

**PROPOSED RESIDENTIAL DEVELOPMENT, FORMER MINSTER SCHOOL SITE,
CHURCH STREET, SOUTHWELL, NOTTINGHAMSHIRE**

**DRAFT ARCHAEOLOGICAL EXCAVATION REPORT
VOLUME 3: APPENDICES**

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Prepared for

JWA Architects

on behalf of Cauntton Properties (Southwell) Ltd.

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Appendix 1: Colour Plates



Plate 1: Composite panoramic view of the E side of the site at the start of the project, from a vantage point at the centre.



Plate 2: Composite panoramic view of the W side of the site, from a vantage point at the centre. The cemetery is visible at the centre of the picture, and the Roman building at the rear to the left.



Plate 3: Composite view of the S side of the site from a vantage point at the centre, showing work in progress on the double pit alignment Structure 292 and the parallel linear features **G394** and **G395** (the water-filled section near the centre of the picture is part of **G394**).



Plate 4: Composite view of the centre and E side of the site, looking E from the back-filled cemetery area during the last phase of site works; the S edge, including the location of Structure 292, has also been back-filled. The dark linear feature in the foreground is **G871**, and the possible enclosure gullies of **G792** and **G844** can be seen beyond it.



Plate 5: Section through pit **665**, the largest feature in Phase 1 pit group **G501/506**, looking W. There is no particular indication that the stone and CBM inclusions in this feature were intended to support a post, although they may represent a later deposit following the removal of one.



Plate 6: The articulated horse leg in the fill of pit **610** in Phase 1 pit group **G501/506**, looking N.



Plate 7: A worked stone, possibly part of a millstone, in pit **596** in Phase 1 pit group **G501/506**.



Plate 8: The S side of Roman building Structure **693** (recorded as 408) exposed in evaluation trench 4, looking SE. The cut of the modern drain through the structure can be seen on the left of the trench; the scale bars are lying on stone floor 812, with part of the wall of the building to the right. Photograph from Rowe, 2010.



Plate 9: The N side of Roman building Structure **693**, looking E. The 1m scale bar is lying across the 'channel' dividing floor 812 (to the rear of the picture) from the W wall of the building. The raised ground on the right-hand edge of the image is the unexcavated course of the modern drain. Photograph from Rowe, 2010.



Plate 10: The features adjacent to Structure **693** encountered in evaluation trench 4, looking S. The feature with the dark, stony fill on the left of the picture is the north end of putative wheel-pit **780**; the feature in the foreground, recorded as a right-angled return to 780, may extend the line of the north wall of the building. Photograph from Rowe, 2010.



Plate 11: Possible wheel-pit **780** on the east side of Roman building Structure **693**, looking S, with possible post-pit **779** intercutting the W side of **780**.



Plate 12: Possible wheel-pit **780** on the east side of Roman building Structure **693**, looking N, showing the remnants of what may have been a stone lining; possible post-pit **779** intercuts **780** on the left of the picture, but has been disturbed here by the previous excavation of the evaluation trench.



Plates 13 (left) and 14 (above): Rubble deposit **390**, within fill **388** in section **423** through ditch **G404**, in plan (right, looking W) and section (above, looking S).



Plate 15: Fragment of amphora (Roman oil or wine storage vessel) exposed in the E-facing section through section **575** of Phase 2 ditch **G404**.

Plate 16: N-facing section across the sequence of intercutting ditches (l-r) **G548**, **G543**, **G281** and **G609**, looking S. This section was excavated near the N end of the ditch sequence, where the features were best preserved.



Plate 17: W-facing section through Phase 2 post-hole **184**, showing the tile and stone rubble post-packing.



Plate 18: Interior dividing wall 1190 partially exposed at the east side of the Roman building, before excavation was halted for the building to be preserved *in situ*; looking S.



Plate 19: Floor surface 1189 exposed in the Roman building, before excavation was halted for the building to be preserved *in situ*; looking SW.



Plate 20: Skeleton 32 overlying the wall of the Roman building at the SW corner of the site, looking S.



Plate 21: Roman millstone fragment SF 26, re-used as a post-pad in post-hole **326** within Structure **292**, looking N.



Plate 22: Roman millstone fragment SF 25, re-used as a post-pad in post-hole **254** within Structure **292**, looking E.



Plate 23: Section across ditch segments **485** (to left, containing large stones), **487** (centre) and **489** (to right, deeper, with flat base) in late Roman ditch complex **G446/449**, looking W.



Plate 24: Section through late Roman ditch **G446** (right) at the point where it cut Phase 1 pit **552** (left), showing rubble deposit **389** within the upper fill of section **392** through ditch **G446**; looking E.



Plate 25: The excavated cemetery, looking W from the centre of the site. Medieval pit **054** is prominent towards the right-hand side of the plate, and the closely-spaced group of graves **119**, **143**, **099** and **134** are slightly left of centre.



Plate 26: Intercutting graves **111** and **109**, looking S. The older grave, **109**, containing skeleton **24**, is the nearer.

Plate 27: Skeleton 37 in grave 157 truncated by medieval pit G291 and ditch recut G285, looking W.



Plate 28: Ditch cut 1029 in the E facing side of the box section, looking W, showing the rubble fill that suggested an interpretation as a robbed-out wall. The small feature on the left is pit 1013.



Plate 29: The deposit of roundwood fragments 414, laid within ditch section 412 of G452, looking W.

Plate 30: Horizontal timbers 368, laid within drain G366, looking S: the surviving tree bark has a bleached appearance which caused the timbers to be erroneously identified on site as silver birch.



Plate 31: Post-medieval cobbled surface 1010, looking W.



Plate 32: Post-medieval well G889 in section, looking W.

Appendix 2: Context Summary

Context	Phase	Type	Description	Finds/samples/dating	Zone
001	Mod	Layer	Existing surfacing and overburden: tarmac, concrete and made ground	Modern	All
002	4	Cut	N-S aligned ditch with steep sides and concave base, 0.80m wide x 0.25m deep; filled by 003; group no. 035	Roman?	3
003		Fill	Very dark brown silty clay with abundant stone inclusions, filling ditch 002	Roman CBM (3 frags), bone (possibly human); sample <1>	3
004	4	Cut	Additional section through ditch 002 ; heavily truncated by modern foundations; intersects feature 006 (stratigraphic relationship uncertain); group no. 035	Roman?	3
005		Fill	Fill in ditch section 004 : same as 003	2 Roman tesserae probably cut out of tegula, other small fragments Roman CBM, bone	3
006	4?	Cut	E-W aligned linear feature, with steep sides and concave base; heavily truncated; 0.40m wide x 0.20m deep; filled by 007; intersects 004 ; group no. 036 with feature 019	No dating evidence, but may be contemporary with 002/004	3
007		Fill	Very dark brown silty clay with stone and gravel inclusions in feature 006 , resembling fill 005		3
008		Fill	Mid-reddish-brown compact silty clay with occasional CBM and angular stones, filling the modern construction cut 010 over wall footing 009	Modern; possible redeposited human bone retrieved	3
009	Mod	Structure	Modern concrete footing of Minster School building	Modern	3
010	Mod	Cut	Construction cut of Minster School footings; c. 1.25m wide, containing concrete footing 009 and fill 008	Modern	3
011		Fill	Mid- to dark greyish-brown compact clayey silt containing abundant charcoal flecks and CBM fragments, moderate small pebbles and angular stones, and occasional flint fragments. Fill of grave 012; cut by wall construction cut 010 .	2 sherds Roman pottery, flakes of Roman CBM including box tile, 2 fired clay tesserae, human bone (Sk 1); samples <2> and <3>	3
012	5	Cut	Grave of Sk 1: sub-rectangular with rounded corners, roughly E-W aligned. Truncated to W by 010 : surviving remnant measures 1.3m x 0.6m x 0.1m	Saxon/early medieval: Roman material redeposited	3
013		Fill	Dark brownish-grey clayey silt with frequent small charcoal and fired clay fragments, small mudstone fragments and small to medium pebbles, filling pit 014 ; cut by linear feature 016	18 th -century and later pottery, CBM (present in large quantities, but only 1 18 th to 20 th -century example retrieved), roofing slate and bone	3
014	7	Cut	Shallow E-W aligned oval pit, 0.90m wide x 0.11m deep, filled by 013	Post-medieval	3

Context	Phase	Type	Description	Finds/samples/dating	Zone
015		Fill	Blackish-grey clayey silt with frequent charcoal flecks and CBM fragments and lenses of light brown clayey sand (redeposited natural), filling linear feature 016 ; cut by modern foundation trench 010	CBM interpreted on site as post-medieval, bone	3/5
016	7	Cut	N-S aligned linear feature with shallow, bowl-shaped profile, 0.57m wide x 0.13m deep, filled by 015, cutting pit 014	Post-medieval (stratigraphically)	3/5
017		Fill	Dark brownish-grey sandy clay with frequent large fragments of concrete, frequent CBM fragments and occasional pebbles and small stones, filling pit 018 ; cut by modern foundation trench 010	Modern demolition rubble, not retrieved	3
018	Mod	Cut	Small oval pit, 0.52m x 0.27m ⁺ x 0.25m, filled by 017, truncated by 010	Modern	3
019	4	Cut	E-W aligned gully, 0.40m wide x 0.30m deep with very steep sides and flat base, filled by 020, truncated by modern foundation trench 010 ; group no. 036 with feature 006	Roman?	3
020		Fill	Mid- to dark brown silty clay with gravel inclusions, filling gully 019 ; cut by 021 and 010	1 frag Roman box flue tile	3
021	Mod?	Cut	Sub-circular posthole with steep sides and irregular base, 0.40m diameter x 0.22m deep; filled by 022-3, cuts gully fill 020	Modern?	3
022		Fill	Lower fill in posthole 021 : very dark brown silty clay with no inclusions, 0.22m deep		3
023		Fill	Upper fill in posthole 021 : black gravelly material, possibly hearth waste, 0.15m deep	Flakes of Roman and post-Roman CBM, glass identified on site as modern	3
024	Mod?	Cut	Small, sub-circular pit with bowl-shaped profile and moderate sides, 0.60m diameter x 0.20m deep, filled by 025	Modern?	3
025		Fill	Mixed sandy silt and clay fill in pit 024 , containing a quantity of roofing slate	Roofing slate, glass identified on site as modern	3
026	N/A	Layer	Natural: overall number		3
027	N/A	Finds	Unstratified finds retrieved from initial machining of Zone 3	15 sherds of 3 rd -century and later pottery, 6 sherds of late 15 th -16 th -century pottery, 6 frags of Roman and 1 of post-Roman CBM, human and animal bone, undatable iron objects	3
028	5-6	Cut	N-S aligned linear feature with steep sides and concave base, 2.0m wide x 0.65m deep; largest of 3 apparent drainage ditches, all of which cut the burials and are therefore medieval or later; filled by 029, recut by 186 ; part of group 037	Early medieval to medieval	3

Context	Phase	Type	Description	Finds/samples/dating	Zone
029		Fill	Dark brown silty clay fill in ditch 028 , containing fragments of mudstone; cut by recuts 186 to W and 187 to E	Early 10 th -mid-11 th century pottery (1 sherd), Roman CBM (2 frags)	3
030		Fill	Mid- to dark brown silty clay with fragments of mudstone, filling ditch recut 186 . Finds from this fill and 029 were not distinguished from those from fill 188 in recut 187 during excavation, and their attribution cannot be certain.	Roman pottery post-AD 120 (1 sherd), late 10 th -12 th -century pottery (2 sherds), Roman roof and box tile (7 frags)	3
031	6	Cut	N-S aligned linear feature with moderate sides and flat base, 1.0m wide x 0.20m deep, cut by school foundations and infrastructure; filled by 032, cuts feature 033 ; part of group 038 .	Stratigraphic relationships indicate that the Roman potsherd from fill 032 is residual.	3
032		Fill	Very dark brown silty clay with charcoal inclusions, filling linear feature 031	Mid- to late 2 nd -century or later pottery (1 sherd), CBM, animal bone, possible human bone	3
033	5	Cut	Feature initially interpreted as a post-hole, later proving to be the foot end of heavily disturbed grave 058		3
034		Fill	Dark brown silty clay filling disturbed grave foot 033/058		3
035	4	Group	Group number assigned to the N-S aligned linear feature comprising cuts 002 and 004 , at W edge of site	Dated by a small amount of generically Roman material	3
036	4	Group	Group number assigned to the E-W aligned linear feature comprising cuts 006 and 019 , intersecting and possibly contemporary with G035	Dated by analogy with G035	3
037	6	Group	Group number assigned to the N-S aligned linear feature comprising cuts 028 , 193 and 197 , to E of ditch 016		3
038	6	Group	Group number assigned to the N-S aligned linear feature under the school footings comprising cuts 031 , 039 and possibly 271 , to E of G037	Iron horse furniture, possibly medieval, presumably deriving from one of the fills of this feature	3
039	6	Cut	Shallow, N-S aligned linear feature with steep sides and bowl-shaped profile, 0.80m wide x 0.22m deep; cut by school foundations, filled by 040, cuts grave fill 042 ; part of group G038 .		3
040		Fill	Dark brownish-grey plastic silty clay fill in linear feature 039 , containing charcoal and CBM fragments; disturbed by footings and infrastructure of school; contains bone redeposited from cut graves	Disarticulated human bone	3
041	5	Cut	Rectangular grave cut with rounded corners, aligned E-W; truncated by ditch 039 and school foundations, surviving to 1.1m L x 0.40m W x 0.17m D; contains Sk 2 and fill 042		5

Context	Phase	Type	Description	Finds/samples/dating	Zone
042		Fill	Mid- to dark brownish-grey silty clay with a mixed appearance, containing mudstone fragments with occasional charcoal flecks and CBM frags, filling grave 041 around Sk 2.	Roman CBM, small frags/flakes, probably residual; samples <7> and <8>	5
043	5	Cut	Sub-rectangular grave cut with rounded corners, aligned E-W, 2.0m L x 0.80m W x 0.20m D, filled by Sk 3 and fill 043		3
044		Fill	Dark brown clayey silt with flint gravel filling grave 043 around Sk 3	Roman pottery (5 sherds), flakes of Roman CBM; samples <9> to <12>	3
045	5	Cut	Sub-rectangular grave cut, with rounded corners, aligned E-W, truncated by modern drain at E end, 1.8m ⁺ L x 0.58m W x 0.16m D; filled by Sk 4 and fill 046		3
046		Fill	Mixed dark brown and mid-greenish-brown clayey and sandy silt fill in grave 045 around Sk 4, containing frequent flecks of CBM, occasional charcoal and mortar flecks, and fragments of mudstone increasing in frequency towards the base of the grave	Mid- to late 2 nd century or later pottery (4 sherds), late 10 th -12 th -century pottery (1 sherd), small frags/flakes Roman CBM; samples <4> to <6>	3
047		Cut	Sub-rectangular grave cut, with rounded corners, aligned E-W, truncated by later ditch to W (group 037), containing Sk 5 and fill 048		5
048		Fill	Dark brown compact sandy silt fill with occasional mudstone fragments and CBM and charcoal flecks, filling grave 047 around Sk 5; cut by ditch 037	Roman pottery (1 sherd), flakes Roman CBM 1 sherd late 10 th -12 th century pottery retrieved from fill + 1 sherd 10 th -11 th century pottery associated with skeleton; sample <13>	5
049	5	Layer	Dark greyish-brown compact sandy silt with occasional mudstone fragments and CBM and charcoal flecks; deposit of multiply reworked graveyard material, cut by graves 047 , 055 , 073 , 079 and 092		3
050	5	Cut	Sub-rectangular grave cut, with rounded corners, aligned E-W, truncated by modern drain; survives to 1.3m L, 0.50m W, 0.30m D; contains Sk 6 and fill 051		3
051		Fill	Dark brown clayey silt with occasional charcoal flecks, filling grave 050 around Sk 6	2 sherds Roman pottery and small frags/flakes CBM; sample <14>	3
052	5	Cut	Sub-rectangular grave cut, with rounded corners, aligned E-W, truncated by school footings and cut by modern pit 054 , survives to 1.2m L, 0.50m W, 0.10m D; filled by Sk 7 and fill 053		3
053		Fill	Mid- to dark brown clayey silt fill in grave 052 around Sk 7; no inclusions. Cut by pit 054 .	1 flake Roman CBM, shell; samples <15> and <18>	3

Context	Phase	Type	Description	Finds/samples/dating	Zone
054	6	Cut	Sub-circular pit, 1.6m diameter x 0.30m deep with shallow sides and flat base, cutting grave fill 053, filled by 057		3
055	5	Cut	Sub-rectangular grave cut, with rounded corners, aligned E-W, truncated to W by ditch group 038 ; contains Sk 8 and fill 056; cuts layer 049		5
056		Fill	Dark brownish-grey clayey silt with occasional flecks of charcoal and CBM, filling grave 055 around Sk 8.	Small frags/flakes Roman CBM, 1 fired clay tessera; samples <16> and <17>	5
057		Fill	Dark brown clayey silt fill in pit 054 , containing medium mudstone fragments; some or all of the finds are probably redeposited.	Roman pottery (8 sherds), 10 th -12 th century pottery (3 sherds), small frags/flakes Roman CBM, animal bone; sample <19>	3
058	5	Cut	Sub-rectangular grave cut, with rounded corners, aligned E-W, heavily truncated by school footings and infrastructure; survives to 1.4m L x 0.35m W x 0.16m D. Contains Sk 9 and fill 059; feature 033 proved to be the detached E end of this grave.		3
059		Fill	Dark brownish-grey plastic clayey silt with occasional small stones, filling grave 058 around Sk 9	Fragment fired clay, flakes Roman CBM	3
060	2 or 5?	Cut	Sub-rectangular pit with rounded corners, 1.6m L x 0.40m W x 0.15m D, NE-SW aligned, containing fill 061; truncated at W end by pit 062 ; dimensions suggest a grave, but the alignment is atypical for this cemetery and no human bone was found.		3
061		Fill	Dark brown silty clay fill in pit 060 ; no inclusions	Mid- to late 2 nd century or later pottery (3 sherds), 10 th -11 th century pottery (1 sherd), small frags/flakes Roman CBM, animal bone	3
062	?	Cut	Sub-circular pit, 0.50m diameter x 0.10m deep with bowl-shaped profile, cutting W end of pit or grave 060 and truncating post-hole 064 ; filled by 063		3
063		Fill	Dark brown clayey silt fill in pit 062 , no inclusions		3
064	?	Cut	Small, circular post-hole, 0.30m diameter x 0.20m deep, filled by 065, truncated by pit 062		3
065		Fill	Orange-red clay fill in post-hole 064 , cut by pit 062		3
066	5	Cut	Sub-rectangular grave cut, with rounded corners, aligned E-W, 2.32m L x 0.50m W x 0.14m D, containing Sk 10 and fill 067		3

Context	Phase	Type	Description	Finds/samples/dating	Zone
067		Fill	Fill of grave 066 around Sk 10: compact blackish-brown silt with occasional mudstone frags and charcoal flecks, truncated to N and W by school infrastructure	3 rd century or later pottery (2 sherds), post-Roman pottery (1 sherd), 1 fired clay tessera, small frags/flakes Roman CBM; iron object SF 1 (undateable, possibly part of strap hinge); samples <20> to <22>	3
068	5	Cut	Rectangular grave cut with rounded corners and irregular base, aligned E-W, 1.65m x 0.50m x 0.15m, containing Sk 11 and fill 069		3
069		Fill	Mid-greyish-brown silty clay with occasional CBM flecks and rare small sub-rounded stones, filling grave 068 around Sk 11	Roman CBM (small frags/flakes), animal bone; samples <23> and <24>	3
070	5	Cut	Sub-rectangular grave cut, with rounded corners, aligned E-W, 2.28m L x 0.57m W x 0.10m D, containing Sk 12 and fill 071		3
071		Fill	Fill of grave 070 around Sk 12: dark greyish-brown clayey silt with frequent fragments of fired clay/CBM and small lenses of greenish clay(redeposited natural) and occasional small pebbles	2 nd -century or later pottery (2 sherds), small frags/flakes Roman CBM, animal bone; samples <25> to <27>	3
072	N/A	Finds	Unstratified finds recovered during the machining of overburden and subsoil on the W side of Zone 5	Late 3 rd -century and later pottery (62 sherds), late 18 th -mid-20 th -century pottery (28 sherds), Roman CBM (9 frags + 2 fired clay tesserae), animal and human bone, late 14 th -century iron arrowhead SF 2, possible iron arrowhead, 2 iron nails	5
073	5	Cut	Sub-rectangular grave cut, with rounded corners, aligned NE-SW, truncated at NE end by ditch 075 , survives to 1.75m L x 0.68m W x 0.28m D; containing Sk 13 and fill 074; cuts layer 049		3
074		Fill	Compact dark grey silty clay with moderate chalk flecks, CBM flecks and small stones, filling grave 073 around Sk 13; closely resembling fill 076	Late 2 nd -century or later pottery (1 sherd); samples <28> to <29>	3
075	Mod	Cut	Construction cut for school footings, filled by 076, cuts grave fill 074	Modern	3
076		Fill	Mid-grey silty clay filling construction trench 075 to either side of school foundations	Roman pottery and human bone, all redeposited; iron horseshoe, possibly medieval	3
077	5	Cut	Sub-rectangular grave cut, with rounded corners, aligned E-W, 2.26m L x 0.50m W x 0.16m D (tapers and becomes deeper to E), containing Sk 14 and fill 078; cuts Roman ditch		3

Context	Phase	Type	Description	Finds/samples/dating	Zone
078		Fill	Dark brown sandy clayey silt with occasional CBM flecks, mudstone frags and quartz pebbles, filling grave 077 around Sk 14; contained notably fewer CBM inclusions than the grave fills further to S	Samples <34> to <35>	3
079	5	Cut	Sub-rectangular E-W aligned grave cut, with rounded corners, truncated to E by school construction; survives to 1.30m L x 0.70m W x 0.13m D; contains Sk 15 and fill 080; cuts layer 049		3
080		Fill	Dark greyish-brown compact sandy clay with frequent mudstone frags and occasional charcoal frags, small CBM frags and quartz pebbles, filling grave 079 around Sk 15, cut by school foundations	Late 2 nd -century or later pottery (1 sherd), 10 th -12 th -century pottery (3 sherds); sample <30>	3
081	5	Cut	Rectangular grave cut with rounded corners, aligned E-W, 2.05m L x 0.50m W x 0.20m D (becoming deeper towards E), containing Sk 16 and fill 082		3
082		Fill	Mid-brownish-grey silty clay with frequent CBM flecks and rare small sub-rounded stones, filling grave 081 around Sk 16	Animal bone, 1 frag Roman brick; samples <31> to <33>	3
083	N/A	Finds	Unstratified finds retrieved during initial machining in the central area of Zone 5, chiefly over and around building remains	Late 4 th -century pottery (53 sherds), 10 th -12 th -century pottery (2 sherds), stone <i>tessera</i> , Roman CBM (6 frags), animal and possible human bone, Roman Cu alloy steelyard fragment SF 3; 5 iron nails, 1 iron spike	5
084		Group	Cannot be identified, and sheet not filled in: probably re-numbered by mistake.		3
085	2	Group	N-S aligned linear feature at W edge of Zone 3, to N of cemetery, truncated by school construction, consisting of section 176 only.	Mid-Roman	3
086	5	Cut	Sub-rectangular grave cut with rounded corners, aligned E-W, cut on N edge by pit 090 , E end disturbed by tree rooting, 1.90m L x 0.80m W x 0.15m D, containing Sk 17 and fill 087		3
087		Fill	Mid-grey compact silty clay with moderate mudstone frags and occasional CBM frags, filling grave 086 around Sk 17; cut by post-medieval pit 090	Small frags/flakes Roman CBM; samples <36> to <38>	3
088	5	Cut	Sub-rectangular grave, aligned E-W but W half cut away, survives to 0.70m L x 0.60m W x 0.20m D, containing Sk 18 and fill 089, truncated by ditch G037		5
089		Fill	Dark brown silty clay filling grave 088 around Sk 18, cut by ditch G037	Small frags/flakes Roman CBM; sample <40>	5

Context	Phase	Type	Description	Finds/samples/dating	Zone
090	Mod	Cut	Sub-rectangular pit, 1.05m x 0.42m x 0.33m, filled by 091, cutting graves 086 and 101	Modern	3
091		Fill	Mixed mid-grey and reddish-orange silty clay filling pit 090 ; contained moderate small CBM frags, charcoal and ash flecks and mudstone frags	Roman and post-Roman brick and tile, animal bone, glass identified on site as modern	3
092	5	Cut	Sub-oval grave cut, E-W aligned, N side truncated by school construction; survives to 1.80m L x 0.48m W x 0.12m D; cuts layer 049; contains Sk 19 and fill 093		5
093		Fill	Dark brown sandy clay containing occasional CBM flecks, charcoal flecks and pebbles, filling grave 092 around Sk 19	Small frags/flakes Roman CBM (4 frags); sample <39>	5
094			Void		
095			Void		
096	5?	Cut	Remnant of oval pit, E-W oriented, truncated to W by ditch G123 and to N by school construction: may have been the edge of a grave. Filled by 097.		5
097		Fill	Dark greenish-brown clayey silt with occasional mudstone frags and CBM and charcoal flecks, filling possible disturbed grave 096 ; cut by G123 ; no human bone was retrieved.		5
098	U/S	Finds	Finds retrieved during machining of the south edge of Zone 5	Late 3 rd -century or later pottery (27 sherds), Roman roof and box tile, fired clay tesserae, 4 th to mid-5 th -century Cu alloy bracelet fragment SF 4, iron nail fragments	5
099	5	Cut	Sub-rectangular grave cut with rounded corners, aligned E-W, very close to but not intercutting grave 134 , 2.98m L x 0.55m W x 0.16m D, containing Sk 20 and fill 100. The excessive length of this grave may suggest that its unoccupied E end is actually a remnant of an earlier grave cut, but grave 134 to S is of similar length with a centrally positioned burial.		5
100		Fill	Dark greyish-brown clayey silt with slightly greenish hue, filling grave 099 around Sk 20	2 nd -century or later pottery (4 sherds), CBM, Fe (coffin?) nail SF 5; samples <41>, <42> and <49>	5
101	5	Cut	Both ends of an E-W aligned sub-rectangular grave cut, separated by later pit 090 . Total dimensions of grave 1.30m L, 0.40m W, 0.14m D; filled by Sk 21 and fill 102	Samples <43> to <45>	3
102		Fill	Mid- to light grey plastic silty clay with occasional CBM flecks and mudstone frags, filling grave 101 around Sk 21; cut by pit 090		3

Context	Phase	Type	Description	Finds/samples/dating	Zone
103	5	Cut	Sub-rectangular E-W aligned grave cut, survives to 2.0m L x 0.57m W x 0.08m D; contains Sk 22 and fill 104; truncated at W end by ditch G037		5
104		Fill	Dark brown clayey silt with occasional mudstone frags, charcoal flecks and small quartz pebbles, filling grave 103 around Sk 22; cut by pit 105 and ditch G037	Fe nail SF 6; sample <46>	5
105	5-6	Cut	Sub-oval pit with steep sides and flat base, 1.35m x 0.92m x 0.21m, aligned N-S, cutting grave fill 104; filled by 106	Early to high medieval	5
106		Fill	Dark brown clayey silt fill with occasional mudstone fragments and CBM and charcoal flecks, filling pit 105	Mid- to late 3 rd century pottery (2 sherds), 10 th -11 th century pottery (3 sherds), fragment of iron bar, fired clay tessera, small frags/flakes Roman CBM, disarticulated human bone, animal bone; sample <47>	5
107	5	Cut	E end of a sub-rectangular E-W aligned grave cut with rounded corners and flat base, truncated by ditch G037 , survives to 0.95m L x 0.85m W x 0.20m D; contains Sk 23 and fill 108		5
108		Fill	Dark brown clayey silt with no inclusions, filling grave 107 around Sk 23	1 frag Roman CBM, fired clay tessera; sample <48>	5
109	5	Cut	Sub-rectangular E-W aligned grave cut, survives to 1.54m L x 0.50m W x 0.05m D; contains Sk 24 and fill 110; truncated at N edge by grave 111 and at W end by pit 159		5
110		Fill	Mid-brownish-grey silty clay with frequent CBM flecks and sandstone/mudstone frags, filling grave 109 around Sk 24	3 rd -century or later pottery (5 sherds), small frags/flakes Roman CBM; samples <50> to <51>	5
111	5	Cut	Sub-rectangular E-W aligned grave cut, survives to 1.63m L x 0.61m W x 0.14m D; contains Sk 22 and fill 104; cuts grave fill 110; truncated at W end by pit 159		5
112		Fill	Mid-brownish-grey silty clay with frequent CBM flecks and sandstone/mudstone frags, filling grave 111 around Sk 25	Late 3 rd -century pottery (4 sherds), small frags/flakes Roman CBM, iron nails SF7-8 and SF 12, iron hobnail SF 9; samples <52> to <54>	5
113			Void		5
114			Void		5
115		Cut	Modern construction cut or drain, not recorded		5
116		Fill	Fill of 115		5
117	Mod	Cut	Construction cut for school foundations: contains wall footing (not numbered), fill 118 and Sk 26		5
118		Fill	Back-fill behind modern wall footing; mixed silty clay and demolition rubble containing Sk 26	Mid- to late 2 nd -century or later pottery (1 sherd), small frags/flakes Roman CBM	5

Context	Phase	Type	Description	Finds/samples/dating	Zone
119	5	Cut	Sub-rectangular E-W aligned grave cut, 1.98m L x 0.84m W x 0.08m D; contains Sk 27 and fill 120; stratigraphic relationship with adjacent grave 152 uncertain		5
120		Fill	Dark greyish-brown silty clay with frequent CBM frags and rounded and angular stone frags, filling grave 119 around Sk 27	Roman pottery (1 sherd), small frags/flakes Roman CBM, fired clay tessera; samples <55> to <56>	5
121		Cut	Same as 161		5
122		Fill	Same as 166		5
123		Group	Group number initially assigned to the continuation of double ditch G37 into Zone 5; no longer in use.		5
124	5?	Cut	Very shallow sub-rectangular pit, truncated to S by school construction; survives to 1.12m x 0.34m x 0.04m; filled by 125. May be a remnant of a grave: no human remains were present, but disarticulated human bone was retrieved from the construction cut fill in the vicinity of this feature.		5
125		Fill	Mid-grey clayey silt with occasional chalk and limestone frags, filling pit 124 , cut by modern construction cut 126		5
126	Mod	Cut	Modern construction cut for school building, contained unrecorded brick wall footing and fill 127		5
127		Fill	Fill of modern construction cut 126 : numbered for location of finds, but not further recorded	Roman pottery (1 sherd), small frags/flakes Roman CBM, disarticulated human bone	5
128		Finds	Unstratified finds from machining to E of building	Copper alloy ring SF 10	5
129	Nat	Layer	Small spread of mid-grey clayey silt filling a natural hollow to E of pit 124 , 1.46m x 0.55m x 0.10m, cut by modern construction cut 126 ; initially thought to be a truncated grave, but concluded to be of natural origin		5
130	5	Cut	Sub-rectangular E-W aligned grave cut with rounded corners, 2.15m L x 0.60m W x 0.15m D; contains Sk 28 and fill 131		5
131		Fill	Dark brown clayey silt fill with moderate charcoal flecks, filling grave 130 around Sk 28	Mid- to late 3 rd -century or later pottery (3 sherds), small frags/flakes Roman CBM, fired clay tessera, possible iron nail SF 11; samples <60> to <62>	5
132	5	Cut	Sub-rectangular E-W aligned grave cut with steep sides and flat base, 2.50m L x 0.55m W (depth unrecorded); contains Sk 29 and fill 133; cut into the fill of an (unrecorded) robber trench forming part of the N side of the Roman building		5
133		Fill	Dark grey plastic silty clay with moderate chalk and mudstone frags, filling grave 133 around Sk 29	Mid- to late 3 rd -century or later pottery (1 sherd), 1 frag Roman CBM; samples <57> to <59>	5

Context	Phase	Type	Description	Finds/samples/dating	Zone
134	5	Cut	Sub-rectangular E-W aligned grave cut with rounded corners and vertical sides, 2.50m L x 0.75m W x 0.30m D; contains Sk 34 and fill 135; directly to S of grave 099 , which was also of unusual size.		5
135		Fill	Dark brown clayey silt with occasional CBM and mudstone frags and pebbles and rare charcoal flecks, filling grave 134 around Sk 34	Late 3 rd to 4 th -century pottery (10 sherds), 2 fired clay tesserae, small frags/flakes Roman CBM; iron nails SF 13 and 17, copper ring SF 14; samples <70> to <72>	5
136	5	Cut	Very shallow sub-rectangular E-W aligned grave cut with rounded corners and steep sides, containing Sk 30 and fill 137. Truncated to W during machining; survives to 1.16m L x 0.44m W x 0.03m D, becoming deeper towards E.		5
137		Fill	Mid- to dark greyish-brown silty clay with frequent CBM and small sub-angular stones, filling grave 136 around Sk 30. Cut by wheel rut 141 and partially removed during machining.	Roman pottery (1 sherd), small frags/flakes Roman CBM, fired clay tessera, Cu alloy ring SF 14, Fe nails SF 13 and 17; samples <63> to <64>	5
138		Group	Group number assigned to 'the linear of immediate proximity and alignment to N wall of building', but the only subordinate context number given is 139 , which cannot now be found and has not been recorded.		5
139		Cut	Linear feature supposedly adjacent and parallel to N wall of building, filled by 140: not recorded and cannot be located; possibly void, or may refer to the robber trench cut by grave 132 .		5
140		Fill	Fill of 139		5
141	7?	Cut	Narrow, very shallow linear feature, 0.65m L x 0.30m W x 0.04m D, cutting grave fill 137 and disturbing Sk 30. Interpreted as a wheel rut, as the bones appear to have been dragged along it rather than removed.		5
142		Fill	Dark brownish-grey silty clay with abundant CBM and chalk frags, filling possible wheel rut 141		5
143	5	Cut	Sub-rectangular E-W aligned grave cut with rounded corners, 2.52m L x 0.65m W x 0.20m D (depth increases to E); contains Sk 31 and fill 144; most northerly in a group of 3 unusually long graves, the others being 099 and 134 .		5
144		Fill	Dark greyish-brown silty clay with occasional angular and rounded stones, filling grave 143 around Sk 31	3 rd -century or later pottery (2 sherds), small frags/flakes Roman CBM, iron (coffin?) nails SF 15-16; samples <65> to <67>	5

Context	Phase	Type	Description	Finds/samples/dating	Zone
145	5	Cut	Fragment of probably sub-rectangular grave cut, truncated by machining and heavily disturbed by tree roots, cut into upper surface of Roman wall footing G159; contains Sk 32 and fill 146		5
146		Fill	Dark grey clayey silt with occasional chalk and limestone frags and occasional patches of mortar from wall G159, filling heavily disturbed grave 145 around Sk 32	Flakes of Roman CBM, iron (coffin?) nail SF 20 and probable iron nail fragment; samples <68> to <69>	5
147	5	Cut	Sub-rectangular ENE-WSW aligned grave cut with rounded corners, 1.85m L x 0.52m W (depth unrecorded); contains Sk 33 and fill 148		5
148		Fill	Very dark grey clayey silt with abundant charcoal flecks/frags and moderate small chalk flecks, filling grave 147 around Sk 33; markedly different from fills of other graves in this area	Mid- to late 3 rd -century pottery (8 sherds), small frags/flakes Roman CBM, iron nail SF 18 with ferrous encrustation SF19; samples <76> to <78>	5
149			Void		5
150			Void	Roman pottery (1 sherd), CBM	5
151	5?	Layer	Very dark greyish-brown clayey silt with friable greyish patches, containing rare CBM frags, present across the whole of Zone 5 and cut by a number of graves; depth not recorded		5
152	5	Cut	Sub-rectangular E-W aligned grave cut with rounded corners and shallow, concave sides, 2.11m L x 0.75m W x 0.15m D; contains Sk 35 and fill 153		5
153		Fill	Dark greyish-brown silty clay with frequent small charcoal frags and occasional rounded and sub-angular stones, filling grave 152 around Sk 35	Mid- to late 3 rd -century or later pottery (2 sherds), flakes of Roman CBM, fired clay tessera, 1 pig tusk; samples <73> to <75>	5
154	5	Cut	Sub-rectangular E-W aligned grave cut with rounded corners and regular sides, truncated by school construction; survives to 1.70m L x 0.45m W x 0.04m D; contains Sk 36 and fill 155		5
155		Fill	Dark brown clayey silt with rare small pebbles, CBM frags, charcoal flecks/frags and mudstone frags filling grave 154 around Sk 36	Roman pottery (1 sherd), 12 th to 13 th -century CBM (1 frag) ; sample <79>	5
156	3	Group	Most northerly wall of Roman building complex, cut by grave 145 : not further recorded as this area is to be preserved in situ.		5
157	5	Cut	Sub-rectangular E-W aligned grave cut with rounded corners, severely truncated to W by pit 159 ; survives to 0.79m L x 0.36m W x 0.08m D; contains Sk 37 and fill 158		5

Context	Phase	Type	Description	Finds/samples/dating	Zone
158		Fill	Dark greyish-brown silty clay with frequent small frags CBM and mudstone, filling grave 157 around Sk 37; cut by pit 159	Roman pottery AD 120 or later (4 sherds), flakes of Roman CBM, iron nail SF 21 and possible nail SF 22; sample <80>	5
159	6	Cut	Long, narrow oval pit with moderately steep sides and bowl-shaped profile, L approx. 2.2m (not recorded), W 0.82m, D 0.31m, parallel to and immediately to E of double ditch G037 . Cuts W ends of graves 109 , 111 and 157 and E edge of ditch 161 ; filled by 160; part of G291 .	Stratigraphic relationships indicate that Roman potsherd is residual	5
160		Fill	Dark greyish-brown silty clay with frequent CBM flecks and small mudstone frags, filling pit 159 . Disarticulated bone derived from cut graves.	Late 3 rd -4 th century pottery (1 sherd), 1 fragment Roman CBM, disarticulated human bone	5
161	6	Cut	N-S aligned linear feature with broad V-shaped section and concave base, filled by 166, cutting E edge of linear feature 194 : part of ditch recut G285 .		5
162		Cut	Shallow sub-circular pit, 1.05m x 1m x 0.10m, directly to NE of graveyard area; filled by 163; cuts fill of pit 164		3
163		Fill	Mid-grey silty clay with moderate chalk flecks and occasional CBM frags, filling pit 162		3
164		Cut	Shallow sub-circular pit, 0.90m ⁺ x 0.90m x 0.07m, directly to NE of graveyard area; filled by 165; truncated at W edge by pit 162		3
165		Fill	Light grey silty clay with occasional mudstone frags, filling pit 164 , cut by pit 162		3
166		Fill	Mid-greyish-brown silty clay with frequent small mudstone frags and rare charcoal flecks, filling ditch section 161 in ditch recut G285	Late 10 th -mid-11 th -century pottery (1 sherd), Roman and modern CBM	5
167	Mod	Cut	Shallow sub-circular feature near the W end of grave 134 , 0.73m x 0.64m x 0.06m, cutting layer 151, filled by 168; interpreted on site as a modern scoop associated with the construction of the school		5
168		Fill	Dark reddish-brown friable silt filling probable modern feature 167	Roman pottery (2 sherds), late 18 th -20 th -century pottery (1 sherd), flakes of Roman CBM, disarticulated human bone, probably post-medieval copper alloy wire object, possibly medieval fragment of iron blade, modern paper clip	5
169	7-Mod	Cut	Sub-circular post-hole with nearly vertical sides and flat base, 0.46m x 0.40m x 0.24m, filled by 170 and 171, possible spatial relationship with 172	Modern?	3

Context	Phase	Type	Description	Finds/samples/dating	Zone
170		Fill	Lower fill in post-hole 169 : mottled grey and light yellow silty clay with occasional charcoal frags and a single large limestone fragment, probably post-packing		3
171		Fill	Upper fill in post-hole 169 : mid-grey clayey silt with occasional mudstone and CBM frags and frequent charcoal frags	Late 18 th -20 th -century pottery (1 sherd), flake of Roman CBM, animal bone	3
172	7-Mod	Cut	Sub-oval post-hole directly adjacent to post-hole 169 , with nearly vertical edges and concave base, filled by 173		3
173		Fill	Fill of post-hole 172 : mixed light grey and mid-yellow silty clay with occasional mudstone frags, some tilted parallel to gradient of S side	Late 18 th -20 th -century pottery (3 sherds)	3
174	5	Cut	Sub-rectangular E-W aligned grave cut with steep sides and an irregular E end, truncated to W by school construction, survives to 1.23m L x 0.45m W x 0.09m D; contains Sk 38 and fill 175. Furthest to E of all graves in this area, at a distance from the others.		3
175		Fill	Dark reddish-brown clayey silt fill with frequent mudstone frags and CBM flecks, filling grave 174 around Sk 35	Small frags/flakes Roman CBM, iron object (possible nail) SF 24; sample <83>	3
176	2	Cut	N-S aligned linear feature with bowl-shaped profile and flat base, 0.65m wide x 0.27m deep, filled by 177; apparently sole member of group 085 .		3
177		Fill	Blackish-brown silty clay with occasional charcoal frags and rounded/sub-angular stones, filling ditch section 176 ; cut by modern construction cut 178	Mid- to late 3 rd -century or later pottery (2 sherds), fragment of Roman CBM, animal bone including roe deer	3
178	Mod	Cut	Modern construction cut for school foundations, filled by 179		3
179		Fill	Mid-brown silty clay with frequent rounded and angular stones, filling modern construction cut 178 behind school footings	Roman pottery (1 sherd), 13 th -century pottery (10 sherds), fragment of fired clay, flakes of Roman CBM, bone	3
180	5	Cut	Rectangular E-W aligned grave cut with rounded corners and flat base, truncated at W end by pit 182 , survives to 1.4m L x 0.60m W x 0.05m D; contains Sk 39 and fill 181		5
181		Fill	Mid-greyish-brown silty clay with frequent CBM frags and occasional mudstone frags, filling grave 180 around Sk 39, cut by pit 182	Late 2 nd -century or later pottery (2 sherds), late 18 th -20 th -century pottery (2 sherds); samples <81> to <82>	5
182	6	Cut	Further section through pit 159 , at E edge where it cuts grave 180 ; filled by 183; part of G281		5

Context	Phase	Type	Description	Finds/samples/dating	Zone
183		Fill	Mid-greyish-brown silty clay with occasional mudstone frags, some large, and CBM and charcoal flecks, filling section 182 through pit 159	Roman pottery (1 sherd), bone	5
184	2	Cut	Sub-square post-hole with rounded corners and steep sides, 0.61m x 0.56m x 0.20m, cutting layer 192, with possible spatial relationship to 189	Dated by association with post-hole 189	5
185		Fill	Dark brown clayey silt filling post-hole 184 ; contains frequent large angular limestone fragments, probably post-packing	flake of Roman CBM; sample <119>	5
186	6	Cut	N-S aligned linear feature, 0.95m wide x 0.35m deep with steep E side and shallow W side, filled by 030, forming a partial recut of W edge of ditch section 028 ; no stratigraphic relationship to ditch 187 which recuts the E side; part of G284		3
187	6	Cut	N-S aligned linear feature, 0.85m wide x 0.35m deep with slightly irregular bowl-shaped profile, filled by 188, forming a partial recut of E edge of ditch section 028 ; no stratigraphic relationship to ditch 186 ; part of G285		3
188		Fill	Mid-greyish-brown silty clay with fragments of mudstone and other stones, filling ditch recut 187 . This recut was not distinguished during excavation and no finds were attributed to it, but finds from this fill may appear among those from contexts 029 and 030.		5
189	2	Cut	Sub-oval post-hole, 0.80m x 0.65m x 0.30m, directly to S of linear feature G288 , with possible spatial relationship to post-hole 184 . Filled by 190, 191 and 201, cuts layer 229.	Dated to late Phase 2 by finds from final fill	5
190		Fill	Basal fill of post-hole 189 : grey clayey silt with patches of brown sandy silt and flecks of possible deteriorated mortar or lime, 0.25m deep. Contains several large stones, placed as post-packing.	Sample <117>	5
191		Fill	Light bluish-grey silty clay filling a post-pipe within fill 190 in post-hole 189 , 0.25m x 0.20m x 0.30m	Sample <122>	5
192		Layer	Dark brown clayey silt layer cut by post-hole 184 ; 0.60m x 0.25m x 0.09m as excavated, but probably a remnant of a larger spread – possible occupation layer? – mostly removed by machining. Overlies layer 229.		5

Context	Phase	Type	Description	Finds/samples/dating	Zone
193	6	Cut	N-S aligned linear feature with steep E side and possible bowl-shaped profile; base and W side not exposed in this section; filled by 194; cut on E edge by ditch 161 ; part of double-ditch group 037		5
194		Fill	Mid-greyish-brown silty clay with frequent small mudstone fragments, filling section 193 in ditch G037 ; same as 198	Roman pottery (2 sherds), small frags/flakes Roman CBM, 10 th -13 th -century pottery (1 sherd)	5
195	2-3	Cut	N-S aligned linear feature with shallow, bowl-shaped profile, filled by 196, truncated on E side by ditch recut 199 ; survives to 0.62m wide x 0.14m deep. Uncertain whether this is a discrete feature or a detached portion of ditch 197 , as the recut separates them completely, but the dating evidence suggests that 195 is earlier.	Mid- to late Roman. Possible spatial relationship with G085 ?	5
196		Fill	Dark brown silty clay with frequent rounded and platy stone frags and frequent small charcoal frags, filling gully fragment 195	Mid- to late 3 rd -century or later pottery (10 sherds), small frags/flakes Roman CBM, 2 fired clay tesserae, bone, iron nail, fragment of lead sheet SF 23	5
197	5-6?	Cut	N-S aligned linear feature with regular E side and flat base, heavily truncated to W by recut 199 ; survives to 1.14m W x 0.90m D; filled by 198; part of group 037		5
198		Fill	Blackish-brown silty clay with occasional small to medium angular platy stones, filling ditch section 197 ; cut by 199	Late 3 rd century or later pottery (2 sherds), undateable pottery (1 sherd), numerous small frags/flakes Roman CBM; animal bone; sample <86>	5
199	5-6	Cut	N-S aligned linear feature with broad V-shaped profile and slightly concave sides, 1.12m wide x 0.39m deep, recutting ditch 197 and truncating gully 195 , filled by 200; part of group 284		5
200		Fill	Dark reddish-brown silty clay with frequent large angular platy stones and occasional flecks/small frags of charcoal, filling ditch section 199	Mid- to late 3 rd century or later pottery (2 sherds), late 10 th to 12 th -century pottery (3 sherds), small frags/flakes Roman CBM, animal bone; 4 iron nails and 1 fragment sheet iron	5
201		Fill	Dark grey clayey silt with occasional small frags mudstone and sandstone, forming the final fill of posthole 189 over fills 190-1	Mid- to late 3 rd century or later pottery (17 sherds), small frags/flakes Roman CBM	5
202	6	Cut	NNE-SSW linear feature, 0.37m wide x 0.15m deep with bowl-shaped profile, cutting (probably recutting) W edge of parallel linear feature 204 ; filled by 203; forms part of group 548 to E of Roman building.	Reassigned to medieval	5
203		Fill	Mid-brownish-grey clayey silt with rare charcoal flecks, filling ditch 202 ; cut by school foundations.	2 nd -century pottery (2 sherds), small frags/flakes Roman CBM	5

