MEDIEVAL ARCHAEOLOGY AT 139, 141 AND 143 BUCKINGHAM ROAD, BLETCHLEY, MILTON KEYNES

ANDREW A.S. NEWTON AND PHILLIPPA SPARROW

with contributions from

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In September 2006, Archaeological Solutions (AS) undertook an excavation at 139, 141 and 143 Buckingham Road, Bletchley. The investigation identified medieval and late post-medieval activity.

The medieval archaeology comprised a $13^{th}-16^{th}$ century croft boundary and related 'back-yard' features. The croft was probably located to the rear of a dwelling on Buckingham Road. Similar arrangements of peasant dwellings and associated crofts have been identified at Great Linford, c. 8km north of Bletchley. Changes to the boundary ditch in the later medieval period might indicate a shift in land use towards pastoral agriculture. This change could have been a result of the economic and demographic impact of the Black Death and later medieval climatic deterioration. Later features comprised two cobbled surfaces and a single pit, dated to the late 18^{th} to early 19^{th} centuries, which were probably associated with farm buildings.

INTRODUCTION AND BACKGROUND (Figs. 1 and 2)

In September 2006, Archaeological Solutions Limited (AS) carried out an archaeological excavation on land at 139, 141 and 143 Buckingham Road, Bletchley, Milton Keynes (centred on SP 8542 3318). The excavation was carried out as part of a planning condition applied to residential redevelopment; it followed a trial-trench evaluation, carried out by AS in June and July 2006 (Ilson 2006), which had identified potential for medieval remains in the south-western part of the site. The principal aim of the excavation was to provide a permanent record of the archaeological remains in this part of the site which were likely to be damaged by the proposed development. Full details of the archaeological deposits recorded during the fieldwork can be found in the interim and archive reports (Trott, Weston and Woolhouse 2006; Newton 2007). The development site comprised a parcel of land covering 0.20ha, accessed from Buckingham Road to the north and extending to the rear of numbers 139, 141 and 143 (Fig. 1). The site lies on a slight incline, sloping from c. 93.8m OD at the street frontage to 95m OD at its western edge, falling to c. 93m OD at its south-eastern corner. The solid geology of the area comprises Callovian Clays capped by Boulder Clay drift, which is overlain by slowly-permeable calcareous clayey soils of the Evesham Association (SSEW 1983).

Bletchley's proximity to *Magiovinium* (a Roman settlement at Fenny Stratford, 2.5km east of the site) makes it unsurprising that several Romano-British settlement sites have been identified in the parish (Zeepvat 1993). These are mostly small farmsteads, recorded at sites such as Sherwood Drive, Holne Chase, Shenley Road and Windmill Hill. The Roman Fenny Stratford to Buckingham road (Viatores 166) runs on a projected north-east to south-west course just to the north of the Buckingham Road site (NGR SP 8840 3401 to SP 6217 4104 and SP 9000 3283 to 8641 3340).

The majority of the villages in the Milton Keynes area were established in the late Anglo-

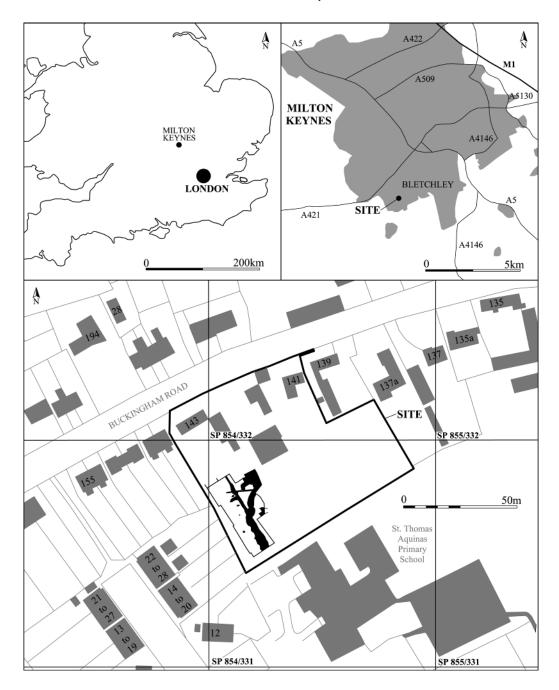


FIGURE 1 Buckingham Road, Bletchley: site location.

Saxon or early medieval period (Croft and Mynard 1993, 19). Bletchley seems to have originated as a polyfocal settlement. It does not appear in Domesday Book but an entry for *Etone* may represent the dispersed settlements that later became Far (or West) Bletchley, Bletchley Church and Water Eaton (Croft and Mynard 1993, 54). The site is located at the 'end' of Far Bletchley, which appears to have developed around the junction of the Buckingham and Shenley Roads.

An occupation layer excavated *c*. 160m to the east of the site, yielded late Saxon and medieval pottery sherds including part of a St. Neots ware bowl (MK SMR 2502). At the same site, a scatter of cobbling approximately 5.5m wide may represent the course of Old Shenley Road, which ran perpendicular to Buckingham Road (MK SMR 2501). Twelfth to thirteenth century pottery has been found between this and the current site, while 11th and 14th century sherds have been recovered *c*. 260m south-west of the site.

Numbers 139, 141 and 143 Buckingham Road (Fig 1) are Grade II listed buildings. No. 139, just outside the eastern site boundary, is a two-storey yellow brick house dated to *c*. 1840/1850. It is not on the 1813 Bletchley tithe map, but is on Ordnance Survey maps from 1881 onwards (Fig. 2). No. 141 is a 17th century, or earlier, timberframed structure with 19th century and modern alterations, located in the north-eastern corner of the site. This building is shown on the Bletchley tithe map, 1st Edition Ordnance Survey map and the Ordnance Surveys of 1925 and 1938 (Fig. 2). No. 143, in the north-western corner of the site, is an 18th century (or possibly earlier) farmhouse.

RESULTS OF THE INVESTIGATION (Figs. 3–6)

Phase 1: mid 13th to 16th century (Figs. 3-5) Ditch F2023 was the earliest feature on the site. It ran on a north-west to south-east alignment across the site, perpendicular to Buckingham Road. It was $c.\,0.30$ m deep and in excess of 14m in length, with steep sides and a flat base. This was probably a boundary ditch, perhaps separating two plots of land extending back from the roadside. A layout based on rectilinear plots flanking a through road is typical of medieval settlements across the country. Its width of 0.53m suggests that it was not a

substantial boundary and would have been of little use for confining animals unless augmented with a fence or hedge. The three fills of Ditch F2023 contained 157 sherds of 13th to 14th century medieval sandy grey-ware pottery from just one or two vessels, but the pottery is very fragmented and the vessels cannot be reconstructed. Three sherds with finger-decorated applied clay strips suggest a jar form. Other finds include flat tile, a fragment of an iron horseshoe, a worn gritstone fragment, which may have been a cobble or part of a very worn quern, and 31 fragments of animal bone (cattle, horse and sheep/goat). The finds are of a domestic character, although no evidence of dwellings was present within the excavated area.

