Further investigations within the vicus settlement at Burgh by Sands, 2006

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SUMMARY

Excavations to the south-east of Burgh-by-Sands, at Amberfield, revealed fourteen ditches and several discrete features, including a tanning pit and a well. Three broad phases of activity could be discerned based on stratigraphic and artefactual evidence, although the remains and finds may reflect piecemeal development over a period of roughly 100 years. The features are interpreted as part of a wider Roman field system and trackways, containing elements of small-scale industrial and domestic activity dating from between the early to mid 2nd century AD and the first half of the 3rd century AD.

INTRODUCTION

In recent years, archaeological fieldwork in Burgh-by-Sands has recorded a wealth of Roman remains including a Roman civilian settlement associated with the Roman fort of Aballava. Masser and Evans (2005, 31–3 and fig. 1) have recently summarised current knowledge and the history of investigation of Roman features in the area. In 2006, a proposed housing development at Amberfield to the south-east of the village (NGR: NY 3265 5896; Fig. 1) provided an opportunity to evaluate a site which was located c.100m to the south of the line of the Hadrian's Wall Vallum.

A geophysical survey (Brooks & Law 2005) had previously identified a number of anomalies interpreted as being of potential archaeological origin, and trial-trenching in January 2006 revealed a series of ditches and a pit that contained sherds of 2nd- to 3rdcentury Roman pottery (Kirby 2006). The ditches were thought to represent a continuation of the Roman period field system found nearby in other recent excavations (Masser and Evans 2005). Further excavation took place in July 2006, within a development area measuring c.100m by 70m (Fig. 2). The excavation did not cover the full extent of the evaluation as the margins around the south, west and north of the site were to be used as gardens and would not be subject to any groundbreaking works. Full details of the brief, methods, and a full register of contexts and finds can be found in the archive reports (Kirby 2006; Mitchell 2006); the extent of the work was approved by Cumbria County Council Archaeology Service.

The topsoil was up to 0.35m thick, and overlay a soil layer up to 0.1m thick in the south-west of the excavation area. Its absence along the north and east of the site is probably due to plough truncation at the margins of the field. The underlying natural subsoil into which the features were cut was coarse sandy gravel which was generally flat and level.

THE FIELD SYSTEM

A series of variably-sized linear ditches crossed the site on both north-to-south and east-towest alignments. Relationships between the intercutting features were not always discernible and the following phasing (Fig. 3) is intended to present one possible interpretation of the sequence, based on stratigraphic and artefactual dating evidence.

Phase 1

The earliest features appear to have been F21 and F22, which were elements of the same feature, a linear ditch aligned north–south with sloping sides and a concave base extending from the south edge of the site for a total of 21.5m (up to 0.6m wide and 0.2m deep). All intersecting features were shown to cut its fill, which contained pottery of 2nd-century date.

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Running almost parallel to the west, F11, F13 and F20 appear to comprise segments of a similar ditch alignment, though surviving to a slightly greater depth and width. F11 was a short linear ditch forming the northern segment of the alignment. F20 formed the southern edge of the site, curving slightly to the south-west. Between them, F13 was a 3m long slightly curvilinear slot which differed slightly in form from that of the more regular linear ditches, so it is unclear whether it formed an element of the ditch line with F11 and F20, or represented a feature such as a screen. If it were contemporary with the adjacent F14, a well, it may have been intended to protect this feature from contamination or to prevent people and animals falling in. These ditches were also cut by most of the interconnecting features, but the relationship with F24 was uncertain. Finds from F20 were of 2nd-century date.

The well (F14) was circular in plan and 2m in diameter. No timber or stone lining was found to be present. The lowest excavated fill was dark grey sandy silt up to 0.9m deep and contained several lenses which indicated slump or collapse from the well sides. The upper fill was mid brown silt up to 0.15m deep and contained charcoal and sherds of Roman pottery which were not closely datable. The well was excavated to a maximum depth of 2m and augured to a depth of 2.55m; no change in fill character was found in the cores. Its inclusion in this phase is based on spatial relationships with other nearby features (the well was placed centrally and adjacent to the ditches), as no stratigraphic relationships were present.

