3. Geophysics and Other Fieldwork by the University of Southampton in Breamore Parish: Supplemental Data to 'An Early Anglo-Saxon Cemetery at Breamore, Hampshire, 1999-2002', *Archaeological Journal* 173 (2016)

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After the discovery of a major Anglo-Saxon cemetery at Shallows Farm, Breamore, fieldwork was undertaken to try to establish its context within the landscape, and that of other finds and of the late Anglo-Saxon church. Much work had already been done in the area by the Avon Valley Archaeological Society (Light et al. 1995). We are very grateful to Mr Tony Light for his support and encouragement, to Sir Edward Hulse and Mr Michael Hulse for their permissions and interest, and to tenants and other land-owners. Information on metal-detected finds was generously provided by Mr Chris Gifford.

The data presented here are in three geophysical survey reports by Kristian Strutt, and a finds assessment by Linda Mitchell. Four areas were investigated: the first survey report, dated 2004, reports on fields around the church and Breamore House, and the cemetery site; that report also contains an interim statement about work in fields either side of North Street, superseded in the second report, dated 2005. The third report, dated November 2004, presents the survey report undertaken at the Priory site.

3.1. Around the church and Breamore House

A programme of geophysics was undertaken in the park that adjoins Breamore House and surrounds the churchyard on three sides, and in three large fields to its south; where possible, this was followed up by fieldwalking and test-pit excavation. The park and the field south of the churchyard, now called Rally Field, are all under pasture at present, but the other fields are regularly ploughed. The area is at the interface of the valley gravel and upper chalk.

Breamore House was built in the late sixteenth century; whether it was on the same site as a medieval manor-house owned by the de Redvers family after *c.* 1100, and whatever centre had previously served the royal estate recorded in Domesday Book, is not recorded. Terraced gardens south and east of the house were shown by geophysics to have been more extensive than they are today. Other remodelling of the landscape may have included planting an avenue of trees leading eastwards to create a vista down towards the River Avon. An estate map of *c.* 1770 shows it apparently fenced off, called 'Part of the Long Land/Lawn', cutting diagonally through fields; an avenue on that approximate alignment appears as a feature on Taylor's 1776 county map, but not on Milne's of 1791, Greenwood's of 1826, or the First Edition of the Ordnance Survey. The only hint of it on the tithe map is a hedge-line running up from the main road that is at a different angle from those to its north-east. A number of surviving mature trees in the park may result from planting to create this vista, and there remains a fine open view of the landscape down to the River Avon.

Lanes and fields in this part of Breamore have been much altered in the last three centuries (Light *et al.* 1995, 90-5). In the 1770s, North Street ran from the main road further northwards than today, turning through three abrupt right angles to run south of the church to a four-way junction with West Street, with a lane called Walley Hill

leading up from Breamore Marsh, and with the drive down from Breamore House. Taylor's map was not accurate enough to show these details, but Milne's of 1791 shows it in that way. By 1826, however, Greenwood's map shows that North Street had been diverted at what is now North Street Farm half a mile from the main road, to run eastwards well south of the church, presumably disrupting the enclosed fields shown on the 1770 estate map. The tithe map of 1838 shows the new arrangements, with the extension of the park leaving the church and a couple of houses isolated within it. West Street had also been diverted, with a sharp right angle for what is now the public road, and the old road as private access. To emphasize the changes, a walled garden had been built in the north-west angle of the new junction with North Street and Walley Hill lane, which was also diverted slightly. The lane past Breamore House up to the downs was not closed off, however, so the sense of exclusion was not as great as in many grand country houses.

a. Parkland west of the church

An area of grazed parkland was surveyed topographically, by magnetometer and by resistivity, on either side of the drive up to Breamore House – other limiting factors were trees, field drains and an electricity cable. Both geophysical methods showed an enclosure continuing the line of the south wall of the churchyard, turning to run northwards to beyond the area responsive to survey. Magnetometry revealed it as two parallel lines ((figs 6 and 8: m7-m8, m12). Magnetometry also identified features in the south part of zone 1, both inside and outside the enclosure.

Resistivity survey was practicable only in parts of zone 1.This identified a ditch (r2, r4) between the two lines (m7-m8, m12) found by magnetometry. High-resistance features such as r3-r5 may be building platforms, and the survey located other features such as r8 and r9, where there might have been buildings.

b. Parkland north and east of the church

Magnetometry survey signalled parallel lines (m9-m10) in zone 2, running east-west just north of the churchyard wall, turning southwards at its end (fig. 6). These are similar to m7-m8 in zone 1. Two lines (m18) run north-eastwards from the end of m9, being joined by m19-m22 further north. Parallel lines m27 run towards North Street Farm, with a rectangular feature m28 on the south side. Features m3 and m14-17 gave weaker signals.

