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Medieval Britain and Ireland in 2009

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The Society is most grateful to all contributors (of specialist groups, field units, museums, universities, developers and individuals) who have provided reports on groups, finds, excavations, field-surveys and building analyses for 2009. We thank contributors for conforming to the house style; we can advise on content, but are unable to abstract from interim reports. Note that in certain cases the National Grid Reference has been omitted to protect sites; please notify the compilers if this information is to be withheld. For MB&I, see below for the format and content of the Fieldwork Highlights section, and for contact details of the compilers. Note that the Specialist Groups Reports now appear in the Society's *Newsletter* rather than in the journal.

PORTABLE ANTIQUITIES SCHEME¹

The Portable Antiquities Scheme (PAS) is a voluntary scheme to record archaeological finds made by members of the public. Many of the finds come from archaeological sites which have been damaged or eroded, usually by agriculture, leaving the objects as the only evidence of past activity; other objects are of interest in their own right. In 2009, 39,917 records of finds of all periods were made, of which 11,884 were of medieval date, containing 15,374 artefacts. There were a total of 1,737 pre-Conquest records and 10,147 of post-Conquest date. Coinage accounted for 3,477 of these records — 289 containing coins of pre-Conquest date, and 3,471 post-Conquest coins.

This year sees a change in the format of the PAS report in this journal. Emphasis has shifted from highlighting a number of important finds from the year to a broader review of both PAS finds and projects which have utilised PAS data. A selection of important finds from each year can still be found in the PAS and Treasure Annual Reports.² Full details of all finds recorded by PAS can be found on the Scheme's website, at www.finds.org.uk, or obtained from Dan Pett at the Scheme's central office within the [British Museum](http://www.britishmuseum.org). (*J Naylor*)

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² The PAS's Annual Report now covers both Treasure cases and the wider work of PAS. The report for 2008 is scheduled to appear towards the end of 2010. The Annual Report contains detailed statistical analysis of the finds recorded each year, plus individual entries on finds which have significantly added to our understanding of the past.

FOCUS ON COINAGE IN 2009

Early medieval

The recording of early medieval coinage continues apace and PAS now holds a corpus of nearly 2,000 records.³ Those recorded in 2009 have provided a substantial amount of new data to this, adding material from the late 5th century through to the Norman Conquest. These additions consolidate previous notions of the circulation of coinage in early medieval England with the most abundant groups being the silver sceattas of the late 7th to mid-/late 8th century, and the later Anglo-Saxon post-reform pennies of the late 10th and 11th centuries. As would be generally expected, their distribution thins towards northern and western regions but material recorded by PAS is adding to our knowledge of areas often considered at the edge of the monetised zone. In S England, two new sceattas from near Dorchester add to a small but growing corpus of material from the West Country,⁴ and 11 sceattas from the Isle of Wight are testament to the island's place in early medieval economic and communication networks. Further north, a group of later finds in the NW Midlands/N Wales area provide useful additions to a numismatically poor region, especially the find of a penny of Coenwulf of Mercia (Fig 1a), the first from N Wales.⁵

Alongside these more general observations, the finds recorded in 2009 are both adding strength to ongoing debates or providing interesting new finds. The discovery of a 6th-century copper-alloy decanummium of the Byzantine emperor Justinian I from near Nantwich (Cheshire; LVPL-91D1E1) adds another coin to a cluster of such finds in coastal Merseyside, including a number from the coastal site at Meols.⁶ The coin lends more weight to the suggestions that post-Roman Britain had direct contacts with the eastern Mediterranean.⁷ Links with mainland Europe are also visible: the bulk of these are early, including the ubiquitous Frisian 'porcupine' sceattas of Series E, and another five 7th-century gold Merovingian tremisses were reported to PAS. It is becoming clear that these were a circulating currency, and the distribution is also slowly extending, including an example this year from Staffordshire (WMID-867761; Fig 1b). Later foreign coins were very effectively excluded from circulation, and finds of these after the mid-8th century are rare. The most spectacular of these is a gold solidus imitation in the name of the Carolingian ruler Louis the Pious (WILT-A50F43; Fig 1c), which is only the seventh example found in England. Although these imitations may have been produced here, this is not certain and still represents the circulation of currency in a foreign ruler's name. Finds of Arab coins are more common, well known within Viking-Age assemblages, and two silver dirhams were reported.⁸ Two other Arab finds are most unusual, however: both are 8th-century copper fals (Fig 1d), although neither probably reached Britain until much later.⁹ Assuming these are not modern losses, they are the first of their type recorded by PAS, and possibly at all in this country.

The secondary use of coinage is seen throughout the pre-Conquest period, often in the form of some modification to aid the suspension or attachment of the coin for use as jewellery or an amulet. This is especially prevalent in the 5th and 6th centuries when coins were regularly pierced, and in the 11th century when their conversion into a brooch or badge is known.¹⁰ This year has seen a small number of modified coins recorded, all of which were pierced, the most interesting a Visigothic tremissis (LON-1C22F5; Fig 1e) pierced nine times around the edge at approximately equidistant points,

³ As of 15 June 2010.

⁴ DOR-FE79C7 and SOM-DE0541.

⁵ CPAT-4AAF81 (Coenwulf), LVLP-7D2F34 (Edward the Confessor) and CPAT-049EA1 (Æthelred the Unready).

⁶ Moorhead 2009, 265–6.

⁷ Ibid.

⁸ SWYOR-E98253 and SWYOR-E9AF36.

⁹ ESS-42E941 and LVPL-920A44.

¹⁰ Williams 2005, 161–9; Williams 2001.

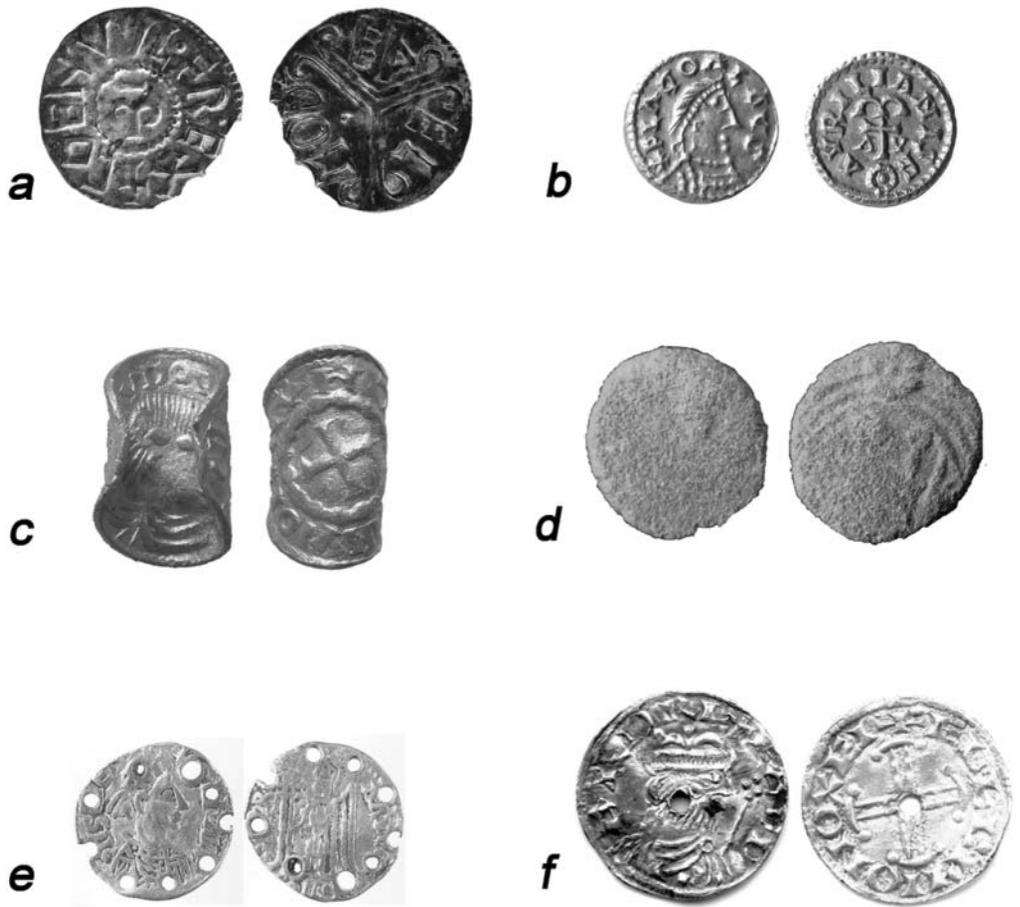


FIG 1

Pre-Conquest coins. (a) CPAT-4AAF81 – penny of Coenwulf. (b) WMID-867761 – a Merovingian tremissis. (c) WILT-A50F43 – imitation gold solidus of Louis the Pious. (d) ESS-42E941 – probable Ummayyad fals or half fals. (e) LON-IC22F5 – modified Visigothic tremissis. (f) NARC-D123C1 – modified penny of Edward the Confessor. Scale 1:1 (except (d) which is not to scale). Photographs by R Trevaskus (a), D Clarke (b), K Hinds (c), L McClean (d), F Winkley (e), J Cassidy (f).

probably in order to attach it to either textile or leather as a mount. Two other finds also merit attention: a late 7th-century Series B sceat pierced off-centre (KENT-72A8F7) and a centrally pierced issue of Edward the Confessor which has also been gilded on the reverse (NARC-D123C1; Fig 1f), probably indicating it was intended for display. In both cases, the piercing is rare for these types of coins, although the gilding in the latter period is a well-known modification.¹¹ Such secondary use of coinage highlights its multiple roles in medieval society.

High and late medieval

The recording of post-Conquest coinage (1066–1509) continues to add many thousands of new records per year, and PAS now holds c 24,000 single finds.¹² This large dataset

¹¹ Ibid.

¹² Access date: 15 June 2010. This period runs from the reigns of William I to Henry VII.

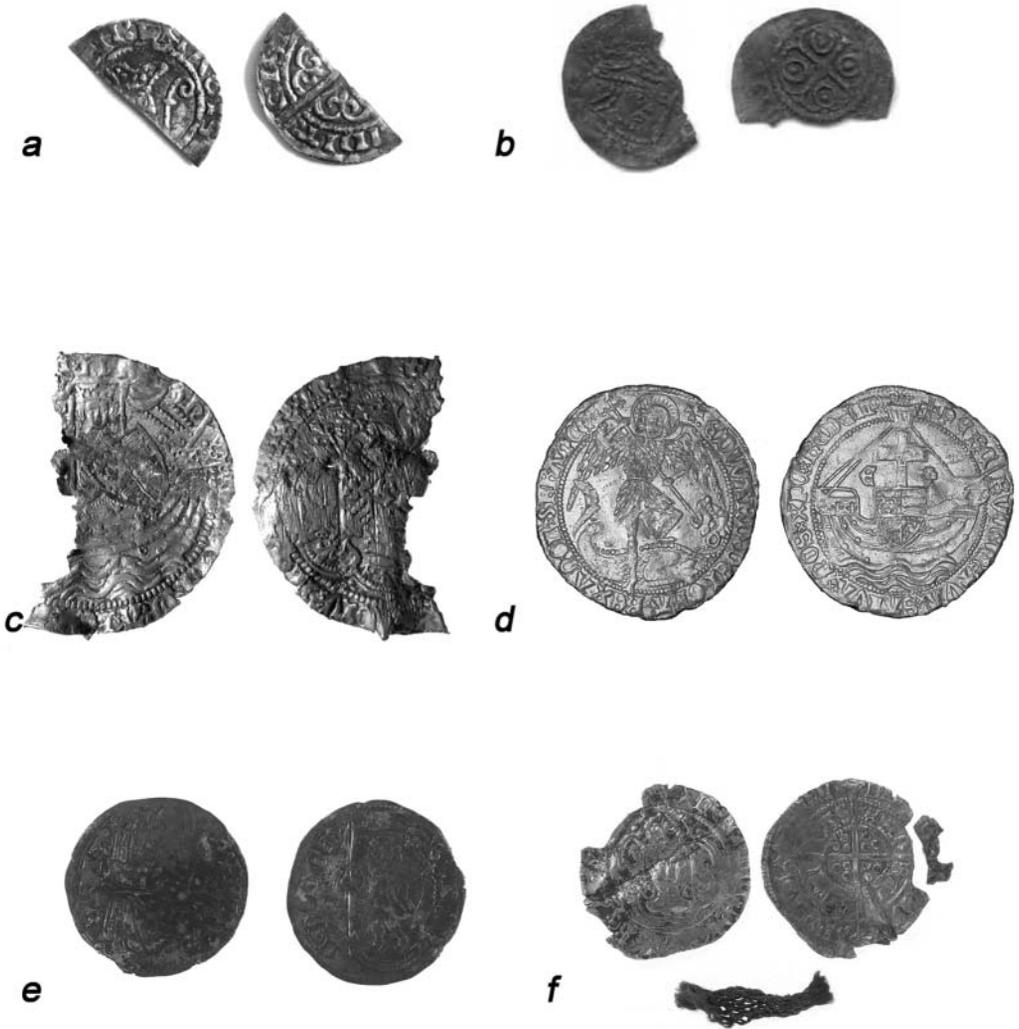


FIG 2

Post-Conquest coins. (a) NCL-B42BB8 – an episcopal issue during the reign of Stephen (1135–54). (b) NARC-A263454 – a penny of Stephen. (c) SF-2CoD85 – a noble of Henry V. (d) LEIC-4382F5 – an angel of Edward IV. (e) WAW-2AB440 – a grosso of Bologna. (f) SWYOR-4F7776 – a gilded and folded halfgroat of Henry VII with accompanying textile. Scale 1: 1. Photographs by R Collins (a), J Cassidy (b), J Carr (c), W Scott (d), A Bolton (e), A Downes (f).

is now the focus of a doctoral research project, discussed separately in more detail below. The recording in 2009 continued to provide evidence of the extremely varied assemblage of coinage circulating in England and Wales. The Norman and Plantagenet coins continue in the style of the late-Saxon issues and are only found in relatively small numbers (about 50 in 2009, including a possible new episcopal issue minted during the period of the Anarchy in Stephen's reign (1135–54; Fig 2a) and one of very few local variants (Fig 2b) — the evidence from this example and other coins indicating an origin in the E Midlands).¹³

¹³ NCL-B42BB8 has a crown paralleled on coins on Henry of Anjou, and the crozier on those of Bishop Henry of Blois; NARC-A26354 is of a type known from six other specimens all found in the area, including Stamford and Northampton.

The great expansion in minting after 1180 provides the vast bulk of coins reported every year. A wide range of denominations from farthings upwards were found, and these included two of the highest denomination gold coins issued in the period, a noble of Henry V (SF-2CoD85; Fig 2c) and an angel of Edward IV (LEIC-4382F5; Fig 2d), both of which are very rare as single finds.