Context	Phase	Type	Description	Finds/samples/dating	Zone
204	2	Cut	NNE-SSW linear feature, with steep E side and slightly concave base, truncated on W edge by 202 ; survives to 0.50m wide x 0.15m deep; filled by 205; forms part of group 281 to E of Roman building; parallel and adjacent to ditch 206 .	Reassigned to mid-Roman	5
205		Fill	Mid-brownish-grey clayey silt with rare charcoal and CBM flecks and small/medium sub-angular mudstone frags, filling ditch 204 , not easily distinguished from fill 203 in intercutting ditch 202 . Cut by ditch 202 and school foundations.		5
206	2	Cut	NNE-SSW linear feature, parallel to and on E side of ditch 204 ; 0.65m wide x 0.25m deep, steeper on E side than on W with generally bowl-shaped profile; filled by 207; cuts ditch 208 ; forms part of group 543 .	Reassigned to mid-Roman	5
207		Fill	Mid-brownish-grey clayey silt with rare charcoal and CBM flecks and small mudstone frags, filling ditch section 206 ; cut by school foundations	Roman pottery (2 sherds), small frags/flakes Roman CBM, fired clay tessera, animal bone	5
208	2	Cut	N-S aligned linear feature, 0.30m wide x 0.15m deep; truncated at N end by ditch 206 and cannot be traced beyond this ditch complex. Forms part of group 282 .	Reassigned to mid-Roman	6
209		Fill	Mid-brownish-grey sandy clayey silt with rare charcoal flecks and rare small/medium mudstone frags, filling ditch section 208 . Cut by ditch 206 .		6
210		Cut	Shallow, irregular feature on E side of ditch 206 – probably an area of root disturbance. Filled by 211.		6
211		Fill	Mid-brownish-grey sandy clayey silt with rare CBM flecks filling shallow feature 210		6
212	1	Cut	Sub-circular pit, 0.93m x 0.91m x 0.27m, part of possible structure 293 ; filled by 213; cuts deposit 270	Early Roman	5
213		Fill	Dark greyish-brown clayey silt with frequent medium to large limestone fragments and occasional CBM flecks/frags, filling pit 212	Mid/late 1 st to 2 nd -century pottery (3 sherds), very abraded Roman CBM and fired clay frags	5
214	1	Cut	Remnant of linear feature or narrow, elongated pit, aligned NW-SE and truncated to SE by school construction; survives to 0.89m L, 0.47m W, 0.08m D. All stratigraphic relationships destroyed; possibly associated with Str 293.	Early Roman	5
215		Fill	Blackish-brown clayey silt with rare small rounded stones, filling feature remnant 214 ; cut by school foundations.	Mid/late 1 st to 2 nd -century pottery (5 sherds), Roman CBM, iron object (probable nail fragment)	5

Context	Phase	Type	Description	Finds/samples/dating	Zone
216	2	Cut	Very short stretch of linear feature with rounded terminals or narrow, elongated pit, 2.2m x 0.50m x 0.07m; aligned NW-SE on a line with feature 214 , but on the E side of the late Roman feature complex. Filled by 217; part of group 286 . No stratigraphic relationship with G282 .	Mid-Roman	6
217		Fill	Mid-brownish-grey silty clay with frequent patches of redeposited natural, filling section 216 in feature G286		6
218	2	Cut	Additional section through feature G286	Mid-Roman	6
219		Fill	Mid-brownish-grey silty clay with frequent patches of redeposited natural, filling section 218 in feature G286	Late 2 nd century or later pottery (2 sherds), small frag Roman CBM	6
220		Cut	Isolated small pit or large post-hole, 0.80m x 0.79m x 0.17m, near S edge of site: cuts layer 229; no obvious spatial relationships		5
221		Fill	Mid- to dark brown silty clay with occasional charcoal flecks, filling feature 220 : a number of medium to large angular stones suggest post-packing.	Sample <118>	5
222	2	Cut	Additional section through feature G286	Mid-Roman	6
223		Fill	Mid-brownish-grey silty clay with frequent patches of redeposited natural, filling section 222 in feature G286		6
224	Mod	Cut	Sub-oval feature, probable post-hole, 0.39m x 0.23m x 0.18m. Positioned in the middle of the late Roman feature complex, but interpreted on site as modern.		5
225		Fill	Bluish-black silty clay with oily feel, forming the primary fill of probable modern post-hole 224 below fill 232.		5
226	1	Cut	WNW-ESE aligned linear feature, truncated at E end by G287 : survives to 3.0m x 0.75m x 0.25m. Cuts deposit 229; filled by 227-8; forms part of group 288 . Interpreted on site as the course of a robbed-out wall.	Possibly early Roman	5
227		Fill	Primary fill in section 226 through feature G288 : mixed grey plastic sandy and silty clays with flecks of possible decayed mortar and occasional small/medium sandstone frags, some of which form a perceptible tip line at N edge of feature. 0.25m deep.		5
228		Fill	Mid- to dark grey silty clay with occasional small sandstone and CBM frags, filling possible robber trench 226 above fill 227.	Roman CBM – 2 frags tegula + small frags/flakes	5

Context	Phase	Type	Description	Finds/samples/dating	Zone
229		Layer	Spread of mid- to light grey silty clay with patches of white and reddish-brown sandy clay, containing occasional charcoal flecks. Approximate dimensions in plan at least 30m x 10m: appears to be present only within the area of the school footings, but this is probably because it was machined away elsewhere. Max. depth 0.20m. Partially overlain by layer 192; cut by features 189 and 226 ; overlies layer 236. Possible occupation layer, but no finds retrieved.	Fragment of iron nail	5
230	2	Cut	Additional section through linear feature G282 : 0.60m wide x 0.10m deep, filled by 231; same as 208	Reassigned to mid-Roman	6
231		Fill	Mid-brownish-grey friable sandy clayey silt with rare charcoal flecks, filling ditch section 230 .		6
232	Mod	Fill	Mixed light- and mid-brown loose sandy silt filling probable modern post-hole 224 above fill 225; plastic object(s) securely stratified	Mid/late 3 rd century or later pottery (1 sherd); unspecified plastic object(s)	5
233		Layer	Blackish-brown silty clay layer with frequent small charcoal or manganese flecks, overlying natural 026 and partially covered by layer 236; dimensions not recorded. Probable natural deposit. Cut by features 254 and 324 , and some of G501 .		5
234	2	Cut	Section through linear feature G437 near S edge of site, 0.53m wide x 0.10m deep, filled by 235; cuts layer 229; reassigned in post-ex from G281.	Mid/late 1 st to mid-2 nd -century pottery (1 sherd), single flake of Roman CBM	5
235		Fill	Dark brown silty clay with frequent white flecks (probably deteriorated mortar), filling section 234	Flakes of Roman CBM; finds ascribed to cut 234 probably belong to this fill.	5
236		Layer	Dark brown silty clay layer up to 0.14m deep, overlying layer 233 and below layer 229; seen only in section. Possible buried soil?		5
237	5?	Cut	Second post-hole from W in N row of structure 292 : circular pit, 0.93m diameter x 0.19m deep, with steep sides and flat base, filled by 238		6
238		Fill	Mid-greyish-brown silty clay with frequent manganese flecks and small sandstone fragments, filling post-hole 237 : contains a quantity of medium to large sandstone fragments, probably representing post-packing.	1 fragment Roman tile; sample <100>	6
239	2	Cut	Additional section through N-S linear feature G282 at its junction with G283 . Cuts pit fill 244; probably contemporary with feature 241 .	Reassigned to mid-Roman	6

Context	Phase	Type	Description	Finds/samples/dating	Zone
240		Fill	Mid-brownish-grey friable fine-sandy silt with rare charcoal flecks, CBM flecks and small/medium mudstone frags, filling ditch section 239 . Indistinguishable from fill 242 in intersecting ditch 241 .	Flakes of Roman CBM	6
241	2	Cut	Section through E-W aligned linear feature, at right angles to and intersecting ditch 239 . Forms part of group 283 .	Reassigned to mid-Roman	6
242		Fill	Fill of section 241 : indistinguishable from fill 240 in intersecting ditch 239 .		6
243	1?	Cut	Sub-circular pit, 0.80m wide x 0.16m deep with shallow, bowl-shaped profile and relatively flat base, truncated to W by ditch 239 , filled by 244	Stratigraphically earlier than mid-Roman – spatial association with Str 293?	6
244		Fill	Mid-brownish-grey friable fine-sandy clayey silt with rare charcoal flecks, CBM flecks, small/medium mudstone frags and large pebbles, filling pit 243 ; cut by ditch 239		6
245		Finds	Finds retrieved during machining of Zone 6	Late 4 th -century pottery (40 sherds) including a fragment with glass residue, 13 th to 15 th -century pottery (2 sherds), Roman CBM, fired clay tessera	6
246		Layer	Greenish-grey plastic silty clay with occasional charcoal and CBM flecks on surface only, extent in plan at least 5.9m x 2m, up to 0.18m deep. Stratigraphically between 229 and natural 026: location on site and relationship (if any) to 236 unknown.		5
247	Mod	Cut	Sub-rectangular pit directly adjacent to school foundations, 1.07m x 0.76m x 0.30m, filled by 248-9	Modern	5
248		Fill	Dark brown clayey silt with occasional charcoal flecks and small pebbles, forming basal fill in pit 247 . Contained a wooden object identified on site as modern.	Wooden object, pottery, bone, glass and CBM are recorded on context sheet; no pottery has been reported on, so presumably this was either identified as modern and discarded on site or was mistakenly labelled 249. 1 stone <i>tessera</i> retrieved.	5
249		Fill	Light orange silty clay with pinkish mottling, filling pit 247 above fill 248. No finds recorded on context sheet.	3 rd to 4 th -century pottery (5 sherds), small frags/flakes Roman CBM, iron wire object, possibly a handle	5
250	2	Cut	E-W aligned linear feature, 0.50m wide x 0.10m deep with shallow, bowl-shaped profile; cut by former evaluation trench; filled by 251; forms part of G283 .	Currently ascribed to mid-Roman	6
251		Fill	Mid-brownish-grey clayey silt with rare charcoal flecks, filling ditch section 250 . CBM recorded on site but apparently not retrieved.		6

Context	Phase	Type	Description	Finds/samples/dating	Zone
252	2	Cut	Section at W end (terminal or truncated continuation) of ditch G283 , showing a gradual and indistinct slope to W; filled by 253	Currently ascribed to mid-Roman	6
253		Fill	Mid-brownish-grey friable fine-sandy clayey silt with rare charcoal flecks, filling ditch section 252		6
254	3	Cut	Westernmost post-hole in S row of structure 292 : sub-circular with steep sides, 1.05m x 1.0m x 0.30m, filled by 255	Currently assigned to Saxon/early medieval period – the bone is believed to be intrusive	6
255		Fill	Dark greyish-brown silty clay with frequent charcoal flecks, containing frequent large stones – chiefly angular and platy, with some rounded river cobbles and one worked stone – as post-packing.	Worked stone (probable millstone fragment) SF 025, fragments of human skull, animal bone and shell.	6
256	3	Cut	3 rd post-hole from W in N row of structure 292: sub-circular with irregular edges and base due to impact from post-packing stones. Truncated at S edge by modern drain; 0.87m W x 0.29m D. Filled by 257.		6
257		Fill	Fill of post-hole 256 : mid-yellowish-brown silty clay with rare charcoal flecks, containing abundant medium and large sandstone fragments as post-packing. Disturbed by tree-roots and by post-packing stones being pressed into edges/base by the weight of the building.	Mid-2 nd -century pottery (1 sherd), 2 frags Roman brick, fragment of lead melt; sample <99>	6
258	7	Cut	W terminal or truncated end of shallow, E-W aligned linear feature at E edge of cemetery. 0.45m wide x 0.05m deep; exposed to a length of 1.2m during machining of Zone 3, but its eastward continuation could not be traced when Zone 5 was machined. Provisionally interpreted as a robbed-out wall.		3
259		Fill	Fill of partial feature 258 : brownish-black friable clayey sandy silt with occasional patches of lime mortar, charcoal frags and CBM flecks, and several large sub-angular and sub-rounded mudstone and limestone fragments loose in the fill.	2 frags Roman and 1 post-Roman brick; sample <84>	3
260	1	Cut	Section excavated at intersection of NNE-SSW aligned linear feature G287 with perpendicular linear feature G288 : filled by 261, cuts fill 263		5
261		Fill	Plastic dark grey clayey silt with moderate small stones and shell flecks and occasional charcoal frags (in discrete patches) and CBM frags, filling ditch section 260	Animal bone	5

Context	Phase	Type	Description	Finds/samples/dating	Zone
262	1	Cut	Additional section through short linear feature G288 , 0.73m W x 0.15m D, truncated by ditch section 260 (does not extend to W of it). Provisionally interpreted as a robbed-out wall.	Single sherd of Roman pottery given the context number of this cut: probably from fill 263, but may derive from fill 261. Tentatively dated by stratigraphic and spatial relationships.	5
263		Fill	Fill of section 262 : mixed grey and reddish-brown clayey sandy silt with moderate small stones and pebbles and occasional charcoal and CBM flecks. cut by ditch section 260	No finds recorded on context sheet	5
264	1	Cut	NNE-SSW aligned linear feature, repeatedly cut and truncated at both ends by school foundations; c. 4.5m long x 0.45m wide x 0.11m deep with shallow, bowl-shaped profile. Cuts layer 229; filled by 265; part of group 287 .		5
265		Fill	Plastic dark grey clayey silt with moderate small stones and charcoal flecks, filling ditch section 264	CBM recorded on context sheet but not processed; possible disarticulated human bone	5
266	?	Layer	Dark greyish-brown silty clay with occasional small/medium sub-rounded stones, overlying the fills of the post-holes making up structure 292 : remnant of a larger layer mostly removed by machining.	Late 2 nd -century or later pottery (6 sherds), Roman CBM; sample <89>	5
267	3	Cut	3 rd post-hole from W in S row of structure 292 : sub-rectangular with rounded corners, steep sides and flat base, 1.20m x 1.12m x 0.30m, filled by 268-9		6
268		Fill	Mid-brownish-grey friable gritty clayey silt with moderate small cobbles/large pebbles and rare charcoal flecks; contains frequent small/medium sandstone fragments as post-packing. Principal fill in post-hole 267 .	Sample <109>	6
269		Fill	Mid-brownish-grey fine-sandy clayey silt occupying an irregular space 0.65m x 0.46m x 0.22m at the centre of post-hole 267 , overlying fill 268: possibly represents a post-pipe.		6
270		Layer	Dark brown clayey silt overlying layer 229 and cut by pit 212 , possibly equivalent to layer 192.	Late 3 rd -century or later pottery (1 sherd), flake of Roman CBM	5
271	6	Cut	Truncated fragment of E edge of N-S aligned linear feature, directly to N of ditch group 038 and on the same alignment; filled by 272; possibly part of G038 separated by school construction.		3
272		Fill	Dark greyish-brown silty clay with occasional rounded stones, filling ditch fragment 271	Disarticulated human cranium; sample <85>	3
273	3	Cut	5 th post-hole from W in N row of structure 292 . Sub-circular, 1.05m x 0.95m x 0.33m, with steep sides and undulating base, filled by 274; cuts ditch fill 290.		6

Context	Phase	Type	Description	Finds/samples/dating	Zone
274		Fill	Mid-grey plastic silty clay filling post-hole 274 ; contains frequent medium sandstone fragments as post-pad or – packing material	1 frag Roman CBM ; sample <105>	6
275	3	Cut	4 th post-hole from W in N row of structure 292 . Circular, 0.90m diameter x 0.22m deep, filled by 276		6
276		Fill	Mid-yellowish-brown silty clay fill in post-hole 275: contains abundant medium/large sandstone fragments, chiefly at base and edges of feature, forming post-pad/packing.	Sample <106>	6
277	3	Cut	5 th post-hole from W in S row of structure 292 , sub-rectangular with steep sides and flat base, 1.25m x 0.90m x 0.43m, filled by 278; cuts ditch fill 318		6
278		Fill	Mid-brownish-grey fine-sandy clayey silt with rare charcoal flecks and large pebbles, filling post-hole 277; contains frequent small to medium sandstone frags as post-packing	1 frag Roman CBM; sample <112>	6
279	3	Cut	2 nd post-hole from W in S row of structure 292 , sub-circular with irregular sides and base, 0.93m diameter x 0.15m deep, filled by 280		6
280		Fill	Fill of post-hole 279 : dark grey sandy silt with frequent flecks of charcoal and/or manganese, containing frequent large angular stones and occasional large pebbles; some of these have been pushed through the edges of the feature.	Sample <110>	6
281	2	Group	NNE-SSW aligned linear feature, made up of cuts 204 and 533 , forming part of a complex of intercutting features. 281 is a recut of feature G543 , and is in turn recut by G548 . Either the original ditch or the recut is lost to S before reaching the quarry-pits at S boundary, in an area that has been extensively disturbed by school construction: the debatable S portion is recorded as G437 .	Reassigned to mid-Roman	5/6
282	2	Group	Roughly N-S aligned linear feature, consisting of cuts 208 , 230 and 239 , forming a right angle with and apparently contemporary with G283 , truncated to N by G543 .	Reassigned to mid-Roman	6
283	2	Group	Roughly E-W aligned linear feature, consisting of cuts 241 , 250 and 252 with a probable detached E part separately grouped as G430 , forming a right angle with and apparently contemporary with G282 . Relationship to G404/405 uncertain.	Reassigned to mid-Roman	6
284	6	Group	W recut of N-S aligned ditch G037 , consisting of cuts 186 and 199 ; no stratigraphic relationship with E recut 285 .	Medieval	3/5

Context	Phase	Type	Description	Finds/samples/dating	Zone
285	6	Group	E recut of N-S aligned ditch G037 , consisting of cuts 161 and 187 ; no stratigraphic relationship with W recut 284 . Terminates to N within excavated area, unlike G037 and G284 which are truncated by the school construction.	Medieval	3/5
286	2	Group	Fragment of linear feature consisting of cuts 216 , 218 and 222 , directly E of but with no stratigraphic relationship to G282 .	Mid-Roman	6
287	1	Group	NE-SSW aligned linear feature, much cut about by school foundations, consisting of cuts 260 and 264 , at right angles to and intersecting G288 ; possibly a continuation of G601 .	No dating evidence: tentatively assigned to early Roman on the grounds of its spatial and stratigraphic relationships	5
288	1	Group	WNW-ESE aligned linear feature, apparently a robbed-out wall, consisting of cuts 226 and 262 , at right angles to and intersecting G287 ; part of Structure 293	Dated by stratigraphic/spatial relationships.	5
289	2	Cut	Section through linear feature G394 in SE corner of site. 1.20m W x 0.37m deep with shallow, concave sides and flat base; filled by 290.		6
290		Fill	Fill of ditch section 289 : mid- to dark grey silty clay with occasional CBM frags and rare sandstone frags. Cut by postholes 273 and 277 .	1 frag Roman CBM	6
291	6	Group	Large pit consisting of cuts 159 and 182 , cutting E edge of medieval ditch recut G285 and W ends of several graves.	Medieval	3
292	3	Structure	Post-built structure in SE corner of site, made up of 16 post-holes in 2 rows of 8: 237 , 254 , 256 , 267 , 273 , 275 , 277 , 279 , 300 , 315 , 324 , 326 , 334 , 336 , 340 and 347 ; on same alignment as Roman stone building.	Assigned to the early medieval period on site, but the limited dating evidence proved to be chiefly Roman: reassigned to the late Roman period largely due to its spatial relationship with the Roman building.	6
293	1-2	Structure	Conjectural structure comprising linear feature fragments G286 , G287 , G288 and 214 and pit 212 . Possibly also includes G601 .	Early to mid-Roman	5
294	3	Cut	Section through feature G400 to E of terminal section 307 , section 0.70m wide x 0.15m deep with shallow, dish-shaped profile, filled by 295; cuts fills of possible quarry pit 296 at N edge.	Late Roman	5
295		Fill	Dark brownish-grey sandy clayey silt with frequent charcoal flecks, moderate small/medium sandstone frags and CBM frags and rare pebbles, filling ditch section 294 .	Late 3 rd -century or later pottery (6 sherds), Roman CBM and fired clay	5

Context	Phase	Type	Description	Finds/samples/dating	Zone
296	2	Cut	Large, amorphous feature at S edge of site, on N edge of larger feature 298 , and possibly truncated by it but stratigraphic relationship disturbed by a modern drain; N edge cut by ditch 294 . Approximately 12m x 2m in plan, excavated to 0.65m deep, filled by 297, 302 and 303. Part of group 401 .	Reassigned to mid-Roman	5
297		Fill	Basal fill in large feature 296 : mid-brownish-grey friable sandy clayey silt with rare charcoal flecks and moderate small/medium sandstone fragments (possible Roman masonry), 0.20m deep		5
298	2	Cut	N edge of very large feature – shape in plan unknown – at S site edge. Exposed to approx. 33m x 2m, excavated to 0.80m deep; appears to cut large feature 296 , but relationship disturbed by modern drain. Filled by 299 and 304. Provisionally interpreted as a quarry pit.	Reassigned to mid-Roman	5
299		Fill	Dark brownish-grey fine-sandy silt with rare charcoal flecks, forming the basal fill of very large feature 298 .	Roman pottery and CBM (1 sherd/2 frags)	5
300	3	Cut	6 th post-hole from W in S row of Structure 292 : sub-rectangular with irregular sides and base, 0.90m x 0.55m x 0.21m, filled by 301, cuts linear feature G395		6
301		Fill	Mid-brownish-grey sandy silt with frequent angular/platy and rounded medium to large stones, some pushed through the feature sides, filling post-hole 300	Sample <111>	6
302		Fill	Mid-brownish-grey clayey silt with moderate charcoal flecks, rare small/medium sandstone and mudstone frags and moderate CBM frags, filling feature 296 above fill 297	3 rd -century or later pottery (17 sherds), Roman CBM including roof and box tiles	5
303		Fill	Mid-orange-brown compact silty clay with rare charcoal flecks and small mudstone frags, closing feature 296 above fill 302		5
304		Fill	Mid-brownish-grey compact clayey silt with rare charcoal flecks, moderate small/medium sandstone and mudstone frags and moderate CBM frags, 0.60m deep, filling feature 298 above fill 299	Mid/late 3 rd -century or later pottery (6 sherds), Roman CBM including roof and box tiles	5
305	2	Cut	Sole section through ditch G395 ; 1.0m wide x 0.16m deep; filled by 306	Flakes of Roman CBM – from fill 306?	6
306		Fill	Dark brown clayey silt with occasional rounded stones, filling ditch section 305 , cut by post-hole 300	1 frag very abraded Roman CBM; sample <87>	6

Context	Phase	Type	Description	Finds/samples/dating	Zone
307	3	Cut	Section at W terminal of sinuous linear feature running approximately E-W near S edge of site, 0.70m wide x 0.11m deep; filled by 308; part of G400	Late Roman	5
308		Fill	Mid-brownish-grey friable fine-sandy clayey silt with moderate charcoal flecks and rare CBM flecks, filling ditch section 307 at terminal of feature G400	Late 3 rd -century or later pottery (3 sherds), fragment Roman CBM	5
309	2	Cut	Southernmost extent of ditch G437 , 0.60m wide x 0.05m deep, truncated to S by possible quarry pit 311 , filled by 310.	Reassigned to mid-Roman	5
310		Fill	Mid-brownish-grey friable fine-sandy clayey silt with rare charcoal and CBM flecks, filling ditch section 309 , cut by 311		5
311	2	Cut	Further section through possible quarry pit G401 at its intersection with ditch G437 ; filled by 312-4; cuts fill 310	Reassigned to mid-Roman	5
312		Fill	Primary fill in pit section 311 : mid-brownish-grey friable fine-sandy clayey silt with rare charcoal flecks and small mudstone/sandstone frags, 0.12m deep in excavated section	1 sherd Roman pottery; sample <88>	5
313		Fill	Mid-orange-brown compact silty clay with rare charcoal flecks and small mudstone frags, filling pit section 311 above fill 312; 0.25m deep		5
314		Fill	Mid-brownish-grey friable fine-sandy clayey silt with moderate charcoal flecks and CBM rubble, closing pit section 311 above fill 313, 0.26m deep	Roman brick and tile (4 frags), iron object, possibly a fragment of horseshoe	5
315	3	Cut	Easternmost post-hole in N row of structure 292 : sub-circular with moderate sides and flat base, 1.40m x 1.30m x 0.24m, filled by 316		6
316		Fill	Mid- to dark brownish-grey sandy clayey silt filling post-hole 315 ; contains frequent angular and platy stones in assorted sizes from small to large, with frequent pebbles.	Roman CBM (largely small frags/flakes); sample <113>	6
317	3?	Cut	Further section within NNE-SSW ditch G394 ; 1.40m wide x 0.27m deep, filled by 318		6
318		Fill	Mid-grey compact silty clay with occasional CBM frags and rare sandstone frags, filling ditch section 317	2 frags from the same Roman roof tile; sample <98>	6
319		Cut	Possibly void: no recording can be found for this supposed post-hole		
320		Fill	Fill of 319		
321		Finds	Finds retrieved while machining SE corner of Zone 6	4 th -century pottery (3 sherds)	6
322		Finds	Finds retrieved while machining N side of Zone 6	Late 2 nd to 3 rd and very late 4 th -century pottery (32 sherds), 1 sherd medieval pottery, Roman CBM	6

Context	Phase	Type	Description	Finds/samples/dating	Zone
323			Void		
324	3	Cut	7 th post-hole from W in N row of structure 292 – sub-oval, 1.45m x 1.06m x 0.26m with shallow sides and irregular base, filled by 325		6
325		Fill	Light to mid-grey silty sandy clay with frequent small pebbles, containing frequent angular and platy stones in assorted sizes from small to large as post-packing, filling post-hole 324	Flakes of Roman CBM; sample <114>	6
326	3	Cut	6 th post-hole from W in N row of structure 292 – sub-rectangular, 0.80m x 0.48m x 0.36m, containing fill 327; disturbed by modern drain		6
327		Fill	Mid-greyish-brown silty clay with abundant small/medium sub-rounded sandstone frags and manganese flecks, filling post-hole 326 ; contains a single re-used worked stone set in base as a post-pad	1 sherd mid-1 st -century or later pottery, worked stone SF 26; sample <91>	6
328		Cut	Large, isolated post-hole, sub-circular with irregular sides and base, 1.20m x 1.10m x 0.45m, filled by 329, cutting layer 338; slightly truncated to N and possibly also to S by modern drains; located within the angle of G282 and G283 . Resembles post-holes in structure 292 , but not in line with them.		5/6
329		Fill	Mid-grey silty clay with abundant limestone and sandstone fragments serving as post-packing, filling post-hole 328	Sample <116>	5/6
330		Cut	Shallow, sub-oval feature with diffuse edges and disturbed appearance, possibly of natural origin, immediately to W of double ditch G405 ; 1.0m ⁺ x 0.54m x 0.10m, truncated at S edge by feature 332 ; filled by 331		6
331		Fill	Mid-grey clayey silt filling dubious feature 330 ; cut by 332	1 frag Roman CBM	6
332		Cut	Shallow oval pit, aligned roughly N-S, 1.01m x 0.65m x 0.10m, filled by 333, cutting fill 331 – possibly also natural?		6
333		Fill	Mid- to dark grey clayey silt with some root disturbance, filling pit 332 ; similar to fill 331 in adjacent pit	Flakes of Roman CBM	6
334	3	Cut	Westernmost post-hole in N row of structure 292 , truncated by cut of modern drain; survives to 0.71m x 0.34m x 0.11m; filled by 335		6
335		Fill	Fill of post-hole 334 : mixture of light brown sandy clay with orange sand and greyish-white friable clayey silt, containing sub-angular limestone fragments	1 frag Roman CBM; sample <90>	6

Context	Phase	Type	Description	Finds/samples/dating	Zone
336	3	Cut	7 th post-hole from W in S row of structure 292 – sub-circular with steep sides and flat base, 1.0m x 0.95m x 0.22m, filled by 337 and 355; edges difficult to ascertain due to wet conditions and disturbance by modern drain		6
337		Fill	Whitish-yellow silty sand with frequent large angular/platy stones, filling post-hole 336		6
338		Layer	Light bluish-grey clayey silt, up to 0.10m deep, largely removed by machining, cut by post-hole 328 , possibly part of same layer as 192		5
339		Fill	Basal fill in post-hole 340 : mid-brown sandy silt with no inclusions of its own, but limestone fragments pressed in from fill 357 above; 0.11m deep	Sample <101>	6
340		Cut	Earlier of two intercutting post-holes occupying the easternmost position in the S row of Structure 292 ; sub-oval with almost vertical sides and flat base, survives to 0.68m x 0.67m x 0.41m, filled by 339 and 357-8, truncated by 341	Flakes of Roman CBM	6
341	3	Cut	Later of two intercutting post-holes occupying the easternmost position in the S row of Structure 292 ; sub-oval with steep sides and flat base, 1m x 0.77m x 0.31m, filled by 346 and 359, cuts fill 358		6
342	2	Cut	NNE-SSW linear feature, running full width of site: recut of parallel ditch G405 . This section 1.10m W x 0.25m D with shallow sides and flat base, filled by 343. Part of group 404 .		6
343		Fill	Fill of ditch section 342 : light grey plastic clayey silt with brown mottling, containing occasional CBM flecks and small sandstone frags, similar to fill 345 in ditch section 344 .	1 sherd Roman pottery, flakes of Roman CBM, animal bone	6
344	2	Cut	NNE-SSW linear feature, running full width of site; N end truncated on W side by parallel ditch G404 , but the ditches diverge slightly to S, so there is no intercutting between sections 342 and 344 . This section 0.95m W x 0.20m D with shallow sides and concave base, filled by 345; part of G405 .		6
345		Fill	Fill of ditch section 344 : light grey plastic clayey silt with brown mottling, containing occasional CBM flecks and rare small sandstone frags	1 sherd 2 nd -century or later pottery, fragment of Roman brick, flake of Roman tile	6
346		Fill	Basal fill in post-hole 341 : mixed orange- and greyish-brown friable sandy silt with occasional limestone fragments, chiefly towards N side	1 frag Roman CBM ; sample <103>	6

Context	Phase	Type	Description	Finds/samples/dating	Zone
347	3	Cut	4 th post-hole from W in S row of structure 292 : sub-circular with concave sides and irregular base, 0.96m x 0.87m x 0.32m; cuts layer 233, filled by 348 and 356		6
348		Fill	Basal fill in post-hole 348 : light yellow sandy silt with frequent large angular/platy stone frags and occasional pebbles, 0.18m deep		6
349	4	Cut	Grave within the Roman building, containing Sk 40 and fill 350; not fully recorded as work was halted in this area		5
350		Fill	Mid-greyish-brown silty clay with frequent CBM frags and rare charcoal flecks, filling grave 349 around Sk 40; cut by grave 351	Samples <92> to <94>	5
351	4	Cut	Grave within the Roman building, containing Sk 41 and fill 352, cutting grave fill 350; not fully recorded as work was halted in this area		5
352		Fill	Mid-greyish-brown silty clay with frequent CBM frags and rare charcoal flecks, filling grave 351 around Sk 40	Samples <95> to <97>	5
353		Layer	Heavily truncated remnant of a mid-grey clayey silt deposit with large limestone fragments, 0.80m x 0.60m x 0.10m, initially thought to be a post-hole but discovered on excavation to overlie the natural rather than to occupy a cut. Location uncertain: possibly at E end of Structure 292 , but context sheet allocates it to Zone 5.		6?
354			Void		
355		Fill	Mid- to dark grey clayey silt with frequent large angular/platy stones and occasional pebbles, 0.15m deep, filling post-hole 336 above fill 337	Sample <107>	6
356		Fill	Mid-grey sandy silt with frequent large angular/platy stones and occasional pebbles, 0.15m deep, filling post-hole 347 above fill 348	Sample <108>	6
357		Fill	Brownish-orange sand with large sub-rounded limestone frags, 0.13m deep, filling post-hole 340 above fill 339		6
358		Fill	Brownish-grey clayey silt with frequent large sub-rounded limestone frags, 0.22m deep, filling post-hole 340 above fill 357	Sample <102>	6
359		Fill	Brownish-grey clayey sandy silt with rare small to medium pebbles, 0.11m deep, filling post-hole 341 above fill 346	Roman CBM (10 frags) ; sample <104>	6

Context	Phase	Type	Description	Finds/samples/dating	Zone
360	7	Cut	Sub-circular post-hole or small pit, 0.54m diameter x 0.10m with steep, slightly concave NW side and shallow SE side, filled by 361. Between linear features G447 and G448 , directly E of similar post-hole or pit 406 .	Post-medieval	6
361		Fill	Dark grey silty clay with no inclusions filling pit/post-hole 360	Mid-17 th to 18 th -century pottery (1 frag), flake of Roman CBM; sample <115>	6
362	6	Cut	Further section through ditch G548 , directly to SSW of section 202 on other side of school footings. This section 0.45m W x 0.18m D, filled by 363, cuts W edge of ditch section 364 ; reassigned in post-ex from G281 .	Reassigned to medieval	5
363		Fill	Mid-brownish-grey fine-sandy clayey silt with rare charcoal flecks and small mudstone frags, filling ditch section 362		5
364	2	Cut	Further section through ditch G437 , directly to SSW of section 204 on other side of school footings. This section 0.57m W x 0.17m D, filled by 365, W edge truncated by ditch section 362 .	Reassigned to mid-Roman	5
365		Fill	Mid-brownish-grey fine-sandy clayey silt with rare charcoal flecks and small/medium mudstone frags, filling ditch section 364 , cut by 362	Roman CBM (7 frags, most very abraded) with 1 frag that may be from a vessel in tile fabric; sample <121>	5
366	7	Group	N-S linear feature near E site edge, apparently terminating at S edge of G447 , 8.70m L x 0.40m W x 0.15m D with vertical sides and flat base, containing timber structure 380 and fill 367; incorporates sections 382 , 384 and 386 .	Dated to post-medieval by radiocarbon date on timber	6
367		Fill	Mid-brownish-grey fine-sandy clayey silt with rare charcoal flecks, filling drain 366 around timber structure 368	Sample <120>	6
368		Wood	Horizontal timber consisting of birch trunks and branches, laid side by side and end to end in drain 366 ; some timbers individually numbered as 396-9 for sampling purposes.		6
369	7	Cut	Roughly ESE-WNW aligned linear feature extending beyond E site edge, 5.5m L x 0.30m W x 0.12m D, containing timber structure 371 and fill 370; probably associated with G380 .	Dated to post-medieval by analogy with G366	6
370		Fill	Mid- to dark brown friable to loose organic clayey silt surrounding timber 371 in drain 369	Bone; sample <123>	6
371		Wood	Horizontal timbers – branches or thin trunks of oak below, with brushwood above – laid in drain 369 . No visible tool marks, but ends of branches had clearly been cut and not broken.		6
372		Wood	Vertical, square-sectioned wooden stake forming part of structure 380		6

Context	Phase	Type	Description	Finds/samples/dating	Zone
373		Wood	Vertical, square-sectioned wooden stake forming part of structure 380		6
374		Wood	Vertical, square-sectioned wooden stake forming part of structure 380		6
375		Wood	Vertical, square-sectioned wooden stake forming part of structure 380		6
376		Wood	Vertical, square-sectioned wooden stake forming part of structure 380		6
377		Wood	Vertical, square-sectioned wooden stake forming part of structure 380		6
378		Wood	Vertical, square-sectioned wooden stake forming part of structure 380		6
379		Wood	Vertical, square-sectioned wooden stake forming part of structure 380		6
380		Structure	Waterlogged wooden structure in drain 366 , consisting of horizontal timbers 368 in S part of drain, with vertical stakes 372-379 driven in 4 pairs at sides of N part – no overlap between the two parts of the structure.		6
381		Layer	Clay layer below 001 – no context sheet – seals late Roman features 406 and 408		6
382	7	Cut	Additional section through drain G366 , 0.20m wide x 0.12m deep with vertical sides and flat base, cutting layer 403, filled by structure 380 and fill 383, disturbed by modern drain	Dated to post-medieval by radiocarbon date on timber	6
383		Fill	Mid-brownish-grey friable fine-sandy silt with rare charcoal flecks, filling section 382 through drain G366 .		6
384	7	Cut	Additional section through drain G366 , 0.40m W x 0.15m D with vertical sides and flat base, cutting layer 403, filled by structure 380 and fill 385	Dated to post-medieval by radiocarbon date on timber	6
385		Fill	Mid-brownish-grey friable fine-sandy silt with rare charcoal flecks, filling section 384 through drain G366 .		6
386	7	Cut	Additional section through drain G366 , 0.30m W x 0.12m D with vertical sides and flat base, cutting layer 403, filled by structure 380 and fill 387	Dated to post-medieval by radiocarbon date on timber	6
387		Fill	Mid-brownish-grey friable fine-sandy silt with rare charcoal flecks, filling section 386 through drain G366 .	Sample <120>	6
388		Fill	Dark brown silty clay with occasional charcoal fragments, surrounding rubble dump 390 in linear feature 423	Late 2 nd -century pottery (31 sherds), 36 frags Roman brick and roof tile	6

Context	Phase	Type	Description	Finds/samples/dating	Zone
389		Structure	Mass of rubble, chiefly limestone with some sandstone and mudstone, consisting of unworked fragments 10mm-300mm, within fill 549 in section 392 through drain G446 and extending into fill 488 in section 487		6
390		Structure	Mass of rubble, chiefly limestone with some sandstone and mudstone, consisting of unworked fragments 10mm-300mm, within fill 388 in linear feature 423 : possibly demolition material from Structure 693.		6
391	7-Mod	Layer	Spread of dark brown silty clay, containing post-medieval to modern refuse but no other inclusions, 0.05m deep, overlying all features at the junction of ditches G453 , G446 and G449	Mid-19 th -century pottery (4 sherds), late 3 rd to 4 th -century pottery (4 sherds), post-Roman to post-medieval and industrial CBM (18 frags), fragment of probable iron nail	6
392	3	Cut	WNW-ESE aligned linear feature, 30 ⁺ m long x 1.07m wide x 0.46m deep, with steep concave sides and flat base, cuts pit fill 551, filled by 389, 393 and 549, part of group 446		6
393		Fill	Dark brownish-grey silty clay with occasional angular and sub-rounded stone fragments, forming the basal fill in ditch section 392 ; distinguished with difficulty from overlying fill 549	Mid-3 rd -century or later pottery (13 sherds), 70 frags Roman CBM (chiefly roof tile, ranging from large pieces to flakes, but most very abraded), ceramic/glass object SF 28	6
394	2	Group	Linear feature running roughly NNE from S edge of site, adjacent and parallel to G395 , comprising cuts 289 and 317 ; cut by two post-holes of Structure 292 . Length uncertain: c. 16m identified, but may run all the way to G448 beyond a heavily disturbed area through which it could not be traced.	Contained little dating evidence: currently dated as mid-Roman by analogy with other features on the site and its stratigraphic relationship with Structure 292.	6
395	2	Group	NNE-SSW ditch at S site edge, running parallel to G394 ; c. 13m long x 1.00m wide x 0.16m deep; sole cut no. 305 ; cut by two post-holes of Structure 292 .	Contained little dating evidence: currently dated as mid-Roman by analogy with other features on the site and its stratigraphic relationship with Structure 292.	6
396		Wood	Part of an oak tree trunk, 4.05m length x 0.12m diameter with possibly sawn end, horizontally positioned in section 386 , forming part of structure 380		6
397		Wood	Part of an oak sapling trunk, 2.20m length x 0.10m diameter with possibly sawn end, some bark present, horizontally positioned in section 386 , forming part of structure 380	Radiocarbon-dated to late 18 th to mid-20 th century	6
398		Wood	Part of an oak branch, 0.80 length x 0.07m diameter with no visible working, horizontally positioned in section 386 , forming part of structure 380		6
399		Wood	Part of a tree branch of fruitwood type, 0.45 length x 0.06m x 0.04m with no visible working, horizontally positioned in section 386 , forming part of structure 380		6

Context	Phase	Type	Description	Finds/samples/dating	Zone
400	3	Group	Fragment of curvilinear feature, roughly E-W aligned, near S side of site, consisting of sections 294 and 307 . Cuts possible quarry pit G401 ; no evident spatial relationships.		6
401	3	Group	Large feature on S edge of site, cut by linear feature G400 and larger feature G402 ; consists of sections 296 and 311 . Possible quarry pit.		5/6
402	3	Group	Very large feature – possible quarry pit – on S edge of site, cutting G401 ; consists of section 298 only.		5/6
403		Layer	Mid-brownish-grey clayey silt with rare small to medium quartz pebbles and limestone fragments and abundant snail shells, overlying natural to a depth of 0.20m on E side of site; cut by wood-filled drains G366 and 369 .	3 rd -century or later pottery (1 sherd), flakes of Roman CBM; sample <124>	6
404	2	Group	Western ditch of a pair of NNE-SSW aligned ditches, cutting the W edges of ditches G405 and G453 , and so probably representing a recut. Cut by perpendicular later ditches G446/449 and G448 , and by later ditch G447 . Includes sections 342 , 423 , 425 , 433 , 444 and 575 .	Roman pottery (4 sherds) and CBM (3 frags, very abraded) assigned to the group number. Initially phased as mid-Roman, but a very large assemblage of early Roman sherds from a section at the north end may require re-phasing.	6
405	2	Group	Eastern ditch of a NNE-SSW aligned pair, truncated to W by ditch G404 ; consists of sections 344 , 442 and 514 . Uncertain whether it continued to NNE beyond the point where perpendicular later ditches G446/449 cut across it, or whether its apparent NNE extension was in fact a different feature, so this section of ditch is separately numbered G453 .	Initially phased as mid-Roman, but stratigraphic relationship with 404 will require it to be re-phased if 404 is.	6
406	3	Cut	Small sub-oval pit, 0.80m x 0.58m x 0.13m, with irregular profile, between linear features G447 and G448 , cutting the N edge of section 408 in G448 ; filled by 407	Stratigraphically assigned to the late Roman phase	6
407		Fill	Dark grey sandy clay containing a single mudstone fragment, filling pit 406	Small frags/flakes Roman CBM; sample <125>	6
408	3	Cut	WNW-ESE linear feature, c. 1.3m wide x 0.12m deep, with very irregular sides and base, filled by 409, part of group 448		6
409		Fill	Dark grey silty clay with no inclusions, filling ditch section 408	Roman pottery (1 sherd), flakes of Roman CBM	6
410	7	Cut	E-W running linear feature, 0.85m wide x 0.24m deep, with shallow, convex N side and rounded base, truncated on S side by recut 412 , containing fill 411; part of group 447	Dated to post-medieval by analogy with G452.	6
411		Fill	Mid-greyish-brown clayey silt with abundant snail shells and rare small stones, filling ditch section 410 ; cut by 412	Sample <127>	6

Context	Phase	Type	Description	Finds/samples/dating	Zone
412	6	Cut	E-W linear feature, cutting (probably recutting) parallel feature 410 , 0.58m wide x 0.21m deep with steep sides and bowl-shaped profile, containing fills 413 and 438 and timber 414; part of group 452		6
413		Fill	Dark reddish-brown silt surrounding timber 414 in ditch section 412	1 sherd late 3 rd -century or later pottery	6
414		Wood	Lengths of roundwood including willow/poplar and fruitwood, laid along the length of E-W ditch section 412		6
415	3	Cut	Roughly E-W running linear feature at E site edge, 0.70m wide x 0.25m deep with shallow, bowl-shaped profile and almost flat base, filled by 416; part of G430 ; probably associated with group 283 .		6
416		Fill	Mid-brownish-grey friable fine-sandy clayey silt with rare charcoal flecks and small to medium stone fragments, filling ditch section 415	AD 50-110 pottery (2 sherds), 1 frag very abraded Roman brick	6
417	3	Cut	Roughly E-W running linear feature at E site edge, 0.80m wide x 0.20m deep with shallow, bowl-shaped profile and almost flat base, filled by 418; part of G430 ; probably associated with group 283 .		6
418		Fill	Mid-brownish-grey friable fine-sandy clayey silt with rare charcoal flecks and small to medium stone fragments, filling ditch section 417	Flakes of Roman CBM	6
419	2	Cut	Section through NNE-SSW aligned linear feature: 1.58m wide x 0.37m deep, filled by 420 and 421. Excavation work so hampered by flooding that no relationships were clear, but this section is probably part of ditch group 404 , closely associated with section 342 .	Mid-Roman	6
420		Fill	Primary fill in ditch section 419 : light grey silty clay with no inclusions	Mid- to late 2 nd -century pottery (17 sherds), 3 frags Roman CBM	6
421		Fill	Upper fill in ditch section 419 , above fill 420: dark brownish-grey silty clay with occasional charcoal fragments and small to medium rounded and angular stones	Late 2 nd -century or later pottery (33 sherds), Roman CBM, chiefly roof tile (23 frags)	6
422	2	Cut	Section through NNE-SSW aligned linear feature G453 , to N of and probably part of G405 . Heavily disturbed by the cut of a modern drain; excavation had to be abandoned due to flooding. Filled by 424.		6