Ditch F2004 was a slightly later boundary, which followed the same alignment as Ditch F2023 for a short length, partially recutting its course. Close to its terminus, F2004 turned through 90° to the south-west. This new boundary ditch would have been more effective than its predecessor if it were used for the confinement of livestock; it was over twice the width of the earlier ditch and up to 0.72m deep. Ditch F2004 ran for more than 26m, extending almost the full length of the excavation area, although its southern portion was overlain by areas of erosion (discussed below).

Ditch F2004 (L2015) contained late medieval reduced ware, Northamptonshire Potterspury ware sherds, and shelly ware thought to be from Olney Hyde, eighteen kilometres north of Milton Keynes. The fills of Ditch F2004 also contained 20 small fragments (1564g) of flat tile and a probable limestone roof tile. Nail fragments, fragments of iron sheet, an iron knife blade and an (intrusive) postmedieval rowel spur were also found within this feature, along with an abraded hearth-bottom from smithing and a second possible hearth-bottom. Oyster shell and fragments of animal bone (sheep/goat, cattle, dog, horse and pig) were also recovered. Eighteen small fragments of flat tile and a highly abraded fragment of tap slag were recovered from the associated cobbled surface (L2039; see below).

The creation of Ditch F2004 may represent a change in land use on the site. Although artefactual evidence from the ditch is consistent with domestic or 'backyard' activity, the deepest part was filled with waterlogged deposits that contained large numbers of aquatic snail shells. Areas of erosion (for example F2025), thought to have been caused

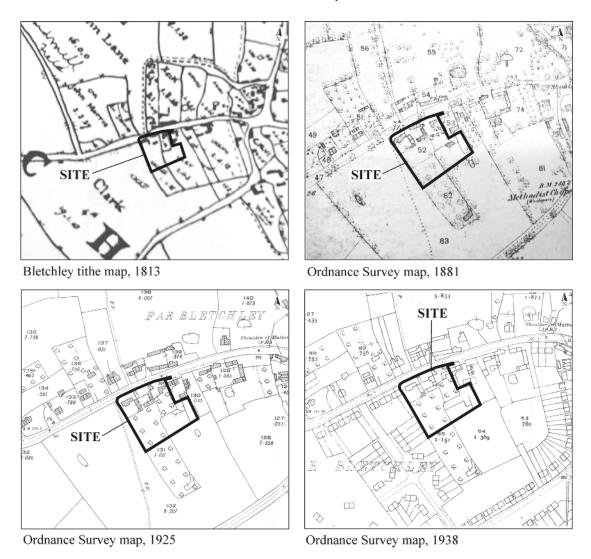


FIGURE 2 Buckingham Road, Bletchley: early cartographic sources.

by the repeated movement of animals, were observed around its edges and it may have served as a watering hole as well as a boundary. This interpretation is supported by the presence of a surface comprising sandstone cobbles and slabs (L2039), laid directly onto the natural boulder clay. On a slight incline, it may have been the remnant of a sunken trackway leading to the deepest, waterfilled portion of the ditch. The area of heaviest erosion, F2025, was located at the probable termi-

nus of this trackway, suggesting that animals were led or herded down the track to drink here.

A cobbled layer (L2016) filled the uppermost portion of Ditch F2023, as well as overlying part of Ditch F2004. It post-dated both features, although the pottery from it was of the same fabric and date range as that from Ditch F2023. This may indicate that the boundaries had become redundant by this time but given its depth, it is possible that Ditch F2004 remained partially open, with only its shal-

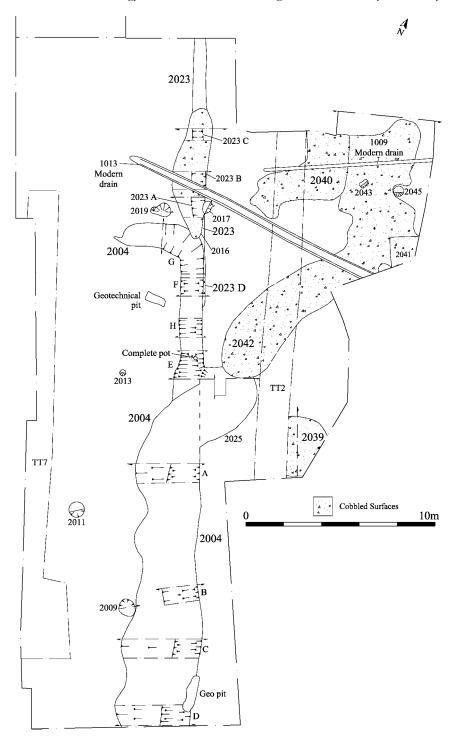


FIGURE 3 Buckingham Road, Bletchley: site plan.

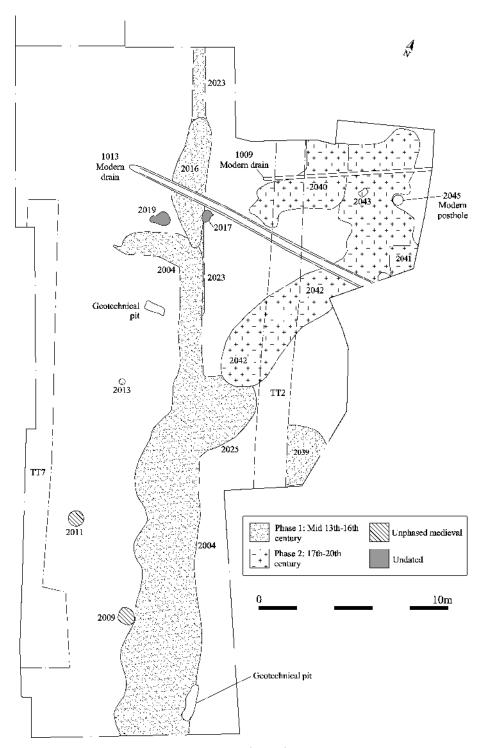


FIGURE 4 Phase plan.

lower portions becoming silted up. Despite this partial infilling, the boundary may have remained in use, perhaps augmented with a hedgerow or wattle fencing, which would have left little archaeological trace. The cobbled layer might have formed part of a trackway or entrance over the boundary. It may also demonstrate that the boundary did not, at least during the final part of the phase, separate the property of two different individuals, but instead marked two areas which were in different use.