The success of the English coinage made it a common trade coin, and a number of types became heavily imitated on the Continent, especially the long cross pennies of the late 13th to 14th centuries. These are now common finds in England and Wales, with another 27 recorded this year to highlight the large numbers which obviously circulated in this country and the need for the measures the government of the time took against their import.¹⁴ An influx from a different quarter appeared in the 15th century, namely small halfpenny-like 'soldini' from Venice. The role PAS is playing in tracing their use in medieval England can be seen from recent research which clearly shows two large-scale incursions into the circulating English currency, again leading to legislation against their use.¹⁵ Another 29 examples were recorded in 2009, as well as two other Italian coins, both 'grossi' from Bologna (Fig 2e) — only the second and third such examples recorded by PAS.¹⁶ Finds of Spanish coins begin to increase in number at the very end of the medieval period, mostly reals and half-reals of Ferdinand and Isabella from the late 1490s, with 16 recorded; most, if not all, of these probably only reached Britain after 1500.

Other finds of interest are examples of modified coins, reused in a similar manner to that seen in the early medieval period. Notable is a half-groat of Henry VII found in the York area (SWYOR-4F7776; Fig 2f), which had been gilded on both sides and folded. A length of textile cord was found within the fold, presumably the remains of a means of suspension. (*J. Naylor*)

RESEARCH REPORTS

Recent discoveries of early Anglian material culture in NE England

The PAS has now recorded some 4,000–5,000 items of 5th- to 7th-century date, mostly concentrated in southern and eastern England. In the north, North Yorkshire has the greatest quantity of early-Anglo-Saxon material, followed by East Yorkshire. Searches carried out in March 2010 yielded 95 records for North Yorkshire containing 264 items, and 88 records for East Yorkshire containing 108 items. In contrast, there are only 18 artefacts of 5th- to 7th-century date recorded from NE England (see catalogue below).¹⁷ The site of Newby (North Yorkshire), north of the North York Moors, adds another six metal objects and 88 beads. While the absolute numbers are low in comparison to other regions of England, early-Anglo-Saxon sites discovered by conventional archaeological means are also relatively infrequent.¹⁸ The discoveries at Newby appear to represent a single burial. The finder discovered a bucket pendant, an iron ring and rod perhaps from a chatelaine, two small-long brooches and a great square-headed brooch, and several amber and glass beads. He reported the material promptly, and the findspot was excavated the following week. A grave cut was recognised, and a few more beads were recovered. Further metal-detecting of the large field failed to produce any more early-Anglo-Saxon material from the ploughsoil.

¹⁴ Cook 1999, 250–2.

¹⁵ Daubney 2009.

¹⁶ NARC-86CE46 and WAW-2AB440.

¹⁷ Specifically the counties of Durham and Northumberland, and the authority of Teesside (Cleveland); thus far, there are no objects of 5th- to 7th-century date recorded from Tyne & Wear with the PAS.

¹⁸ Petts and Gerrard 2006, 61–71.

At the other end of the region, in Etal (a hamlet in the parish of Ford, northern Northumberland), a probable cemetery has been discovered. Fragments of five cruciform and/or small-long brooches have been recorded with the PAS; the first two were found in 2003 and 2005, but a change in crop and deeper ploughing brought three more into the ploughsoil in a single season. Such a concentration of brooches is rarely seen in England except at cemeteries.¹⁹ The periodic discovery pattern at Ford means that without regular recording with the PAS, and the easy retrieval of records via the Scheme's database, the site may not have been identified as a probable cemetery.

Eight parishes only have a single find. It is likely that these isolated finds are accidental losses in antiquity but, given the relative paucity of early-Anglo-Saxon material in the north-east, it is not impossible that they are the only indication of a burial site. Our ability to recognise these sites is dependent upon further discoveries.

The spiral finger ring from Corbridge (Northumberland) is less certainly datable. It could be early Anglo-Saxon, but is alternatively possibly Roman; the Roman town has other evidence for activity in the early Anglo-Saxon period.²⁰

In general, the location of early-Anglo-Saxon objects recorded by the PAS fits the broader pattern of previously known chance finds and burial sites in the region (Fig 3). These artefacts add primarily to the cluster of activity north and south of the Tees, including the finds from Piercebridge, Denton and Coatham Mundeville (all Co Durham). The florid cruciform brooch from Belsay and the fragment of great square-headed brooch from Ulgham (both Northumberland) come from isolated findspots



FIG 3
A distribution of PAS recorded early Anglo-Saxon objects (triangles) compared to known burials and chance finds of 5th- and 6th-century date (grey circles), based on data from Lucy 1999 and O'Brien 2010. Note that settlements have not been included on this map. © Crown Copyright/database right 2010. An Ordnance Survey/EDINA supplied service.

¹⁹ Chester-Kadwell 2009, 81.

²⁰ Cruciform brooches have been found; Haverfield 1909.

relative to other finds, but the brooches from Ford are a significant early addition to a number of settlements and cemeteries in the Tweed-Till river valleys.²¹

The robust and relatively easily found bow brooches form the most common class of artefact, with cruciforms the most frequent type. There has been no detailed study of early-Anglo-Saxon artefact chronology for Northumbria, and there are problems in relating fragmentary cruciform and small-long brooches to the otherwise very useful chronology developed for complete grave-goods in East Anglia. According to this, the cruciform brooch from Coatham Mundeville, with lappets but no Style I elements, can be assigned to type X3, which falls into East Anglian Phase FA2. The small-long brooches from Newby have trefoil heads and can be assigned to type SM2, which falls into East Anglian Phases FA1 and FA2a. At present, Phase FA1 is seen as lasting from c 450 to c 480, and Phase FA2b appears to continue until c 550.²² The bead types from Newby come from Brugmann's Groups A1 (c 450–530) and A2 (c 480–580).²³ The florid cruciforms and the great square-headed brooches of Group XXII may (but need not necessarily) have been manufactured after the middle of the 6th century.²⁴ The finds therefore span a century to a century and a half.

The cruciform brooch from Belsay, Northumberland, bears a striking similarity to one of the cruciform brooches found at the Roman fort of Benwell on Hadrian's Wall:²⁵ the patterns of masks along the border of the head, and the shape and motifs of the foot suggest that they were made by the same artisan or workshop. The fragmentary great square-headed brooch from Denton is also very close in style to the complete Group XXII brooch found in grave 19 at Sewerby, East Yorkshire;²⁶ the surviving parts are identical except for minor details.²⁷ These and other hints of distinctive northern artefact classes could be bolstered by a more detailed survey.

The PAS-recorded material also sheds light on the spread of early-Anglo-Saxon hegemony in northern England, a period for which there is little recorded history; even Bede has very little to say. Ford is 25 km (16 miles) from Bamburgh, where the *Historia Brittonum* provides an account of Ida taking the fortress in AD 547,²⁸ but otherwise there is sparse historical information to support the archaeological indications of 6th-century Anglo-Saxon activity in north Northumberland. Fig 3 suggests that Anglo-Saxon material culture was largely restricted to the coastal zone, with major rivers and Roman roads enabling further inland penetration. Over time, further discoveries and artefacts recorded by the PAS may reinforce or, perhaps, challenge this perspective. (*R Collins*)²⁹

CATALOGUE

This catalogue lists objects of 5th- and 6th-century date from the NZ square of the national grid, including the counties/authorities of Northumberland, Durham, Teesside, and part of North Yorkshire. The North Yorkshire finds have been included as they are geographically close to the Tees and are north of the void that the North York Moors creates in the current distribution of early Anglo-Saxon material. The material is listed by county, then parish, providing the PAS database number and object type.

²¹ Petts and Gerrard 2006, 63–4.

²² Penn and Brugmann 2007, 24–5 and 70–3.

²³ See catalogue for bead types present at Newby. For dating the groups, see Brugmann 2003, 70.

²⁴ Hines 1997, 229–30.

²⁵ Cramp and Miket 1982, 8, no. 7, pl. 1, identified as a great square-headed brooch of Leeds's type C2. These are now best seen as florid cruciforms and are excluded from Hines' 1997 corpus.

²⁶ Hirst 1985, 126.

²⁷ Denton has ring-and-dot stamps and enamel inlays; Sewerby 19 has garnet or glass inlays (Hines 1997, 340).

²⁸ *Historia Brittonum*, 61–3.

²⁹ FLO North East, Great North Museum, Barras Bridge, Newcastle upon Tyne, Tyneside NE2 4PT, UK; robert.collins@ncl.ac.uk.

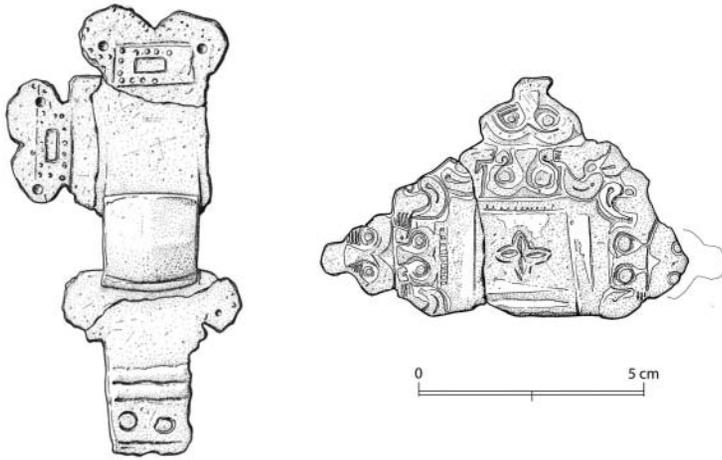


FIG 4

Small-long brooch NCL-1C82E5 (left) and florid cruciform brooch NCL-FBFB61 (right) from Ford, Northumberland. Drawings by Mark Hoyle.

Northumberland

Ford:

NCL-FBFB61: Gilded copper-alloy florid cruciform brooch (part of headplate only) (Fig 4)

NCL-7D2D81: Copper-alloy cruciform brooch (part of headplate and bow only)

NCL-BE3AD2: Copper-alloy cruciform or small-long brooch (part of headplate and bow only)

NCL-1C82E5: Copper-alloy small-long brooch (missing part of foot) (Fig 4)

NCL-7FoD34: Copper-alloy cruciform brooch (part of headplate only)

Belsay:

NCL-330C32: Copper-alloy florid cruciform brooch

Ulgham:

NCL-28F3D8: Fragment of gilded copper-alloy Hines Group XXII great square-headed brooch (footplate terminal lobe only)

Corbridge:

NCL-230C84: Copper-alloy spiral finger-ring

County Durham

Coatham Mundeville:

DUR-FFoED2: Copper-alloy cruciform brooch, repaired in antiquity

Denton:

NCL-A16C02: Gilded copper-alloy Hines Group XXII great square-headed brooch

Piercebridge:

NCL-D93A01: Copper-alloy wrist-clasp

NCL-29FAA7: Copper-alloy girdle-hanger

Teeside

Grindon:

NCL-47E4D3: Copper-alloy cruciform brooch (missing lappets and part of headplate)

Dalton Piercy:

NCL-FoF3C3: Copper-alloy cruciform brooch (part of headplate and bow only)

Greatham:

NCL-A1BC88: Copper-alloy probable cruciform brooch (part of headplate only)

Hart:

YORYM-1FD1E1, YORYM-2093A2 and YORYM-20B337: Three melted and distorted fragments, all similar in shape; possibly three small-long brooches from cremations

North Yorkshire

Newby:

NCL-82EDE3: Copper-alloy Hines Group XIV great square-headed brooch

| | |
|---|---|
| NCL-835237: Copper-alloy small-long brooch | NCL-836005: Iron ring and rod, probably part of a chatelaine |
| NCL-835693: Copper-alloy small-long brooch (missing much of foot) | NCL-7BE5C1: 81 amber beads and 7 glass beads (including a Constricted Segmental, a Constricted Cylindrical, and a possible Traffic Light bead). ³⁰ |
| NCL-838996: Copper-alloy bucket pendant | |

The Staffordshire hoard

The discovery of a major deposit of early Anglo-Saxon metalwork in Staffordshire generated a great deal of media attention and, more importantly, public interest. The details of the discovery are now well known and need not be repeated here.³¹ It would also be premature to enter into any detailed discussion of material which remains, as yet, uncleaned with only the most cursory examinations carried out. It is, however, worth putting on record what is currently known about the hoard.

It was found with a metal-detector by Mr Terry Herbert on a field of arable land, now down to grass, in the parish of Hammerwich, Staffordshire. Mr Herbert's account, confirmed by excavations carried out by Birmingham Archaeology, shows that all of the finds were in the ploughsoil. A lack of plough damage suggests that the objects had only entered the topsoil recently, probably at the last ploughing, eight months before. The excavations and geophysical surveys using both magnetometry and resistivity failed to reveal any context for the find. In addition to 240 bags of finds, Mr Herbert recovered 21 lumps of clay many of which contained large numbers of metal fragments. These may represent the lower part of the deposit, and the archaeological investigations suggested that the artefact distribution was focussed on this naturally deposited cap of clay. Subsequent work on the site has shown that the hoard has been fully recovered.

In its uncleaned condition the Staffordshire Hoard contains 5.095 kg of gold, 1.442 kg of silver and 0.310 kg of copper alloy. There are around 3,490 pieces, of which 43% weighs less than 1 gr, some weighing less than 0.01 gr. While small these objects can be of great interest, the 57 loose, cut garnets and 21 'waffled' foils are likely to reveal detail hidden on complete objects. The heaviest item in the hoard was the folded cross (Database No 655) which has a mass of 140.21 gr. It was found that 700 of the pieces were decorated, 53.0% with filigree, 21.0% cloisonné garnet, 10.3% incised and 15.7% Pressblech.

Much attention has been focussed on the strongly military content of the hoard: by weight, weapon parts represent 60.1% of the identified objects. A further 28.4% of the hoard was made up of unidentified objects, some of which may also be military. The remaining 11.5% of the hoard consisted of fragments which are too small to be recognised but, again, may have come from military objects. The only things that are definitely non-military are the two Christian crosses, one a large processional or altar cross (Database No 655), the other a pendant (Database No 303). It is possible that the strip bearing a Latin inscription (Database No 550) may have been part of a third cross. Two further objects may be crosses or merely cross-shaped mounts (Database Nos 820 and 920).

The weapon fittings are, in the main, parts of sword hilts. There are 97 pommel caps — although this number may fall if fragments can be fitted together. In addition to these there are 354 other hilt fittings, mainly plates from guards but also collars from grips. Nine decorated pyramids were found and two gold and garnet buttons of the type associated with the Sutton Hoo sword (Database Nos 675 and 1425). Four fittings for

³⁰ Bruggmann 2003, 75 and 77.

³¹ The hoard has its own dedicated website, including a full database of all of the finds and a large number of images of the objects. The database numbers used here relate to the downloadable database. This can be found at www.staffordshirehoard.org/.

rings attached to sword pommels (eg No 543) were recovered together with a stone bead which may have come from a sword hilt (No 764). Helmets were represented by the fine silver-gilt cheek piece with Style II decoration (No 453) and the small animal head mount which likely fitted onto a helmet crest (No 678). In addition, two small gold buckles are of appropriate proportions for use on a helmet (Nos 144 and 685) and fragments of reeded strip and 'C'-shaped strip are best seen as helmet fittings, as may be the strips of Pressblech foil on which are shown warriors and Style II animals. A gold mount decorated with a fish gripped by two Style II birds (No 652) may have come from a shield but this, and many other objects, including 22 objects described as 'cloisonné plates' and 49 'cloisonné strips' cannot at present be identified. A difficulty with these is the absence of mounts or fixing points although these may be revealed during cleaning. The five enigmatic gold snakes are likely to continue to challenge us.