Two lengths of ditch, both disturbed and indistinct, ran diagonally between F21 and F20. The longer of the two, F23, had been disturbed by rabbits with significant destruction to both the cut and the fills. The identical fills of F21 and F23 may indicate that they were contemporary. F23 contained pottery dated to the second half of the 2nd century. A small linear ditch F27 was aligned north-west to south-east to the east of F20. Its relationship with F20 was obscured by the small pit F26, which cut it and an adjacent pit F28.

F25 was a narrow linear slot with a U-shaped profile aligned north–south between F13 and F22, and extending c.2.5m from its intersection with the north edge of F12. It has been assigned to this phase because it was cut by F19 and F12. Its profile suggests it may have been a timber beam slot, but this is far from certain. Pottery was recovered from the fill but was of indeterminate date.

F24 comprised a shallow parallel double ditch merging to a single ditch which intersected F11. It had a rounded terminal to the east and had steep sides and a slightly concave base. No stratigraphic relationship could be discerned with F11, perhaps suggesting that it was contemporary. However, the presence of two divergent cuts in the western half suggests that it may have been part of Phase 1 but was re-cut on a slightly different alignment and continued in use after F11 was filled, and the same may be true of F12 (see below).

The large ditch, F1, to the east of the site was the earlier of the two features in this position. Its alignment is similar to that of F21/F22 and it may have formed part of an outer enclosure ditch for this field system. The fills of the feature contained pottery of Hadrianic-Antonine and later 2nd/3rd-century date, suggesting that it may have been dug in the early 2nd century but remained in use for several decades. It was cut by F2, a similar ditch on a slightly altered alignment.

Phase 2

As noted above, F24 may represent a sequence of ditches which outlived the north-south aligned ditches of Phase 1. This is postulated due to the presence of a parallel feature, F12, to the south, which certainly cut the two north–south features (F20 and F21). Pottery of mid 2nd-century date was recovered from the fill of F12.

F12 was aligned east to west and had a rounded terminal at its eastern end. It cut the northern terminal of F20 and terminated at an intersection with F21/F22, again cutting the fill

of this earlier feature. The ditch was 1.2m wide and 0.3m deep with a slightly stepped profile on its north side, which may indicate that it was used as a beam slot, although equally it may simply be a drainage or boundary ditch. A steep-sided oval pit (F12/002) was cut within the eastern terminal; pottery recovered from the pit was of mid 2nd-century date.

The terminals of two smaller ditches (F4, F6) were located extending from the east edge of the excavation area on the same alignments as F24 and F12. F4 had a rounded terminal and 4.5m of its length was exposed. F6 extended for 2m up to the edge of F2 but appears to have cut it, so although it contained 2nd-century pottery it is likely to be later.

To the north of F24, a circular pit (F15) c.4m in diameter and 2.2m deep, with a steepsided central hollow, is interpreted as a tanning pit. Two *in situ* wooden stakes were set 0.35m apart, driven into the subsoil at the edge of the hollow, and associated with the remains of a wooden latticed hurdle. One stake was in a poor condition; the other remained intact and had a tooled chisel-shaped point, and appeared to have been sawn to a desired length. The hollow was filled with an organic deposit (15/004). The stakes and the remains of the hurdle were sealed by a clay-rich deposit (15/003) from which wood and a piece of leather was recovered. The upper fill (15/002) of the pit was loosely compacted dark silt up to 1.3m deep and contained sherds of a round-rimmed bowl dating to the 3rd century AD, which is presumed to post-date the feature itself. The feature was cut by ditch F8.

Phase 3

The latest features which can be assigned to the Roman period are those which were the least truncated and broadest surviving ditches. Together they appear to form a series of field and trackway boundaries on north–south and east–west alignments.

Two large parallel ditches (F8, F10) c.0.8–1.6m wide occupied the north-west of the site. They were aligned east–west and intersected the edge of north–south ditch F7. The fills

of all three ditches were identical, suggesting that they (or at least their fills) were contemporary. F8 cut the infilled tanning pit (F15), and F10 cut F11 and F22. Both ditches were 0.3m deep and had moderately sloping sides and flattish bases. F10 contained a single fill (10/002) in which was found the base of a *Moselkeramik* beaker dating to the late 2nd to mid 3rd centuries, whilst F7 and F8 contained pottery which could only be broadly dated to the 2nd century. F7 was cut at its northern end by undated ditch F9.

