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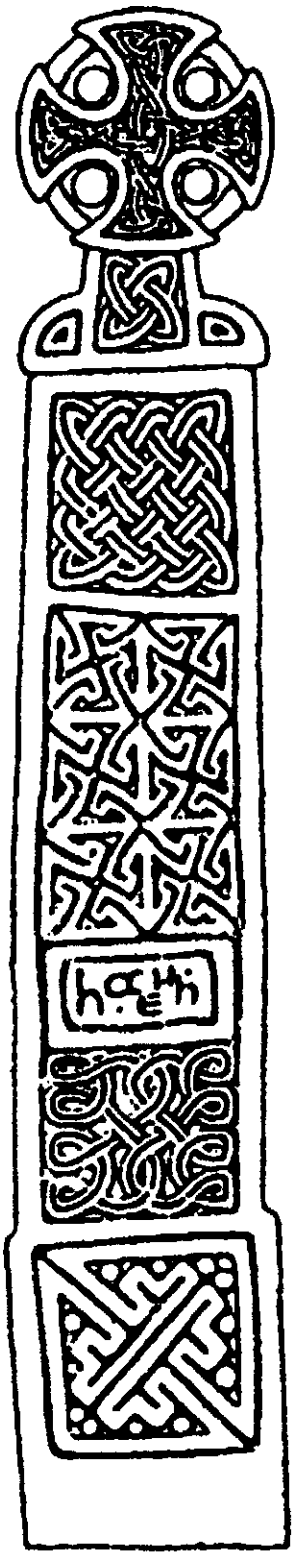

Archaeological Excavation

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SMR No. 51841

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Contents

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1. Non Technical Summary

Border Archaeology excavated four interconnecting trenches in the car park adjoining Leintwardine Community Centre in June 2010 on behalf of Leintwardine Village Hall and the Community Centre Committee.

Previous excavations undertaken in 1991 to the rear of the Community Centre had revealed the remains of a substantial timber building of early to mid 2nd century date in the southern part of the site, together with a complex of successive intercutting pits of Roman date.

The excavation was carried out by hand prior to the installation of heating system and initially revealed a considerable depth of cultivation soil, probably associated with landscaping of the site during the construction of the existing school building in the mid 1840s.

Underlying this accumulation of soil was evidence of earlier occupation, comprising a number of features containing Roman pottery, although only three of these appeared to be of Roman date, the remainder containing pottery that had been incorporated as a result of later disturbance. The pottery as a whole contained an unusually large percentage of fine tableware, possibly indicative of high status occupation in the immediate vicinity of the site. Other finds included a small quantity of ferrous and non-ferrous metalworking debris, some of which may have been of Roman date and possibly represented evidence of small-scale metalworking activity in the immediate vicinity of the site.

A rough floor surface of possible Roman date was partially revealed in one of the trenches. Several linear cuts containing sandstone rubble were identified, possibly these were for wall or building foundations subsequently robbed out.

2. Introduction

2.1 Border Archaeology was instructed by Nicolette and Martin Baines on behalf of Leintwardine Village Hall and the Community Centre Committee (LVHCCC) to carry out archaeological excavation of the car park immediately to the E of the Community Centre in High Street Leintwardine located at NGR SO 40330 74092 (Planning Ref: DCNW2009/0615/F) (**Fig. 1**) prior to the installation of a ground-source heating system.

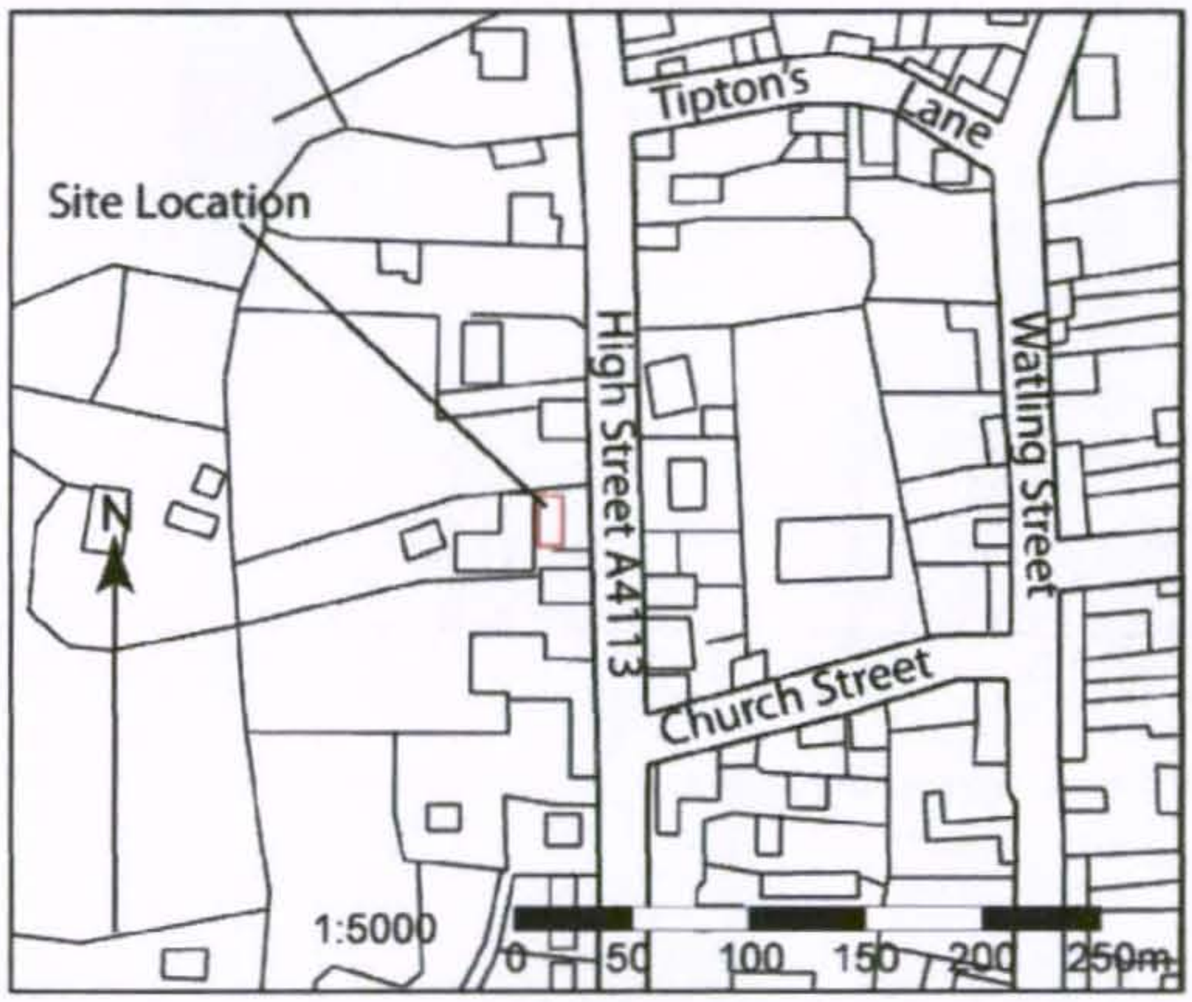


Fig. 1: Site location plan

2.2 The site lies within the Scheduled Area of the Roman station of *Bravonium* (SAM HE28) and consent to undertake the alterations was sought from Tony Fleming Esq. of English Heritage by Neil Shurety of Border Archaeology following initial correspondence between Nicolette Baines and Mr Fleming, which underlined the archaeological sensitivity of the areas to the N and S of the Centre and the presence of 'the large earthworks of the town defences' to the rear of the site, i.e. to the W.

2.3 Assessment of the known archaeological resource, with depths of archaeological layers, where known, and of the archaeological impact of specified items of work together with the proposed archaeological response was carried out by Stephen Priestley MA of Border Archaeology and supplied to Mr Fleming in response to the SMC application submitted on the Committee's behalf by Neil Shurety and dated April 21st 2010 (Ref: S00005701).

2.4 The engineering groundworks comprised 13 separate components, the largest of which involved trenching excavations 1200mm deep and 600mm wide extending from the face of the existing porch and linking five boreholes 100m

in depth to supply a ground-source heating system located centrally within the pipe trench widths. Further details concerning trench dimensions and alignments are supplied in Sections 4 & 5 of this document.

2.5 Copies of this Report are to be remitted to LVHCCC, Tony Fleming Esq, Julian Cotton Esq, Archaeological Advisor, Herefordshire Council and the Herefordshire Sites and Monuments Record.

2.6 Soils & geology

2.7 The soils are typical argillic brown earths of the ROWTON series (571A) comprising well drained fine silty and fine loamy soils, locally over gravel, with some fine silty over clayey soils with slowly permeable subsoils and seasonal waterlogging and some slowly permeable seasonally waterlogged fine silty over clayey soils. The underlying geology is glaciofluvial or river terrace gravel and till.

3. Brief historical & archaeological background

3.1 Attention is drawn to the Assessment of the known archaeological resource previously undertaken by Border Archaeology's Research Manager Stephen Priestley MA (Report No. BA1019LCC/01).

4. Methodology

4.1 Archaeological excavation was carried out in accordance with practices set out in *Standard and Guidance for archaeological excavation* (IfA, 2008). Border Archaeology adheres to the IfA *Code of conduct (2010)* and *Code of approved practice for the regulation of contractual arrangements in field archaeology (2008)* and to Herefordshire Archaeology's *Standards for Archaeological Projects in Herefordshire (Issue 1)* (Herefordshire Council 2004).

4.2 The groundworks comprised four interconnecting trenches excavated immediately to the E of the Community Centre (**Fig. 2**). Trench dimensions and orientations are detailed in Section 5.

4.3 Full written, graphic and photographic records were made using *pro-forma* record forms and sheets, these being in accordance with Border Archaeology's *Field Recording Manual.* A detailed stratigraphic record was compiled by means of a context numbering system and Harris matrix.

4.5 A photographic record of all stratigraphic units was made using a high-resolution 10.3MPX digital camera and comprised record views of contexts, samples and artefacts, together with a representative photographic record of the progress of site works. All photographic records are indexed and cross-referenced to written site records. Details concerning subject and direction of view are maintained in a photographic register, indexed by frame number.