The discovery of an enclosure west of the Anglo-Saxon church strongly suggests that the original manor-house may have been in zone 1, but excavation to test this was not feasible in parkland so close to the house and its visitors. The features outside the enclosure may reflect its being filled in and built over. LiDAR survey that became available after the completion of the survey shows paths to Breamore House, and some other linear bank-like features, but nothing that clearly conforms to the patterns shown by the two geophysical surveys (BNG 415118).

The resistivity survey did not find a north side for the enclosure, which may therefore have extended up to the present house: the linear features m9-m10 north of the church may well represent its north side, however. This would concur with Tony Light's suggestion that North Street originally ran on a line that would have taken it on that

side of the church, but extension of the churchyard eastwards at the end of the nineteenth century obscured part of that road, which was diverted south-westwards just west of North Street Farm (Light and Ponting 2004, 16; shown on fig. 28 in Light *et al.* 1995). The magnetometry survey in zone 2 clearly showed its pre-diversion line, m27, with m28 possibly an isolated building shown on the tithe map. The linear features m9-m10 in zone 2 seem likely to be the two sides of a track leading up to the downs, with others such as m19-m22.

The features immediately south of Breamore House are presumably traces of its earlier and more extensive gardens. These are picked up on LiDAR image BNG 415118 which also shows the trackway m18 outside the churchyard, but its continuation northwards does not seem to be shown on BNG 415119, which shows terracing east of the house that is still part of the gardens. BNG 415118 shows what seem to be two, possibly three, small rectilinear enclosures on the south side of m18. That area was not surveyed by resistivity.

c. South of the church (Rally Field)

A field south of the churchyard, now pasture but intermittently ploughed, was incorporated within the park after 1770. The churchyard itself was extended southwards in the 1930s, incorporating a hollow way (Light and Ponting 2004, 16). Two pieces of later Anglo-Saxon metalwork were said to have been found in this field, but further details are unknown. As some of the ground is relatively flat, it was thought that the medieval manor-house could have been in this area, so both magnetometer and resistivity surveys were undertaken, which showed considerable variations and high-resistance areas. The most promising of these was selected for trial excavation, but a 10 m x 2 m trench revealed no archaeological features. The geological map shows a narrow band of chalk running through this field, with the rest being hard-packed terrace gravel, which probably accounts for the varying survey readings. Both surveys suggest an east-west linear feature (figs 6 and 8, m23, r12), however, that seems to show that the diverted North Street originally ran on a straight line that led to a junction north of the present one with Walley hill. This is not shown on any maps, but seems to indicate that the eighteenth-/early nineteenth-century replanning was done in two stages, with the closure of the north end of West Street being in the second phase. This would imply a less carefully thought-out scheme than might be supposed. Another track could be represented by r11/m26, but is much less obvious.

d. South of the park (Duck Pond Field)

The ground here slopes steeply both southwards and eastwards, and seemed unlikely to have contained a settlement zone. Its lower zones are wet, with colluvium build-up likely except where an old gravel pit has become the eponymous pond. It was investigated primarily because an Anglo-Saxon sixth-century button brooch had been found in it, so a cemetery, perhaps at least in part contemporary with the one in the Shallows, was a possibility. In 1999, the field had been cultivated for the first time for some years and was then systematically walked by the Avon Valley Archaeological Society, whose members collected large amounts of brick and tile, and some worked flint, but little pottery. The field was also metal-detected in 1999 under the supervision of Chris Gifford (we are very grateful for a copy of his report); the button

brooch came from close to the south-east corner of the field, where the ground flattens out but is wet. As a cemetery in such a situation seemed unlikely, it was thought that the brooch might have eroded from a grave higher up the field. Metal-detected finds of the later medieval peiords were not concentrated in any particular part of the field, but included a 1351-2 half-groat, a 1248-50 penny, an annular brooch and a harness pendant. Subsequent metal-detecting produced a thirteenth-century half-penny, from the north-east part of the field.

In 2002, a transect survey was undertaken; the conditions were unfavourable for surface collection as the ground was not cleared of stubble after harvesting, but as it was to be ploughed straight back in, little would have been gained by deferring the work. Nevertheless, results were obtained that included picking up fair amounts of burnt flint, 397 pieces (12,736 g) in total, quite evenly distributed but with slightly more in the lower parts of the field, presumably from soil erosion: this was less the case in terms of weight, presumably because larger pieces roll less. As there were no concentrations, it seems unlikely that there was a boiling-mound in the immediate vicinity, though the quantities suggest that some such operation had taken place not far away.