Two small medieval pits, F2009 and F2011, were identified towards the south-western corner of the excavated area. These produced pottery assemblages dated to AD 1100 to 1400 and AD 1000 to 1300, respectively. Animal bone was found in F2011. Two shallow irregularly-shaped pits (F2017 and F2019) lay on either side of Cobbled Layer L2016, just beyond the right-angled terminus of Ditch F2004. Pit F2017 cut the cobbled surface, indicating that it post-dated its construction. Neither feature contained any datable finds, but they are thought to have been medieval on the basis of their spatial relationships with other features.

During excavation, a deposit identified as a buried soil horizon was also recorded. This buried soil horizon, L2027, was beneath the modern topsoil (L2000) and the subsoil (L2028). It contained two pieces (95g) of medieval CBM, animal bone, an intrusive fragment of early 19th century glass, and an iron bolt.

Phase 2: 17th to 20th century (Figs. 3, 4 and 6) Phase 2 features comprised two adjoining cobbled surfaces, L2040 and L2042. The latter was overlain by a third cobbled area (L2041), representing an episode of repair or extension to its east side.

It seems likely that L2042 was the earliest of these two cobbled areas, although no finds were recovered from it. It had been identified as Layer L1008 in the preceding evaluation and had yielded two sherds of pottery dating from between 1600 and 1900. Its construction was less well-executed than that of L2040, the cobbles of which were much more tightly packed. Pottery recovered from L2040 indicates an 18th to 19th century date. Pit F2043 was within L2042 but the stratigraphic relationship between the two was unclear; flat tile and clay tobacco pipe were recovered from the pit.

Pottery, animal bone (including cattle, horse and pig), iron objects (including a ponyshoe, pliers and nails/nail shank fragments), fragments of 18th and 19th century glass, a mother-of-pearl button and small fragments of flat tile were recovered from cobbled surface L2040. Cobbled Surface L2041 yielded no datable finds but its stratigraphic relationship with L2042 indicated that it was later. It was constructed of very well-laid, regular sandstone cobbles.

SPECIALISTS' REPORTS

Flint

By Martin Tingle

The assemblage comprises five pieces of flint (51g), three of which were burnt and unworked. The two tertiary, unpatinated gravel flint flakes are residual finds from a medieval ditch (F2004). The assemblage is too small for any meaningful conclusions to be drawn from it.

Pottery

By Peter Thompson and Andrew Peachey The evaluation produced 73 sherds (0.925kg) and the excavation a further 431 sherds (4.783kg), giving a total of 504 sherds weighing 5.708kg. The majority of the pottery has suffered only slight to moderate abrasion, although some of the earlier sherds are heavily abraded. Some of the later medieval sherds are in a good condition.

TABLE 1 The composition of the flint assemblage

Feature	Context	Find	No.	Weight (g)
	L2001	Burnt Flint	1	7
F2004	L2005	Burnt Flint	1	14
F2004	L2005	Tertiary Flake	1	13
F2004	L2005	Burnt Flint	1	4
F2004	L2007	Tertiary Flake	1	13

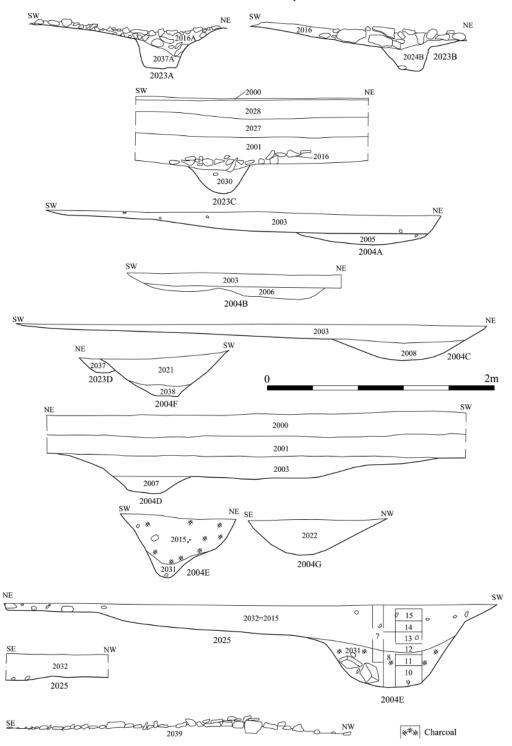


FIGURE 5 Phase I sections.

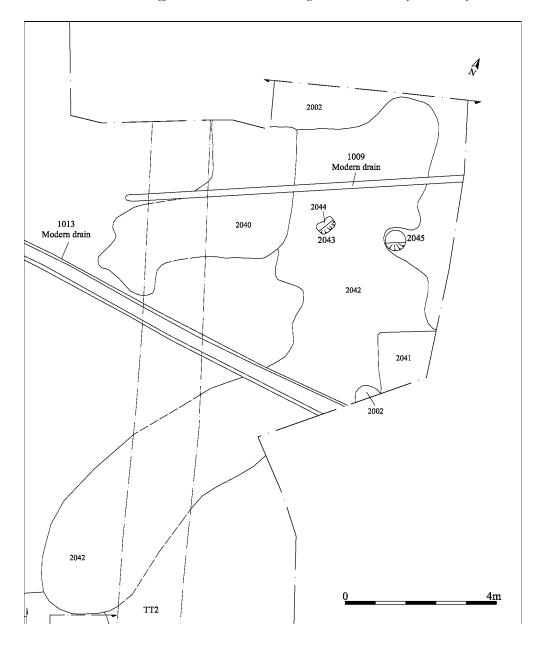


FIGURE 6 Plan of Phase 2 cobbled surfaces.

Ware type or group	Date range	Number of sherds	% of site total
Grog temper	Late prehistoric?	3	0.6
Roman Sandy Grey wares	AD 50 - 150	27	5.4
Sand and organics	AD 500 - 900?	1	0.2
St Neots ware	AD 850 - 1150	11	2.2
Medieval quartz tempered ware	AD 1000 – 1400	9	1.8
Medieval flint tempered ware	AD 1100 – 1300	3	0.6
Medieval sandy wares	AD 1100 – 1400	251	49.8
Medieval shelly wares	AD 1100 – 1400	17	3.3
Medieval grey sandy wares	AD 1250 – 1550	97	19.3
Brill/Boarstall	AD 1200 – 1500	11	2.2
Potterspury	AD 1200 – 1600	17	3.3
Late Medieval Oxidised	AD 1400 – 1600	1	0.2
Post-medieval	AD 1550 – 1900+	56	11.1

TABLE 2 Wares present by number of sherds and percentage of site total

The sherds were examined under a x35 microscope and recorded in a Microsoft Excel database. The sherds were catalogued by context, according to ware/fabric. Wares/ fabrics are listed above, with their date ranges. The majority of the pottery (82.7%) is medieval but other periods are represented, notably Roman and post-medieval.

