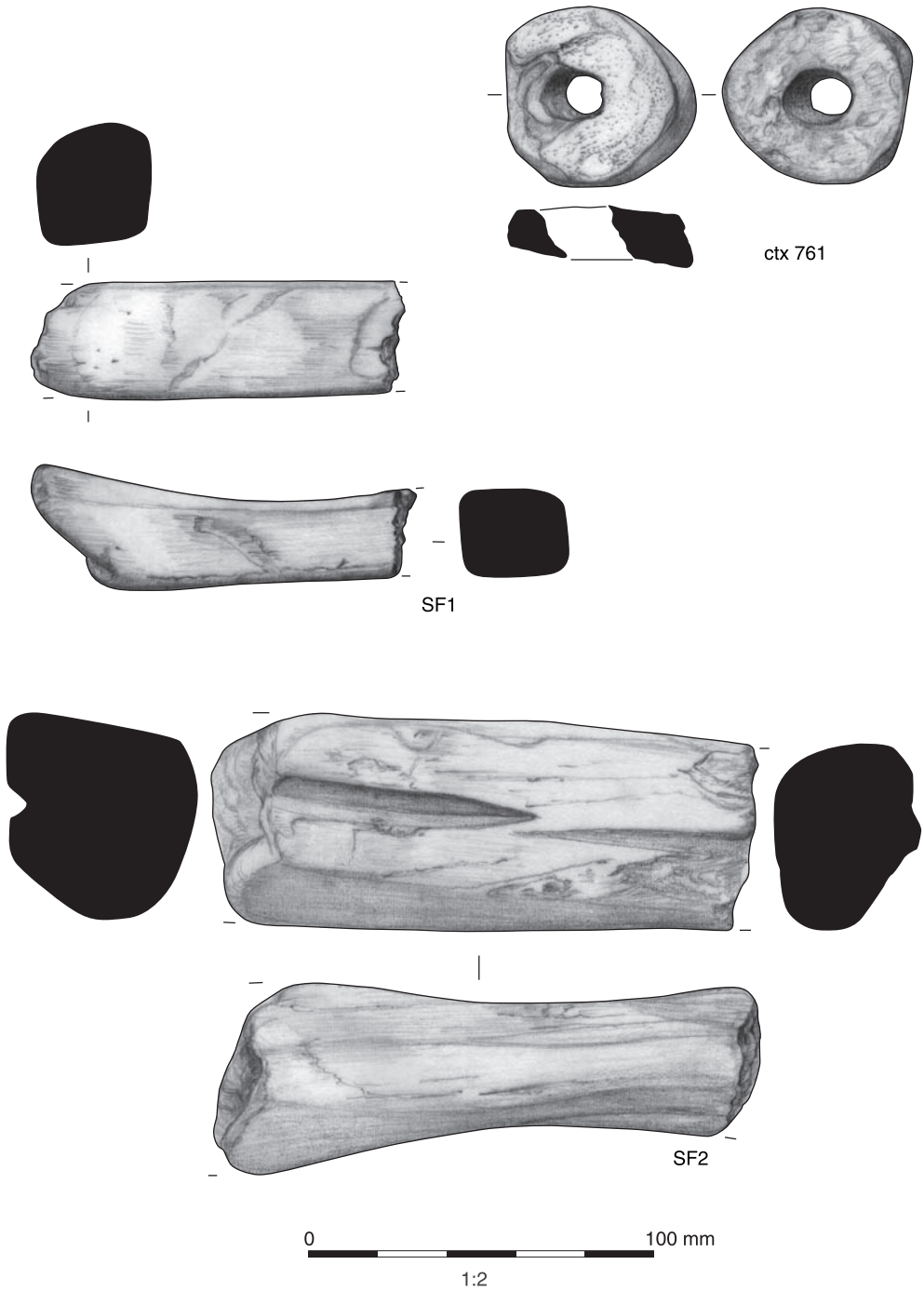

Fig. 14. Worked stone

APPENDIX 6: CLAY TOBACCO PIPES by ANDREW NORTON

The excavation produced eight fragments of clay tobacco pipe stems and one bowl, recovered from post-medieval and modern dumped deposits. All fragments were examined for evidence of markings, decoration, and name stamps. The bowl, from context 647 in Area A, was incomplete, spurred, and appeared comparable with a London type 22G or 23G (1730–80 or 1760–1800).[63] The initials I and S were stamped on the spur. Although the date ranges given are for London types, it can be assumed that examples from Abingdon will have been made at a similar time.