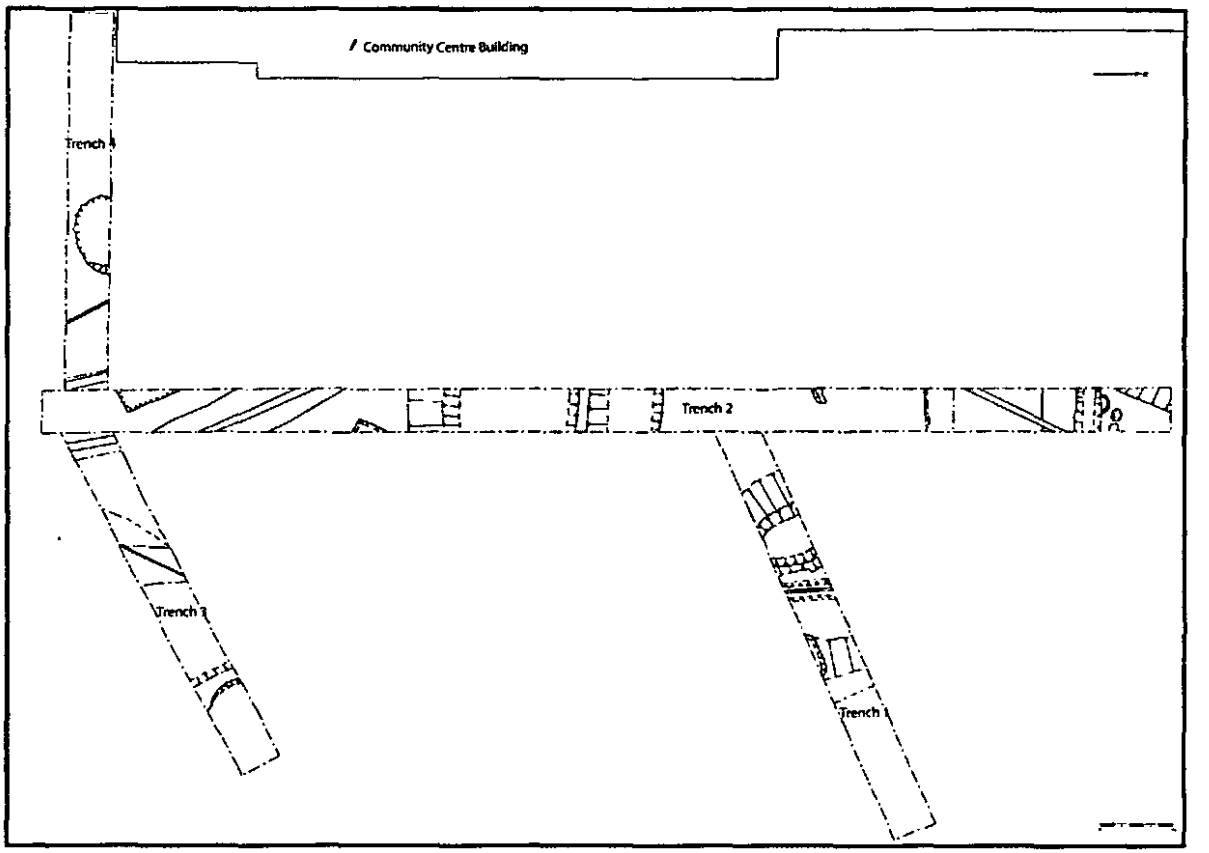


Fig. 2: Trench location plan

4.8 All artefacts were bagged and labelled with the site code and context number before being removed off site.

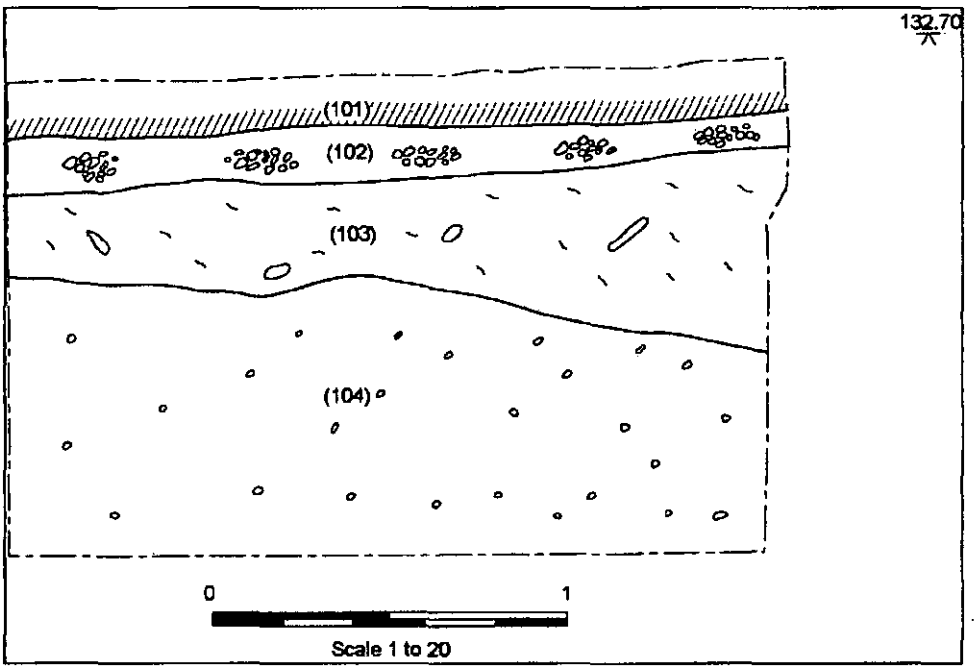
4.9 A judgement sampling strategy was employed in consultation with Ms Lisa Moffett English Heritage Regional Science Advisor for the West Midlands and with reference to *Environmental Archaeology: A guide to the theory and practice of methods, from sampling and recovery to post-excavation* (English Heritage 2002). whereby bulk samples were taken for subsequent Assessment from features or deposits believed not to be contaminated or of mixed/secondary origin (e.g. backfills or deposits with a high degree of residual/intrusive artefactual material); those thought or known to contain well preserved biological remains; deposits likely to be closely datable and those interpretatively important at the context or site level. Samples from selected contexts were assigned numbers and these are recorded in a register and cross-referenced with context sheets.

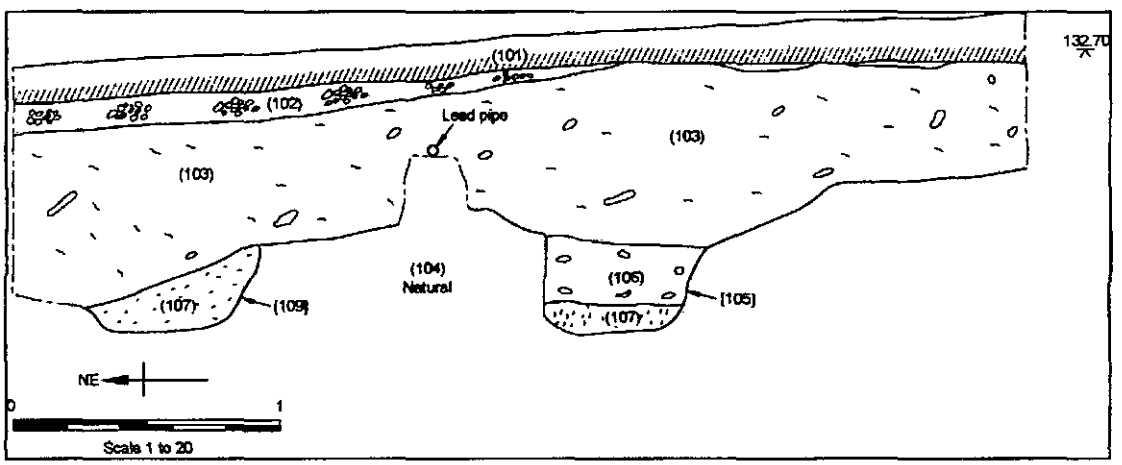
5. Results

5.1 Trench 1

5.2 Trench 1 ran NE-SW and measured 6m × 0.6m (**Plate 1**; **Figs. 2, 3, 4 & 5**). Nine contexts were identified.

5.3 Underlying the modern tarmac surface (101) and gravel/rubble sub-base layer (102) was (103), a moderately compact very dark greyish-brown clayey silt containing occasional large angular stones, CBM and charcoal flecking, extending >6m × >0.6m to a thickness of 0.6m.





Figs. 3 & 4: NW-facing section of Trench 1

5.4 Underlying (103) was (104), a firm yellowish-brown clayey silt natural deposit extending throughout Trench 1 to a depth of >0.8m.

5.5 Two features were identified at this level. The first of these was a circular or slightly sub-circular pit [105] (**Fig. 5**) measuring 0.9m in diameter and 0.4m deep, with a sharp break of slope at the top of the profile and steep or vertical sides breaking sharply to a flat base. The 0.2m thick primary fill (107) comprised soft very dark greyish-brown slightly humic sandy silt containing occasional charcoal flecking and sherds of 19th century pottery, together with a single redeposited samian fragment. A secondary fill (106) measured 0.2m thick and was composed of soft/friable very dark greyish-brown sandy silt with occasional sub-rounded stones, charcoal flecking and blackish staining. A second feature comprising a sub-circular pit [109] (**Fig. 5**) was partially exposed within Trench 1 and measured 0.6m × >0.1m × >0.25m. This revealed a sharp break of slope at the top of the profile and steeply sloping sides, the break of slope at the base and the base itself were not exposed. The single fill (108) consisted of moderately compact dark greyish-brown sandy silt to a thickness of >0.26m thick, from which was recovered a single sherd of 2nd century AD samian ware, suggesting this deposit may be of Roman date, although considerable caution should be taken in ascribing such an early date, as the incidence of material is very low (Appendix 2).

Plate 1: View NE showing Trench 1

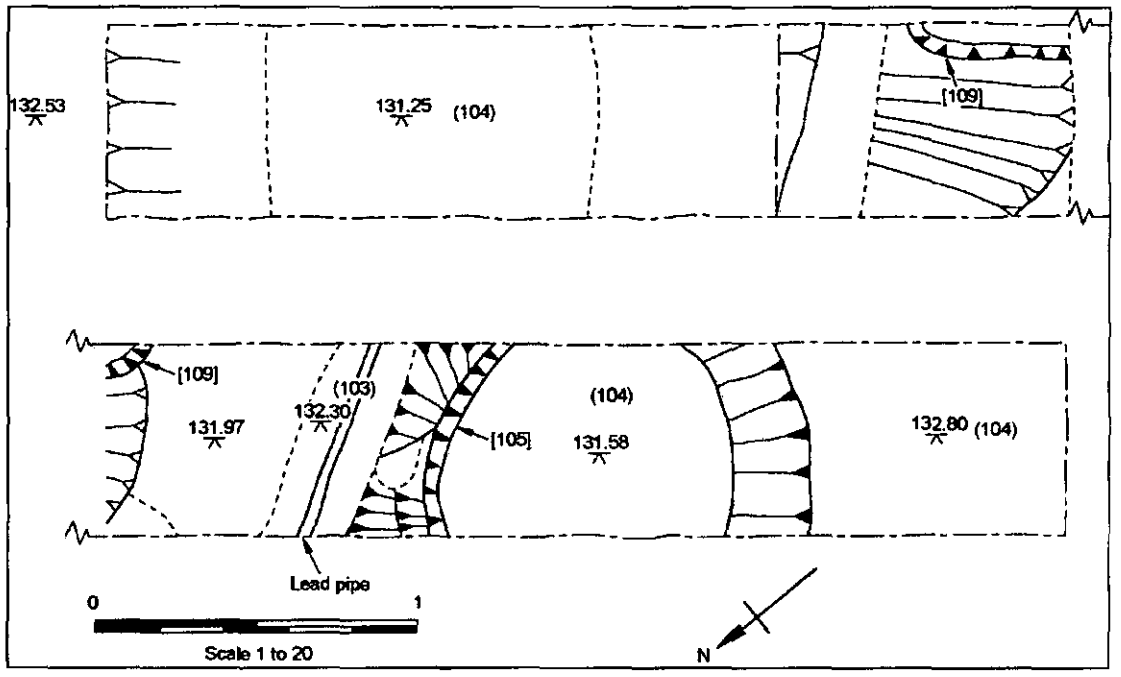


Fig. 5: Post-ex. plan of Trench 1 showing pit cuts [109] and [105]

5.6 Trench 2

5.7 Trench 2 was oriented N-S and measured 16m × 0.6m (**Plates 2 & 3; Figs. 2, 6-8**). Thirty contexts were identified.

5.8 Underlying the tarmac surface (200) was (201), a friable pale yellowish-brown gravelly gritty silt containing frequent small subangular stones and pieces of abraded CBM, possibly representing a post-medieval demolition spread or levelling deposit, extended >16m × 0.6m × 0.35m.

5.9 Underlying (201) and representing a continuation of (103) into Trench 2 was (202), a trenchwide deposit measuring >16m × 0.6m × 0.66m, which consisted of friable mid greyish-brown humic, slightly gritty gravelly clayey silt with moderate flecks and fragments of CBM, charcoal and mortar, together with vertebrate remains, including remains of pig. This context yielded the highest number of later post-medieval pottery sherds, with a total of 52 being recovered, together with 13 fragments of (residual) Roman material, including three sherds of Central Gaulish samian of 2nd century AD date and eight fragments of Severn Valley Ware. The deposit also contained fragmentary CBM, probably representing post-medieval roof tile, and a fragment of glazed foul-pipe. Also recovered were a residual blue/green fragment from the lower body of a Roman pillar moulded glass bowl, which retained part of one rib, and some 18th-19th century bottle and window glass (Appendix 3), together with several square-sectioned hand-forged nails of Roman date, possibly manufactured on-site, and a piece of vitrified hearth lining characteristic of traditional clay-built smithing hearths and furnaces (Appendix 5). A small quantity of clay pipe fragments (consisting of one heel fragment and six stems) of late 17th-early 18th century date was also recovered from (202), which was interpreted as a cultivation soil of post-medieval date.

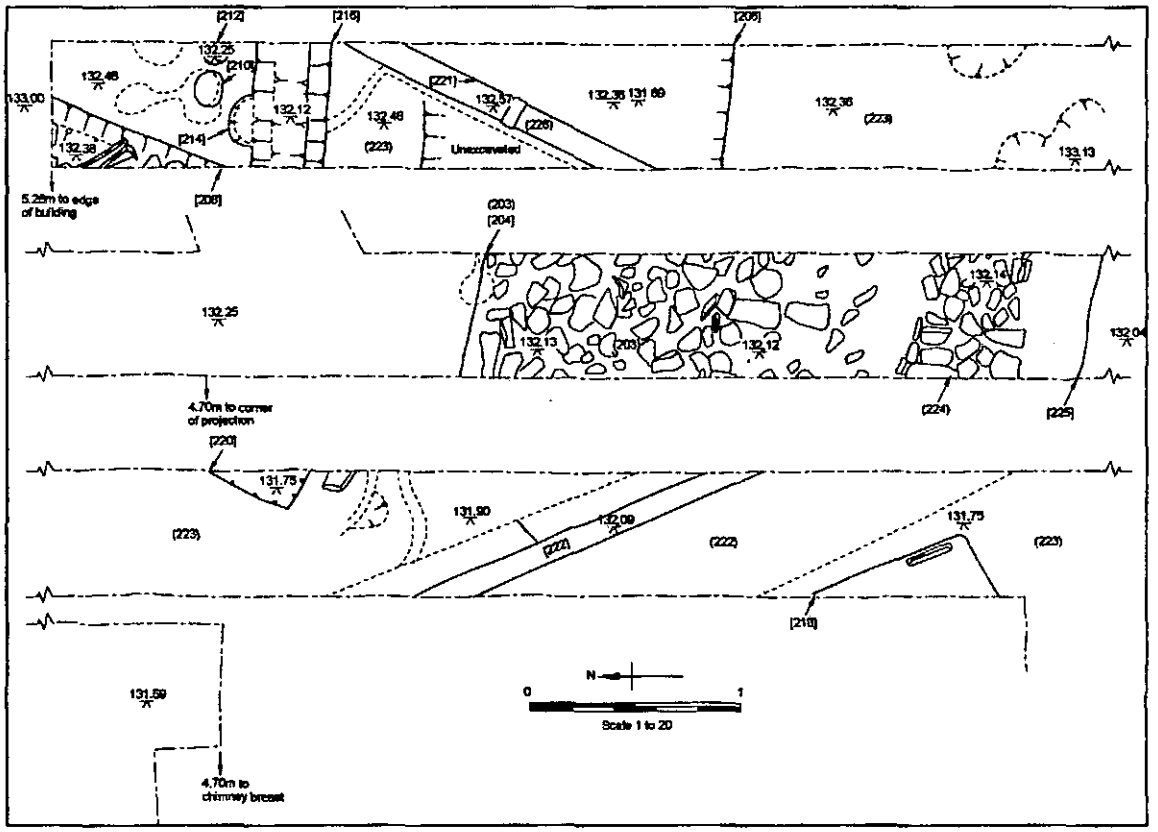


Fig. 6: Plan of Trench 2 (mid-ex.)