Roughly parallel to F7 and some 6m to the east was F2, the ditch which cut across F1. This also contained 2nd-century pottery in its fill and is assigned to this phase on the basis of its relationship with F1 and its similarity to F7.

F18 and F19 were shallow, narrow slots aligned east to west. F18 cut F12 and F21, whilst F19 cut F22. These two features post-date F12, F21/F22 and F25, suggesting that the smaller field areas enclosed by these ditches may have gone out of use by Phase 3, and that the enclosed area had been enlarged. Their narrow profiles suggest they may have been beam or palisade slots, perhaps representing a structure c.4m in length, but they have been truncated to an extent that this interpretation is speculative.

F16 and F17 were small pits located close to the southern edge of F10 and were c.6m apart. Both were circular in plan with steep to vertical sides and were 0.17 to 0.3m deep. Their proximity to the edge of F10 may be fortuitous but it seems more likely that they were contemporary with it, or at least not much later.

Isolated features

A range of isolated and undated features were also revealed. F5 was a discrete oval pit located between F21 and F7; the fill contained a concentration of cattle bones including teeth, a mandible and a single long bone, and the preservation of this material suggests it may be of recent date (Thoms below). Ditch F9 cut F7 at its northern end but is otherwise undated. A further linear ditch (F3) ran north to south and cut F4, but was revealed to be a more recent rubble drain.

A large ditch was identified in the north of the site during the evaluation (Fig. 2, Tr. 5). It measured c.7.6m wide and lay parallel and immediately alongside the route of the former railway and canal. The dimensions were similar to ditches previously excavated on the supposed line of the vallum (Breeze 2006, 353), although these lay c.75m to the north of the current site and on the north side of the canal and railway (Fig. 1, 'Section across vallum' and 'Vicarage garden'). The ditch, while possibly associated with the former railway and canal, could potentially be of Roman origin as it contained samian ware of Hadrianic–Antonine date. The ditch was not fully excavated as it lay within the area excluded from the excavation.

THE FINDS

Roman pottery

R.M. McBride

The site produced 459 sherds weighing 8.253kg. There is no pottery characteristically earlier than the Hadrianic period (early 2nd century) and the latest pottery dates to the 3rd century.

The quantity of samian ware (89 sherds) is comparable with that found in previous studies at Burgh-by-Sands (Ward 2005, 37). There are no vessels from the South Gaulish kilns, the presence of which can be indicative of an early date. The majority came from the Central Gaulish kilns and consisted of bowls, dishes and cups. Two stamps were recovered; the first from ditch fill F1/002 reads PAT[, probably Paternus, and the second from well fill F14/002 has only a single legible letter,]N[. Both are on the bases of Central Gaulish dishes, probably form 18/31, dating to the Hadrianic–early Antonine period (early to mid 2nd century).

The amphorae (26 sherds) consist entirely of the common southern Spanish Baetican form, Dressel 20, known to carry olive oil and exported from the first to at least the mid-third century. No rims or stamps were present.

The mortaria (28 sherds) are predominantly of regional manufacture dating to the Hadrianic–Antonine period. Ditch F1/F2 included a Carlisle mortarium stamped on either side of the spout, reading DOC[(Fig 4.1). This can be confidently assigned to the potter Docilis who is known to have had a workshop and kilns at Fisher Street, Carlisle, which operated between 120 and 160 (Hartley forthcoming). Other examples of mortaria include sherds in Fisher Street mortarium fabric 1, with the same date range as Docilis, and one sherd from Corbridge also likely to date to the Hadrianic–Antonine period.

Aside from samian there was very little fine ware from the site. A base of a *Moselkeramik* beaker, manufactured in the Trier region of Germany, was found in ditch fill F10/002. This ware was first manufactured in 180, but does not appear to have been imported to Cumbria until the 3rd century AD. Four sherds of a roughcast beaker in North Gaulish fabric 2, a type imported until the late Hadrianic period, were recovered from the fills of ditches F1 and F12. There was a single body sherd from an unknown beaker with the unusual combination of painted dots and rouletting (Fig. 4.2) from the secondary fill of ditch F2.