APPENDIX 7: CERAMIC BUILDING MATERIAL by JOHN COTTER

A total of eighty-two fragments (5,630 g) of building material was recovered. Only twelve fragments are Roman, although they comprise nearly half the weight (2,685 g) of the whole assemblage. The small and fairly worn fragments mainly consist of roofing tiles (tegula and imbrex) in an oxidized fabric. Some tegula fragments have surviving upright flanges, and one corner fragment has a cutaway to anchor it more securely to its neighbours (context 64, Penlon site). There is one piece of Roman brick (context 188, Penlon site) and two possible pieces of box flue (hypocaust) tile (contexts 608 and 640, Area A).

The bulk of the assemblage (sixty-eight sherds, 2,904 g) is medieval or later. This material is also fragmentary, though perhaps less worn. Roof tiles, some with evidence of circular nail-holes, predominate, and medieval examples were identified. Many have a distinctively coarse sandy fabric with very coarse cream-coloured and reddish-brown inclusions (probably marl and iron-rich clay pellets), as well as cream-coloured marl streaking. The undersides are coarsely quartz gritted, and the upper surfaces are sometimes patchily glazed with a greenish-brown lead glaze. They are generally oxidized orange-brown with a grey core and are quite thick (around 15 mm). These are probably of relatively local manufacture and date to the 13th–16th centuries. Later roof tiles are also present. Rarer types include possible medieval ridge-tile fragments and a plain, brown-glazed medieval floor-tile fragment (context 39, Penlon site). A few fragments of mostly late post-medieval brick and a piece of 19th-century stoneware drainpipe were also recovered.

The non-ceramic items comprise a small, neatly finished piece of slate, probably from the corner of a Victorian school writing-slate (context 515, Area A) and a small, shapeless lump, possibly a piece of fired daub (Roman or later) or part of an Anglo-Saxon doughnut-shaped loom weight (context 185, Penlon site).

APPENDIX 8: METALWORK by LEIGH ALLEN

A total of forty-one metal objects was recovered from the British Gas and Penlon sites and X-rayed in order to aid identification. A small number of objects are unidentifiable miscellaneous fragments of sheet and strip and are not reported on here. The remaining assemblage of identifiable objects comprises four copper alloy objects, twenty-seven iron objects (including nineteen nails), and one lead object. Items from the following functional categories have been identified: personal objects, lock furniture, horse-gear, and tools and structural objects (including nails). The bulk of the assemblage was recovered from Civil War ditch fills, with only a small number of objects deriving from medieval contexts.

Medieval

The earliest feature on the site to produce metal finds was ditch 1223 (Area D). Three conjoining fragments (SF 350, 351, and 352) of iron from fill 1196 form a long rod (251 mm long) with a variable cross section, circular at the centre and rectangular at the ends (the tips of the rod are missing). Fill 1208 produced a short section from an undiagnostic blade. Personal items were recovered from ditches 112 (British Gas site evaluation) and 120 (Penlon site). An oval buckle frame from ditch 112 (fill 117) has an ornate outside edge and a rectangular sheet-metal plate that is wrapped around the bar. This basic form of buckle frame was a long-lasting fashion from the late 12th to the late 14th century.[64] A plain penannular ring (SF 1), possibly a simple finger ring,[65] was recovered from ditch 120 (context 39, Penlon site). An iron key (SF 55) was recovered from quarry pit 697 (context 699, Area A). The bow and bit are incomplete, and the stem extends beyond the bit. This key is late medieval/post-medieval in date.[66] Nails were recovered from across the development area.

[63] Adrian Oswald, *Clay Pipes for the Archaeologist*, BAR 14 (1975), p. 41, figs 4G.22, 4G.23.

[64] Geoff Egan and Frances Pritchard, *Medieval Finds from Excavations in London: Dress Accessories c.1150–1450* (London, 1991), pp. 76–8.