5.10 A possible occupation layer (223) was identified at this level comprising a cohesive mid orangey-brown gritty gravelly clayey silt.

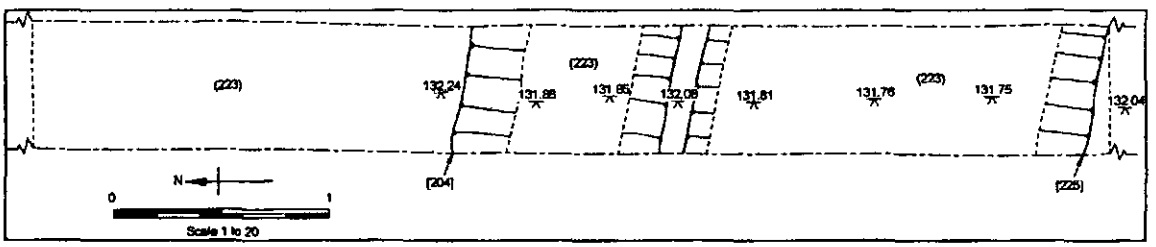


Fig. 7: Post-ex. plan showing ditch/wall cut features [225] and [204]

5.11 Ten features were identified. A linear feature [208] oriented NNW-SSE of possible Roman date was partially revealed at the N extent of the trench, measuring >0.82m × >0.33m × >0.31m, which exhibited evidence of possible truncation by (202). The top of the profile broke gradually to gently sloping, slightly concave sides and the feature contained a single fill (207) consisting of friable mid greyish-brown gritty/gravelly clayey silt with *c.*30% large flattish angular and subangular stones and occasional charcoal and mortar. A single sherd of Severn Valley Ware was recovered and, as this was not associated with any post-medieval material, it is suggested that the deposit may be Roman, although, as in the case of (108), such a conclusion must remain

tentative in view of the very small amount of material present. Also recovered was a square-sectioned hand forged nail of Roman date.

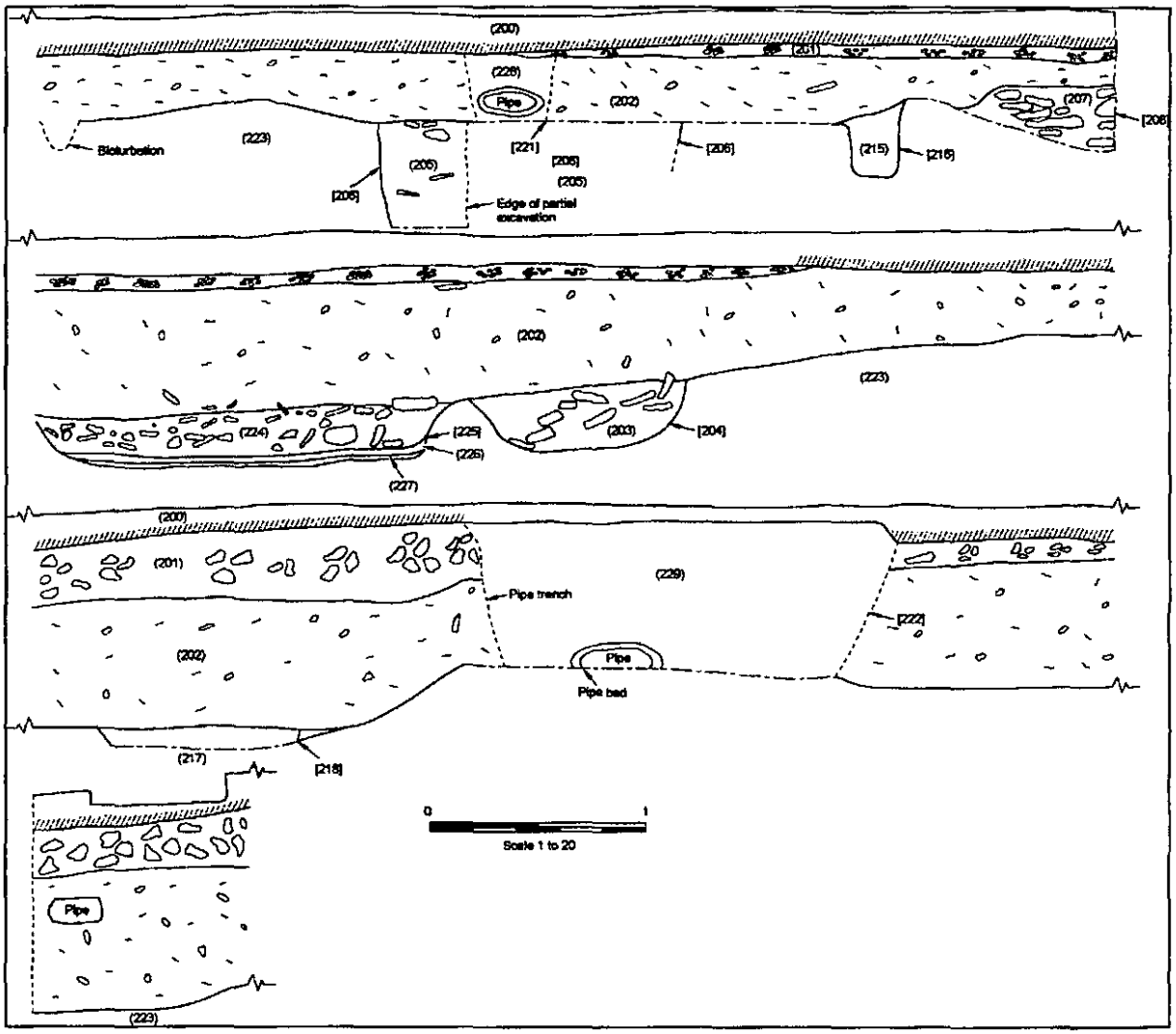


Fig. 8: E-facing section of Trench 2

5.12 Two small postholes, [210] and [212], were identified immediately to the S of [208]. A larger posthole [214] was cut by a later linear feature [216] oriented E-W and measuring 0.37m wide and 0.36m deep, with a sharp break of slope at the top of the profile and steep, near-vertical sides breaking sharply to a flat base. A single fill (215) comprised friable mid greyish-brown gritty/gravelly clayey silt containing occasional charcoal flecking.

5.13 A large, deep, possibly linear feature [206] was encountered to the S of [216] on a similar E-W alignment, which measures 1.4m wide and >1.2m deep, with a sharp truncated break of slope top of the profile and steep, almost vertical sides. A loose friable dark greyish-brown humic gritty clayey silt fill (205) was revealed containing occasional vertebrate remains and frequent (18 recovered) lumps of sandy textured daub, several of which bore wattle impressions indicating a structural use, although no associated pottery was

recovered to enable the dating of this material. However, the presence of charred remains of *cf.* bread wheat and rye grains, as well as oats and barley, suggests a post-Roman origin, based on the increasing rarity of emmer and spelt wheat - the principal crops of the prehistoric and Roman periods in southern England - from the early medieval onwards, with bread wheat and rye predominating in later contexts (Appendix 6).

5.14 A possible robbed wall cut [204] (**Plate 2; Figs. 6 & 7**) was exposed 3.6m to the S of [206] on a similar E-W orientation. The feature measured 1.02m wide and 0.3m deep and revealed a sharp break and moderately sloping, concave sides breaking more gradually to a flattish base. The fill consisted of friable mid greyish-brown gravelly/gritty clayey silt (203) containing *c.*50% medium and large angular and subangular stones and occasional charcoal, mortar flecking, together with fragmentary post-medieval and residual Roman pottery and CBM, the latter probably representing *tegulae* roof tile. Examples of cinder and mortar were also recovered.

Plate 2: View E of Trench 2 showing [204]

5.15 Immediately to the S of [204] and on a parallel E-W alignment was a large linear cut [225] (**Figs. 6 & 7**) 1.9m wide and 0.28m deep, with a moderate break of slope at the top of the profile and sides that varied from convex at the N to concave at the S side and which revealed a gentle break of slope to a flat base. Three fills were identified, the basal fill (227) being a moderately compact light greenish-yellow/brown sandy silt, 0.04m thick, containing charred remains of barley, wheat, rye and oats, together with fragments of hazelnut shell. Again, the presence of *cf.* bread wheat and rye grains suggests this feature may be of post-Roman origin. The secondary fill (226) was a soft dark grey/black charcoal-rich silt some 0.06m in thickness, which revealed remains of barley, wheat, rye, oats and hazelnut, as did the upper fill (224), a 0.22m-thick friable mid greyish-brown gritty/gravelly clayey silt with *c.*30% flat

angular and subangular stones, moderate charcoal and occasional mortar, which also revealed several probable nails, some undated CBM and one small fragment of smithing hearth bottom representing evidence for the smithing of iron in the vicinity of the site.

5.16 A right-angled, possibly rectangular cut [220] (**Plate 3; Fig. 6**) was partially revealed to the S of [225]. This appeared to be aligned NW-SE and measured 0.46m along the E section and >0.35m deep, with a sharp break of slope at the top of the profile and near vertical sides. A single fill (219) was identified consisting of friable mid greyish-brown, slightly gritty gravelly clayey silt with occasional fragments of burnt clay with mortar also possibly represented. The area to the S of [220] was heavily disturbed by a modern utility trench [222], which truncated (223) to a width of 1.6m.

5.17 To the S of [222] was [218], a right-angled cut partially visible in the W section of Trench 2 and similar in form to [220], but which appeared to respect a NNW-SSE orientation, with a sharp break of slope at the top of the profile and near-vertical sides. The single fill (217) comprised friable mid greyish-brown, slightly gritty and gravelly clayey silt with frequent very large angular and subangular stones, which was excavated to a maximum depth of >0.08m.

Plate 3: View E of Trench 2 showing [220]

5.18 Trench 3

5.19 Trench 3 ran NE-SW and measured 5.4m × 0.6m (**Plate 4; Figs. 2 & 9**). Twelve contexts were revealed.

Plate 4: View SW of Trench 3 fully excavated

5.20 Underlying the tarmac car park surface (300) and modern sandy silt levelling deposit (301) was a moderately compact light brown sandy silt layer (302) extending throughout Trench 3 to a thickness of 0.5m from which three sherds of post-medieval pottery were recovered together with fragmentary CBM, probably representing post-medieval roof tile and two clay pipe stem fragments of late 17th-early 18th century date. Other inclusions included very occasional oyster shell & vertebrate remains and, significantly, a single piece of cinder exhibiting a green glazed surface, which appears to be indicative of copper alloy working. Also revealed was (306), a friable light brown sandy silt containing occasional charcoal and frequent pebbles extending to a depth of 0.24m. The presence of a single Roman sherd of local oxidised ware exhibiting fine rouletted decoration suggests this deposit may be Roman in origin; however, for the reasons stated previously in respect of (108) and (207), this is far from proven.

5.21 A modern utility cut [310] located at the SW end of the trench, at the point where it joined Trench 2, made establishing a comparative stratigraphic relationship problematic.

5.22 Underlying (302) and (306) was (305), a friable mid yellowish-orange, very sandy silt with frequent small subangular stones, extending 2.1m × 0.6m × 0.1m and possibly representing a tipping or levelling deposit. Underlying (305) was (303), a moderately compact mid brown clayey silt extending throughout Trench 3 to a depth of 0.6m from which were recovered nine sherds of 18th century pottery and five clay pipe fragments (comprising one bowl and four stems) of late 17th-19th century date, together with two sherds of Severn Valley Ware together with probable roofing tile and a residual upper body fragment of blue/green glass measuring 37 x 26mm derived from a pillar moulded bowl (Appendix 3). This piece retained part of one rib and was broken at its junction with the rim. Two fragments of post-medieval wine bottle and a small amount

of oyster shell and vertebrate remains were also recovered from this deposit, interpreted as a landscaping layer of post-medieval date.

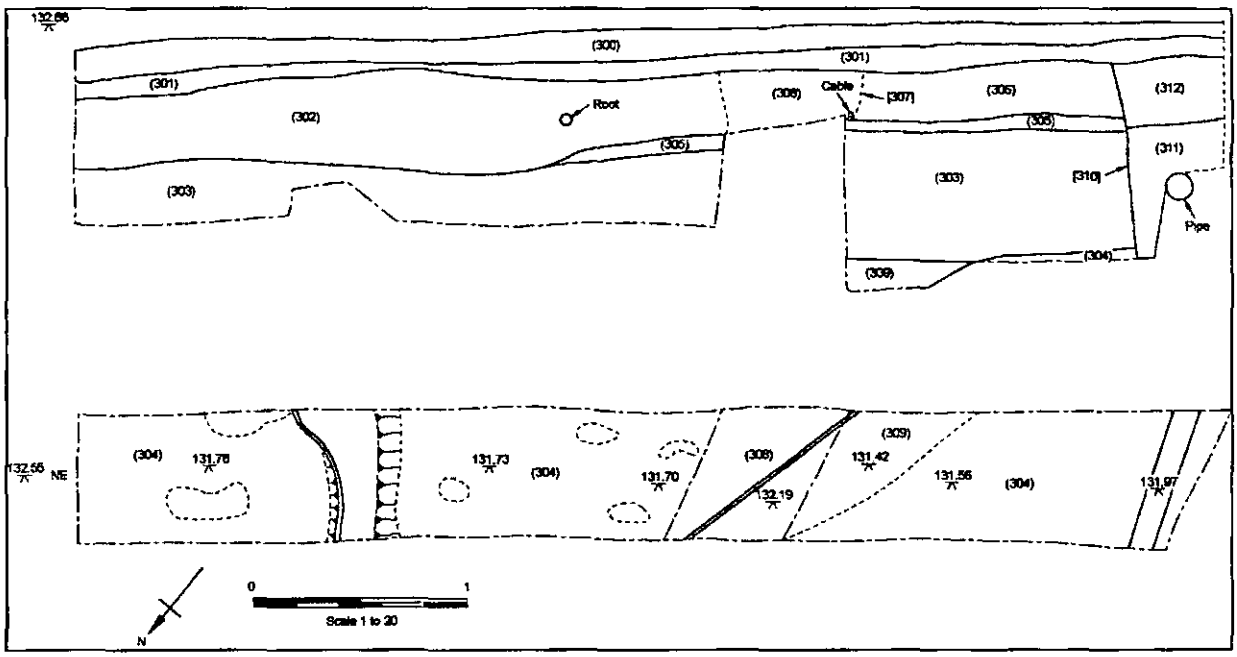


Fig. 9: NW-facing section and plan of Trench 3

5.23 This overlay a moderately compact mid brown clayey silt deposit (309) measuring 0.7m × >0.4m × 0.14m contained within a natural depression or tree bole. Underlying (309) was (304) a firm mid orangey-brown sandy silt and gravel visible to an extent of >0.8m × >0.6m × >0.6m, which appeared to be natural deposition.