Context	Phase	Type	Description	Finds/samples/dating	Zone
423	2	Cut	Additional section through ditch group 404 , to N of its intersection with G446/449 ; c. 2.0m wide x 0.55m deep with irregular sides and concave base. Filled by rubble dump 390 and fill 388.	Late 2 nd -century pottery (5 sherds), flakes of Roman CBM: assigned to context no. 423, but should probably actually belong to fill 424.	6
424		Fill	Light brownish-grey silty clay with no inclusions, filling ditch section 422 . Heavily disturbed by modern intrusion.	Finds are recorded on the context sheet, but none were received with this number: they were probably erroneously labelled 423.	6
425	2	Cut	Section through ditch group 404 at its intersection with section 427 in ditch group 447 . Filled by 426; cut by 427 .		6
426		Fill	Very dark greyish-brown clayey silt with occasional small to medium limestone fragments and rare pebbles, filling ditch section 425 ; cut by 427 .	Mid- 2 nd to mid-3 rd -century pottery (3 sherds), 9 frags Roman CBM	6
427	7	Cut	Additional section through ditch G447 at its intersection with ditch group 404 . Filled by 428; cuts section 425 .	Dated to post-medieval by analogy with G452.	6
428		Fill	Mid- to dark greyish-brown clayey silt with occasional small pebbles and limestone fragments, filling ditch section 427.	Roman pottery (4 sherds), small frags/flakes Roman CBM	6
429		Finds	Metal-detector finds from E end of Zone 6		6
430	3	Group	Detached eastern section of E-W aligned linear feature G283 , consisting of cuts 415 , 417 and 431 ; relationship destroyed by flooding and tree growth.	Dated by analogy with G283	6
431	3	Cut	Additional section towards E extent of E-W aligned linear feature G430 ; 0.80m wide x 0.20m deep with moderate sides and concave base, filled by 432		6
432		Fill	Mid-brownish-grey fine-sandy clayey silt with rare charcoal flecks, CBM flecks/frags and small to medium mudstone frags, filling ditch section 431 .	Roman pottery (1 sherd), small frags/flakes Roman CBM	6
433	2	Cut	Section through ditch G404 at its intersection with ditch G448 ; excavated portion displays moderate side and flat base. Filled by 434; cut by 435 ?		6
434		Fill	Very dark greyish-brown clayey silt with occasional small/medium limestone frags and rare pebbles, filling ditch section 433 . Recorded as being cut by section 435 .	Mid-2 nd -century or later pottery (2 sherds), small frags/flakes Roman CBM	6
435	3	Cut	Section through ditch G448 at its intersection with ditch G404 ; excavated portion displays concave side and flat base. Filled by 436; cuts 434?		6

Context	Phase	Type	Description	Finds/samples/dating	Zone
436		Fill	Dark greyish-brown slightly sandy clayey silt with rare pebbles, filling ditch section 435 ; similar to fill 434 in section 433 .	Roman pottery (1 sherd), 1 small frag Roman CBM	6
437	2	Group	NNE-SSW aligned linear feature towards centre of S edge of site, consisting of cuts 234 , 309 and 364 ; severed part of either G543 or G281 . Heavily disturbed by school foundations.	Reassigned to mid-Roman	5/6
438		Fill	Mid-greyish-brown clayey silt with occasional small sub-rounded stones, overlying fill 414 in section 412 ; 0.58m wide x 0.80m deep; does not extend across the whole of the excavated section.		6
439		Group	Group number now subsumed into G448		6
440	3	Cut	WNW-ESE aligned linear feature, 1.10m wide x 0.40m deep, shallower at N side than at S; no stratigraphic relationships recorded for this section; filled by 441; part of ditch or robber trench group 446 .		6
441		Fill	Mid-greyish-brown silty clay with CBM and charcoal flecks, filling ditch section 440	Roman pottery (1 sherd), frags/flakes Roman CBM, most very abraded; sample <126>	6
442	2	Cut	Section through ditch group 405 ; W side and base cut away by section 444 through ditch group 404 ; surviving portion 0.98m wide x 0.31m deep with shallow, irregular side; filled by 443.		6
443		Fill	Mid-grey silt with paler patches, friable to loose, containing occasional small sub-rounded stones, filling ditch section 442 , cut by 444 .	Roman pottery (4 sherds), frags/flakes Roman CBM, most very abraded	6
444	2	Cut	Section through ditch group 404 at its junction with possible structure G669 ; 0.96m wide x 0.32m deep with very steep sides and almost level base, filled by 445. Truncates W side of section 442 through G405 ; relationship with G669 could not be ascertained as this feature was too shallow to be traced.		6
445		Fill	Dark brown sandy clayey silt with occasional small to medium limestone frags, filling ditch section 444 .	3 rd -century or later pottery (4 sherds), Roman CBM (4 frags + flakes)	6
446	3	Group	ESE-WNW linear feature, the more northerly and earlier of two parallel, partially intercutting linear features towards N side of site, exposed to a length of c. 30m and consisting of cuts 392 , 440 and 487 . Recorded as cutting perpendicular ditch groups 404 and 405/453 , as well as possibly parallel linear feature 489 .	Provisionally dated as late Roman.	5/6

Context	Phase	Type	Description	Finds/samples/dating	Zone
447	7	Group	More northerly and earlier of two parallel, intercutting linear features running roughly E-W across Zone 6; consists of cuts 410 and 427 ; cut away on S side by G452 . Alignment does not conform to any of the other major ditches in Zone 6.	Dated to post-medieval by analogy with G452.	6
448	3	Group	ESE-WNW aligned linear feature, consisting of cuts 408 , 435 , 478 , 523 and 525 ; almost perpendicular to and recorded as cutting ditches G404 and G405/453 . Directly S of G447 , but on a diverging alignment. Relationship with G394 not ascertained.	Provisionally dated as late Roman.	6
449	3	Group	More southerly and later of two parallel, partially intercutting linear features running ESE-WNW; consists of cuts 450 and 485 ; cuts ditch group G446 . Unlike G446 , this feature does not extend to W of G404 and G405 .	Provisionally dated as late Roman.	6
450	3	Cut	ESE-WNW aligned linear feature, 1.30m wide x 0.43m deep with moderate sides and flat base; filled by 451; part of ditch group 449 .		6
451		Fill	Mid-greyish-brown silty clay containing CBM rubble, filling section 450	Roman pottery (2 sherds), small frags/flakes Roman CBM; sample <128>	6
452	7	Group	More southerly and later of two parallel, intercutting linear features running roughly E-W across Zone 6; consists of cuts 412 and 519 ; fills contain timber, possibly to improve drainage. Probably associated with smaller linear features G366 and 369 .	Post-medieval by association with carbon-dated wood in G366	6
453	2	Group	Possible northern extension of ditch group 405 , separated from it by the cuts of G446 and G449 ; includes sections 422 , 491 and 577 .	Mid-Roman – possibly later than the rest of G405	6
454	4	Cut	Shallow, sub-circular post-hole with stepped base, 0.58m x 0.56m x 0.07m, directly to N of possible beam slot G669 ; filled by 455; intercuts post-hole 511 , but no relationship could be ascertained. Same as 509 .		6
455		Fill	Fill of post-hole 454 : greyish-brown clayey silt with occasional small limestone frags, including 3 large limestone frags at the base which may have represented a post-pad.	1 frag Roman CBM	6
456	4	Cut	Narrow linear feature, 0.24m wide x 0.06m deep, W of and running perpendicular to ditch 404 ; filled by 457; cut at N edge by post-hole 458. Possible beam slot; part of group 669 .		6

Context	Phase	Type	Description	Finds/samples/dating	Zone
457		Fill	Light greyish-brown friable to loose clayey silt with occasional CBM and charcoal flecks, filling possible beam slot 456		6
458	4	Cut	Shallow, circular feature, 0.41m x 0.39m x 0.08m with bowl-shaped profile, probable base of post-hole, filled by 459, cutting edge of beam slot 456		6
459		Fill	Mid-greyish-brown friable to loose clayey silt with occasional CBM and charcoal flecks, filling possible post-hole 458		6
460	4	Cut	Short length of narrow linear feature, 1.0m x 0.30m x 0.15m, oriented c. ENE-WSW, rounded terminal to WSW, connects to beam slot G669 at ENE (see 474), filled by 461		6
461		Fill	Mottled brown/grey silty clay with no inclusions, filling section 460		6
462	4	Cut	Sub-circular pit, 1.22m x 1.07m x 0.25m, associated with G926 and possibly forming part of a structure, filled by 463; large stones in fill suggest this was a post-hole.	Relationship with G926 could not be ascertained due to ground conditions: may be contemporary with stratigraphically earlier pit 592 directly to S.	6
463		Fill	Dark greyish-brown sandy silty clay with occasional charcoal and fired clay frags and occasional large limestone frags, filling post-hole 462	8 frags Roman CBM	6
464	2	Cut	Sub-circular feature, 1.20m x 1.10m x 0.30m, to W of N end of ditch group 404 : very irregular sides and base suggest a tree-pit. Filled by 465.		6
465		Fill	Light brownish-grey silty clay fill in pit 464 . Feature interpreted on site as the result of tree rooting, but the quantity of finds recovered may indicate that this was a real feature disturbed by later root growth.	2 nd -century or later pottery (6 sherds), 3 frags Roman CBM, burnt bone	6
466	7	Cut	Sub-circular pit with very steep sides and flat base, 0.70m x 0.60m x 0.45m, directly to N of doubtful feature 464 , filled by 467		6
467		Fill	Blackish-brown organic silty fill in pit 466 , containing whole and broken bricks and occasional charcoal fragments	18 th to 20th-century CBM (13 frags), iron nail	6
468	4	Cut	Section through possible beam slot G669 at its intersection with section 470 in group 670 : failed to establish a relationship, and the two features were interpreted as being contemporary. Filled by 469.		6
469		Fill	Dark greyish-brown clayey silt with occasional CBM flecks, filling section 468		6

Context	Phase	Type	Description	Finds/samples/dating	Zone
470	4	Cut	Section through possible beam slot G670 at its intersection with section 468 in group 669 : failed to establish a relationship, and the two features were interpreted as being contemporary. Filled by 471.		6
471		Fill	Dark greyish-brown clayey silt with occasional CBM flecks, filling section 470	Flakes of Roman CBM	6
472	4	Cut	Section through possible beam slot G669 at its intersection with short linear feature 460/474 : failed to establish a relationship, and the two features were interpreted as being contemporary. Filled by 473.		6
473		Fill	Dark greyish-brown loose silty clay with occasional small limestone frags, filling section 472		6
474	4	Cut	Additional section through short linear feature 460 at its intersection with section 472 in possible beam slot G669 : failed to establish a relationship, and the two features were interpreted as being contemporary. Filled by 475.		6
475		Fill	Dark greyish-brown clayey silt fill in section 474	1 frag Roman CBM (burnt)	6
476	4	Cut	Section through possible beam slot G670 at the point where it is truncated by section 478 in ditch G448 ; filled by 477		6
477		Fill	Dark greyish-brown loose clayey silt fill in section 476	Flake of Roman CBM	6
478	3	Cut	Additional section through E-W aligned ditch G448 at the point where it truncates possible beam slot G670 ; filled by 479		6
479		Fill	Dark greyish-brown friable to loose clayey silt fill in section 478	Flake of Roman CBM	6
480	2-3	Cut	Probably sub-circular pit or large post-hole, 1.5m wide x 0.28m deep with shallow, bowl-shaped profile, filled by 481; all but S side truncated by ditch cut 483 . Cuts fill 515 in ditch section 514 (G405) . The section is located on the main plan, but the feature itself does not appear.		6
481		Fill	Fill of possible post-hole 480 : mid-brownish-grey silty clay with frequent large stones that may represent post-packing. Cut by ditch section 483 .	Roman pottery (5 sherds), Roman CBM (2 frags)	6
482		Fill	Lower fill in ditch section 483 : whitish-grey silty clay with occasional angular stone fragments. Seen in E-facing section only.	4 th -century pottery (10 sherds), Roman CBM (8 frags)	6

Context	Phase	Type	Description	Finds/samples/dating	Zone
483	3	Cut	Roughly E-W running linear feature, apparently the earliest phase (or a precursor) of ditch group 449 . Present only at W end of group, otherwise entirely cut away by later recuts; survives to 1.42m wide x 0.34m deep. Probably not on quite the same alignment as the later ditches. Filled by 482 and 484.		6
484		Fill	Mid-grey silty sand upper fill in ditch section 483 , above fill 482; cut by 485 .		6
485	3	Cut	ESE-WNW aligned linear feature, truncating ditch 483 and truncated in its turn by 487 ; survives to 0.74m wide x 0.40m deep, with moderate to steep sides (profile dissimilar in opposing sides of section). Filled by 486; forms part of G449 .		6
486		Fill	Dark grey silty clay with frequent platy angular stones, filling ditch section 485	AD 120-160 pottery (2 sherds, probably redeposited), frag Roman CBM	6
487	3	Cut	ESE-WNW aligned linear feature, truncating ditches 485 and 489 . Exposed to a length of c. 30m; this section 0.90m wide x 0.37m deep with almost vertical sides and a concave break of slope to a flat base. Filled by 488; part of group 446. May have been the foundation trench of a boundary wall.		6
488		Fill	Blackish-grey silty clay with frequent angular and sub-angular stones, provisionally interpreted as the back-fill of a robbed-out wall in association with section 392.	Very late 4 th -century pottery (12 sherds), small frags/flakes Roman CBM, fired clay tessera, bone	6
489	2-3	Cut	Short length of NE-SW aligned linear feature, truncated and largely obliterated by ditch/foundation trench 487 , seen only at the intersection of ditch groups 446 and 453 . Survives to c. 1m wide and 0.56m deep, with bowl-shaped profile and concave base; filled by 489; cuts fill 492 in ditch section 491 .		6
490		Fill	Whitish-grey silty clay with occasional angular stones, filling ditch fragment 489 , cut by 487		6
491	2	Cut	N-S aligned linear feature, exposed to a length of c. 10m, very heavily truncated by later features; survives to c. 1.0m wide x 0.43m deep, with moderate to shallow sides and relatively flat base; filled by 492; part of ditch group 453 .		6
492		Fill	Whitish-grey silty clay with occasional small to medium sub-rounded stones, filling ditch section 491; cut by 485 and 489 .		6

Context	Phase	Type	Description	Finds/samples/dating	Zone
493	4	Cut	Additional section through N-S aligned beam slot G670 : 0.28m wide x 0.06m deep, with shallow, bowl-shaped profile; filled by 494		6
494		Fill	Dark greyish-brown clayey silt with occasional small limestone fragments, filling section 493		6
495	1	Cut	Relatively small, sub-circular post-hole/pit in the middle of post-hole/pit alignment G501 , 0.65m diameter x 0.25m deep with steep sides and flat base, filled by 496		6
496		Fill	Fill of post-hole 495 : mid-grey shelly silt with moderate stone inclusions that may represent post-packing	Undateable CBM; sample <129>	6
497	1	Cut	Small, circular feature, 0.16m diameter x 0.15m deep, possible stake-hole, at S end of possible beam-slot 499 , directly adjoining but not intercutting post-hole 495 ; part of G501 ; filled by 498.		6
498		Fill	Mid-grey shelly silt with some brown mineral staining, filling possible stakehole 497 .		6
499	1	Cut	Small, narrow linear feature, 0.50m x 0.20m x 0.10m with steep sides and concave base, running N-S, truncated at N end by pit 507 ; terminal to S occupied by stakehole 497 . Filled by 500. Possible beam slot remnant; forms part of group 501 .		6
500		Fill	Mid-grey silt with white patches, filling possible beam slot 499 ; cut by pit 507		6
501	1	Group	NNE-SSW aligned double row of pits, post-holes, stake-holes and a possible beam slot at N side of site, between two sets of Roman ditches and running parallel with them. Consists of cuts 495 , 497 , 499 , 504 , 516 , 552 , 556 , 610 , 614 and 665 . G501 is the earlier phase of this feature alignment: features which form part of it but cut the G501 features have been assigned to G506 .	Early Roman	6
502	1	Cut	Sub-oval pit or large post-hole, 1.10m x 0.75m x 0.20m, aligned N-S. Filled by 503, part of group 506 , cuts adjacent feature 504 .		6
503		Fill	Dark grey silty clay with occasional CBM frags and rare stones and pebbles, filling post-hole 502		6
504	1	Cut	Sub-square pit or large post-hole, 1.50m x 1.30m x 0.36m with vertical sides and sloping base, cut at S edge by post-hole 502 , filled by 505, forming part of group 501		6

Context	Phase	Type	Description	Finds/samples/dating	Zone
505		Fill	Mid-grey clayey silt with white silt patches (redeposited natural?), containing moderate CBM frags and occasional charcoal flecks and small stones, filling pit or post-hole 504 ; cut by 502		6
506	1	Group	NNE-SSW aligned double row of pits and/or possible post-holes at N side of site, between two sets of Roman ditches and running parallel with them. Consists of cuts 502 , 507 , 550 , 612 and 616 – stratigraphically later than the features making up G501 , but apparently part of the same structure.	Mid-Roman	6
507	1	Cut	Rectangular pit with right-angled corners and very steep sides, 1.20m x 1.10m x 0.35m. Part of group 506 ; filled by 508; cuts beam slot fill 500 in group 501 .		6
508		Fill	Fill of pit 507 : mid-grey clayey silt with whitish patches (redeposited natural); soft and plastic; contains moderate charcoal flecks and CBM frags, and several large limestone fragments, chiefly in centre of feature.	1 sherd Roman pottery	6
509	4	Cut	Additional section through post-hole 454 , attempting (in vain) to ascertain its relationship with adjacent post-hole 511 . Filled by 510.		6
510		Fill	Fill of section 509 : same as 455.		6
511	4	Cut	Sub-circular post-hole, diameter approx. 0.30m x 0.13m deep, intersecting post-hole 454/509 but relationship could not be ascertained; filled by 512.		6
512		Fill	Fill of post-hole 511 : greyish-brown clayey silt, indistinguishable from fill 455/510, with rare limestone flecks.		6
513	3	Layer	Spread of CBM rubble in a matrix of greyish-brown silty clay, with charcoal flecks and occasional pebbles. Covers an area of at least 3.5m x 2.3m, and also fills feature 518 .	Late 4 th -century pottery (61 sherds), CBM (54 frags and abraded flakes), stone tessera, iron nail SF 27; sample <130>	6
514	2	Cut	Section through N-S aligned linear feature group 405 at its intersection with later pit 480 ; feature extends a short distance beyond 480 before being truncated by ditch groups 446 and 449 .		6
515		Fill	Mid- to dark greyish-brown silty clay with frequent charcoal flecks, filling ditch section 514 ; cut by pit 480 .	1 fragment animal bone	6
516	1	Cut	Small, sub-circular feature, 0.26m x 0.22m x 0.11m, filled by 517, adjacent to but with no relationship to large pit 507 . Possible post-hole base; part of group 501 .		6

Context	Phase	Type	Description	Finds/samples/dating	Zone
517		Fill	Mid-grey plastic clayey silt fill in possible post-hole 516		6
518	3	Cut	E-W aligned linear feature, seen only in section in a sondage through layer 513, which also forms its fill. 0.97m wide x 0.22m deep, with moderate sides and flat base.		6
519	7	Cut	Section through E-W running ditch recut G452 at its intersection with pit remnant 521 , which it truncates. Filled by 520.		6
520		Fill	Dark brown clayey silt with occasional charcoal flecks and small sub-round stones, filling ditch section 519 .	2 nd -century pottery (4 sherds)	6
521	3?	Cut	Fragment of probable small pit with steep side and flat base, cutting N side of ditch G448 and cut on its own N side by ditch recut G452 ; survives to a width of 0.50m and a depth of 0.22m; filled by 522. No demonstrable relationship with feature complex to S of G448 .		6
522		Fill	Greyish-brown clayey silt fill in pit remnant 521	Flakes of Roman CBM	6
523	3	Cut	Section through E-W ditch G448 at its intersection with pit remnant 521 , which cuts 523 ; filled by 524.		6
524		Fill	Mid- to dark greyish-brown clayey silt with rare charcoal flecks, filling ditch section 523 .		6
525	3	Cut	Section through E-W aligned ditch G448 at its intersection with feature 527 , which 525 cuts		6
526		Fill	Mid- to dark greyish-brown clayey silt with rare charcoal flecks, filling ditch section 525		6
527	4	Cut	Section through N-S linear feature 640 at its intersection with later ditch 525 . Filled by 528 (though a find has been assigned to the cut number); part of group 671 .		6
528		Fill	Mixture of mid-brown clayey silt and whitish redeposited natural filling gully section 527 .		6
529	4	Cut	Section through N-S linear feature 640 at its intersection with perpendicular gully 531 . Filled by 530; cut by 531 ; part of G671 .		6
530		Fill	Mixture of mid-brown clayey silt and whitish redeposited natural filling gully section 529		6

Context	Phase	Type	Description	Finds/samples/dating	Zone
531	4	Cut	Narrow WNW-ESE aligned linear feature, possible beam slot, terminating to WNW, cutting perpendicular gully remnant G671 . Sections through this feature comprise group 669 ; appears to be contemporary with 460 and G670 . Relationship with ditch G404 to ESE never ascertained.		6
532		Fill	Mid- to dark greyish-brown clayey silt filling possible beam slot 531 .		6
533	2	Cut	Section through NNE-SSW aligned linear feature G281 near its N end. Relationships were not wholly clear, but 533 appears to recut 537 and to be recut by 535 . This section survives to 0.75m wide x 0.40m deep, with steep side and flat base; filled by 534.	Reassigned to mid-Roman	6
534		Fill	Mid-brownish-grey fine-sandy clayey silt with rare charcoal flecks, rare CBM frags and moderate sandstone/mudstone frags of varying sizes, filling ditch section 533; interpreted as containing Roman demolition material.	Flake of Roman CBM	6
535	6	Cut	Section through NNE-SSW aligned linear feature G548 near its N end. Relationships were not wholly clear, but this appears to be the later of two recuts, cutting recut 533 ; this section also cuts gully fragment 539 . 0.70m wide x 0.42m deep, with steep sides, flat base and bowl-shaped profile; filled by 536.	Reassigned to medieval	6
536		Fill	Mid-brownish-grey friable fine-sandy clayey silt with rare charcoal flecks, rare CBM frags and moderate medium to large frags of roughly hewn sandstone, interpreted as representing Roman demolition material, filling ditch section 535 .	Roman CBM (1 frag); possible wall plaster fragment recorded on site.	6
537	2	Cut	Section through NNE-SSW aligned linear feature G543 near its N end. Relationships were not wholly clear, but 537 appears to be the original ditch, recut twice by 533 and 535 . Section survives to 0.95m wide and 0.39m deep, with steep side and flat base; filled by 538.	Reassigned to mid-Roman	6
538		Fill	Dark brownish-grey friable clayey silt with rare charcoal flecks and CBM flecks/frags, filling ditch section 537 .	Mid-2 nd -century or later pottery (5 sherds), frags/flakes Roman CBM	6

Context	Phase	Type	Description	Finds/samples/dating	Zone
539	6	Cut	Fragment of WNW-ESE aligned ditch, identified on site as forming an isolated portion of G609 . Cuts ditch 541 , truncated by school construction to W and ditch 535 to E; probably terminated in this area, as it cannot be traced to E of ditches 533-7 . Filled by 540.	Medieval: dated by analogy with G609	6
540		Fill	Mid-brownish-grey friable fine-sandy clayey silt with rare charcoal flecks, rare CBM frags and moderate medium to large sandstone frags (more frequent in upper part of fill), interpreted as representing Roman demolition material, filling ditch section 535 .		6
541	4	Cut	Fragment of N-S aligned linear feature, truncated to N by school construction and to S by section 539 of G609 . Same as 546 ; filled by 542. L approx 3m; W 0.70m; D 0.15m.	Possible spatial association with G671	6
542		Fill	Light- to mid-brownish-grey friable fine-sandy silt with rare charcoal flecks, filling ditch section 541 .		6
543	2	Group	NNE-SSW aligned linear feature, consisting of excavated sections 206 and 537 , recut twice by G281 and G548 ; possibly same as G437 . Heavily disturbed by the construction of the school.	Reassigned to mid-Roman	5/6
544		Cut	Oval pit, 0.70m x 0.50m x 0.13m with broad, flat base, directly S of junction of ditches G609 and G548 , filled by 545.		6
545		Fill	Mid-brownish-grey fine-sandy clayey silt filling pit 544 . Contained rare CBM frags and charcoal flecks, and moderate medium to large stones which with a large tile frag may have represented remnants of a post-pad.		6
546	4	Cut	Section through N-S aligned ditch fragment – no separate group number assigned – same as 541 . 0.72m wide x 0.14m deep with shallow, bowl-shaped profile, filled by 547.	Possible spatial association with G671	6
547		Fill	Mottled mid-greyish-brown friable sandy silt with rare charcoal flecks and moderate CBM frags, filling ditch section 546	12 frags/flakes Roman CBM, most very abraded	6
548	6	Group	NNE-SSW aligned linear feature at W side of the group of linear features at W edge of Zone 6, consisting of sections 202 and 535 . Cuts earlier recut G281 and indeterminate S ditch length G437 on E side and short ditch section 539 on W.	Assigned to medieval period on the grounds that 539 is part of medieval ditch G609 .	6
549		Fill	Upper fill of ditch section 392 , overlying fill 393: dark brown silty clay with frequent stone inclusions, containing rubble deposit 389.	4 th -century pottery (5 sherds), 1 large frag Roman brick with small frags/flakes Roman CBM, most very abraded	6

Context	Phase	Type	Description	Finds/samples/dating	Zone
550	1	Cut	Sub-circular pit on N side of and cut by ditch terminal 392 ; 1.0m diameter x 0.36m deep with steep, irregular sides and flat base; filled by 551; cuts 552 . Assigned to G506 in post-ex.		6
551		Fill	Mid-reddish-brown silty clay fill in pit 550 , containing occasional sub-angular, platy stone fragments and frequent small frags of fired clay.	Roman CBM (4 frags)	6
552	1	Cut	Sub-circular pit, on E side of and cut by pit 550 , 1.0m diameter x 0.30m deep with flat base, filled by 553, cuts probable natural deposit 233. Assigned to G501 in post-ex.		6
553		Fill	Dark greyish-brown silty sand with occasional sub-angular stones, filling pit 552 ; cut by pit 550 .	Roman CBM (3 frags)	6
554	6	Cut	Section through curvilinear feature G609 , here 0.68m wide x 0.25m deep, with bowl-shaped profile, filled by 555.		5
555		Fill	Light- to mid-brownish-grey friable fine-sandy silt with rare charcoal flecks and CBM frags, filling ditch section 554 .		5
556	1	Cut	Small pit in E row of pit/post-hole alignment G501 : sub-circular, 0.65m diameter x 0.12m deep with flat base, filled by 557.		6
557		Fill	Mixed mid-grey and mid-brown plastic silt with mudstone fragments, filling pit 556		6
558	4	Cut	Sub-rectangular post-hole, 0.65m x 0.50m x 0.13m with moderate, concave sides and broad, flat base, filled by 559, on E side of ditch G543. Possible spatial relationships to pit 544 and post-hole 560 have been suggested.		6
559		Fill	Mid-brownish-grey friable fine-sandy clayey silt with frequent limestone fragments of various sizes, filling post-hole 558 : stone inclusions are chiefly around the sides of the feature, and may represent post-packing.	Roman pottery (1 sherd)	6
560		Cut	Smaller, circular post-hole to N of post-hole 558 : 0.30m diameter x 0.20m deep with very steep sides and concave base, filled by 561.		6
561		Fill	Mid-brownish-grey friable fine-sandy silt with rare charcoal flecks and moderate limestone frags, filling post-hole 560 ; the stone inclusions do not indicate the position of a post-pipe.		6
562	4	Cut	Section at S terminal of narrow, NNE-SSW aligned linear feature G664 , filled by 563.		6

Context	Phase	Type	Description	Finds/samples/dating	Zone
563		Fill	Fill of terminal section 562 through possible beam slot: dark greyish-brown friable to loose clayey silt with occasional CBM flecks		6
564	4	Cut	Section through NNE-SSW aligned linear feature G664 at its junction with perpendicular feature G668 , which 564 appeared to cut. Filled by 565.		6
565		Fill	Fill of section 564 – same as 563.		6
566	4	Cut	Section at E terminal of narrow, ESE-WSW aligned linear feature G668 . Filled by 567; appeared to be cut by 564 , but relationship was uncertain due to difficult excavation conditions.		6
567	4	Fill	Mid- to dark greyish-brown clayey silt with occasional limestone frags, filling section 566 through possible beam slot G668 .		6
568	4	Cut	Further section through possible beam slot G664 , taking in its N terminal and its intersection with small feature 570 , which 568 cuts. Here 0.38m wide x 0.09m deep, filled by 569.		6
569		Fill	Dark greyish-brown friable to loose clayey silt with rare CBM flecks, filling section 568 through possible beam slot G664 .	Flake of Roman CBM	6
570	4	Cut	Small pit or post-hole, probably sub-oval in plan, surviving to 0.42m x 0.35m x 0.15m, with shallow, bowl-shaped profile; truncated by possible beam slot G664 ; filled by 571.		6
571		Fill	Mid-greyish-brown friable to loose clayey silt with rare CBM flecks, filling small pit/post-hole 570	1 frag fired clay	6
572	6	Cut	Further section through curvilinear feature G609 : here 0.60m wide x 0.41m deep with steep-sided, bowl-shaped profile, filled by 573-4.		6
573		Fill	Light- to mid-brownish-grey friable fine-sandy silt with rare charcoal flecks and CBM frags, forming the primary fill of ditch section 572 .	Sample <138>	6
574		Fill	Mid-brownish-grey friable fine-sandy clayey silt with frequent CBM frags identifiable on site as Roman <i>tegula</i> and <i>imbrex</i> , filling ditch section 572 above fill 573.	Mid-2 nd -century or later pottery (5 sherds), frags/flakes Roman CBM	6
575	1-2	Cut	Section through ditch G404 near its N end, where it is separated from ditch G453 by pit 579 . Ditch here is c. 1m wide (not excavated to full width) x 0.27m deep with shallow side and flat base, filled by 576.		6

Context	Phase	Type	Description	Finds/samples/dating	Zone
576		Fill	Dark brown fine-sandy loam filling ditch section 575 : contained large quantities of Roman structural and domestic refuse.	Late 1 st to early/mid-2 nd -century pottery (94 sherds), Roman CBM (63 frags/flakes), probable fragment of iron nail	6
577	1-2	Cut	Section through ditch G453 near its N end, where it is separated from ditch G404 by pit 579 . Ditch here is 0.40m deep and more than 0.70m wide (not excavated to full width) but appears to narrow at the edge of the excavated section to respect pit 579 . Filled by 578.		6
578		Fill	Light greyish-brown sandy clay filling ditch section 577 .	3 rd -century or later pottery (4 sherds), Roman CBM (4 frags, all very abraded)	6
579	1-2	Cut	Circular pit, 0.60m diameter x 0.20m deep with irregular sides and flat base, positioned between linear features G404 and G453 : very close to both, but intersecting neither.	Position suggests contemporaneity with one or both ditches.	6
580		Fill	Mid- to light brown sandy clay filling pit 579 .		6
581		Cut	Probable post hole within the arc of feature G609 , to N of possible early Roman post-hole 212 . Sub-rectangular, measuring 0.72 x 0.61m x 0.18m, filled by 582-3.		5
582		Fill	Principal fill within post-hole 581 : dark brownish-grey fine-sandy silt with rare charcoal flecks, below fill 583.	Roman CBM (2 frags)	5
583		Fill	Small mass of stone and tile fragments at the centre of post-hole 581 , above and within fill 582: does not have recognisable form as either post-packing or a post-pad.	Roman <i>tegula</i> recorded but not retrieved.	5
584	1-2?	Cut	Sub-oval pit, cut to N by section 586 of beam slot G668 ; no stratigraphic relationship to ditches G447/G452 directly to S. 0.21m deep (other dimensions not given), filled by 585.	Stratigraphic relationship suggests an early or mid-Roman date	6
585		Fill	Patchy mid-greyish-brown and light yellowish-brown silt with paler patches of redeposited natural and rare small stones, filling pit 584 .		6
586	4	Cut	Section through beam slot G668 at its junction with pit 584 , which it cuts. Here 0.06m deep and filled by 587 .		6
587		Fill	Mid-greyish-brown friable to loose clayey silt with occasional CBM flecks, filling section 586 .		6
588	4	Cut	Further section through beam slot G668 : this section 0.28m wide x 0.06m deep with broad, relatively flat base, filled by 589.		6
589		Fill	Mid-greyish-brown friable to loose clayey silt with occasional CBM flecks, filling section 588 .	Roman pottery (1 sherd), flake of Roman CBM	6

Context	Phase	Type	Description	Finds/samples/dating	Zone
590		Cut	Sub-circular post-hole, 0.42m diameter x 0.08m deep, on E side of and cut by pit 592	Stratigraphically earlier than 592 – possible association with post-hole group G786 ?	6
591		Fill	Mid-yellowish-brown friable to loose clayey silt with rare small limestone frags, filling post-hole 590 .		6
592		Cut	Probably sub-circular pit, truncated to W by school construction, cut by beam slot section 594 . Cuts post-hole 590 ; filled by 593. Only a small part of this pit could be excavated due to flooding.		6
593		Fill	Patchy mid- to dark brown and yellowish-brown friable to loose clayey silt with rare small limestone frags, filling pit 592 .	Fragment of Roman CBM. Stratigraphically earlier than G668 and G926 ; pottery recorded on the context sheet but can't be accounted for.	6
594	4	Cut	Section through NNE-SSW aligned probable beam slot G926 . This feature was only identified here when the area was cleaned again after flooding: it survived only to a width of 0.10m and a depth of 0.10m, and most of its stratigraphic relationships could no longer be ascertained. It certainly cut pit 593 ; it appeared to be cut by perpendicular beam slot G668 , and its relationship with pit 462 is unknown.		6
595		Fill	Mid-greyish-brown friable to loose clayey silt filling section 594 .		6
596	1	Cut	Possibly sub-oval pit in W row of G501 , truncated to SW by modern drain: survives to 1.43m x 1.05m x 0.54m. Cuts layer 600; adjoins but has no stratigraphic relationship with post-hole 598 . Filled by 597.		6
597		Fill	Dark brownish-grey silty clay filling pit 596 . Contained frequent fired clay flecks and sub-angular platy limestone fragments that appear to represent post-packing (one of these was extremely large, and the photograph suggests that it may have been worked).	Roman pottery (1 sherd), small frags/flakes Roman CBM	6
598	1	Cut	Sub-rounded pit in W row of G501 , directly to N of pit 596 . 0.99m x 0.74m x 0.20m with irregular sides and flat base; cuts layer 600; filled by 599.		6
599		Fill	Mid-greyish to mid-orange-brown silty clay with occasional patches of redeposited natural, filling pit 598 . Contained occasional fragments of sub-angular platy limestone, clustered in the centre of the feature.		5

Context	Phase	Type	Description	Finds/samples/dating	Zone
600	1	Layer	Mid-grey silty clay layer, 0.10m deep, with occasional flecks of fired clay, overlying probable natural deposit 233. Cut by some of the features in G501 .	Roman CBM (3 frags)	5
601	1	Group	Length of NNE-SSW aligned ditch, approx. 8m long, truncated to N by ditch G687 (could not be traced beyond it) and terminating to S before curvilinear feature G609 . Comprises sections 603 , 605 , 680 and 690 . May be associated with G287 on the same alignment to S.	No dating evidence: provisionally assigned to early Roman on its stratigraphic and spatial relationships.	5
602	1	Group	NNE-SSW linear feature, truncated to S by school construction, forming right-angled junction with G687 and G746 to N. Approx 6m long; contains section 607 only.	Stratigraphically earlier than both G687 and G746 ; originally assigned to late Roman but now re-phased as early.	5
603	2	Cut	Section at S terminal of NNE-SSW linear feature G601 : 0.20m wide x 0.08m deep with broad V-shaped profile and concave base. Filled by 604.		5
604		Fill	Mid-brownish-grey friable fine-sandy clayey silt with rare charcoal flecks, rare flecks and abraded frags of CBM and rare small-medium mudstone frags, filling ditch section 603 .		5
605	2	Cut	Section through NNE-SSW linear feature G601 : 0.38m wide x 0.13m deep with wide, bowl-shaped profile. Filled by 606.		5
606		Fill	Dark brownish-grey friable fine-sandy clayey silt with rare charcoal flecks and moderate CBM flecks, filling ditch section 605	Roman CBM (2 frags)	5
607	1	Cut	Section through NNE-SSW aligned ditch/gully G602 , here 0.55m wide x 0.16m deep with moderate sides and concave base, filled by 608		5
608		Fill	Dark brownish-grey compact clayey silt with moderate charcoal flecks and rare CBM and mudstone frags, filling section 607		5
609	3 or 6	Group	Curvilinear, roughly E-W aligned feature near centre of site, much disturbed by school foundations, consisting of sections 539 , 554 , 572 , 815 and 841 .	Substantial dating evidence for both mid- to late Roman and high medieval: Phase 3 seems most likely, based on spatial and stratigraphic relationships.	5
610	1	Cut	Large, shallow pit at N end of W row of feature group 501 : sub-rectangular, 2.06m x 1.45m x 0.35m with steep to vertical sides and irregular base. Cuts layer 233; cut on W edge by post-hole 612 ; filled by 611.	Early Roman	6

Context	Phase	Type	Description	Finds/samples/dating	Zone
611		Fill	Dark greyish-brown silty clay with charcoal and mortar flecks and occasional stone and CBM frags, filling pit 610 , cut by post-hole 612 . Includes one large stone at centre of base of pit, on which the articulated horse leg appeared to be positioned.	Mid/late 1 st century to early 2 nd century pottery (12 sherds), frags/flakes Roman CBM, animal bone including articulated horse leg, fragment of probable iron nail	6
612	1	Cut	Sub-circular post-hole cutting pit 610 at N end of W row of feature group 501/506 : 0.60m x 0.56m x 0.21m with steep sides and flat base, filled by 613; assigned to G506 .		6
613		Fill	Light greyish-brown silty clay with charcoal inclusions, filling post-hole 612 . Contains frequent fragments of stone rubble, but unlike fill 611 in pit 610 , CBM is absent.		6
614	1	Cut	Probably sub-circular pit at the edge of the W row of G501 , truncated to W by feature 618 and to E by pit 616 . Remaining portion c. 1.3m wide x 0.38m deep with steep side and relatively flat base, filled by 615.		5
615		Fill	Mixed silty clay fill in pit 614 , chiefly light grey but with brown, mid-grey and orange patches, containing frequent charcoal fragments and moderate CBM, with a mass of medium to large stone frags at the base of the feature. Cut by pit 616 and ditch 618 .	Roman CBM (4 frags)	6
616	1	Cut	Sub-circular pit, 1.40m x 1.36m x 0.40m with irregular sides and broad, slightly concave base, in W row of feature group G501/506 . Cuts pit 614 ; filled by 617 ; assigned to G506 .		6
617		Fill	Small deposit of mottled mid-brownish to mid-greenish-grey compact clay with occasional sub-rounded small stones, 0.52m wide x 0.14m deep, at base of pit 616 below principal fill 620.		6
618	2	Cut	NNE-SSW aligned linear feature at N side of site, terminating within excavated area to N and truncated by school foundations to S: approx. 13m long x 1.10m wide x 0.39m deep with regular, bowl-shaped profile. Cuts pit 614 ; filled by 619; not assigned to any group, but may represent a continuation of G437.	Stratigraphically later than double pit alignment G501 : assigned to mid-Roman by spatial relationships with G437 and G404.	6
619		Fill	Blackish-grey silty clay with frequent charcoal and fired clay frags and occasional sub-rounded platy stones, filling ditch 618 .	Roman CBM (12 frags/flakes); sample <131>	6
620		Fill	Light orange-brown silty clay with frequent charcoal and fired clay frags, filling the majority of pit 616 above fill 617.	Roman CBM (8 frags/flakes)	6

Context	Phase	Type	Description	Finds/samples/dating	Zone
621	4	Cut	Pit or large post-hole on E side of pit/post-hole group 629 : 1.0m x 0.90m x 0.35m, sub-circular with bowl-shaped profile and flat base; adjacent to but does not intersect pit 622 ; filled by 623 and 626.		5
622	4	Cut	Pit or post-hole on E side of pit/post-hole group 629 : 0.80m diameter x 0.35m deep with irregular profile and steep sides; adjacent to but does not intersect pit 621 ; filled by 624 and 625.		5
623		Fill	Principal fill in pit 621 , overlying fill 626: fragments of wall plaster in a matrix of dark grey silt, with fragments of CBM. Possible fill of post-pipe.	Roman CBM (6 frags, mostly large); sample <132>	5
624		Fill	Principal fill in pit 622 , overlying fill 625: dark grey silt with frequent large fragments of CBM. Possible fill of post-pipe.		5
625		Fill	Primary fill in pit 622 : light brownish-green clayey silt with large fragments of CBM. Present on the sides of the pit, but not the base, suggesting that 625 was the backfill surrounding a post.	Roman CBM (11 frags)	5
626		Fill	Primary fill in pit 621 : mid-brownish-green clayey silt with large fragments of CBM. Present on the sides of the pit, but not the base, suggesting that 626 was the backfill surrounding a post.		5
627		Cut	Possibly the base of a pit pre-dating and almost completely truncated by pits 621 and 622 , but recorded on site as an area of disturbance associated with the construction of the possible post structure they represent.		5
628		Fill	Mixed greenish-brown silty clay with large CBM frags in possible cut 627 between pits 621 and 622 . Difficult to distinguish from the primary fills of the pits, and interpreted as disturbance caused during construction rather than as a discrete feature.		5
629	4?	Group	Complex of pits and post-holes, some in pairs, near centre of site: consists of features 621 , 622 , 627 , 635 , 638 , 659 , 672 , 673 , 676 , 705 and 707 .	Mostly undated: some pits contain generic Roman material	5
630		Layer	Mottled grey and white silt deposit overlying natural, no dimensions given, cut by features of G629 .		5
631		Cut	Oval pit, 0.89m x 0.69m x 0.18m with bowl-shaped profile, adjacent to smaller feature 633 ; filled by 632; not located on plan.		5

Context	Phase	Type	Description	Finds/samples/dating	Zone
632		Fill	Blackish-brown silty clay with frequent charcoal frags and rounded to angular medium stones, filling pit 631 .		5
633		Cut	Oval pit or post-hole, 0.40m x 0.32m x 0.11m, adjacent to larger feature 631 ; filled by 634; not located on plan.		5
634		Fill	Brownish-black silty clay with occasional charcoal frags and cobbles, filling possible post-hole 633 .		5
635		Cut	Small, sub-circular pit or post-hole, 0.60m x 0.55m x 0.27m, included in pit group 629 , filled by 636-7		5
636		Fill	Mixed mid-brown and greenish-yellow clay with occasional charcoal and CBM frags, forming the primary fill of pit or post-hole 635 : absence of post-packing stones differentiates it from the fills of other features in G629 .		5
637		Fill	Upper fill of pit/post-hole 635 : dark grey silt with occasional stone and CBM frags, overlying fill 636.		5
638		Cut	Sub-circular pit forming part of group 629 , 0.70m diameter x 0.25m deep with vertical sides and concave base, filled by 639.		5
639		Fill	Fill of pit 638 : mixed yellow, brown and grey silts and clays including redeposited natural, with occasional mudstone fragments.	Iron nail	5
640	4	Cut	Section through the centre of the exposed length of N-S aligned linear feature G671 : 0.65m wide x 0.21m deep with steep W side and moderate E side, filled by 641 .		6
641		Fill	Fill of section 640 : friable to loose clayey silt with no inclusions, shading from dark greyish-brown above to yellowish-white with brown patches at base, without differing fills being distinguishable.		6
642		Cut	Remnants of heavily truncated pit, not locatable on site plan; at least 2.16m in diameter x 0.28m deep with shallow sides and irregular base; filled by 643-5; truncated to E and W by school foundations and to N by modern trench 646 .		6
643		Fill	Light brownish-green silty clay with occasional charcoal flecks, 0.11m deep, forming the basal fill of pit remnant 642		6
644		Fill	Mid-yellowish-brown silty clay with occasional charcoal flecks, 0.13m deep, filling pit remnant 642 above fill 643		6

Context	Phase	Type	Description	Finds/samples/dating	Zone
645		Fill	Blackish-brown silty clay with occasional charcoal flecks and medium rounded stones, forming the final fill of pit remnant 642 above fill 644	Early Roman pottery (2 sherds); 13 frags/flakes Roman CBM	6
646	7	Cut	E-W aligned construction trench, 1.07m wide x 0.31m ⁺ deep, containing brick structure 647, a modern drain and fills 648-50; cuts pit 642 . Cannot be located on site plan.	Post-medieval (dated by finds in final fill 649)	6
647		Structure	Brick structure in trench 646 : only 1 brick thick, either very crudely mortared or dry-laid using re-used bricks, and looking unlikely to have served as a wall footing. Possible revetment for side of drain.		6
648		Fill	Blackish-grey silty clay with occasional charcoal flecks, 0.06m deep, filling base of trench 646		6
649		Fill	Final fill in trench 646 : dark reddish-brown silty clay with occasional sub-rounded stone	Late 18 th to early 19 th -century pottery (18 sherds), post-medieval to modern CBM, flakes of Roman CBM, fragment of iron sheet	6
650		Fill	Mid-reddish-brown silty clay with frequent small pebbles, filling trench 646 above drain and structure 647		6
651		Layer	Natural marl – specific location unrecorded, no context sheet (same as 652?)	Sample <133>	6
652		Layer	Natural deposit of whitish-grey lime marl, compact but very friable, overlying natural clay deposit 807, 0.08m deep	Sample <134>	6
653	2?	Cut	Short length of NNE-SSW aligned gully, c. 1m long x 0.33m wide x 0.09m deep, terminating to S and truncated by evaluation trench to N. Steep-sided with flat base and square-ended terminal; filled by 654; provisionally associated with structure 693. Possible beam slot?		6
654		Fill	Mid-brownish-grey friable to loose clayey silt filling gully 653	Flake of Roman CBM	6
655	2?	Cut	Shallow oval pit directly adjoining gully 653 on S side of structure 693; 1m x 0.55m x 0.09m with broad, bowl-shaped profile; filled by 656; cuts 692. Possibly a natural feature, as the area was heavily disturbed by roots.		6
656		Fill	Mid-brownish-grey friable to loose clayey silt filling pit 655		6
657	2?	Cut	Shallow, irregular pit on S side of structure 693; 1.37m x 1.23m x 0.11m with irregular sides and generally flat base; filled by 658; cuts 692.		6
658		Fill	Mid-brownish-grey friable to loose clayey silt filling pit 657 ; disturbed by tree roots	Roman CBM (5 flakes)	6