[65] D. Hinton, 'Metal finger rings', in M. Biddle, *Object and Economy in Medieval Winchester* (Oxford, 1990), pp. 648–52, fig. 175, no. 2071.

[66] I. H. Goodall, 'Locks and Keys', in Biddle, *Object and Economy*, p. 1007.

Post-medieval

The majority of the identifiable post-medieval objects were recovered from the substantial Civil War ditch (602) running across the north side of Area A. Buckle SF 53 from fill 679 has an oval frame and would originally have had an offset narrow bar (now missing). The extant ends of the bar protrude from the frame.[67] The remains of a scale-tang knife (SF 52) were also recovered from this context, although only a short section of the blade survives, and the scales are missing. A rectangular buckle plate (SF 50) was recovered from fill 523; the plate is decorated with a double line of opposed punched triangles around the edge, and there are five holes through the plate.[68] A musket ball (SF 3) was recovered from ditch 114 (the Civil War ditch at the Penlon site). The ball has a diameter of 16 mm and weighs 33 g. Other objects recovered from post-medieval contexts include a fragment from a horseshoe and a horseshoe nail from context 6 (ploughsoil identified at the Penlon site) and a bone-handled knife from context 501 (garden soil, Area A). The horseshoe fragment is from the end of the arm and has no visible nail holes. The bone-handled knife has only a short section of the blade surviving. The handle is plain and cylindrical, expanding slightly towards the rounded butt-end.[69] Nails were recovered from contexts 6, 48, and 569.

APPENDIX 9: OTHER FINDS by DAN STANSBIE

Glass

A total of eight fragments of glass, weighing 83 g, was recovered. The material was rapidly scanned and comprised miscellaneous fragments of post-medieval window and vessel glass.

Shell

A total of fifty shells, weighing 896 g, was recovered. The material was rapidly scanned and included forty-nine oyster shells (894 g) and one snail shell (2 g).

Slag

A total of thirty-two fragments of slag, weighing 2504 g, was recovered. The material was rapidly scanned and comprised miscellaneous fragments of slag.

APPENDIX 10: HUMAN BONE by SHARON CLOUGH

Area A revealed three burials and a quantity of disarticulated material from eight contexts. Also included in this report is disarticulated material recovered from the evaluation. The burials have been tentatively dated to the Roman period and the disarticulated human bone is considered to have been redeposited in medieval and post-medieval contexts. The human remains were analysed using standard OA procedures, which comply with the guidelines for the recording of human remains set out by the British Association for Biological Anthropology and Osteoarchaeology (BABAO) and the Institute of Field Archaeologists.[70]

Articulated Skeletons

Skeleton 672 was recovered from a small medieval pit (673, Area A) in a disarticulated state. It is likely that the bones had been redeposited as a result of disturbance of an earlier grave. The skeletal elements were those of an adult and only single elements were represented. This deposit, therefore, is considered as a single burial. The skeleton was 50 per cent complete, and the bone was in good condition. There was a green stain on the posterior aspect of the scapula, suggesting a copper alloy object had lain there in the grave with the individual. This individual was an older adult female (40–50 years), whose estimated stature was 1.55 m (5 ft 1 in.). There were no indications of pathology, but the retention of a suture on the frontal bone (metopism), a non-metric trait, was noted.

Skeleton 678 was orientated W-E (head to east) in a grave (677, Area A) truncated on two sides by medieval features. The skeleton was found lying in a supine position, and as a result of the truncation was 40 per cent complete (upper torso only). The bone was in excellent condition. The skull and upper vertebrae were absent, although the area for the head was undisturbed. This suggests a possible decapitation burial, which is consistent with the presumed Roman date for the burial,[71] although there was no osteological evidence to support this; not all of the cervical

67 Egan and Pritchard, *Medieval Finds*, n. 64, pp. 68–70, fig. 42.

68 Ibid., pp. 110–15, fig. 72.

69 D. Hinton, 'Handles', in Biddle, *Object and Economy*, pp. 864–8, fig. 261, no. 2913.

70 M. Brickley and J. McKinley, 'Guidelines to the standards for recording of human remains', Institute of Field Archaeologists Paper 7 (2004).