After the experience in the Rally Field, it was decided that geophysics might not be able to show graves clearly in the compact gravels (or below the anticipated colluvium in the lower parts of the field), so a programme of test-pitting was undertaken at the same time as magnetometer and resistivity meter survey was done in the upper part of the field. No graves were discovered by excavation, nor did the limited geophysics (figs 6 and 8) suggest that there might be any. The spacing of the test-pits could mean that a small cemetery was missed, but none of them showed anything like the sort of disturbance of ground that a cemetery normally entails.

Despite burnt flint being found on the surface close to them, three of the test-pits did not produce any, showing that direct correlation of surface and below-ground recovery cannot be expected. More significantly, four of the five test-pits that produced the most prehistoric pottery also produced the most flint. One of these had six sherds in the upper subsoil and eleven in the lower, which suggests that a magnetometer anomaly (m29) is likely to represent a prehistoric feature. Another had relatively more sherds in its upper level, from colluvial build-up. One test-pit was extended as a feature was found in it about 0.5 m below the modern surface and sealed by subsoils; it proved to be 0.25 m deep, linear with even sides, and is interpreted as a drainage or field boundary ditch. Although it contained some pottery and flint, this was not diagnostic, so the ditch is undated, but its depth allows it to be prehistoric; notably, its alignment was not consistent with any known lanes or field boundaries.

Only twenty-five sherds of Roman pottery were found, eleven from field-walking; all of those were notably larger than all but one of the fourteen from test-pits. It is understandable that only larger sherds would survive – or be seen –on the surface, but not that they would be almost absent from below-surface levels.

Fourteen early Anglo-Saxon sherds were found in test-pits, none from the surface: as ten of the harder mid to late Anglo-Saxon sherds were collected in field-walking, seventeen from test-pits, the main recovery factor would seem to be friability rather

than visibility. This is re-enforced by results from the ensuing Saxo-Norman period, as only a slightly higher percentage of small sherds was found in excavating than in field-walking, and the former included twenty-one from thin-bodied vessels of a type of which only one was found on the surface, so clearly these are unlikely to survive turbulence in the top-soil. This period also produced the earliest glazed sherd found, probably from a tripod pitcher.

The later twelfth-/fourteenth-century sherds were more numerous, but, like the earlier ones, tended to be in the lower areas of the field. Fifteenth-/sixteenth-century pottery was more abundant still, 167 sherds, widely spread. There was yet more post-medieval material: 747 pottery sherds and eighty-three bits of glass, datable up to the end of the last millennium; in contrast to all the earlier periods, much more was collected from the surface than in the pits. One large feature was too deep below the surface to excavate; it appeared to be one quadrant of a circular pit, and is attributed to fairly recent quarrying, as is the pond from which the field is named.

The distribution of the late medieval and post-medieval material was very even: colluviation is likely to have distorted the distribution of earlier artefacts, carrying relatively more of them, particularly the smaller ones, downslope, but also covering them under soil build-up. This distortion might explain the position of the button brooch when it was found, at the bottom of the field, although only one of the medieval coins had travelled so far downslope.

e. Field between West Street and Walley Hill (Butcher's Field)

The very important late fifth-/early sixth-century garnet-set Frankish bridle fitting was reported to have been found in the south-west part of this very large field (Eagles and Ager 2004); again, Chris Gifford had organised systematic metal-detecting, which had not produced anything else recognizable as from the early Anglo-Saxon period – nor, in this case, were there any medieval coins.

Geophysical investigation in advance of the opportunity to undertake some test-pitting was not possible because of the harvest, and experience of field-walking elsewhere when straw was lying on the surface suggested that concentration on below-ground sampling would be more profitable. Eight test-pits were opened, one being extended because features were found in it. All six of the prehistoric sherds recovered were in that test-pit, as was half the *c.* 1300kg of burnt flint. The features were ditches, post-holes and probably a pit, but total excavation would have been needed to achieve coherence.

Only two Roman sherds, both late, were definitely identified, and a scatter of later medieval and post-medieval pottery.

The most surprising discovery was the relative number of probably early/mid Anglo-Saxon sherds – eight of nine from three different pits – but only two mid to late and six 'Saxo-Norman'. This is the reverse ratio to the other areas, and hints strongly at early Anglo-Saxon occupation somewhere in the immediate area. No features were seen in the test-pits, and nothing that suggested a cemetery. It may well be, therefore, that the Frankish bridle fitting was not from a grave, but had actually been lost at an

occupation site. Bridle fittings generally are rare, and there are others not known to be from graves (Fern 2006).