What is also remarkable about the hoard is what is missing: there are no female dress fittings such as brooches or pendants, even though in graves and as Treasure finds these are more common than gold weapon fittings; masculine dress fittings such as triangular buckles and strap fittings are missing, although it might have been expected that they would have formed part of the accoutrements of the men carrying the swords and if the hoard had simply been loot we might also have expected these fitting to be present. Furthermore, there were no coins and none of the domestic objects that characterise aristocratic graves such as vessel and lyre fittings. It is overall a strange, unbalanced assemblage.

The dating of the hoard remains contentious. The earliest pommel caps could date to as early as AD 520 but most of the material probably dates from the later 6th and 7th century. On epigraphic grounds an 8th- or 9th-century date has been suggested for the inscribed strip (Database No 550), but this has been challenged and, on present evidence, there appears to be nothing in the hoard as late as this.

At a Coroner's Inquest on 24 September the hoard was deemed Treasure and subsequently valued at £3,285,000. This sum was successfully raised by Birmingham Museum and Art Gallery and the Potteries Museum in Stoke on Trent which enabled them to acquire the hoard and its future seems safe. Funding is, however, still needed for the conservation of and research on this remarkable resource. The discovery of this hoard will greatly increase our knowledge of high-status Anglo-Saxon metalwork and has the potential to revolutionise our understanding of the 7th century. (*Kevin Leahy*)³²

Byzantine copper coins found in England and Wales, c 668–1150

There is a long-held view that finds of Byzantine copper coinage in Britain are the result of modern losses of pieces brought back from the eastern Mediterranean by travellers and tourists over the last 100 years or so.³³ However, recent work undertaken on early Byzantine coinage, much of which has been reported via PAS, has questioned this orthodoxy and convincingly argued that, although there are undoubtedly modern losses within the corpus, at least some have strong cases for consideration as ancient depositions.³⁴ In addition, it is known that there are finds of Byzantine copper coins in Northern Europe, dating from c 600–900 at least, concentrated along the Rhine corridor and in southern Scandinavia.³⁵ This includes at least one 9th-century follis excavated

³² Department of Portable Antiquities and Treasure, British Museum, Great Russell Street, London WC1B 3DG, UK; leahy.pas@btinternet.com.

³³ Boon 1991.

³⁴ Moorhead 2009 examines finds dating from AD 498–668. He notes (p 271, n 7) that coins with a sandy patina are typical of losses in the Levant. Coins lost in this country in antiquity tend to have a darker, greenish patination.

³⁵ Lafaurie and Pilet-Lemière 2003, maps 16–17; McCormick 2001, map 12.1.

at Birka (Sweden) from a 10th-century context, and a range of other 10th- to 13th-century Byzantine objects from Sweden illustrating contacts in this period with the Byzantine world.³⁶ In England, there are a small number of excavated Byzantine copper coins known, suggesting their limited import, if not necessarily circulation, in England.³⁷

PAS has recorded 12 Byzantine coins dating post-668, of which ten have location details,³⁸ to which the five excavated finds can be added. Figure 5 highlights their distribution, including the potential modern losses, and all are predominantly from the S coast of England, with the exception of three finds, one each from Norfolk, Leicestershire and Cheshire. This distribution in many ways parallels that seen for the early Byzantine finds.³⁹ Another useful comparative dataset is that of the Venetian soldini of the 14th–16th century which themselves have recently been studied in the light of PAS finds.⁴⁰ These unofficially entered the general currency as halfpennies, but 64% of the finds are still from coastal counties. This illustrates that most soldini did not travel a great distance from the port of entry prior to their deposition,⁴¹ and the situation may be similar with these Byzantine finds.



FIG 5

The distribution of Byzantine coins in England and Wales, c 668–1200. Squares represent 9th-century coins, upright triangles 10th-century coins, inverted triangles (dark) 11th-century coins, and inverted triangle (light) possible modern losses of 11th-century coins.

Drawn by J. Naylor. The background map detail used in this figure is based on copyright digital map data owned by HarperCollins Cartographic and is used with permission.

³⁶ Blackburn 2008, 60; Egan 2007, 116.

³⁷ Egan 2007, 111–12 described four 11th- and 12th-century copper folles found in London; Moorhead 2009, tab 1, no 1 for a 10th-century follis found in later medieval levels in Winchester.

³⁸ These are: GLO-D4B576, DOR-oF6596, LEIC-187C40, ESS-gCB575, HAMP-D09423, LEIC-135137, LVPL1589, LVPL1883, HAMP-AFE522, SUR-5B70C4, DEV-DFa031.

³⁹ Moorhead 2009, 274.

⁴⁰ Daubney 2009.

⁴¹ Calculations based on the appendix of finds in Daubney 2009, 194–8.

The chronological pattern of loss is also interesting, although we cannot be entirely sure how long after issuing these coins were lost. The phasing of the Birka find to the century after minting, alongside the generally similar evidence for European finds of Islamic dirhams must caution any interpretations,⁴² but the overall patterns of loss are similar to those seen elsewhere. In the Mediterranean, for example, finds from Butrint (Albania) and Corinth (Greece) both expand greatly from the mid-9th century probably due to the renewed vibrancy of the Byzantine economy.⁴³ The fact that a roughly similar pattern is in evidence in Scandinavia and England, albeit from a very small number of finds, may indicate that we are witnessing the same process at the very fringes of its distribution. Also, these copper coins cannot be seen in isolation: a small number of contemporary gold and silver stray finds are known, as are the other material mentioned previously. We must remain cautious of every find of Byzantine copper coinage in this country, and some are undoubtedly modern losses, but we can be confident that at least a number of these stray finds were indeed lost during the medieval period and reflect the wide connections that were prevalent in Europe at the time. (*J Naylor*)⁴⁴

Viking-Age cubo-octahedral weights recorded on the PAS database: weights and weight-standards

At the end of 2009 the PAS database held a total of 35 records of cubo-octahedral weights of Viking-Age date, comprising a total of 54 weights. These weights are in the shape of a cube with the corners cut off, and are often also known somewhat imprecisely as 'polyhedral' (Fig 6). The six larger square faces are generally marked with one to six punched dots or annulets, often contained within a decorative border. The eight smaller triangular faces are usually blank, but occasionally similarly marked; they can have a different number of dots to the larger faces.

It has been thought for nearly a century that this punched-dot decoration (both on cubo-octahedral weights and on weights of other shapes) is not purely decorative, but might be related to identifiable standards, either marking the denomination of a weight or its position within a weight-series.⁴⁵ Until the advent of the PAS, however, there were too few cubo-octahedral weights known from England to draw any conclusions about weight-standards here.⁴⁶

Twenty-one of the PAS weights are made from lead and 33 of copper alloy. All but one of the lead weights, however, are contained in a summary record of 20 weights from Torksey (Lincs) with no details as to individual weight or decoration, and so could not be included here. The final lead weight, from Great Dunham (Norfolk), was included. Three other records could not be used, either because no markings could be seen or because their weights were not recorded, leaving a total of 31 records of single weights. This compares with 28 copper-alloy and one copper-alloy/iron cubo-octahedral weights with punched dots from Kaupang, a site whose weights have been comprehensively studied.⁴⁷

The nature of the PAS's evidence, in the main drawn from metal-detector topsoil finds, means that there is no independent dating evidence for these weights. However, it seems from excavated evidence in Scandinavia that the cubo-octahedral form is introduced just after the mid-9th century and remained into use into the 10th.⁴⁸

⁴² Kilger 2008a.

⁴³ Hodges 2006, 4; Sanders 2003.

⁴⁴ Heberden Coin Room, Ashmolean Museum, Beaumont Street, Oxford OX1 2PH, UK.

⁴⁵ Brøgger 1921, 106–7; Pedersen 2008, 138 and 148–9.

⁴⁶ Kruse 1992, 80–1; see also Wallace 1987, 212–13, for the historic lack of cubo-octahedral weights from Ireland. A distribution map for cubo-octahedral weights across Europe and Scandinavia, showing none west of Denmark and Norway, is given in Steuer 1987, Abb. 7.

⁴⁷ Pedersen 2008.

⁴⁸ *Ibid* 132–6.

TABLE I

| | Weight (gr) | Findspot (parish) | Notes |
|---|-------------|---------------------------------------|-----------------------------------|
| Six dots | | | |
| DENO-9338F5 | 4.58 | Torksey (Lincs) | irregular shape |
| NMS-493027 | 3.92 | Heckingham (Norfolk) | |
| SWYOR-3C5372 | 3.92 | Misterton (Notts) | |
| NLM-A27134 | 3.88 | Roxby-cum-Risby (North Lincs) | |
| NLM-EBA6E3 | 3.88 | Roxby-cum-Risby (North Lincs) | |
| DENO-93B390 | 3.87 | Torksey (Lincs) | |
| SF-10BC84 | 3.85 | Herringswell (Suffolk) | shown on Fig 6 |
| DENO-934697 | 3.80 | Torksey (Lincs) | 3 dots on small faces |
| BUC-F89F17 | 3.75 | Stone, Bishopstone & Hartwell (Bucks) | |
| DENO-92F202 | 3.70 | Torksey (Lincs) | 3 dots on small faces |
| DENO-93DA24 | 3.56 | Torksey (Lincs) | |
| NMS-3CC062 | 3.52 | Great Dunham (Norfolk) | lead alloy |
| DENO-93CC67 | 3.22 | Torksey (Lincs) | |
| Heaviest weight = 4.58 gr, divided by six gives a dot-value of 0.7633 gr | | | |
| Four dots | | | |
| NMS-E6D367 | 3.01 | Southrepps (Norfolk) | |
| CAM-F8E526 | 2.77 | Melbourn (Cambs) | |
| DENO-93F6E7 | 2.64 | Torksey (Lincs) | |
| DENO-941C56 | 2.60 | Torksey (Lincs) | |
| DENO-940F54 | 2.53 | Torksey (Lincs) | |
| NLM-465AF3 | 2.24 | Torksey (Lincs) | |
| DENO-942613 | 2.06 | Torksey (Lincs) | |
| NLM687 | | Folkton (North Yorks) | no weight recorded |
| Heaviest weight = 3.01 gr, divided by four gives a dot-value of 0.7525 gr | | | |
| Three dots | | | |
| DENO-943053 | 2.13 | Torksey (Lincs) | |
| NLM7256 | 1.76 | Torksey (Lincs) | |
| DENO-943A82 | 1.67 | Torksey (Lincs) | |
| DENO-Co65B4 | 1.66 | Torksey (Lincs) | |
| Heaviest weight = 2.13 gr, divided by three gives a dot-value of 0.71 gr | | | |
| Two dots | | | |
| DENO-9458A3 | 1.50 | Torksey (Lincs) | |
| DENO-9442F8 | 1.44 | Torksey (Lincs) | |
| DENO-Co75A3 | 1.32 | Torksey (Lincs) | |
| DENO-944EA3 | 1.29 | Torksey (Lincs) | |
| DENO-Co8136 | 1.16 | Torksey (Lincs) | |
| Heaviest weight = 1.5 gr, divided by two gives a dot-value of 0.75 gr | | | |
| One dot | | | |
| DENO-Co8AA8 | 0.75 | Torksey (Lincs) | dot on one face only |
| NLM-466707 | 0.73 | Torksey (Lincs) | |
| Heaviest weight = 0.75 gr, with a dot-value of 0.75 gr | | | |
| No or uncertain dots | | | |
| DENO-CogD37 | 1.98 | Torksey (Lincs) | |
| NMS-1D82Ao | | Seething (Norfolk) | no weight recorded |
| SWYOR-E809B3 | | Torksey (Lincs) | 20 lead-alloy weights, no details |

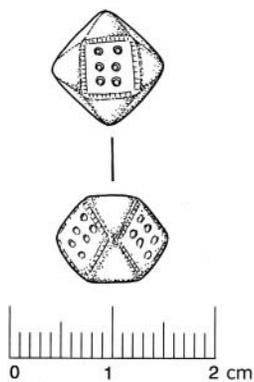


FIG 6
A cubo-octahedral weight from Herringswell, Suffolk (SF-10BC84).
Drawing by Donna Wreathall.

The distribution of PAS weights is heavily skewed towards the productive site of Torksey, which has produced 23 of the 31 usable weights; the other eight weights have been found across the Danelaw — from North Yorkshire, Nottinghamshire, Lincolnshire, Cambridgeshire, Norfolk, Suffolk and as far south-west as Buckinghamshire.

Some of the metrological analyses carried out in recent years have been highly sophisticated.⁴⁹ The method used for the PAS weights was the same as that proposed by Brøgger in 1921, namely to group the weights by their markings and use the heaviest weight in the group to work out the system.⁵⁰ The cubo-octahedral weights were accordingly grouped by the number of dots on their major faces, the heaviest weight was noted (hoping this to be the least altered by damage or corrosion since manufacture), and this was divided by the number of dots. The result was as follows:

- Thirteen weights had six dots on the major faces. Although most fell into the weight-range 3.70–3.92 gr, there was one weight, from Torksey, of 4.58 gr. Divided by six this gives a dot-value of just over 0.76 gr.
- Eight weights had four dots, but one had no weight recorded and so had to be excluded. Of the seven, again there was a group of weights in the range 2.53–2.77 gr, but one heavier weight from Southrepps weighed 3.01 gr. Divided by four this gives a dot-value of just over 0.75 gr.
- Four weights had three dots, and again three were slightly lighter at 1.66–1.76 gr but one, from Torksey, was heavier at 2.13 gr. Divided by three this gives a dot-value of 0.71 gr.
- The five two-dot weights did not have any clear groupings in their date-ranges. The heaviest two-dot weight, from Torksey, was 1.5 gr, giving a dot-value of 0.75 gr.
- The two one-dot weights, both from Torksey, weighed 0.75 gr and 0.73 gr.

The pattern of evidence from the heaviest PAS cubo-octahedral weights therefore suggests that they are based on a standard of around 0.75 g. This replicates conclusions drawn from the best-preserved weights at Kaupang, Birka and Hedeby,⁵¹ and suggests a widespread standard for at least some types of weight. Balances available at the time appear to have allowed weighing to at least this degree of precision.⁵²

A unit of 0.75 gr fits well with the suggestion that a suggested late Viking-period weight-unit, the øre, could be divided into 20 smaller units each of 1.3 gr. The

⁴⁹ Sperber 1989; Pedersen 2008, 140–4.

⁵⁰ Brøgger 1921, 6–7; Pedersen 2008, 140.

⁵¹ *Ibid* 148–55.

⁵² *Ibid* 138–9; Sperber 1988.

name of this unit could be *penningr* in Old Norse, *penning* in Old English, and it may derive from the Merovingian tremissis.⁵³ A unit of 0.75 gr neatly therefore becomes a half-penning.