71 R. Philpott, *Burial Practices in Roman Britain*, BAR 291 (1991), pp. 77–89.

vertebrae had survived, and those that were present (fifth, sixth, and seventh cervical vertebrae) did not display any cut marks. This individual was a 12- to 14-year-old adolescent. There were small indentations on the bodies of three thoracic vertebrae, which have been interpreted as Schmorl's nodes, a spinal condition that may be activity related and is extremely common in skeletal remains.

Pit 1700 (Area A), which truncated grave 677, contained several disarticulated human bones. Two of the deposits (614 and 640) contained sub-adult bones, which have been aged 12–14 years. It is very likely that these bones are part of skeleton 678, which were reinterred in the pit after the burial disturbance.

Skeleton 1744 was orientated W–E in a sub-rectangular grave. This individual was in a supine, extended position, with one arm bent at the elbow across the chest and the other extended away from the body, the head turned to the south. There was a green stain near the right ear, indicating a copper alloy object had lain here, most likely an earring. The skeleton was 90 per cent complete, and the bone was in an excellent condition. This individual was over 50 years, and a female approximately 1.61 m (5ft 3 in.) in stature. The nasal bone was 26 mm in length, which is much longer than average, and would have been a prominent feature. This individual was diagnosed with multiple-joint osteoarthritis, which involved the hands, right clavicle, and the spine. Schmorl's nodes were present on thoracic vertebrae, and several joints exhibited new bone growth around their margins (osteophytes). Details of these changes are presented in the catalogue.

Disarticulated Bone

Disarticulated human bone in Area A came from several features (643, 654, 1700, 1701, and 1819) that were located in close proximity to the burials. Although the features are later than the burials, the bones themselves are considered to have been redeposited from truncated burials, either those previously mentioned or others of similar date which had been entirely destroyed.

It is estimated that at least seven individuals are represented by this material. However, as previously mentioned, some of the human bones from pit 1700 were those of a sub-adult aged 12–14 years. Given the close proximity of these bones to skeleton 678, a sub-adult of the same age, it is very likely they are from this individual. This reduces the minimum number of individuals to five.

In addition, disarticulated bone was found in deposit 103 during the evaluation and represents a minimum number of two individuals (two right femurs).

Skeletal Catalogue

Skeleton No.	*672*
Age	40–50 years
Sex	Female
Preservation	50%, good
Dentition	N/A
Stature	1.55 m (5' 1")
Non-metric traits	Retention of metopic suture. Green stain posterior R scapula.

Skeleton No.	*678*
Age	12–14 years
Sex	N/A
Preservation	40%, excellent
Dentition	N/A
Stature	N/A
Pathology summary	Schmorl's nodes, T7–9

Skeleton No.	*1744*																
Age	50+ years	R															L
Sex	Female	–	–	–	–	–	–	x	x	x	x	–	–	–	–	–	
Preservation	90%, excellent	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8
Dentition		8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8
Stature	1.61 m (5'3")	c	c		/												x

APPENDIX 11: ANIMAL BONE by LENA STRID

The animal bones were analysed according to published guides and the OA reference collection. The analysed assemblage consisted of 917 refitted fragments from securely dated contexts. A total of 314 (34.4 per cent) could be determined to species, including cattle, sheep/goat, pig, horse, fallow deer, dog, cat, mole, fowl, and goose. In addition, a single red-deer bone was recovered from an undated context. Indeterminable fragments comprising bird and mammal bones were also recovered. The bones are in a fairly good condition, apart from a little burning and some gnawing from carnivores and rodents.

TABLE 5. SUMMARY OF ANIMAL BONE BY PERIOD AND SPECIES

Period	LIA		ROM		MED		PMED		Total	
Quantity	Count	(g.)	Count	(g.)	Count	(g.)	Count	(g.)	Count	(g.)
Cattle			1	9	88	5040	9	407	98	5456
Sheep/goat	1	14	1	7	88	980	9	132	99	1133
Sheep					12	208			12	208
Goat					1	18			1	18
Pig					42	774	3	44	45	818
Horse					9	1209	1	7	10	1216
Fallow deer					1	119			1	119
Roe deer					1	3			1	3
Dog					10	69	4	45	14	114
Cat					2	10	2	3	4	13
Mole					1	0			1	0
Fowl					20	32	2	7	22	39
Goose					5	16			5	16
Indeterminate bird					10	14			10	14
Medium mammal			5	14	159	625	9	36	173	675
Large mammal	4	70	1	11	139	2222	10	145	154	2448
Indeterminate	1	1			235	433	31	76	267	510
Total	6	85	8	41	823	11772	80	902	917	12800