The North Street fields

This report is superseded by file 3.2, below

The Shallows

Interpretation of the geophysics on the Anglo-Saxon cemetery site is contained in the printed text.

3.2 The North Street fields

Most of the evidence for Romano-British use being succeeded by post-Roman in Breamore had been found on either side of North Street by the Avon Valley Archaeological Society, on the gravel terrace above the alluvial flood-plain (Light *et al.* 1994, 91-5). Chris Gifford had organised a metal-detecting survey in some of the fields north of field 3 below; this had not recovered anything identified as Roman or early Anglo-Saxon, but two metal fragments, one perhaps part of an openwork stirrup-mount and the other of a key handle, were tentatively identified as late Saxon. A few things may be late medieval, but the outstanding find had been a late sixteenth-century gold north African coin.

Contour, magnetometer and resistivity surveys were undertaken in 2003-4. The results from the two sides of North Street were startlingly different.

a. Fields 1 and 2

Magnetometry in the field on the north side of North Street clearly revealed at least five ring-ditches, presumably ploughed-out Bronze Age barrows, two double-ditched (m4-5), with a possible sixth being triple-ditched (m12) (see below figs. 17-9). They favour, though not exclusively, a slight ridge of gravel running north-south, but stay on the flatter ground before it rises westwards up the downs. At least on its east side, the cemetery may have been divided from the world around it by a curvilinear enclosure ditch (m11). There are a number of what are probably pits, of any or all dates, though the majority are scattered amongst the ring-ditches, so might be part of the cemetery. Straight linear features such as m10, m13 and m14 seem unrelated either to the ring-ditches or to the present-day roads and fields; m10 seems to have two lines in parallel, perhaps a track. Two at right angles to the main road, m7 and m14, are probably field divisions shown on the 1770 estate map. Narrower strips on the 1770 map in the western of the two modern fields do not show in the geophysics, which suggests that most were merely fenced, not ditched. North Street existed by then, but the field system represented by m10-m13 is on a different alignment and presumably predates that lane.

b. Field 3 (Bullcroft)

The ground level of the field south of North Street is slightly lower than on the north, and does not have the ridge running through it, which may account for the complete

absence of ring-ditches. Instead, a pattern of linear features (m17-23) seems to be small square fields more or less aligned with the main road. They are not the same size as the eighteenth-century fields. The double line of m16 might represent the other side of a track along their west side, which does not align with the one postulated as represented by m10 in the northern field, a vestige of which might be represented by m15. Also differently aligned is a small rectilinear feature (m27) that contains a truncated oval (m29), and may have cut m28. There seem to be large numbers of pits in the south-east part of the field.

To check that the flood-plain alluvium did not produce similar results, two small areas were augered; they showed nothing except traces of drains and streams, so there is no reason to think that different water-levels made that zone any more habitable in the past than today.

It was not possible to follow up the geophysical surveys in the North Street fields with test excavation, because of the agricultural regime. Some fieldwalking was undertaken in field 3, though direct drilling for seed meant that stubble was not ploughed in and new material was not brought to the surface. Nevertheless a glass bead, thought to be fifth or sixth century, was recovered, as was a substantial amount of Romano-British pottery. A little probably prehistoric pottery was picked up, on the western fringe of the main Roman concentration, which focused on the eastern side where most of the pits are located, though with the finewares such as Alice Holt and New Forest pottery being more evenly distributed than the majority grog-tempered coarseware. Anglo-Saxon sherds were mostly not with the bulk of the Romano-British; a single probably early one was in the north-west segment of the field, two of the mid to late period were amongst the Roman scatter but two were north and west of it. Eleventh-/twelfth-century pottery was concentrated in the north-west (though this was more pronounced by the number than by the weights of the sherds), where the only geophysical anomaly was the linear m15. Twelfth-/fourteenth-century sherds were widespread, as would be expected from manuring, but the only Laverstock glazed ware was in the same area as the earlier material, as was reduced ware. This might indicate the proximity of house sites, along North Street. There was little late medieval pottery, such as ‘Tudor green’, suggesting less manuring in the period after the Black Death, arable being resumed in the sixteenth/seventeenth centuries, to judge from the post-medieval distribution.

These results are broadly consistent with those from the AVAS fieldwalking (Light *et al.* 1994, 91-5). Recent LiDar survey merely shows totally flat surfaces.

c. South of the main road

Two small areas of grassland were surveyed using magnetometry, in case the Bronze Age features in field 1 extended that far. The road marks the boundary between the gravel terrace and the river alluvium, however, and no features were identified, confirming that the slightly higher ground was used exclusively.