South-east Dorset BB1 pottery makes up nearly 30% of the assemblage by weight and over 25% by sherd count. This is consistent with previous studies at Burgh-by-Sands (26% by sherd count; Masser and Evans 2005, 38) and the north-west as a whole (Evans & Rátkai forthcoming; Philpott 2006, 20). For example, Carlisle, the major population centre in the north-west, has just over 24% (by weight) at its peak in the mid to late second century (Swan and McBride 2010, period 5). BB1 also provides the assemblage with its latest datable pottery. An upper fill of the intercutting ditches at the eastern side of the site (F1 and F2) contained a plain-rimmed dish (Fig. 4.3), which had its currency from the Antonine period

onwards, and a grooved flat-rimmed bowl (Fig. 4.4) was recovered from the upper fill of F1 (F1/003), a form which did not become common until the late Antonine period and was produced to at least the mid-third century and probably later. Context F1/003 produced a body sherd of a cooking pot decorated with obtuse-angled lattice decoration, a style introduced around 220. There are also several rim sherds from cooking pots with characteristics of the early 3rd century (Fig. 4.5-6).

Ditch F2 and the upper fill of ditch F15 (F15/002) had sherds of a BB2 roundedrimmed bowl (Fig. 4.7). The *floruit* of BB2 in the north is in the 3rd century, though it is comparatively rare in the north-west. BB2 first appears in the north around the mid 2nd century on the Antonine Wall in Scotland, but this particular form has been dated to the Severan period or later at the eastern end of Hadrian's Wall (Bidwell and Speak 1995, 227).

A lamp in a hard red-brown fabric with a lug on the rim above the *discus* was found in ditch F1/002 and is dated to the 2nd century (Fig. 4.8).

Other pottery types occurring in the assemblage included small quantities of Severn Valley ware, and local and unsourced greywares and oxidised wares.

The assemblage is essentially of domestic character with a predominance of cooking types. Cooking pots and bowls displayed evidence of cooking over a fire. There is an absence of any clearly late 1st- to early 2nd-century material especially amongst the samian. The pottery from the earlier features indicates, quite consistently, that they were filled around the mid 2nd century and the later features were filled during the late 2nd and early 3rd centuries. This excavation extends the period of extra-mural activity at Burgh-by-Sands from the Antonine period as recently reported (Masser and Evans 2005, 41) into the early 3rd century.

Ceramic building material and fired clay

Sue Anderson

Ceramic building material

Forty-one fragments (2,636g) of ceramic building material (CBM) were collected. Of these, 40 pieces were certainly or possibly Roman, the remaining fragment being an unstratified piece of compressed shale brick. A full report with catalogue is available in archive.

The fabrics present are comparable with a larger group from Carlisle (Anderson 2006). The majority of tiles were in medium sandy fabrics with a range of locally-available inclusions, suggesting that they were manufactured in the area.

Only one definite flanged tegula was present, identified by the presence of a cut-away on the underside of one broken edge. The fragment was 35mm thick and had a curving finger-mark 'signature' on the surface. An abraded fragment of possible flange was an unstratified find. A fragment of possible imbrex was found in pit fill F12/002, although the sanded underside is more typical of later roof tiles.

Four box-flue tiles were identified. Two of these (unstrat and F13/002) had knife-cut lattices on the surface. Brodribb (1987, 109) suggests this may have been an early practice. Two other possible fragments came from pit fill F12/002: one was abraded but appeared to show evidence of combing, and the other had groups of short knife-cut marks. The latter would be an unusual method for keying of box-flue tiles (or indeed any form of tile), so its identification is uncertain.

All other fragments were of uncertain type, and many were abraded pieces for which thickness measurements could not be recorded. Four fragments were measurable and varied from 28 to 32mm in thickness. This range is commonly found in flanged tegulae and wall bricks. A fragment which measured more than 37mm in thickness from F12/002 may have been used as a floor tile, as the surface showed signs of wear.

In summary, identifiable forms included roofing tiles, fragments from a hypocaust system and a possible floor tile. These would have come from a substantial building or buildings somewhere in the vicinity, but such a structure was not identified within the confines of the site. Most fragments were recovered from ditches, particularly F1 and F12, but the quantities were generally small and it is likely that pieces were incorporated accidentally rather than being deliberately deposited as hardcore during backfilling.

Fired clay

The site produced 56 fragments of fired clay (1197g), collected from five ditches (F1, F2, F10, F12, F21) and a pit (F26). All fired clay fragments were in fine or medium sandy fabrics with background inclusions of sandstone pebbles and granitic fragments.