5.24 Trench 4

5.25 Trench 4 extended E-W and measured 5.25m × 0.6m (**Plate 5; Figs. 2, 10 & 11**). Twelve contexts were identified.

5.26 A firm dark brown, slightly sandy silt and silt deposit (406) extending throughout Trench 4 to a depth of 0.53m and probably analogous to (202) was revealed beneath the car park area (400) and community centre underpinning (401). This contained some 15 sherds of 19th century pottery together with two square-sectioned hand-forged nails of Roman date, and was cut by [408] (**Plate 5; Figs. 10 & 11**), a circular post-medieval pit measuring 0.95m × >0.5m × 0.72m with a sharp break of slope at the top of the profile and steeply sloping sides breaking sharply at the base, which sloped slightly to the E. The pit contained a single fill (413), composed of firm mid to dark brown silt with occasional pebbles, and had been truncated by a modern utility trench [404].

Plate 5: Post-excavation view E of Trench 4 showing [408] and floor surface (407)

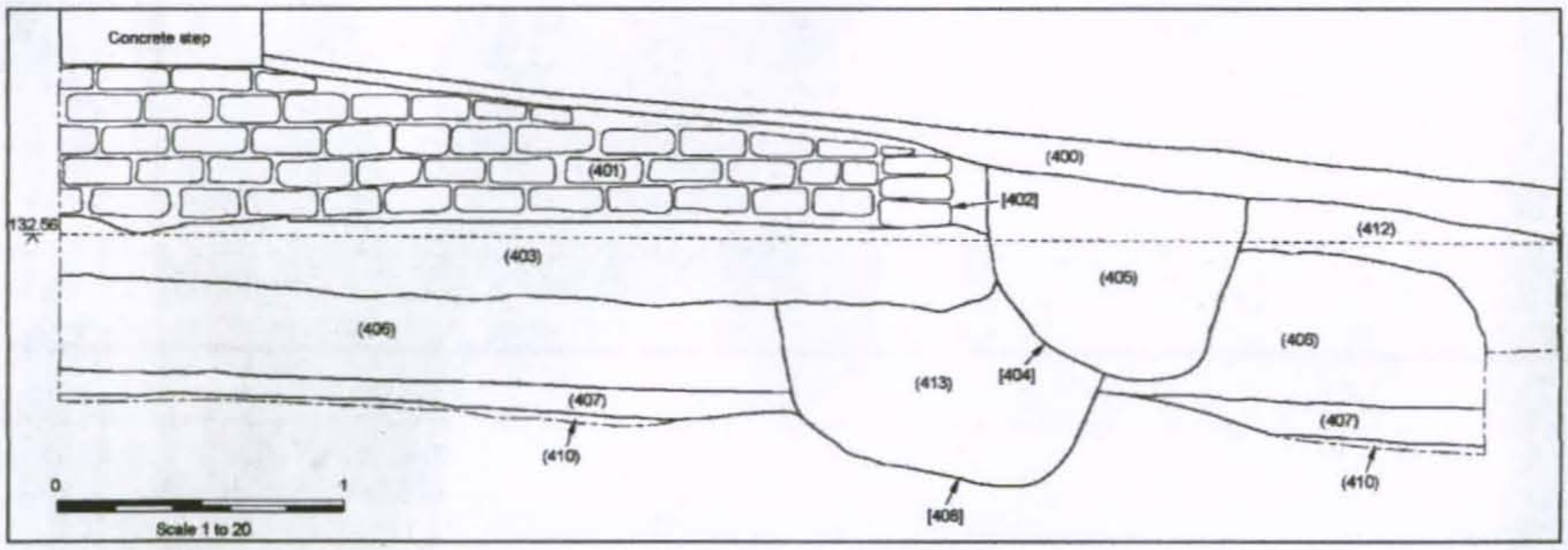


Fig. 10: S-facing section of Trench 4

5.27 The remains of a possible internal floor surface (407) (**Plate 5; Figs. 10 & 11**), consisting of compacted earth, silt, and clay with soft 'mudstone' particles, were revealed at the base of the trench overlying natural sands and gravels (410). It is possible that this floor surface is of Roman date; however, no artefactual evidence was recovered to confirm this hypothesis.

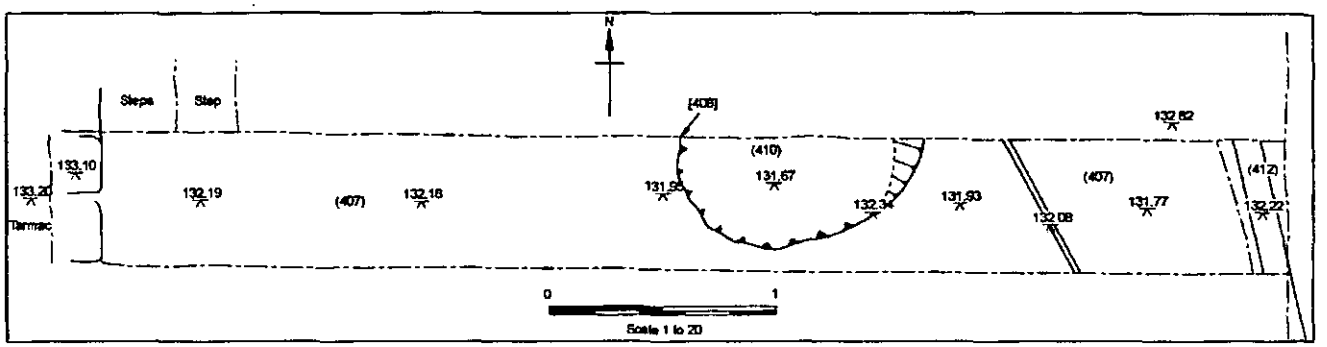


Fig. 11: Plan of Trench 4 (mid-ex.)

6. Summary & Conclusion

6.1 The paucity of evidence revealed during the course of the fieldwork relating to the main period of Roman occupation within this part of the defended urban settlement of Leintwardine (SAM Ref. HE 28) is surprising in view of the significant remains revealed during investigations undertaken in 1991 to the rear of the building, which exposed evidence of a substantial timber building and associated features of early to mid 2nd century date (Brown, 1991, 1996). However, although situated within an area of high archaeological sensitivity the present works were comparatively limited in scope, comprising four narrow interconnecting trenches situated to the E of the existing building, as dictated by engineering criteria, and the character of the findings could thus be explained in light of this very limited intervention.

6.2 Three possible Roman deposits/features were revealed, these being a sub-circular pit lying partially within Trench 1 (108)/[109], a possible robbed wall cut (207)/[208] and a deposit of moderately compact friable light brown sandy silt (306). These interpretations are based on the character of the ceramic assemblage and must be heavily qualified by reference to the very low incidence of Roman material, which, in each case, comprised only a single sherd. The earlier occupation features included a compacted earth surface in Trench 4 (407), which may have formed an area of rough internal flooring or possibly acted as the base for a higher quality surface, subsequently removed. The actual surface appeared to be quite pitted and uneven although this may reflect subsequent disturbance resulting from bioturbation.

6.3 The Roman pottery represents part of a larger assemblage of Roman material, the bulk of which was residual in nature, comprising six small sherds of Central Gaulish samian ware, 12 fragments of oxidised Severn Valley ware, a single piece of Dorset black burnished ware and four miscellaneous sherds, probably representing local sandy wares. Although quite modest in size, the assemblage contained a relatively high incidence of imported fine table ware, a finding which may prove significant should further investigations be undertaken within the study area. The Samian ware is indicative of 2nd-century activity at the site, which is broadly supported by the other sherds present for which the dating is less refined and which is broadly consistent with the dates obtained from the 1991 investigation. Two fragments of Roman glass were

recovered from residual contexts, both deriving from blue/green pillar moulded bowls, which represent a common 1st century form typical of the type of glass to be expected on a military site of that date.

6.4 A substantial cultivation soil deposit (202) of post-medieval date extended over the area of excavation and considerable disturbance to both Roman and post-Roman deposits by construction activity relating to the Community Centre building and associated services was evident, together with indications of landscaping activity, especially within Trench 3

6.5 A number of probable linear features oriented E-W were identified within Trench 2 ([204], [206], [216] & [225]); these contained stone rubble and may have been represented robbed wall cuts. Some features were also found to be aligned on a loose NW-SE, NNE-SSW orientation, including [208], and [218] and [220]. The latter two features were right-angled within the trench, possibly representing the corners of buildings or similar structures, such as foundation piers, and is likely that these represent a different phase of occupation of the site, although it was not possibly to determine more precise phasing of these features within the limits of the excavation.

6.6 Evidence of domestic waste was represented within all of the samples assessed for palaeoenvironmental remains. The charred plant macrofossil assemblages indicate that a range of cultivated crops and wild food sources were used at the site. The predominance of bread wheat and rye possibly suggests a post-Roman date for linear [225]. Linear/pit feature [206] may be of a similar origin.

6.7 A small quantity of ferrous and non-ferrous metalworking debris, including a smithing hearth bottom and a quantity of hand-forged iron nails was also recovered during the evaluation. Although it is difficult to draw detailed conclusions due to the small nature of the assemblage, some of the material may provide evidence of small-scale, domestic metalworking activity of Roman or post-Roman date, comparable to the metalworking debris found during the previous excavations at Leintwardine Community Centre in 1991 (Brown, 1991).

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Cartography

Leintwardine parish tithe map - 1847

OS 1st edition 25 inch map (Herefordshire 2.7) - 1885

OS 1st edition 6 inch map (Herefordshire 2 NW) - 1889

OS 2nd edition 25 inch map (Herefordshire 2.7) - 1903

OS 2nd edition 6 inch map (Herefordshire 2 NW) - 1904

OS provisional edition 6 inch map (Herefordshire 2 NW) – 1953

8. Appendices

APPENDIX 1: CONTEXT REGISTER

AP1.1 Trench 1

Context	Description
(101)	Indurated tarmac; measures >6m × >0.6m × 0.16m. Overlies (102)
INTERPRETATION	*Car park surface*
(102)	Hard gravel and brick rubble; measures >6m × >0.6m × 0.1m. Underlies (101), overlies (103)
INTERPRETATION	*Demolition spread and sub base*
(103)	Moderately compact very dark greyish-brown clayey silt, occasional large angular stones & CBM, charcoal flecking; measures >6m × >0.6m × 0.6m. Underlies (102), overlies (106), (108).
INTERPRETATION	*Garden soil cultivation layer*
(104)	Firm yellowish-brown clay silt; measures >6m × 0.6m × >0.8m. Cut by [105] [109]
INTERPRETATION	*Natural deposit*
[105]	Cut; circular or slightly sub-circular in form; measures 0.9m × >0.6m × 0.4m; sharp break of slope top, steep or vertical sides, sharp break of slope base, base flat. Cuts (104) Filled by (106) (107)
INTERPRETATION	*Cut of possible domestic waste pit*
(106)	Soft very dark greyish-brown sandy silt, occasional sub-rounded stones, charcoal flecking and blackish staining, 2 × incomplete square-sectioned hand-forged nails; measures 0.9m × >0.6m × 0.2m. Fills [105]
INTERPRETATION	*Secondary fill of [105]*
(107)	Soft very dark greyish-brown slightly humic sandy silt, occasional charcoal flecking, 4 × post-medieval sherds & a single fragment samian ware (residual); measures 0.85m × >06m × 0.2m Fills [105]
INTERPRETATION	*Primary fill of [105]*
(108)	Moderately compact dark greyish-brown sandy silt, single fragment of samian ware of C2 AD date; measures 0.6m × >0.1m × >0.26m. Fills [109]
INTERPRETATION	*Fill of pit [109]*
[109]	Cut; sub-circular in form; sharp break of slope top, steeply sloping sides; 0.6m × >0.1m × >0.25m. Filled by (108)

INTERPRETATION	*Cut of possible midden partially within Trench 1; appears possibly to be of C2 date*