Context	Phase	Type	Description	Finds/samples/dating	Zone
659	4	Cut	Sub-circular pit at N side of pit group 629 , forming a pair with pit 672 ; 0.90m diameter x 0.35m deep, with stepped base showing the probable position of a central post; filled by 660-1		5
660		Fill	Light brownish-red plastic silty clay basal fill of post-pit 659 , 0.20m deep	Sample <135>	5
661		Fill	Mixture of dark greyish-brown silt and mid-brownish-red fired clay with charcoal inclusions, filling post-pit 659 above fill 660	Early Roman pottery (2 sherds); sample <137>	5
662	2?	Cut	Small, shallow sub-circular pit, directly adjoining but not intersecting pit 655 ; 0.51m diameter x 0.10m deep with bowl-shaped profile and flat base, filled by 663; cuts layer 692		6
663		Fill	Mid- to dark brownish-grey friable to loose clayey silt filling pit 662		6
664	4	Group	NNE-WSW aligned beam slot, one of a group of small, possibly structural features on W side of ditch G404 . Comprises sections 562 , 564 and 568 ; intersects and may cut beam slot G668 .		6
665	1	Cut	Large, sub-rectangular pit in W row of double pit alignment G501 ; 2.10m x 2m x 0.60m, with vertical to undercut sides and base sloping down to S; filled by 666 and 667. Interpreted as a possible lime production pit.		6
666		Fill	Basal fill of pit 665 : mid- to dark greyish-brown sandy loam containing charcoal, CBM rubble and large (c. 700mm) limestone tufa blocks, 0.60m deep	Roman pottery (5 sherds), CBM (34 frags/flakes, many abraded)	6
666-667		Finds	Finds from pit 665 that could not confidently be ascribed to either fill due to difficulties caused by flooding	Roman pottery (14 sherds), CBM (35 frags/flakes, most abraded or very abraded)	6
667		Fill	Light orange-brown silty clay with charcoal, CBM and lenses of redeposited natural, sealing pit 665 above fill 666	Early Roman pottery (6 sherds), CBM (42 frags/flakes, mostly very abraded flakes)	6
668	4	Group	E-W aligned beam slot, one of a group of small, possibly structural features on W side of ditch G404 . Comprises sections 566 , 586 and 588 ; intersects and may be cut by beam slot G664 .	Currently assigned to 'unspecified Roman'	6
669	4	Group	E-W aligned beam slot, one of a group of small, possibly structural features on W side of ditch G404 and S of G448 . Comprises sections 456 , 468 , 472 and 531 ; appears to be contemporary with perpendicular beam slot G670 ; cuts perpendicular feature G671 .	Currently assigned to 'unspecified Roman'	6

Context	Phase	Type	Description	Finds/samples/dating	Zone
670	4	Group	N-S aligned beam slot, one of a group of small, possibly structural features on W side of ditch G404 and S of G448 . Comprises sections 470 , 474 , 476 and 493 ; appears to be contemporary with perpendicular beam slot G669 .	Currently assigned to 'unspecified Roman'	6
671	4	Group	Short length of approximately N-S running linear feature consisting of sections 527 , 529 and 640 . Truncated to N by ditch G448 and does not appear to have extended beyond it as small feature 521 occupies this area; cut to S by possible beam slot G669 and may have extended beyond it, but could not be identified due to flooding. Identifiable length no more than 5m.	Currently assigned to 'unspecified Roman'	6
672		Cut	Sub-oval pit at N side of pit group 629 , forming a pair with pit 659 ; 1.1m x 0.70m x 0.15m, with dish-shaped profile; filled by 694-5		5
673	4	Cut	Sub-circular pit in pit group 629 , 1.23m x 1.13m x 0.20m with dish-shaped profile, filled by 674-5		5
674		Fill	Primary fill in pit 673 : mid-greenish-grey sandy silt with yellowish patches of redeposited natural and rare medium to large pebbles	Oyster shell discarded on site	5
675		Fill	Pinkish-red clay with frequent medium to large pebbles, filling pit 673 above fill 674	Roman pottery (1 sherd); sample <136>	5
676	4	Cut	Sub-circular pit at S side of pit/post-hole group 629 . Occupies and possibly cuts the W terminal of the short E-W return of possible beam slot G746 , but relationship currently unclear. Cuts possible N-S beam slot fragment 740 ; filled by 677.		5
677		Fill	Fill of pit 676 : large fragments of CBM in a matrix of dark brown friable to loose silt. The positions of the fragments suggest a dump of rubble rather than a post-pad or post-packing	Roman CBM (32 frags/flakes)	5
678		Cut	Upper fill in ditch section 688 above fill 689: dark brownish-grey friable fine-sandy silt with rare charcoal flecks and moderate mudstone frags	Abraded CBM recorded but not retrieved	5
679			Void		
680	2	Cut	Section through N end of N-S linear feature G601 , truncated by section 682 through possible beam slot G687 . This section 0.08m deep with moderate side and concave base, filled by 681.		6

Context	Phase	Type	Description	Finds/samples/dating	Zone
681		Fill	Mid-brownish-grey friable fine-sandy silt with rare charcoal flecks and small pebbles, filling beam slot section 680 ; cut by section 682 .		6
682	1	Cut	Section through WNW-ESE aligned possible beam slot G687 ; cuts earlier linear feature 680 and NNE-SSW possible beam slot 688 . 0.27m deep; filled by 683.		6
683		Fill	Dark brownish-grey compact clayey silt with occasional CBM and charcoal flecks and small mudstone frags, filling beam slot section 682		6
684	2	Cut	Sub-square pit with rounded corners, steep sides and concave base, 1.0m x 0.90m x 0.47m, filled by 685-6. Relationship with possible beam slot 688 uncertain: seems more likely to cut it, but may be contemporary. Assigned to group 786 , although this may be erroneous.	Assigned to mid-Roman on the principle that the human bone is intrusive following disturbance to the cemetery during construction	5
685		Fill	Primary fill in pit 684 : mid-greenish-brown compact clayey silt with frequent medium/large frags of porous stone, apparently representing post-packing		5
686		Fill	Upper fill, apparently of post-pipe, in pit 684 : dark brownish-grey compact clayey silt with rare charcoal flecks and moderate medium CBM and mudstone frags	Late 3 rd -century pottery (2 sherds), frags/flakes Roman CBM; fragments of human skull	5
687	1	Group	ESE-WNW aligned linear feature near centre of site, consisting of sections 682 , 731 and 765 . Truncated to W by school construction and to E by evaluation trench 5; survives to a length of c. 9m. Cuts perpendicular linear features G601 and G602 ; cut by perpendicular linear feature G746 ; identifiable in evaluation trench as being truncated by a ditch corresponding to G543/282/548 .	Poor dating evidence: phasing as early Roman largely conjectural.	5
688	1	Cut	Section through NNE-SSW aligned ditch/gully G746 at its junction with sections 682 of G687 and 680 of G601 (cuts both); cut by pit 684 . Cuts away the N end of G602 , which was assigned no number in this section as it could not be seen.		5
689		Fill	Mid-greenish-brown compact clayey silt with moderate small-medium mudstone frags and CBM frags, filling ditch section 688 ; probably cut by pit 684 , although relationship uncertainly identified.	CBM recorded on context sheet – lost?	5

Context	Phase	Type	Description	Finds/samples/dating	Zone
690	2	Cut	Further section through N-S linear feature G601 : 0.30m wide x 0.10m deep with bowl-shaped profile. Filled by 691; cuts feature 761 .		5
691		Fill	Mid-brownish-grey friable fine-sandy silt with rare charcoal flecks, filling section 690 in G601	Roman pottery (1 sherd), flake of Roman CBM, frag daub, frag fired clay	5
692	1-2	Layer	Spread of light greyish-brown clayey silt with white patches, widespread but only intermittently present, 0.20m deep. Surrounds Structure 693 and is cut by its construction trench 810 .	Articulated animal bones; dated only by stratigraphic relationship to Structure 693	6
693	2	Structure	Roughly square structure of mudstone and limestone blocks in NE corner of the site; occupies construction trench 810 .	Assigned to mid-Roman by spatial relationships	6
694		Fill	Primary fill in possible post-pit 672 : fragments of tufa limestone, mudstone and CBM in a matrix of black silt. Possibly post-packing.		5
695		Fill	Dark greyish-brown silt with flecks of CBM and fired clay, filling pit 672 above fill 694. Similar to fill 661 in adjacent feature 659 .		5
696	2	Cut	Large square pit with vertical sides and uneven base, truncated by school foundations; survives to 1.40m x 1.25m x 0.64m; filled by 697. Assigned on site to pit group 506 , but cannot confidently be identified on plan, and site recording suggests it is well to W of this pit group, probably in the vicinity of pit 698 .		5
697		Fill	Fill of pit 696 , consisting of bands and lenses of sandy clays, mostly mid-brownish-grey but some reddish- and greenish-hued, with fragments of CBM and tufa limestone and charcoal flecks. Recorded as representing repeated recutting and back-filling events that were not individually recorded.	2 nd century pottery, AD 150-200 (9 sherds), 22 frags/flakes Roman CBM, most very abraded	5
698	4	Cut	Rectangular pit with steep sides and flat base, truncated by school foundations, survives to 0.96m x 0.97m x 0.30m; filled by 699. Possibly associated with adjoining pits including 710 .	Roman CBM (2 frags)	5
699		Fill	Fill of pit 698 : mixed mid-brown, mid- to dark brown, reddish-brown and yellowish-brown silts with frequent CBM frags and occasional mudstone frags and large cobbles.	Roman pottery (2 sherds), frags/flakes Roman CBM	5

Context	Phase	Type	Description	Finds/samples/dating	Zone
700	1	Cut	Large, sub-circular post-pit with steep sides and flat base, 1.20m x 1.10m x 0.50m. Cuts beam slot fill 704 in G746 ; filled by 701-2. Initially assigned to group 786 , but seems more likely to be associated with the Phase 1 structure.	Stratigraphically later than G746 .	5
701		Fill	Primary fill in post-pit 700 , surrounding central post-pipe. Large stone frags similar to those seen in 684 , with CBM frags identified as Roman <i>tegula</i> , in a matrix of mid-orange-brown compact clay with rare charcoal flecks.	Roman CBM (4 frags)	5
702		Fill	Fill of post-pipe in post-pit 700 , above fill 701: dark brownish-grey fine-sandy clayey silt with moderate small CBM frags and rare charcoal flecks and small pebbles	Early Roman pottery (2 sherds), Roman CBM (5 frags)	5
703	1	Cut	Section through possible beam slot G746 , here 0.30m wide x 0.20m deep, filled by 704, cut by pit 700		5
704		Fill	Mid-greyish-brown friable fine-sandy silt with rare CBM and charcoal flecks, filling beam slot section 703 , cut by pit 700		5
705	4	Cut	Sub-oval pit or post-hole, directly adjoining but not intersecting pit 707 , 0.80m x 0.60m x 0.55m with bowl-shaped profile and flat base, filled by 706. Assigned to group 629 .		5
706		Fill	Dark greyish-brown silt with frequent large frags of CBM (Roman roof tile), filling pit/post-hole 705	Roman CBM (4 frags, some large)	5
707	4	Cut	Large, sub-circular post-pit towards S side of pit group 629 : 1.40m wide x 0.30m deep with steep sides and central post-pipe extending through its flat base. Filled by 708-9.		5
708		Fill	Light brownish-red silty clay primary fill in post-pit 707		5
709		Fill	Dark brown friable silt with occasional fired clay frags, filling the post-pipe in post-pit 707 , above fill 708	Roman pottery (2 sherds)	5
710	??	Cut	Sub-square pit, heavily disturbed by school foundations, approximately 1.6m wide x 0.40m deep, with steep sides and broad break of slope to slightly concave base; filled by 711-12.	Possibly early modern, though the pit is so heavily disturbed that the potsherd may be intrusive.	5
711		Fill	Primary fill of pit 710 : mixture of pinkish-red redeposited natural and yellowish-brown silty clay, 0.14m deep		5
712		Fill	Upper fill of pit 710 , above fill 711: mixed silts, greyish-brown with grey and reddish patches, with flecks and small frags CBM	Early modern pottery (1 sherd), 1 sherd very abraded Roman pottery, Roman CBM (1 frag)	5

Context	Phase	Type	Description	Finds/samples/dating	Zone
713	2	Cut	Large sub-circular post-pit to NW of pit 700 , 1.20m x 1.10m x 0.80m with steep sides and flat base, cutting through drift geology to bedrock; filled by 714 and 715. Provisionally assigned to post-hole group 786 .		5
714		Fill	Primary fill of post-pit 713 , surrounding the post-pipe: mid-orange-brown compact clay with rare charcoal flecks and small mudstone frags, probably redeposited natural.		5
715		Fill	Fill of post-pipe in post-pit 713 , above fill 714: dark brownish-grey friable fine-sandy silt with moderate charcoal flecks and fired clay frags and rare abraded CBM frags, small pebbles and small/medium mudstone and limestone frags	Late 3 rd -century pottery (21 sherds), Roman CBM (1 frag); sample <139>	5
716	1	Cut	Section near N terminal of possible beam slot G746 : 0.30m wide x 0.15m deep, with steep sides, slightly concave base and probable blunt-ended terminal (recorded as discrete feature 720); filled by 717; cut by 718		5
717		Fill	Mid-grey silt with occasional charcoal flecks, filling section 716 ; cut by post-hole 718		5
718	1?	Cut	Sub-circular post-hole, 0.60m diameter x 0.40m deep with steep-sided, bowl-shaped profile; filled by 719; cuts possible beam slot G746	Position suggests a spatial association with G746	5
719		Fill	Mid-brownish-grey clayey silt with frequent mudstone and CBM frags, filling post-hole 718		5
720	1?	Cut	Recorded as a small, discrete feature on N side of post-hole 718 , but appears equally likely to be the terminal of beam slot G746 , severed by the post-hole cut (size and orientation correspond, but the fills do not). 0.45m long x 0.30m wide x 0.20m deep, filled by 721.		5
721		Fill	Fill of feature or fragment 720 : mid-brown silty clay mottled orange/red, with moderate CBM frags (dissimilar to fill 717 in beam slot section 716).	2 flakes Roman and 1 frag modern CBM	5
722	6?	Cut	Sub-circular pit in the SW angle of beam slot group 746 : 1.29m wide x 0.50m deep with steep-sided, bowl-shaped profile, filled by 723-4	Uncertain: the human bone seems most likely to be intrusive, but no other dating evidence is present	5
723		Fill	Silty clay primary fill of pit 722 : mixture of pinkish-red, orange-red, yellowish-grey and brownish-grey, with occasional mudstone frags		5

Context	Phase	Type	Description	Finds/samples/dating	Zone
724		Fill	Upper fill of pit 722 , overlying fill 723: mid-greyish-brown silt with patches of red and light brown clay	Undateable CBM; fragments of human skull	5
725		Finds	Unstratified finds retrieved while machining overburden and subsoil in Zone 4 and the north part of Zone 5	8 sherds Roman pottery AD 150 or later, 30 sherds late 18 th to early 19 th -century pottery, 1 frag Roman CBM, fired clay tessera	5
726		Structure	Number assigned for stratigraphic purposes to the post whose former presence is indicated by the post-pipe in post-pit 713 ; shape of post-pipe shows that the former post was square-cut		5
727	1	Cut	Sub-circular pit, immediately S of but not included in pit group 629 ; 0.96m x 0.88m x 0.35m, with irregular profile and flat base; filled by 728; cuts pit 729	Early Roman	5
728		Fill	Dark greyish-brown silt with lenses of light reddish-brown clay, filling pit 727 ; contains abundant CBM, wall plaster fragments in greater quantities at the top of the fill, and occasional small rounded stones.	Pottery, AD 100-135 (3 sherds), CBM (88 frags/flakes, almost all roof tile), iron nail SF 29; sample <140>	5
729	1	Cut	Small oval feature, 0.15m deep, mostly cut away by pit 727 ; filled by 730	Stratigraphically earlier than 727	5
730		Fill	Light to mid-greyish-brown friable to loose silt fill in feature remnant 729	Roman CBM (1 frag), iron nail SF 30	5
731	1	Cut	Section through linear feature G687 , with U-shaped to V-shaped profile, cutting features 733 and 753	Roman pottery (1 sherd), small frags/flakes Roman CBM	5
732		Fill	Dark brownish-grey compact fine-sandy clayey silt with rare charcoal flecks, CBM flecks/frags and large pebbles, filling section 731	Finds probably mis-numbered 731	5
733	1	Cut	Sub-rectangular pit with rounded corners, steep sides and flat base, 1.40m wide x 0.30m deep, cutting feature 735 , filled by 734, truncated on S side by linear feature 731		5
734		Fill	Mid-orange-brown compact clayey silt with moderate charcoal flecks/frags and CBM flecks/frags and rare medium/large pebbles, filling pit 734 ; resembles fill of other sub-square/rectangular pits in vicinity; cut by 731	Mid/late 1 st - to mid-2 nd century pottery (1 frag), flake of Roman CBM	5
735	1	Cut	Remnant of pit truncated by features 733 and 753 and by school foundations; 1.40m wide x 0.40m deep with bowl-shaped profile; filled by 736-7. Possible post-pit?	Stratigraphically earlier than 733	6
736		Fill	Large sub-rounded stones in a matrix of mid-orange-brown compact clay with rare mudstone frags, forming principal fill in pit 735 : possible post-packing in redeposited natural		6

Context	Phase	Type	Description	Finds/samples/dating	Zone
737		Fill	Mid-orange-brown compact clay with rare mudstone frags, overlying fill 736 in pit 735 – same as 736 but without stones		6
738		Cut	Additional section through pit 727 at the point where it cuts feature 740		5
739		Fill	Fill of section 738 : same as 728	Roman CBM (2 frags)	5
740	1	Cut	Section through NNE-SSW aligned linear feature G746 . 0.14m deep, becoming shallower to S; truncated to N by pit 727/738 ; filled by 741		5
741		Fill	Dark greyish-brown friable to loose silt with CBM and charcoal flecks, filling section 740 through possible beam slot G746 ; cut by pit 727/738	Flake of Roman CBM	5
742	1	Cut	Section through NNE-SSW aligned linear feature G746 . 0.25m wide x 0.17m deep with steep sides and flat base. Possible beam slot. Filled by 743.		5
743		Fill	Mid-brownish-grey friable fine-sandy silt with rare charcoal frags, CBM flecks/frags and small mudstone frags, filling beam slot section 742 .		5
744	2?	Cut	Small, sub-circular feature, possible post-hole, directly to E of possible beam slot G746 . 0.40m diameter x 0.17m deep with steep sides and flat base; filled by 745. Assigned to group 786 .		5
745		Fill	Fill of post-hole 744 : dark brownish-grey, friable, resembling silty topsoil. Contains moderate CBM flecks/frags and rare charcoal flecks.	CBM identified on site as R-B appears on context sheet but not in finds reports.	5
746	1	Group	NNE-SSW aligned linear feature near centre of site, with perpendicular WNW junction at N end. Possible beam slot. Cuts adjacent linear features G687 and G602 ; consists of sections 703 , 716 , 740 , 742 , 749 , 804 and possibly 720 , which was recorded as a discrete feature but may have been severed from G746 by pit 718 . Truncated at S end by school construction; survives to approx. 14m long. Cut by pits 684 , 700 and 718 ; contemporary with pit 751 .	Initially ascribed to the late Roman phase; re-phased as early Roman, although on very scanty dating evidence	5
747	1	Cut	Shallow, sub-rectangular pit with rounded corners, very steep sides and flat base; truncated to E by linear feature G746 and pit 751 . 1.20m long x 0.14m deep; survives to a width of 0.58m. Filled by 748.		5

Context	Phase	Type	Description	Finds/samples/dating	Zone
748		Fill	Fill of pit 747 : light brown clayey silt with patches of orange-brown; no inclusions.	Scrap of Roman CBM	5
749	1	Cut	Section through linear feature G746 at its intersection with pit 751 : no stratigraphic relationship could be demonstrated. Filled by 750.		5
750		Fill	Dark brownish-grey clayey silt with occasional CBM flecks, filling beam slot section 749 : indistinguishable from fill 752.		5
751	1	Cut	Sub-circular pit, 0.71m long x 0.24m deep with steep side and slightly concave base; width unknown as this feature could only be distinguished from beam slot 749 where it cut natural. Filled by 752. Probable post-hole within and contemporary with beam slot.		5
752		Fill	Dark brownish-grey clayey silt with occasional CBM flecks, filling pit 751 : identical to fill 750 in beam slot section 749 apart from several med-large angular stones, largely in upper part of fill.		5
753	1	Cut	Fragment of linear feature, truncated to NNE by school construction and to SSW by linear feature 731 : possible spatial relationships with 731 , as 753 does not extend beyond it, and with parallel G746 . Cuts pit 735 . 0.30m wide x 0.20m deep with bowl-shaped profile and flat base; filled by 754.	Stratigraphic/spatial relationships only	5
754		Fill	Dark brownish-grey gravelly silt with moderate charcoal flecks and rare CBM flecks, filling linear feature 753 .		5
755	2?	Cut	Shallow sub-oval pit, aligned roughly E-W, 1.82m x 0.65m x 0.08m with dish-shaped profile, on S side of and possibly associated with structure 693. Cuts layer 692; filled by 756.	Dated only as generically Roman; spatial relationships suggest mid-Roman.	6
756		Fill	Dark grey silty clayey sand with black patches, no inclusions, filling pit 755	Roman pottery (2 sherds)	6
757	1?	Cut	Sub-circular pit, 0.80m diameter x 0.28m deep with steep sides and flat base; latest in a cluster of 3 pits to NE of junction of beam slots G687 and G746 . Cuts pit 759 ; filled by 758. Not assigned to a group on site, but looks as though it ought to belong to G786 .	This cluster of pits is phased on stratigraphic relationships only	5
758		Fill	Dark brownish-grey friable sandy silt with frequent medium-large stones, rare medium-large CBM frags and rare charcoal flecks, filling pit 757 . Stones probably represent post-packing or -pad.	Roman pottery (1 sherd). CBM interpreted on site as <i>tegula</i> frags: 1 large frag, classified as 'adapted tegula', retrieved	5

Context	Phase	Type	Description	Finds/samples/dating	Zone
759	1?	Cut	Truncated pit, probably sub-circular, 0.37m deep with almost vertical sides and flat base; truncated to S by school footings and cut to N by pit 757 ; cuts pit 761 ; filled by 760		5
760		Fill	Mid-brownish-grey friable sandy silt with lenses of orange clay, rare charcoal flecks, frequent medium-large mudstone frags and moderate cobbles, filling pit 759 . Stones probably represent post-packing or -pad.		5
761	1?	Cut	Earliest in a cluster of 3 pits to NE of junction of beam slots G687 and G746 ; probably sub-oval, but truncated to S by school footings and cut to E by pit 759 . Survives to 1.10m L x 1.0m W x 0.25m D with moderate sides and flat base. Filled by 762; also cut by section 690 of G601 .	Stratigraphically earlier than G601	5
762		Fill	Mid-orange-brown compact clayey silt with moderate charcoal flecks, rare CBM flecks and moderate small-medium mudstone frags, filling pit 762 . Cut by section 690 and pit 759 .		5
763	4	Cut	Truncated feature, probably sub-rectangular pit, with rounded corners, steep sides and stepped base, among school foundations to E of pit 757 . Filled by 764. Possible association with pit group 786 . Circular depression in E end of base suggests possible double post-hole.		5
764		Fill	Mid-orange-brown compact clayey silt with moderate small-medium mudstone frags and rare small CBM frags, charcoal flecks and pebbles, filling truncated feature 763 .	Roman CBM (3 frags)	5
765	1	Cut	Section through ESE-WNW linear feature G687 : 0.35m wide x 0.15m deep with regular, bowl-shaped profile, filled by 766.		5
766		Fill	Dark brownish-grey friable clayey silt with moderate CBM flecks and small mudstone frags and rare charcoal flecks, filling section 765		5
767	4	Cut	Sub-rectangular pit at N end of small feature complex at W end of ditches G447/448 ; 1.40m x 0.90m x 0.20m with rounded corners, steep sides and flat base, filled by 768, cutting small linear feature G926 .		6
768		Fill	Mid-orange-brown compact clayey silt with rare charcoal flecks, small-medium mudstone frags and CBM frags, filling pit 767 ; disturbed by modern land drain	CBM interpreted on site as Roman roof tile noted on context sheet but does not appear in finds list	6

Context	Phase	Type	Description	Finds/samples/dating	Zone
769	2?	Cut	Small sub-circular feature, possible post-hole, 0.40m diameter x 0.27m deep with bowl-shaped profile, directly adjoining but not intersecting pit 767 ; filled by 770 and 787. Included in group 786 .	Mid-Roman?	6
770		Fill	Large frags of burnt tufa in a matrix of light brownish-grey friable sandy silt, filling post-hole 769 . Stones in quatrefoil pattern, suggesting that a narrow post may have occupied the space at the centre: fill of this space recorded separately as 787.		6
771	4	Cut	Section through small, NNE-SSW aligned linear feature G926 : 0.30m wide x 0.08m deep, with steep sides and concave base; truncated to N by pit 767 ; filled by 772.		6
772		Fill	Mid-greyish-brown friable fine-sandy silt with rare charcoal flecks, filling section 771 through possible beam slot G926 ; cut by pit 767		6
773	4	Cut	Section through small, NNE-SSW aligned linear feature G926 , directly to S of section 771 : 0.19m wide x 0.06m deep with moderate sides and concave base, filled by 774.		6
774		Fill	Mottled mid-greyish-brown friable sandy silt with rare charcoal flecks, filling section 771 through possible beam slot G926	Sherd of pottery recorded on context sheet, but does not appear in finds reports	6
775		Fill	Dark brownish-grey silty clay with occasional small angular stones, forming a small deposit with diffuse edges above fill 776 in post-pit 778 . Interpreted on site as possibly the result of bioturbation, but seems more likely to be the fill in a severed fragment of linear feature G861 .	1 frag Roman CBM. Pottery recorded on context sheet, but does not appear in finds reports	5
776		Fill	Mid-greyish-red plastic clay with occasional mudstone frags, surrounding post-pipe in post-pit 778 above basal fill 781		5
777		Fill	Dark brownish-grey loose clayey silt with charcoal and occasional small angular stones, filling central post-pipe in post-pit 778	Mid- to late 3 rd -century pottery (1 sherd), flakes of Roman CBM; sample <141>	5
778	2	Cut	Remnant of sub-circular post-pit, truncated to S by school footings, to W of post-hole group 629 ; 1.05m wide x 0.74m deep with near-vertical sides and flat base, filled by 775-7 and 781.		5

Context	Phase	Type	Description	Finds/samples/dating	Zone
779	2?	Cut	Sub-circular or sub-oval pit, possible post-hole, unclear in plan, 0.43m deep with irregular, concave sides and concave base; on E side of Roman stone structure 693 ; probably truncated to W by feature 780 but relationship unclear in section; filled by 892.	Spatial association with Structure 693 , but could not clearly be distinguished from feature 780	6
780	2?	Cut	Short linear feature or very elongated pit on E side of Roman stone structure 693 : c. 4m long x 1.08m wide x 0.37m deep with bowl-shaped profile, filled by 893-4, probably cutting pit 779	Interpreted during the evaluation as a possible robbed-out wall; in association with the conjectural interpretation of Structure 693 as a water-mill, this may in fact be a wheel-pit.	6
781		Fill	Blackish-grey compact silty clay with no inclusions, 0.29m deep, forming primary fill in post-pit 778 below fill 776, surrounding post-pipe fill 777.		6
782	2?	Cut	Sub-circular post-hole, 0.44m diameter x 0.16m deep, with bowl-shaped profile and shallow, concave base, forming part of post-hole group G786 ; filled by 783		5
783		Fill	Mid-brownish-grey friable fine-sandy silt with rare charcoal flecks, containing frequent small-medium burnt tufa fragments, probably representing post-packing. Fill of post-hole 782 .		5
784	2?	Cut	Small, circular post-hole, 0.23m diameter x 0.13m deep with moderate sides and concave base, forming part of post-hole group G786 ; filled by 785		5
785		Fill	Fill of post-hole 784 : mid-brownish-grey friable fine-sandy silt with rare charcoal flecks, containing frequent medium burnt tufa fragments, probably representing post-packing.		5
786	2	Group	Possible post structure, formed by post-holes 684 , 713 , 744 , 769 , 782 and 784 , chiefly characterised by distinct post-pipes and burnt tufa packing stones in the fills; some also include large frags Roman roof tile. Post-holes 757 and 763 may also be included.	Many features poorly or conjecturally dated, but may be mid-Roman	5
787		Fill	Mid-greyish-brown compact clayey silt with rare charcoal flecks, CBM frags and small-medium tufa frags, filling post-pipe within post-hole 769	3 rd -century or later pottery (2 sherds), small frags/flakes Roman CBM	5
788		Fill	Dark brownish-grey compact clayey silt with rare small angular stones, filling section 789 through linear feature G861		5

Context	Phase	Type	Description	Finds/samples/dating	Zone
789	4?	Cut	Section at apparent S terminal of NNE-SSW linear feature G861 : 0.60m wide x 0.10m deep, reducing in depth to surface at S end (possibly machined away rather than genuinely terminating). Filled by 788.		5
790		Fill	Dark brownish-grey clayey silt with rare small angular stones, filling gully section 791	Roman pottery (2 sherds), small frags/flakes Roman CBM	5
791		Cut	NNE-SSW linear feature, on W side of and parallel to G861 , and possibly representing a southward continuation of G806 . 0.51m wide x 0.19m deep with bowl-shaped profile; filled by 790.		5
792	2	Group	Two perpendicular linear features towards the centre of zone 5, forming a possible enclosure with stratigraphically later linear feature G844 . Comprises sections 793 , 795 , 821 , 823 and 862 ; total dimensions of 'enclosure' approx 9m x 6m, but truncated to E by school buildings.	Currently phased to mid-Roman, but may need re-phasing to early medieval; dating evidence relatively slight for either.	5
793	2	Cut	Section at W terminal of the E-W aligned arm of feature group G792 . 0.55m wide x 0.15m deep with bowl-shaped profile and long gradient to rounded terminal; filled by 794.		5
794		Fill	Dark brown to black compact silty clay with tufa fragments, filling section 793 in G792 .	Roman pottery (4 sherds), 11 th - to 12 th -century pottery (4 sherds); sample <142>	5
795	2	Cut	Section through the E-W aligned arm of feature group G792 . 0.55m wide x 0.15m deep with bowl-shaped profile; filled by 796.		5
796		Fill	Dark brown to black compact silty clay with tufa fragments, filling section 795 in G792 .		5
797	1	Cut	Fragment of wide but shallow NNE-SSW aligned linear feature, extending beyond N edge of site and terminating to S; terminal cut by structure 693. Exposed to approx. 10m; 1.9m wide x 0.28m deep with gradual NW side, steep SE side and flat to concave base. Cuts layer 692; filled by 808.	Assigned to early Roman period due to stratigraphic relationships; only broadly Roman dating evidence.	6
798		Fill	Dark brownish-grey clayey silt with occasional large sub-rounded stones and rare small ones, filling section 799 in linear feature G861 .		5
799	4?	Cut	Section through NNE-SSW aligned linear feature G861 ; 0.63m wide x 0.20m deep with steep sides and slightly concave base, filled by 798.		5

Context	Phase	Type	Description	Finds/samples/dating	Zone
800		Fill	Dark brownish-grey clayey silt with rare small sub-rounded stones, filling section 801 in linear feature G806 .	Probable iron nail	5
801		Cut	Section through NNE-SSW running linear feature G806 : 0.50m wide x 0.25m deep with steep sides and concave base, filled by 800.		5
802		Fill	Fill of section 803 in linear feature G806 : same as 800.		5
803		Cut	Section through apparent S terminal of linear feature G806 : 0.50m wide x 0.14m deep with moderate sides, concave base, and shallow gradient to square-ended terminal (possibly truncated by school construction). Filled by 802.		5
804	1	Cut	Section through WNW-ESE aligned return at N end of linear feature G746 : 0.25m wide x 0.12m deep, with bowl-shaped profile and steeper S side; truncated at either end by pits 676 and 718 . Filled by 805.		5
805		Fill	Mid greyish-brown 'silt with marl' filling section 804 ; contains occasional CBM flecks and large frags of tufa and mudstone.		5
806		Group	NNE-SSW aligned linear feature towards N side of Zone 5, parallel and directly adjacent to W side of feature G861 ; consists of sections 801 , 803 , 855 and possibly 857 . Heavily disturbed by school construction: N end cannot confidently be traced beyond a foundation, although it may continue a short distance to be truncated by ditch 853 , while S end may terminate or may have been partially removed; if so, it may correspond to linear feature fragment 791 . Survives to approx. 12m long.	Currently undated; possibly cut by medieval ditch 853 ; no spatial associations other than with G861 . 1 flake Roman CBM assigned to this context number: uncertain which fill it derives from.	5
807		Layer	Natural deposit of greyish-green compact clay below lime marl deposit 652.		6
808		Fill	Mid-grey compact silty clay with yellowish mineral patches, containing small angular stones, CBM flecks and occasional charcoal flecks, filling ditch fragment 797 . Cut by construction cut 810 and post-hole 851 .	Roman pottery (5 sherds), small frags/flakes Roman CBM	6
809		Fill	Mid-grey compact silty clay with redeposited patches of natural lime marl, filling construction cut 810 above structure 693.	Roman CBM (3 frags)	6

Context	Phase	Type	Description	Finds/samples/dating	Zone
810	2	Cut	Construction trench for stone structure 693: approximately square, 3.0m x 3.0m in plan, with right-angled corners. Trench generally 0.60m wide x 0.35m deep, with steep to vertical interior side and shallower exterior side. Filled by structure 693 and back-fill 809; cuts ditch fill 808.		6
811	2	Layer	Mid-greyish-brown compact clayey silt with streaks of possible organic material, 0.15m deep, overlying stone floor 812 in structure 693. Possible compacted earth floor of second building phase.	Roman pottery (1 sherd), flakes of Roman CBM; sample <144>	6
812	2	Structure	Layer of roughly worked mudstone and possible tufa fragments within structure 693, overlying and pressed into layer 692, covering an area c. 1.5m x 1.5m. May represent the floor of an earlier, smaller structure, as it does not reach to all the walls of the present structure.		6
813		Fill	Dark greyish-brown clayey silt with occasional small-medium angular stones, filling gully fragment 814	Very late 4 th century pottery (2 sherds), 11 th - to 12 th -century pottery (4 sherds)	5
814	6	Cut	Curvilinear gully fragment to W of and roughly perpendicular to double linear feature G806/G861 . E end only excavated; the rest lay within evaluation trench 20. 0.40m wide x 0.16m deep with bowl-shaped profile and concave base; filled by 813. Shallow gradient to a possible E terminal; may have been truncated above rather than genuinely terminating.	Medieval	5
815	6	Cut	Section through curvilinear gully G609 at its intersection with gully fragment G847 . Filled by 816-8; cut (but not truncated) by section 819 of G847 .		5
816		Fill	Dark brownish-grey silt with frequent charcoal flecks, forming a small, localised deposit 0.05m deep at the base of section 815 .	Roman pottery (2 sherds)	5
817		Fill	Mid-brownish-grey friable clayey silt with rare charcoal flecks, small-medium mudstone frags, medium limestone frags and CBM frags, above fill 816 in section 815 .		5
818		Fill	Dark brownish-grey friable sandy clayey silt with rare charcoal flecks and moderate poorly sorted tufa frags and CBM frags, sealing section 815 above fill 817 (diffuse horizon).	Mid- to late 3 rd century or later pottery (11 sherds), possible early to mid-12 th -century pottery (13 sherds), Roman CBM (8 frags), stone <i>tessera</i>	5
819	6	Cut	Section through NW-SE aligned gully fragment G847 , cutting across curvilinear feature G609 near its terminal; cuts fill 818. 0.55m wide x 0.20m deep with moderate sides and concave base, filled by 820.	Dated by stratigraphic relationship with G609	5

Context	Phase	Type	Description	Finds/samples/dating	Zone
820		Fill	Dark brownish-grey compact sandy clayey silt with moderate CBM flecks/small frags and rare medium mudstone frags, charcoal flecks and small pebbles, filling section 819 .		5
821	2	Cut	Section at N terminal of N-S aligned linear feature G792 : 0.30m deep with steep, slightly concave gradient to flared, square-ended, probably genuine terminal; filled by 822.		5
822		Fill	Dark brownish-grey silty clay with patches of orange-brown redeposited marl natural, charcoal flecks and tufa flecks, filling section 821 .	Mid-2 nd -century or later pottery (6 sherds), small frags/flakes Roman CBM; sample <143>	5
823	2	Cut	Section through N-S aligned linear feature G792 : 0.50m wide x 0.30m deep, with steep sides and flat base, filled by 824.		5
824		Fill	Dark greyish-brown silty clay with large patches of orange-brown redeposited marl natural, charcoal flecks and tufa flecks, filling section 823 .	Possible mid- to late 3 rd -century pottery (2 sherds), flakes of Roman CBM	5
825	?	Layer	Spread of mid-brownish-grey friable sandy silt with rare CBM and charcoal flecks, 0.07m deep, overlying natural; dimensions in plan not recorded, location on site not recorded. Interpreted as a remnant of subsoil occupying a depression in the natural.	Struck flint, believed to be redeposited.	5
826	3?	Layer	Mid-brownish-grey, compact, slightly silty clay containing small frags of stone rubble and flecks of lime marl, 0.06m deep, present in patches around structure 693, overlying construction cut backfill 809. Possible demolition deposit.		6
827		Fill	Mid-brownish-grey clay with occasional small angular stones, filling post-hole 828 ; resembles adjacent fill 829.		5
828		Cut	Circular post-hole, 0.48m diameter x 0.21m deep with moderate sides and concave base, filled by 827; one of a pair to W of ditch G806 .		5
829		Fill	Mid-brownish-grey clay with occasional small angular stones, filling post-hole 830 ; resembles adjacent fill 827.		5
830		Cut	Shallow, circular post-hole, 0.33m diameter x 0.07m deep (truncated by machining) with shallow sides and concave base, filled by 829; one of a pair to W of ditch G806 .		5
831	2	Cut	Section through WNW-ESE aligned gully G844 : 0.40m wide x 0.20m deep with steep sides and gradual break to flat base; filled by 832.		5

Context	Phase	Type	Description	Finds/samples/dating	Zone
832		Fill	Dark grey plastic clayey silt with occasional stones, filling gully section 831	Possible mid- to late 3 rd -century pottery (1 sherd), flake of Roman CBM	5
833	2	Cut	Section at W terminal of WNW-ESE aligned gully G844 : 0.30m wide x 0.15m deep, with steep sides becoming more gradual towards the tapering, rounded terminal. Filled by 834; cuts deposit 838.		5
834		Fill	Dark grey plastic clayey silt with occasional stones and CBM flecks, filling gully section 833	Mid-2 nd -century or later pottery (1 sherd); iron nail or bolt	5
835			Void		
836		Layer	Mid-grey plastic clayey silt, 2.0m x 1.8m x 0.10m; detached fragment of a spread whose other fragments are 838 and 840.		5
837			Void		
838		Layer	Mid-grey plastic clayey silt, 2.0m x 1.8m x 0.10m; detached fragment of a spread whose other fragments are 836 and 840. Directly adjoins 836.		5
839			Void		
840	1-2?	Layer	Mid-grey plastic clayey silt, 2.0m x 1.8m x 0.10m; detached fragment of a spread whose other fragments are 836 and 838. Cut by gully terminal 833 .	Stratigraphic relationship suggests mid-Roman or earlier	5
841	6	Cut	Section through curvilinear feature G609 : 0.65m x 0.63m deep, with flared profile: moderate slope above, becoming vertical with a gradual break rather than a step, and gradual break to narrow, flat base. Filled by 842-3: horizon between fills corresponds to break in slope.		5
842		Fill	Basal fill in section 841 : mid-brownish-grey friable sandy clayey silt with rare charcoal flecks, oyster shells, small pebbles, small-medium mudstone frags and CBM frags. 0.35m deep.	1 frag Roman CBM	5
843		Fill	Upper fill in section 841 : dark brownish-grey compact sandy clayey silt with frequent medium-large tufa frags, moderate CBM and rare charcoal flecks and mortar frags.	Roman pottery (3 sherds), 2 frags Roman CBM, one bearing animal paw prints	5
844	2	Group	Narrow, WNW-ESE oriented linear feature, approx. 12m long, disturbed by school construction; unclear whether it genuinely terminates at either end or whether it has been truncated away. Consists of sections 831 , 833 , 864 and 868 ; appears to have a spatial relationship with feature G792 , forming 3 sides of a possible enclosure, but truncates its terminal.	Dated to late in Phase 2 by its finds; stratigraphically later than G792. May represent a widely separated part of ditch G448 , although if so, it should be assigned to Phase 3.	5

Context	Phase	Type	Description	Finds/samples/dating	Zone
845	6	Cut	Section at N terminal of gully fragment G847 : 0.55m wide x 0.18m deep with bowl-shaped profile and gradual gradient to rounded terminal. Filled by 846.		5
846		Fill	Dark brownish-grey compact sandy clayey silt with moderate CBM frags and rare mudstone frags, small pebbles and charcoal flecks, filling section 845 .	Roman pottery (5 sherds), Roman CBM (2 frags)	5
847	6	Group	Short fragment of NNW-SSE-aligned gully, some 4m long (probably truncated), cutting E end of curvilinear gully G609 . Consists of sections 819 and 845 . No spatial relationships can be identified: the alignment of this feature is neither parallel nor perpendicular to anything in its vicinity.	Stratigraphically later than G609 .	5
848		Cut	Narrow E-W aligned feature, possibly fragment of gully, with bulbous W end suggesting an integral post-hole ('tadpole-shaped'). 2.15m x 0.45m x 0.20m, filled by 849. Possible spatial relationship with post-hole 866 ; close to but not intersecting G609 .	Undated	5
849		Fill	Mid-brownish-grey friable sandy clayey silt with rare large, roughly hewn tufa frags and rare charcoal flecks, filling feature 848 ; no difference in the fill to indicate the presence of a discrete post-hole at W end.		5
850		Fill	Mid-grey, compact, slightly silty clay with CBM frags, charcoal flecks and small angular stones, filling post-hole 851 .		6
851	3?	Cut	Narrow, circular post-hole, 0.15m diameter x 0.30m deep with steep to vertical sides and concave base, cut into fill 808 in ditch 797 . Seen only in excavated section; not visible in plan; runs the full depth of 797 , but does not appear to cut further into its base. Filled by 850.	Possibly associated with structure 693.	6
852		Fill	Dark brownish-grey silty clay with occasional small angular stones, filling section 853 .	Flakes of Roman and post-Roman tile	5
853	6	Cut	Section near W end of E-W aligned linear feature G870 , 1.1m wide x 0.33m ⁺ deep, with steep sides; not excavated to base. Filled by 852; cuts gullies 855 and 857 .		5
854		Fill	Dark brownish-grey silty clay with occasional small angular stones, filling section 855		5

Context	Phase	Type	Description	Finds/samples/dating	Zone
855	4?	Cut	Fragment of NNE-SSW aligned linear feature, probably representing a detached part of G806 : truncated to S by ditch 853 and terminating or truncated away to N. Filled by 854; parallel to 857 .		5
856		Fill	Dark brownish-grey silty clay with occasional small angular stones, filling section 857		5
857	4?	Cut	Fragment of NNE-SSW aligned linear feature, probably representing a detached part of G861 : truncated to S by ditch 853 and terminating or truncated away to N. Filled by 856; parallel to 855 .		5
858	5	Cut	Section through NNE-WSW linear feature G871 : 0.80m wide x 0.36m deep, with steep, regular sides and flat base. Filled by 859.		5
859		Fill	Dark brownish-grey clayey silt with flecks of white marl, moderate charcoal inclusions and occasional small stones, filling ditch section 858 .	Roman to post-Roman pottery, 3 rd century or later (2 sherds), 2 flakes Roman and probably Roman CBM, fired clay and stone <i>tesserae</i>	5
860			Void		
861	4?	Group	NNE-SSW aligned linear feature, parallel to and probably associated with G806 , consisting of cuts 789 , 799 and 857 . Truncated and interrupted by school foundation trenches; cut to N by ditch 853 .	Undated; no definable spatial relationships other than with G806	5
862	2	Cut	Section at S terminal of linear feature G792 : 0.40m wide x 0.20m deep, with shallow sides and flat base; tapering terminal truncated at tip by perpendicular feature G844 . Filled by 863.		5
863		Fill	Light greyish-brown silty clay with patches of light yellow sandy clay, tufa fragments and charcoal flecks, filling gully section 862. Cut by section 864 of perpendicular feature G844 .	Roman pottery (1 sherd), flakes of Roman CBM	5
864	2	Cut	Section through WNW-ESE aligned linear feature G844 : 0.30m wide x 0.18m deep with concave sides and flat base. Filled by 865; cuts 863.		5
865		Fill	Dark brown clay loam with tufa and CBM flecks, filling section 864 .		5
866		Cut	Post-hole close to and on the alignment of small linear feature 848 : 0.42m diameter x 0.22m deep, circular with steep sides and concave base.	Possible post-Roman date if fill includes Roman demolition rubble.	5