Most of the fragments were of two basic types, surface pieces and inner fragments. The surface fragments showed signs of smoothing and were dense, reduced and often partially vitrified. Inner fragments were softer, abraded, less well fired and generally oxidised. Some larger fragments had both attributes. Straw impressions could be seen in some pieces. One piece from F1/002 was a thin, reduced slab similar to the outer surface fragments but more carefully smoothed. Although only a few pieces were heavily vitrified, it is likely that much of this material represents hearth linings, broken up and redeposited in nearby open features.

Small finds

Dawn McLaren & Fraser Hunter

Iron

A small assemblage of everyday, prosaic iron objects was recovered (F. Hunter, in archive). Nails predominate, but there is a limited range of fittings including a ring, a hooked terminal, a bar and a loop-headed spike with ring. Most of the finds were recovered from the fill of linear ditches, although a rectangular bar came from the upper fill of a probable tanning pit. None of the objects is chronologically diagnostic, but they are consistent with the Roman date suggested by the pottery.

Only two clusters of nails are apparent; five, of Manning (1985) type 1B, were recovered from the fill of a pit (F12/002) within ditch F12. A second cluster of eight nails, including three hobnails and a T-headed nail came from deposits within and associated with interconnecting ditches F1 and F2. Quantities of Roman pottery sherds and vitrified material were also recovered within the fills of these ditches, suggesting it was a focus for the deposition of waste material.

Glass

The small assemblage of glass (eight sherds) comprised primarily window glass with one or two small sherds from well F14/002, tanning pit F15/003 and pit F26/002. There were small sherds of blue-green bottles from ditches F1/F2 and F20/002, the former from a square bottle (Price & Cottam 1998, 194–8). Most interesting was a small colourless sherd from the concave neck of a cup some 100mm in diameter, decorated with circumferential abraded lines flanking the concavity; it is too small for detailed identification.

Vitrified material

Three conjoining fragments from the upper fill of ditch F1 (F1/003) are from a small oval plano-convex hearth bottom (85g), possibly the result of iron-smithing. The hearth bottom is

composed of dense grey slag with a significant quantity of small coal inclusions (average diameter 5mm) and a large quartz chip.

One fragment of vitrified material (26.5g) was unstratified but found near F1/F2. This is a non-magnetic low-density fragment of light, porous, vesicular, vitrified material, not necessarily indicative of deliberate industrial activity.

The lack of associated diagnostic ironworking micro-debris (e.g. slag spheres and hammerscale) and the recovery of the hearth bottom from a secondary context indicates that the material was residual. There is no evidence of *in situ* ironworking.

Waterlogged wood

Mike Cressey

An assemblage of waterlogged wood was recovered from the base of a possible tanning pit (F15), possibly an attempt to line the base of the tanning pit with hurdles, although there was no formal *in situ* arrangement of uprights (sails) and horizontal rods. Two samples of oak are viable contenders for sails and a piece of hazel appears to correspond with a heel, the basal portion of a straight rod removed from a hazel stool. The rest of the assemblage is too poor to provide further meaningful discussion. The two worked stakes and the presence of side-trimmed branchwood appear to represent discarded material, some of which may have originated from a hurdle panel.

Animal bone

Jennifer Thoms

Fifty-seven fragments were present in the assemblage of which 34 were tooth enamel, two were pieces of skull, and 21 were small (<20mm in diameter) fragments of burnt bone. The survival of calcined material and enamel without any other part of the tooth indicates a degree of acidity in the soil which is not conducive to the long-term preservation of unburnt bone.

The tooth enamel all derived from cattle teeth. Pit F5, which contained the largest group, appears to represent a burial of the head of a cow or ox as two fragments of skull were also present. The size of the pit precludes the burial of the entire beast, and does not suggest a large deposit of butchery or tanning waste. Ritual deposits of cattle heads are not unusual in the Roman period, but in this case, based on preservation, it seems likely that the remains represent a calf burial of fairly recent date. Cattle tooth enamel fragments were also retrieved from the fill of a pit within ditch F12. These are smaller and fewer in number than those found in F5 so little further information can be obtained from them.

Burnt bone fragments were in general not identifiable to element, with five exceptions. Two fragments were pieces of long bone, two derived from a metapodial, and one was a piece of pelvic bone, all from medium-sized mammals, such as sheep or pig. Slot F13 and ditches F21 and F22 produced small amounts of very fragmented calcined bone, as did the irregularly shaped curvilinear ditch (F23) and a pit (F26). The unfused metapodial from a sheep/goat was retrieved from ditch F21, indicating the presence of a young animal, and suggesting better preservation in this feature.