The prehistoric and Roman pottery

Three small, abraded, grog-tempered sherds (possibly late Iron Age) were residual in Linear Feature F1005 and Ditch F2004. Ditch F2004 (L2005) also contained residual, but well-preserved, Romano-British pottery, comprising 27 sherds (433g) of locally- produced sandy grey wares. The assemblage from F2004 includes the rim and neck from a necked jar with a plain shoulder cordon, comparable to mid 1st to mid 2nd century AD vessels from Milton Keynes (Marney 1989, fig. 30.8 and fig. 32.43). Further sherds exhibit burnished and rouletted decoration but cannot be assigned forms.

The medieval pottery fabrics

Sandy Wares

The main group of pottery from Buckingham Road consists of medieval sandy wares. This group comprises 251 sherds, representing just over 60% of the medieval assemblage (Table 2). These are commonly grey with darker surfaces, but can have orange-brown cores with one or both surfaces grey. Apart from varying amounts of quartz sand, other

inclusions that may be present include occasional black or red iron flecks and rare large inclusions of burnt organics, grog, minerals or white calcareous material.

Late Medieval Reduced Wares

Sherds which appear better fired and more uniformly grey, but which can occasionally have oxidised margins, have been categorised as late medieval reduced wares. These form 23.2% of the medieval pottery from the site.

Other medieval wares

Other wares or fabrics are present in much smaller quantities. Potterspury ware (17 sherds), from 15km north-west of Bletchley, and Brill/Boarstall wares (11 sherds), account for 4% and 2.6%, respectively, of the medieval assemblage. St Neots ware (11 sherds) and medieval shelly wares (17 sherds) represent a similar 6.6% of the medieval total. All of these wares were present at Bradwell Bury in Milton Keynes (Mynard 1994a, 44–45).

Discussion

Medieval sandy wares and late medieval reduced wares

The medieval sandy ware fabrics are similar to MS3, a Medieval Grey Sandy Ware excavated at Bradwell Bury (Mynard 1994a, 45). MS3 was dated between the mid 11th and 14th centuries, reaching its peak in the 13th century. The late medieval reduced ware has similarities with fabric

TLMS3, also from Bradwell Bury, which was of mid 14th to mid 16th century date. The two fabrics are essentially the same, the TLMS3 differing as a result of changes in firing, production technique and form (Mynard 1994a, 45–46 & 53). This fabric is generally believed to have been produced at Jack Ironcap's Lane, Great Brickhill, located 5km to the south-east of Bletchley, and has been dated between the 14th and mid 15th centuries (Beamish 1989, 90).

Ditch F2004 (L2015) contained 79 sherds including an almost completely re-constructible round-bodied jug (or pitcher, as the neck is short; MPRG 1998, 3.1) and the lower part of a second jug (Figs. 7.1 and 7.2). Also present in the feature was a slightly down-turned flanged rim with a lower lip (Fig. 7.3), which has close parallels with an example from Woughton Village Earthworks (Mynard 1994b, 146 fig. 79 no. 62). These forms were also present at Jack Ironcap's Lane, Great Brickhill (Beamish 1989, fig. 2. nos. 7 & 8). Another wide rim from a bowl or shallow dish (Fig. 7.4), in late medieval reduced ware, came from L2015, and bears some similarities with examples from Flitwick in Bedfordshire, which is another source of late medieval reduced ware (Mynard et al. 1983, 78 fig. 2 nos. 4, 9 & 10). A jug handle attached to a rim, both elements with a line of stab decoration (Fig. 7.5), came from Ditch F2004 (L2005). Similar stab-decorated handles were present at Church End, Flitwick (Mynard et al. 1983, 81 fig. 4 no. 31).

Other medieval wares

The Potterspury wares include a glazed base from Ditch F2004 and a jug rim from F2004 (L2006), the red surface of which suggests a late medieval date (Mynard 1994a, 45). The Brill/Boarstall sherds include the upper profile of a jug from Linear Feature F1005, which is in a pale orange fabric with patches of clear and yellow glaze (Fig. 7.6). A flint- tempered sherd with comb decoration (Fig. 7.7) was also present in this feature. Unsourced flint-gritted wares have been found in Milton Keynes (Mynard 1994a, 46), but the Buckingham Road example could be an early Denham product (c. 1100–1300) and indicates the feature is probably 13th century.

The St Neots sherds were all residual. The other medieval shelly sherds with smooth orange surfaces and grey cores could be from Olney Hyde,

eighteen kilometres north of Milton Keynes. Ditch F2004 (L2021) contained a distinctive rim (Fig. 7.8), of similar form to examples from Bradwell Bury in Milton Keynes (Mynard 1994a, 44 fig. 24 nos. 39-40). These rims are in early medieval shelly fabrics thought to be from Olney Hyde, and are dated to between the 11th and late 13th centuries (Mynard 1994a, 44). However, another bowl rim of approximately 30cm diameter from F2004 (L2022) is of similar form to fairly simple bowl rims of later medieval date, c. late $13^{th} - 15^{th}$ century (Mynard 1994b, 143 fig. 77). Shelly fabrics were used throughout much of the medieval period at Olney Hyde and, as with the grey sandy wares, are more easily differentiated by form (Mellor and Mynard 1994, 86).

Conclusion

The Buckingham Road assemblage is comparable with that from the Walton Village Earthwork site 3km to the north-east (Mynard 1994b, 99). In the early medieval period, Walton obtained its shell and limestone pottery from Olney Hyde and other production centres in the Ouse valley, to the northeast. In the late medieval period, a link was established with centres to the east, at Great Brickhill and other centres in Bedfordshire, where medieval grey sandy wares and late medieval reduced wares were made. The predominantly local distribution of these wares contrasts with Great Linford, to the north of Milton Keynes, where Potterspury wares from Northamptonshire were dominant overall (Mellor and Mynard 1994, 99). At Buckingham Road, 83% of the medieval sherds are sandy grey wares which can be broadly classed as 'East Midland late medieval reduced wares' (and their precursors), as defined by Moorhouse (1974). These are likely to have come from Great Brickhill (Mynard et al. 1983, 83). The assemblage as a whole, with only six glazed medieval sherds present, has the appearance of a relatively lowstatus site, however, the Brill-Boarstall wares might hint at the presence of a household of some status in the vicinity, as these wares are not common in north Buckinghamshire (Mynard 1994a, 51).

Illustrated pottery (Fig 7)

- 1. Ditch F2004. L2015 late medieval reduced ware.
- 2. Ditch F2004. L2015 late medieval reduced ware
- 3. Ditch F2004. L2015 late medieval reduced ware.