Context	Phase	Type	Description	Finds/samples/dating	Zone
867		Fill	Mid-greyish-brown compact clayey silt with frequent medium and large roughly hewn tufa frags and rare CBM frags and charcoal flecks, filling post-hole 866 . Stone inclusions may represent post-packing.	1 large frag Roman CBM	5
868	2	Cut	Section at E terminal of linear feature G844 : 0.30m wide x 0.08m deep with gradually decreasing gradient to tapering terminal (possibly a machine truncation). Filled by 869.		5
869		Fill	Dark grey clayey silt with occasional CBM flecks and stones, filling section 868 .	Mid-2 nd -century or later pottery (1 sherd)	5
870	6	Group	E-W aligned linear feature, consisting of sections 853 and 878 ; truncated/overlain at both ends by standing brick structures and cut through the middle by school foundations; survives to approx. 6m long. Cuts gullies 853 and 855 .	Very tentatively dated to the medieval period by 2 potsherds. Stratigraphically later than Phase 4 853 and 855 , but these are themselves very dubiously dated; post-medieval to modern overburden 885 overlies its fill.	5
871	5	Group	NNE-SSW aligned linear feature, consisting of sections 858 and 895 , truncated by school footings to N and with terminal incorporating a post-hole to S. Survives to c. 15m long; probably associated with G882 , which continues its alignment to N beyond the school footings.	Currently assigned to Anglo-Saxon/early medieval phase; could have spatial associations with any of the linear features to W.	5
872	1-2	Cut	Sub-rectangular pit with rounded corners, 1.03m x 0.90m x 0.57m with steep, irregular sides and slightly concave base, filled by 873-5; cut at E edge by post-hole 876 . Both features are located to NE of E terminal of G844 .	Stratigraphically dated to early or mid-Roman by its relationship with 876	5
873		Fill	Dark brownish-grey organic sandy silt with rare charcoal flecks, 0.10m deep, at the base of pit 872 ; closely resembles upper fill 875.		5
874		Fill	Mid-orange-brown clay marl, compact, with rare small mudstone frags (redeposited natural), forming the second fill in pit 872 above fill 873.		5
875		Fill	Dark brownish-grey organic sandy silt with rare charcoal flecks, 0.25m deep, sealing pit 872 above fill 874: this and similar fill 873 looked like redeposited topsoil. Cut by post-hole 876 .		5
876	2	Cut	Circular post-hole, 0.50m diameter x 0.18m deep with moderate sides and slightly sloping base, cutting E edge of pit 872 ; filled by 877.	Mid-Roman	5

Context	Phase	Type	Description	Finds/samples/dating	Zone
877		Fill	Compact, dark greyish-brown mottled clayey silt containing frequent medium-large roughly hewn tufa frags and rare charcoal flecks, filling post-hole 876 – stones were present in S side of fill only, but appear to represent post-packing.	2 frags Roman CBM, 1 sherd mid- to late 3 rd century pottery	5
878	6	Cut	Section near E end of E-W aligned feature G870 : 1.15m wide x 0.35m deep, with broad, regular, bowl-shaped profile and concave base; filled by 879.		5
879		Fill	Dark brown silty clay with occasional flecks of tufa and charcoal and occasional cobbles, filling section 878 .	2 sherds 13 th -14 th century pottery, 23 frags post-Roman CBM, 3 frags Roman CBM	5
880	5	Cut	Section through NNE-SSW aligned linear feature G882 : 0.55m wide x 0.25m deep, with regular, very steep sides and gradual break to flat base. Filled by 881.		5
881		Fill	Dark grey clayey silt with occasional small stones and CBM frags and moderate charcoal flecks/frags, filling section 880 .		5
882	5	Group	NNE-SSW aligned linear feature, probably a detached part of G871 separated by school construction; consists of sections 880 and 883 . Appears to terminate to N, but terminal truncated by gully remnant 887 . Survives to approx. 5.5m long.	Currently assigned to Anglo-Saxon/early medieval phase; could have spatial associations with any of the linear features to W.	5
883	5	Cut	Section at N terminal of NNE-SSW aligned linear feature G882 : 0.50m wide x 0.15m deep, with dish-shaped profile – moderate, concave sides and wide, flat base. Moderate gradient and slight taper to truncated terminal, cut by 887 . Filled by 884.		5
884		Fill	Dark grey clayey silt with occasional small stones and frequent charcoal flecks/frags, filling section 883 .		5
885		Layer	Remnant of modern overburden around and below modern brick structure 886 – no context sheet.		5
886	Mod	Structure	Rectangular brick structure, cut into overburden 885 (no construction cut assigned): survives to 6 courses high, of which the lowest is a projecting footing. Enclosed area not excavated.		5
887	6?	Cut	Fragment of ENE-WSW aligned linear feature, truncating but not perpendicular to the N end of ditch G882 . Truncated to W by school construction; uncertain whether E end terminates or has been cut/machined away; survives to approx. 3m x 0.40m x 0.10m, with shallow, bowl-shaped profile. Filled by 888.	Provisional Saxon/early medieval date probably needs revising: its alignment is unusual, but roughly parallels the much larger medieval feature G1066 to N, and it is stratigraphically later than G882 .	5

Context	Phase	Type	Description	Finds/samples/dating	Zone
888		Fill	Mixed whitish-grey and orange compact silty clay with no inclusions, filling gully fragment 887 .		5
889	7	Group	Well at N edge of Zone 4, consisting of construction cut 900 , back-fill 901, well structure 902, and well fills 903-5. Excavated to a depth of 0.80m only.	Post-medieval pottery retrieved from latest fill, and Roman material from 901: structure interpreted on site as Roman, but most likely to be late or post-medieval.	4
890	4	Cut	Shallow oval pit near N site edge, truncated to W by cut of modern drain – survives to 1.14m x 0.87m x 0.15m, with varying sides and broad, flat base. Several large stones immediately outside it suggest deliberate positioning in a ring. Filled by 891.		4
891		Fill	Mid-brownish-grey friable to loose slightly clayey silt, with whitish-grey patches but no inclusions, filling pit 890 .	Roman pottery (1 sherd)	4
892		Fill	Fill of feature 779 : densely packed stones in a matrix of mid-brownish-grey silty clay. Vertical or near-vertical positions of many stones suggests use as post-packing, although no obvious post-pipe is present.		6
893		Fill	Primary fill in pit 780 : densely packed stones in a matrix of greyish-black, waterlogged silty clay.		6
894		Fill	Upper fill in pit 780 , above 893: densely packed stones in a matrix of mid-brownish-grey silty clay. Both fills may have served as a type of French drain.		6
895	5	Cut	Section through S terminal of linear feature G871 : 0.90m wide x 0.20m deep, with steep, regular sides, flat base and moderate gradient to rounded terminal. Filled by 897 and 899; cut on E side by post-hole 896 .		5
896	5	Cut	Circular post-hole intersecting E side of S terminal of linear feature G871 : cuts lower fill 897, but shares upper fill 899, indicating that the post was sited when the ditch was partially filled in. 0.40m diameter x 0.26m deep with steep to vertical sides and flat base; filled by 898-9.		5
897		Fill	Primary fill of ditch section 895 : mid-greyish-brown silt with veins of red mineral deposits and occasional charcoal flecks, 0.10m deep.		5
898		Fill	Primary fill of post-hole 896 : mixed greenish-grey clayey silt with occasional charcoal flecks, 0.14m deep.	Unidentifiable pottery (9 sherds); flakes of Roman CBM	5
899		Fill	Shared upper fill across ditch section 895 and post-hole 896 : mid-grey silt with moderate charcoal flecks.	Small frags/flakes Roman CBM, iron nail, slag; sample <145>	5

Context	Phase	Type	Description	Finds/samples/dating	Zone
900	7	Cut	Sub-circular to oval, steep-sided construction cut for well G889 : 1.4m x 1.2m, excavated only to 0.80m depth. Contains stone structure 902 and back-fill 901.		4
901		Fill	Mid-reddish to mid-greyish-brown friable silty clay, with patches of red silty clay on the surface and moderate small limestone frags, back-filling construction cut 900 behind well structure 902. Part of group 889 .	AD 50-90 pottery (3 sherds)	4
902	7	Structure	Cylindrical well, approx. 1m diameter, exposed to a depth of c. 0.80m (current water level). Made of dry-laid, unworked limestone blocks. Filled by 903-5; occupies construction cut 900 . Part of group 889 .		4
903		Fill	Most recent fill in well 902: mid-greyish-brown friable silty clay with moderate small stones, charcoal flecks and deteriorated fragments of oyster shell; 0.40m deep, waterlogged at base, overlying 904.	Mid-16 th to mid-17 th -century pottery (2 sherds), 6 frags post-Roman and 1 frag Roman CBM	4
904		Fill	Mid-greyish-brown friable sandy silt with occasional small stones, 0.10m deep, waterlogged <i>in situ</i> , filling well 902 above 905.		4
905		Fill	Lowest excavated fill in well 902: mid-brownish-grey friable silty clay with occasional charcoal flecks, waterlogged <i>in situ</i> , excavated to 0.33m depth without being penetrated.		4
906		Fill	Dark brownish-grey friable sandy silt with frequent small-medium limestone frags and occasional tufa frags, filling linear feature 916 : possible demolition material from robbed-out wall. Cut by edge of well G889 .	6 frags Roman CBM	4
907	1	Layer	Friable, dark grey to black silty sand with a high ash content, also containing frequent charcoal flecks, oyster shell, bone, CBM and occasional slag, overlying deposit 908 at N site edge. Exposed to a length of 4m; 0.25m depth; cut by 916 and linear feature fragment 1044 .	Mid/late 1 st -century to early 2 nd -century pottery (6 sherds), Roman CBM (3 frags)	4
908		Layer	Mid-reddish-brown friable silty clay with no inclusions, 0.10m deep, overlying natural at N site edge, below possible occupation layer 907.		4

Context	Phase	Type	Description	Finds/samples/dating	Zone
909		Layer	Patchy deposit, initially resembling a series of pits, between a modern foundation trench and a modern drain at NE zone corner. Consists chiefly of a spread of reddish-brown silty clay, with lenses of lime marl-rich grey silty clay with stones; ash and charcoal; heat-affected clay, and orange-brown silt with charcoal and small stones.		4
910	2?	Cut	Feature to N of evaluation trench 5: probably a large pit, but could not be excavated or recorded due to the area being flooded and contaminated by leaking diesel from adjacent tank. Filled by 911.		6
911		Fill	Mixed black and brown loose silt with CBM, slate and limestone inclusions, filling probable pit 910 . Not excavated: finds retrieved from surface.	Roman pottery, AD150-200 (7 sherds), frags/flakes Roman CBM	6
912		Cut	Quarter-section through pit G955 ; filled by 914-5		5
913		Fill	Mid-brownish-grey friable sandy clayey silt with rare charcoal flecks, mudstone frags and pebbles, filling section 923 in pit G955 . Cut by post-hole 921 .	Late 2 nd -century or later pottery (1 sherd), frag Roman CBM	5
914		Fill	Dark brownish-grey friable silt with frequent charcoal flecks at the base of section 912 through pit G955 ; 0.06m deep.	Sample <147>	5
915		Fill	Mid-brownish-grey friable sandy clayey silt with rare charcoal flecks, mudstone frags and pebbles, filling section 923 in pit G955 above fill 914	Late 4 th -century pottery (1 sherd), mid-12 th to early 13 th -century pottery (19 sherds), small frags/flakes Roman CBM	5
916	1	Cut	NW-SE aligned linear feature at N edge of site; c. 4m long x 0.80m wide x 0.30m deep, with moderate N side and flat base, filled by 906; cut by well G889	Uncertain, but appears on plan to be truncated by the mid-Roman feature numbered 1818 by the evaluation, and may have a spatial relationship with conjecturally mid-Roman feature 991	4
917		Fill	Mottled mid-greyish-brown loose humic silty clay with patches of clean clay, small angular stones and CBM frags, filling pit 918 – the modern appearance of this fill is probably because it is actually backfill from the evaluation.	Flake of Roman CBM	4
918	2	Cut	Remnant of linear feature; only S side exposed, continues under N site edge. 1.0m wide x 0.11m deep with steep to vertical sides and flat base; filled by 917. Interpreted on site as a possible modern garden feature, e.g. planting pit, but corresponds to a feature that produced 2 nd -3 rd -century pottery in the evaluation.		4

Context	Phase	Type	Description	Finds/samples/dating	Zone
919		Fill	Dark greyish-brown compact silty clay with small-medium stones, CBM, and flecks of lime marl and charcoal, filling feature 920 .		5
920		Cut	Sub-rectangular pit/post-hole with rounded corners, steep sides and slightly concave base, close to N site edge directly E of ditch G956 . 0.45m x 0.25m x 0.14m, filled by 919.	Undated	5
921	6+	Cut	Small circular post-hole, 0.32m diameter x 0.13m deep, with bowl-shaped profile and concave base, cutting N edge of section 923 in large pit G955 . Filled by 922.	Medieval or later	5
922		Fill	Mid-orange-brown compact clayey silt with rare charcoal and CBM flecks, filling post-hole 921 .		5
923	6	Cut	Small section into large pit G955 at its intersection with post-hole 921 ; filled by 913.		5
924	6	Cut	Sub-rectangular, N-S aligned small feature, 0.52m x 0.36m x 0.16m, with rounded corners, moderate sides and undulating base, possibly a post-hole containing two posts, with the larger at N side. Filled by 925. Located to S of pit G955 .	Medieval	5
925		Fill	Mid-greyish-brown compact clayey silt with rare medium mudstone frags and rare charcoal flecks, filling pit/post-hole 924 .	11 th to early 13 th -century pottery (1 sherd)	5
926	4	Group	Possible beam-slot, consisting of sections 594 , 771 and 773 , aligned NNE-SSW, associated with a complex of similar slots, pits and post-holes. May represent part of a Roman structure. Approx. 4.5m long.	Cannot be dated more accurately than 'Roman'.	5
927	1	Cut	Small, circular pit, 1.0m diameter x 0.26m deep, near well G889 at N site edge. W side has bowl-shaped profile; E side truncated by evaluation trench. Cuts pit 939 ; filled by 928.		4
928		Fill	Dark brownish-grey friable clayey sandy silt with occasional small limestone frags, filling small pit 927 .	Late 1 st to early 2 nd -century pottery (1 sherd), small frags/flakes Roman CBM, 2 iron nails; sample <146>	4
929		Fill	Upper fill in small pit 939 , above 930: mid-yellowish-brown friable silty clay with no inclusions. Cut by pit 927 .		4
930		Fill	Primary fill of small pit 939 : mid- to dark brownish-grey friable sandy silt with no inclusions.		4
931		Cut	Probably sub-circular pit, truncated by modern drain on S side and by pit 932 on W side, surviving to 0.94m x 0.58m x 0.49m, with regular, almost vertical side and rounded break to flat base. Filled by 946-7; cuts layer 962.	Post-medieval if 947 is really its upper fill; undated if not	5

Context	Phase	Type	Description	Finds/samples/dating	Zone
932		Cut	Probably sub-circular pit (not clearly seen in plan) cutting W side of pit 931 : 0.45m x 0.41m x 0.44m with regular, almost vertical sides and sharp break to flat base. Filled by 948-9; cuts fill 947.		5
933		Fill	Dark grey compact silty clay with charcoal and CBM flecks and occasional medium stones, filling section 934 ; cut by 936 .		4
934	6	Cut	Section near N end of linear feature G957 . Truncated on E side by section 936 : survives to 0.60m wide x 0.40m deep, with almost vertical side and rounded break to sloping base, rising to E. Filled by 933.		4
935		Fill	Dark grey compact silty clay with charcoal and CBM flecks and moderate medium stones, filling section 936 ; below layer 954.		4
936	6	Cut	Section near N end of linear feature G956 . 0.60m wide x 0.40m deep, with near-vertical W side, moderate, concave E side and sloping base rising to E. Filled by 935; cuts fill 933 in section 934 .		4
937		Fill	Mid-greyish-brown compact silty clay with small angular stones, filling linear feature 938 . Below layer 953.		4
938	2	Cut	NNE-SSW linear feature, continuing beyond N site edge and truncated by school construction at S end; cuts layer 954 and ditch 991 . Exposed to c. 5m long; 1.5m wide x 0.55m deep with bowl-shaped profile, steeper on W side than E; filled by 937. Already identified in evaluation trench 19; probably same as 1128 on S side of school foundation trench.	Early to mid-Roman: dated by finds from evaluation and from ditch 1128 .	4
939	1	Cut	Remnant of a small pit/post-hole, possibly oval in plan, truncated by evaluation trench 19 and feature 927 ; survives to 0.70m x 0.60m x 0.13m. Filled by 929-30.	Stratigraphically below 927	4
940	6?	Cut	Sub-rectangular pit with rounded corners, moderate sides and flat base, to SE of and truncated by sections 944 and 1017 of ditch G956 ; survives to 1.50m x 0.60m x 0.20m. Filled by 941; may cut pit 1021 , but relationship unclear.		5
941		Fill	Dark brownish-grey friable sandy clayey silt with rare charcoal flecks and mudstone/limestone frags, filling pit 940 .		5
942	6	Cut	Section through ditch G957 ; truncated here on E edge by recut G956 . Survives to 0.45m wide x 0.22m deep, with steep side and concave base; filled by 943.		5

Context	Phase	Type	Description	Finds/samples/dating	Zone
943		Fill	Dark brownish-grey friable sandy silt with rare charcoal flecks, filling ditch section 942	Flake of Roman CBM	5
944	6	Cut	Section through ditch recut G956 : 0.50m wide x 0.22m deep with moderate sides and concave base. Cuts ditch section 942 ; filled by 945.		5
945		Fill	Dark brownish-grey friable sandy silt with rare charcoal flecks and frags of slate, CBM and mudstone, filling ditch section 944 ; difficult to distinguish from adjacent fill 943.		5
946		Fill	Basal fill of pit 931 : mixture of light orange-red, light greyish-green, light brown, dark brown and yellowish-orange clays and silty clays (chiefly redeposited natural). Cut by pit 932 .		5
947		Fill	Recorded on site as upper fill of pit 931 , dark greyish-brown silty clay with occasional patches of greenish and orange-red clay; however, the photographed section suggests that 946 was the sole fill of 931 , and that 947 is the dark greyish-brown fill of an unrecorded small feature cutting it on the E side, entirely within the fill of the larger pit.	17 th to 18 th -century pottery (3 sherds), 1 Roman sherd, small frags/flakes Roman and post-Roman CBM, CTP	5
948		Fill	Very dark brown friable to loose slightly organic silt, with white flecks but no inclusions, filling the base of pit 932 .	Flake of Roman CBM	5
949		Fill	Mid-pinkish-brown silty clay filling pit 932 above fill 948.		5
950		Layer	Blackish-brown compact clayey silt with stones, CBM and demolition debris/refuse, up to 0.20m deep, forming the uppermost layer of levelling deposits in the N site baulk, above 951. Cut by two modern pits, not investigated.		4
951		Layer	Dark reddish-brown compact clayey silt with stones, charcoal, CBM and demolition debris/refuse, up to 0.70m deep, below 950 in N site baulk.		4
952		Layer	Mid-pinkish-brown compact silty clay with CBM, charcoal and stones, up to 0.40m deep, in N site baulk below layer 951.		4
953		Layer	Mid-brown compact clayey silt with stones in a concentrated lens, up to 0.40m deep, in N site baulk below layer 952.		4
954		Layer	Blackish-brown compact silty clay with flecks of redeposited natural and cess-like material, up to 0.40m deep, in N site baulk below layer 953; cut by pit 938 and overlying ditch G956 . Probable former occupation level.		4

Context	Phase	Type	Description	Finds/samples/dating	Zone
955	6	Group	Large pit, probably oval or sub-oval but truncated to W by school footings: survives to 3m x 1.45m x 0.37m, oriented N-S, with moderate to steep sides and flat base. Consists of sections 912 and 923 .	Medieval.	5
956	6	Group	Later of two parallel and partially intercutting linear features running ENE-WSW across Zone 5 and turning to run NNE-SSW through Zone 4, continuing beyond site edge. Exposed for a length of approx. 26m: truncated to WSW by school footings, and could not be traced beyond them. Group consists of sections 936 , 944 , 1001 , 1017 and 974 .	Provisionally dated during the evaluation by 1 C10 th -11 th potsherd in Tr 12 and 1 sherd of 8 th -12 th century pottery in Tr 19. Only 1 sherd of 11 th to possibly 12 th -century pottery retrieved from section 1001 through G956 during the excavation; this with the stratigraphic relationships now suggests that both features are medieval.	4/5
957	6	Group	Earlier of two parallel and partially intercutting linear features running ENE-WSW across Zone 5 and turning to run NNE-SSW through Zone 4, continuing beyond site edge. Exposed for a length of approx. 26m: truncated to WSW by school footings, and could not be traced beyond them. Recut by G956 . Group consists of sections 934 , 942 , 976 , 999 , 1015 , 1089 and 1170 .	Stratigraphic relationship with G956	4/5
958		Fill	Dark greyish-brown friable clayey silt with moderate large stones, including an architectural fragment, and occasional small stones, filling post-hole 959 .	Roman CBM (1 frag)	4
959		Cut	Shallow, circular post-hole near N site edge, 0.56m diameter x 0.17m deep with bowl-shaped profile, cutting feature 961 ; filled by 958.		4
960		Fill	Light yellowish-grey friable silty clay filling possible feature 961 : similar to surrounding natural.		4
961		Cut	Shallow pit or scoop, truncated by post-hole 959 , filled by 960: possible disturbance associated with construction/use of well G889 rather than a discrete feature.		4
962	6?	Layer	Dark brownish-grey clayey silt with pale flecks towards base, containing occasional sub-rounded stones. Excavated over a 1.25m x 1.10m area, full dimensions not recorded; 0.13m deep. Situated at NE corner of Zone 5; overlies fill 979.	13 th to early/mid-14 th -century pottery (3 sherds); late 3 rd -century or later pottery (2 sherds), frag Roman and frag post-Roman CBM; lead object SF32.	5
962/979		Finds	Finds that could not confidently be assigned to either fill 979 or overlying layer 962.	13 th to early/mid-14 th -century pottery (3 sherds); Roman pottery (1 sherd), Roman and post-Roman CBM	5
963		Fill	Mid-orange-brown compact silty clay containing charcoal flecks, small angular stones, and some larger stones probably deriving from structure 966. Fill of pit 964 ; sealed by layer 962.	13 th to early/mid-14 th -century pottery (2 sherds), fired clay tessera	5

Context	Phase	Type	Description	Finds/samples/dating	Zone
964	6	Cut	Sub-circular pit, truncated on N edge by cut of modern drain, 1.0m x 0.9m x 0.55m ⁺ with steep sides; base not exposed. Cut into possible wall foundation 966, slightly exceeding the width of the wall. Filled by 963.		5
965		Fill	Compact dark greyish-brown silty clay with occasional small stones, filling construction cut 967 behind wall 966 and spreading out around post-hole 964 . Part of group 968.		5
966		Structure	Basal course of wall or wall footing, c. 7m long x 1.0m wide x 0.20m deep, made of dry-laid, roughly hewn tufa blocks, oriented NW-SE. Part of group 968.		5
967	1	Cut	Section through NW-SE aligned trench, 0.70m wide x 0.30m deep; occupied by wall 966 and backfill 965; part of group 968.		5
968	1	Group	Remains of NW-SE aligned wall, consisting of stone structure 966 and backfill 965/990 in construction trench 967/991 . Cut by pit 964 . Possibly associated with linear feature 916 .		5
969	6	Cut	Quarter-section through large, sub-circular pit G1035 : 1.52m deep, with very steep to vertical sides and gradual break to flat base; cut on W edge by section 974 through G956 . Filled by 970-3.		5
970		Fill	Primary fill in section 969 : light yellowish-brown plastic silty clay, 0.42m deep, waterlogged in base of pit. Contained fragments of wood, but no indications of working could be identified on them.	Flake of Roman CBM	5
971		Fill	Mid-grey clayey silt, loose and very soft, containing frequent wood and charcoal frags, 0.14m deep, overlying fill 970 in section 969	Sample <148>	5
972		Fill	Mixed mid-grey clayey silt with orange silty clay (redeposited natural), plastic with occasional charcoal flecks, 0.90m deep, overlying fill 971 in section 969 ; cut by gully section 974 .	Flake of Roman CBM	5
973		Fill	Dark grey clayey silt, 0.18m deep, overlying fill 972 in the centre of section 969 : does not extend to the edges of the pit and has no relationship with gully section 974 .	Roman pottery (1 sherd), small frags/flakes Roman CBM	5
974	6	Cut	Section through linear feature G956 at its intersection with pit G1035 . 0.50m wide x 0.25m deep with broad, shallow, bowl-shaped profile; filled by 975; cuts pit fill 972 and fill 977 in section 976 .		5

Context	Phase	Type	Description	Finds/samples/dating	Zone
975		Fill	Mid-grey clayey silt with occasional stones, filling gully section 974 ; difficult to distinguish from fill 977 in adjoining gully section 976 .	Roman CBM (2 frags)	5
976	6	Cut	Section through linear feature G957 : 0.20m wide x 0.14m deep, with bowl-shaped profile; cut on SE edge by section 974 through recut G956 . No stratigraphic relationship with pit G1035 .		5
977		Fill	Mid-grey clayey silt with no inclusions, filling gully section 976 ; difficult to distinguish from fill 975 in adjoining gully section 974 .	Roman CBM (1 frag)	5
978	6-	Cut	Possible pit, partially exposed in keyhole section through layer 962. Appears to be a narrow oval, 0.42m wide x 0.06m deep, with moderate sides and flat base; filled by 979.	Stratigraphically earlier than medieval layer 962.	5
979		Fill	Light, slightly mottled greenish/greyish-brown clayey silt with no inclusions, filling possible pit 978 . Sealed by layer 962.		
980		Fill	Light grey compact, slightly silty clay with flecks of natural lime marl and rare small stones, 0.05m deep, filling post-hole 982 above fill 981.		4
981		Fill	Light orange-brown compact silty clay with rare small stones, 0.08m deep, forming the basal fill in post-hole 982 .		4
982		Cut	Small sub-circular post-hole among a group of small features near well G889 at N site edge: 0.25m x 0.23m x 0.12m with nearly vertical sides and gradual break to flat base; filled by 980-1.		4
983		Fill	Dark greyish-brown friable silty clay with CBM flecks and occasional small stones, 0.11m deep, filling pit/post-hole 985 above fill 984.		4
984		Fill	Basal fill in pit/post-hole 985 : dark greyish-brown compact silty clay with occasional flecks of natural lime marl, 0.13m deep		4
985		Cut	Sub-circular small pit or post-hole to S of well G889 : 0.65m x 0.58m x 0.22m with broad, shallow bowl-shaped profile, filled by 983-4; cuts fill 986 in feature 987 .		4
986		Fill	Mid- to dark brown compact silty clay mottled with black organic material, filling possible beam slot fragment 987		4

Context	Phase	Type	Description	Finds/samples/dating	Zone
987		Cut	Fragment of narrow, shallow feature, 0.80m x 0.30m x 0.06m, oriented approximately N-S, forming part of a group of small, undated features to S of well G889 . Possibly a remnant of a beam slot, potentially associated with adjacent pit/post-hole 985 and post-hole 989 .		4
988		Fill	Mid-brownish-grey compact silty clay with charcoal and CBM flecks, filling post-hole remnant 989 .		4
989		Cut	Concave base of sub-circular post-hole: 0.30m x 0.22m x 0.05m, filled by 988, situated near N end of beam slot fragment 987 .		4
990		Fill	Dark greyish-brown compact silty clay with occasional small angular stones, filling section 991 of the construction cut for wall 966, behind the stone structure (same as 965). Part of group 968 . Cut by ditch 938 .		5
991	1	Cut	Construction cut for wall 966 in additional section across G968 : 1.0m wide x 0.20m deep with steep sides and flat base, containing wall 966 and back-fill 990.		5
992	1-2	Layer	Blackish-brown compact silty clay with flecks of natural lime marl, 0.12m deep; excavated over an area 2m x 1m. Same as 954, but separated from it by evaluation trench. Cut by section 991 of G968 .		5
993	6	Cut	Remnant of circular post-hole, 0.30m diameter x 0.10m deep with moderate sides and concave base: westernmost and most recent of three intercutting features in the inner angle of gully G957 . Filled by 994; cuts fill 996 of pit 995 . Possible spatial association with post-hole 921 .		5
994		Fill	Mid-orange-brown compact clayey silt with rare charcoal flecks, filling post-hole base 993 .		5
995	6	Cut	Sub-rectangular pit, 1.60m x 1.10m x 0.17m with rounded corners, moderate sides and flat base, filled by 996. Earliest of three intercutting features in the inner angle of gully G957 ; cut by pit 997 to E and post-hole 993 to W.		5
996		Fill	Mid-brownish-grey friable sandy silt with rare charcoal flecks, filling pit 995 ; cut by pit 997 and post-hole 993 .	Mid-12 th to early/mid-13 th -century pottery (1 sherd), flake of Roman CBM	5

Context	Phase	Type	Description	Finds/samples/dating	Zone
997	6	Cut	Truncated sub-rectangular pit or possibly terminal of linear feature, oriented NW-SE: cut away to SE by section 999 of gully G957 and other features beyond. Survives to 1.60m x 1.10m x 0.17m; filled by 998; cuts pit fill 996.		5
998		Fill	Mid-orange-brown compact clayey silt with rare charcoal flecks, filling feature 997 .		5
999	6	Cut	Section through gully G957 ; recut on SE edge by section 1001 of G956 . 0.30m wide x 0.17m deep with moderate sides and concave base, filled by 1000; cuts fill 998 of feature 997 .		5
1000		Fill	Dark brownish-grey friable sandy clayey silt with rare charcoal and CBM flecks and rare small-medium mudstone frags, filling section 999 ; cut by section 1001 .		5
1001	6	Cut	Section through gully recut G956 at its bend: 0.55m wide x 0.30m deep, with moderate sides and concave base. Recuts section 999 of gully G957 to NW; cuts fill 1008 of section 1007 in pit G1035 to SE.		5
1002		Fill	Dark brownish-grey friable sandy silt with rare charcoal flecks and CBM frags, filling ditch section 1001 .	11 th to possibly 12 th -century pottery (1 sherd), small frags/flakes Roman CBM	5
1003	5-6?	Cut	Section through E-W aligned linear feature G1036 : cut on N side by large pit G1035 . Survives to 0.60m ⁺ wide (not fully excavated) x 0.40m deep, with bowl-shaped profile and concave base; filled by 1004-6.		5
1004		Fill	Basal fill of ditch section 1003 : mid-brownish-grey friable sandy silt with rare charcoal flecks, 0.40m deep		5
1005		Fill	Light brownish-grey friable sandy silt, 0.15m deep, filling ditch section 1003 above fill 1004		5
1006		Fill	Mid-greyish-brown friable sandy silt, 0.08m deep, filling ditch section 1003 above fill 1005; cut by large pit section 1007		5
1007	5-6?	Cut	Section of large pit G1035 at its intersection with ditch G1036 and gully G956 : excavated only to a depth of 0.15m, to demonstrate that 1007 cuts ditch fill 1006 and is cut by gully section 1001 . Filled by 1008.		5
1008		Fill	Mid-orange-brown compact clayey silt with rare charcoal flecks: partially excavated uppermost fill of pit section 1007 . Cut by gully section 1001 .		5

Context	Phase	Type	Description	Finds/samples/dating	Zone
1009	Mod	Layer	Dark greyish-brown loose clayey loam containing charcoal, mudstone, CBM and occasional pebbles; cut by school construction. Overlies cobbled surface 1010.	220 sherds 19 th to mid-20 th -century pottery collected jointly from 1009 and surface of 1010, iron nail with vivianite staining from 1009	5
1010	Mod	Structure	Cobbled surface, approx. 3m square, bounded by school footings to N and E and by standing brick structure to W. Seals pit 1045 .	220 sherds 19 th to mid-20 th -century pottery collected jointly from 1009 and surface of 1010, with 1 sherd Roman pottery and 2 frags Roman CBM	5
1011		Fill	Dark brownish-grey compact silty clay with frequent small stones and CBM flecks, filling small feature 1012 .	Roman CBM (2 frags)	4
1012	4	Cut	Small, circular feature, 0.40m diameter x 0.18m deep, with steep NW side, moderate SE side and concave base, cutting E side of pit 1027 . Filled by 1011.		4
1013	6	Cut	Small, sub-circular feature, directly adjoining but not intercutting S side of linear feature 1029 , partially exposed in a keyhole section through layer 962. 0.35m wide x 0.16m deep, with steep side and flat base; filled by 1014.		5
1014		Fill	Dark brown silt with patches of red clay (mixture of topsoil and redeposited natural), filling small feature 1013; sealed by layer 962.	11 th to 12 th -century pottery (1 sherd); sample <151>	5
1015	6	Cut	Section through gully G957 – context sheet absent.		5
1016		Fill	Dark brownish-grey friable sandy silt with rare charcoal and CBM flecks, filling section 1015 ; cut by section 1017		5
1017	6	Cut	Section through gully G956 : 0.60m wide x 0.15m deep, becoming shallower to SW: may terminate under school footings. Filled by 1018.		5
1018		Fill	Dark brownish-grey friable sandy silt with rare charcoal and CBM flecks and rare mudstone frags, filling section 1017		5
1019		Cut	Sub-square pit or terminal of linear feature, truncated to E by pit 1021 . Survives to 0.60m x 0.55m x 0.15m, with steep sides and slightly concave base; filled by 1020.	Stratigraphically below 1021	5
1020		Fill	Mid-brownish-grey compact fine-sandy clayey silt with rare charcoal flecks, filling feature 1019 ; cut by pit 1021 .		5
1021	6	Cut	Fragment of shallow linear feature, with moderate sides and flat base, truncated to S by school construction, and possibly also cut on N edge by pit 940 ; survives to 1.50m x 0.16m. Cuts features 1019 and 1023 ; filled by 1022. Forms part of G1065 .	Appears to be a tributary of (and therefore contemporary with) G1066	5

Context	Phase	Type	Description	Finds/samples/dating	Zone
1022		Fill	Mid-greyish-brown compact clayey silt with rare charcoal flecks, filling gully section 1021 ; cut by pit 940 .		5
1023		Cut	Sub-square pit or terminal of linear feature, with rounded corners, moderate sides and concave base, truncated to W by pit 1021 . Survives to 0.50m x 0.50m x 0.15m; filled by 1024. It is possible that pits 1019 and 1023 represent two ends of a linear feature divided by pit 1021 .	Stratigraphically below 1021	5
1024		Fill	Mottled mid-brownish-grey friable sandy silt with rare charcoal flecks, filling feature 1023 ; cut by pit 1021 .		5
1025	4	Fill	Mid-greyish-brown loose silty clay with CBM frags, small-medium stones, charcoal flecks and patches of redeposited natural, filling pit 1027 above fill 1026 – does not extend to pit edges.	Roman CBM (1 frag)	4
1026		Fill	Mid-greyish-brown compact silty clay with CBM and charcoal flecks, forming the principal fill in pit 1027 ; cut by post-hole 1012 and possible wall G968 .		4
1027		Cut	Oval pit near N edge of site, 1.0m x 0.8m x 0.23m with shallow, bowl-shaped profile; filled by 1025-6.		4
1028	6	Fill	Mid- to dark brown clayey silt with patches of red clay, occasional medium rounded stones and occasional charcoal flecks, filling pit 1188 (NB: this pit was originally erroneously double-numbered 1027 , and appears as such on much of the recording). Cut by 1033 and 1029 .	Mid/late 12 th to early/mid-13 th -century pottery (1 sherd)	5
1029		Cut	E-W aligned linear feature, cutting layer 962 and fills 1028 and 1032; truncated at E end by school foundations. W end recorded separately as 1100 . 0.76m wide x 0.17m deep; filled by 1030. Possible robber trench.		5
1030	4	Fill	Red clay mottled with brown silt, containing fragments of stone and CBM, filling possible robber trench 1029 .	Roman pottery (1 sherd), post-Roman CBM (1 frag)	5
1031		Cut	Probably circular pit/post-hole, truncated by 1029 and 1033 , 0.34m wide x 0.33m deep with steep sides and gradual break to concave base; filled by 1032.	Undated	5
1032		Fill	Dark brown friable to loose clayey silt with occasional charcoal flecks; small to medium limestone frags at base suggest post-pad. Fill of 1031 .		5

Context	Phase	Type	Description	Finds/samples/dating	Zone
1033	6	Cut	Shallow, rectangular feature, truncated by school construction, cutting features 1027 and 1031 . Adjoins but does not intersect 1029 . 0.12m deep with flat base; filled by 1034 .		5
1034		Fill	Dark greyish-brown clayey silt with occasional charcoal flecks, filling pit 1033 .	Mid/late 12 th to early/mid-13 th -century pottery (11 sherds), Roman pottery (2 sherds)	5
1035	5-6	Group	Large, sub-circular pit, 3.0m x 2.40m x 1.52m with very steep to vertical sides and gradual break to flat base; excavated as sections 969 and 1007 . Possible well/waterhole.	Stratigraphically above G1036 and below G956 ; otherwise produced only generic Roman material in such low quantity as to be unreliable.	5
1036	5-6	Group	E-W aligned linear feature consisting of sections 1003 , 1145 and 1228 ; cut by large pit G1035 and feature 1147 . Appears to turn to N at E end; may be associated with ditches 1087 and/or 1088 .	Possibly medieval.	5
1037		Fill	Dark grey compact silty clay with charcoal flecks and stones, filling feature 1038	13 th to early/mid-14 th -century pottery (1 sherd), frag post-Roman CBM	4
1038	6	Cut	Partially exposed pit at N site edge: circular where seen, 0.70m wide x 0.24m deep with irregular base. Either disturbed by tree rooting or a natural feature caused by it. Filled by 1037.		4
1039		Layer	Mid-greyish-brown compact silty clay with clay patches, charcoal flecks, CBM frags and small stones, 0.20m deep, seen overlying pit fills 1037 and 1040 and below layer 952 in N site baulk. Possible former ground surface.		4
1040		Fill	Dark greyish-brown compact silty clay with abundant small-medium stones, CBM and charcoal flecks and patches of redeposited natural, 0.12m deep, filling pit 1042 above fill 1041.		4
1041		Fill	Basal fill of pit 1042 : dark brownish-grey compact silty clay with abundant charcoal flecks and frequent small stones, 0.40m deep	Mid/late 12 th to early/mid-13 th -century pottery (1 sherd), flake of Roman CBM	4
1042	6	Cut	Oval pit or terminal of large feature with steep sides and flat to concave base, partially exposed at N site edge. 0.40m deep; exposed to 1.5m x 0.95m in plan. Filled by 1040-1.		4
1043		Fill	Dark greyish-brown compact silty clay with abundant stones, charcoal flecks and red clay patches, filling linear feature fragment 1044 . Cut by 916 ; overlain by layer 952.		4

Context	Phase	Type	Description	Finds/samples/dating	Zone
1044		Cut	Fragment of probable N-S aligned linear feature between well G889 and N site baulk: 0.60m wide x 0.18m deep, with bowl-shaped profile. Filled by 1043; truncated by 916 .		4
1045	7	Cut	Possible pit sealed below bedding layer 1046: not fully exposed. Filled by 1047-8.		5
1046	Mod	Layer	Levelling/bedding layer below cobble surface 1010: orange-brown sandy clay with pebbles.		5
1047		Fill	Upper fill in possible pit 1045 : light brown loam and gravel with abundant pebbles and charcoal frags.		5
1048		Fill	Basal fill in possible pit 1045 : very dark brown silty clay with charcoal, pebbles, cobbles, CBM rubble and mortar.	18 th -century pottery (30 sherds), 1 Roman sherd, 3 frags Roman and 11 frags post-Roman CBM, iron blade with vivianite staining SF 33, iron staple or bracket SF 34	5
1049		Cut	Sub-rectangular pit/post-hole on N side of ditch G1066 : 0.80m x 0.55m x 0.25m, with steep sides and flat base; filled by 1050.		5
1050		Fill	Fill of pit/post-hole 1049 : mixture of mid-grey plastic clayey silt and orange redeposited natural, with occasional small stones. Appeared when first exposed in plan to be the fill of a smaller, circular post-hole, suggesting that the grey material may have occupied a post-pipe and the redeposited natural was back-filled around the post.		5
1051		Cut	Smaller, sub-circular post-hole directly adjacent to, but not intersecting, feature 1049 . 0.50m x 0.45m x 0.07m with bowl-shaped profile; filled by 1052. Possible spatial association with post-hole 1102 .		5
1052		Fill	Mid-grey clayey silt filling post-hole 1051		5
1053	6	Cut	Section through ditch G1066 at the point where it is cut by pit 1104 : excavated to 1.20m wide x 0.65m deep, exposing stepped N side but not base. Filled by 1054 and 1144.		5
1054		Fill	Upper fill in ditch section 1053 : mottled light grey and orange silty clay with no inclusions, overlying fill 1144. Cut by pit 1104 .		5
1055		Layer	Brownish-black clay loam with charcoal, pebbles and flint frags, overlying W side of cobbled surface 1010 and below layer 1009		5
1056	6	Cut	Fragment of N-S aligned linear feature intersecting section 1058 of ditch G1066 : part of G1065 . Filled by 1057.	Probably contemporary with G1066 .	5

Context	Phase	Type	Description	Finds/samples/dating	Zone
1057		Fill	Mid-greyish-brown compact clayey silt with rare charcoal flecks (same as fill 1022) filling section 1056 in ditch G1065 . Indistinguishable from fill 1060 in ditch section 1058 , indicating that the features are likely to be contemporary.		5
1058	6	Cut	Section of ENE-WSW aligned linear feature G1066 at its intersection with section 1056 in ditch G1065 : excavated only to confirm relationship, no complete profile. Filled by 1059-60.		5
1059		Fill	Lower fill (base not reached) in section 1058 , below fill 1060: mid-greyish-brown friable sandy silt with rare charcoal flecks, CBM flecks and small-medium mudstone frags.		5
1060		Fill	Upper fill in section 1058 : dark brownish-grey friable sandy silt with rare charcoal flecks, 0.35m deep. No horizon could be distinguished with fill 1057 in section 1056 , indicating that features G1065 and G1066 were probably contemporary.		5
1061	6	Cut	Section through ENE-WSW aligned linear feature G1066 : 1.80m wide x 0.94m deep with very steep, regular S side, stepped N side and gradual break to concave base. Filled by 1062-4.	Mid-12 th to early/mid-13 th -century pottery (1 sherd), Roman pottery (1 sherd) and Roman CBM (flake) were assigned the cut number, but probably derive from fill 1062.	5
1062		Fill	Basal fill in ditch section 1061 : mid-brownish-grey friable fine-sandy silt with moderate charcoal flecks and rare small pebbles and mudstone frags, 0.64m deep.	Sample <150>. Pottery and bone listed on context sheet, but not present – probably erroneously numbered 1061.	5
1063		Fill	Mid-greyish-brown friable sandy silt with rare charcoal flecks, CBM flecks and small-medium mudstone frags, 0.58m deep, filling ditch section 1061 above fill 1062. Same as 1059.		5
1064		Fill	Upper fill in section 1061 : dark brownish-grey friable sandy silt with rare charcoal flecks, 0.25m deep, above fill 1063.	Mid-12 th to early/mid-13 th -century pottery (6 sherds), Roman pottery (1 sherd), Roman CBM (2 frags)	5
1065	6	Group	Fragment of N-S aligned linear feature, 4 m long, possibly truncated at N end by pit 940 (relationship not confidently ascertained). S end intersects ditch G1066 : G1065 is narrower and much shallower, but a common fill suggests that the features are contemporary, and that G1065 was a subsidiary ditch draining into G1066 . Consists of sections 1021 and 1056 .	Probably medieval in association with G1066 .	5
1066	6	Group	Large ENE-WSW aligned linear feature, approx. 21m long: relationships at E end obscured by pit 1200, while W end truncated by school construction and cannot be traced beyond it. Consists of sections 1053 , 1058 , 1061 , 1172 and 1201 .	Probably high medieval.	5

Context	Phase	Type	Description	Finds/samples/dating	Zone
1067		Fill	Mid-orange-brown compact silty clay with small stones and CBM/charcoal flecks, filling pit section 1068 .		5
1068		Cut	Section of large pit G1073 , establishing its relationship with pit G1074 – full profile not exposed. Filled by 1067; cuts fill 1069 in section 1070 .		5
1069		Fill	Mid-greyish-brown compact silty clay with flecks of charcoal, CBM and redeposited natural, filling pit section 1070 . Cut by 1068 .		5
1070		Cut	Section of large pit G1074 , establishing its relationship with pit G1073 – full profile not exposed. Filled by 1069; cut by section 1068 .		5
1071		Fill	Mid-orange-brown compact silty clay with small stones, CBM and charcoal flecks and clay patches, filling pit section 1072 above fill 1075.		5
1072		Cut	Section of large pit G1073 : excavated to 0.75m deep with steep to vertical, slightly irregular side, but full profile not possible due to extensive disturbance by modern drain. Filled by 1071 and 1075.		5
1073	6+	Group	Large, undated pit, approximately 1.5m x 1.5m x 0.75m, probably sub-square but extensively disturbed by a wide modern drain. Consists of sections 1068 and 1072 . Cuts adjacent pit G1074 .	Stratigraphically above medieval pit G1074 ; otherwise undated	5
1074	6	Group	Large pit, approximately 2.9m x 2.6m x 0.55m, probably sub-oval but extensively disturbed by school construction and modern drain. Consists of sections 1070 , 1079 and 1099 . Cut by adjacent pit G1073 and post-holes 1077 and 1112 ; cuts layer 1082 and fill 1109 in possible beam slot 1110 .	Medieval: 12 th -13 th century pottery retrieved from 2 of the 3 fills of section 1099 .	5
1075		Fill	Mid-grey, compact silty clay with small stones and charcoal flecks, filling the base of pit section 1072 below fill 1071.		5
1076		Fill	Mid-greyish-brown compact silty clay with CBM and charcoal flecks, large stone blocks and flecks of redeposited natural, filling post-hole 1077 – stone appears to represent post-packing.		5
1077	6-7	Cut	Circular post-hole, 0.40m diameter x 0.20m deep with vertical sides and gradual break to flat base, cutting edge of pit section 1079 . Filled by 1076.		5