Only two fragments of bone displayed butchery marks, one with two cut marks and one with four. Neither of the butchered fragments was identifiable to element or species.

The assemblage probably represents the remains of material derived from household or butchery waste, as indicated by the species present, the presence of butchery marks and the fact that some fragments have experienced burning.

Other finds

A fragmentary sandstone disc, possibly a pot lid, was recovered from the fill of ditch F21 (A. Jackson, in archive). A flake of worked flint was recovered from the upper fill of ditch F1 (T.B. Ballin, in archive).

DISCUSSION

Excavation of the features and analysis of the material at Amberfield has revealed a small part of a much wider pattern of settlement and activity within or close to the vicus associated with the Burgh II fort. The remains and finds suggest piecemeal development and modification occurring over a period of roughly a century between the early 2nd and early to mid 3rd century.

The ditches appear to represent field or property boundaries, punctuated by other features which may be found in the Roman agricultural landscape, such as putative track or droveways, a well, pits and possible structural elements.

A broad chronology of development of the field systems within the site has been postulated. The earliest features appear to be the suggested Phase 1 ditches aligned with F21/F22. The well (F14) may also be an early feature, although this is largely conjecture as it has no stratigraphic relationship with any other feature. Roman potsherds recovered from its fills were too small to provide close dating evidence. Further development of the site comprises the cutting of additional ditches and slots, some of which were probably re-cut on the same alignment, whilst others were infilled and not directly replaced. Some of this almost certainly represents frequent small-scale modification to a system of field boundaries, but there is also evidence for the disuse of some boundaries with their replacement in the latest phase by a new system of ditches which cut across many of the infilled earlier features.

The two large intersecting ditches (F1 and F2) occupying the east of the site may reflect a formal realignment of boundaries, and F9 may be a similar replacement for F7, although the former contained no datable artefacts and is of uncertain vintage. Work in Germany has shown that rebuilt plots frequently respected existing boundaries, which suggests a formally administered system of property registration (Sommer 1999, 176), and the multiple reinstatements of, in particular, F1 and F2, may reflect such a system, the realignments possibly resulting from boundary disputes.

The ditches observed here may indicate a nucleated or 'ladder' field system (Abrams and Ingham 2008), in which fields are laid out in roughly square or short rectangular blocks which appear ladder-like in plan. This is particularly true of the earliest phase of ditches at Amberfield. They are also known as 'regular aggregate field systems' and Roman examples occur throughout England (English Heritage n.d.). The minimum size suggested for fields of this type is 0.1ha, a much larger area than appears to have been enclosed by the excavated ditches, but it is likely that the narrow enclosed areas were used as trackways or droveways and the fields themselves extended beyond the excavated area.

The three narrow slots (F18, F19, F25) located in the south-western quarter of the site may represent timber beam slots indicating the presence of roofed buildings or other structures. In particular, the parallel sections of F18 and F19 may represent a 4m-long openended structure. Whether this was roofed or merely some form of stockade or corral for livestock is a matter for conjecture. The presence of ceramic building material of local manufacture is suggestive of relatively substantial roofed structures within the vicinity of the site, but the tiles are perhaps more likely to represent waste from the fort itself, rather than from this site. This and other waste material found within the ditch fills is likely to be indicative of the dumping of domestic and building waste material from the nearby settlement. It is likely that much of the pottery recovered from the ditches was deposited during manuring of arable land within the field systems (Gaffney and Gaffney 1988). While the abundance of cooking ware is suggestive of domestic activity, this may have occurred some distance away, possibly in houses or kitchens at the edges of the field system.

The well and the tanning pit suggest an element of industrial activity, although the scale and importance of this cannot be ascertained from the limited nature of the excavation area, as this only represents a small sample from a wider settlement. The poor condition of the soil resulted in the recovery of few animal bones, and unfortunately evidence to postulate a butchery site associated with the tanning pit was not forthcoming as a result.