In most cases the calculation of dot-value has been based upon a single heavier weight in each group. As the majority of weights are lighter, it is possible that most have lost 10–20% of their original mass through damage and corrosion, although it should be emphasised that none of the weights has been handled by the writer so variations in preservation remain hypothetical. With variable preservation, a relatively large group will be needed to recognise any pattern, and the group of PAS-recorded weights is perhaps at present only just large enough for this purpose. It would be easy to amplify and test the results from PAS-recorded cubo-octahedral weights by looking at those from another major source of metal-detected data, namely the Norfolk HER.

Excavated cubo-octahedral weights may in some cases have the advantage of precise dating, essential in the study of weight-standards which may have been subject to change over time, but their numbers are low compared to those found by metal-detectorists. The two sources of information should therefore be seen as complementary. (*Helen Geake*)⁵⁴

The Monetisation of Medieval England Project

‘The Monetisation of Medieval England’ is a three-year AHRC-funded Collaborative Doctoral Award begun in October 2008, supported by Durham University (Chris Gerrard), the British Museum (Barrie Cook) and the Portable Antiquities Scheme (John Naylor — Ashmolean Museum). Richard Kelleher is the doctoral researcher. The project aims to develop new approaches to the study and interpretation of post-Conquest coins (1066–1544) using a core dataset of material recorded by the PAS, the vast majority of which have been recovered by metal detectorists. The project is based around a number of interrelated aims which together address questions on the development of the use and spread of coinage. These are: (1) the social and economic frameworks within which coins were used and how this affected their use and loss; (2) the patterns of foreign coins found in England; (3) deposition of coins within domestic, funerary and wider landscape contexts; and (4) exploration of the secondary use of coins such as their conversion into items of jewellery, piercing for use as amulets or folding as part of pilgrimage vows.

After the initial download and cleaning of the data the number of coins dating from the Norman Conquest to Henry VIII’s debasement of the coinage in 1544 stood at over 17,000.⁵⁵ These form the core source for the distribution analysis with support from comparative material from excavations. The overall distribution of coins over England and Wales shows an extensive spread of finds across lowland and coastal areas (Fig 7). However, patterns seen in metal-detected material are often subject to a number of militating factors which can affect distributions and their interpretation. This includes the nature of the relationships between metal-detector users and museum curators/archaeologists prior to the inception of PAS, and by the evolution of PAS itself.⁵⁶ Since the PAS went nationwide (excluding Scotland and N Ireland) in 2003 such bias has become increasingly less marked over time. This is especially true in the W and central Midlands and the Isle of Wight where finds are now recorded in quantities comparable with the traditionally more prolific eastern and southern coastal counties. The initial

⁵³ Pedersen 2008, 146; Kilger 2008b, 284.

⁵⁴ H. Geake, Department of Archaeology, University of Cambridge, Downing Street, Cambridge CB2 3DZ, UK; hg260@cam.ac.uk.

⁵⁵ Downloaded 4 October 2008.

⁵⁶ Richards et al 2009, section 2.6.

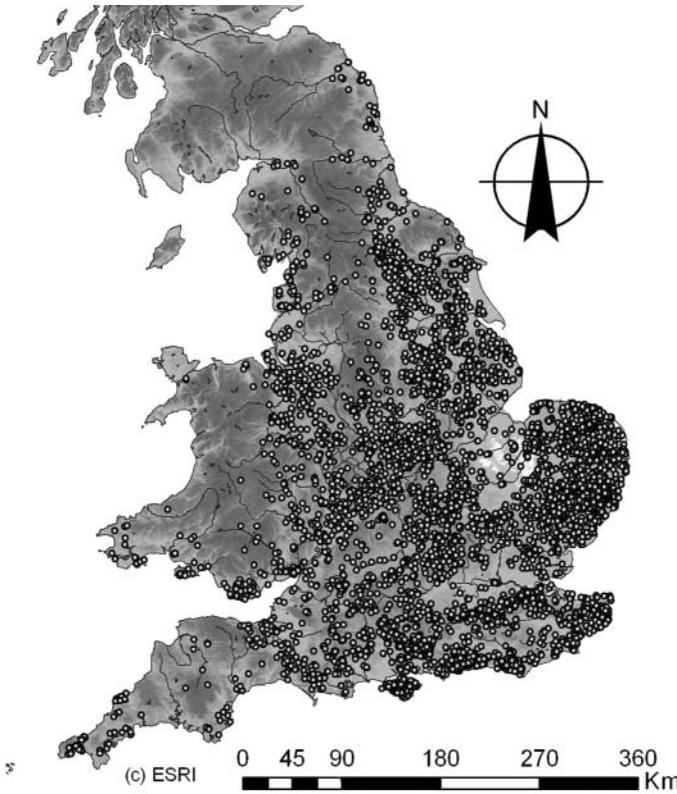


FIG 7

Map showing the general distribution of medieval coin finds, 1066–1544. Drawn by R Kelleher. The background map detail is based on copyright digital map data owned and supplied by ESRI and English Heritage and is used with permission.

mapping has shown a range of spatial and temporal patterns in the development of the use of coinage during the period, particularly in the late 12th century, which saw a significant rise in the provision of coinage from the English mints. This increasing availability of coin continued into the 13th century with a concomitant rise in the use of money across a broad spectrum of society. Finds are made in a wide range of locations, from the ports and major towns to small, rural communities whose inhabitants appear to have begun participating in some form of monetised economy. From the 14th to 16th centuries new dynamics affect the distribution and composition of the finds record. Questions concerning the availability of silver, the introduction of a gold coinage, the scourge of inferior imported coins and the relationship between the towns and their hinterlands are all areas which the ongoing work will address.

One important aspect of the research focuses on the non-monetary use of coins, relating to both their particular placement within the landscape and also in terms of how the coins themselves have been manipulated. Three main types of adaptation have been identified, consisting of conversion into a brooch or badge (Fig 8a), piercing (Fig 8b) and folding (Fig 8c). The latter category is of particular interest, with folded coins on the PAS database now numbering over 130. Documentary evidence suggests that these may be interpreted within the remits of pilgrimage vows, with coins folded as a promise to the saint.⁵⁷ Further study will explore the dynamics of where these finds occur, the nature of the manipulations found and what one might infer regarding the specific meanings invested in the objects by their final owners.

⁵⁷ Kelleher 2010.



FIG 8

Three types of modification found on medieval coins: (a) reverse gilded with attachment added to the obverse (YORYM-60FCA5); (b) pierced (IOW-2353B8); (c) folded (WAW-8184B8). Photographs by L Andrews-Wilson (a), F Basford (b) and A Bolton (c).

Overall, the project is emphasising the importance of the new dataset from which is evolving a dynamic picture of the varied uses of coinage in medieval England and Wales. (Richard Kelleher)⁵⁸

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MEDIEVAL BRITAIN AND IRELAND — FIELDWORK HIGHLIGHTS IN 2009

EDITOR'S NOTE:

This section comprises a selection of highlighted projects or discoveries across Britain and Ireland, with extended illustrated overviews of results, finds and contexts. The selection each year covers new evidence illustrating the breadth of medieval contexts and showing their regional or national significance. Contributors are welcome to offer potential extended summaries (of maximum 2,000 words with short supporting bibliography where appropriate; good quality b/w and/or colour plates and figures — to a maximum of four). Please note that the deadline for submissions is 1 March each year. MB&I entries (with illustrations) of traditional format are still required; since 2008, these are housed and accessible on an online database and directory hosted by ADS and accessible via the Society's webpages. Thus the Index listed below uses the numbers to signify the full sequential county and country listings; however, only those numbers in bold refer to entries that appear in print in this volume as Highlights. The searchable database will eventually include also all back issues and entries of MB&I. We thank all contributors past, present and future for their efforts, texts and support in maintaining this invaluable source of summaries on annual fieldwork activities and discoveries. Contributors to this year's Highlights are flagged at the end of their respective reports.

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British sites

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- metal artefacts: 7, 13, 152, 198, 222, 229, 231, 245, 259.
- mills (water): 186.
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- ovens, kilns: 104, **180**, 219.
- palaces, ecclesiastical: 44, 92, 218, 223, 252.
- refuse, domestic (pits, middens): 21, 91, 150, 170, 179.
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- Saxo-Norman features (incl. ceramics): 12, 75, 117, 126, 200.
- scientific dating (archaeomagnetic, dendro, radio-carbon): 35, 43, 46–7, 49–50, 53, 73, 82, 99–100, 105, 109, 149, 155, 169, 171, 193, 202, 206, 210, 240–1, 244.
- settlements: 7, 13–16, 18, 20, 22, 25, 30, 37, 63, 110, 126–7, 178, 188, 191, 220, 227, 240, 245, 258, 265.
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- skeletal evidence: **98**, 222.
- stone, architectural: 23, 57, 81, 106, 137, 236, 255, 259, 268.
- stone artefacts: 156, 198, 265.
- stone, funerary: 23, **98**, 248.
- town defences: 41, 138, 212–13.
- undercroft: 36.
- villages: 3, 56, 70, 259.
- waterfronts: 79, 90, 151, 234, 244.
- waterworks (conduits, dams, drains, ponds, tanks): 22.
- wells: 103, 106.
- wooden objects: 218.

ENGLAND

DORSET

MASS EXECUTION BURIAL OF VIKING RAIDERS

52. WEYMOUTH, WEYMOUTH RELIEF ROAD, RIDGEWAY HILL (SY 672 857). During earthwork operations at Ridgeway Hill, in connection with the Weymouth Relief Road scheme, archaeologists from Oxford Archaeology South uncovered a mass burial pit, roughly 7 m in diameter and 1.5 m in depth, containing multiple sets of human remains (Fig 1). This unique find was widely reported at the time. Within the pit, a pile of decapitated skulls, 51 in total, had been placed in one area; the rest of the bodies appeared to have been randomly thrown into the pit. Apart from the human bone the only other finds from the pit were some sherds of late Iron-Age or early Roman pottery; however, initial radiocarbon dating of one of the bones suggested a date between AD 890 and 1030 for these bodies.

Analysis by osteological specialists established that all the uncovered remains are male and the overwhelming majority are aged from their late teens to about 25 years, with just a small number of older individuals. As a general group they are tall, robust in stature with good teeth and appear to have had healthy lifestyles. The skulls are complete with their mandibles and each has a number of vertebrae, indicating decapitation. The lack of any other finds, such as accessories associated with clothing, indicate that the bodies were probably naked when thrown into the pit. Samples of soil were taken from around the bodies to test for indications of textiles, which would have rotted away.

Osteological analysis

A catalogue of the disarticulated bones indicates that there are more bodies than skulls to go with them. There may have been as many as three or four additional skeletons in the pit, suggesting a small number of heads may have been taken elsewhere, perhaps as



FIG 1

Weymouth: excavation of mass burial pit. *Photograph © Oxford Archaeology.*

trophies, or set on spikes as a gruesome display of victory. Osteological study has shown that many of the executed men suffered multiple traumatic wounds to the skull and mandible as well as the upper spine, presumably related to the process of decapitation. These all seem to have been inflicted by a sharp-bladed weapon, probably a sword or axe. Less common were wounds elsewhere on the skeleton, which included cuts to a pelvis and blows to the chest and stomach (evidenced by crush injuries to the thoracic and lumbar vertebrae) and defensive injuries to the hands of some men; there is no evidence that the individuals were bound, and at least one hand had had its fingers sliced off in a typical 'defensive' wound.

To date, not much skeletal pathology unrelated to the act of execution has been identified. Exceptions include two examples of healed fractures to the femur or thigh bone. These fractures had healed after a fashion but are unlikely to have been medically treated (ie splinted) in any way and in one case this had led to a marked shortening of the right limb which was a good 5 cm shorter than the left; both of these individuals would have had pronounced limps. There was evidence of serious and long-standing infection in a small number of individuals. At least three and possibly four long bones showed evidence of a condition known as osteomyelitis. This is evidence of non-specific infection: in other words, it cannot be associated with a particular micro-organism. The condition may result from the direct injection of bacteria from the skin surface during a penetrating bone injury. The appearance of these bones indicates that these individuals had lived with the infection for some considerable time, although they would have been in a lot of pain and mobility would have been affected. Detailed skeletal analysis should recover further evidence relating to the demographic make-up, lifestyles, activities, general health and diets of these men.

Isotope analysis

In order to try to answer the question who the men were, isotope analysis on ten of the individuals whose remains were deposited in the pit has been undertaken by Dr Jane Evans and Carolyn Chenery at the NERC Isotope Geoscience Laboratory, part of the British Geological Survey, based in Nottingham. Isotopes of various elements derived from drinking water and food are fixed in the enamel and dentine of teeth as the teeth are formed in early life. Following a meticulous process of preparation and chemical cleaning in the laboratory the isotopes can be released from the teeth and measured using mass spectrometry techniques. Strontium and oxygen isotopes give indications of local geology and climate respectively, while carbon and nitrogen isotopes reflect diet. Taken together the readings can be used to form an opinion on where the individuals originated. The results show that the men in the pit had grown up in areas where the climate is colder than in Britain. One individual gave readings compatible with an origin north of the Arctic Circle. They had certainly not lived their formative years on a chalk geology such as is present in Dorset where they were found. The carbon and nitrogen isotopes showed they had eaten a high-protein-based diet that is comparable with known sites in Sweden. The range of readings obtained also points to the fact that they did not have a common geographic origin. Taken together, the readings strongly indicate that the men executed on the Ridgeway originated from a variety of places within the Scandinavian countries. In sum, the evidence supports the impression that these bodies relate to the execution of a group of defeated Viking warriors.

Radiocarbon dating

As noted, a broad date range of AD 890–1030 had been obtained by radiocarbon dating of one of the recovered bones. In an effort to narrow this and test the potential for refining the dating a further two radiocarbon dates have been obtained. These suggest an execution date from between AD 910–1030, with a higher probability that it occurred in the latter half of this period.

Viking raiders?

The site of the mass burial pit, in a prominent location on the Ridgeway, next to a main road and close to a Hundred boundary and prehistoric monuments, is typical of places used for executions during this time.⁵⁹ However, the large number of individuals and method used make it unlikely that the pit is the result of normal criminal justice being practised. The time period in question was one of considerable conflict between the resident Anglo-Saxon population and invading Danes. Viking raids such as the one recorded in the Anglo-Saxon Chronicle, where three ships ravaged Portland in AD 982, were common and there were a series of major battles in the south of England as successive Anglo-Saxon kings and Viking leaders fought for control. The mass grave could denote a victory statement by Anglo-Saxons after an unrecorded battle or skirmish. We cannot be sure, of course, if the conflict occurred close by or if these men were prisoners who were only later dispatched away from the battlefield. (*David Score*)

HAMPSHIRE

A LEPER HOSPITAL IN WINCHESTER

98. WINCHESTER, ST MARY MAGDALEN (SU 506 295). Little archaeological work has been conducted on medieval *leprosaria*, an institution that accounts for almost a quarter of all medieval hospital foundations.⁶⁰ Thus our knowledge of these establishments,

⁵⁹ Reynolds 1997.