AP1.2 Trench 2

Context	Description
(200)	Indurated tarmac; measures >16m × >0.6m × 0.18m. Overlies (229)
INTERPRETATION	*Modern car parking area*
(201)	Friable pale yellowish-brown gravelly gritty silt, frequent small subangular stones & abraded CBM; measures >16m × 0.6m × 0.35m. Underlies [222] Overlies (228)
INTERPRETATION	*Demolition spread and sub-base*
(202)	Friable mid greyish-brown humic, slightly gritty gravelly clayey silt, moderate flecks/fragments of CBM, charcoal and mortar, occasional vertebrate remains, 3 × fragments samian ware, 8 × fragments Severn Valley Ware & several undesignated sherds, 1 × lower body fragment of blue/green Roman glass pillar moulded bowl retaining part of 1 rib, 1 × fragment late C18/C19 green bottle glass, 4 × square-sectioned hand-forged nails, 1 × piece of vitrified hearth lining, 1 × fragment (C18?) blue/green window glass, 1 × clay pipe bowl and 6 × stem fragments (late C17th-early C18th); measures >16m × 0.6m × 0.66m. Cut by [221] Overlies (203) (205) (207) (209) (211) (215) (217) (219) (224)
INTERPRETATION	*Probable C19 garden soil*
(203)	Friable mid greyish-brown gravelly gritty clay silt, 50% medium & large angular & subangular stones, occasional charcoal & mortar flecking, fragmentary post-medieval and residual Roman pottery & CBM, probably *tegulae* roof tile; measures 1.02m × >0.6m × 0.3m. Fills [204]
INTERPRETATION	*Fill of robbed out wall cut [204]*
[204]	Cut; linear in form; oriented E-W; measures 1.02m × >0.6m × 0.3m; break of slope top moderately sharp, sides moderately sloping concave, break of slope base gradual, base slightly sloping. Cuts (223) Filled by (203)
INTERPRETATION	*Cut of robbed out wall*
(205)	Friable dark greyish-brown humic gritty clay silt, frequent undated CBM, occasional vertebrate remains; measures

	1.4m × >0.6m × >1.2m. Fills [206]
INTERPRETATION	*Fill of possible linear [206]*
[206]	Cut; linear(?) in form; aligned E-W; measures 1.4m × >0.6m × >1.2m in depth sharp truncated break of slope top sharp truncated, steep almost vertical sides. Cuts (223), filled by (205)
INTERPRETATION	*Cut of possible linear feature*
(207)	Friable mid greyish-brown gritty gravelly clay silt, 30% large flattish angular & subangular stones, occasional charcoal & mortar, 1 × sherd Severn Valley Ware, square-sectioned hand-forged nail (in 2 pieces); measures >0.82m × >0.33m × >0.31m. Fills [208]
INTERPRETATION	*Fill of linear [208] of possible Roman date*
[208]	Cut; linear in form; aligned NNW-SSE; measures >0.82m × >0.33m × >0.31m; break of slope top gradual (possibly truncated by (202)), sides gently sloping slightly concave. Cuts (223), filled by (207)
INTERPRETATION	*Possible robbed wall cut*
(209)	Friable mid greyish-brown gritty gravelly clay silt; measures 0.13m × 0.17m × >0.3m. Fills [210]
INTERPRETATION	*Fill of posthole [210]*
[210]	Cut; ovoid in form; measures 0.13m × 0.17m × >0.3m; break of slope top sharp, sides vertical, inclination of axis vertical. Cuts (223), filled by (209)
INTERPRETATION	*Cut of posthole*
(211)	Friable mid greyish-brown gritty gravelly clay silt; measures 0.12m × >0.1m × 0.2m. Fills [212]
INTERPRETATION	*Fill of posthole [212]*
[212]	Cut; ovoid in form; measures 0.12m × >0.1m × 0.2m; break of slope top sharp, sides near vertical, break of slope base sharp, base tapered, inclination of axis vertical. Cuts (223), filled by (211)
INTERPRETATION	*Cut of posthole*
(213)	Friable mid greyish-brown gritty gravelly clay silt; measures 0.24m × >0.14m × 0.42m. Fills [214]
INTERPRETATION	*Fill of posthole [214]*
[214]	Cut; circular in form; measures 0.24m × >0.14m × 0.42m; break of slope top sharp, sides near vertical, break of slope base moderate, base rounded, inclination of axis near vertical. Cuts (223), filled by (213), truncated by [216]

INTERPRETATION	*Cut of large posthole*
(215)	Friable mid greyish-brown gritty gravelly clay silt, occasional charcoal flecking; measures 0.37m × >0.6m × 0.36m. Fills [216]
INTERPRETATION	*Fill of linear [216]*
[216]	Cut; linear in form; oriented E-W 0.37m × >0.6m × 0.36m sharp break of slope top, steep nearly vertical sides, sharp break of slope bottom and a flat base Cuts (223) Filled by (215)
INTERPRETATION	*Cut of linear*
(217)	Friable mid greyish-brown slightly gritty/gravelly clayey silt, frequent very large angular & subangular stones; measures >0.8m × >0.32m × >0.08m. Fills [218]
INTERPRETATION	*Fill of right-angled feature [218]*
[218]	Cut; right-angled in form; oriented NNW-SSE; break of slope top sharp. Sides near-vertical; measures >0.8m × >0.32m × >0.08m. Cuts (223), filled by (217)
INTERPRETATION	*Cut of right angled feature*
(219)	Friable mid greyish-brown slightly gritty/gravelly clayey silt, occasional fragments of burnt clay & possible mortar; measures >0.43m × >0.2m × >0.35m. Fills [220]
INTERPRETATION	*Fill of right-angled feature [220]*
[220]	Cut; right-angled in form (possibly rectangular); oriented NW-SE; measures 0.43m × 0.2m × >0.35m; break of slope top sharp, sides near-vertical. Cuts (223), filled by (219)
INTERPRETATION	*Cut of right-angled feature*
[221]	Cut; linear in form; oriented NE-SW; measures 0.38m × >1.3m × 0.3m; break of slope top sharp, sides steeply sloping. Cuts (202), filled by (228)
INTERPRETATION	*Cut of modern drain*
[222]	Cut; linear in form; oriented NW-SE; measures 1.99m × >1.44m × >0.7m; break of slope top sharp, sides regular steeply sloping. Cuts (201), filled by (229)
INTERPRETATION	*Cut of modern drain*
(223)	Cohesive mid orangey-brown gravelly clayey silt; measures 16m × 0.6m. Cut by [204] [206] [208] [210] [212] [214] [218] [220] [225]
INTERPRETATION	*Possible Roman occupation layer*
(224)	Friable mid greyish-brown gritty/gravelly clay silt, 30% flat angular & subangular

	stones, moderate charcoal flecks, occasional mortar & undated CBM, nails, smithing hearth bottom & hammerscale; measures 1.92m × >0.6m × 0.22m. Fills [225], overlies (226)
INTERPRETATION	*Rubble tertiary fill of linear feature [225]*
[225]	Cut; linear in form; oriented E-W; measures 1.92m × >0.6m × 0.28m; break of slope top moderate, convex N side convex S side concave, gentle break of slope base, flat base. Cuts (223), filled by (224) (226) (227)
INTERPRETATION	*Wide linear feature*
(226)	Soft black charcoal/silt; measures 1.68m × 0.6m × 0.06m. Fills [225], underlies (224), overlies (227)
INTERPRETATION	*Secondary fill of linear feature [225]*
(227)	Moderately compact light greenish-yellow/brown sandy silt; measures 1.6m × >0.6m × 0.04m. Fills [225], underlies (226)
INTERPRETATION	*Primary fill of linear feature [225]*
(228)	Moderately compact mid greyish-brown/dark grey sandy silt; measures 0.38m × >1.3m × 0.3m. Fills [221]
INTERPRETATION	*Backfill of modern drain cut [221]*
(229)	Moderately compact greyish-brown sandy silt, moderate stones & gravels; measures 1.99m × >1.44m × >0.7m Fills [222]
INTERPRETATION	*Backfill of modern drain cut [222]*

AP1.3 Trench 3

Context	Description
(300)	Indurated tarmac; measures >5.4m × >0.6m × 0.15m. Overlies (301)
INTERPRETATION	*Car park surface*
(301)	Friable light greyish-brown sandy silt; measures >5.4m × >0.6m × 0.1m. Underlies (300)
INTERPRETATION	*Modern levelling deposit*
(302)	Friable light brown sandy silt, containing occasional post-medieval sherds & CBM and two clay pipe stem fragments (late C17th-early C18th) together with a single piece of cinder with green glazed surface, possibly representing copper working, very occasional oyster shell & vertebrate remains; measures 3m × >0.6m × 0.5m. Cut by [307], overlies (305)
INTERPRETATION	*Garden soil cultivation layer in Trench 3*

(303)	Moderate mid brown clayey silt, occasional oyster shell & vertebrate remains, together with 9 × sherds post-medieval pottery & 2 × sherds Severn Valley Ware, 1 × residual upper body fragment of blue/green glass measuring 37 x 26mm from a pillar moulded bowl, 2 × fragments post-medieval wine bottles and 1 × clay pipe bowl and 4 × stem fragments (late C17th-C19th); measures >4.95m × >0.6m × 0.6m.Underlies (305), overlies (309)
INTERPRETATION	*Redeposited natural deposit possible landscaping layer*
(304)	Firm mid orangey-brown sandy silt and gravel; measures >0.8m × >0.6m × >0.6m. Underlies (309)
INTERPRETATION	*Natural deposit*
(305)	Friable mid yellowish-orange very sandy silt, frequent subangular small stones; measures 2.1m × 0.6m × 0.1m. Underlies (302), (306), overlies (303)
INTERPRETATION	*Tipping or levelling deposit*
(306)	Friable light brown sandy silt, occasional charcoal, frequent pebbles, 1 × sherd of local oxidised ware with fine rouletted decoration; measures 1.2m × >0.6m × 0.24m. Cut by [307] [310], overlies (305).
INTERPRETATION	*Possible deposit of Roman date*
[307]	Cut; linear in form; oriented NNW-SSE; measures 0.65m × >0.6m × >0.3m; break of slope top sharp, sides steeply sloping, break of slope base moderate, base flat. Cuts (302) (306), filled by (308)
INTERPRETATION	*Cut for modern utility*
(308)	Moderately compact to firm light brown sandy silt, frequent small and medium subangular stones & gravels; measures 0.65m × >0.6m × >0.3m. Fills [307]
INTERPRETATION	*Backfill of modern utility cut [307]*
(309)	Moderately compact mid brown clayey silt; measures 0.7m × >0.4m × 0.14m. Underlies (303), overlies (304)
INTERPRETATION	*Deposit within natural depression or tree bole*
[310]	Cut; linear in form; oriented NNW-SSE; measures 0.55m × >0.6m × >0.95m; break of slope top sharp, sides straight steeply sloping. Cuts (306), filled by (311) (312)
INTERPRETATION	*Cut for modern utility*
(311)	Loose to moderately compact light grey fine gravel; measures 0.55m × >0.6m × >0.63m. Fills [310]

INTERPRETATION	*Primary fill of modern utility cut [310]*
(312)	Moderately compact light grey sandy silt, very frequent irregular stones of varying sizes; measures 0.55m × >0.6m × 0.3m. Fills [310], overlies (311)
INTERPRETATION	*Secondary fill of modern utility cut [310]*

AP1.4 Trench 4

Context	Description
(400)	Indurated tarmac, measures >5.25m × >0.6m × 0.17m Overlies (405)
INTERPRETATION	*Car park surface*
(401)	Masonry; E-W orientation; brick construction (brick size: 110mm × 70mm × 230mm); 5 courses; running bond; cement bonding; measures >3.15m × 0.53m. Fills [402]
INTERPRETATION	*Modern underpinning for porch*
[402]	Cut; linear in form; orientation E-W; measures >3.15m × 0.53m; break of slope top sharp, sides vertical, break of slope base sharp, base flat. Filled by (401)
INTERPRETATION	*Cut for [401]*
(403)	Indurated concrete/brick rubble; measures 0.27m × >3.27m × >0.2m. Underlies (412), overlies (413)
INTERPRETATION	*Concrete layer*
[404]	Cut; linear in form; orientated NNW-SSE; measures >0.6m × 0.9m × 0.69m; break of slope top sharp, sides steeply sloping, break of slope base sharp to moderate, base concave. Cuts (401), (412), filled by (405)
INTERPRETATION	*Cut of modern utility trench*
(405)	Friable mid brown sandy silt, frequent small stones and tarmac pieces; measures >0.6m × 0.9m × 0.69m. Fills [404]
INTERPRETATION	*Backfill of modern utility trench [404]*
(406)	Firm dark brown slightly sandy silt, moderate angular and subangular stones, frequent C19 pottery, 2 × square-sectioned hand-forged Roman nails; measures 0.53m × >0.6m × >5m. Overlies (407), cut by [408]
INTERPRETATION	*Garden soil cultivation layer in Trench 4*
(407)	Compacted earth, silt, and clay with soft 'mudstone' particles; measures 5m × >0.6m × 0.1m. Underlies (406), overlies (410)
INTERPRETATION	*Possible Roman internal floor surface*

[408]	Cut; circular in form; measures 0.95m × >0.5m × 0.72m; break of slope top sharp (truncated), sides steeply sloping, break of slope base sharp, base flat sloping to E. Truncated by [404], cuts (406), filled by (413)
INTERPRETATION	*Post-medieval pit*
409	VOID
(410)	Compact mid yellow sand and gravel; measures >5m × >0.6m × >0.27m. Underlies (407)
INTERPRETATION	*Natural deposit*
411	VOID
(412)	Indurated tarmac; measures >5m × >0.6m × 0.18m. Cut by [404], overlies (403)
INTERPRETATION	*Tarmac sub base*
(413)	Firm mid to dark brown silt occasional pebbles 0.95m × >0.5m × 0.72m. Fills [408]
INTERPRETATION	*Fill of pit [408]*

APPENDIX 2: CERAMIC ASSESSMENT

Jane Timby

AP2.1 Introduction

AP2.2 The archaeological work at Leintwardine Community Centre resulted in the recovery of a small assemblage of 109 sherds of pottery weighing 1019.5g dating to the post-medieval and Roman periods. In addition 16 pieces of ceramic building material (CBM) and 18 fragments of daub were recovered.