Late Iron Age and Roman Assemblages

The bone assemblages from the late Iron Age and Roman phases are very small; and not untypically principally comprised cattle and sheep, although gnaw marks on a sheep/goat scapula in the early Iron Age assemblage indicate the presence of dog. Due to the small assemblage size, no further information can be gained.

Medieval and Post-medieval Assemblages

The medieval and the post-medieval assemblages were very similar in their composition. Sheep/goat dominated, both when using NISP (number of fragments per species) and MNI (minimum number of individuals). Goat was rare, being found only in the medieval assemblage. The scarcity of goat is consistent with most other sites from these periods. Cattle, sheep/goat, and pig bones from most body parts were present in the assemblages, which would suggest that these species were slaughtered as well as butchered and eaten in the area.

Cattle were mainly slaughtered as adults, and, to a lesser extent, as calves. The sheep/goat slaughter pattern in the early medieval period focused on 2- to 4-year-old animals. In the medieval and post-medieval assemblages no slaughter patterns can be discerned for sheep/goat. Pigs were slaughtered as immature or sub-adults, that is younger than 2.5 years. These slaughter patterns are consistent with sites of a similar character. The focus on adult cattle correlates to the importance of cattle for secondary products such as traction and dairying. The slaughtering of calves may be linked to dairy production. The predominance of rather young sheep/goats is not unusual for the early medieval period, when wool production had not yet reached the dominance of the later periods. The focus on immature and sub-adult pigs is hardly unexpected, as pigs have only one value: their meat. When they reach their full size, at the age of 2, it makes little sense to let them live longer, except as breeding stock.

The small amount of horse, deer, dog, and cat bones and the presence of fowl and goose in the assemblages is consistent with other low-status urban sites from these periods.

Butchery marks on sheep/goat, cattle, and pig indicate dismemberment, marrow extraction, and skinning (cattle), suggesting that the animals were processed for consumption and leather-working. Butchery marks on the horse suggest marrow extraction and skinning, and it is also likely that the cat had been skinned.

APPENDIX 12: ENVIRONMENTAL REMAINS by DENISE DRUCE

A total of five samples was analysed, four from medieval ditch and pit fills and one from the fill of a Civil War ditch. The methodology followed standard procedures, the details of which can be seen in the archive report. The charred plant remains are given as actual counts, the waterlogged remains and other matrix components are given as a scale (<5 items =1, 5–25=2, 25–50=3, 50–100=4, and >100 items =5).

TABLE 6. CHARRED AND WATERLOGGED PLANT REMAINS

	Phase	4	4	4	4	6
	Period	11th–15th c.	11th–15th c.	11th–15th c.	11th–15th c.	17th c.
	Area	Penlon	C	C	D	Penlon
	Sample	3	50	51	53	4
	Context	60	1033	1038	1126	49
	Feature type	Ditch	Pit	Pit	Ditch	Ditch
	Feature number	57	982	982	1125	7
	Sample size (litres)	10	20	40	40	10
Charred Cereal Grain						
Triticum sp.	Wheat	262	20	72	71	
Triticum aestivum	Bread wheat	934	856	>1000	625	
Hordeum vulgare	Barley undiff.	100	9	21	63	
Secale cereal	Rye	32	1		12	
Avena sp.	Oats	28		4	29	
Cerealia indet.	Indeterminate grains	>1000	364	>1000	550	
Total Cereal Grain		>1000	>1000	>1000	>1000	
Cerealia indet. Fragment . <1/4 grain		>100	>100	>1000	>1000	
Charred Cereal Chaff						
Triticum spelta	Spelt wheat glume base				3	
Hordeum vulgare	Barley rachis	34		7		
Secale cereale	Rye rachis	12		1		
Triticum aestivum rachis	Bread wheat rachis	32	5			
Culm nodes		46	9	5	4	
Glume bases/fragments		150	37	74	7	
Rachis frag. Indet		4	1	1		
Total Chaff		278	52	88	14	
Awn frags (spiral)				3	2	
Stem fragment			26	8		
Detached embryos		6		2	2	
Other Charred Edibles						
Pisum cf	Garden Pea	8		2		
Vica Faba	Broad bean	2		1		
Pisum/Vicia Faba	Pea/bean				1	
Prunus domestica ssp. *Insititia*	Bullace/Damson			6		
Prunus domestica ssp. *Insititia frags.*	Bullace/Damson			19		
Sambucus nigra	Elder	6	2	11		
Charred Weed Seeds						
Ranunculus repens	Creeping Buttercup	10	2			
Chenopodium album	Fat-hen	38	13	18	10	
Atriplex sp.	Oraches	1				
Caryophyllacae	Pinks		1			
Agrostemma githago	Corncockle	8		2		