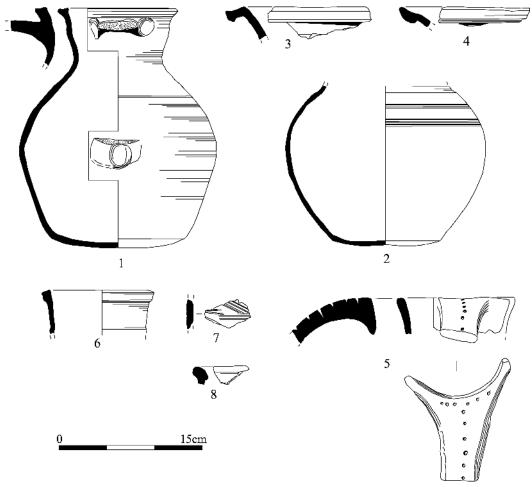


FIGURE 7 Medieval pottery.

- 4. Ditch F2004. L2015 late medieval reduced ware
- 5. Ditch F2004. L2005 late medieval reduced ware.
- 6. Linear F1004. L1005 medieval Brill Boarstall
- 7. Linear F1005. L1006 early medieval flint tempered ware with comb decoration.
- 8. Ditch F2004. L2021 early medieval shelly ware

Ceramic building materials

By Andrew Peachey

The excavations produced a total of 81 fragments (3920g) of medieval ceramic building material (CBM), from seven features. The CBM is well-preserved, but (with the exception of Cobbled Layers L2039 and L2040) was recovered in only

small concentrations, mainly from open ditch and linear features. It was recorded by fragment count and weight, with two fabrics defined at x20 magnification and described below.

Fabric descriptions

Fabric 1: Oxidised red (2.5YR 5/8–6/8), inclusions of common, well-sorted sand (0.1–0.5mm) with occasional flint (<10mm).

Fabric 2: Oxidised pale brown (7.5YR 6/4) surfaces, with reduced core and margins, inclusions of common poorly-sorted shell (0.25–5mm) and sparse quartz (0.2–1mm)

All the CBM from the site is fragmented

	materials

		Fabr 12-1	ric 1 4mm, flat		oric 2 14mm, flat	Fire	d clay
Feature	Context	No.	W(g)	No.	. 5	No.	$W\left(g\right)$
_	L2003	3	156				
_	L2003	3	12				
_	L2003	1	153			6	36
F2004	L2005	5	303				
F2004	L2006					4	19
F2004	L2015	7	783			2	15
F2004	L2021	1	61				
F2004	L2022	3	233	1	105		
F2004	L2031	1	3				
F2004	L2036	2	76				
F2023	L2016	8	447				
F2023	L2024	8	256				
F2023	L2030			1	93		
F2025	L2032	1	146				
_	L2027	2	95				
_	L2039	18	453				
_	L2040	16	545				
Total		79	3722	2	198	12	70

12–14mm thick, flat tile. Several fragments have circular peg holes and slightly irregular (unworn) surfaces, suggesting that they were used as roof tile. The tile was sparsely distributed in Layer L2003, Ditch F2004, Ditch F2023, Pit F2025 and Buried Soil L2027. The small concentrations in Cobbled Layers L2039 and L2040 are notable, but have relatively low-average fragment weights of <35g. The bulk of the CBM is in Fabric 1, with only two fragments (198g) in Fabric 2.

Worked stone

By Nina Crummy

Five pieces of worked limestone were recovered from the subsoil (L2001) and one from Ditch F2004 (L2022). The worked stone from the subsoil appears to all come from a single structure, but one small fragment is more weathered than the rest and may either be from a different building, or was used in a more exposed position.

Catalogue

1. L2001. Subsoil. Block with four faces worked to a smooth finish, three of which are now damaged.

One of the other (edge) faces is worked to a fairly even but not smooth surface, and the sixth is similar but rougher; both appear to be original. Max. dimensions: 166 by 143mm, by 91mm thick. 2. L2001. Subsoil. Fragment with only three smooth faces surviving. One broken face forms a regular hypotenuse to the surviving corner and may point to a deliberate halving of a rectangular block. Max. dimensions: 162 by 143mm, 97mm thick.

- 3. L2001. Subsoil. Fragment with part of one worked face. Max. dimensions 113 by 99 by 81mm
- 4. L2001. Subsoil. Fragment with parts of two worked faces. Max. dimensions 136 by 104 by 59mm.
- 5. L2001. Subsoil. Weathered fragment with part of one worked face. Max. dimensions 93 by 94 by 80mm.
- 6. L2022. Fill of Ditch F2004. Limestone slab fragment with one original edge; probably a roof tile. Max. dimensions 93 x 91mm by 14mm thick

TABLE 4 Catalogue of small finds

Feature	Context	Description
F2004	L2015	Ditch fill. Four iron fragments:
		1) Spur fragment, with star-shaped rowel. Length 84mm.
		2) Knife blade fragment with scale tang. Length 113mm, width 24mm.
		3) Nail. Length 36mm.
		4) Nail shank fragment. Length 21mm.
F2004	L2021	Ditch fill. Iron sheet fragment. 30 x 24mm.
F2004	L2022	Ditch fill. Two iron nails. Lengths 42 and 31mm.
F2004	L2022	Ditch fill. Iron sheet fragment, in pieces. Maximum dimensions 60 x 39mm.
F2004	L2036	Ditch fill. Iron nail shank fragment. Length 28mm.
F2023	L2016	Ditch fill. Iron horseshoe fragment. Length 107mm, width 102mm.
F2023	L2016	Ditch fill. Gritstone fragment, worn on both surfaces; probably either a
		cobble or part of a very worn quernstone. Maximum dimensions 139 x
		114mm, 29mm thick.
F2023	L2024	Ditch fill. Small limestone/schist fragment. Maximum dimensions 29 x
		19mm, 5mm thick.
F2043	L2044	Pit. Clay tobacco pipe stem fragment. Length 29mm; bore diameter 2mm.
_	L2001	Subsoil. Iron nail. Length 35mm.
_	L2003	Soil layer. Iron nail shank fragment. Length 23mm.
_	L2027	Buried soil. Iron collar or coupling. Length 22mm, diameter 35mm.
_	L2039	Cobbled layer. White-metal transport token with central perforation.
		Obverse: NATIONAL / TRANSPORT / TOKEN, between transverse ridges.
		Reverse: TOKEN / 3s. Diameter 25mm.
_	L2040	Cobbled layer. Mother-of-pearl button with two thread holes. Diameter
		25mm.
_	L2040	Cobbled layer. Eighteen iron objects:
		1) Ponyshoe. Length 92mm, width 67mm.
		2) Small pliers. Length 129mm.
		3) Strap with curled terminal. Length 217mm, width 33mm.
		4) Curved tapering bar fragment, possibly part of a blank for a ponyshoe.
		Length 105mm, maximum section size 19 x 17mm.
		5) Bolt or nail with narrow convex head. Length 87mm.
		6-15) Nails: lengths 94, 57, 49 x 2, 48, 45, 42, 41, 29 and 25mm.
		16-18) 3 nail shank fragments. Lengths 66, 49 and 31mm.