AP2.3 The assemblage was in quite fragmented condition with several quite small sherds reflected in a low average sherd weight of just 9.4 g. Sherds were generally well preserved in terms of surface treatments although some discolouration had occurred particularly on the Roman material. The low sherd weight is suggestive of material that has undergone some mixing and post-depositional disturbance.

AP2.4 Pottery was recorded from 11 individual contexts from Trenches 1-4 with the greatest number of sherds from Trench 2, 60% of the entire assemblage coming from context (202).

AP2.5 The assemblage was scanned to determine the main fabrics present and quantified by sherd count and weight for each recorded context. The resulting data is summarised in Table 1.

AP2.6 Roman

AP2.7 The assemblage includes 23 sherds of Roman date. Most of the sherds were small and quite abraded with at least 20 occurring as redeposited finds in post-medieval contexts.

AP2.8 The assemblage comprises six small sherds of Central Gaulish samian, twelve sherds of oxidised Severn Valley ware, one sherd of Dorset black burnished ware and four miscellaneous, probably local sandy wares.

AP2.9 The assemblage although quite modest in size has quite a high incidence of imported fine table ware (26% count). Although this cannot be regarded as too significant with such a small group it should be noted if further work takes place as it might indicate an unusual deposit. The samian indicates 2nd-century activity at the site, which is broadly supported by the other sherds present for which the dating is not so refined.

AP2.10 The Severn Valley wares include rimsherds from a tankard, beaker and necked wide-mouthed jar with a pendant-shaped rim. Amongst the undesignated sherds is a local oxidised ware from (306) with fine rouletted decoration.

AP2.11 Thirteen of the Roman sherds came from context (202) associated with post-medieval material. Other redeposited sherds came from contexts (107), (203) and (303). Single unaccompanied Roman sherds came from contexts (108), (306) and (207) suggesting these could potentially be Roman deposits, but the incidence of material is very low. It should be noted that the sherd from (306) was in slightly better condition than some other redeposited sherds.

AP2.12 In addition to the pottery there seems to be at least three fragments of Roman ceramic building material, probably *tegulae* roof tile, all present as redeposited finds in context (203).

AP2.13 Further flakes of undated CBM were present in context (224).

AP2.14 Post-medieval-modern

AP2.15 Most of the assemblage dates to the later post-medieval period. The group is dominated by sherds of glazed red earthenware accompanied by tin-glazed ware, unglazed earthenware, refined industrial white earthenwares, English stoneware and iron-glazed wares.

AP2.16 Sherds of this date were associated with six contexts across all four trenches with the highest incidence by far, 52 sherds, from Trench 2, context (202).

AP2.17 The fragments of CBM are likely to be post-medieval roof tile from (302), (303) and (202) and a fragment of glazed foul-pipe from (202).

AP2.18 Undated

AP2.19 Context (205) produced 18 lumps of sandy textured daub weighing 807 g. Several pieces have wattle impressions indicating a structural use. There is no associated pottery to allow this material to be dated.

AP2.20 Potential and recommendations

AP2.21 This is quite a small assemblage but possibly has some significance in terms of documenting the presence of Roman activity in this locality. It is too small to merit statistical analysis and at this stage no further work is recommended.

CONTEXT	POST-MED.	ROMAN			TOT. NO.	TOT. WT.	DATE	CBM	
		Samian	SVW	Other				No.	Wt.
(107)	4	1	0	1	6	36.5	C19	0	0
(108)	0	1	0	0	1	8	C2	0	0
(202)	52	3	8	2	65	670	C19	3	88
(203)	3	1	1	0	5	65	C18-19	0	0
(203)	0	0	0	0	0	0	Roman	3	348
(205)	0	0	0	0	0	0	no date	18	807
(207)	0	0	1	0	1	7	Roman?	0	0
(224)	0	0	0	0	0	0	no date	4	75
(302)	3	0	0	0	3	31	Post-med.	4	161
(303)	9	0	2	1	12	83	C18+	2	9
(306)	0	0	0	1	1	18	Roman	0	0
(406)	15	0	0	0	15	101	C19+	0	0
TOTALS	86	6	12	5	109	1019.5		34	1488

Table 1: Ceramic evidence recovered from Leintwardine Community Centre

APPENDIX 3: GLASS

H.E.M. Cool

AP3.1 Roman Glass

AP3.2 The two fragments of Roman glass that were recovered both came from blue/green pillar moulded bowls (Price and Cottam 1998, 44-6). This is a very common first century form and is typical of the type of glass to be expected on a military site of that date. These vessels are very robust and are frequently recovered in residual contexts as here.

AP3.3 Context (303): Pillar moulded bowl; upper body fragment. Blue/green. Retaining part of one rib and broken at junction with rim. Dimensions 37 x 26mm

AP3.4 Context (202): Pillar moulded bowl; lower body fragment. Blue/green. Retaining part of one rib. Dimensions 27 x 18mm

AP3.5 Post-medieval and modern glass

AP3.6 Context (202): One fragment of green bottle glass – late 18th or 19th century. One fragment blue/green window glass, probably 18th century

AP3.7 Context (303): Two fragments, post medieval wine bottles

AP3.8 Bibliography

Price, J. and Cottam, S., 1998, *Romano-British Glass Vessels: a Handbook.* CBA Practical Handbook in Archaeology 14 (York)

APPENDIX 4: ASSESSMENT OF HAND-COLLECTED SHELL AND VERTEBRATE REMAINS

Alison Foster & John Carrott

AP4.1 Summary

A very small quantity of hand-collected shell and bone, recovered from deposits encountered during excavations at Leintwardine Community Centre, High Street, Leintwardine, Herefordshire, was submitted for an evaluation of its zooarchaeological potential. Four trenches were excavated and encountered a deep garden or cultivation soil of post-Roman to post-medieval date, overlying a large number of features thought to be associated with Roman period occupation of the site; the latter including a deep feature, from which a very small quantity of animal bone was recovered by hand-collection. There was considerable disturbance to both the Roman and post-Roman deposits by the later construction of the Community Centre and evidence of a degree of landscaping work being carried out during this period (especially within Trench 3).

Four deposits yielded small amounts of oyster shell and/or animal bone which presumably derived from human food waste but the quantities were too small and, for the most part, the provenance of the material too poor (largely deriving from post-medieval garden soils and a possible landscaping layer), for these to be of any interpretative value.

No further study of the current material is warranted. However, the fair to good preservation of the vertebrate remains recovered suggests that any future excavations in the vicinity should allow for the possibility of encountering larger and more interpretatively valuable concentrations of bone.

Keywords:

Leintwardine Community Centre; High Street; Leintwardine; Herefordshire; assessment; Roman; post-medieval; invertebrate remains; marine shell; oyster (*Ostrea edulis* L.); vertebrate remains

AP4.2 Introduction

AP4.3 A very small quantity of animal bone was recovered by hand-collection. There was considerable disturbance to both the Roman and post-Roman deposits by the later construction of the Community Centre and evidence of a degree of landscaping work being carried out during this period (especially within Trench 3).

AP4.4 The shell and vertebrate remains recovered from four deposits were submitted to Palaeoecology Research Services Ltd (PRS), County Durham, for an assessment of their zooarchaeological potential.

AP4.5 Methods

AP4.6 All of the submitted material was examined and identified as closely as possible within the constraints of the assessment.

AP4.7 Hand-collected shell

AP4.8 Shell fragments recovered were identified as closely as possible, principally with reference to Hayward and Ryland (1995) for marine shell; nomenclature follows this work. The weights (in grammes), numbers of fragments and maximum dimensions of shell of different taxa from each context were recorded (where determinable) and the minimum numbers of individuals (or individual valves for bivalve taxa) represented calculated where possible.

AP4.9 For oyster (*Ostrea edulis* L.) shell, additional notes were made (where possible) regarding: numbers of left and right valves; evidence of having been opened using a knife or similar implement; measurability of the valves; damage from other marine biota (e.g. polychaete worms and dog whelks); encrustation by barnacles. Preservation was recorded using two, subjective, four-point scales for erosion and fragmentation—scale points were: 0 – none apparent; 1 – slight; 2 – moderate; 3 – high.

AP4.10 Hand-collected vertebrate remains

AP4.11 For the vertebrate remains, subjective records were made of the state of preservation, colour of the fragments and the appearance of broken surfaces ('angularity'). Other information, such as fragment size, dog gnawing, burning, butchery and fresh breaks, was noted where applicable.

AP4.12 Fragments were identified to species or species group using the PRS modern comparative reference collection and published works (Schmid 1972). The bones that could not be identified to species were described as the 'unidentified' fraction. Within this fraction, fragments were grouped into three categories: large mammal (assumed to be cattle, horse or large cervid), medium-sized mammal (assumed to be caprine, pig or small cervid) and completely unidentified.

AP4.13 Results

AP4.14 Hand-collected shell

AP4.15 Small quantities of remains, each representing a single oyster valve, were recovered from two deposits: (302) and (303), both revealed in Trench 3. Summary details of the remains are presented in Table 1.

AP4.16 Hand-collected vertebrate remains

AP4.17 Small quantities of vertebrate remains (a total of just 14 fragments) were recovered from four deposits: (202), (205), (302) and (303), the first two within Trench 2 and the second two from Trench 3.

AP4.18 Preservation of the bones from the post-medieval contexts was good to moderate, whereas the preservation of the two bones recovered from the Roman feature was recorded as 'fair'; they were a darker colour and more rounded. None of the bones were measurable for the purposes of biometrical data analysis. Identified specimens are shown by context in Table 2, with additional details of the individual bones in Table 3.

AP4.19 Discussion and statement of potential

AP4.20 The site yielded only very small quantities of hand-collected shell and bone, with the identified remains representing edible marine shellfish (oyster) and domestic mammals. These remains presumably derive from human food waste but were too few and, on the whole, too poorly provenanced to be of any interpretative value.

AP4.21 Preservation of the shell was very poor but that of the vertebrate remains was fair to good, suggesting that any future excavations in the vicinity should allow for the possibility of encountering larger and more interpretatively valuable concentrations of the latter.

AP4.22 Recommendations

AP4.23 No further study of the current material is warranted.

AP4.24 Retention and disposal

AP4.25 All of the remains should be retained as part of the physical archive for the site.

AP4.26 References

Hayward, P. J. and Ryland, J. S. (eds), 1995, *Handbook of the marine fauna of north-west Europe*. Oxford: Oxford University Press

Schmid, E., 1972, *Atlas of Animal Bones for Prehistorians, Archaeologists and Quaternary Geologists*. Amsterdam: Elsevier

Table 1. Hand-collected shell from excavations at Leintwardine Community Centre, High Street, Leintwardine, Herefordshire. Key: 'CN' = context number; 'l' = number of left (or lower) valves; 'r' = number of right (or upper) valves; 'i' = number of valves of indeterminate side; 'e' = erosion score for valves; 'f' = fragmentation score for valves; 'meas' = estimated number of valves intact enough to be measured; 'kn' = number of valves showing damage characteristic of the oyster having been opened using a knife or similar implement; 'fr' = number of valves showing fresh breakage; 'biota' = number of valves with evidence of damage or encrustation from/by other marine biota; 'wt' = total weight of shell (in grammes)

		Oyster valves										
CN	Context details	l	r	i	e	f	meas	kn	fr	biota	Notes	wt
(302)	Post-medieval garden soil deposit throughout Trench 3	0	0	0	-	-	-	-	-	-	One ?left oyster (*Ostrea edulis* L.) valve fragment to 44mm (2.9g) – very soft and flaking; a few mm-flakes of shell	2.9
(303)	Mid brown clay silt deposit in Trench 3 – redeposited natural possibly a landscaping layer	1	0	0	3	3	0	1	1	0	Oyster valve to 51mm (8.2g); a few mm-flakes of shell	8.2

Table 2: Hand-collected vertebrate remains from excavations at Leintwardine Community Centre High Street Leintwardine Herefordshire

Species		Context				
		(202)	(205)	(302)	(303)	Total
Sus f. domestic	Pig	2	1	-	-	3
Caprine	Sheep/goat	-	-	-	3	3
Large mammal	Large mammal	3	-	2	-	5
Medium-sized mammal	Medium-sized mammal	1	-	-	-	1
Unidentified	Unidentified	1	1	-	-	2
Total		**7**	**2**	**2**	**3**	**14**

Table 3: Hand-collected vertebrate remains from excavations at Leintwardine Community Centre High Street Leintwardine Herefordshire by context.

Context	Context type	Total fragments /weight (g)	Notes
(202)	Post-medieval garden soil deposit throughout Trench 2	9/83	*Preservation*: moderate to good but with fresh breakage damage, light brown in colour *Pig*: 2 small pieces of maxillary bone, each with M1/2 *Large mammal*: scapula (glenoid with chop mark), ulna (spine fragment), long bone shaft fragment (in 3 pieces) *Medium mammal*: tibia (shaft fragment) *Unidentified*: undiagnostic fragment
(205)	Humic clay silt fill of [206]	2/50	*Preservation*: fair preservation, dark brown in colour, rounded in appearance *Pig*: tibia (distal shaft, articulation unfused) *Unidentified*: undiagnostic fragment
(302)	Post-medieval garden soil deposit throughout Trench 3	2/25	*Preservation*: good preservation, light brown in colour, surfaces angular *Large mammal*: 2 long bone fragments, one with possible gnawing
(303)	Mid brown clay silt deposit in Trench 3 – redeposited natural possibly a landscaping layer	4/14	*Preservation*: good, with a little modern damage *Caprine (sheep/goat)*: carpal with modern damage, 2 upper molars (M1/2 and M3)

APPENDIX 5: ASSESSMENT OF METALWORKING DEBRIS

David Starley

AP5.1 Summary

Metalworking debris from the Roman fort/urban settlement at Leintwardine, Herefordshire included very small amounts of iron smithing and possibly non-ferrous working debris.