⁶⁰ Gilchrist 1995, 10–11; Rawcliffe 2006, 107–8.

particularly their buildings and layout, is limited.⁶¹ In 2007, the Department of Archaeology at the University of Winchester initiated the Magdalen Hill Archaeological Research Project (MHARP) with the aim of studying the history and development of the former medieval leper hospital and almshouse of St Mary Magdalen, Winchester. The site is relatively undisturbed by later urban encroachment and is presently used for arable farming. Typical of many leper hospitals, the site was located on the outskirts of the medieval town suburbs, presently some 1.6 km (1 mile) east of the modern city. Despite its importance, and our lack of knowledge relating to early hospital foundations, little work had formerly been carried out on the site. In 2000 it was the focus of a small excavation televised by Channel 4's Time Team. However, work was not completed due to adverse weather conditions and information concerning the earlier phases of the hospital remained largely inconclusive.⁶² In late 2007 and early 2008, MHARP carried out an evaluation and desk-based assessment of the site including field and geophysical surveys, together with an assessment of primary and secondary documentation; this was combined with a re-analysis of the Time Team material. The resistivity survey located the existence of several structures, as well as evidence for a precinct wall and earlier boundary ditches. With reference to 18th-century drawings, these structures were identified as the former chapel, almshouse range, Master's lodge and gatehouse as well as other ancillary structures. These results, currently being prepared for publication, provided the basis for a planned long-term excavation project by MHARP.

Brief history of the site

The site is first referred to as a community of lepers in the 12th-century Winton Domesday and was likely founded by Henry de Blois, Bishop of Winchester (1129–71), as a leper hospital sometime around 1148.⁶³ It was still functioning, to some extent, as a *leprosaria* during the 14th century, as is referred to as such in the Bishop's Register of 1325.⁶⁴ By the mid-14th century the hospital was reported as being 'slenderly endowed'.⁶⁵ It is likely that this led to a possible re-foundation (and rebuilding) as a *Maison Dieu*. In the 16th century St Mary Magdalen appears to have escaped official dissolution and it was still receiving endowments throughout this period. Both the *Valor Ecclesiasticus* and Chantry Certificates further indicate a reasonably healthy income and the institution successfully appealed to the king in 1552 for a continuation of the priest's stipend.⁶⁶ Around this time, the masonry buildings of the hospital were replaced with brick-built almshouses, with only the medieval chapel left intact. By the end of the 17th century the institution had been variously used as a Civil War camp and a prison for Dutch prisoners-of-war, the latter forcing the permanent removal of the hospital residents and the destruction of much of the buildings.⁶⁷ By 1789 the remaining ruinous buildings were finally dismantled. Fortunately, the remnants of the almshouses and chapel were drawn by the antiquarian Jacob Schebbelie and a description of the buildings provided by the last hospital master, William Wavell.⁶⁸

⁶¹ In contrast, a little more work has been carried out on the cemeteries, most notably that at St Mary's and St James's, Chichester (Magilton et al 2007).

⁶² Gallagher 2002.

⁶³ A foundation sometime in the tenure of Henry de Blois has been previously suggested by Keene (1980, 19) and James (2007, 75). The date of 1148 has been arrived at by the principal author, however, on the basis of evidence presented in an article on the site documentation currently in preparation.

⁶⁴ VCH 1973, 197.

⁶⁵ *Ibid.*

⁶⁶ VCH 1973, 200; HRO 51M48/2/2.

⁶⁷ HRO 21M65/32/2/2/1.

⁶⁸ *Vetusta Monumenta* 3 1796.

2008 excavations

Work in 2008 revealed the W range of the brick-built almshouses running E–W with evidence for internal partition walls and floor surfaces. A tentative date for the almshouses, based on recovered artefacts, is around AD 1600. The N wall of the almshouse was constructed of brick and flint and incorporated a series of fireplaces and chimneys; its S side may have reused a pre-existing medieval wall, possibly from the infirmary. An earlier feature, cut into the natural chalk, and underlying the W end of the almshouse, appeared to represent a filled well or sanitation feature.

Excavations to the south of the almshouse also revealed the foundations of the chapel, which comprised flint-faced walls with rubble core. Significantly, two phases of chapel construction were identified: an earlier aisle relating to a foundation in the 12th century, replaced by a larger extended aisle in the later medieval period. This may reflect late 14th- and early 15th-century changes noted above. Three successive floor levels were found, dating tentatively from the 12th century through to the late 16th/early 17th centuries. The chapel walls had been extensively robbed but a range of architectural fragments, dating from the 12th century onwards, was recovered. Evidence for a demolition level to the north comprised primarily roof tile and 17th-century debris, including gin bottles, horse equipment, pipes and animal bones — perhaps relating to the use then of the hospital as a prison. West of the site a small excavation trench revealed part of a ditch containing a single architectural fragment and pottery dating from the 11th/12th centuries. The ditch may represent the original boundary ditch or *vallum* of the hospital.

2009 excavations

Work in 2009 continued in the area of the main hospital complex, focusing on the remains of the Master's house, which connected to the almshouse range to the north, and the medieval chapel to the south. The whole once comprised an 'H'-shaped plan enclosed by a precinct wall. In contrast to the almshouse range, the foundations of the Master's lodge had been carefully and systematically robbed, with only sections of fabric remaining. It is likely that the building materials were recycled to construct the Water Lane almshouse in the 1790s. This may also suggest that the Master's lodge, with the chapel, were the last surviving buildings on the site. The elements of fabric that survived indicated that the house was predominantly brick. Excavations revealed that the N end of the building had been restructured at some point. A once-tiled corridor ran the length of the building and probably gave access to the chapel. Inside the building were traces of a fireplace, partition walls and a latrine. The E wall of the building had been constructed over the remains of a medieval hearth.

The excavations also investigated the medieval buildings underlying the almshouse and Master's lodge. Here evidence for a masonry hall-like structure was recorded, with further evidence for floor surfaces and internal partitions (Fig 2). The two westerly 'cells' of the hall had small hearths, suggestive perhaps of individual living accommodation; this area may represent the S aisle of the medieval infirmary. The possible N wall of this building was also picked up in a trench further to the east. If so, this indicates a building of some dimension. There was some evidence for a masonry drain and a post-hole structure, both stratigraphically related to the sealed 'well' noted above, suggestive of some form of water management system.⁶⁹ South of the hall, and underlying the post-medieval Master's lodge, was a building containing a hearth (the latter sealed by the lodge's E wall). It is not clear yet whether or not this was a later adjunct to the hall

⁶⁹ This feature may represent an 'immersion' pool or tank of the sort documented at the leper hospital at Clattercote, Oxon (Markham 1997, 1) and possibly excavated at the former hospital of St John the Baptist, Oxford (*Medieval Archaeol* 32 (1988), 270).



FIG 2

St Mary Magdalene: view of site looking west. The S wall of the medieval hall or infirmary runs down the right side of the main trench. Note part of the chapel N wall in the left corner of this trench. The corresponding S wall can be seen in the smaller trench to the left of this picture.

Photograph © the Magdalen Hill Archaeological Research Project (MHARP).

or a separate building, possibly earlier masters' accommodation. Comparative evidence for the tiled hearth recommends a 14th-century date.

Work in 2009 also concentrated on the chapel and cemetery, with a small trial trench to assess the nature and extent of the burials. A series of graves were uncovered in the cemetery, to the south of the chapel, with at least one individual presenting evidence for leprosy (Fig 3). Inside the S aisle of the chapel further graves were excavated, including a plaster-lined tomb with a Purbeck marble slab; the tomb's contents had been robbed, or indeed 'rescued', in the 17th century. A number of burials were also found within the main excavation trench, underlying the late 16th-century Master's lodge. Here, four burials, placed alongside the N wall of the chapel (and aligned with the earliest chapel wall), contained carved head niches, and one had possible evidence for 'pillow stones' (Fig 4). Several of these burials presented evidence for leprosy. It is possible that this location once represented a small open area and cemetery between the medieval hall and chapel, perhaps reserved for burial of clergy. If so, it would indicate that some of the clergy were lepers themselves, a factor not unknown from contemporary sources.

Excavations in 2010 will concentrate on the area of the medieval hall or infirmary and associated earlier buildings, and work should continue at the site for the next few years; an extensive excavation focusing specifically on the cemetery is planned for 2012. Further information, reports and events can be found at <www2.winchester.ac.uk/archaeology/LeperHospital.htm> (S Roffey and P Marter)



FIG 3

St Mary Magdalene: S wall of chapel and cemetery. Note excavated cemetery burials and lined grave in the chapel interior. Photograph © the Magdalen Hill Archaeological Research Project (MHARP).



FIG 4

St Mary Magdalene: possible clergy burials north of the chapel. Photograph © the Magdalen Hill Archaeological Research Project (MHARP).

KENT

BRINGING A LOST ANGLO-SAXON MONASTERY TO LIFE

114. LYMINGE (TR161409). Lyminge forms one of a network of monastic houses established within the heartland of the Anglo-Saxon kingdom of Kent in the generations following St Augustine's mission of AD 597. Although the religious community is reasonably well documented between the late 7th and mid-9th centuries, recent scholarship has cast doubt on the post-Conquest hagiographical tradition (revived in the 19th century) that it was founded in AD 633 by Æthelburh, widow of King Edwin of Northumbria, on land gifted by her brother King Eadbald of Kent.⁷⁰ Foundation legends aside, Lyminge, along with coeval institutions at Minster-in-Thanel, Dover, Folkestone and Minster-in-Sheppey, epitomises the pattern of monastic foundation in the pre-Viking kingdom of Kent: a double house established on a royal estate and territorial — in this instance, *lathe* — centre.⁷¹ Evidence for a pre-Christian central-place role is expressed by the place-name itself (literally meaning 'territory of the Limen people') and the site of an Anglo-Saxon inhumation cemetery on the outskirts of the village containing a contingent of richly furnished burials demonstrating an elite presence within the locality by the 6th century.⁷²

The epicentre of the monastic community can be pinpointed with some accuracy thanks to the discovery and piecemeal excavation in the 1850s–60s of an Anglo-Saxon church in the graveyard immediately south of the present edifice by Canon Jenkins (Fig 5).⁷³ The attributes of this structure — heavy reuse of Roman brick and tile, eastern apse, and projecting porticus — draw upon the same traditions as other members of the 'Kentish group' of Anglo-Saxon churches including St Pancras, Canterbury, and St Mary, Reculver.⁷⁴ Rather more ambiguity surrounds structural foundations unearthed in the graveyard to the south-west of the present church tower — Jenkins erroneously conflated these remains with those of the early church to create a grand and equally illusory basilican structure — but recent re-investigation favours a further Anglo-Saxon monastic building over a structure of Roman origin.⁷⁵ A ground-penetrating radar survey, to be completed under the aegis of the current excavations, may provide a solution to this problem.

Uncovering the monastic settlement: excavations since 2008

Ongoing excavations by the University of Reading, triggered by an initial evaluation by the Diocesan archaeologist Paul Bennett (Director of the Canterbury Archaeological Trust – CAT) in 2005, have been targeting an area to the south of the churchyard, including paddocks belonging to the adjoining 'Old Rectory' (Figs 6 and 7). Spread across this 140 × 100 m window is a swathe of middle-Anglo-Saxon (7th- to 9th-century) occupation, comprising a zoned arrangement of domestic accommodation, agricultural processing and light industrial activity, consistent with the middle and outer precincts of the monastic complex. The settlement displays clear signs of formal planning evident in a sequence of external ditched-and-banked boundaries accompanied by internal enclosures defined by smaller palisade trenches and open spaces — a hierarchy of boundaries paralleled at the monastic settlement of Hartlepool.⁷⁶

The built environment attested at Lyminge is dominated by ground-level timber 'halls' of posthole construction, but also includes two sunken-featured buildings of

⁷⁰ Kelly 2006.

⁷¹ Tatton-Brown 1988; Brooks 1989, 67–74.

⁷² Warhurst 1955; Richardson 2005, 48–9.

⁷³ Jenkins 1874; 1875; 1889.

⁷⁴ Taylor 1969; Taylor and Taylor 1965, 408–9; 1978, 742, 1074, 1082; Cambridge 1999.

⁷⁵ Fernie 1983, 39.

⁷⁶ Daniels 2007, 157–62.

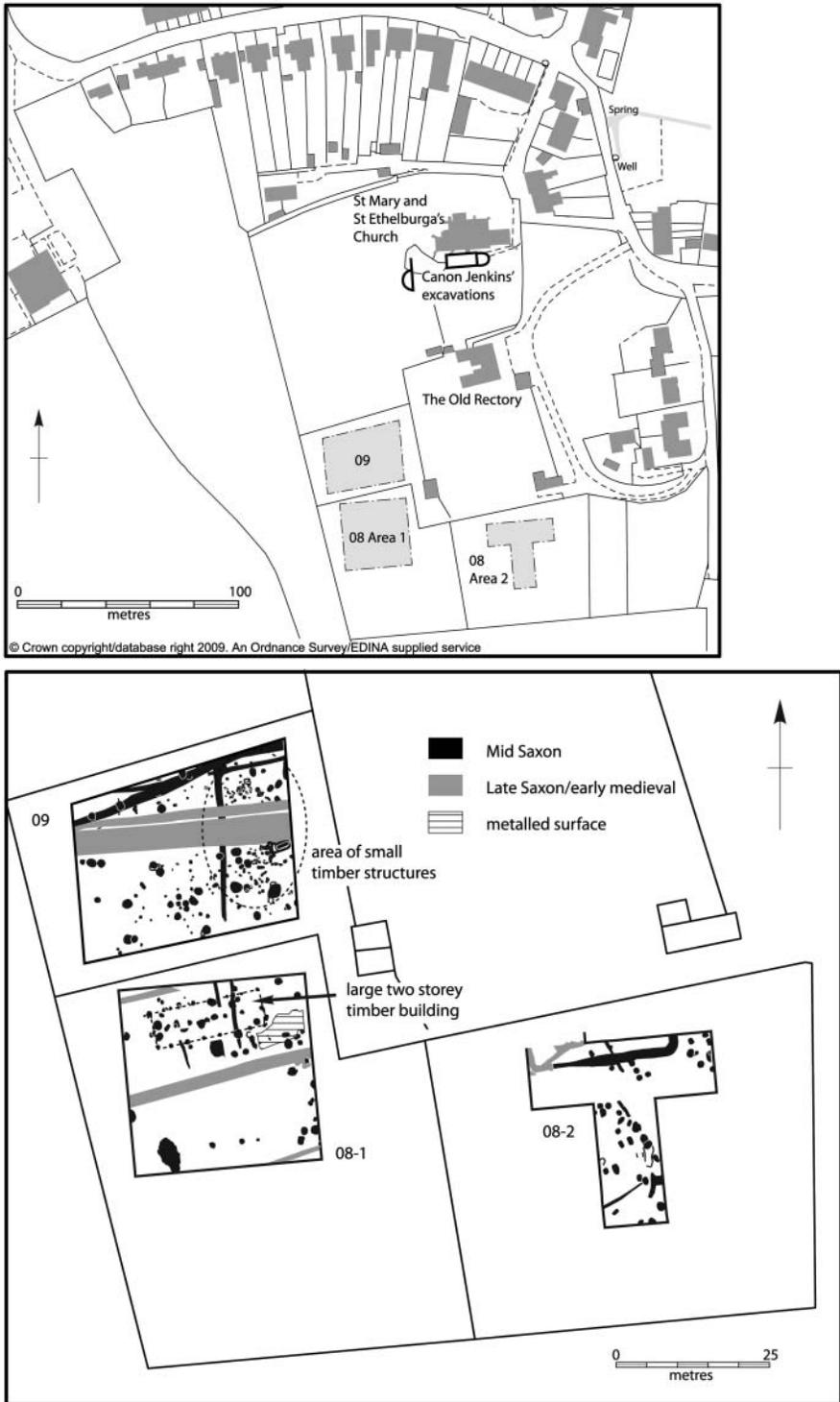


FIG 5

Lylinge: location and detail of excavated features 2008–09. Drawings © University of Reading.