Stellaria media	Common Chickweed	2			
Centaurea nigra	Common Knapweed		7	2	
Centaurea sp.	Knapweeds	2	2	1	1
Caltha palustris	Marsh Marigold		1		
Polygonum undiff	Knotgrasses	2		1	
Polygonum lapathifolium	Pale Persicaria			2	
Polygonum aviculare	Knotgrass	6			
Rumex obtusifolius	Broad-leaved Dock	>100	12	24	2
Rumex acetosa	Common Sorrel	14	17	6	1
Rumex acetosella	Sheep's Sorrel	8	16	9	
Hypericum	St. John's Wort	3	2	4	1
Malva	Mallows	4			
Viola	Violets		1		
Brassica sp.	Cabbages	12	1	2	2
Prunus spinosa	Blackthorn			1	
Fabaceae *Vica/Lathyrus*	Peas	198	12	50	49
Fabaceae *Melilotus*-type	Melilots		7	11	
Fabaceae *Trifolium*-type	Clovers		1		
Apiaceae	Carrot family		2		
Torilis japonica	Upright Hedge-parsley	2		4	
Lapsana communis	Nipplewort	1		1	
Lycopus europaeus	Gypsywort		2		
Plantago media	Hoary Plantain	2			
Galium aparine	Cleavers	18		3	
Anthemis cotula	Stinking Chamomile	15		1	4
Chrysanthemum segetum	Corn Marigold		3		2
Cirsium sp.	Thistle	6	1		
Carex trigonous	Sedges- three sided	2	30	13	
Carex lenticular	Sedges- two sided		26	10	
Isolepis	Club-rushes		2		
Eleocharis palustrus	Common Spike-rush	1	8	1	
Scirpus sp.	Wood Club-rush			1	
Poaceae <2mm.	Grass family	2	1		
Poaceae 2–4mm.	Grass family	12	14	6	4
Poaceae >4mm.	Grass family	34	6	12	64
Bromus spp.	Bromes	6	6		16
Indet CPR		10	9	9	1
Unknown CPR		4	1	1	1
Total Charred Weed Seeds		>500	208	206	158

Waterlogged Weed Seeds*

Ranunculus repens-type	Creeping Buttercup	2
Ranunculus sceleratus	Celery-leaved Buttercup	4
Urtica dioica	Common Nettle	3
Chenopodium album	Fat-hen	2
Stellaria media	Common Chickweed	1
Polygonum aviculare	Knotgrass	2
Rumex obtusifolius	Broad-leaved Dock	1
Viola sp.	Violets	1
Trifolium sp.	Clovers	1
Euphorbia helioscopia	Sun Spurge	1
Apium sp.	Marshworts	1
Cirsium sp.	Thistles	2
Conium maculatum	Hemlock	1
Sonchus asper	Prickly Sow-thistle	2
Daucus carota ssp. *carota* c.f.	Wild Carrot	2
Hyoscyamus niger	Henbane	1
Verbena officinalis	Vervain	1
Galeopsis tetrahit	Common Hemp-nettle	1
Stachys sp.	Woundworts	1
Lamium sp.	Dead-nettles	1