The character of the site has strong parallels with that previously excavated to the east by Masser and Evans (2002), which included possible beam slots and a well indicating a period of industrial and possibly domestic activity, post-dated by an apparent ditched field system. Furthermore, the earlier pottery dates closely coincide with this site, thus the idea that they form parts of the same extra-mural settlement outside the fort of Burgh II appears persuasive. However, the Amberfield site was located further from the road to the Burgh II fort than the site excavated by Masser and Evans. Additionally, the pottery from Amberfield indicates activity extending into the 3rd century. Geophysical survey at the Maryport fort and vicus (Biggins and Taylor 2004) showed a vicus layout of buildings lining the main road to the fort with ditched field systems to the backs. It is probable that a similar pattern occurred at Amberfield.

The wide ditch observed during the evaluation to the north of the site is most likely associated with the former railway and canal, situated to the south of the Hadrian's Wall vallum, although the course of the vallum here is not known with any certainty (Breeze 2006, 353). Other features discovered during the evaluation which lie outwith the excavation area indicate a continuation of linear features beyond the excavated area.

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The industrial and settlement phase, when viewed along with the Amberfield site, fits Taylor's (2007) observation of 'hamlet-scale' extra-mural civilian settlement associated with a nearby military base – in this case the fort of Burgh II. It is likely, therefore, that this site represents part of a Roman field system to the rear of the vicus, that was in use and modified throughout the early 2nd to mid 3rd centuries, and had some elements of small-scale industrial activity.

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REFERENCES

- J. Abrams, and D. Ingham, Farming on the Edge: Archaeological Evidence from the Clay Uplands to the West of Cambridgeshire, East Anglian Archaeology 123 (Cambridge, 2008).
- S. Anderson, 'Ceramic building material', in M. Johnson, *Excavation of Two Flavian to Early Antonine Romano-British Pottery Kilns and Associated Structures at 7a Fisher Street, Carlisle*, CFA Archaeology Ltd Archive Report (2006).
- P.T. Bidwell and S.C. Speak, *Excavations at South Shields Roman Fort Vol. 1*, Soc. Antiq. Newcastle upon Tyne Mon. 4 (Newcastle, 1995).
- J.A. Biggins and D.J.A.Taylor, 'The Roman fort and vicus at Maryport: geophysical survey, 2000–2004', in R.J.A. Wilson and I. Caruana (eds), Romans on the Solway: Essays in honour of Richard Bellhouse (Kendal, 2004).

- D.L. Breeze, *J. Collingwood Bruce's Handbook to the Roman Wall*, 14th edition (Newcastle upon Tyne, 2006).
- G. Brodribb, Roman Brick and Tile (Gloucester, 1987).
- I.P. Brooks and K. Law, *Amberfield, Burgh by Sands NY 3265 5896 Geophysical Survey* Engineering Archaeological Services Ltd, unpublished report (2005).

English Heritage, Monument Class Descriptions. http://www.eng-h.gov.uk/mpp/mcd/

J. Evans and S. Rátkai, *The Walton-le-Dale Roman Pottery* (forthcoming)

- C.F. Gaffney, and V.L. Gaffney, 'Some quantitative approaches to site territory and land use from the surface record', in D. Bintliff, A. Davidson, and E.G. Grant (eds), *Conceptual Issues in Environmental Archaeology*, 82–90 (Edinburgh, 1988).
- K.F. Hartley, 'The Mortaria', in M. Johnson, A. Croom, K.F. Hartley and R. McBride, 'Two Flavian to Early Antonine Romano-British pottery kilns at 7a Fisher Street, Carlisle', *Journal of Roman Pottery Studies*, (forthcoming).
- M. Kirby, *Amberfield, Burgh by Sands, Cumbria: Archaeological Evaluation*, CFA Archaeology Ltd Archive Report No. 1153 (2006).
- W. H. Manning, Catalogue of the Romano-British iron tools, fittings and weapons in the British Museum (London, 1985).
- P. Masser and J. Evans, 'Excavation within the *vicus* settlement at Burgh by Sand, 2002', *CW3*, V, (2005), 31–61.
- S. Mitchell, *Amberfield, Burgh-by-Sands, Cumbria. Archaeological Excavation*, CFA Archaeology Ltd Report No. 1226 (2006).
- R. Philpott, 'The Romano-British Period Resource Assessment', in M. Brennand (ed.), The Archaeology of North West England, An Archaeological Research Framework for North West England: Volume 1 Resource Assessment, Archaeology North-West 8, 59– 90, (Liverpool, 2006).