FIG 6

Lyminge: view of 2009 excavation looking east. The church can be seen on the left and on the far right the outline of the large middle Anglo-Saxon timber building (marked with modern posts) excavated in 2008. Photograph © University of Reading.



FIG 7

Lyminge: a selection of the copper-alloy and silver pins of middle Anglo-Saxon date recovered from the excavations. Photograph © University of Reading.

classic Anglo-Saxon form. The best preserved of the former category is an imposing building measuring 19×6.5 m constructed of eight pairs of outer wall posts enclosing a further longitudinal alignment which most probably functioned as Sampson posts, supporting the floor-joists of an upper storey. This unusual building, accompanied by an exterior metalled yard made of crushed flint compressed into the surface of the chalk, has been provisionally interpreted as a threshing barn, partly on the evidence of continental 'barns' sharing an upper storey supported on an internal alignment of posts.⁷⁷ Fragments of smaller posthole buildings were found closer to the monastic nucleus but these are more difficult to resolve structurally due to truncation by a substantial late-Saxon/early post-Conquest boundary. However, the dense concentration of latrine pits found within the same zone shows that these buildings provided domestic accommodation; given their diminutive proportions and close spacing, a cluster of cells, each under single occupancy, could be legitimately entertained as a working hypothesis.

A notable feature of the settlement complex is the profusion of pits (over 100 have so far been excavated), many in defined spatial clusters. Such a concentration is difficult to parallel amongst the repertoire of middle Anglo-Saxon settlements outside *wics*, the few sites with similar densities being Bishopstone, East Sussex,⁷⁸ Lake End, Dorney, Bucks,⁷⁹ and Carlton Coalville, Suffolk.⁸⁰ Unlike the last two sites, however, where quarrying may have provided the initial stimulus for pit digging, at Lyminge the fact that the pits fall into a consistent and deliberate range (covering regular cylindrical, square and oval forms) suggests multiple functions spanning communal latrines, storage, and industrial facilities. Such distinctions, combined with the changing depositional/functional episodes characterising the life-cycles of pits, will hopefully emerge as a result of soil micromorphology and ongoing analyses of their rich artefact and bioarchaeological assemblages.

The economy and culture of the Anglo-Saxon monastery

The prodigious datasets generated by the excavations are allowing the full diversity of daily life within the monastic settlement — diet, provisioning networks, domestic interiors, craftworking, personal attire, etc — to be placed under the analytical spotlight. Among provisional insights one may note that Lyminge's zooarchaeological signature is heavily weighted towards sheep husbandry, a hint that the pre-Conquest development of the wool industry on the North Downs may have followed other parts of E England in coming under strong monastic impetus.⁸¹ Abundant collections of marine fish bone and molluscs demonstrate a systematic exploitation of estates on Romney Marsh for daily food provisioning — a tenorial link otherwise documented in Anglo-Saxon charters and the excavated site of *Sandtun* which formed part of the community's endowment.⁸² Lyminge thus joins a small number of middle Anglo-Saxon sites, most of either a high-status or monastic nature, displaying elevated consumption of marine species prior to the 'fish-event horizon' of AD 1000.⁸³ Evidence for external provisioning is balanced by indications of self-sufficiency in other aspects of the bioarchaeological record: domestic fowl (including geese) were reared on site, at least some of the cattle were bred for dairy products; and detritus from the primary stages of cereal processing indicates that surrounding arable was farmed by the monks.

The pottery assemblage, large by comparison to other contemporary sites excavated south of the Thames, provides its own perspective on the web of interactions binding the community with the outside world. The appearance of local coarsewares

⁷⁷ Hamerow 2002, 37–8, fig 2.15.

⁷⁸ Thomas 2010.

⁷⁹ Foreman et al 2002.

⁸⁰ Lucy et al 2009.

⁸¹ Sykes 2006.

⁸² Brooks 1988; Gardiner et al 2001.

⁸³ Barrett et al 2004.

alongside regional and continental imports is a combination seen at *Sandtun*,⁸⁴ although interestingly the ratio of imports at Lyvinge is smaller and more narrowly focused on Frankish greywares. The local wares include an impressive range of boss-decorated jars of a type distinctive to E Kent; the concentration from Lyvinge might very well lend support to the hypothesis that production of such vessels fell under a monastic monopoly. Lyvinge also has the distinction of producing the first finds of Anglo-Saxon window glass from Kent, including grozed quarries in translucent pale blue and dark green; fragments of imported glass vessels (decorated cone beakers) are also present. Craft production is attested by artefacts related to, variously, bone-working (offcuts, tools), textile manufacture (spindlewhorls, loomweights, and pin-beaters) and iron smithing (prodigious quantities of slag), with fine metalworking (crucibles and a folding balance) representing the more specialised end of the craftwork spectrum. Items of personal attire are dominated by pins in copper alloy and silver and tweezers — a fairly narrow range repeated at other double-houses in Kent (Fig 7). As a selection of ornate silver dress-accessories from Canterbury and other E Kentish sites show,⁸⁵ more luxurious items of metalwork could clearly be acquired in the middle Anglo-Saxon kingdom by those with spending power. This imbalance begs the question: were female members of Kentish double-houses bound by a tighter code of austerity than their sisters in, for example, Northumbrian communities, or, alternatively, were they genuinely impoverished institutions?

Wider significance of the results

With the exception of the middle Anglo-Saxon occupation excavated in the 1990s by CAT in the outer precincts of St Augustine's Abbey, this is the first time that the settlement attached to an Anglo-Saxon Kentish monastery has been excavated on a large scale in systematic fashion. The results are all the more welcome given the fact that opportunities for investigating middle Anglo-Saxon settlements (beyond the urban centres of Canterbury and Dover at least) have been lamentably few.⁸⁶ It should be acknowledged that there are factors preventing a total reconstruction of the monastic complex: significant portions of the Anglo-Saxon core will have been swallowed up both by the 'Old Rectory' and the S and W expansion of the graveyard since Canon Jenkins' day. Nevertheless, because there is no significant post-Conquest development on the site (monastic or otherwise), the newly unearthed remains have the potential to generate our first coherent image of a pre-Viking monastic community in something approaching its full topographic complexity.

A major thrust of the Lyvinge post-excavation and publication programme, informed by excavations at comparable sites in Northumbria and the Celtic regions of early medieval Britain (Hartlepool, Hoddum, Portmahomack, and Whithorn), will be to think critically about the ways in which archaeologists go about characterising early-medieval monastic occupation. To what extent is it appropriate to apply conceptions of sacred space in a pre-Viking environment in SE England? How rigidly were social divisions within a monastic community (between lay-brethren and the ordained and between male versus female brethren) structured in their organisation and layout? Lyvinge clearly has the capacity to address these broader conceptual issues in the particular geo-cultural context of Anglo-Saxon Kent.

Lyvinge beyond the monastery: the archaeology of an Anglo-Saxon royal vill

Looking to the future, there is an exciting opportunity to target other parts of the village to gain a broader spatio-temporal context for the excavations. Given Lyvinge's evident

⁸⁴ Gardiner et al 2001.

⁸⁵ Graham-Campbell 1982.

⁸⁶ Welch 2007, 201.

royal vill status, one dimension could be the relationship between the monastic focus and a possible earlier secular component, the location of which may be hinted at by isolated glimpses of early-Anglo-Saxon occupation and burials previously encountered within the historic core of the village, most recently during a campaign of test-pitting in 2007. What is already evident is that the inhumation cemetery excavated north of the village forms but one part of a broader cultural landscape directly related to the emergence of Lyvinge as a dynastic power-centre. (*Gabor Thomas*)⁸⁷

OXFORDSHIRE

DARK EARTHS IN THE DORCHESTER ALLOTMENTS

174. DORCHESTER, THE ALLOTMENTS, WATLING LANE (SU 577 941). The *Discovering Dorchester* project — a collaboration between Oxford Archaeology, Oxford University's School of Archaeology, Dorchester Museum and the people of Dorchester-on-Thames — continued in July 2009 with a second season of excavation in allotments within the SW part of the Roman town, which lies beneath the present village of Dorchester-on-Thames. Dorchester is one of two walled Roman towns in Oxfordshire and overlies a probable Roman fort. Three nationally important early 5th-century burials were discovered there in the 19th century: two in Iron-Age ramparts to the south of the Roman town (the 'Dyke Hills') and one to the north.⁸⁸ These individuals were interred with a combination of late-Roman and Germanic dress items in the immediate post-Roman period, indicating that elements of Roman identity survived the turmoil of the early 5th century. The first bishopric in the Anglo-Saxon kingdom of Wessex was established at Dorchester by Birinus in c AD 630, making it a centre of national importance. The see was transferred to Lincoln in 1071, leaving the former cathedral as a minster of secular priests and, later, an Augustinian abbey. The current focus of work is to elucidate the late-Roman to early-Anglo-Saxon sequence in a 30 × 20 m excavation area. The allotments were known to have considerable archaeological potential thanks to small-scale work undertaken there by Professor Frere in 1963;⁸⁹ no research excavations have taken place there since that time.

At the E end of the trench, deposits overlying the principal N–S Roman road through the town were removed. Gravel layers at the W margin of the road were continuous with its surfaces. Both road and adjacent surfaces were cut by a number of pits, and the road was also cut by a N–S row of postholes, suggesting that a structure had been placed upon the metallated surface. Most of the pits have yet to be examined, but a late-Roman or later date seems likely. Some are related to the sequence of dark earth deposits which originally covered most of the site. These deposits were particularly substantial in the central area, where successive spreads of stone within them (including a possible building platform identified in 2008) indicate that they had accumulated over an extended period, although no vertical differentiation is evident in the soils themselves. The dark earths seem to have both overlain and been cut by pits, but, since the soils are identical, pits were only identified when indicated by marked concentrations of animal bone and stone, or where they cut the underlying road and adjacent surfaces.

⁸⁷ The author is grateful for the tremendous support of the excavations by the local community and especial thanks are due to the Roland-Paynes of the Old Rectory, H Burr of Well Cottage, the Revd P Ashman, and N Mullins of Woodlands Farm. Along with the excavation supervisors, R Reynolds D Brown, B Jervis and J Cotter are thanked for provisional statements on the faunal remains and pottery, and M Matthews for producing the plans accompanying this report. Financial support for the excavations was generously provided by the Royal Archaeological Institute, the Society of the Antiquaries of London, Kent Archaeological Society and the Robert Kiln Charitable Trust.

⁸⁸ Kirk and Leeds 1953.

⁸⁹ Frere 1964; 1984.



FIG 8

Dorchester-on-Thames: late Roman buckle of Hawkes and Dunning Type IB, found in 2008.
 Photograph © Oxford Archaeology.

Removal of the dark earths in the NW part of the site, where they were thinner, revealed mixed gravel deposits, again cut by pits in places. One well-defined sub-rectangular patch of gravel may have formed the floor of a building measuring c 5 × 2.5 m and aligned N–S. No clearly related structural features were identified, however, so the interpretation is uncertain. An E–W aligned feature, probably a ditch, lay at the S margin of the ‘floor’ and may have extended through the centre of the site (where it is still obscured by remaining dark earth deposits) to link up with another linear feature curving north-westwards away from the line of the Roman road.

The dark earths also sealed two features identified by Frere as wall trenches for a N–S-aligned Anglo-Saxon building. Re-examination demonstrated, however, that these features were in fact very different in character: one was a shallow slot, the other a substantial steep-sided ditch. The latter was possibly of Roman date, with Anglo-Saxon material from the upper fills. It seems increasingly unlikely that any Anglo-Saxon structure in this stratigraphic position (between late-Roman deposits and the dark earths, which incorporate both Roman and early Anglo-Saxon material), or the dark earth itself, can have been as late as mid-Saxon in date.

As in 2008, large quantities of finds were recovered, particularly from component elements of the dark earth. These include an important late-Roman pottery assemblage, with Alice Holt, Tilford/Overwey, Midlands late shell-tempered and black-burnished wares complementing the range of local coarse wares, and fine wares dominated by products of the Oxford industry. The latter included the pedestal base of a previously unrecorded form and a beaker fragment with part of a figure, probably of Mercury, in relief. The — potentially post-Roman — reuse of sherds, particularly of trimmed bases, was notable, and a bowl of Young type C77 had been pierced with numerous carefully drilled holes. Hand-made pottery of early-Anglo-Saxon character continued to be recovered, along with two ring-shaped loomweight fragments. The numerous small finds included a further 80 Roman coins and at least three fragments of double-sided antler combs of either late-Roman or early-Anglo-Saxon date. The most significant individual object was a second late-Roman buckle of Hawkes and Dunning Type IB from one of the components of the dark earth deposits; an unstratified example was found in 2008 (Fig 8). The recovery of two of these buckles from a small excavation area is remarkable; together with the Dyke Hills burials — both of which contained late-Roman belt buckles, including yet another of Type IB — they underline the importance of Dorchester for understanding events at the very end of the Roman period in Britain. A single *sceat*



FIG 9

Wallingford: air photo of castle earthworks; north is to the left of the photo. Image courtesy of the Environmental Agency.