Plantago major	Greater Plantain					1
Crepis sp.	Hawk's-beards					2
Other*						
Papaver	Poppy capsule lid	1				
Fabaceae seed pod frag.	Pea family	1		1	1	
Corylus fragments	Hazel				2	
Charcoal >2mm		5	5	5	5	2
Charcoal<2mm		3	5	5	5	
Wood frag.					5	5
Mammal bone		1	1	2	2	
Calcined mammal bone		1		1		
Fish bone		1		1	1	
Fish scales		1				
Burnt fish bone				1		
Industrial waste					1	
Cinder/Clinker		1	1	4	2	
Coal		1	1	1	2	

NB. Figures given are actual counts except * where numbers are scored on a scale of 1–5 where 1=<5 items, 2=5–25, 3=25–50, 4=50–100, and 5=>100 items

Phase 4: Medieval

Penlon site ditch 57 (60) sample 3. Sample 3 contained extremely abundant cereal grains, but was even richer in cereal chaff remains and charred weed seeds, and this assemblage may represent both fully processed grain and cereal processing waste. The assemblage was dominated by wheat/bread wheat, with lesser amounts of barley, rye, and oat grains; the sample also contained several broad beans and possibly cultivated peas. The abundant weed seed assemblage was dominated by the ubiquitous plants of cultivated or waste/rough ground.

Area C pit 982 (1033) sample 50 and (1038) sample 51. Both samples contained very abundant cereal grains and charred weed seeds, and although both samples contained cereal chaff, this was better represented in the lower fill (sample 51, 1038). The cereal assemblages in both samples were dominated by wheat/bread wheat with lesser amounts of barley, rye, and oat. The last two especially were limited and may represent casual invaders of the main wheat crop or originate from background domestic debris. The cereal chaff in both samples included limited barley, rye, and bread wheat rachis internodes.

Both samples also contained abundant charred weed seeds typical of cultivated or waste/rough ground. Sample 51 also contained very abundant, small leguminous seeds and several larger varieties resembling broad bean (*Vicia Faba*) and a possible cultivated pea (without an intact hilum, the identification of the latter must remain tentative). Given the low numbers, it is difficult to say for certain to what extent legumes were being consumed at the site. However, peas and beans are known to have formed part of the staple diet by the medieval period,[72] and documentary evidence indicates that they were commonly imported into medieval towns, or even cultivated on a small scale in garden plots.[73]

In addition, sample 51 (1038) contained numerous bullace/damson (*Prunus domestica* spp. *insititia*) and elderberry (*Sambucus nigra*) fruit stones, which suggest that home-grown and wild-gathered fruit was also being consumed at the site.

Numerous seeds of wet ground taxa, including creeping buttercup (*Ranunculus repens*), marsh marigold (*Caltha palustris*), rushes (*Isolepis* and *Eleocharis palustris*), and sedges (*Carex*), were present in sample 50 (1033). These may represent plants harvested along with the crop, which were perhaps growing near the field boundaries, or, alternatively, represent the burnt waste material from another activity, such as ditch/ground clearance. That the assemblage is possibly made up of the waste generated from several domestic activities is suggested by the relatively wide range of plant remains (cereals, peas/beans, and fruit).

Area D ditch 1125 (1126) sample 53. This sample contained abundant cereal grains and charred weed seeds, but contained very limited cereal chaff. Many of the cereal grains (>500) were very distorted and glassy, suggesting they had undergone firing at very high temperatures. Over 600 grains were positively identified as wheat (*Triticum* sp.), nearly all of which were tentatively identified as the free-threshing bread wheat (*Triticum aestivum*) variety. The sample also contained fairly abundant barley undifferentiated (*Hordeum vulgare*) grains, and a number of oat

[72] J. Greig, 'Archaeobotanical and historical records compared – a new look at the taphonomy of edible and other useful plants from the 11th to the 18th centuries A.D', *Circaea*, 12 (1996), pp. 211–47.

[73] F. Green, 'The archaeological and documentary evidence for plants from the medieval period in England', in Willem van Zeist and W. A. Casparie, eds, *Plants and Ancient Man: Studies in Palaeoethnobotany* (Rotterdam and Boston, MA., 1984), pp. 99–114.