Small finds

By Nina Crummy

The small assemblage of metal and stone objects from the site consists mainly of ironwork. Very few objects can be dated; the exceptions being an intrusive post-medieval rowel spur fragment from Ditch F2004 and a 20th century National Transport token.

Glass

By H.E.M. Cool

All of the vessel fragments may be assigned to the 19th century. They include a mould-pressed bowl

and fragments from at least three cylindrical bottles. The rim form of no. 2 suggests that it may belong to the early part of the century; this was the form adopted when moulded bottles were first introduced (Hume 1961, 105 nos. 22–3).

The small window-glass fragment (no. 5) is most likely to have come from a window pane made in the 18th century.

Industrial residues

By Jane Cowgill

A small assemblage of slag and associated finds was found. The slag and other finds were washed

TABLE 5 Catalogue of glass

Feature	Context	Number	Description
_	L2040	1	Bowl; colourless; body fragment. Mould pressed. Convex-curved side with faceted external decoration. Dimensions 39 x 30mm.
_	L2027	2	Bottle; light olive green; rim fragment. Moulded; broad collar with string rim below. Rim diameter c. 35mm.
_	L2040	3	Cylindrical bottle; olive green; two joining lower body fragments broken at junction with base. Body diameter 85mm.
_	L2040	4	Cylindrical bottle; blue/green; body fragment.
_	L2040	5	Window glass; blue/green. 1cm ² .

TABLE 6 Catalogue of industrial residues

Feature	Context	Туре	Count	Weight	Comments
F2004	L2007	Slag	1	33g	Hearth bottom? Totally encrusted.
F2004	L2007	Hearth bottom	1	205g	Extremely abraded; mid-grey; dense.
F2023	L2024	Stone	1	198g	Or very water-rolled slag.
-	L2039	Tap	1	136g	Charcoal fuel; moulded by charcoal; very abraded.

before being identified on morphological grounds by visual examination, sometimes with the aid of a x10 binocular microscope. They were recorded on a *pro forma* recording sheet and this information was entered directly into the catalogue above.

Two of the three pieces of slag (both from Ditch F2004 (L2007)) are by-products of iron smithing – the forging or recycling of iron objects. There is one piece of smelting slag, from Cobbled Layer L2039, but it is highly abraded.

Animal bone

By Carina Phillips

Introduction

The animal bone assemblage consists of 99 fragments. It is in a good state of preservation. Medieval contexts (Phase 1) contained the largest amount of animal bone, accounting for 82 fragments; 17th to 20th century (Phase 2) contexts contained only 16 fragments. One bone also came from an undated context; this has been excluded from the analysis below. Hand-recovery is likely to have resulted in a bias towards larger bones and an under-representation of small bones, particularly of birds, fish and small mammals.

Method

Bones were identified and recorded to species and element when possible. The category 'sheep/goat' has been used unless it was possible to clearly identify the species sheep (Ovis sp.) or goat (Capra sp.). The term 'cattle' has been used when it was not possible to distinguish between cows and bulls. It was not possible to estimate the ages of any species using tooth eruption and wear due to an absence of teeth in the assemblage. Measurements were taken when viable following the methods of Jones et al. (1976) and von den Driesch (1976), and are contained in the site archive. Withers heights for horses were calculated following Kiesewalter (in Driesch and Boessneck 1974). When available, the fusion state of identifiable bones was also recorded and ages were assessed following Silver (1969). Fragments which were unidentifiable to a particular species were recorded under the categories of 'large-sized', consisting of cattle (Bos sp.), large deer and horse (Equus sp.) sized fragments and 'small-sized', consisting of sheep/goat, small deer, pig (Sus sp.) and dog (Canis familiaris) sized bone fragments. All other unidentifiable bone fragments were recorded as such. Evidence of burning, sawing, chopping, knife-cutting and gnawing was also recorded, as was smashed bone. The minimum number of individuals (MNI) of a

Species	Phase 1	Phase 2	Total
Cattle	17	1	18
Sheep/goat	15	4	19
Horse	3	3	6
Pig	2	1	3
Dog	1	0	1
Small sized	13	1	14
Large sized	6	4	10
Unidentifiable	25	2	27
Total	82	16	98*

TABLE 7 Counts of animal bone by phase

species was calculated from most frequent left or right skeletal element (minimum number of elements).

Results

Ditch F2004, Pit F2025 and Cobbled Layer L2039 contained the largest numbers of animal bone fragments. All the species identified in the assemblage as a whole are represented in the assemblages recovered from these contexts: cattle, sheep/goat, horse, pig and dog. A horse radius from Ditch F2023 is the only complete bone in the assemblage. The radius came from a horse with a withers height of 139cm/ 13.7 hands.

Butchery marks are present on seven bones from medieval contexts and three from 17th to 20th century contexts. Medieval contexts contain chopped, cut and smashed bone, while chopped and smashed bone is present in the 17th to 20th century assemblage. The assemblage probably consists of domestic (and possibly butchery) waste.

Discussion

Discussion of the animal bone is limited by the small size of the assemblage. Medieval contexts produced the most animal bone. Cattle and sheep/goats are the most frequently identified species in the medieval assemblage. This is not unexpected, as these species are the most commonly represented in most archaeological assemblages, being the main meat-contributing species. Additional species represented include pig (another meat contributing species), horse and dog. The size of the horse bone from Phase 1 falls within the size range of horses from medieval sites in London, coming from an individual of $12\frac{1}{2} - 15$

hands (Clark 1995, 22). Further consideration of the animal bone is not possible due to the small size of the assemblage.

Shell

By Carina Phillips

Introduction

Marine shell was recovered from five contexts; 15 fragments were recovered in total. Fourteen came from medieval features (13th to 16th centuries); one shell was recovered from a 17th to 20th century feature. Oyster (*Ostrea edulis*), mussel (*Mytilus edulis*) and the fossil oyster *Gryphaea* were all identified.

Method

The shell was identified to species. Single shells, such as whelks, were counted. For the bivalve mussel, separate counting of the valves was not possible due to fragmentation. For the bivalve oyster, the upper and lower valves were identified and recorded. If only fragments were present, these were counted. The condition of the shell was recorded; a record was also made of any evidence of opening, or of a parasite having been present on the shell.

Results

Oyster (*Ostrea edulis*) was the most frequently recovered; of the eight shells from medieval features (coming from a minimum of six oysters), two are mineralised (fossilised). A single mussel shell was also recovered from Phase 1. Part of an upper bivalve from the fossil oyster *Gryphaea* was recovered from Cobbled Layer L2040.