Context	Phase	Type	Description	Finds/samples/dating	Zone
1078		Fill	Mid-greyish-brown compact silty clay with CBM and charcoal flecks and flecks of redeposited natural, filling pit section 1079 . Cut by post-hole 1077 .		5
1079	6	Cut	Section of pit G1074 at its intersection with post-hole 1077 : full profile not exposed. Filled by 1078.		5
1080		Fill	Mid-grey compact silty clay with CBM and charcoal flecks and flecks of redeposited natural lime marl, filling post-hole 1081 .		5
1081	6-7	Cut	Probably circular post-hole, truncated by school construction, cutting layer 1082. 0.30m wide x 0.10m deep with bowl-shaped profile; filled by 1080.		5
1082	6-	Layer	Spread of dark brownish-grey compact silty clay with abundant charcoal, patches of redeposited natural, small stones and CBM flecks, 1.4m x 0.6m x 0.12m, on either side of possible beam slot 1110 ; also cut by post-hole 1081 , and truncated by pit G1074 . Possible remnant of occupation layer.	Stratigraphically medieval or earlier	5
1083			Void		
1084	2?	Cut	Sub-circular post-hole cutting layer 962 between E edge of ditch section 1087 and possible feature 1101 – no stratigraphic relationships established with either feature. 0.42m x 0.36m x 0.28m with steep sides and flat base; filled by 1129.		5
1085	2?	Cut	Post-hole seen only in section, cutting ditch fill 1135 and truncated above by ditch recut 1087 . 0.20m x 0.10m x 0.68m with almost vertical sides and steeply concave or pointed base; filled by 1130. Possible spatial relationship with post-hole 1086 .		5
1086	2?	Cut	Post-hole seen only in section, possibly cutting ditch fill 1135 and truncated above by ditch recut 1087 , although the post-hole and ditch 1128 may also be contemporary. 0.34m diameter x 0.28m deep; sides uncertain (clear only where post-hole cuts natural); base flat, but post remnant continues through it. Filled by 1131.		5
1087	6	Cut	Recut of ditch section 1088 near N site edge, truncating post-holes 1085 and 1086 which cut the earlier ditch fills. 1.90m wide x 0.56m deep with broad, bowl-shaped profile and slightly concave base; filled by 1138-9. Associated with G1066 .		5

Context	Phase	Type	Description	Finds/samples/dating	Zone
1088	6	Cut	Probable linear feature, seen only in section, either recutting or truncating earlier ditch 1128 and recut in turn by 1087 . Survives to 0.50m deep, with stepped W side; possibly 2.15m wide if fills 1136-7 are included. Filled on W side by 1140-1; may include fills 1136-7 on E side, although the recut was not recorded here on site. Associated with G1066 .		5
1089	6	Cut	Section through ENE-WSW linear feature G957 ; truncated by recut G956 and possibly cut by beam slot 1093 . Survives to 0.40m wide x 0.27m deep, with steep side and concave base; filled by 1090.		5
1090		Fill	Fill in section 1089 : same as 1016. Cut by 1091 and possibly 1093 .		5
1091	6	Cut	Section through ENE-WSW gully recut G956 ; cuts section 1089 through G957 ; truncated on S side by ditch section 1095 in G1204 . Little of profile seen in this section. Filled by 1092.		5
1092		Fill	Fill in section 1091 : same as 1016. Cut by ditch section 1095 .	Mid-15 th to 16 th -century pottery (1 sherd), Roman pottery (3 sherds), flakes of Roman CBM	5
1093	6	Cut	Narrow linear feature, N-S with a right-angled return to E from S end. 2.9m N-S x 2.5m E-W x 0.38m wide x 0.10m deep, with moderate sides and broad, flat base. Rounded terminals at either end; E terminal appears to cut fill 1090, while N terminal may be a truncation due to a decrease in depth. Filled by 1094. Incorporates post-holes 1121 and 1123 , but stratigraphic relationship uncertain.		5
1094		Fill	Mid-orange-brown compact clayey silt with moderate charcoal flecks, filling possible beam slot 1093 .	Mid-12 th to mid-13 th -century pottery (6 sherds), flake of Roman CBM; sample <153>	5
1095	6	Cut	Section at E terminal of linear feature G1204 : 1.50m wide x 0.85m deep, with steep sides and flat base. Terminal at full depth: square with quarter-round corners. Filled by 1096-8.		5
1096		Fill	Basal fill in section 1095 : dark brownish-grey friable sandy clayey silt with moderate charcoal flecks and rare small pebbles, 0.20m deep.	Roman CBM (6 frags), worked bone; sample <152>	5
1097		Fill	Mid-brownish-grey compact clayey silt with rare charcoal flecks and mudstone frags, 0.40m deep, filling section 1095 above fill 1096.	Mid-12 th to early/mid-13 th -century pottery (8 sherds), flakes of Roman CBM	5

Context	Phase	Type	Description	Finds/samples/dating	Zone
1098		Fill	Mid-orange-brown compact clayey silt with moderate charcoal flecks and rare mudstone frags, filling ditch section 1095 above fill 1097.	Mid-12 th to early/mid-13 th -century pottery (12 sherds), articulated and butchered animal bone	5
1099	6	Cut	Quarter-section of pit G1074 : 0.55m deep with gradual side and concave base. Cuts fill 1109 in trench 1110 ; filled by 1106-8.		5
1100	4	Cut	Additional section at W end of E-W aligned linear feature 1029 (no group number); truncated to W by ditch 1087 and cutting earlier ditch fill 1137 . Whole feature c. 4m long; this section 0.15m deep, full profile not exposed. Appears to cut dubious feature 1101 . Filled by 1142.		5
1101		Cut	Shallow, sub-circular feature near E side of ditch section 1087 , possibly truncated to S by wall cut 1101 (relationship unclear). May be a remnant post-hole, or possibly a natural feature. Filled by 1143.		5
1102		Cut	Circular post-hole or small pit, 0.55m x 0.53m x 0.20m with nearly vertical sides and gradual break to flat base, directly adjacent to pit 1104 . Filled by 1103. Possible spatial relationship to ditch G1066 .	Undated	5
1103		Fill	Dark grey clayey silt with moderate small stones, filling feature 1102 .		5
1104	6	Cut	Shallow, oval pit cutting W edge of ditch section 1053 ; 1.25m x 0.95m x 0.10m; only gradual break of slope to undulating base remaining. Filled by 1105.		5
1105		Fill	Dark grey clayey silt with moderate to frequent charcoal flecks/small frags, filling pit remnant 1104 .	Mid-12 th to early/mid-13 th -century pottery (2 sherds), Roman pottery (1 sherd)	5
1106		Fill	Mid-greyish-brown compact silty clay with stones, CBM and charcoal flecks, closing pit section 1099 above fill 1107; cut by 1112 .	Mid/late 12 th to early/mid-13 th -century pottery (2 sherds), frags/flakes Roman CBM	5
1107		Fill	Dark brownish-grey compact silty clay with ash, charcoal, stones and patches of redeposited natural, filling pit section 1099 above fill 1108.		5
1108		Fill	Basal fill of pit section 1099 : mid-brownish-grey compact silty clay with abundant stones and patches of redeposited lime marl and clay natural.	Mid-12 th to early/mid-13 th -century pottery (7 sherds), flake of Roman CBM	5

Context	Phase	Type	Description	Finds/samples/dating	Zone
1109		Fill	Mid-orange-brown compact silty clay with CBM and charcoal flecks, filling possible beam slot 1110 . Similar to fill 1094 in beam slot 1093 . Some mudstone frags near N end of fill may suggest that the beam rested on stone pads/lining at the base of the slot.	12 th to 14 th -century pottery (1 sherd), Roman pottery (1 sherd), flakes of Roman CBM, iron nail	5
1110	6	Cut	Narrow, N-S aligned linear feature, at least 5.4m long x 0.19m wide x 0.10m deep with shallow, bowl-shaped profile; possibly a beam slot forming part of structure 1125 ; filled by 1109. Truncated to N by pit G1074 ; intersects and is probably contemporary with post-hole 1164 . Relationship with beam slot 1093 destroyed by machining.		5
1111		Fill	Mid-orange-brown compact silty clay with patches of natural lime marl and orange clay and large stone inclusions, filling post-hole 1112 : stones may represent post-packing and/or a post-pad at the base of the feature.		5
1112	6-7	Cut	Circular post-hole, 0.50m x 0.45m x 0.50m with almost vertical to vertical sides and gradual break to flat base, cutting fill 1106 of pit section 1099 .	Stratigraphically later than pit G1074 , so medieval or later.	5
1113		Fill	Dark brownish-grey compact silty clay with stones, CBM flecks and charcoal flecks, filling pit 1114 .	Mid/late-11 th to mid-12 th -century pottery (1 sherd), Roman pottery (4 sherds), frags/flakes Roman CBM	5
1114	4 or 6	Cut	Sub-circular pit, 2.0m x 1.7m x 0.38m with bowl-shaped profile, steeper on E side than on W. Situated between pit G1074 and structure G1125 . Filled by 1113.	Currently dated to indeterminate Roman, but its position suggests that although its fill produced more Roman than medieval material, the medieval date is more plausible.	5
1115	6	Cut	Sub-rectangular feature, possible double post-hole, to E of structure G1125 : resembles and may be associated with feature 924 . 0.57m x 0.35m x 0.12m with steep sides and concave base, deeper at N end; filled by 1116.		5
1116		Fill	Mid-brownish-grey compact clayey silt with rare charcoal flecks, filling possible post-hole 1115 .	11 th to mid-12 th -century pottery (1 sherd)	5
1117	6?	Cut	Square post-hole, 0.30m x 0.30m x 0.06m with steep sides and flat base, filled by 1118; part of group 1125 , located within the angle of beam slot 1093 .		5
1118		Fill	Fill of post-hole 1117 : chiefly consists of a large piece of tile, placed flat to act as a post-pad. Matrix not recorded.		5

Context	Phase	Type	Description	Finds/samples/dating	Zone
1119	6?	Cut	Sub-rectangular post-hole, 0.70m x 0.57m x 0.08m with rounded corners, steep sides and flat base, located within the angle of beam slot 1093 to N of 1117 . Part of G1125 . Filled by 1120.		5
1120		Fill	Fill of post-hole 1119 : chiefly consists of two fragments of mudstone, placed flat to act as a post-pad. Matrix not recorded.		5
1121	6	Cut	Circular post-hole, 0.17m diameter x 0.18m deep with steep sides and concave base, filled by 1122. Situated within beam slot 1093 , at its angle: appears to be contemporary with it. Part of G1125 .		5
1122		Fill	Mid-orange-brown compact clayey silt with rare charcoal flecks, filling post-hole 1121 : cannot confidently be distinguished from surrounding fill 1094 in beam slot 1093 .		5
1123	6	Cut	Circular post-hole, 0.17m diameter x 0.20m deep with V-shaped profile, filled by 1124. Situated within beam slot 1093 , directly to N of 1122 : appears to be contemporary with both. Part of G1125 .		5
1124		Fill	Mid-orange-brown compact clayey silt with rare charcoal flecks, filling post-hole 1123 : same as 1122; cannot confidently be distinguished from surrounding fill 1094 in beam slot 1093 .		5
1125	6	Group	Possible structure consisting of beam slots 1093 and 1110 , delineating 3 sides of a rectangle, with post-holes 1164 , 1121 , 1123 and 1126 within the beam slots and post-holes 1117 , 1119 and 1162 within the structure; pit 1114 also lies within the structure but is not necessarily associated with it.	Medieval.	5
1126	6	Cut	Circular post-hole forming part of structure G1125 : 0.30m diameter x 0.09m deep, with bowl-shaped profile, situated directly S of the point where beam slot 1110 has been truncated away by machining – probably originally within the beam slot. Filled by 1127.		5
1127		Fill	Mid-brownish-grey compact clayey silt with rare charcoal flecks, filling post-hole 1126 .		5

Context	Phase	Type	Description	Finds/samples/dating	Zone
1128	2?	Cut	Probable linear feature, seen only in section: completely truncated above by ditch cuts 1087 and 1088 and cut on E side by post-hole 1085 ; relationship with post-hole 1086 uncertain. Survives to 1.6m wide x 0.65m deep, with concave sides and slightly concave to flat base. Filled by 1132-7. May be a southward continuation of ditch 938 .	Stratigraphically earlier than medieval ditches 1087/1088 : doubtful Roman date from limited material.	5
1129		Fill	Reddish- to brownish-grey clayey silt with no inclusions, filling post-hole 1084 .	Roman pottery (1 sherd), flakes of Roman CBM	5
1130		Fill	Dark greyish-brown sandy silt, filling post-hole 1085 .	Flake of Roman CBM	5
1131		Fill	Greyish-black waterlogged clayey silt filling post-hole 1086 in the base of ditch 1128 , incorporating a preserved remnant of the wooden post. Could not confidently be distinguished from ditch fill 1135.	Roman pottery (1 sherd), frag Roman CBM, very abraded	5
1132		Fill	Primary fill in ditch 1128 : greenish-grey silty clay with no inclusions, 0.06m deep.		5
1133		Fill	Blackish-brown loose sandy silt, 0.11m deep, filling ditch 1128 above fill 1132; present only on E side of section.		5
1134		Fill	Pinkish-red clay with rare mudstone frags (redeposited natural), 0.03m deep, filling ditch 1128 above fill 1133; present only on E side of section.		5
1135		Fill	Principal fill of ditch 1128 , above fill 1134, surviving to 0.23m deep; truncated above by ditch cut 1088 . Greyish-black clayey sandy silt with charcoal flecks and organic material.	Roman pottery, AD 120-200 (4 sherds), Roman CBM (2 frags); sample <149>	5
1136		Fill	Deposit of reddish-brown clay – redeposited natural – 0.05m deep, overlying fill 1135 on W side of section through ditches 1087 , 1088 and 1132 . Interpreted on site as a fill in 1132, but looks more likely to be a primary fill in later ditch 1088 .		5
1137		Fill	Thin layer of brownish-black silt, 0.04m deep, overlying fill 1136 on W side of section through ditches 1087 , 1088 and 1132 . Interpreted on site as the latest fill in 1132, but looks more likely to be a fill in later ditch 1088 , although 1136 and 1137 do not correspond well to 1140 and 1141 on the opposite side of 1088 . Cut above by section 1100 .		5
1138		Fill	Pinkish-red clay with lenses of mid-brown silt, occasional small mudstone frags, charcoal flecks and CBM flecks, up to 0.30m deep, forming a probable primary fill (largely redeposited natural?) in ditch recut 1087 .		5

Context	Phase	Type	Description	Finds/samples/dating	Zone
1139		Fill	Upper fill in ditch recut 1087 : mid-greyish-brown clayey silt with occasional sub-rounded stones and limestone frags, CBM and charcoal flecks, overlying fill 1138.	Mid-12 th to early/mid-13 th -century pottery (26 sherds), Roman pottery (5 sherds), Roman CBM (13 frags), post-Roman CBM (3 frags), 18 th -20 th -century CBM (1 frag), 4 fired clay tesserae, iron nail	5
1140		Fill	Light greenish-grey silty clay, 0.15m deep, forming the primary fill on W side of ditch 1088 : probably slumped/redeposited natural, and as such, may correspond to fill 1136.		5
1141		Fill	Light greyish-brown clayey silt, 0.10m deep, on W side of ditch 1088 above fill 1140; cut by ditch recut 1087 .	Flakes of Roman CBM	5
1142		Fill	Greyish-brown clayey silt with occasional fragments of limestone rubble, some roughly worked, filling construction trench section 1100 ; cut by ditch recut 1087 .	Roman CBM (1 flake, very abraded)	5
1143		Fill	Dark greyish-brown clayey silt filling doubtful feature 1101 : similar to layer 962, may simply be an accumulation of the same material in a natural depression forming around a large stone. Cut by section 1100 .		5
1144		Fill	Dark brownish-grey clayey silt fill in ditch section 1053 below fill 1054.		5
1145	5-6	Cut	Section through ditch G1036 : 1.40m wide (full feature width) x 0.55m deep with moderate, slightly irregular sides and concave base; filled by 1146 and 1186-7 (and 1195-7 in an extension of this section with the same cut number); cut by pit 1147 .		5
1146		Fill	Final fill in ditch section 1145 : mid-grey silty clay with patches of redeposited orange natural and occasional large stones. Horizon with underlying fill 1187 unclear. Cut by pit 1147 .	Mid/late 12 th to early/mid-13 th -century pottery (2 sherds), small frags/flakes Roman CBM	5
1147	6	Cut	Sub-circular pit, 2m x 1.90m x 0.60m with steep sides and flat base, cutting fill 1197 in extended ditch section 1145 ; filled by 1148-9. Pit does not appear to have been surveyed and could only be approximately located on base plan.		5
1148		Fill	Light grey, plastic silty clay with moderate small stones, 0.30m deep, filling base of pit 1147 .		5
1149		Fill	Orange silty clay filling pit 1147 above fill 1148; 0.40m deep.		5
1150		Fill	Final fill in ditch 1154 : mid-brown, very compact silty clay with rare small stones, charcoal and CBM flecks, 0.15m deep, above fill 1151. Cut by post-hole 1157 .		5

Context	Phase	Type	Description	Finds/samples/dating	Zone
1151		Fill	Mid-brown compact silty clay with frequent charcoal flecks and patches of redeposited natural lime marl and clay, 0.25m deep, filling ditch 1154 above fill 1152.		5
1152		Fill	Dark brown, compact, humic silty clay, resembling topsoil, with rare stone inclusions, 0.40m deep, filling ditch 1154 above fill 1153.		5
1153		Fill	Primary fill in ditch 1154 : light orange-brown compact silty clay with abundant lenses of redeposited natural and rare small stones; 0.18m deep.		5
1154	2?	Cut	Fragment of curvilinear feature at NW corner of zone 5, corresponding to feature 1808 in evaluation trench 18. Truncated at both ends by school construction: survives to approx. 8m long x 0.95m wide x 0.48m deep, curving from N to W, with moderate to steep sides and stepped base.	Dated only by an analogy with feature 1818 drawn during the evaluation	5
1155		Fill	Upper fill of post-hole 1157 : mid-reddish-brown compact silty clay with rare small stones, 0.06m deep, above fill 1156.		5
1156		Fill	Mid-reddish-brown compact silty clay with charcoal and CBM flecks, 0.18m deep, filling the base of post-hole 1157 .		5
1157		Cut	Small oval feature, probable post-hole, cutting SE edge of curvilinear feature 1154 and smaller post-hole 1159 . 0.50m x 0.30m x 0.18m, with generally bowl-shaped profile but irregular base, filled by 1155-6.	Undated	5
1158		Fill	Mid-reddish-brown, compact, slightly silty clay with rare small stones, filling post-hole 1159 ; cut by 1157 .		5
1159		Cut	Small, sub-circular feature, probable post-hole base, 0.25m x 0.20m x 0.04m with shallow, bowl-shaped profile; at SE edge of curvilinear feature 1154 ; filled by 1158.		5
1160		Fill	Dark greyish-brown compact silty clay with charcoal and CBM flecks, resembling topsoil, filling post-hole 1161 .		5
1161		Cut	Sub-rectangular post-hole, 0.35m x 0.20m x 0.13m, with moderate, concave SE side, sharply stepped NW side and concave base; one of a group of 3 small features at SE edge of curvilinear feature 1154 . Filled by 1160; no stratigraphic relationships.		5
1162	6	Cut	Circular post-hole with bowl-shaped profile, 0.30m diameter x 0.07m deep, within structure G1125 adjacent to pit 1114 . Filled by 1163.		5

Context	Phase	Type	Description	Finds/samples/dating	Zone
1163		Fill	Mid-brownish-grey friable clayey silt with rare charcoal flecks, filling post-hole 1162 .		5
1164	6	Cut	Sub-circular post-hole, 0.40m diameter x 0.10m deep with moderate sides and flat base, intersecting N end of beam slot 1110 in structure G1125 . No stratigraphic relationship demonstrated: probably contemporary. Filled by 1165.		5
1165		Fill	Fill of post-hole 1164 : chiefly consists of fragments of mudstone laid flat to form a post-pad. Matrix not described.		5
1166	4?	Cut	WNW-ESE aligned linear feature, truncated at E end by gully section 1170 and either terminating or disturbed beyond recognition by school construction to W; possibly partially recut by 1168 . Survives to c. 3.5m long x 0.60m wide x 0.25m deep, with moderate sides and flat base; filled by 1167.		5
1167		Fill	Greyish-brown compact silty loam containing flecks of charcoal, CBM and redeposited natural, filling feature 1166 ; cut by 1168 and 1170 .	Roman pottery (1 sherd), flake of Roman CBM	5
1168	4?	Cut	Possible terminal of WNW-ESE aligned gully, within and recutting feature 1166 but extending for only half its length. 0.40m wide x 0.20m deep, with bowl-shaped profile steeper on S side than on N; filled by 1169; cut by gully 1170 and perpendicular linear feature 1212 .	Stratigraphically earlier than G956/957 .	5
1169		Fill	Dark brown to black compact silty clay loam with sand lenses, fragments of marl bedrock and redeposited natural clay, and abundant charcoal, filling possible gully recut 1168 .	Roman pottery (1 sherd), frag Roman CBM	5
1170	6	Cut	Section towards SW end of gully G957 or gully recut G956 : 0.50m wide x 0.40m deep with irregular profile; filled by 1171. Only one feature seen in this section: unclear whether recut G956 has obliterated G957 , or whether this is G957 and the recut did not continue this far SW. Cuts possible gully recut 1168 and ditch section 1172 .		5
1171		Fill	Dark brownish-grey compact silty clay with sand lenses and CBM frags, filling gully section 1170 ; cut by pit 1174 .	Roman pottery (1 sherd)	5
1172	6	Cut	Section into ditch G1066 to establish its relationship with gully 1170: profile not fully exposed. Filled by 1173.		5
1173		Fill	Dark greyish-brown compact silty clay loam with patches of redeposited natural and occasional cobbles, CBM frags and gravel, filling ditch section 1172 ; cut by gully section 1170 .	Fired clay tessera	5

Context	Phase	Type	Description	Finds/samples/dating	Zone
1174	6	Cut	Circular pit, 0.80m diameter x 0.20m deep with moderate sides and flat base, cutting gully fills 1170 and 1234. Filled by 1175.		5
1175		Fill	Light greyish-brown compact loam with sand lenses, gravel, CBM and charcoal flecks, filling pit 1174 .	Mid-12 th to early/mid-13 th -century pottery (1 sherd), Roman pottery (1 sherd)	5
1176		Fill	Dark greyish-brown compact silty clay with rubble, CBM, charcoal flecks and patches of redeposited clay and lime marl natural, filling construction trench 1177 .		5
1177	3	Cut	Robbed-out construction trench of internal wall, aligned NE-SW, in Roman building at SW site corner. 0.65m wide x 0.18m deep, with steep sides and flat base; filled by 1176; cuts layer 1181. Recording discontinued: not marked on site plan.		5
1178		Fill	Dark greyish-brown compact silty clay with abundant rubble, CBM, charcoal flecks and patches of redeposited clay and lime marl natural, filling construction trench 1179 .		5
1179	3	Cut	Robbed-out construction trench, aligned NW-SE, in Roman building at SW site corner. 0.85m wide x 0.40m deep, with steep sides and flat base; filled by 1178; cuts layer 1181. Recording discontinued: not marked on site plan.		5
1180		Layer	Blackish-brown silty clay topsoil, remaining to a depth of 0.12m over parts of the Roman building at SW site corner.		5
1181	3	Layer	Dark greyish-brown compact silty clay with rare small stones and patches of lime marl natural, 0.13m deep, cut by construction trenches 1177 and 1179 and overlain by floor 1189. Recording discontinued: not marked on site plan.	Roman pottery (1 sherd), Roman CBM (1 frag)	5
1182		Cut	Sub-oval post-hole, cut on S side by similar post-hole 1184 ; survives to 0.70m x 0.54m x 0.30m with steep surviving side and flat base; filled by 1183. Location unidentified: Roman building?		5
1183		Fill	Compact red clay filling post-hole 1182; cut by 1184 .	Roman CBM (1 frag)	5
1184	6?	Cut	Sub-circular post-hole, 0.67m x 0.63m x 0.29m with varying sides and concave base; filled by 1185. Cuts post-hole 1182 . Location unidentified: Roman building?		5
1185		Fill	Mixed red clay and greyish-brown silt filling post-hole 1184 ; contains a single large mudstone fragment, possibly part of a post-pad.	Mid-12 th to mid-13 th -century pottery (1 sherd), stone <i>tessera</i>	5

Context	Phase	Type	Description	Finds/samples/dating	Zone
1186		Fill	Dark grey plastic clayey silt with charcoal flecks, forming the basal fill in ditch section 1145 ; 0.25m deep.		5
1187		Fill	Mixed orange and yellow plastic silty clay, 0.15m deep, overlying fill 1186 in ditch section 1145 .	Small frags/flakes Roman CBM	5
1188	6	Cut	Sub-circular pit, truncated by features 1029 and 1033 : survives to 1.02m x 0.63m x 0.25m, with steep, concave sides and broad, flat base. Filled by 1028. Originally erroneously double-numbered 1027 , and appears with this number in much of the site recording.		5
1189	3	Layer	Layer of compacted lime, 0.15m deep, forming a floor surface within Roman building. Recording discontinued: not marked on site plan.		5
1190	3	Structure	NW-SE aligned wall of Roman building at SW site corner: single course of roughly hewn stones remains within construction cut 1193 . Recording discontinued: not marked on site plan.		5
1191		Fill	Dark brownish-grey loose clayey silt with frequent medium stones, associated with structure 1190.	Flake of Roman CBM, iron nail or bolt	5
1192		Fill	Mid-brownish-grey plastic silty clay filling construction cut 1193 behind structure 1190.		5
1193	3	Cut	NW-SE aligned construction cut for wall 1190 within Roman building; cuts layer 1199. Recording discontinued: not marked on site plan.		5
1194	3	Layer	Later floor layer in Roman building, overlying layer 1181: mid-orange-brown compact clay and lime, 0.12m thick. Recording discontinued: not marked on site plan.		5
1195		Fill	Basal fill in extension of ditch section 1145 : same as 1186.		5
1196		Fill	Orange and grey mottled silty clay with no inclusions, filling extension of ditch section 1145 above fill 1195: same as 1187, but with less redeposited natural.		5
1197		Fill	Mid- to dark grey clayey silt with occasional small stones, closing extension of ditch section 1145 above fill 1197: same as 1146.		5
1198		Layer	Dark brown clayey loam with frequent angular stones, 0.20m deep, within Roman building. Recording discontinued: not marked on site plan.	3 rd -century or later pottery (1 sherd)	5

Context	Phase	Type	Description	Finds/samples/dating	Zone
1199		Layer	Natural marl in the area of the Roman building: light bluish-grey plastic silty clay with no inclusions.		5
1200	6	Cut	Large, steep-sided, sub-circular pit, truncated at E edge by construction cut 1249 : survives to 2.6m x 2.0m x 0.45m ⁺ (base not reached due to flooding). Filled by 1220-3 and 1251; cuts ditch sections 1201 and 1228 .	Later medieval: dated chiefly on stratigraphic relationships.	5
1201	6	Cut	Section in ditch G1066 to ascertain its relationship with pits 1147 , 1200 and 1202 : full profile not exposed. Filled by 1224-5.		5
1202	6	Cut	Possibly sub-circular pit cutting fill 1224 in ditch section 1201 and fill 1227 in small pit 1203 ; truncated to S by school construction. Survives to approx. 1.35m x 1.30m (unclear in plan); 0.34m deep, with moderate to steep sides and undulating base. Filled by 1226.	Medieval?	5
1203	6	Cut	Oval post-hole or small pit base, 0.50m x 0.35m x 0.07m, with gradual break to flat base. Situated between pits 1200 and 1202 ; cut by 1202 ; filled by 1227.		5
1204	6	Group	WNW-ESE aligned ditch, consisting of sections 1095 and 1205 : exposed to 10m long, terminating to E and truncated by school construction to W (cannot be traced further to W due to edge of site). Cuts paired gullies G956/957 .	Medieval: 12 th to 13 th -century.	5
1205	6	Cut	Section through ditch G1204 : 1.05m wide x 0.70m deep with steep sides and concave base, filled by 1206-7.		5
1206		Fill	Lower (main) fill in ditch section 1205 : compact, mid-orange-brown marly clay with rare mudstone fragments and charcoal flecks, 0.70m deep. Appears to be redeposited natural, possibly indicating that it was back-filled with its own upcast, perhaps in the form of a levelled bank.		5
1207		Fill	Mid-brownish-grey clayey silt with rare mudstone frags, CBM flecks/frags and charcoal flecks, filling ditch section 1205 above fill 1206: 0.25m deep, does not extend full width of section.	Mid-12 th to early/mid-13 th -century pottery (1 sherd), late 3 rd century or later pottery (1 sherd), 2 flakes Roman and 1 frag post-Roman CBM	5
1208	3	Structure	Remnants of robbed-out stone wall on N side of Roman building in SW corner of site, occupying construction trench 1210 . Recording discontinued: not marked on site plan.		5
1209		Fill	Dark greyish-brown clayey silt surrounding wall remnant 1208 in construction trench 1210 .	Roman pottery (1 sherd)	5

Context	Phase	Type	Description	Finds/samples/dating	Zone
1210	3	Cut	Construction trench for robbed-out stone wall 1208 on N side of Roman building in SW corner of site; cuts layer 1215. Recording discontinued: not marked on site plan.		5
1211		Fill	Mid-greyish-brown compact silty clay with frequent stones, CBM and charcoal flecks, and clay patches, filling linear feature 1212 . Several stone frags appear to be laid flat in feature base, suggesting that the putative beam may have rested on a stone pad or layer.		5
1212		Cut	Base of short, narrow N-S aligned linear feature, c. 2.5m x 0.30m x 0.05m with rounded ends and gradual break to concave base – possible beam slot? – cutting gully fragment 1166/1168 and intersecting post-hole 1214 .	Undated	5
1213		Fill	Mid-greyish-brown compact silty clay with frequent stones, CBM and charcoal flecks, and clay patches, filling small post-hole 1214 . Large stone frags laid flat in feature base suggest possible post-pad.		5
1214		Cut	Base of small, probably circular post-hole, intersected by linear feature 1212: 0.30m diameter x 0.04m deep with gradual break to flat base. Recorded on site as being cut by 1212 , but similarity in fills may suggest that the features are contemporary.	Undated	5
1215		Layer	Dark brownish-grey silty clay, 0.28m deep: buried topsoil cut by Roman wall footing. Recording discontinued: not marked on site plan.		5
1216		Fill	Mid-orange-red plastic silty clay sealing deposit 1217 in hearth 1218		5
1217		Fill	Blackish-grey charcoal and ash deposit in hearth 1218		5
1218	3	Cut	Shallow, teardrop-shaped pit cutting subsoil layer 1219, 0.93m x 0.40m x 0.08m, filled by 1216-7; interpreted as a hearth. Recording discontinued: not marked on site plan.		5
1219		Layer	Mid-greenish-grey clayey silt with charcoal patches and occasional small angular stones, overlying natural 1199 to E of Roman building; cut by hearth 1218 . Recording discontinued: not marked on site plan.		5
1220		Fill	Light- to mid-brownish-grey friable clayey silt with occasional small to medium stones, 0.28m deep, filling pit 1200 above fill 1222.		5

Context	Phase	Type	Description	Finds/samples/dating	Zone
1221		Fill	Mixed deposit of mid-greyish-brown clayey silt and greyish-yellow redeposited natural, 0.20m deep, filling pit 1200 above fill 1223: possibly dumped/tipped from one side.		5
1222		Fill	Mid-grey friable clayey silt with occasional gravel, 0.45m deep, filling pit 1200 above fill 1221.	13 th to early/mid-14 th -century pottery (2 sherds)	5
1223		Fill	Lowest fill reached in pit 1200 : mid-grey friable clayey silt with occasional small stones and charcoal flecks; excavated to 0.24m depth without being penetrated. Similar to fill 1222.		5
1224		Fill	Mid-greyish-brown friable clayey silt with moderate small stones and charcoal frags, 0.25m deep, filling ditch section 1201 above fill 1225; cut by pits 1200 and 1202 .	Roman CBM (1 frag)	5
1225		Fill	Basal fill in ditch section 1201 : mid-greyish-brown friable clayey silt with frequent large flecks of redeposited natural and occasional small stones and charcoal frags, 0.30m deep.		5
1226		Fill	Mid-grey friable clayey silt with moderate small to medium stones, filling pit 1202 .	Mid-12 th to early/mid-13 th -century pottery (2 sherds)	5
1227		Fill	Light brownish-grey friable clayey silt with occasional small stones, filling small pit/post-hole 1203 ; cut by pit 1202 .		5
1228	5-6	Cut	Section at possible N return at E end of ditch G1036 – full profile not exposed. Filled by 1229-30; cut by pits 1200 and 1239 . Relationship to G1066 obscured by pits 1147 and 1200 ; relationship to ditches 1087/1088 not specified.		5
1229		Fill	Mid-grey silty clay with moderate small stones and occasional charcoal flecks, excavated to 0.60m deep without being penetrated, filling the base of ditch section 1228 .		5
1230		Fill	Upper fill in ditch section 1228 : discrete dump of material, 3m x 1.50m x 0.55m, consisting of mixed light grey and orange patches of redeposited natural silty clay. Similar deposits can be seen in plan elsewhere along ditch G1036 . Cut by pits 1200 and 1239 .		5
1231			Void		
1232	3	Cut	Sub-circular pit, 1.05m x 0.95m x 0.28m with steep-sided, bowl-shaped profile and flat base; filled by 1233; no stratigraphic relationships.		5
1233		Fill	Dark brown clayey silt with occasional mudstone frags, CBM and charcoal flecks, filling pit 1232 .	Mid- to late 3 rd -century or later pottery (6 sherds), Roman CBM (2 frags)	5

Context	Phase	Type	Description	Finds/samples/dating	Zone
1234		Fill	Mid-greyish-brown compact silty clay with frequent stones and CBM and charcoal flecks, filling small linear feature 1235 . Cut by 1237 .		5
1235	5-6	Cut	Fragment of small linear feature, 0.80m x 0.30m x 0.11m, aligned roughly E-W with rounded terminal to W; truncated to E by gully section 1237 ; filled by 1234.		5
1236		Fill	Mid-greyish-brown compact silty clay with patches of redeposited lime marl and clay natural, charcoal and CBM flecks and small stones, filling gully section 1237 .	Roman pottery (1 sherd)	5
1237	6	Cut	Section into either G956 or G957 near their SW extent, where only one feature can be identified but it is uncertain whether this is the original gully or the recut. Full profile not exposed: excavated to establish that 1237 cuts linear feature fragment 1235 .		5
1238		Fill	Dark orange-brown clayey silt with occasional large angular stones, filling pit 1241 .	Roman CBM (5 frags), late 12 th -century iron knife SF 35	5
1239		Cut	Truncated base of circular feature, 0.55m x 0.45m x 0.15m with shallow, bowl-shaped profile; cuts fill 1230 in ditch section 1228 . Filled by 1240.		5
1240		Fill	Mid-grey silty clay, similar to fill 1230, filling feature 1239 .		5
1241	6	Cut	Sub-oval pit, truncated by modern drain, to S of ditch G1204 : survives to 1.8m x 1.1m x 0.26m. Filled by 1238; cuts pits 1243 and 1245 .		5
1242		Fill	Mid-reddish-brown friable clayey silt with frequent small angular stones, filling feature 1243 ; cut by 1241 .		5
1243		Cut	Oval or sub-oval post-hole or small pit, partially exposed in section through 1241 and almost completely truncated above by it. Survives to 0.60m wide x 0.21m deep with steep, slightly concave sides and irregular base, possibly representing the position of a post at its deepest point. Filled by 1242. Relationship to 1245 not ascertained.		5
1244		Fill	Dark greyish-brown friable clayey silt with occasional small angular stones, filling feature 1245 ; cut by 1241 .	Roman pottery (1 sherd), small frags/flakes Roman CBM	5
1245		Cut	Base of sub-circular pit, 0.80m diameter x 0.10m deep with steep to vertical sides and flat base, cut by pit 1241 ; filled by 1244. Relationship to 1243 not ascertained.		5

Context	Phase	Type	Description	Finds/samples/dating	Zone
1246		Fill	Dark greyish-brown compact silty clay with CBM flecks, charcoal flecks and small stones, filling pit 1247 .	Mid-12 th to early/mid-13 th -century pottery (1 sherd), flake of Roman CBM	5
1247	6	Cut	Sub-circular pit at W edge of site, cutting layer 1248; profile not established by small intervention; full dimensions not recorded. Filled by 1246.		5
1248		Layer	Mid-orange-brown compact silty clay with charcoal flecks, 0.16m deep, overlying natural at W edge of site; cut by pit 1247 .		5
1249		Cut	Shallow cut truncating E edge of pit 1200 , 0.12m deep, containing metallated surface 1250.		5
1250	7	Fill	Stones and cobbles in a matrix of dark greyish-brown friable silty clay, forming a metallated surface to E of pit 1200 .	Stratigraphically later than pit 1200 ; probably post-medieval; probably associated with cobbled surface 1010.	5
1251	6	Fill	Fill in additional section into pit 1200 at its intersection with 1249 : mid-greyish-brown friable clayey silt with occasional small stones (same as 1222). Cut by 1249 .	Fragment of Roman CBM - medieval pottery recorded on site, but does not appear in report.	5

Appendix 3: Skeleton Register

Skeleton no.	Grave or cut no.	Description
1	012	Supine, extended, head to W; heavily truncated by two later features
2	041	Supine, extended, head to W; heavily truncated by two later features
3	043	Supine, extended, head to W; truncated and disturbed by machining
4	045	Supine, extended, head to W; truncated by modern feature and disturbed by machining
5	047	Probably supine, extended, head to W; heavily truncated, only lower legs remaining
6	050	Supine, extended, head to W; heavily truncated by modern feature, only legs and one hand remaining
7	052	Supine, extended, head to W; heavily truncated by two later features
8	055	Supine, extended, head to W; truncated by later feature and disturbed
9	058	Fragment; probably supine, extended, head to W; almost wholly destroyed by modern features
10	066	Supine, extended, head to W; slightly disturbed but complete
11	068	Supine, extended, head to W; truncated by modern feature; remains heavily disturbed but apparently reinterred
12	070	Supine, extended, head to W; disturbed at W end
13	073	Supine, extended, head to SW; truncated to NE by later feature; remains heavily disturbed but apparently re-ordered
14	077	Supine, extended, head to W; previously excavated but left in situ by evaluation; radiocarbon-dated to 1262±34 BP (within a likely range of late 7 th to late 8 th century) by evaluation
15	079	Supine, extended, head to W; truncated by school building and disturbed during machining; grave encountered during evaluation
16	081	Supine, extended, head to W; remains heavily disturbed but apparently reinterred
17	086	Supine, extended, head to W; truncated by modern feature and disturbed by tree rooting
18	088	Probably supine, extended, head to W; heavily truncated by two linear features, only lower legs remaining
19	092	Probably supine, extended, head to W; heavily truncated and disturbed
20	099	Supine, extended, head to W; complete and little disturbed; radiocarbon-dated to 1282±32 BP (within a likely range of late 7 th to late 8 th century)
21	101	Probably supine, extended, head to W; fragmentary, heavily truncated by two later features
22	103	Supine, extended, head to W; truncated by two later features; legs crossed; associated with one iron object, probably a coffin nail (small find 6)
23	107	Probably supine, extended, head to W; heavily truncated, only lower legs and feet remaining
24	109	Supine, extended, head to W; cut by grave 111 and later feature, and disturbed by later activity, possibly ground levelling; radiocarbon-dated to 1262±29 BP (within a likely range of late 7 th to late 8 th century)
25	111	Supine, extended, head to W; truncated and disturbed; associated with iron nails (small finds 7, 8, 9 and 12); grave cuts grave 109 ; radiocarbon-dated to 1239±30 BP (within a likely range of late 7 th to mid-9 th century)
26	117	Fragmentary; roughly articulated but heavily disturbed; no grave; within the construction cut of the modern school wall, probably redeposited during construction
27	119	Supine, extended, head to W; truncated (stratigraphic relationships unclear) and disturbed by machining; possibly reinterred
28	130	Supine, extended, head to W; truncated (skull absent); associated with one iron object, possibly a coffin nail (small find 11)
29	132	Supine, extended, head to W; slightly disturbed by machining; radiocarbon-dated to 1216±30 BP (within a likely range of late 8 th to mid-9 th century)
30	136	Supine, extended, head to W; truncated by later feature and by machining

Skeleton no.	Grave or cut no.	Description
31	143	Probably supine, extended, head to W; heavily disturbed, possibly reinterred, but associated with two possible coffin nails (small finds 15 and 16)
32	145	Probably supine, extended, head to NW; truncated and disturbed by tree rooting and machining; overlies the footings of a stone wall; associated with one iron object, probably a coffin nail (small find 20)
33	147	Supine, extended, head to SW; slightly truncated and disturbed by machining; associated with two iron nails (small finds 18 and 19); radiocarbon-dated to 1204±29 BP (within a likely range of late 8 th to mid-9 th century)
34	134	Supine, extended, head to W; complete but disturbed, possibly reinterred; associated with two iron nails and a copper alloy ring (small finds 13, 14, 17)
35	152	Supine, extended, head to W; complete and little disturbed; radiocarbon-dated to 1254±29 BP (within a likely range of late 7 th to late 8 th century)
36	154	Supine, extended, head to W; juvenile skeleton; truncated and disturbed by modern feature
37	157	Probably supine, extended, head to W; fragmentary (truncated by later ditches), only parts of legs remaining
38	174	Probably supine, extended, head to W; truncated at pelvis by modern structure, only legs and one hand remaining; associated with a probable coffin nail (small find 024)
39	180	Possibly supine, extended, head to W; fragmentary, only pelvis and some lower arm and hand bones remaining
40	349	Supine, extended, head to W; exposed but reburied without full recording. Grave cut by grave 351 .
41	351	Supine, extended, head to W; exposed but reburied without full recording. Grave cuts grave 349 .
42	1179	Disarticulated remains, apparently reburied within a robber trench

Appendix 4: The Roman Pottery

by Ian Rowlandson with K.F. Hartley, G. Monteil and D. Williams

Introduction

A significant assemblage of Roman pottery was retrieved from the enigmatic Southwell Minster School site. The assemblage suggests occupation from the conquest period until sometime at the end of the 4th or early 5th century AD. The assemblage present a diverse suite of pottery for a rural site that suggested the site was well integrated into the Roman economy throughout the Roman period. Unsurprisingly pottery from this site has more similarity with groups found at villa or roadside town type sites than contemporary low status rural dwellings. The presence of sherds with molten glass residue from this site suggests the production of Roman window glass in the vicinity, presumably for glazing one of the buildings on the site.

Due to the repeated redevelopment from the Roman period until the 1950s on this site the excavation produced few good stratified groups of Roman pottery. Much of the pottery was retrieved from post-Roman layers. As with many large Roman buildings it is likely that for large periods of the Roman occupation of the site domestic rubbish would have been disposed of off-site with midden material only brought in during periods of redevelopment. The excavation did not find any groups from wells or large pits that may have offered a more viable statistical sample for one discrete time period. However, the group is a rare example of a quantified assemblage of Roman pottery from a high status Roman rural site in the modern county of Nottinghamshire and is of regional significance. It provides evidence that trade and exchange networks linked the inhabitants of this site to the colonia at Lincoln, the Warwickshire/Leicester area, the Nene Valley and South Midlands along with fine wares brought from Gaul and amphorae-borne goods from Gaul and southern Spain.

Methodology

The pottery has been archived using count and weight as measures according to the guidelines laid down for the minimum archive by *The Study Group for Roman Pottery* (Darling 2004). This assemblage was recorded following an initial split of the pottery and preliminary dating undertaken by Jane Young. A 'spot date' of the Roman pottery was provided in December 2012 to facilitate site phasing. The pottery from the evaluation investigations from this site (Leary 2009a) was laid out by the lead author along with the original archive and a physical fabric series was constructed from the sherds to facilitate the matching of fabrics from both assemblages. This was used to concord the fabrics between the two assemblages. Where necessary codes have been developed or expanded, where possible, utilising codes developed by the City of Lincoln Archaeological Unit- CLAU (see Darling and Precious 2014). Cross-joins between the two assemblages have been noted in the archive. The pottery recording was undertaken in September 2013 and completed in October 2013. Work on the report commenced when site information was presented in April 2015.

As no concordance between contexts from this assemblage and the MSS08 group was provided it was not possible to integrate the pottery from the previous report into the discussion of the site sequence and it is recommended that the archive associated with that report ought to be considered if the group is to be studied further (Leary 2012a). Key vessels from the MSS08 assemblage were selected for illustration although it has not been possible to include the material from the evaluation into the statistical analysis and they are included in the discussion by ware type below. No additional study of material from Southwell held in museums was possible as part of this project.

An attempt at a 'maximum' vessel estimate has been made following Orton (1975, 31) along with a record of Rim equivalents (RE). Samian, mortaria, amphorae and vessels selected as suitable for illustration have been bagged separately for ease of future reference. These vessels are the most significant element of the physical archive. In this report 'grog' has been used loosely to include re-fired pottery inclusions and meta-sediment that are often found in pottery fabrics in this region as it can be difficult to discern the difference between the two without more detailed study (Leary 2001). The archive record (tabulated below) is an integral part of this report and will be curated in an Access database, available from the author in a digital format.

Condition

The Roman pottery presented for assessment totalled 1027 sherds, weighing 25.656kg (RE19.97), from a maximum of 817 vessels. A total of 315 sherds showed signs of abrasion and a small number (49) showed signs of being burnt. The majority of the pottery was retrieved in a fresh condition.

The majority of mortaria showed signs of internal use wear from grinding (No. 3, 5, 7 and contexts 98, 482 and 725) along with a colour-coated bowl from context from context 302. Internal attrition, possibly as a result of scouring or the fermentation process, was observed within a large bowl (No. 43, Context 488) and a large jar (Context 421). External basal wear was evident on two jars (contexts 182 and 421). A single jar had a rim that appeared to have warped during firing (No. 28, Phase 3, Linear 202, Fill 203) and a white ware vessel (Phase 1-2, Ditch 575, Fill 576) appeared to have an internal deposit of pitch.

White 'kettle fur' type deposits from boiling water or urine were noted on two vessels (Contexts 98 and 201). Internal carbonised deposits were recorded on two shell-gritted sherds (No. 52, Context 488 and 304) and external carbonised deposits on a Black Burnished ware 1 type jar from Context 818, two unstratified shell-gritted Dales ware jars (Context 98), a grog-gritted jar from Context 83 and a grey ware lid with a bifid rim from Context 113. All of the vessels with carbonised deposits appear to have been used for cooking and the range of vessel types with carbonised deposits is typical for an assemblage of Roman pottery from the East Midlands. The two vessels with glass residue (Contexts 245 and 295) are discussed further below.

Much of the pottery from this site was residual in later deposits and few contexts attributed to Roman Phases 1-3 contained more than 20 sherds. The post-Roman pottery and ceramic building material archives are reported on by Young and her report should be consulted for a discussion of the intrusive post-Roman sherds in Phases 1-3 (this volume). Detailed statistical comparisons of this group with other groups from the region would be misleading as viable stratified groups were not retrieved. The statements presented below therefore represent observations made more generally about the assemblage.