(*Avena* sp.) and rye (*Secale cereale*) grains; thus the assemblage appears to contain the four major cereal staples common to medieval cereal production in Britain.[74] Although it is difficult to distinguish the cultivated variety of oat (*Avena sativa*) from the wild variety (*Avena fatua*), given that oat is regarded as part of the staple diet by the medieval period, the grains are likely to be the cultivated variety. The numerous larger than 4 mm grass (Poaceae) seeds may also be oat grains, although these were too distorted to be able to identify to type with any certainty.

The sample contained very limited cereal chaff, including unidentifiable glume/rachis fragments, culm nodes, and several spelt wheat (*Triticum spelta*) glume bases. This implies an absence of crop processing. Not commonly found on medieval sites (although its occurrence is not impossible), the last could be residual, given that the sample also contained residual Roman pot.

The abundant charred weed seeds in sample 53 were dominated by large grass seeds (possibly oat) and legumes (*Vicia/Lathyrus*), likely to represent crop weeds harvested along with the cereal crop; known nitrogen fixers, legumes are often associated with exhausted and over-cultivated soils.

Phase 6: The Civil War

Penlon site ditch 7 (49) sample 4. The analysis of the waterlogged plant remains content of the sample from this feature provided information on the environmental conditions both within and surrounding the ditch during its initial infilling. Perhaps unsurprisingly the waterlogged seed assemblage was dominated by plants associated with wet conditions, such as creeping/celery-leaved buttercup (*Ranunculus repens*-type/*sceleratus*), hemlock (*Conium maculatum*), and marshworts (*Apium* sp.), which are likely to represent plants growing in the damp conditions of the ditch itself. In addition, common nettle (*Urtica dioica*), fat-hen, knotgrass (*Polygonum aviculare*), prickly sow-thistle (*Sonchus asper*), and hawk's-beards (*Crepis* sp.) were also abundant, and although many of these latter plants are also associated with cultivated land, the presence of key indicator species, such as henbane (*Hyoscyamus niger*) and vervain (*Verbena officinalis*), suggests that conditions surrounding the ditch primarily consisted of nitrogen-rich open waste/rough ground. Although no seeds of trees or shrubs were present, abundant wood fragments indicate that some woody species may have been growing adjacent to the ditch.

Discussion and Conclusion

The charred plant remains indicate that, in keeping with many medieval urban and rural sites in Britain, the main food staples were being utilized. The dominant cereal represented was bread wheat, but barley, oat, and rye were also being grown, perhaps as minor crops.

The available documentary evidence for the medieval agrarian system in Britain suggests that cereal production was likely to be confined to the suburbs of urban areas. Thus cereals would have arrived on the site in a more or less fully processed state. It is quite possible that any final stages of sieving and sorting would have created the cereal chaff and crop weed seeds present in the samples. The more abundant cereal chaff and charred weed seeds within the Civil War ditch fill at the Penlon site may indicate that processing was taking place nearby.

ACKNOWLEDGEMENTS

The fieldwork, analysis, and publication were entirely funded by KingsOak Thames Valley, and their generosity and cooperation are greatly appreciated. The constructive roles played in the project by both Hugh Coddington of OCC Archaeological Services and Rob Bourn of CgMs Consulting were critical to the project's success.

The author would also like to express her gratitude to the following specialists for their contributions: Alistair Barclay (prehistoric pottery), Paul Blinkhorn (medieval pottery), Angela Boyle, Peter Hacking, and Annsofie Witkin (human bone), Emma-Jayne Evans (animal bone), Fran Claxton, Ruth Pelling, and Elizabeth Stafford (mollusc and charred plant remains). The fieldwork was managed by Ken Welsh, and the post-excavation analysis was managed by Alan Hardy and Alex Smith. The site illustrations were by Helen Boyd and Sarah Lucas and the pottery illustrations by Frances Chaloner. The text was edited by Anne Dodd and Alan Hardy.

The site archives from the British Gas and Penlon sites are to be deposited in the Oxfordshire County Council Museums Resource Centre under the following site reference codes and museum accession numbers: British Gas, ABGAS 03 (site reference code), OXCMS 2003.59 (museum accession number); Penlon, ABPEN 04 (site reference code), OXCMS 2004.17 (museum accession number).

74 Greig, 'Archeobotanical and historical records', pp. 211–47, n. 72.