^{*}One undated animal bone fragment is excluded

TABLE 8 Catalogue of shell

	Phase 1	Phase 2	Total
Oyster- Ostrea edulis	8	0	8
Mussel- Mytilus edulis	1	0	1
Oyster <i>Gryphaea</i>	0	1	1
Unidentifiable fragments	5	0	5
Total	14	1	15

Discussion

Both oyster (Ostrea edulis) and mussel (Mytilus edulis) were popular foods in the medieval period in Britain and commonly occur on archaeological sites. The oyster Gryphaea is a commonly found Jurassic fossil in Britain. Eroded specimens of Gryphaea are often found in river gravels and glacially-deposited boulder clays in several regions of England (Natural History Museum 2007).

Charred plant macrofossils and other remains By Val Fryer

Method

Seventeen soil samples were bulk floated by Archaeological Solutions and the resultant flots were collected in a 500 micron mesh sieve. The dried flots were scanned under a binocular microscope at magnifications up to x16 and the plant macrofossils and other remains noted were listed (Table 9). Nomenclature within the table follows Stace (1997). All plant remains are charred. Modern contaminants, including fibrous and woody roots, were present throughout.

Results

Barley (*Hordeum* sp.) and wheat (*Triticum* sp.) grains, along with rare weed seeds, are present as single specimens within four of the samples studied. Preservation is good, although some grains are puffed and distorted, possibly as a result of combustion at very high temperatures. Charcoal fragments are present throughout, although rarely at a high density.

Mollusc shells are present within all but one of the assemblages. Although some are abraded, others retain good surface coloration and delicate surface structures and the contemporaneity of these specimens with the contexts from which the samples were taken is doubtful. Other remains occur very infrequently. However, the fragments of black porous and tarry material noted in most samples may be residues of the combustion of organic remains at very high temperatures.

Conclusions

The few plant macrofossils recorded would all appear to be derived from an extremely low density of scattered or wind-blown detritus, much of which was probably accidentally incorporated within the feature fills.

DISCUSSION

The excavation revealed mid 13th to 16th century archaeological features, including two successive demarcations of a north-west to south-east aligned plot boundary. The medieval site probably represents part of an enclosed croft. Such plots were attached to individual peasant holdings and were used as gardens, paddocks, or for growing crops on a small scale. They could also have been used for over-wintering animals to prevent the trampling of young grass/damage to the soil structure in the larger pastures.

The earliest datable feature on the site was a boundary ditch, F2023. It was not a substantial boundary and certainly could not have prevented the movement of livestock from one side to the other. It may have functioned more as a marker of land ownership than as a physical barrier, or more likely, was a subdivision within a larger domestic plot. The finds recovered from the medieval ditches and pits are consistent with 'backyard' activity on the periphery of a domestic area. A small amount of roof tile suggests the presence of a medieval building somewhere in the vicinity.

Excavations at Great Linford (Mynard and Zeepvat 1992), c. 8km north of Buckingham Road,

TABLE 9 Charred plant macrofossils and other remains

Sample No.	1	2	3	4	6	5	16	17
Context No.	2012	2010	2005	2031	2036	2024	2016	2016
Feature No.	2011	2009	2004	2004	2004	2023	2023	2023
Feature type	Pit	Pit	Ditch	Ditch	Ditch	Ditch	Ditch	Ditch
Date	13-14 th C	13-15 th C	13-14 th C	13-14 th C	13-14 th C	14 th C	14 th C	14 th C
Cereals								
Hordeum sp. (grains)		Х			х			
Triticum sp. (grains)		Х	X		X			
Cereal indet. (grains)		Х	X	Х				
Herbs								
Chenopodium album L.		Х						
Chenopodiaceae indet.		x						
Fabaceae indet.		Х						
Other plant macrofossils								
Charcoal <2mm	xx	XX	xxxx	X	XXX	х	х	x
Charcoal >2mm	x	X	X	x		X		
Charred root/stem		X	х					
Indet.seeds			X					
Mollusc shells								
Woodland/shade loving species								
Carvchium sp.			X		X			
Oxychilus sp.		x		x			X	
Vitrea sp.			X			X		
Open country species								
Pupilla muscorum							X	
Vallonia sp.		Х	X	Х	X	X	X	X
V.costata				Х				
V.pulchella		Х	X		X			
Vertigo pvgmaea		Х			X			
Catholic species								
Cochlicopa sp.			X			X	X	
Trichia hispida group		Х	X				X	
Marsh/freshwater species								
Anisus leucostoma			X	Х				
Lymnaea sp.			X	X				
Vertigo sp.				X				
Other materials								
Black porous 'cokey' material	X	X	Х				х	
Black tarry material		X	X	x	х		xx	
Small coal frags.			X		х			
Vitreous material			X					
Volume of sample (litres)	10	10	30	20	10	10	20	20
Volume of flot (litres)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
% flot sorted	100%	100%	100%	100%	100%	100%	100%	100%

revealed several comparable medieval peasant landholdings. Each holding comprised a toft containing at least one building and a cobbled surface, with an associated croft to the rear, used for small-scale agriculture. Similar arrangements of probable domestic buildings and associated crofts were identified at Caldecotte (Zeepvat, Roberts and King 1994) and Woughton on the Green (Mynard 1994b).

The alteration, widening and extension of the boundary formed by Ditch F2023, slightly later in the medieval period, might suggest a change in land use towards pastoral farming. The areas of erosion around the edges of the new boundary ditch (F2004) were probably caused by animals moving down to the deepest part of the ditch to drink. Cobbled Layer L2039 appears, on the basis of its form and spatial positioning, to have been a trackway along which animals were led to and from Ditch F2004. Ditches F2023 and F2004 were cut in reasonably quick succession, between the mid 13th and 15th centuries, at around the time that England was suffering from the effects of a climatic downturn (late 13th and 14th centuries) and successive outbreaks of plague (from 1348 onwards). It has been argued that in Buckinghamshire, the countryside recovered from this devastation more slowly than the towns (Ziegler 1982, 146). When towns contracted, urban demand for rural produce decreased (Campbell et al. 1996, 178). In many areas, the effect of the combined social and economic changes caused by the Black Death was a shift in the input of time and resources towards animal husbandry at the expense of arable farming (ibid). Long-term climate deterioration and progressive soil exhaustion (attested by a significant fall in crop yields in the late 13th to mid 14th centuries) are also thought to have been factors in this change in farming practice (Platt 1978, 93). Small peasant crofts allowed a certain flexibility, enabling the inhabitants of an area to respond to changes in the economic climate (Astill 1988, 50).

The alignment of Phase 1 Ditches F2023 and F2004, perpendicular to Buckingham Road, suggests that the road was already a feature of the local landscape when they were created. Although much of the Roman road network was of no military or economic value by the medieval period and had thus fallen out of use, Buckingham Road follows the natural route from Fenny Stratford

towards Buckingham and the fact that it is extant today suggests continuous use since the Roman period (Hindle 1976, 206, 217).