3.3. Breamore Priory

A small Augustinian priory was established by Baldwin de Redvers and his otherwise unknown Uncle Hugh late in Henry I's reign, i.e. probably between 1128 and 1133 (Hockey 1983; Bearman 1994, 158-9). Small priories were less expensive to endow than full-blown abbeys, but many never even acquired the preferred minimum household of a prior and eleven canons, that number mirroring Christ and the eleven faithful disciples. Many Augustinian houses were Anglo-Saxon 'minsters' refounded in the Norman period to create a more regular life, like Christchurch (Twynham) at the mouth of the River Avon, and therefore taking over an existing church and its parochial functions (Hase 1994, 62-3). Sometimes, a new priory church did not take over an existing minster, which remained as the parish church, though the two might be close together, as at Bicester, Oxfordshire (Hinton 1968; Blair 2002). Many other priories were established to serve Norman castles, sometimes an unhappy combination, as at Portchester, Hampshire, founded in 1133 but transferred to Southwick in 1144-53 (Borg 1977, 105-6).

The situation at Breamore was different again, as the priory was established nearly a mile from the existing church. The choice of site for it is curious, as it was right next to the River Avon. Unlike the Shallows cemetery, it was not even on a gravel spur, but on an island in the alluvium, reached by an extant causeway from the main road. It retained some parochial duties, as the prior held the advowson of the church (Light and Dampney 1977, 12 and 17). The de Redvers family were not all buried at it, as they had access to more prestigious churches; even Baldwin, the founder, was buried at Quarr Abbey (Bearman 1994, 10), though Hugh's burial-place is unrecorded. Subsequent small donations came with the charge to pray for de Redvers family souls, with no mention of taking charge of their bodies. It is a surprise therefore to find that at the end of the thirteenth century the rich and powerful Countess of Albemarle, the final member of the de Redvers family line, was buried at the priory, the only known de Redvers there, despite assertions that she was with her ancestors (Hockey 1983, 150; Bearman 1994, 108, 133, 166; VCH 2, 168-72).

The low-lying position of the site suggests that the river level was quite low in the twelfth century; it was vulnerable to change, however, and buildings were damaged by flooding at least in the 1470s (Light and Ponting 1994, 16). Other records refer to various claustral buildings, but not their precise arrangement. More tangible is that in 1501 a Visitation had to be held in the Lady Chapel, as the chapter house was too decayed – which implies that that involved the structure, not just the fittings; if so, the dorter must have been dangerous also, if as was usual that was in the upper storey above. A little of the site is identifiable on the ground, at any rate enough to suggest where the cloister was. A stone coffin is the only tangible survival visible. There have been excavations there twice, once in the 1898, and again in 1975. Unfortunately, the former was a matter of wall-clearance, and the records of the latter were lost when the director died. An outline topographical survey in 1985 shows the locations of these investigations, and as a result the Scheduled Ancient Monument area was considerably extended (Light1986).

The previous work had shown that despite records of post-dissolution removal of many cartloads of stone, wall foundations survived, so it was surveyed mainly by resistivity, though with some experimental work done using ground-penetrating radar by Dr Justin Dix and a team of students from the National Oceanographic Centre, University of Southampton. Unfortunately the latter was so experimental that it

produced no results. Those from the resistivity were very clear, however. Magnetometry was done only within the area thought to be the east end of the church, and produced evidence of what may well have been graves (second geophysical report, figs 5-7).

The cloister is shown by feature r1 (fig. 6); the south wall looks askew, but that is probably a consequence of collapse and scatter. The church was in the usual position on the north side of the cloister; a tiled floor and graves were found in its east end in 1898. The geophysics is not clear-cut, but short transepts are probable from the earlier work, and r3 represents the nave. If r9 shows something of the north transept, r17 of the east end. The west end of the nave is presumably marked by r2; it is very unlikely that that was not of uniform width down its entire length, so the slightly northward protrusion of r2 could conceivably have been the base of a small flanking tower, matched on the north side by the line r5 and the anomalies adjoining its south side.

The dorter would normally have been an upper room above a ‘slype’ or narrow alley and the chapter house on the east side of the cloister. That range is represented by the long feature r8, with r16 a ‘rere-dorter’. The frater or dining-room would have been in the south range, and r6 may relate to it. On the west side the rectangular building complex r4 may locate the prior’s hall and lodgings, with a building, complex r5, denoting kitchens.

In 2004, a 10 m x 3 m trench was excavated to the north of the Scheduled Monument Area, well away from any known buildings, but where geophysics indicated anomalies. It was thought that these might indicate that the outer precinct was more extensive, so the trench was placed to investigate the r18−r20 complex. These were not walls, however, but were probably related to water-meadow ditching.