AP5.2 Background

AP5.3 The evaluation undertaken within the centre of the scheduled area of the Roman fort/urban settlement of *Branogenium* resulted in a small quantity of metalworking debris

AP5.4 On-site methodology and sampling

AP5.5 Excavated material derived from 45cm wide trenches. All metalworking debris was saved.

AP5.6 Assessment of metalworking debris

AP5.7 Methodology for assessment

AP5.8 All bulk slag provided by Border Archaeology, amounting to one box, was visually examined. This material was classified into the standard categories used by the specialist, based on those developed by the former English Heritage Ancient Monuments Laboratory. Surface soil was removed and visual observation of the exterior was backed up where necessary, by the examination of fresh fracture surfaces, the use of a geological streak plate and a magnet. Table 1 presents a summary of these findings, based on the categories. Full listing, by context, can be found in the appendix.

AP5.9 Classification of debris

AP5.10 Some forms of slag are visually diagnostic, providing unambiguous evidence for a specific metallurgical process; other debris is less distinctive and it is not possible to determine which metallurgical, or other high-temperature process, it derives from. At Leintwardine, the only diagnostic slag was that associated with iron smithing, with a possible suggestion of non-ferrous metalworking.

AP5.11 Diagnostic – iron smithing

AP5.12 Evidence for iron smithing comes in two forms; bulk slags and micro-slags. Of the bulk slags, the most easily recognisable are smithing hearth bottoms, which have a characteristic plano-convex section, typically having a rough convex base and a vitrified upper surface which is flat or even slightly hollowed as a result of the downward pressure of air from the *tuyère* Compositionally, smithing hearth bottoms are predominantly fayalitic (iron silicate) and form as a result of high-temperature reactions between the iron, iron-scale and silica. The silica can derive from the hearth lining, where this is made of clay, or possibly

sand used as a flux by the smith or from silica in coke, where this was used as a fuel. Only a single, very small (70 × 70 × 40mm) example of a smithing heath bottom was recovered from Leintwardine.

Activity	Classification	Weight (g)	No. of Contexts
Smelting		0	0
Iron smithing	Smithing hearth bottom	119	1
	Flake hammerscale	Not quantified	1
	Spheroidal hammerscale	0	0
Smithing products	Nails	156	5
	Unidentified iron object	276	1
Non-diagnostic metalworking	Vitrified hearth lining	20	1
	Cinder	22	1
Possible non-ferrous metalworking	Cinder with green-glazed surface	15	1
Non-slag	Glass	4	1
	Mortar	59	1
Total		**671**	**9**

Table 1: Summary of metallurgical debris

AP5.13 In addition to bulk slags, iron smithing also produces micro-slag of two types (Starley 1995): Flake hammerscale consists of fish-scale like fragments of the oxide/silicate skin of the iron dislodged during working. Spheroidal hammerscale results from the solidification of small droplets of liquid slag expelled during hot working, particularly when two objects are being fire-welded together or when the slag-rich bloom of iron is first worked into a billet or bar. Hammerscale is considered important in interpreting a site not only because is highly diagnostic of smithing but, because it tends to build up in the immediate vicinity of the smithing hearth and anvil, it may give a more precise location of the activity than the bulk slags which may be transported elsewhere for disposal (Mills and M^{c}Donnell 1992).

AP5.14 Hammerscale may be identified during excavation, particularly where likely deposits are tested with a bar magnet; alternatively, it may be found in soils samples taken for environmental purposes. No information of such finds was reported to the debris specialist; however, occasional flakes of scale were noted trapped in the ferruginous concretion which adhered to the smithing hearth bottom.

AP5.15 Diagnostic – Non ferrous metalworking

AP5.16 The green glaze on the surface of a small fragment of cinder probably derives from a high content of mineralised copper, suggesting that this derives from the working (forging, melting or casting) of copper alloys.

AP5.17 Non-diagnostic – metalworking

AP5.18 Some categories of material can be produced by a wide range of high-temperature activities and are of little help in distinguishing between these processes. Material listed as vitrified hearth/furnace lining is typically found in

significant quantities on traditional, clay-built smithing hearths and furnaces where they result from a high-temperature reaction between the clay lining of the hearth/furnace and the alkali fuel ash or fayalitic slag. The material may show a compositional gradient from unmodified fired clay on one surface to an irregular cindery material on the other. An associated material classed as cinder comprises only the lighter portion of this, a porous, hard and brittle slag formed by the reaction between the alkali fuel ash and fragments of clay that had spalled away from the heath/furnace lining.

AP5.19 Other material

AP5.20 A small fragment of glass and one of mortar have no metallurgical significance

AP5.21 Smithed products

AP5.22 The long narrow iron objects were examined to determine whether they might be bar ends or other metallurgical waste. However, all appeared to be nails, consistent in form with a Roman (or later) date and often bent from use. Whilst these might have originated from a similar hearth and process to the smithing debris, there appears to be no clear evidence to suggest on-site manufacture.

AP5.23 Conclusions

AP5.24 The assessment of metalworking debris from Leintwardine Community Centre produced only a very small amount of metalworking debris (of the 671g assemblage examined, only 176g was strictly metalworking debris, the remainder largely being hand forged nails or other, unidentified, ironwork). Of the slag, the only clearly diagnostic material derived from the smithing of iron, with a smithing hearth bottom and flakes of hammerscale. In addition a small piece of green-glazed cinder may have come from the working of copper alloys. Such a small assemblage may be partially the result of the limited intervention, using narrow trenches, but even so it would appear that the area could have contained only a very limited scatter of debris, perhaps the result of very short-term, small-scale metalworking, with more substantial activity at a greater distance. Further excavation in the area in future may help to build a clearer picture.

AP5.25 The nails could have been manufactured on site; only a simple forge would be required for their production. More probably they would have been brought there from a larger centre of manufacture. A small forge might more usefully have been used for the repair of tools or weapons or the manufacture of non-stock items. Iron could have either been obtained from recycling old artefacts or been traded in from a centre of iron smelting such as *Ariconium* to the south, though smelting furnaces are also known from Wroxeter to the NE.

AP5.26 Suggestions for future work

AP5.27 Little would be gained by re-examining the slag, even with the aid of physico-chemical analysis.

AP5.28 Retention of finds

AP5.29 It is recommended that all finds be saved.

AP5.30 References

Starley, D. (1995) *Hammerscale*, Historical Metallurgy Society Datasheet 10.

Mills, A and McDonnell, J G., 1992, *The Identification and Analysis of the Hammerscale from Burton Dassett, Warwickshire.* Ancient Monuments Laboratory Report 47/92

AP5.31 Appendix A: Full Listing of Metalworking Debris by Context

Context	Slag type	Weight (g)	Comments	Length (mm)	Context description
(106)	Iron object	276	Fragmentary, unidentified		Secondary fill of small pit (106) in W extent of Trench 1
(106)	Nail (complete)	6	Square-sectioned, hand-forged	46	Secondary fill of small pit (106) in W extent of Trench 1
(106)	Nail (incomplete)	9	Square-sectioned, hand-forged	40	Secondary fill of small pit (106) in W extent of Trench 1
(106)	Nail (incomplete)	16	Square-sectioned, hand-forged	59	Secondary fill of small pit (106) in W extent of Trench 1
(202)	Nail (complete)	5	Square-sectioned, hand-forged	35	Post-medieval garden soil deposit throughout Trench 2
(202)	Nail (incomplete)	6	Square-sectioned, hand-forged	28	Post-medieval garden soil deposit throughout Trench 2
(202)	Nail (incomplete)	8	Square-sectioned, hand-forged	28	Post-medieval garden soil deposit throughout Trench 2
(202)	Nail (incomplete)	3	Square-sectioned, hand-forged	25	Post-medieval garden soil deposit throughout Trench 2
(202)	Vitrified hearth lining	20			Post-medieval garden soil deposit throughout Trench 2
(202)	Glass	4			Post-medieval garden soil deposit throughout Trench 2
(203)	Cinder	22			Fill of robbed-out wall cut [204] in Trench 2
(203)	Mortar	59			Fill of robbed-out wall cut [204] in Trench 2
(207)	Nail (in 2 pieces)	58	Square-sectioned, hand-forged	115	Fill of possibly robbed out wall cut (208) partially revealed in N extent of Trench 2
(224)	Smithing hearth bottom	119	Attached hammerscale flake	70 × 70 × 40	Stony tertiary fill of linear ditch/robbed-out wall cut [225] in Trench 2
(302)	Cinder	15	Green-glazed surface		Post-medieval garden soil deposit in Trench 3
(303)	Nail (complete)	19	Square-sectioned, hand-forged	50	Landscaping deposit in Trench 3
(406)	Nail (complete)	19	Square-sectioned, hand-forged	90	Post-medieval garden soil in Trench 4
(406)	Nail (complete)	7	Square-sectioned, hand-forged	35	Post-medieval garden soil in Trench 4

APPENDIX 6: PALAEOENVIRONMENTAL ASSESSMENT

Andy Platell & Lorne Elliott
Archaeological Services University of Durham

AP6.1 Summary

AP6.2 The project

AP6.3 This report presents the results of palaeoenvironmental assessment of 6 bulk samples taken during archaeological works at Leintwardine Community Centre, Herefordshire.

AP6.4 The works were commissioned by Border Archaeology and conducted by Archaeological Services Durham University.

AP6.5 Results

AP6.6 Evidence of domestic waste is represented within all of the samples. The charred plant macrofossil assemblages indicate that a range of cultivated crops and wild food sources were used at the site. The predominance of *cf.* bread wheat and rye suggests a post Roman date for linear [225]. Linear/pit [206] may be of a similar origin.

AP6.7 Recommendations

AP6.8 No further analysis is required for the plant macrofossils due to their low numbers and general poor preservation. If an early medieval date is established for context (226), an analysis of the charcoal sample would be recommended in order to provide information on woodland resources and the local palaeoenvironment, as limited botanical work has been done for this period. If additional work is undertaken at the site, the results of this assessment should be added to any further environmental data produced.

AP6.9 Project background

AP6.10 *Location*

AP6.11 Six bulk palaeoenvironmental samples were taken by Border Archaeology during archaeological works at Leintwardine Community Centre, Herefordshire. This report presents the results of palaeoenvironmental assessment of three fills from linear [225], and the fills of linear [216], posthole [214], and linear/pit [206].

AP6.12 Objective

AP6.13 The objective of the scheme of works was to assess the palaeoenvironmental potential of the samples, establish the presence of suitable radiocarbon dating material, and provide the client with appropriate recommendations.

AP6.14 Dates

AP6.15 Samples were received by Archaeological Services Durham University on 5th October 2010. Assessment and report preparation were conducted between 19th and 21st October 2010.

13.16 Personnel

AP6.17 Sample processing was carried out by Andy Platell. Palaeoenvironmental assessment and report preparation were undertaken by Lorne Elliott.

AP6.18 Archive

AP6.19 The flots are currently held in the Environmental Laboratory at Archaeological Services Durham University. The small finds have been returned to Border Archaeology.

AP6.20 Methods

AP6.21 The bulk samples were manually floated and sieved through a 500μm mesh. The residues were examined for shells, fruitstones, nutshells, charcoal, small bones, pottery sherds, flint and industrial residues, and were scanned using a magnet for ferrous fragments. The flots were examined at up to ×60 magnification for charred and waterlogged plant macrofossil remains using a Leica MZ7.5 sereomicroscope. Identification of these was undertaken by comparison with modern reference material held in the Environmental Laboratory at Archaeological Services Durham University. Plant nomenclature follows Stace (1997).

AP6.22 Results

AP6.23 All of the samples comprised evidence of burning, particularly contexts (226) and (227), with charcoal and tiny fragments of calcined bone noted throughout.

AP6.24 Cursory scanning of the charcoal assemblages indicated that the charcoal fragments were generally small in size, and predominantly of oak and hazel. A small fragment of field maple or lime tree charcoal was noted in context (226), although the small size of the fragment prevented definite identification. Small fragments of pot, glass, fired clay, mortar and daub were recorded in several contexts, and tiny remains of animal tooth occurred in context (224). Traces of hammerscale were noted in all of the samples and three ferrous objects (probably nails) were present in context (224)

AP6.25 Contexts (205), (224), (226) and (227) comprised small charred plant macrofossil assemblages, with grains of barley, wheat, rye and oats, fragments of hazel nutshell and weed seeds of grass, dock, vetch, buttercup and hemp - nettle all noted. Many of the remains were in poor condition due to puffing and pitting, possibly as a result of intense heat (cf. Boardman & Jones 1990), or possibly due to taphonomic processes, which prevented identification in some instances. A few uncharred seeds

of elder and bramble were noted in two of the samples, although the well-drained nature of the site and the presence of modern roots suggest these are recent introductions

AP6.26 The results are presented in Appendix A.