Dating

The dating summary is tabulated below. The detailed sherd archive is presented at the end of this report below. The post-Roman pottery and ceramic building materials have been considered elsewhere by Young (this volume). As highlighted by Leary for the MSS08 Southwell assemblage (2009a) the dating of groups from villa sites can be hindered by long periods of the site being kept clean followed by dumps of pottery from earth used for levelling up prior to redevelopment. Further churning up of the site by later activity can also make it difficult to recognise intrusive or residual material in small groups. As there are few groups of pottery larger than 20 sherds in this assemblage the date provided is on the basis of the pottery presented. Any groups where intrusive material may be present have been noted but interpretation of the site must rest upon the ceramic dating accompanied by the stratigraphic

sequence. The assemblage has been discussed briefly using the phases provided to the author and subsequently, as a whole, by ware type (below). Pottery from Phase 4 onward is discussed in the data appendix and more generally by ware type below. For a full description by context please consult the Roman pottery dating appendix below.

Phase 1

Sixty sherds (1.082kg, RE0.76) were exclusively attributed to Phase 1 considered by the excavator to relate to early Roman activity on the site. With the exception of a single intrusive sherd of Derbyshire ware from finds collection Context 666/7 all of the pottery could be dated to the early Roman period with the Mancetter/Hartshill mortarium (No. 2) dating between AD100-135. No Black Burnished ware or Central Gaulish samian was retrieved from these contexts and it appears likely, on the basis of this limited sample, that this group relates to pre-Hadrianic activity. The group contained fragments of Dressel 20 and a Gaulish wine amphora, a sherd from a white ware flagon, a single oxidised sherd in the OABT fabric group, grey ware including a jar with a narrow neck (No. 26), a jar with a slightly channelled rim (No. 27) and an everted rimmed jar (No. 30). A small quantity of 'Trent Valley' type native tradition wares was present including a fragment from a large bowl (No. 49). This assemblage is too small to look to make statistical comparisons and lacks the samian that might help us to date it more closely but the high quantity of wheel made grey ware in comparison to native tradition wares would fit with the interpretation of the occupation at Southwell being well integrated with the Roman economy from the early Roman period onwards. If this assemblage is contrasted to the composition of rural groups from the Bantock Phases 2-4 (Leary 2009b) it appears that there was a higher proportion of wheel made pottery in use at Southwell. This is perhaps unsurprising given the 'high status' and 'romanized' occupation that has been proposed for activity on the site

A further group of ninety-three sherds (3.819, RE0.76), lacking samian but possibly pre-Hadrianic, was attributed by the excavator to Phase 1 or 2. Small quantities of amphora including a neck fragment from a Dressel 20 amphora were present. A fragment from a none local shell-gritted storage jar was also present, including Punctate Brachiopod type shell-grit of a type seen in shell-gritted wares from the South Midlands and perhaps southern parts of Lincolnshire. Small quantities of sherds from white ware flagons were present and a possible sherd of the Lincoln legionary PINK fabric. Grey ware sherds made up nearly a third of the group including a jar with rusticated decoration, a narrow necked jar and a wide-mouthed jar (No. 31). Native tradition grog-gritted wares from large jars and bowls made up nearly 13% of the group by sherd count and included a native tradition cooking pot (No. 47) and a wheel-made jar (No. 48).

Phase 2

One hundred and forty-four sherds (3.640kg, RE4.95) were exclusively attributed to Phase 2. The majority of the pottery from this group could be dated to the mid to late 2nd century AD. A small number of features containing East Gaulish samian or Dales ware type or shell-gritted vessels may also represent deposition in the 3rd century AD (Ditch 425, Post-pit 778, Gully 831 and Linear 823).

A broader range of fabrics were retrieved from this phase including sherds of samian from Southern Gaul, Central Gaul, Les Matres and East Gaul (Monteil, below). Other table wares present included a beaker in an oxidised fabric (No. 14) and a South Carlton colour-coated type rough-cast beaker with a cornice rim (Context 423). No examples of Nene Valley colour-coated pottery were retrieved from this group and it appears likely that the majority of the pottery from this group was produced by the middle of the 2nd century AD. Mortaria from Lincoln including a mortarium stamped by Atepacius (No. 1) and a further vessel that appeared similar to products of the Technical College (Context 421). Hook rimmed mortaria from Mancetter/Hartshill with fired clay trituration grits were retrieved along with a single sherd from a Dressel 20 amphora. A small number of sherds from flagons were retrieved

including an example with a slightly cupped expanded top rim (No. 11) and a disc rimmed type (No. 13).

Black Burnished ware 1 types present included a dish with burnished lattice (No. 23) and Black Burnished ware 1 type wares including a plain rimmed dish (421) and a jar with an everted rim (423). Grey ware made up 51% of the group by sherd count and forms included: a segmental flanged bowl, a lipped or reeded rimmed bowls (including No. 32), a large bowl decorated with a cordon (No. 36), a possible flagon (No. 23), a lug-handled jar, a necked jar, large/storage jar types and a lid with a bifid rim. A single example of a Dales type jar was also retrieved from context 777. A small number of shell-gritted sherds (3.52% by sherd count) were also retrieved although no Dales ware rim forms in the CTA2 fabric were present. A limited number of native tradition grog-gritted wares were retrieved from this group (3.52% by sherd count).

Phase 3

One hundred and sixty-five sherds (3.251kg, RE3.17) were retrieved from contexts exclusively attributed to Phase 3. The majority of this group could be dated to the late Roman period but this group was much more mixed with a range of residual from the 2nd century AD or earlier including grey ware rusticated jar (No. 28) a segmental flanged bowl and samian. A single sherd from a bowl with glass residue was also retrieved from this phase (see below).

Mortaria present included Mancetter/Hartshill types and Nene Valley vessels with reeded rims (No. 5 and 9). A broader range of colour-coated wares (10.91% of the group by sherd count) were present including: a plain rimmed dish, a necked jar, a folded beaker, and the lid from a Castor box. A limited number of oxidised and white ware were present but a single self-slipped late Roman sherd similar to Oxfordshire red colour-coated ware was retrieved from Context 308. A limited number of Black Burnished ware 1 type vessels were retrieved including fragments from a bowl or dish and an everted rim jar.

Grey wares made up 58% of the Roman pottery from this Phase by sherd count. As discussed above a few earlier vessels were present but the majority of the forms present were typical late Roman types encountered in groups throughout the East Midlands including straight sided bowls with bead and flanged rims, plain rimmed bowls and dishes, wide-mouthed bowls. A small number of grog-gritted wares were still present amongst this assemblage.

Shell-gritted wares included Dales ware types (13.33%) including a Dales ware jar and a lipped bowl. A shell-gritted double lid-seated jar (No. 52) and sherds from a South Midlands shell-gritted jar (No. 56), both from Layer 513, are types typically seen in assemblages from the end of the Roman period in the East Midlands and suggest activity in this phase continued until at least the later 4th century AD.

Pottery by Ware Type

Samian - G. Monteil

Introduction

Twenty-one sherds of samian ware were recovered from excavation in Southwell Minster and submitted for assessment. Each sherd was examined, after taking a small fresh break, under a x 20 binocular microscope in order to identify the fabric. A spot-dating catalogue was then compiled where each entry consists of a context number alongside fabric, form and decoration identification, sherd count, rim EVEs (Estimated Vessel Equivalent), weight, notes and a date range. A rubbing of the stamp was made, mounted, scanned and submitted as illustration.

	La Graufesenque				Les Martres-de-Veyre				Lezoux				East Gaulish				Total			
	sh	wgt	RE	MNV	sh	wgt	RE	MNV	sh	wgt	RE	MNV	sh	wgt	RE	MNV	sh	wgt	RE	MNV
bowl									2	7	0.06	2					2	7	0.06	2
cup	1	17		1													1	17		1
DE67	1	2		1													1	2		1
dish	1	1		1													1	1		1
DR18	1	6	0.08	1													1	6	0.08	1
DR18/31	1	11	0.08	1	2	33	0.245	2	1	3		1					4	47	0.325	4
DR18/31R									4	487	0.38	2					4	487	0.38	2
DR27	1	10	0.18	1					2	13	0.175	2					3	23	0.355	3
DR31									1	6	0.075	1	1	5	0.06	1	2	11	0.135	2
unid									2	3		2					2	3		2
Total	6	47	0.34	6	2	33	0.245	2	12	519	0.69	10	1	5	0.06	1	21	604	1.335	19

Table 1: samian fabrics and forms present in the assemblage

The assemblage

The samian group is small with 21 sherds for a total weight of 604g, a maximum number of 19 vessels and a rim EVE figure of 1.335. No repairs or wear were noticed during recording and a single sherd presents evidence of burning (grave 80).

Despite its small size, the samian assemblage contains a range of fabrics and forms dating from the 1st to the 2nd century AD (table 1). The earliest samian material is South Gaulish with fragments presents amongst the stratified deposits (ditches 388, 416, pit 465 and context 901) and the unstratified material. The Dr.27 rim sherd from ditch 388 is rather shoddily made and is probably a late production from La Graufesenque. The other South Gaulish fragments are earlier with a Dr18 in 901 possibly Neronian or early Flavian, a beaker form Dé67 in 465, an unidentified cup form and a Dr18/31 in the unstratified group which are Flavian.

Trajanic and Hadrianic forms are well represented in this group with several Central Gaulish vessels: two cups form Dr.27, two particularly fresh examples of the large roulette dish form Dr.18/31R and four dishes Dr.18/31 two of which are from Les Martres-de-Veyre. The single stamp recovered in the group also dates to this period and is a new die by potter Severus v (see Cat. no. 1).

There is little that can be attributed to the later 2nd century material, a Central Gaulish Dr.31 and an un-diagnostic East Gaulish Dr.31 from ditch [426] but there are no gritted mortaria, normally dated to post-AD 170, no examples of the form Dr.31R which dates from c AD160 and no Walters 79 or 80. There is therefore no evidence of occupation after AD 170 in this samian assemblage. The complete absence of the ubiquitous cup form Dr.33 would perhaps confirm the date, Dr.33 were represented alongside post AD170 forms in the small samian assemblage recovered from previous excavations at Southwell Minster School (Ward 2009).

Concluding remarks

The group is too small to attempt any kind of statistical or functional analysis but some remarks can be made. The samian assemblage suggests occupation in the 1st and 2nd c. AD with a possible decline in the later Antonine period. The absence of late samian forms is surprising in the light of the rest of the Roman pottery from the site (Rowlandson, this report) and perhaps not necessarily representative, later Antonine vessels have been recovered from Southwell (Ward 2009).

The range of forms is limited and mostly includes plain forms, particularly in the Central Gaulish group. There are two unused and almost complete dishes form Dr.18/31R recovered from ditches (388) and (421), two large fragments of cup Dr.27 rims also in ditch (388) and a

large rim fragment from a Dr.18/31. The vessels with complete profile and unused foot rings all date to the Hadrianic period and the range of forms (i.e. dishes and cups) would not conflict with them being disturbed and re-deposited grave goods (Willis 2005, chart 20).

Samian potter's stamp

The following catalogue gives the excavation context number; potter's name (i, ii etc, where homonyms are involved); die form; form type, reading (using font samian5), pottery of origin, a reference to published drawing (where available) and date.

1-Context (388)-*Severus* v, new die, 3b (B. Dickinson, pers. com), Dr.18/31R, **SEVERI**, Lezoux, This die is close to the incomplete one listed under 1 (Hartley, Dickinson 2011, 268). Complete profile, with an unused complete footring. AD 125-150.

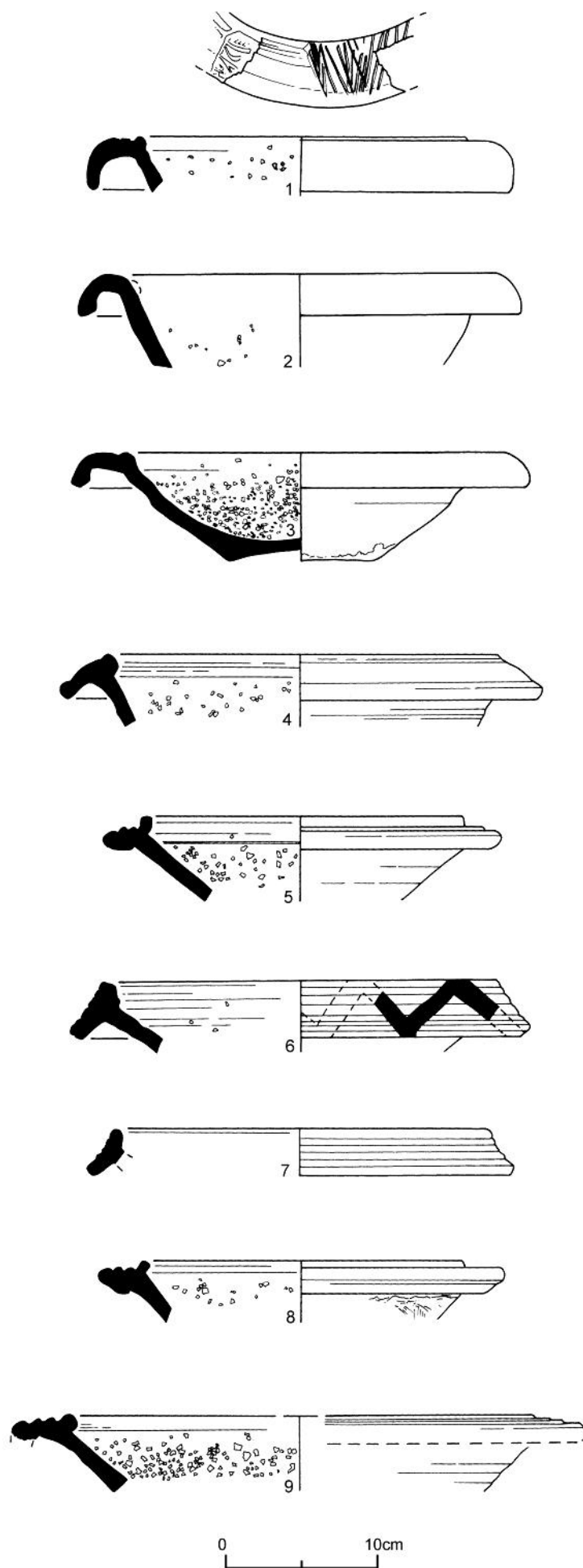


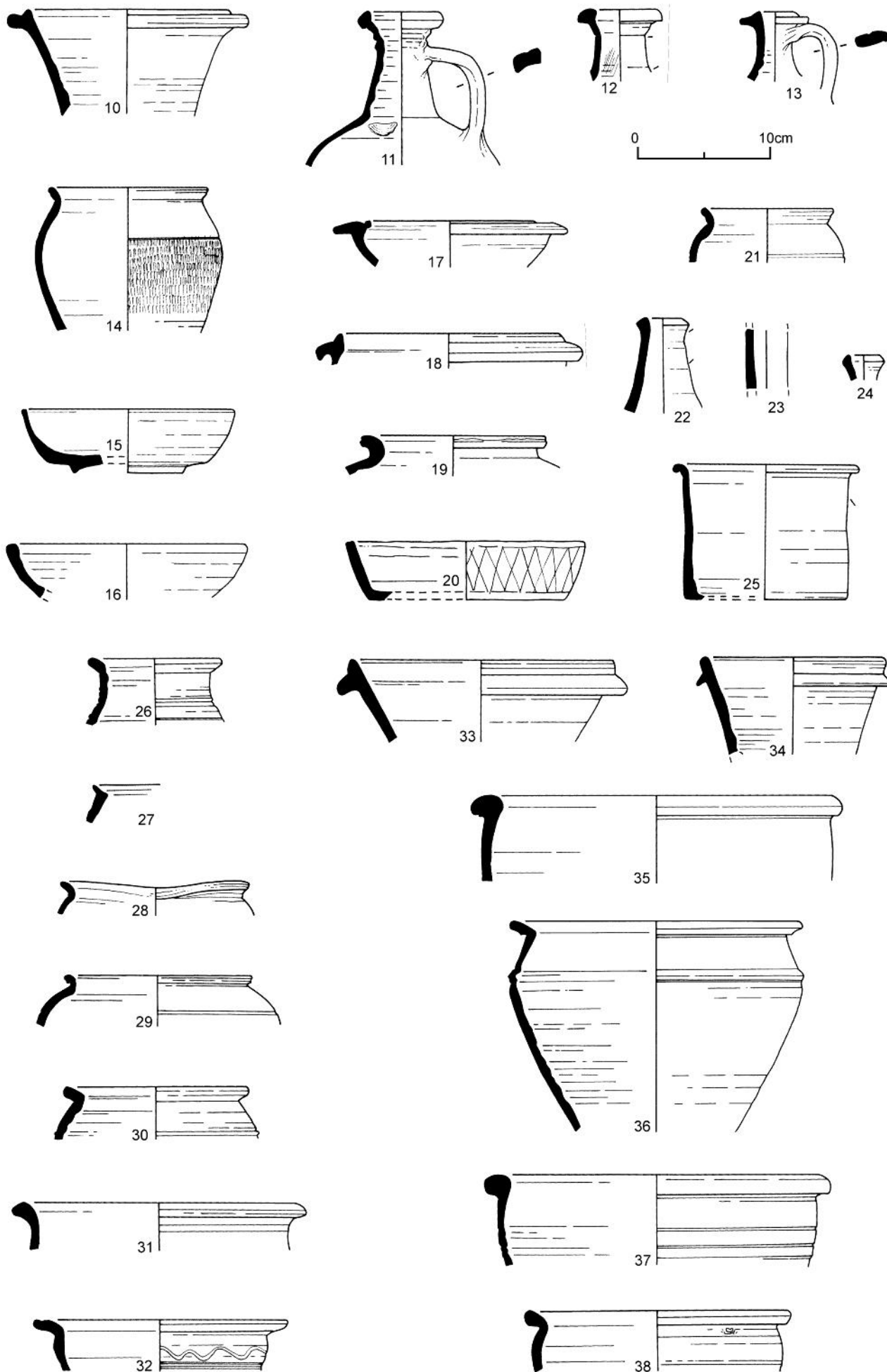
Amphora

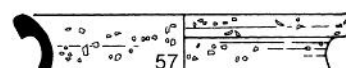
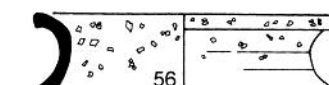
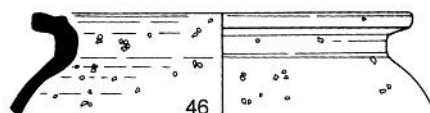
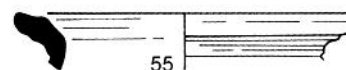
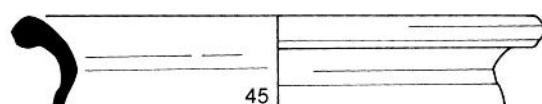
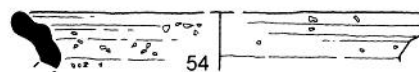
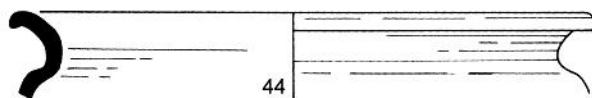
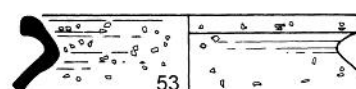
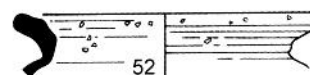
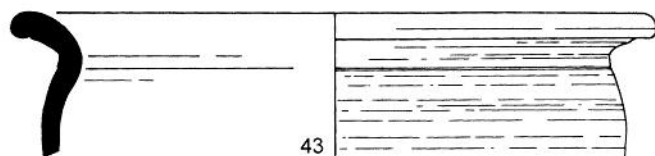
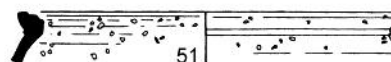
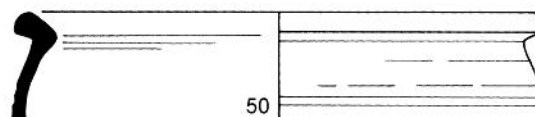
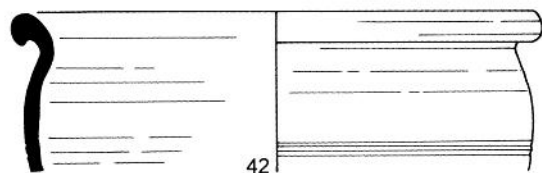
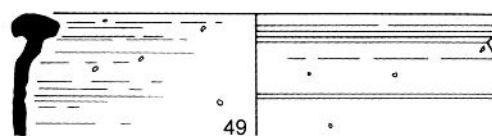
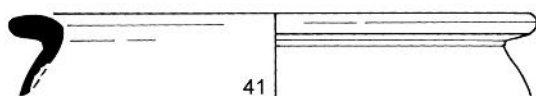
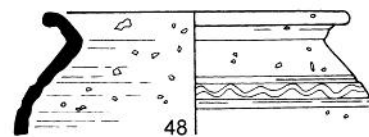
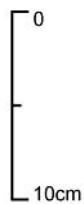
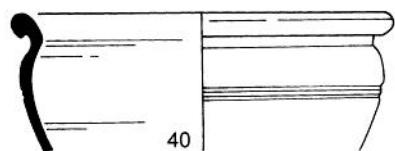
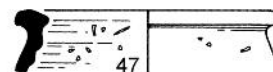
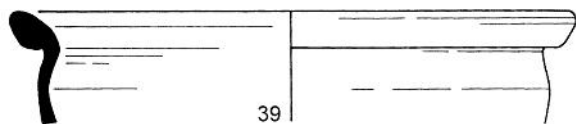
Amphorae sherds were relatively well-represented amongst this assemblage with a total of 5.16% by sherd count. The majority of the sherds were from Dressel 20 amphorae from southern Spain typically used to transport olive oil and other olive oil based products. Sherds from Gaulish wine amphorae (GAU4) were also present including one sherd from Phase 1 (Layer 907). A further unidentified amphora sherd was retrieved from Phase 1-2, Ditch 575 (576).

To contrast this assemblage amphorae made up 2.60% of the assemblage by sherd count from recent excavations in the Lower city area of Lincoln at the Bishop's Palace (Rowlandson 2014b). The *Margidunum* Hinterland project in the vicinity of the Newton villa had a total of 1.97% (McSloy 2014a&b). The villa at Long Bennington, Lincs had a total of 0.10% (Leary 1994). Rural assemblages from near Southwell had much lower quantities with groups from Bantycok near Balderton having a total of 0.34% (Leary 2009b, with an element of pre-Conquest pottery included) and the Sherwood Sandstone project and mid-late 1st to 2nd century AD group from Norton Disney quarry show that many rural sites received no amphorae at all (Leary in Garton 2008, Precious 2003).

The relatively high occurrence of amphorae sherds may be significant suggesting a greater access to amphorae-borne goods, particularly olive oil but this assertion should be tempered with the numerous taphonomic processes that formed the assemblage: it is quite likely that on a site like this that hefty amphorae sherds, broken bricks and tiles may have been collected to aid with construction of buildings for foundations or post packing or to help level up surfaces (Pea 2007). It is clear that the inhabitants of the Southwell site had a far greater access to amphorae-borne commodities than the average rural dweller in Nottinghamshire but with an assemblage of only little more than 1000 sherds it is difficult to be certain of the significance. Only a single fragment of Dressel 20 amphora was retrieved from the POSM12 excavation (0.34%) and with closer scrutiny of the SCSX12 site evidence the bulk of the amphorae sherds came from a single vessel retrieved from Phase 1-2 Ditch 575 (576) and Phase 2-3 Post-pit 713 (715) and a maximum of 10 amphora can be represented amongst the sherds retrieved.







Mortaria - I. Rowlandson

A relatively high proportion of mortaria, 2.44% of the assemblage by sherd count, were retrieved from this site. This is a high proportion of the overall assemblage and is much greater than groups from Southwell (POSM12 Rowlandson 2012, 1.35%) and from sites from Lincolnshire and Nottinghamshire studied by this author with an assemblage from Thorpe (*Ad Pontem*) providing the highest quantity (Rowlandson 2011- 1.55%). Only 1.12% of sherds from the rural group from Bantock were mortaria (Leary 2009b). On this basis mortaria were well represented amongst this group. Of a maximum of 15 vessels seven exhibited signs of heavy use wear with the remaining vessels having insufficient trituration grits surviving to be sure of how much they had been used.

The range of pottery included 1st century AD vessels from Lincoln (No. 1, below Phase 2 Ditch 423, Context 388) and another hooked Technical College type form vessel from Phase 2 (Linear 419, Context 421).

Products of the Mancetter/Hartshill industry were the commonest types. The 2nd century AD mortaria from the site were supplied from Mancetter/Hartshill industries on the Warwickshire/Leicestershire border, with two hook-rimmed vessels with 'mixed trituration' grits from the early to mid 2nd century AD. A further hook-rimmed vessel with fired clay trituration was retrieved from Phase 2 Pit 696, Context 697. A flanged type was retrieved from the evaluation (No. 4). Later hammer head types from the Mancetter/Hartshill industries were retrieved amongst the unstratified pottery (No. 6-7), from the POSM12 site (Rowlandson 2012, as Gillam 1970, Type 283) and the Daniels excavations (1966, Fig. 15. 15).

Nene Valley reeded rim type mortaria were also present (No. 5 & 9) and a further example from Phase 3 Linear 392, Context 393. A further example was retrieved from the evaluation (No. 8). No Swanpool type mortaria were retrieved from the SCSX12 excavations but a heavily worn mortarium from a Swanpool type workshop were retrieved from the POSM12 site but none were recorded from the SCSX12 group.

Stamped mortaria from Southwell, Notts - K.F. Hartley with D. Williams (March, 2013)

- 1 **MOLIN, MHK, SCSX12 (388)** 300gms Diameter 290mm. 26% Three joining sherds in cream fabric ochre-coloured slip. See the note below by David Williams for the full fabric description.

D. Williams writes: A hard, smoothish fabric, creamy-white in colour (Munsell 10YR 8/2). The clay is generally fine-textured throughout though there are rare large reddish-brown pieces of sandstone scattered about and on the rim near to the stamp a section of clay has blistered, possibly during firing, revealing a large iron-rich inclusion. The trituration grits of the mortarium are composed of sandstone, quartz and a little iron-rich material, though many grains have popped out, perhaps during use, leaving noticeable voids behind. A thin section was made from a small fragment sampled from the body of the vessel and then studied under a polarizing microscope. This showed a fairly fine-textured clay matrix containing moderately frequent subangular quartz grains in the size-range 0.20-40mm, flecks of muscovite mica, a little cryptocrystalline limestone, fine-grained sandstone/siltstone, iron-rich inclusions, some argillaceous material perhaps mudstone, flint and iron oxide. This fabric is very close to the description of mortaria known to have been produced at the Technical College kiln, Lincoln, where ATEPACIUS is also suspected of having made mortaria (Tyers, 1996, 122; Tomber and Dore, 1998, 160; info. Kay Hartley). Moreover, it is possible that the "iron-rich" inclusions mentioned above may be derived from the local clays and gravels around Lincoln, some of which are known to contain ferruginous grit (Ussher et al., 1888), rather than the "slag" previously identified (cf. Tyers, 1996, 122).

The extra clay added to form the spout has fallen off, exposing the slashing across the rim which was made to key it into place. This is important because different workshops developed different types of keying. The mortarium has been very heavily worn. The left-facing stamp reads ATEPACI (A with diagonal slash), an abbreviated form of Atepacius, followed either by an unusually wide border or by E for FE ligatured, for *fecit*. Further examples showing a clearer impression of the end will clarify this point. The fabric, slip and stamp fit with production at Lincoln at the Technical College kiln where one of his mortaria was found (Tomber and Dore 1998, p.160, LTC WH).



Although a stamp of Atepacius is recorded as from the Technical College kiln site, it was not mentioned in the brief report published (Baker 1936). Another was found more recently in the immediate vicinity of the kiln site and a third has been recorded from elsewhere in Lincoln (Temperance Place). Although the stamp from the kiln site is identical in character with the two others, close examination shows it to be longer and to have different spacing between the letters from the T onwards. All other examples have been checked except for the stamp from Lancaster, which has not been located, and none of these match the kiln-site stamp in detail - all match exactly the other two stamps from Lincoln. There is no obvious reason to account for the difference, but it is sufficient to cause the initial stamp to be listed as probably from a different die.

Mortaria stamped with the die used for the two later finds at Lincoln, have now been recorded from: Castleford (Rush, Dickinson et al. fig.98, no.55); Lincoln (2, above); Ribchester; Roxby; Winterton (Stead 1976, fig 58, no.29); Southwell; York. The stamp from Lancaster (not seen) is probably from the same die (Johnson 1906, p54, no. 1, misread as 'ATERACI').

The major potter recorded at the Technical College workshop was Vitalis I, whose kiln was found when making extensions to the Technical College on Cathedral Street in Lincoln (Baker 1936, 187 and JRS xxvii, 1937, p234) and there is considerable evidence to show that he was active in the late first and early second century. cAD90-120. The workshop is likely to have been much more extensive than the brief report indicates and its activity was not necessarily limited to the period AD90-120. The rim-profiles used by Atepacius and indeed some of those of Vitalis I were in use later than AD 120. Atepacius was certainly at work in the early part of the second century.

Other mortaria with stamps reading Atepacius and Atpacius

Mortaria with stamps from a different die giving the retrograde reading ATIIPAC[...], A with diagonal dash and II representing E are known from Carlisle (Lanes 2, LAL D 572/247); Castleford (Rush, Dickinson et al. fig.98, no.44, unstratified); and Winterton (unpublished). The fabric of these mortaria fits reasonably well with production at Lincoln, but until examples are recorded from Lincoln they are being treated separately.

A potter who stamped ATEPAC[...], retro worked the Verulamium region (Hartley forthcoming, MS12). He was also working in the early second century, but there is no adequate reason to link him with Atepacius of Lincoln.

There are also retrograde stamps recorded from Leicester and Corbridge which give the name ATPACIUS. The Leicester mortarium appears to be in normal fabric produced in the Mancetter-Hartshill potteries, but the Corbridge mortarium, though it may be by the same potter is in what appears to be a quite different fabric. The contraction in the name is one

which could occur in mortarium stamps, but there is at the moment no compelling reason to link them with the Lincoln potter Atepacius and they are therefore treated as by a different potter.

Dr David Williams kindly made thin sections of the Southwell Atepacius stamp and the Corbridge Atepacius stamp. He concluded that the Southwell stamp can safely be attributed to a source in Lincoln, but the source of the Corbridge Atepacius mortarium remains inconclusive. His note on the Southwell mortarium is appended below, but his note on the Corbridge Atepacius mortarium is retained for further investigation.

2 - MOMH, MHK, SCSX12 (728) 185gms. Diameter 280mm. 13% Three joining sherds.

Fabric: self-coloured, fine-textured cream; surface smooth;

Inclusions: fairly frequent, sand-sized quartz, orange-brown with a few larger grits of the same material;

Trituration grit: mixed, quartz, orange-brown sandstone, few black;

Condition: well-worn.

The fabric and distribution fit with production in the Mancetter-Hartshill potteries (Tomber and Dore 1998, 189). The mixed suite of components in the trituration point to production before cAD135; mortaria made at a later date in these potteries have hard blackish and/or red-brown material with only the very occasional quartz grit.

This broken and poorly impressed, right-facing stamp can be attributed to a potter whose stamps are retrograde and readily identifiable, but whose name will remain uncertain until further examples provide the missing elements and produce clearer impressions. The most reasonable assumption seems to be that the potter intended to show his full name by impressing both ends of the die, but his attempts to do this have mixed results: there are almost always two impressions close together on each side of the bowl rim, sometimes the beginning and end are impressed close together, sometimes two impressions of the beginning and sometimes two impressions of the end. The impressions are usually separated, appearing as two clear stamps, sometimes they are so close together that they appear at first sight to be from a two-line die, sometimes one slightly overlaps the first impression.

It is not entirely impossible that the potter was using two dies, rather than one, but only further and clearer examples showing clear borders will completely clarify both this and the potter's name.

The stamp begins with a large and distinctive leaf pointing to right, followed by the name which begins MII (two verticals probably representing E) followed by what is likely to be a motif or less likely the end of a small stamp, but no clear examples of this part of the stamp are known to date. The second series of stamps show what appears to be the end of the name. Again no completely clear impressions are known, but the clearest examples read [...]TTIIS retro. The clearest stamps suggest ME[.]TTES as the name, allowing for II to represent E, which was a common practice, but this interpretation for the end of the name cannot be regarded as certain. The broken Southwell stamp shows part of the end of his name.



Mortaria stamped by this potter have now been recorded from the following sites: Caersws (Jones 1996, 16-17), *Manduessedum* (Hiscock's paddock), Northwich (1-2); Lancaster

(unpublished); Leicester (3-4; Kenyon 1948, fig 58, no.16, (Pd 1, AD125-130) and another unpublished example); Rocester (1-2, Ferris, Bevan and Cutler 2000, 33, no.5; Cleary and Ferris 1996, p70, not illust, 1119); and Wasperton. A date of AD100-140 would best fit his work.

- 3 - MOMH, MHK SCSX12 (911), 875gms Diameter 300mms 49% + 4% Three joining sherds and one non-joining sherd.**

Fabric: hard, cream with some grey in parts of the core; self-coloured slip.

Inclusions: moderate, random, small to medium-sized quartz, black and orange-brown material;

Trituration grit: abundant, thinning towards the top, mainly black, sometimes with red centres showing through exposure to wear, occasional brown and quartz;

Condition: quite well worn, wear also visible on underside of base.

Other features: the right-facing stamp plus half of the left-facing stamp on the non-joining sherd.

The stamps are from one of at least 23 dies of Iunius. The better preserved, right-facing stamp reads IVNI[.], N reversed and with part of a following letter which is probably an inverted V. No complete examples survive. Iunius worked in the Mancetter-Hartshill potteries (Tomber and Dore 1998, p188-189; MAH WH). Many of his stamps were found along with those of Bruscius in a kiln exposed in the edge of a quarry at Hartshill (H63 kiln 34), and, with Sarrius in a kiln in his workshop in the parish of Mancetter, in the area immediately south of Manduessedum (M64 Kiln 1) (both unpublished). The evidence suggests that he was probably using these two kilns in common with the above potters.

Up to 130 mortaria of his have been recorded excluding those found at the potteries. His mortaria also appear on those Pennine forts like Bainbridge and Brough-on-Noe, which are believed to have been unoccupied cAD120-160. He belongs to the latest generation of potters at these potteries to stamp their mortaria and overlaps with slightly earlier potters like Sarrius and Bruscius. He is the only one of the latest generation of stamping potters to have any stamps recorded from the Antonine occupation of Scotland (at Castlecary and Duntocher). Since he was one of the most prolific of the potters stamping mortaria in the Mancetter-Hartshill potteries, these facts suggest that his activity began too late for him to be more than marginally involved with the main supply of Mancetter-Hartshill mortaria to Scotland.

He was also one of the small number of potters who had begun to produce the new, near hammerhead rim-profiles, which were to become popular after the practice of stamping ceased. Some of his rim-profiles and types of spout would fit with the possibility of his continuing in production after the practice of stamping had ceased. The evidence as a whole points to activity within the period AD145-175, with optimum importance cAD150-175.

Catalogue of the unstamped mortaria - I.M. Rowlandson

- 4- MOMH, MFL, MSS08, 1802, D14**
- 5- MONV, MRR, Worn internally, SCSX12, 488, D41**
- 6- MOMH, MHH, SCSX12, 728, D41B**
- 7- MOMH, MHH, Painted chevrons over rim, SCSX12, 728, D41A**
- 8- MONV, MRR, MSS08, 501, D13**
- 9- MONV, MRR, SCSX12, 295, D24**

Fine wares - I.M. Rowlandson

With the exception of the samian (discussed above) there were few imported fine ware sherds from this assemblage. A single sherd of Central Gaulish Black ware was retrieved from Phase 5 Grave 143, fill 144 and a similar sherd was also recorded from the POSM12 site (Rowlandson 2012a).

Two rough-cast beakers were retrieved from the SCSX12 assemblage and a further example from the POSM12 group. The production source for all three vessels now appears likely to have been South Carlton or the Newport suburb kiln at Lincoln in the mid 2nd century AD (Rowlandson and Hartley in prep, Rowlandson 2014, 2015). Very limited quantities of fine grey wares (GRA, GRA7) were retrieved including an example from Phase 1 (Pit 212) although most were retrieved from post Roman groups including two sherds from Phase 5 graves. A total of eleven sherds of fine oxidised ware were retrieved from the SCSX12 site with the majority from beakers including a cornice rimmed example from Phase 2 (Post-hole 769) and an everted rimmed beaker from Ditch 423 (No. 14). Fragments from a possible fragment and dish were retrieved from Phase 6. A greater range of fine oxidised sherds were retrieved from the evaluation (Leary 2009a) including platters and dishes and a segmental flanged bowl (No. 15-17) probably all dating to the 2nd century AD.

Of the remaining later Roman colour-coated vessels production in the Nene Valley or perhaps at Lincoln appears likely (NVCC1, NVCC2, CC1 see Rowlandson 2015, Rowlandson and Hartley in prep.). The SCSX12 group was recorded before the Lincoln material had been fully studied and thus the production of the vessels in this fabric group may have been at either centre. The forms present included: funnel necked and grooved funnel necked beakers including one with a folded body, Castor boxes and lids, a necked jar plain rimmed bowls and dishes a hemispherical flanged bowl and a straight sided bowl with a bead and flanged rim (No. 10). It is noticeable that the assemblage appeared to be more heavily weighted to open bowl or dish forms than beakers. This may be as a result of the function of the site or perhaps more probably as a result of much of the pottery from this group dating to the 4th century AD when open forms were more commonly manufactured and glass ware drinking vessels may have been more popular (Cool 2006). Along with the underrepresentation of samian of the later 2nd century the composition of this group would also suggest limited activity in the later 2nd and 3rd century AD, perhaps a period when the site was in use, kept clean and not subject to periods of extensive re-development. Bowls and dishes were also well represented in the POSM12 group.

No Swanpool colour-coated wares were recognised from this assemblage but a fragment from a bowl was retrieved from the POSM12 site.

- 10- CC1, BFB, SCSX12, 321, D26**
- 14- OAA, BKEV, SCSX12, 388, D31**
- 15- OAA, B18/31, MSS08, 1809, D07**
- 16- OAA, PD?, SCSX12, 520, MSS08, 507, D05**
- 17- OAA, BSEG, MSS08, 819, D?A**

Oxidised wares

A small quantity of micaceous white (FLA1) are present in this assemblage that are probably from a Lincolnshire source and may indicate some activity on the site during the 1st century AD. The FLA2 fabric group was more sandy and may have been from other sources including Mancetter/Hartshill or Northamptonshire. These wares, when found in stratified Roman contexts were mostly in Phases 1 and 2. A disc rimmed flagon (Phase 2, No. 13) and

a honey pot (Phase 6, 1064) in the FLA2 fabric were also retrieved. A single sherd of an oxidised white slipped vessel was also retrieved from a Phase 5 grave.

Two sherds of Derbyshire ware were recorded amongst the assemblage this perhaps not unexpected as Southwell lies towards the eastern edge of the distribution of this ware. An unusual jar with a bifid rim from the MSS08 assemblage is also illustrated (No. 19). A small quantity of other oxidised wares were recorded including a Dales type jar, glass melting vessels (below) and a lid present amongst the assemblage. The presence of a bowl with an in-turned bead and flanged rim in an oxidised fabric (No. 18) is of interest and suggests activity on the site into the later 4th century AD. Sherds of Swanpool oxidised ware were recorded by this author from the POSM12 site.

- 11- **FLA1, FCR, SCSX12, 420, D44**
- 12- **FLA1, FCR, MSS08, 102, D18**
- 13- **FLA2, FDR, SCSX12, 420, D43**
- 18- **OABT, BIBF, SCSX12, 813, D53**
- 19- **DBY, JBIF, MSS08, 1724, D08**

Reduced wares

Small quantities of Black Burnished ware 1 (No. 20) and Black Burnished ware 1 type vessels, that could not be attributed to a Dorset production source with certainty, present (No. 21). The low levels of Black Burnished ware and regional copies are fairly typical of assemblages from Nottinghamshire (Leary 2009b, McSloy 2014a, GW18, DOR BB1). No examples of Nene valley grey ware were present amongst this group but small quantities were recorded from the POSM12 site and from the *Margidunum* Hinterland project.

As usual for an assemblage from the East Midlands local grey wares were the commonest types present. The grey wares present here are broadly similar to the products of Lincoln and the Trent Valley industries (cf. Leary 2009a). The code GRBT has been used to isolate vessels that compare well with examples from the 'Trentside' kilns but, given that insufficient work has been undertaken on the pottery from the kilns at Lincoln to be able to rule out some similar fabrics were also produced closer to Lincoln. A typical range of grey ware types were present ranging from early-mid Roman jars (No. 26-31), a segmental flanged bowl (Context 345), lipped bowls including a variant with a reeded rim (No. 32) and copies of some of the native tradition large bowl forms (No. 35). A further range of early Roman pottery from Southwell has been illustrated from the Church Street site (Leary in Elliot 2004).

The late Roman grey ware assemblage was dominated by the ubiquitous wide-mouthed bowls (No. 38-9, 41-45) and later slightly necked variants similar to examples from late groups in Lincoln (No. 40, eg. Darling 1977), straight sided bead and flanged bowl variants (No. 33-4). A few examples of jars with curved rims mimicking late Roman Black Burnished ware prototypes were also present (Contexts 27 and 61). A small range of sherds from grey ware narrow necked flasks or flagons were also retrieved (No. 22-4) but an insufficient profile of any of these vessels could be retrieved to be certain of the form. One example from the SCSX12 assemblage was stratified with pottery dating to the late 2nd century in a Phase 2 context (No. 23). An unusual example of a handled tankard type vessel was retrieved from the MSS08 assemblage (No. 25). The vessel is of a form type seldom seen in the East Midlands and similar handled vessels are more commonly found in the West Midlands and the South-West of England.

Another notable inclusion was the presence of a double lid-seated jar (No. 46, Darling 1977) and a bowl with a plain rim a coarse grey ware fabric (GRB23). The evidence from Lincoln suggests these types represent the latest development of Roman pottery production in the

region and would suggest that the site was occupied into the late 4th or perhaps early 5th century AD. Previous work at Southwell has also noted the presence of a Huntcliff jar type (Gillam 1970 Type 162-3) in a coarse grey ware (POSM12). Although not a common form in the East Midlands the presence of this form also suggests that the site was occupied in the late 4th or perhaps into the early 5th century AD.

- 20- **BB1, BPR**, burnished diagonal line decoration, *SCSX12, 421, D23*
- 21- **BB1T, JEV**, burnished diagonal line, *MSS08, 505, D19*
- 22- **GRB, F**, Handle scar on top of rim with a warped triangular rim, an unusual vessel. *MSS09, 1821, D01A*
- 23- **GRBT, F?**, A flagon or tube spout, *SCSX12, 388, D40*
- 24- **GRBT, FS**, a small flagon or flask, *MSS08, 406, D04*
- 25- **GRB, TANK**, An unusual example of a handled tankard from the East Midlands. A similar vessel has been illustrated from Leicester (Clark 1999, Fig. 23.239), *MSS08, 1614, D14*
- 26- **GRBT, JNN**, *SCSX12, 907, D55*
- 27- **GRBT, JCH**, *SCSX12, 754, D51*
- 28- **GRBT, JEV**, Traces of linear rustication and a warped rim, *SCSX12, 203, D52*
- 29- **GRBT, JEVS**, *SCSX12, 901, D54*
- 30- **GRBT, JEV**, *SCSX12, 928, D45*
- 31- **GRBT, JWM**, *SCSX12, 576, D48*
- 32- **GRBT, B318**, *SCSX12, 421, D22*
- 33- **GRB, BFB**, *SCSX12, 83, D33*
- 34- **GRB, BFBH**, *SCSX12, 83, D34*
- 35- **GRBT, BNAT**, *MSS08, 1742, D10*
- 36- **GRBT, BL**, *SCSX12, 388, D39*
- 37- **GRBT, BL**, *MSS08, 136, D1*
- 38- **GRB, BEV**, *SCSX12, 83, D35*
- 39- **GRB, BWM**, *SCSX12, 83, D36*
- 40- **GRB, BWM1**, *SCSX12, 98, D32*
- 41- **GRBT, BWM1**, *MSS08, 513, D16*
- 42- **GRBT, BWM1**, *SCSX12, 295, D25*
- 43- **GRB, BWM3**, *SCSX12, 488, D30*
- 44- **GRBT, BWM3**, *MSS08, 1613, D06*
- 45- **GRB2, BWM3**, *SCSX12, 160, D50*
- 46- **GRB23, JDLS**, *SCSX12, 322, D27*

Mixed grit/ Iron Age tradition wares

A typical range of grog gritted 'Trent Valley' wares gritted with grog/ clay pellets and fossil shell were present in small quantities, particularly in the Phase 1 and 2 deposits that were contemporary with their period of production in Lincolnshire and Nottinghamshire. The range of forms present in these fabrics mostly consisted of the commonest large bowl and 'cooking'

jar type vessels (No. 47, 49 and 50) that had been developed from the Iron Age tradition of the East Midlands to provide durable kitchen and storage wares from the conquest period onwards. Also present was a fragment from a necked jar with cordoned decoration (Phase 1, 262). A number of fast wheel thrown vessels were present of 2nd century AD date mimicking contemporary grey ware forms representing the adaption of the coarse gritted fabrics for the production of more 'Romanised' forms after the conquest period. Vessels of this type include jar No. 48 and a vessel mimicking the Black Burnished ware 1 jar with out-curved rim type (Form JEVC, Unstratified). By the 3rd century AD it appears that the role of these coarse gritted wares in the kitchen and store room was replaced by shell-gritted Dales ware and grey wares.

A small number of sherds in a native tradition sand-gritted ware were also present including a fragment from a necked jar (661).