J. Price, and S. Cottam, Romano-British glass vessels: a handbook (York, 1998).

- C.S. Sommer, 'From conquered territory to Roman province: recent discoveries and debate on the Roman occupation of SW Germany', in J.D. Creighton and R.J.A. Wilson (eds), *Roman Germany: studies in cultural interaction*, Journal of Roman Archaeology Supplementary Series 32 (Portsmouth, Rhode Island, 1999).
- V.G. Swan and R.M. McBride, 'The Roman pottery', in C. Howard-Davis (ed.), The Carlisle Millennium Project: Excavations in Carlisle, 1998–2001, Volume 2: The Finds (Lancaster, 2010).
- J. Taylor, *An Atlas of Roman Rural Settlement in England*, CBA Research Report 151 (York, 2007).
- M. Ward, 'Samian ware' in Masser and Evans (2005), 37-8.
- R.J.A. Wilson, 'Introduction: the Roman frontier on the Solway', in R.J.A. Wilson and I. Caruana (eds), *Romans on the Solway: Essays in honour of Richard Bellhouse* (Kendal, 2004).

Illustration captions

- 1. Location map
- 2. Plan of excavated area
- 3. Phasing plan
- 4. Pottery

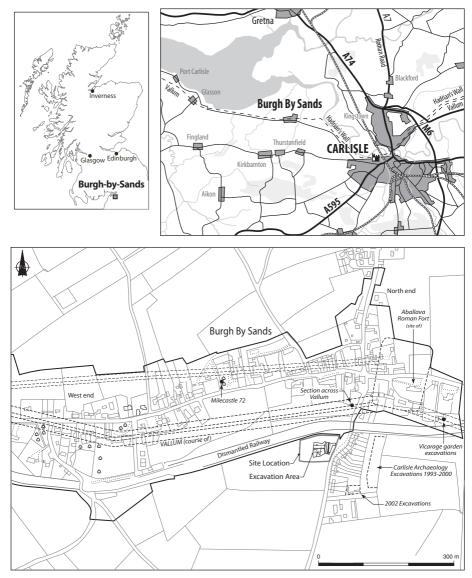
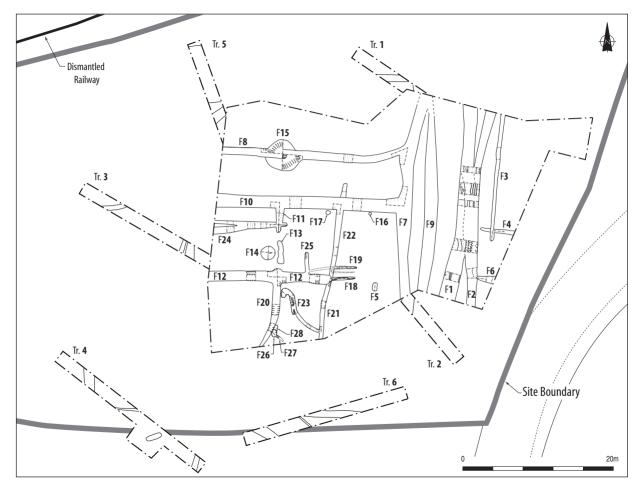


Fig. 1 - Location map



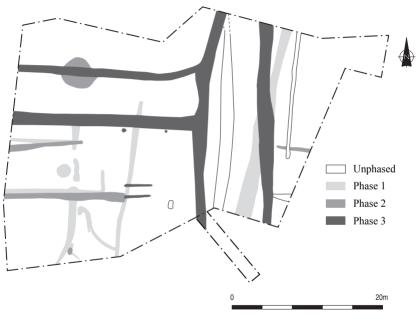


Fig. 3 - Phasing Plan

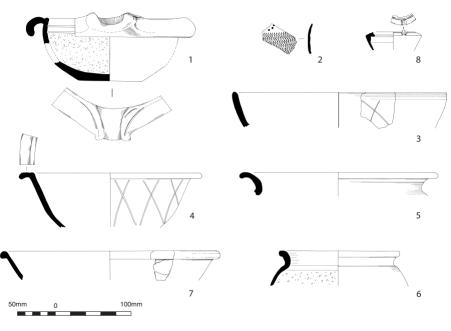


Fig. 4 - Pottery