AP6.27 Discussion

AP6.28 The assessment of the residues and flots has provided evidence of domestic waste within all of the samples. The charred plant macrofossil assemblages, while small in size, indicate that a range of cultivated crops and wild food sources were used at the site. Wheat appears to be the predominant crop within all four assemblages, and although diagnostic chaff was absent, the wheat grains generally had the characteristic shape associated with *Triticum aestivo-compactum* (bread wheat). In addition to *cf.* bread wheat, the presence of rye grains, within the basal fill and rubble-rich fill of linear [225], as well as oats and barley, suggests the origin of this feature is post-Roman. From the early medieval onwards in southern England, the range of cereals changes abruptly, and bread wheat and rye are mainly found, as the principal crops of the prehistoric and Roman periods (emmer and spelt wheat) become rare (Greig 1991). Although evidence of rye cultivation within linear/pit context (205) is absent, the occurrence of *cf.* bread wheat grains suggests that this fill is also of an early medieval or later origin.

AP6.29 Recommendations

No further analysis is required for the plant macrofossils due to their low numbers and general poor preservation. If an early medieval date is established for context (226), an analysis of the charcoal sample would be recommended in order to provide information on woodland resources and the local palaeoenvironment, as limited botanical work has been done for this period. If additional work is undertaken at the site, the results of this assessment should be added to any further environmental data produced.

AP6.30 Sources

Boardman, S, & Jones, G, 1990 Experiments on the effects of charring on cereal plant components, *Journal of Archaeological Science,* **17**, 1-11

Greig, J R A, 1991 The British Isles, in W Van Zeist, K Wasylikowa & K - E Behre (eds) *Progress in Old World Palaeoethnobotany.* Rotterdam

Stace, C, 1997 *New Flora of the British Isles*, 2nd Edition. Cambridge

Appendix A: Data from palaeoenvironmental assessment

Sample		1	2	3	4	5	6
Context		224	226	227	205	215	213
Feature No.		225	225	225	206	216	214
Feature		linear	linear	linear	linear/pit	linear	posthole
Material available for radiocarbon dating		✓	✓	✓	✓	-	-
Volume processed (l)		10	9	10	9	10	4
Volume of flot (ml)		125	600	400	50	25	8
Residue contents							
Bone (burnt)	indet. frags	-	(+)	-	-	-	-
Bone (calcined)	indet. frags	(+)	+	+	+	+	+
Charcoal		(+)	+++	+	+	-	-
Coal		-	+	(+)	+	-	-
Daub		-	+	-	+++	-	-
Fired clay / CBM		+	-	-	-	+	+
Fuel waste		(+)	(+)	(+)	+	-	-
Glass (number of fragments)		2	-	2	-	3	-
Hammerscale	ball / flake	++	+	+	+	+	+
Metal object (number of fragments)	ferrous (nail)	3	-	-	-	-	-
Mortar		-	-	(+)	+	-	-
Pot (number of fragments)		2	-	2	2	2	-
Tooth (number of fragments)	indet. animal frags	2	-	-	-	-	-
Flot matrix							
Bark (charred)		+	-	(+)	-	-	-
Charcoal		+++	++++	+++	++	+	+
Clinker / cinder		-	-	-	+	+	(+)
Coal		-	-	-	+	+	-
Fuel ash		-	-	-	++	-	-
Roots (modern)		++	++	++	++	++	++
Uncharred seeds		+	-	-	(+)	-	-
Charred remains (total counts)							
(c) *Avena* spp (Oat species)	grain	3	-	-	6	-	-
(c) Cerealia indeterminate	grain	15	-	3	4	-	-
(c) *Hordeum* spp (Barley species)	grain	-	-	1	1	-	-
(c) *Hordeum* spp (Hulled Barley)	grain	8	-	-	3	-	-
(c) *Secale cereale* (Rye)	grain	3	-	1	-	-	-
(c) *Triticum* spp (Wheat species)	grain	10	4	17	5	-	-
(r) *Galeopsis* spp (Hemp-nettle)	nutlet	-	-	-	1	-	-
(t) *Corylus avellana* (Hazel)	nutshell fragment	2	1	2	1	-	-
(x) Poaceae undiff. <2mm (Grass family)	caryopsis	-	-	-	1	-	-
(x) Poaceae undiff. >2mm (Grass family)	caryopsis	9	4	18	8	-	-
(x) *Ranunculus* sub *Ranunculus* (Buttercup)	achene	-	-	-	1	-	-
(x) *Rumex* spp (Dock)	nutlet	-	-	-	3	-	-
(x) *Vicia* spp (Vetch)	seed	2	-	1	4	-	-

[c = cultivated; r = ruderal; t = tree/shrub; x = wide niche. (+): trace; +: rare; ++: occasional; +++: common; ++++: abundant]

APPENDIX 7: MORTAR ANALYSIS

Peter Ellis

(Test Report No. 3742)

AP7.1 Flooring Material

AP7.2 One sample of flooring material, (118.8g), thought to be a possible mortar floor surface of Roman date has been analysed chemically and microscopically.

AP7.3 Laboratory Observations

AP7.4 Very moist sample. No colour change (phenolphthalein carbonation test). Discrete compacted soft (fragments could be broken by hand, crumbled in fingers with difficulty; and disrupted using pestle with ease) dark-brown 'lumps'. No unmixed 'nodules' of lime present. Many rounded particles of greenish sandstone/mudstone? Particles noted. Fuel ash particles not observed. Calcareous aggregate not observed. Hair/fibre reinforcement not present

AP7.5 Reaction Comments

AP7.6 Very little or no effervescence with 10% HCl

Strong yellow acid-extract (indicative of relatively high acid-soluble iron oxide content)

AP7.7 Chemical 'Dissolution' Analysis (% dry mass) to BS4551:2005

%	Moisture (oven @ 105^{0}C)	10.0
%	Total Calcium as CaO(titrimetric method)	0.71
%	Total Magnesium as MgO (titrimetric method)	0.91
%	Soluble SiO_2 (gravimetric method)	1.71
%	Acid-soluble sulphate as SO_3 (gravimetric method)	0.004
%	Total acid-soluble chloride ion (Cl^-) (titration method)	0.011
%	Total Acid Insolubles	89.3
%	Total combustible Insolubles	1.6

AP7.8 BINDER

AP7.9 The Calcium and Magnesium results are very low, and this is <u>not</u> a lime (or calcareous) mortar. It is compacted earth/silt/clay with particles of soft (could be broken by hand) rounded greenish 'mudstone', and occasional 'reddish' particles.

AP7.10 AGGREGATE

Insoluble particle size range: 10mm to 63µm (71.29%): < 63µm (28.71%)

Passing 2.00mm sieve	54.4%
Passing 0.50mm sieve	46.7%

The insoluble residue comprises:

Particles of greenish 'mudstone'
Occasional particles of reddish 'mudstone'
Greenish-grey silt/clay
Light brown clay

AP7.11 MORTAR BY VOLUME

AP7.12 N/A

AP7.13 SUGGESTED MATCHING MIX (This is not a specification for a repair mortar, nor must it be treated as one)

AP7.14 N/A

AP7.15 SOURCES OF MATERIALS

AP7.16 N/A

AP7.17 NOTES

AP7.18 This is not a mortar floor. If it is a flooring material, it is compacted earth, silt, and clay with soft 'mudstone' particles. The combustible insoluble residue which is a combination of carbonaceous and organic material is low at 1.6%, indicating little humus, and this sample therefore appears to be principally subsoil.

AP7.19 It should be remembered that mortars change over time. When analysing an aged material, one is ascertaining what it now is and looking for evidence for what it originally was. Calcium hydroxide carbonates to form Calcium carbonate, and Calcium silicate hydrates, the principal hydraulic reaction products in cements, hydraulic limes and pozzolanic limes themselves react over time with atmospheric CO_2 to produce calcium carbonate, hydrated silica and silico-aluminate gels and only limited calcium silicate hydrate gel.

APPENDIX 8: ANALYSIS OF CLAY PIPES

Dr D A Higgins

AP8.1 INTRODUCTION

AP8.2 This report deals with the clay tobacco pipes that were recovered by Border Archaeology during excavations at Leintwardine Community Centre, Herefordshire, during 2010. The site code used for this work was LCC 10. The pipe finds were examined and this report prepared by the author in December 2010.

AP8.3 THE PIPES THEMSELVES

AP8.4 The excavations produced a total of 14 fragments of clay tobacco pipe, comprising 2 bowl and 12 stem fragments. These were recovered as three different context groups, each of which is described below: -

AP8.5 Context (202) produced one heel fragment and six stem fragments, one of which joins the heel fragment (fresh break). The pipe fragments are all of seventeenth or early eighteenth century types and at least three (possibly four) of the stem fragments have been burnished. Several of the pieces are made of 'local' fabrics, i.e., clays obtained from local or regional sources rather than having been imported from the south or south-west of England. These 'local fabrics' are characterised by an off-white colour and, frequently, the presence of gritty inclusions.

AP8.6 The heel fragment is part of a distinctive tailed type that was characteristic of the Shropshire pipe making industry centred on the Broseley / Much Wenlock area. This style was, however, copied at many of the surrounding production centres, including Pipe Aston in North Herefordshire. The Shropshire products are typically made of quite a gritty clay, derived from the local Coalmeasures, whereas this example has a relatively fine fabric. Furthermore, this example is not burnished, which most of the Shropshire products are. These characteristics would suggest it is a regional copy from nearer Leintwardine, rather than an actual Broseley / Much Wenlock area import. There is just a tiny trace of a stamped heel mark surviving, but not enough to identify the actual maker.

AP8.7 Context (302) produced two stem fragments, both of which probably date from *c*1650-1730. One piece is made of a local fabric with gritty inclusions and is burnished, while the other is made of a finer fabric and is not burnished.

AP8.8 Context (303) produced one bowl and four stem fragments, ranging from the 17th to the 19th century in date. The earliest pieces are the bowl fragment and one of the stems, both of which are made from gritty local fabrics. The bowl fragment is milled but is too small to date more accurately than *c*1650-1730. Like the stem, it is rather abraded and battered and clearly looks residual in this context. The stem has been burnished and also dates from *c*1650-1730.

AP8.9 One of the remaining stems is of eighteenth century date (not burnished) and the other two are of nineteenth century types. One of them is just opening into

a bowl, which appears to have been decorated with flutes, a style of decoration popular for much of the nineteenth century.

AP8.10 DISCUSSION

AP8.11 Although the individual pipe fragments can be dated, the groups are too small to provide reliable independent dating for the contexts in which they occur. The dating information they provide should, however, be of use when taken into consideration with the other finds and stratigraphic evidence from the site as a whole.

AP8.12 In general terms, the pipes show that smoking was taking place in Leintwardine from at least the mid-seventeenth century onwards. Many of the pipes were being made using local fabrics and good quality pipes with burnished surfaces were in circulation. There is one tailed heel of *c*1680-1730 with a stamped mark that is likely to have been made locally, but it is too fragmentary to identify. Likewise, there is a tiny fragment of a fluted nineteenth century bowl, but not enough to identify the full design or likely origin.

Site Summary

Report Title	Archaeological Excavation at Leintwardine Village Hall & Community Centre, Leintwardine, Herefordshire
Contractor's Name and Address	Border Archaeology PO Box 36 Leominster Herefordshire, HR6 OYA
Site Name	Leintwardine Village Hall & Community Centre, Leintwardine, Herefordshire
Grid Reference	NGR SO 40372 74098 Planning Application No: DCNW2009/0615/F
SMR number	51841
Date of Field Work	June 2010
Date of Report	December 2010
	NUMBER AND TYPE OF FINDS
Pottery	*Period*: Roman; Post-med *No of sherds*: 109
CBM/Daub	*Period:* Roman; Post-med *Quantity:* 36
Glass	*Period*: Roman; Post-med *Quantity*: 5
Clay Pipe	*Period*: Post-med *Quantity*: 14 (2 bowls & 14 stems)
Fe (incl. slag, nails)	*Period*: Roman; post-med *Quantity:* 19
Animal bone/Mollusca	*Period:* Roman; post-med *Quantity:* 16 (2 oyster valves; 14 bone)
	NUMBER AND TYPE OF SAMPLES COLLECTED
Sieving for charred plant remains	*No of features sampled*: 4 *No of buckets*: 6
C14/scientific dates	*No and Type*: N/A *Result*: N/A
Pollen	*No of columns/spot samples*: N/A *Name of pollen specialist*: N/A
Bone	*Number of buckets sieved for bone*: N/A *Quantity Recovered*: N/A *Period*: N/A
Summary of the report	*Border Archaeology excavated four interconnecting trenches in the car park adjoining Leintwardine Community Centre in June 2010 on behalf of Leintwardine Village Hall and the Community Centre Committee. Previous excavations undertaken in 1991 to the rear of the Community Centre had revealed the remains of a substantial timber building of early to mid 2nd century date in the southern part of the site, together with a complex of successive intercutting pits of Roman date.* *The excavation was carried out by hand prior to the installation of heating system and initially revealed a considerable depth of cultivation soil, probably associated with landscaping of the site during the construction of the existing school building in the mid 1840s. Underlying this accumulation of soil was evidence of earlier occupation, comprising a number of features containing Roman pottery, although only three of these appeared to be of Roman date, the remainder containing pottery that had been incorporated as a result of later disturbance. The pottery as a whole contained an unusually large percentage of fine tableware, possibly indicative of high status occupation in the immediate vicinity of the site. A rough floor surface of possible Roman date was partially revealed in one of the trenches. Several linear cuts containing sandstone rubble were identified, possibly these were for wall or building foundations subsequently robbed out.*

Document Control

Job title	Archaeological Excavation: Leintwardine Village Hall & Community Centre	**Job No**	BA1019LCC/02
Report written by	*William Logan BA PgDip*		
Report edited by	*George Children MA AIFA*		
Issue No	**Status**	**Date**	**Approved for issue**
1	Final	December 2010	*Neil Shurety*