The organisation of rectilinear plots flanking a through-road is typical of medieval settlements across the country and the influence of Roman landscape features, especially roads, on settlement morphology is well known. The spatial coincidence of Roman and medieval settlement evidence does not necessarily imply continuity of settlement (cf. Dyer 1990, 116–117); the relationship between the medieval ditches at the Buckingham Road site and Buckingham Road should be considered a response to a feature in the landscape rather than conscious continuation or development of an earlier settlement pattern. Similar evidence of medieval occupation in approximately the same area as Roman settlement activity, displaying little or no coherent acknowledgement of previous settlement, has been recorded elsewhere in the Milton Keynes area at, for example, Westbury-by-Shenley (Ivens, Busby and Shepherd 1995, 209).

Anecdotal evidence suggests that the agricultural use of the site continued, possibly without interruption, from the medieval period until the Second World War, when farm buildings are reported to have stood on the site. The datable finds from the Phase 2 cobbled surfaces indicate that they were associated with the more recent farming activity on the site. The area in which the cobbled surfaces are located is shown as part of an orchard on 19th and early 20th century maps (Fig. 2). It therefore seems likely that the cobbled areas predate the Ordnance Survey maps; this is consistent with the probable late 18th to early 19th century date indicated by the pottery assemblage.

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by Nina Crummy, slag by Jane Cowgill, glass by H.E.M. Cool, animal bone and shell by Carina Phillips and environmental samples by Val Fryer. Thomas Woolhouse acted as the report editor. Finds were coordinated by Claire Wallace. Illustrations were produced by Charlotte Davies.

BIBLIOGRAPHY

- Astill, G. 1988 'Rural settlement the toft and croft' in Astill, G. and Grant, A. (eds.) *The Countryside of Medieval England*. Blackwell, Oxford
- Beamish, H.F. 1989 'A medieval pottery production site at Jack Ironcap's Lane, Great Brickhill', *Res of Bucks* **31**, 88–92
- Campbell, B.M.S., Bartley, K.C. and Power, J.P. 1996 'The demesne-farming systems of post-Black Death England: a classification', *Agricultural History Review* **44 (2)**, 131–179
- Clark, J. (ed.) 1995 *The Medieval Horse and its Equipment c.* 1150 1450. Medieval Finds From Excavations in London 5. Museum of London
- Croft, R.A. and Mynard, D.C. 1993 *The Changing Landscape of Milton Keynes*. Buckinghamshire Archaeological Society Monograph Series 5
- Driesch, A. von den and Boessneck, J. 1974 'Kritische Anmerkungen zur widerristhöhenberechnung aus Längenmaßen vor- und frühgeschichtlicher Tierknochen', *Säugetierkundliche mitteilungen* 22, 325–348
- Driesch, A. von den. 1976 A Guide to the Measurement of Animal Bones from Archaeological Sites. Peabody Museum
- Dyer, C. 1990 'Dispersed settlements in medieval England. A case study of Pendock, Worcestershire', *Medieval Archaeology* **34**, 97–121
- Hindle, B.P. 1976 'The road network of medieval England and Wales', *Journal of Historical Geography* **2 (3)**, 207–221
- Hume, I.N. 1961 'The glass wine bottle in colonial Virginia', *Journal of Glass Studies* **3**, 91–117
- Ilson, P. 2006 139–143 Buckingham Road, Bletchley, Milton Keynes: an archaeological evaluation. Archaeological Solutions unpublished report no. 2081
- Ivens, R., Busby, P. and Shepherd, N. 1995 Tattenhoe and Westbury, Two Deserted Medieval Settlements in Milton Keynes. Bucks. Arch. Soc. Monograph Series 8

- Jones, R., Wall, S., Locker, A., Coy, J. and Maltby, M. 1976 Computer Based Osteometry Data Capture User Manual. (1). 1st Supplement to AML Report Number 2333, Ancient Monuments Laboratory DoE. Report Number 3342
- Marney, P. 1989 Roman and Belgic Pottery From Excavations in Milton Keynes, 1972–82. Buckinghamshire Archaeological Society Monograph Series 2
- Mellor, M. and Mynard, D.C. 1994 'The medieval and post-medieval pottery from Walton medieval village earthworks' in Mynard, D.C. (ed.) *Excavations on Medieval and Later Sites in Milton Keynes*, 1972–1980. Buckinghamshire Archaeological Society Monograph Series 6
- Moorhouse, S. 1974 'A distinctive type of late medieval pottery in the Eastern Midlands: a definition and preliminary statement', *Proceedings of the Cambridge Antiquarian Society* **55**, 46–59
- MPRG 1998 A Guide to the Classification of Medieval Ceramic Forms. Medieval Pottery Research Group Occasional Paper No. 1
- Mynard, D.C. 1994a 'The medieval pottery from Bradwell Bury' in Mynard, D.C. (ed.) Excavations on Medieval and Later Sites in Milton Keynes, 1972–1980. Buckinghamshire Archaeological Society Monograph Series 6
- Mynard, D.C. 1994b Excavations on Medieval and Later Sites in Milton Keynes, 1972–1980. Buckinghamshire Archaeological Society Monograph Series 6
- Mynard, D.C., Petchey, M.R. and Tilson, P.G. 1983 'A medieval pottery at Church End, Flitwick, Bedfordshire', *Bedfordshire Archaeology* **16**, 75–84
- Mynard, D.C. and Zeepvat, R.J. 1992 *Excavations* at *Great Linford 1974–1980*. Buckinghamshire Archaeological Society Monograph Series 3
- Natural History Museum 2007 Fossil Folklore. http://www.nhm.ac.uk/nature-online/earth/fossils/fossil-folklore/fossil_types/bivalves
- Newton, A.A.S. 2007 Excavation at 139, 141 and 143 Buckingham Road, Bletchley, Milton Keynes. Research Archive Report. Archaeological Solutions unpublished report no. 2889
- Platt, C. 1978 *Medieval England*. Book Club Associates, London
- Silver, I.A. 1969 'The ageing of domestic animals' in Brothwell, D., Higgs, E. and Clark, G. (eds.) *Science in Archaeology*. 283–302

- Soil Survey of England and Wales 1983 Soil Map of England and Wales with Explanatory Text: Sheet 6 Soils of South East England (1: 250 000)
- Stace, C. 1997 *New Flora of the British Isles*. 2nd edition. Cambridge University Press
- Trott, K., Weston, P. and Woolhouse, T. 2006 139–143 Buckingham Road, Bletchley, Milton Keynes; an Interim Report. Archaeological
- Solutions unpublished report no. 2137
- Zeepvat, R.J. 1993 'The Milton Keynes Project', Recs Bucks 33, 49–63
- Zeepvat, R.J., Roberts, J.S. and King, N.A. 1994 Caldecotte, Milton Keynes – Excavations and Fieldwork 1966–91. Buckinghamshire Archaeological Society Monograph Series 9
- Ziegler, P. 1982 The Black Death. Penguin, London