(Series Q), dating from the second quarter of the 8th century was also recovered and testifies to the elusive middle Anglo-Saxon occupation. Objectives for 2010 include removing the remaining dark earth layers and resolving the late- and post-Roman plan; articulated animal bones found within dark earth deposits and on the Roman road surface will be sampled for radiocarbon dating. (*P Booth, C Gosden and H Hamerow*)

MAPPING WALLINGFORD CASTLE

180. WALLINGFORD, BURH TO BOROUGH RESEARCH PROJECT (SU 6073 8950). In the second year of the AHRC-funded *Wallingford Burh to Borough Research Project*, a project articulated between the Universities of Leicester, Exeter and Oxford and in conjunction with the Wallingford Historical and Archaeological Society (TWHAS), particular emphasis was placed on exploring the prominent earthwork remains of the castle (SU 6090 8970) — one of the largest royal castles in England, yet one almost totally lacking above-ground built remains, following substantial slighting after the Civil War and with additional losses into the Victorian period when much landscaping was undertaken to enhance a private estate. Now largely public space, with the Northmoor Trust overseeing the Castle Meadows (Fig 9), and with the Town Council overseeing the S bailey area (Castle Park), the related earthworks of banks, ditches and other features are extensive and provide substantial indication of the former grandeur of the medieval complex. The Project overall is aiming for a detailed archaeological investigation and understanding of the town's emergence as a planned and substantial late-Saxon *burh*, and its expansion and decline across the period c AD 850–1400, and clearly the castle's

imposition, role and impact are crucial for understanding the fortunes and socio-economic content of the town.⁹⁰ Valid questions concern not just the configuration and chronologies of the castle, but also its relationship to the town and its population, its economic value, whether a royal presence enhanced the town's status and prospects, and what role the river played in serving the site. Origins and precursors are as important, and interest also lies in the site's status and remodelling in the 17th-century Civil War and its subsequent material dispersal.⁹¹

In terms of methodologies, the Project has involved extensive geophysical survey (both resistivity and magnetometer) of all large open spaces within and around the town; this is allied with detailed topographic survey of all earthwork traces (where possible also exploring larger private garden spaces — notably in the castle area), and assessment and analysis of old and current maps and LIDAR data. These combine to provide guidance for placement of trenches for open area excavation in key points of Wallingford; three trenches were opened in 2008,⁹² including one over a Civil War bastion in Castle Meadows (Trench 1), and a further three were made in 2009; two final trenches were programmed for 2010, both in castle-related spaces). In addition, the Project is bringing together the results and finds from previous excavations, most notably two large investigations in the mid-1960s and early 1970s, both unpublished and both of which tackled spaces in the castle area — respectively the late-Saxon to medieval N gate and rampart, and a southern inner bailey cob-built kitchen of the 13th century. Below we briefly highlight the results of survey and excavations in 2009 at the castle and to its immediate north-west.

Geophysical and topographic survey

A substantial and highly rewarding programme of geophysical survey was undertaken in the Easter seasons of 2008 and 2009 in the castle spaces north of the motte, in 'suburban' space to the north-west, and in Castle Park to the east, mapping a total area of c 3 ha.⁹³ The slope and depth of the ditches of the castle made this a daunting but challenging task for the team! The geophysical survey went hand in hand with detailed topographic survey work led by Michael Fradley to tease out much fuller detail from the extant earthwork traces than provided by OS maps. The latter study certainly enables us to formulate a more detailed understanding of the castle's phased development, including its post-medieval use during the Civil War and subsequent landscaping as an ornamental appendage to a succession of high-status properties. Additional components of the original *burh* defensive alignment have been recognised which impacts on how we interpret the overall late-Saxon perimeter. Of particular note are findings in the area east of the castle in the riverside zone where a large pool and other water management systems have been recorded which will have facilitated milling and the breeding of fish and fowl stocks — important economic activities as well as prominent symbols of social status — while potential elements of an elite hunting preserve to the north are currently under investigation. Still to resolve is the extent of castle expansion in the 13th century: a perimeter wall and fortified dam studded with circular towers has been surveyed on its N side, but it is currently uncertain whether this continued around the W and S sides of the castle.

Both magnetometer and resistivity coverage identified that, not unexpectedly, the inner bailey in particular contains key features to explore, some of which may of course

⁹⁰ On project aims, methods and early results, see Creighton et al 2009.

⁹¹ A major output is the edited volume by Keats-Rohan & Roffe 2008 exploring various facets of the origins and earliest history of medieval Wallingford.

⁹² Summary in Speed et al 2009 plus <www2.le.ac.uk/departments/archaeology/research/projects/wallingford>

⁹³ To note, GPR survey was also undertaken in April 2010 on a sector of the inner bailey and on the presumed 'barbican' to its west, proving deep deposits of robbed or in situ masonry features.

relate to Victorian period landscaping (formal gardens and route ways). The complex defensive configuration of the castle can now be seen to be dynamic, changing throughout the medieval period, incorporating part of the former Anglo-Saxon rampart ditch and making use of the water from the ditch in order to fill its moats, with new works being added onto existing ones in multiple phases of modification and addition right up to final demolition during the Civil War. Scope exists to tie in documentary evidence (as a royal castle the site is well served by records) to clarify internal components to the medieval complex. There is also scope to understand better the course of the late-Saxon *burh* defences prior to the castle's imposition and the rampart's incorporation, although only with wider excavation may this be confirmed.

Inner bailey — Trench 4

Trench 4 was the first recorded archaeological excavation located within the inner bailey and it targeted a number of distinctive geophysical anomalies (Fig 10). The earliest feature found was a possible oven or dryer, dated by its fill to the 11th or 12th centuries (see Fig 11). This was sealed by a number of tipped layers onto which a later series of walls, stone bases and robber trenches were constructed. A large backfilled cellar (or undercroft) and associated robbed wall was tentatively identified along the E edge of the trench and may represent further substantial buildings within the inner bailey. All of these later features were set within, and parallel to, the circuit of the inner bailey walls. Sealing all of this was a thick layer of demolition rubble encountered immediately below the turf line which can be interpreted as representing a series of levelling episodes, probably in an attempt to landscape the area of the buildings demolished in the 17th century. Most importantly, the results indicate that there is likely to be two or more metres of stratified archaeological deposits, including extant walling, still surviving within the bailey.

Medieval road and quarry — Trench 6

Trench 6 was sited in the E part of Wallingford School playing fields and was opened to specifically investigate a linear anomaly that appeared in the spring 2009 resistivity and magnetometer survey (see Fig 10). Three distinct zones were revealed beneath the topsoil: running from west to east, the zones comprised a greyish chalky marl layer, a road and ditch system, and a layer of medium brown loam. The chalky marl is thought to have been the fill of a deep gravel quarry; the lack of finds prevented determining a close date for this quarry and fill, however, it lay alongside the N-S road, of which only the lower layer of gravelled surfacing/make-up survived. Limited finds from the associated ditch on the road's E flank suggest recutting in the 12th or 13th centuries. The loam layer east of the ditch (and between this and the modern roadway) contained bone, tile and pottery fragments, all predominantly medieval. Intriguingly, beneath the exposed area of this loam and underlying the presumed medieval road and ditch was a metallised surface that could denote an earlier, more consistent and much wider road running in the same direction. No dating evidence was recovered from its gravel construction. The assumption is that the road (and quarry) served both town and castle, before being supplanted by the line of the modern road; this noticeably curving round the outermost rampart and reflecting a moment when the town N gate was shifted.

Final stages

In April 2010 Trench 7 was opened over the line of the late-Saxon rampart, coinciding also with two of the box trenches cut in the 1960s excavations near the former town N gate. This was invaluable in clarifying the format of the rampart construction and in providing secure dating evidence from the rampart make-up. For summer 2010 a final trench will be cut in the Queen's Arbour, between castle inner bailey and the river

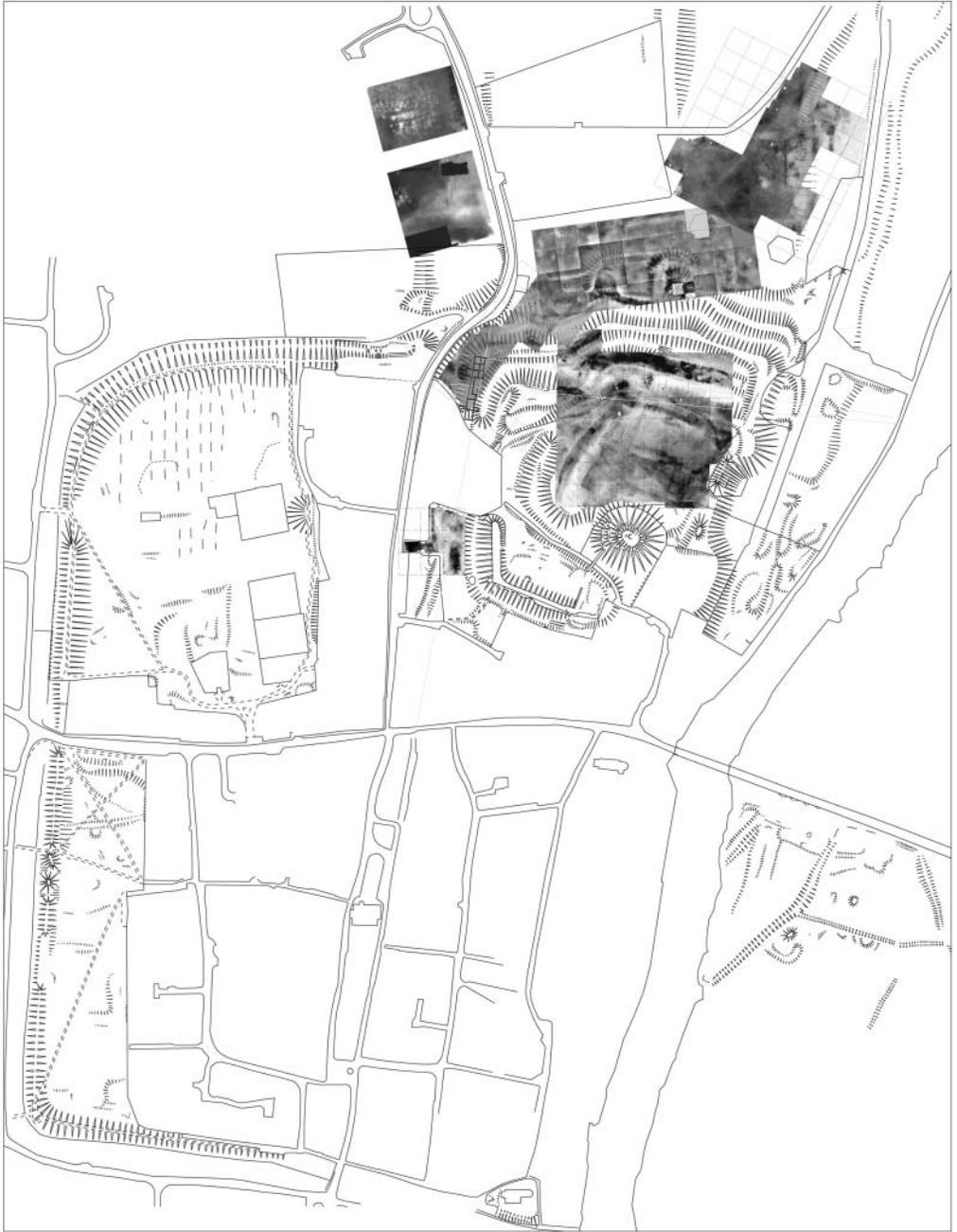


FIG 10

Wallingford: composite resistivity plots for all areas surveyed in 2008–09 in the NW zone of Wallingford (castle inner bailey, Castle Meadows, Castle Gardens and Wallingford School playing fields) with revised wider earthwork survey by Michael Fradley. *Image © Wallingford Burh to Borough Research Project*



FIG 11

Wallingford: Trench 4 viewed from south. The oven or dryer is in the bottom right; the likely cellar/undercroft is in the top right. Photograph © Wallingford Burh to Borough Research Project

Thames, exploring part of an elongated chalk-built structure of likely 13th-century date (discovered through resistivity survey and investigated with a small trench cut in 2003), interpreted as either a revetment for a dam, a quay, or a combination of units, either way associated with the castle. All told, these additional trenches, combined with the extensive mapping noted above, provide a vast array of new information to put alongside ongoing documentary study which will bring Wallingford's castle further to the fore. (*N Christie et al*)⁹⁴

IRELAND

CO ROSCOMMON

FROM RINGFORT TO FORT: TULSK EXCAVATIONS AND SURVEY 2009

214. TULSK (M 83410 81080). The site of 'Tulsk Fort' is being investigated as part of the Discovery Programme's *Medieval Rural Settlement Project* (2002–10), which is studying the nature of Gaelic lordship in N Roscommon as a counterpoint to its examination of Anglo-Norman settlement in the east of the country. The excavation lies adjacent to the site of 'Tulsk Castle' built in 1406 and close to a Dominican Priory founded in 1446/7.

⁹⁴ Report compiled by Neil Christie, Matt Edgeworth, Jeremy Taylor (University of Leicester), Andy Hyam (ULAS), Patricia Baker (University of Kent), Oliver Creighton, Michael Fradley (University of Exeter) and Gerard Latham (TWHAS).

Situated at the centre of Tulsk village, Tulsk Fort is a raised ringfort which served as a central residence for the O'Connor Roe lords from the end of the 14th century. Archaeological excavation has been conducted seasonally since 2004 (see *Medieval Archaeol* 51 (2007), 292–6) with the assistance of many volunteers and was concluded in 2009. The location of the excavated area was informed by a comprehensive geophysical survey of the site (Fig 12): a 6 m wide \times 55 m long trench was opened across the ringfort's interior; an extension was made to include much of the NE corner of the site, while a single short trench was opened off the NW side of the mound to investigate a pair of parallel banks. The 2009 season was dedicated to bottoming-out the medieval deposits observed in the course of previous seasons, and reaffirming the principal stratigraphic profile. The following account summarises the principal observations at the close of the excavation.

The ringfort is defined by an earthen bank and external ditch, with several layers of activity represented in the interior. The bank is revetted internally by a stone wall façade, while the outer ditch drops 3 m to a narrow V-shaped bottom. Internally a series of occupation levels is recognised, while two fire-pits are thought to be associated with a former corn-drying kiln. The interior of the ringfort came to be raised, creating a c 1 m high platform, and an internal ditch was cut through the E side of the site, separating and distinguishing this narrow space from the rest of the enclosed area. An infant burial was recovered from a point that is cut into the primary earlier medieval occupation deposit but is itself buried by the raising event. The burial should serve as an important dating opportunity for this transitional phase on the site.

A distinct late-medieval stratum was observed above and cutting through the pre-existing early medieval horizons (Fig 13). This later activity included construction of a masonry tower, which straddles the E side of the site; the ruined foundations survive for a building that measured c 20 m long \times c 10 m wide externally, constructed in a series of phases (Fig 14). The building of the tower led to a recutting of the internal ditch and a filling-in and recutting of the outer ditch associated with the ringfort. The later medieval external ditch was U-shaped in profile and was both wider and shallower than its predecessor. Reworking of the internal ditch also established a wider and deeper feature than its predecessor. The tower retains a substantial foundation trench that was cut down to firm boulder clay. The trench is filled with up to eight courses of roughly laid stonework. It appears that a second stage of wall foundation was added to the N side of the tower, and that both this additional area and the main E side were joined by the construction of a well-made and battered stone façade, which retains a rounded NE corner and a garderobe chute. In contrast, the inner or E wall of the tower was not battered and the NW corner is formed as a simple right-angle. The S corners of the tower remain outside the excavated area. After the tower collapsed, a 15 m long \times 9 m wide hall was rebuilt from the fallen rubble against the tower's E side, running across the partially filled-in outer ditch. The hall also collapsed in due course, but the rubble which filled the outer ditch from this event was not reused in any significant way.

A ground-penetrating radar survey was undertaken following the excavation, which has provided further insight to the immediate context of the features exposed. The stone tower is the only substantial building constructed on the site with deep foundations, while the trend observed in the flagstones of the early modern period is continued outside the excavated area to the south. A very rich body of ecofactual and artefactual material is being processed and analysed, and represents one of few large rural assemblages in W Ireland. In many respects, the excavation at Tulsk Fort has recovered far more than anticipated. In addition to being able to make contributions to the wider discussions of lordship in medieval Ireland, the data will particularly inform discussions relating to the environment and agrarian practice in Gaelic Ireland during the late Middle Ages — subjects that have been in need of a robust dataset for far too long. (*Niall Brady*)

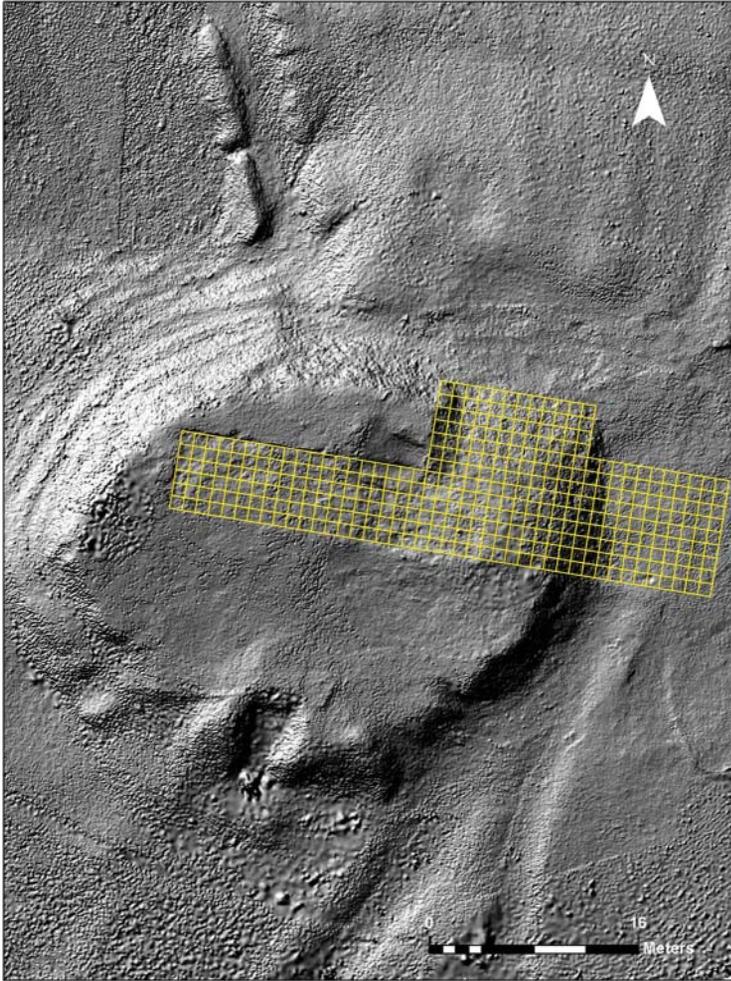


FIG 12

Tusk: digital terrain model of Tusk Fort showing location of excavation trench. *Image © the Discovery Programme.*



FIG 13

Tusk: view during excavation showing, on the left, the masonry-filled foundation for the later medieval tower that was cut through the pre-existing ringfort bank, which was revetted internally with a stone façade, seen in the top right. *Photograph © the Discovery Programme.*



FIG 14
 Tulska: aerial view of excavation showing the E side of the site and highlighting the ruined foundation of the later medieval tower. North is to the bottom of the picture.
 Photograph © the Discovery Programme.

SCOTLAND

ORKNEY

AN ENIGMATIC VIKING-AGE NUCLEATED SETTLEMENT IN ORKNEY

251. BROUGH OF DEERNESS (HY 5955 0873). Summer 2009 saw the second season of new excavations at the well-preserved Viking-Age settlement set atop a c 30 m high sea stack in Orkney's E mainland (Figs 15–16).⁹⁵ The summit of the stack is crowned by the ruins of a c 10th- to 12th-century chapel and the earthworks of approximately 30 associated buildings. The chapel was excavated in the 1970s, when it was found to have a timber phase that preceded the extant stone structure, with a coin of Eadgar (AD 959–75) stratified between the two.⁹⁶ This chapel is thus among the earliest known evidence for Viking-period Christianity in the Scandinavian N Atlantic region. The site is a scheduled monument and forms part of a much visited nature reserve owned and managed by the Orkney Islands Council. Although unique in many respects, the site belongs to a group of early historic (defined as the 6th to 12th centuries AD) islet, promontory and stack settlements known from the Northern Isles, other parts of coastal Scotland and the Irish Sea province. These sites have the potential to offer important clues regarding the relationship between political organisation, religion and mobility.

⁹⁵ The 2009 season was funded by the Society of Antiquaries of Scotland, the Society of Antiquaries of London, Orkney Islands Council, the Russell Trust and the McDonald Institute for Archaeological Research.

⁹⁶ Morris and Emery 1986.



FIG 15

Brough of Deerness: the site from the air with the 2008 season trenches open.

Photograph © the Brough of Deerness Project.

This is so whether they were centres of lordship as at Birsay in Orkney⁹⁷ and St Patrick's Isle in Man,⁹⁸ monastic communities like Iona and the Isle of May,⁹⁹ or smaller sites¹⁰⁰ that formed part of the settlement hierarchy within either of these broad (and potentially overlapping) cultural and functional categories. In any of these eventualities they potentially materialise elements of power, ideology and long-range interconnections.

Previous work in 2008

In 2008 the McDonald Institute for Archaeological Research, in collaboration with local partners including Orkney College and the Friends of St Ninian's, began a project to investigate the settlement associated with the chapel at the Brough of Deerness (Fig 16).¹⁰¹ The first season examined two earthworks (Structures 23 and 20, in Areas A and B respectively) that proved to be Viking-period houses of Scandinavian style constructed from rubble, drystone walling and turf. They produced a small but 'domestic' finds assemblage, which included a steatite vessel sherd of Norwegian type, a gold-and-glass bead of 11th-century date, spindle whorls, a loomweight and both copper-alloy and bone pins. On the basis of these finds the buildings would appear to

⁹⁷ Crawford 2005.

⁹⁸ Freke 2002.

⁹⁹ Yeoman 2009.

¹⁰⁰ Eg hermitages — see Dumville 2002.

¹⁰¹ Barrett and Slater 2008; 2009.

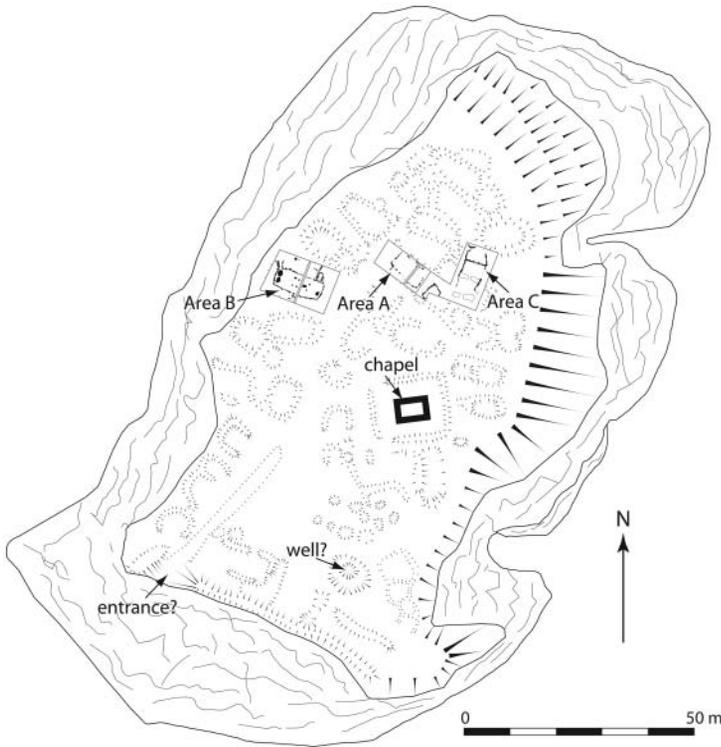


FIG 16
 Brough of Deerness: the excavation areas and plan of the earthworks. Drawing © the Brough of Deerness Project.

have been abandoned by the 12th century. However, the earliest phases of Structure 20 remain unexcavated and Structure 23 was built into extensive midden deposits now radiocarbon-dated to the 6th-9th centuries.¹⁰²

The 2009 Viking-period building

In 2009 a further trench (Area C) was opened to investigate Structure 25. Following the results of geophysical survey, it was thought this might be a figure-of-eight building of ‘Pictish’ style — perhaps the source of the midden deposits into which Structure 23 was cut. However, Structure 25 was soon instead revealed to be another Viking-period house, with many phases of use and modification. The earliest deposit encountered was a thick midden containing much animal bone, marine shell, burnt stone and peat ash that appears to underlie the entire building. Structure 25 was cut into this midden, which is likely to be contemporary with those radiocarbon-dated to the Pictish period. A ‘Pictish’ pin and a piece of imported vessel glass of 6th- or 7th-century date were recovered as residual finds from later Viking-period contexts.¹⁰³

In its earliest excavated phases, Structure 25 was a semi-subterranean house (Figs 17–18) whose main living space was divided into three zones, with a central aisle (with hearth) edged by vertically set stones which demarcated side aisles or benches; the S (downhill) end of the building was roughly paved and entered by a door in the S gable. A copper-alloy and lead weight, a steatite vessel sherd and an unusual necklace or bracelet of alternating jet-like (lignite?) and bone beads were recovered from the

¹⁰² Barrett and Slater 2009, 87.

¹⁰³ E Campbell pers comm.

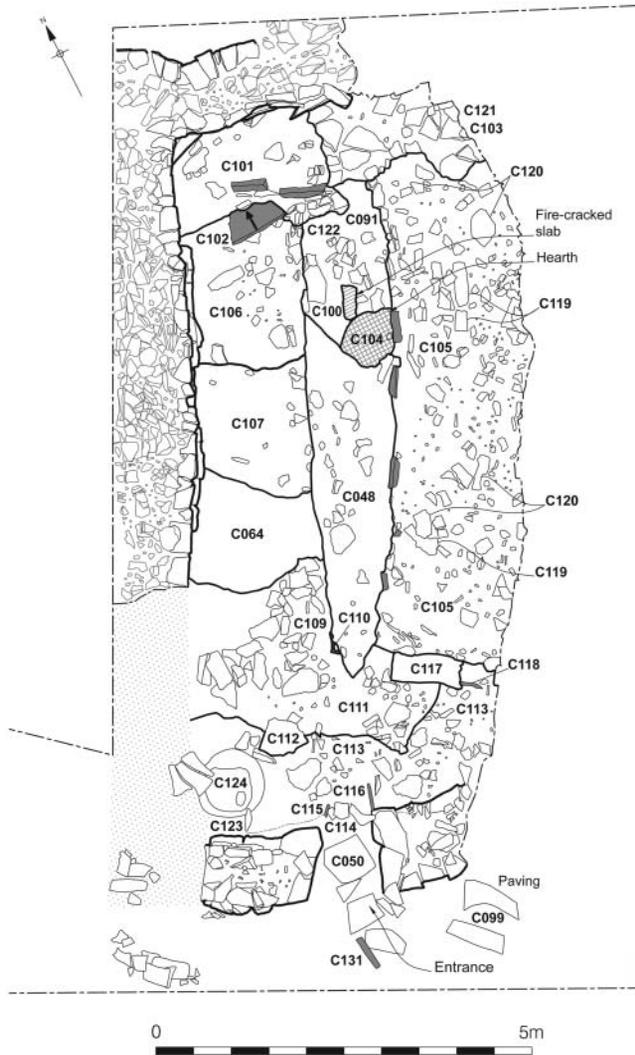


FIG 17

Brough of Deerness: Structure 25, Phase P: the latest use of the building as a dwelling. *Drawing © the Brough of Deerness Project.*

earliest investigated floor surface. The weight (presumably for bullion, but also usable for metalworking) is particularly interesting, comprising a copper-alloy boss, possibly reused from a Scandinavian oval brooch, filled with lead.¹⁰⁴ The existence of earlier unexcavated phases of house floor was evident in cut features and where the SW corner of the building had been later robbed for stone. A considerable depth of internal stratigraphy remains to be excavated.

The following phase marked a significant change in building function: the N end of Structure 25 was shortened (possibly following partial collapse), with the resulting fill containing a fragmentary antler comb of 10th- or early 11th-century date;¹⁰⁵ following this, the building was divided into N and S rooms by a stone cross-wall, and the S door was replaced with a new entrance in the SE corner of the building. An external pathway

¹⁰⁴ J Graham-Campbell pers comm.

¹⁰⁵ S Ashby pers comm.



FIG 18

Brough of Deerness:
Structure 25, Phase P
from the south. Photograph
© the Brough of Deerness
Project.

of stone slabs led to this entrance and into the S room which was roughly paved. The N room was also paved and neither room displayed any features (eg hearth) that would be expected in a domestic dwelling. A similar transformation from a domestic to non-domestic function was evident during the excavation of House 20 in 2008.¹⁰⁶ Interestingly, the S room of Structure 25 produced a small copper-alloy object, pierced at one end for suspension or attachment, with unintelligible runic inscriptions on both sides.¹⁰⁷

The use of Structure 25 as a non-domestic space continued for some time; the N room — and perhaps the S — was repaved. Eventually the building was abandoned, partly dismantled to reuse the stone, and covered by a thick collapse or demolition deposit of rubble. Unstratified finds from fills included metalwork of 10th- to 12th-century date. Overall, the finds and architecture imply long-range connections with Scandinavia, Scotland, the Irish Sea region and Anglo-Saxon England.

Deerness as a Viking chieftain's site

As part of the project a high-resolution topographic survey by the Orkney College Geophysics Unit¹⁰⁸ helped to clarify the layout of the settlement and to confirm the location of the original entrance in the SW corner of the stack. Although clearly in part a palimpsest, most of the buildings conform to a regular pattern, being aligned approximately E–W or N–S. In light of the survey evidence — and having now partly excavated three buildings with differing alignments and in different locations — it is possible to tentatively suggest that many of the earthworks represent contemporary Viking-period buildings, which together comprise a substantial nucleated settlement.

It now seems clear that the main Viking-period phase of settlement should be interpreted as a chiefly stronghold, rather than an ecclesiastical centre or a temporary refuge.¹⁰⁹ The justifications for this interpretation include the evidence for long-lived

¹⁰⁶ Barrett and Slater 2008; 2009.

¹⁰⁷ M Barnes pers comm.

¹⁰⁸ Saunders 2010.

¹⁰⁹ cf Morris and Emery 1986; Barrett and Slater 2009.

domestic settlement, the small number of burials (including infants), objects implying at least aspirations to high status, the defensive location, a hierarchical organisation of space within the settlement and the lack of ecclesiastical sculpture. However, the excavations are also demonstrating that the site's function changed through time so the story may ultimately prove to be more complex. Understanding these temporal trends, and their wider implications in terms of social, political and ecclesiastical change in early historic Scotland and Europe, remains the most critical goal of further excavation at the site. For further details and annual reports see: www.mcdonald.cam.ac.uk/projects/Deerness/. (J Gerrard and J Barrett)

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