47- GTA10, CPN, SCSX12, 576, D49

48- GTA10, JEV, SCSX12, 576, D47

49- GTA10, BNAT, SCSX12, 611, D46

50- GTA10, BL, MSS08, 115, D15

Shell-gritted wares

The majority of the shell-gritted wares from the site could be dated to the late Roman period. A small quantity of early Roman sherds including a channel-rimmed jar (No. 51) and sherds from large late Late Tène III type comb decorated storage jars (CTA8G U/S and 538, form broadly as McSloy 2014b, Fig. 4.62.13-14). This suite of early Roman forms has commonly been found on early Roman sites in Nottinghamshire (as above and McSloy 2014b, Fig. 4.64.51). Punctate Brachiopod type shell-grit can often be observed in the fabric of these types of vessel (eg. context 576, above), a type of shell more commonly present in fossiliferous outcrops in the South Midlands, and it is likely that they were transported from areas in the South Midlands where such forms were produced in the middle of the 1st century AD (Friendship-Taylor 1999, Jackson and Dix 1987, Brown 1994). These forms would be contemporary with some of the earlier South Gaulish samian retrieved from the site (Monteil, above).

The majority of the shell-gritted wares were in the hand built/ wheel finished Dales ware tradition with the Dales ware jar lid-seated jar as the commonest form (Gillam 1970, Type 157). Production of these vessels was commonplace in Lincolnshire and elsewhere in the East Midlands by the middle of the 3rd century AD and well into the 4th century AD. The thermal shock resistance of the shell-grits within these vessels may have made them favoured vessels for cooking over an open fire as carbonised residues are often noted on these vessels. Also present were examples of a jar with an everted rim (1034) and a lipped bowl (513).

Notable inclusions amongst the remainder of the shell-gritted pottery were examples of double lid-seated type jars which predominantly appeared to be wheel-finished throughout (No. 52, 54-5 and kindred lid-seated jar No. 53). The vessels from other investigations at Southwell include the shell-gritted jar with a double lid-seat (Daniels 1966, Fig.14.5, Leary 2009a, 6, and POSM12) typical of final Roman groups in Lincoln along with bead and flanged bowls with a high bead (1966, Fig. 14. 10 &12). The vessels illustrated are typical of the range of final Roman pottery found in the region at sites such as Lincoln and villa sites such as Norton Disney and Mansfield Woodhouse (Darling 1977, Oswald 1937b, personal viewing of Mansfield Woodhouse collection). It suggests that many 'villa' type buildings in this region continued to use Roman ceramics up until the end of Roman pottery production perhaps as late as the early 5th century AD. A small quantity of sherds from jars in South

Midlands shell-gritted ware were retrieved (No. 56-7) such vessels were made at sites such as Harrold, Bedfordshire (Brown 1994) and find their way into Nottinghamshire and Lincolnshire in the late Roman period, particularly at the end of the 4th century AD. It is notable that tiles with similar inclusions were found on this Southwell site (Young this volume) and it is possible that these vessels travelled to the site as part of a consignment with building materials.

- 51- CT, JCH, SCSX12, 72, D38**
- 52- CT, JDLS, SCSX12, 488, D29**
- 53- CTA, JLS, SCSX12, 83, D37**
- 54- CTA, JDLS, MSS08, 1732, D11**
- 55- CTA2, JDLS, SCSX12, 322, D28**
- 56- SMSH, JCUR, SCSX12, 513, D45B**
- 57- SMSH, JCUR, MSS08, 505, D20**

Glass making crucibles

A total of six sherds with glass making residues were retrieved from the POSM12 site. The sherds all have an oxidised fabric and share similar quartz to the 'Trentside' greywares common in this assemblage. It is possible that all of the sherds are from no more than a couple of vessels although it is not possible to join any of the sherds. The examples from the SCSX12 site consist of two further fragments from large bowls with similar oxidised fabrics. A vessel with an orange oxidised fabric from unstratified finds group 245 had green glass residue on the internal surfaces and external white concretions. A further vessel was retrieved from Phase 3 Linear 294 (295) which appeared to have had a rim trimmed to form a lip. This vessel was heavily glass coated over the internal and external surfaces and had a fabric that had been vitrified to a dark red colour presumably during heating the glass. Similar glassmaking evidence has been found at 16-22 Coppergate, York (Cool et al. 1999) and at the Bishops' Palace, Lincoln (Rowlandson 2012b, 2014). It has been suggested that the finds from York and Lincoln represent the production of window glass and it is quite possible that glazed windows were a feature of the substantial Roman buildings at Southwell.

All the sherds from the POSM12 and SCSX12 sites appeared to be from a large deep bowl or bowls, perhaps of a similar form to the vessels published from York (Cool et al. 1999, Fig 2. 5-6) as a single sherd from POSM12 context 214 has a slight carination presumably below the rim as these vessels. Many of the sherds have a thick internal deposit of glass on the inside and patchy globules of glass on the external surfaces with some patches of a calcareous substance adhering to it. It should also be noted that two sherds (POSM12 contexts 214 and 216) have glass over the break suggesting breakage of the vessel whilst the glass was molten which might be expected as molten glass can put great stress on ceramic vessels and this has also been noted on vessels from York (Cool et al. 1999, 151-2). It appears that colourless or pale green glass was melted in these pots in the same way as the York and Lincoln examples. Roman ceramic glass crucibles are rare finds in Roman Britain with evidence that glass furnaces were favoured. It is not certain that the vessels are Roman or that they represent Roman glassmaking as the fabrics of the vessels have been heavily heat affected. In consultation with Jane Young this author has treated these sherds as representing Roman glassmaking. The dating of the contexts that these sherds come from is problematic as although most of the Roman pottery from the POSM12 groups dates to the 4th century at the latest all of the contexts also contain post-Roman pottery. The examples from SCSX12 also contain late Roman pottery with one being attributed to Phase 3 (Linear 294, Context 295). It is possible that the sherd represent an episode of glazing in the late Roman period but on the evidence available it is difficult to be certain of this. This would support the architectural evidence for the presence of a high status Roman building on

the site. It is not clear from these small sherds that glassmaking happened in the immediate vicinity of this trench as there has been extensive activity in the post-Roman period and the sherds may have been redeposited from glassmaking activities elsewhere.

Conclusions

The date range of the pottery from the site appears to be post-Conquest with a fair quantity of pottery that might be dated to the mid/late 1st to early 2nd century AD present (Leary 2009a). The majority of the pottery can be dated to the 2nd or 3rd century AD with a proportion continuing on into the 4th century AD and most probably into the earlier 5th century. Similar late Roman groups have been found by previous investigations at Southwell including the investigations by Daniels (1966, Wilson 2001) and pottery reported on by Leary (2009a) and Rowlandson (2012). A small quantity of Early Anglo-Saxon pottery has been retrieved from the POSM12 site (Young 2012) and from the 1959 excavations (Daniels 1966, Fig. 15. 21) middle Saxon and late Saxon pottery from the excavations and evaluations of this site suggesting some continued use of the site into the 5th century AD and beyond despite the end of the supply of Roman pottery. It is clear that the construction of a significant Roman building on the site contributed to the continued settlement of the site from the late 4th century AD onwards, a phenomenon commonly recognised elsewhere in Britain and Gaul where churches can often be found to have been superimposed on Roman structures (Bell 1999, Knight 2005 etc.).

A number of *villae* have been recorded from Nottinghamshire (Page 1910, Scott 1993, Patterson 2011, 209) many were investigated by antiquarians (Oswald 1949) and few have been subjected to modern excavation (Todd 1969) and fewer still have any form of comparable quantified pottery assemblage (perhaps only Leary 2009a Rowlandson 2012a and McSloy 2014b). The further problem with seeking comparison is that the layout and structures on the Southwell site are so ill defined that it is difficult to classify the occupation on the site as a 'villa' with any certainty (Patterson 2011, 227-234, see also Southwell History Society website).

As suggested by Martin Henig (Southwell History Society website), Castor near Peterborough might be the only comparable site to Southwell if we are seeking a building in a rural setting of such monumental scale and construction. A brief comparison of the pottery from the two sites can be made using the work of Upex (2011) and Green (et al. 1986-87) but as there is also a dearth of quantified pottery from Castor then more general comparisons must be made. The dating of occupation at Castor appears to have developed in the 2nd century AD with the development of the North Range in the early 3rd century AD continuing in use into the early 5th century AD (Upex 2011, 96). This Southwell site would appear to have a proportion of material dating to the 1st century AD, especially from the pottery from the evaluation (Leary 2009a) but most probably the activity on the Southwell site was greatest from the 2nd century AD continuing on until sometime in the early 5th century AD. Both sites continued in use into the 5th century AD and became the focus of important ecclesiastic centres.

Dallas (in Green et al. 1986-7, Fiche) noted that the inhabitants of Castor had a greater proportion of table wares available to them more basic contemporary rural sites. There must be some caution used with contrasting the incidents of Nene Valley colour-coated wares between the two sites as Castor is within the production area of such wares and was thus saturated with such wares but the general assertion is also true if one contrasts Southwell with rural sites in its hinterland where the relative quantities of table ware in an assemblage were typically much lower. The SCSX12 assemblage had 7.76% of fine wares by sherd count with 5.60% being of Nene Valley colour-coat type (Leary 2009a). The relative percentage of colour-coated wares contrasts favourably with groups from Long Bennington and Willoughby-on-the-Wolds. The occurrence of colour-coated pottery is far higher than contemporary basic rural sites and the pottery evidence from the SCSX12 would serve to

confirm the structural evidence that the site was of some status and had access to a diverse range of ceramics including table wares throughout the Roman period.

One of the main similarities between the assemblages from Castor and Southwell is the poor quantity of good, usefully stratified, Roman groups of pottery available for study (see discussion above and Upex 2011, 50). Both sites were the subject of extensive post-Roman occupation and construction; both were extensively disturbed by post-Roman building. The nature of occupation on significant buildings such as those at Castor and Southwell is that domestic waste including ceramics were often deposited at some distance away from the main buildings during phases of occupation with such material only appearing on site when earth was required for phases of reconstruction or levelling (Leary 2009a, Rowlandson 2012). Therefore it ought to come as no surprise that, in conjunction with the difficult conditions for excavation, there was little usefully stratified pottery from this site.

Despite the patchy nature of some of the groups and issues of stratification this is one of the few quantified groups of Roman pottery from a 'villa' type settlement in Nottinghamshire and, as such, is regionally significant. This assemblage is stable should be deposited in the relevant local museum.

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Appendix 4.1 Tables

Table 1: Roman pottery dating summary

Phase	F No	Context	F Type	Spot date	Comments	Sherd	Weight (g)	Total RE %
?		0150		Roman	A single shell-gritted sherd plus CBM.	1	5	0
?	0186	0030	Ditch	EM2*	A single grey ware sherd with burnished lattice decoration dating to post AD120, and post-Roman pottery and CBM.	1	15	0
?	0642	0645	Pit	Erom	A fragment from a coarse native tradition jar base plus CBM.	2	132	0
?	0791	0790	Linear	Roman	Sherds from a grey ware bowl or dish plus CBM.	2	11	0
?	0876	0877	Posthole	ML3+	A fragment from a Dales ware type jar plus Roman CBM.	1	14	2
?	0931	0947	Pit	Roman*	A single grey ware sherd plus post-Roman pottery and CBM.	1	3	0
1	0212	0213	Pit	ML1-2	A small group of grey ware plus CBM.	3	32	0
1	0214	0215	Linear	ML1-2	A small group including grey ware and a fragment from a white ware flagon plus CBM.	5	216	0
1	0262	0262	Linear	Roman	A fragment from a necked jar.	1	8	0
1	0507	0508	Pit	Roman	A grey ware sherd from a jar or beaker.	1	6	0
1	0596	0597	Pit	Roman	A single grey ware sherd plus CBM.	1	15	0
1	0601	0691	Ditch	Roman	A very abraded grey ware sherd plus CBM.	1	20	0
1	0610	0611	Pit	M-L1 -E2	A small group of grey ware and a fragment from a large native tradition bowl (No. 49) plus CBM.	12	205	14
1	0665	0666	Pit	Roman	A small group including grey ware and native tradition ware plus CBM.	5	30	0
1	0665	0666/7	Finds	Roman	Very abraded Roman sherds including Dressel 20 amphorae, grey ware and Derbyshire ware plus CBM.	13	113	0
1	0665	0667	Pit	Erom	Very abraded sherds of Dressel 20 amphora, oxidised and native tradition wares plus CBM.	6	117	0
1	0727	0728	Pit	AD100-135	A fragment from a stamped Mancetter/Hartshill mortarium with mixed trituration grits (No. 2) plus CBM.	3	185	13
1	0731	0731	Linear	Roman	One grey ware sherd plus CBM.	1	10	0
1	0733	0734	Pit	ML1-M2	A sherd from a jar with a slightly cupped stubby everted rim plus CBM.	1	8	7
1	0907	0907	Layer	ML1-E2	A small group including a fragment from a grey ware narrow necked jar (No. 26) plus CBM.	6	88	24
1	0927	0928	Pit	L1-E2	A sherd from a grey ware jar with an everted rim (No. 30) plus CBM.	1	29	12
1?	0270	0270	Layer	L3+	A single sherd from a colour-coated beaker with a grooved funnel rim plus CBM.	1	5	11
1?	0700	0702	Post-pit	Erom	A small group of grey ware including a fragment from a beakers plus CBM.	2	17	7

Phase	F No	Context	F Type	Spot date	Comments	Sherd	Weight (g)	Total RE %
1?	0757	0758	Pit	Roman	A single oxidised sherd.	1	3	0
1-2	0404	0404	Group	Roman	A small group of grey ware plus CBM.	4	41	0
1-2	0575	0576	Ditch	L1-EM2	A good fresh medium sized group with several multi-sherd vessels including: Dressel 20 amphorae, white ware flagons, grey ware necked jars (No. 31) including examples with cordoned decoration, native tradition jars (No. 47-8). A fragment from a large early Roman necked storage jar had fossil shell inclusions that suggested it had been brought from Northamptonshire or southern Lincolnshire and was similar to an example found at the early fort at Strutt's Park, Derby. A single sherd from this group with a pink flagon fabric appeared similar to some of the products of the legionary potters at Lincoln. CBM was also retrieved from this group.	93	3819	76
1-2	0577	0578	Ditch	3C+	A small group including a fragment from a colour-coated bowl or dish plus CBM.	4	26	0
2	0218	0219	Linear	L2+	A small group of grey ware and a fragment from a necked jar plus CBM.	2	30	6
2	0342	0343	Linear	Roman	A single grey ware sherd plus CBM.	1	10	0
2	0344	0345	Linear	2C+	A grey ware segmental flanged bowl plus CBM.	1	28	10
2	0419	0420	Linear	ML2	A small group including fragments from two flagons (No. 11 & 13), a lug-handled jar and a large native tradition bowl plus CBM.	18	584	204
2	0419	0421	Linear	L2+	A medium sized group including fragments from: Black Burnished ware 1 bowl with a plain rim (No. 20), a grey ware bowl (No. 32), a large storage jar, a Lincoln mortarium with a hooked rim and fragments from 18/31 and 18/31R samian bowls plus CBM.	35	1166	97
2	0423	0388	Ditch	L2	A medium sized group including a fragment from a stamped mortarium from Lincoln (No. 1), a white ware vessel, a beaker with an oxidised fabric (No. 14), a colour-coated beaker with a cornice rim, an unusual flagon or tube (No. 23), a large grey ware bowl (No. 36), samian form 27 cups and a large proportion of an 18/31R bowl. CBM was also retrieved from this group.	32	1105	89
2	0423	0423	Ditch	L2	A small group including a fragment from a grey ware jar with a curved rim plus CBM.	5	35	6
2	0425	0426	Ditch	M2-M3	A small group including fragments from two samian form 31 bowl and a white ware sherd, plus CBM.	3	19	14
2	0433	0434	Ditch	M2+	A small group of grey ware including a fragment from a lipped bowl and a lid with a bifurcated rim plus CBM.	2	49	25

Phase	F No	Context	F Type	Spot date	Comments	Sherd	Weight (g)	Total RE %
2	0442	0443	Ditch	Roman	A small group of grey ware sherds plus CBM.	7	66	0
2	0444	0445	Ditch	3C+	A fragment from a Mancetter/Hartshill type mortarium, plus CBM.	1	29	0
2	0464	0465	Pit	2C+	A small group including a Black Burnished ware 1 type vessel and a fragment from a decorated form 67 samian vessel, plus CBM.	6	37	6
2	0696	0697	Pit	AD150-200	A small group including Dressel 20 amphora, a grey ware bowl with a reeded rim and a Mancetter/Hartshill mortarium with a hooked rim, plus CBM.	9	288	19
2	0778	0777	Post-pit	ML3	A single sherd from a Dales type jar in a grey ware fabric plus CBM.	1	10	6
2	0793	0794	Linear	Roman	Sherd from as shell-gritted vessel and grey ware plus post-Roman pottery	4	14	0
2	0797	0808	Linear	Roman	A small group of grey ware plus CBM.	5	72	7
2	0821	0822	Linear	M2+	A small group of grey ware plus CBM.	6	46	0
2	0823	0824	Linear	ML3?	Sherds from a shell-gritted vessel plus CBM.	2	9	0
2	0831	0832	Gully	ML3?	A sherd from a shell-gritted vessel plus CBM.	1	4	0
2	0833	0834	Gully	M2+	A sherd from a grey ware lipped bowl.	1	18	6
2	0862	0863	Gully	Roman	A grey ware sherd from a large jar plus CBM.	1	15	0
2	0868	0869	Linear	M2+	A single sherd of Black Burnished ware 1 from a bowl or dish.	1	6	0
2 to 3	0537	0538	Linear	M2+	A small group including a fragment from a large early Roman necked shell-gritted storage jar and a lipped grey ware bowl plus CBM.	5	134	12
2?	0684	0686	Pit	L3	A small group including a fragment of amphora and a colour-coated bowl with a plain rim plus CBM.	2	52	6
2?	0769	0787	Posthole	3C+	Sherds from a colour-coated beaker with a funnel rim and a cornice rimmed beaker in a fine oxidised fabric plus CBM.	2	14	26
2?	0910	0911	Pit?	AD150-200	Fragments from a stamped hook rimmed mortarium from Mancetter/Hartshill (No. 3) and a grey ware sherd from a large jar plus CBM.	4	906	53
2?	1084	1129	Posthole	Roman	A grey ware sherd plus CBM.	1	19	0
2?	1086	1131	Posthole	Roman	A grey ware sherd plus CBM.	1	22	0
2?	1128	1135	Ditch	AD120-200	A small group including a sherd from a samian form 18/31 dish, a grey ware jar with an everted rim and a sherd from a white ware flagon plus CBM.	4	42	9
2-3	0176	0177	Linear	ML3+*	A small group including a fragment from a shell-gritted Dales ware jar plus CBM.	2	26	12

Phase	F No	Context	F Type	Spot date	Comments	Sherd	Weight (g)	Total RE %
2-3	0195	0196	Linear	ML3+	A small group including sherds of shell-gritted Dales ware, a colour-coated sherd and fragments from a grey ware wide-mouthed bowl and a lug-handled jar plus CBM.	10	103	0
2-3	0480	0481	Posthole?	Roman	A small group including grey ware plus CBM.	5	26	0
2-3	0713	0715	Post-pit	L3	Flakes from a Dressel 20 amphora and a colour-coated bowl with a plain rim, plus CBM.	21	1740	4
3	0202	0203	Linear	2C	Fragments from a grey ware jar with an everted rim and linear rustication and a warped rim (No. 28) plus Roman CBM.	2	31	17
3	0206	0207	Linear	Roman	Sherds from a grey ware vessel plus CBM.	2	9	0
3	0234	0234	Linear	ML1 -M2	A single grey ware sherd plus CBM.	1	9	0
3	0294	0295	Linear	L3+	A small group including a glass crucible, a grey ware wide-mouthed bowl (No. 42) and a Nene Valley mortarium with a reeded rim (No. 9).	6	419	14
3	0296	0302	Quarry pit?	3C+	A small group including a shell-gritted jar, burnt grey ware sherds from large jars or bowls and fragments from a colour-coated bowl with internal use wear and a sherd from a flagon or jar. CBM was also retrieved from this context.	17	436	8
3	0298	0299	Quarry pit?	Roman	A single grey ware basal sherd plus CBM.	1	28	0
3	0298	0304	Quarry pit?	ML3+	A small group including Dales ware shell-gritted sherds and fragments from a grey ware wide-mouthed bowl sherds plus CBM.	5	179	13
3	0307	0308	Linear	L3+	A small group including: a sherd from a Black Burnished ware 1 type jar, a colour-coated bowl with a plain rim and an bowl or dish in an oxidised sherd possibly Oxfordshire red colour-coated ware plus CBM.	3	37	14
3	0311	0312	Quarry pit?	Roman	A single grey ware sherd.	1	27	0
3	0364	0365	Ditch	Roman	A sherd possibly from a vessel in an oxidised tile fabric, plus CBM	3	35	0
3	0392	0393	Linear	M3+	A small group including fragments from a white ware vessel, grey ware and a Nene valley mortarium with a reeded rim, plus CBM.	12	222	11
3	0392	0549	Ditch	4C	A small group including fragments from a large native tradition bowl and large grey ware large bowls plus CBM.	6	254	17
3	0408	0409	Linear	Roman	A single grey ware sherd plus CBM.	1	12	0
3	0415	0416	Linear	AD50-110	A small group including sherds of samian and grey ware, plus CBM.	2	14	0
3	0431	0432	Linear	Roman	A fragment from a native tradition jar with an everted rim plus CBM.	1	19	9
3	0435	0436	Ditch	Roman	A grey ware sherd plus CBM.	1	14	0

Phase	F No	Context	F Type	Spot date	Comments	Sherd	Weight (g)	Total RE %
3	0440	0441	Linear	Roman	A grey ware sherd plus CBM.	1	3	0
3	0450	0451	Linear	Roman	A small group of grey ware including fragments from a large jar and a segmental flanged bowl plus CBM.	2	39	12
3	0483	0482	Linear	4C	A small group including: a straight sided bowl with a bead and flanged rim, a Mancetter/Hartshill type mortarium and a single samian sherd, plus CBM.	10	161	23
3	0485	0486	Linear	AD120-160	A fragment from a grey ware lid with a bifid rim and a sherd from a samian form 27 cup, plus CBM.	2	11	6
3	0487	0488	Linear	VL4	A fragment from a shell-gritted double lid-seated jar (No. 52), a grey ware wide-mouthed bowl (No. 43) and a mortarium with a reeded rim (No. 5), plus CBM.	15	596	67
3	0513	0513	Layer	L4	A medium sized group including fragments from grey ware straight sided bowl with a bead and flanged rim, colour-coated sherds included fragments from bowls and dishes and the lid from a Castor box. A shell-gritted South Midlands jar with a curved rim (No. 56) and CBM were also retrieved from this context.	61	552	43
3	0811	0811	Layer	Roman	A single fragment from a Mancetter/Hartshill type mortarium plus CBM.	1	13	0
3	1181	1181	Layer	Roman	A grey ware sherd plus CBM.	1	27	20
3	1198	1198	Layer	3C+	A single colour-coated sherd from a necked jar.	1	32	15
3	1210	1209	Construction trench	Roman	A grey ware sherd from a large bowl.	1	14	2
3	1232	1233	Pit	ML3+	A small group including, grey ware, shell-gritted ware and a sherd from a folded colour-coated beaker plus CBM.	6	58	26
3?	0403	0403	Layer	3C+	A fragment from a colour-coated flagon or jar plus CBM.	1	18	0
3?	0755	0756	Pit	Roman	A small group of grey ware.	2	10	0
4	0001	0001	Layer	Roman	A single grey ware sherd.	1	3	0
4	0558	0559	Posthole	Roman	A single grey ware sherd	1	9	0
4	0588	0589	Beam-slot?	Roman	A single native coarse tradition ware sherd plus CBM.	1	3	0
4	0659	0661	Pit	Erom	A small group including a fragment from a Dressel 20 amphora and a necked jar in a native tradition sand-gritted fabric.	2	13	3
4	0673	0675	Pit	Roman	A single grey ware sherd.	1	4	0
4	0698	0699	Pit	Roman	Sherds from a grey ware rusticated jars plus CBM.	2	22	0
4	0707	0709	Post-pit	Roman	A small group of grey ware.	2	6	0
4	0890	0891	Pit	Roman	A single grey ware sherd.	1	5	0
4	1029	1030	Robber trench?	Roman	A single grey ware sherd plus possibly later CBM.	1	9	0
4	1245	1244	Pit	Roman	A single grey ware sherd plus CBM.	1	8	0

Phase	F No	Context	F Type	Spot date	Comments	Sherd	Weight (g)	Total RE %
4 or 5?	0060	0061	Pit	ML2+*	A small group including a fragment from a jar with a curved rim plus CBM and a post-Roman sherd.	3	31	15
4 or 6	1114	1113	Pit	Roman	A small group of grey ware plus post-Roman pottery and CBM.	4	29	0
4?	1166	1167	Linear	Roman	A single shell-gritted sherd plus CBM.	1	3	0
4?	1168	1169	Gully	Roman	A sherd from a lug-handled jar plus CBM.	1	30	0
5	0012	0011	Grave	Roman	A small group of grey ware including a fragment from a jar with an everted rim.	2	18	5
5	0043	0044	Grave cut	Roman	A small group including a sherd in a light-fired fabric, possibly from a flagon and sherds from a large jar and a jar with an everted rim.	4	30	11
5	0045	0046	Grave cut	ML2+*	A small group including fragments from a shell-gritted vessel and a colour-coated beaker along with CBM and a post-Roman sherd.	4	13	0
5	0047	0048	Grave cut	L10-12	A single grey ware sherd CBM and post-Roman pottery.	1	5	0
5	0050	0051	Grave cut	Roman	Two grey ware sherds plus CBM.	2	9	0
5	0066	0067	Grave cut	3C+*	A small group including sherds from a colour-coated beaker plus CBM and a post-Roman sherd.	2	6	0
5	0070	0071	Grave cut	2C+	A small group including a sherd of Central Gaulish samian plus CBM.	2	7	0
5	0073	0074	Grave cut	L2+	A fragment from a colour-coated beaker with a cornice rim, probably from South Carlton, plus CBM.	1	5	11
5	0079	0080	Grave cut	2C+*	A single sherd of Central Gaulish samian plus CBM and post-Roman pottery.	1	2	0
5	0099	0100	Grave cut	2C+	A small group of grey ware including a fragment from a necked jar plus CBM.	4	27	5
5	0109	0110	Grave cut	3C+	A small group of Roman pottery including a sherd from a colour-coated bowl or dish plus CBM.	5	38	0
5	0111	0112	Grave cut	L3	A small group of grey ware plus CBM.	4	21	0
5	0119	0120	Grave cut	Roman	A lid in an oxidised fabric burnt around the rim plus CBM.	1	6	3
5	0130	0131	Grave cut	ML3+	A small group of Roman pottery including a fragment from a shell-gritted Dales ware jar plus CBM.	3	24	2
5	0132	0133	Grave cut	ML3+	A single shell-gritted Dales ware type sherd plus CBM.	1	14	0
5	0134	0135	Grave cut	L3-4C+	A small group of Roman pottery including fragments from a bowl with a triangular rim and a closed vessel in a colour-coated fabric, a white slipped sherd and a grey ware jar with an everted rim plus CBM.	10	64	15
5	0136	0137	Grave cut	Roman*	A single grey ware sherd plus CBM.	1	3	0
5	0143	0144	Grave cut	3C+	A small group including a colour-coated sherd plus CBM.	2	86	0

Phase	F No	Context	F Type	Spot date	Comments	Sherd	Weight (g)	Total RE %
5	0147	0148	Grave cut	ML3+	A small group including a grey ware jar with an everted rim and a shell-gritted Dales ware sherd plus CBM.	8	66	5
5	0152	0153	Grave cut	ML3+	A small group consisting of a shell-gritted Dales ware sherd and a sherd from a beaker in a late Roman burnished oxidised fabric plus CBM.	2	7	0
5	0154	0155	Grave cut	Roman*	A grey ware sherd plus post-Roman CBM.	1	4	0
5	0157	0158	Grave cut	AD120+	A small group including a fragment from a bowl or dish in a Black Burnished ware 1 type fabric and a Parisian ware type sherd plus CBM.	4	17	0
5	0180	0181	Grave cut	L2+	A sherd from a Black Burnished ware 1 bowl or dish and a fragment from a grey ware deep bowl with no neck (Doncaster form H(b) Buckland et al. 1980) plus post-Roman pottery.	2	17	6
5	0256	0257	Posthole	M2+	A single sherd from a wide-mouthed bowl plus CBM.	1	72	9
5	0326	0327	Posthole	M1+	A fragment from a grey ware jar with a stubby everted rim.	1	19	3
5	0858	0859	Ditch	3C+	A sherd from a colour-coated bowl or dish, plus CBM	1	9	0
5-6	0105	0106	Pit	M-L3*	A small group of Roman pottery including a shell-gritted sherd plus CBM and post-Roman pottery.	2	9	0
5-6	0189	0201	Posthole	ML3+	A small group including a sherd from a shell-gritted Dales ware jar and a coarse quartz-gritted grey ware jar plus CBM.	17	390	4
5-6	0199	0200	Linear	ML3+	A small group of grey ware plus CBM and post-Roman pottery.	2	33	0
5-6?	0197	0198	Linear	L3+	A small group including a sherd from a colour-coated beaker and a shell-gritted sherd plus CBM.	2	24	0
6	0031	0032	Linear	ML2+	A single sherd from a colour-coated vessel plus CBM.	1	3	0
6	0054	0057	Pit	Roman+*	A small group of grey ware along with post-Roman pottery and CBM.	7	111	0
6	0159	0160	Pit	L3-4	A fragment from a developed grey ware wide-mouthed bowl (No. 45) plus CBM.	1	99	11
6	0182	0183	Pit	Roman	A single grey ware sherd with a worn base.	1	31	0
6	0193	0194	Linear	Roman	Two grey ware sherds plus CBM and a post-Roman sherd.	2	17	0
6	0427	0428	Ditch	Roman	Two grey ware vessels plus CBM.	4	21	0
6	0519	0520	Ditch	2C	A small group including fragments from a white ware vessel, a grey ware necked jar or bowl, an oxidised jar or flagon and a platter or dish (No. 16, also found in MSS08 Context 507).	4	50	10

Phase	F No	Context	F Type	Spot date	Comments	Sherd	Weight (g)	Total RE %
6	0572	0574	Ditch	M2+	A small group of grey ware and a fragment from a colour-coated rough-cast beaker plus CBM.	5	55	0
6	0814	0813	Gully	VL4*	A small group including a fragment from a bowl with an in-turned bead and flanged rim in an oxidised fabric and one post-Roman sherd.	2	21	5
6	0815	0816	Gully	Roman	A small group of grey ware.	2	13	0
6	0815	0818	Gully	ML3+*	A small group including fragments from a jar in a Black Burnished 1 type fabric, shell-gritted sherds and a colour-coated bowl with a triangular rim. Post-Roman pottery and CBM were also retrieved from this context.	11	461	17
6	0845	0846	Gully	Roman	A small group of grey ware and a dish with a plain rim plus CBM.	5	101	7
6	0923	0913	Pit	L2+	A sherd from a grey ware wide mouthed bowl plus CBM.	1	30	6
6	0923	0915	Pit	M12-E13/ L4*	A sherd from a large South Midlands shell-gritted jar plus post-Roman pottery and CBM.	1	9	4
6	0962	0962	Layer	L3+*	A small group of Roman pottery including a fragment from a colour-coated hemispherical flanged bowl plus a large group of post-Roman pottery and CBM.	2	21	7
6	0969	0973	Pit	Roman	A single grey ware sherd plus CBM.	1	9	0
6	1033	1034	Pit	Roman*	A grey ware and a sherd from a shell-gritted jar and post-Roman pottery.	2	52	11
6	1061	1061	Linear	Roman	A single grey ware sherd plus post-Roman pottery and CBM.	1	7	0
6	1061	1064	Linear	ML1-E2	A single sherd from a honey pot in a white ware plus post-Roman pottery and CBM.	1	15	10
6	1087	1139	Ditch	Roman*	A mixed group including post-Roman pottery CBM and greyware and a fragment from a colour-coated vessel.	5	39	4
6	1091	1092	Gully	Roman	A small group of Roman pottery, post-Roman pottery and CBM.	3	33	0
6	1104	1105	Pit	Roman*	A single grey ware sherd plus post-Roman sherds.	1	62	0
6	1170	1171	Gully	Roman	A fine grey ware sherd.	1	4	0
6	1174	1175	Pit	Roman	A single grey ware sherd and a post-Roman sherd.	1	2	0
6	1205	1207	Ditch	L3+*	A colour-coated bowl with a plain rim, post-Roman pottery and CBM.	1	27	7
6	1237	1236	Gully	Roman	A single grey ware sherd.	1	10	0
6-7?	0266	0266	Layer	L2+	A small group including a fragment from a light-fired vessel, large grey ware jars and bowls plus CBM.	6	103	17
7	0900	0901	Construction cut	AD50-90	A small group including a fragment from a grey ware jar with an everted rim and high shoulder (No. 29) and a sherd from a samian form 18 platter.	3	35	19

Phase	F No	Context	F Type	Spot date	Comments	Sherd	Weight (g)	Total RE %
7	1045	1048	Pit?	Roman*	A group of post-Roman pottery, CBM and a single grey ware sherd.	1	17	0
7?	0710	0712	Pit	Roman	One very abraded Roman sherd.	1	5	0
7-Mod	0391	0391	Layer	L3-4	A small group of greyware including a fragment from a necked wide-mouthed bowl plus CBM.	4	208	11
Mod		1009/1010		19-M20	A large group of post-Roman pottery and a single Roman colour-coated sherd from a bowl.	1	2	0
Mod	0075	0076	Construction cut	Roman	A small group of grey ware plus CBM.	3	7	0
Mod	0118	0118	Back-fill	ML2+	A single sherd from a colour-coated beaker plus CBM.	1	3	0
Mod	0126	0127	Construction cut	Roman	A burnished grey ware sherd plus CBM.	1	13	0
Mod	0167	0168	Construction cut	Roman	Two grey ware sherds plus CBM and post-Roman pottery.	2	20	6
Mod	0178	0179	Construction cut	2C+*	A grey ware sherd plus a group of CBM and post-Roman pottery.	1	7	4
Mod	0224	0232	Posthole	ML3+	A single shell-gritted Dales ware sherd.	1	14	0
Mod	0247	0249	Pit	3-4C	A small group including grey ware and a colour-coated sherd plus CBM.	5	64	0
N/A	0027	0027	U/S Finds	3C+*	A small group of Roman pottery including sherds from a colour-coated beaker with a funnel neck, a grey ware jar with a curved rim and a bowl with a triangular rim. Also present were fragments of post-Roman pottery and CBM.	17	163	25
N/A	0072	0072	U/S Finds	L3+*	An unstratified group including post-Roman sherds and CBM. The Roman pottery present included a range of early roman pottery including a shell-gritted channel-rimmed jar (No. 51) and a grey ware jar with web rustication. The majority of the pottery could be dated to the late Roman period including Mancetter-Hartshill vessels (No. 6-7), a rim from a shell-gritted Dales ware jar, a sherd from a South Midlands shell-gritted jar with a rilled shoulder, a plain rimmed bowl and a grey ware straight sided bowl with a bead and flanged rim.	62	2082	95
N/A	0083	0083	U/S Finds	L4C*	A good medium sized group of Roman pottery along with CBM and post-Roman pottery were attributed to this unstratified context. A good group of late Roman pottery was retrieved including a shell-gritted lid-seated jar (No. 53) a bowl with an everted rim (No. 38), a straight sided bowls with a bead and flanged rims including one with a high bead (No. 33-4) and a wide-mouthed bowl (No. 39). This assemblage suggest activity in the later 4th century AD.	52	1334	117

Phase	F No	Context	F Type	Spot date	Comments	Sherd	Weight (g)	Total RE %
N/A	0098	0098	U/S Finds	L3+*	A good medium sized group of Roman pottery along with CBM and post-Roman pottery were attributed to this unstratified context. A good group of late Roman pottery was retrieved including a shell-gritted Dales ware jars, Derbyshire ware, a colour-coated beaker with a grooved funnel rim, a straight sided bowls with a grooved flange rim and a wide-mouthed bowl (No. 40). This assemblage suggests activity on the site in the late Roman period.	27	1075	103
U/S	0245	0245	Finds	L4*	A mixed group including early Roman pottery including South Gaulish samian, a native tradition cooking pot, a fragment from large Roman necked storage jar, grey ware jars with everted rims and rusticated decoration. A range of late Roman pottery was also present including jars with curved rims, a wide-mouthed bowl, straight sided bowls with a bead and flanged rim, carinated drinking bowl (Darling and Precious 2014, No. 1160) a shell-gritted Dales ware jar, a South Midlands shell gritted jar and colour-coated bowls including plain rimmed and hemispherical flanged types. The later Roman pottery dates to the end of the 4th century AD. Also present was a fragment from a large bowl with glass residue that had been used as a glass melting pot. CBM and post-Roman pottery were also attributed to this group.	40	777	91
U/S	0321	0321	Finds	4C	A small group including grey ware and a colour-coated bowl with a flanged rim (No. 10) sherds.	3	84	12
U/S	0322	0322	Finds	VL4/L2-3*	A medium sized mixed group including fragments from a white ware vessel, native tradition large bowls and large grey ware jars. Colour-coated forms include fragments from a Castor box, plain rimmed bowls and a flagon or jar. Also present were fragments from two double lid-seated jars: a shell-gritted example (No. 55) and another with coarse quartz (No. 46) that date to the end of the 4th century AD or later. Post-Roman pottery and CBM were also retrieved from this context.	42	1330	146
U/S	0725	0725	U/S Finds	AD150+	A small unstratified group including a samian form 18/31 dish, grey ware and a fragment from a Mancetter/Hartshill mortarium. Also present were CBM and post-Roman pottery.	8	87	7
U/S	U/S	U/S		2-4C	A mixed unstratified group and CBM.	21	518	42

Table 2: Roman pottery fabrics

Fabric code	Fabric group	Fabric details	Sherd	Sherd %	Weight (g)	Weight %	Total RE %
SAMCG	Samian	Central Gaulish	12	1.17%	519	2.02%	61
SAMEG	Samian	East Gaulish	1	0.10%	5	0.02%	6
SAMLM	Samian	Les Martres de Veyre	1	0.10%	25	0.10%	18
SAMLM?	Samian	Les Martres de Veyre	1	0.10%	8	0.03%	7
SAMSG	Samian	South Gaulish	5	0.49%	30	0.12%	34
SAMSG?	Samian	South Gaulish Samian	1	0.10%	17	0.07%	0
AMPH	Amphora	Miscellaneous amphorae	1	0.10%	23	0.09%	0
DR20	Amphora	Dr 20 amphorae	46	4.48%	4753	18.53%	0
GAU4	Amphora	Gauloise 4	6	0.58%	211	0.82%	0
MOLIN	Mortaria	Lincoln mortaria	4	0.39%	350	2.36%	33
MOMH	Mortaria	Mancetter-Hartshill mortaria	17	1.66%	1550	6.04%	97
MONV	Mortaria	Nene Valley mortaria	4	0.39%	758	2.95%	48
CC	Fine	Other colour-coated wares	1	0.10%	3	0.01%	0
CC1	Fine	Colour coated fabric 1	10	0.97%	142	0.55%	38
CGBL	Fine	Central Gaulish black ware	1	0.10%	1	0.00%	0

Fabric code	Fabric group	Fabric details	Sherd	Sherd %	Weight (g)	Weight %	Total RE %
GRA	Fine	Fine grey ware group; Local	3	0.29%	15	0.06%	0
GRA7	Fine	Parisian ware; Local	3	0.29%	9	0.04%	0
NVCC1	Fine	Nene Valley Colour-coat-light firing fabric	45	4.38%	568	2.21%	124
NVCC2	Fine	Nene Valley Colour-coat-late red fabric	1	0.10%	2	0.01%	0
OAA	Fine	Fine oxidised group; Lincoln?	11	1.07%	117	0.46%	29
OXRC?	Fine	Oxfordshire red colour-coated	1	0.10%	13	0.05%	0
SCCC	Fine	South Carlton colour-coated	1	0.10%	5	0.02%	0
SCCC?	Fine	South Carlton colour-coated	2	0.19%	14	0.05%	11
DBY	Oxidised	Derbyshire ware	2	0.19%	42	0.16%	0
FLA	Oxidised	Misc. light-fired wares	1	0.10%	6	0.02%	0
FLA1	Oxidised	Light fired fine ware with sparse silver mica-Lincoln?	16	1.56%	485	1.89%	100

Fabric code	Fabric group	Fabric details	Sherd	Sherd %	Weight (g)	Weight %	Total RE %
FLA2	Oxidised	Light-fired sandy ware-Northants?	27	2.63%	297	1.16%	110
OAB	Oxidised	Medium oxidised group; Lincoln?	7	0.68%	49	0.19%	5
OABT	Oxidised	Medium oxidised group; Trent?	5	0.49%	108	0.42%	5
OWST	Oxidised	Medium oxidised white slipped group; Trent?	1	0.10%	2	0.01%	0
PINK?	Oxidised	Pink micaceous flagons etc. Lincoln	1	0.10%	3	0.01%	0
TILE	Oxidised	Tile fabric vessels	3	0.29%	35	0.14%	0
BB1	Reduced	Black Burnished ware 1; Dorset	4	0.39%	59	0.23%	8
BB1T	Reduced	Black burnished ware type; Local	21	2.04%	239	0.93%	22
GR	Reduced	Misc. grey ware	1	0.10%	2	0.01%	0

Fabric code	Fabric group	Fabric details	Sherd	Sherd %	Weight (g)	Weight %	Total RE %
GRB	Reduced	Common medium quartz, grey ware	73	7.11%	1382	5.39%	184
GRB2	Reduced	Medium quartz grey ware, sparse calcareous inclusions; Trent Valley	4	0.39%	156	0.61%	26
GRB23	Reduced	Gritty grey ware; Trent Valley	3	0.29%	157	0.61%	17
GRB7	Reduced	Gritty dark grey ware, some calc; Trent Valley	34	3.31%	488	1.90%	23
GRBT	Reduced	Grey ware; possible Trent Valley	477	46.45%	9204	35.87%	703
GRCT	Reduced	Coarse grey ware; possible Trent Valley	23	2.24%	513	2.00%	8
LGRL1	Reduced	Lincoln grey ware with light firing core fabric 1	1	0.10%	7	0.03%	0
CT	Shell	Shell-tempered ware, probably Dales ware	7	0.68%	134	0.52%	34
CTA	Calcareous	Shell-gritted	12	1.17%	320	1.25%	18

Fabric code	Fabric group	Fabric details	Sherd	Sherd %	Weight (g)	Weight %	Total RE %
CTA2	Calcareous	Dales ware-Lincs/Humberside	67	6.52%	841	3.28%	87
SHCM	Calcareous	Shell-common medium	1	0.10%	9	0.04%	4
SMSH	Calcareous	South Midlands shell-tempered wares	4	0.39%	86	0.34%	17
BSB	Quartz	Transitional brown quartz-tempered ware; Local	1	0.10%	8	0.03%	3
BSB?	Quartz	Transitional brown quartz-tempered ware; Local	1	0.10%	9	0.4%	0
GTA	Grog	Grog-gritted-misc.	1	0.10%	8	0.03%	0
GTA10	Grog	Light grey with grog-Trent Valley	48	4.67%	1650	6.43%	108
GTA8G	Grog	Grey grog-tempered; brown margins; sparse shell-Trent Valley	1	0.10%	20	0.08%	0

Table 3: Roman pottery form summary

Form	Form Type	Form Descr.	Sherd	Sherd %	Wt (g)	Wt %	Total RE %
-	-	Unidentified form	236	22.98%	1533	5.98%	2
A	Amphora	Unclassified form	53	5.16%	4987	19.44%	0
BK	Beaker	Unclassified form	7	0.68%	24	0.09%	0
BKC OR	Beaker	Cornice rim	1	0.10%	2	0.01%	10
BKC R	Beaker	Curved rim	1	0.10%	5	0.02%	11
BKE V	Beaker	Everted rim	8	0.78%	83	0.32%	17
BKF G	Beaker	Funnel necked grooved-rimmed	3	0.29%	7	0.03%	23
BKF N	Beaker	Funnel necked; form unknown	2	0.19%	15	0.06%	21
BKF O	Beaker	Folded; indeterminate type	1	0.10%	3	0.01%	0
BKN K	Beaker	Necked	1	0.10%	13	0.05%	7
BKO FB	Beaker	Folded; funnel neck beaded	1	0.10%	4	0.02%	11
BKR C	Beaker	Roughcast	2	0.19%	14	0.05%	0
B	Bowl	Unclassified form	6	0.58%	125	0.49%	6
B318	Bowl	Flared rim as Petch 1962 Fig 7.23	1	0.10%	69	0.27%	26

Form	Form Type	Form Descr.	Sherd	Sherd %	Wt (g)	Wt %	Total RE %
B37	Bowl	Hemispherical possibly imitating samian 37	1	0.10 %	9	0.04 %	6
B38	Bowl	Imitation samian 38	2	0.19 %	59	0.23 %	0
BCAR	Bowl	Carinated	1	0.10 %	30	0.12 %	0
BEV	Bowl	Everted rim	2	0.19 %	69	0.27 %	14
BFB	Bowl	Bead and flange bowl	7	0.68 %	363	1.41 %	45
BFBH	Bowl	Bead and flange high bead	2	0.19 %	102	0.40 %	22
BFL	Bowl	Flange rimmed (eg Gillam 1970 Types 218-220)	14	1.36 %	435	1.70 %	96
BG225	Bowl	Rounded as Gillam 1970 No 225	1	0.10 %	26	0.10 %	7
BGF	Bowl	Grooved flange	2	0.19 %	55	0.21 %	19
BIBF	Bowl	In-turned bead and flange Swanpool D13-23	1	0.10 %	20	0.08 %	5
BPR	Bowl	Plain rimmed	7	0.68 %	202	0.79 %	40
BREED	Bowl	Reeded rim	1	0.10 %	18	0.07 %	12
BSEG	Bowl	Segmental Gillam 294-5	2	0.19 %	40	0.16 %	22
BTR	Bowl	Triangular rimmed (e.g. Gillam 1970 Types 222-3)	5	0.49 %	95	0.37 %	27
BL	Bowl-large	Large	34	3.31 %	1262	4.92 %	23

Form	Form Type	Form Descr.	Sherd	Sherd %	Wt (g)	Wt %	Total RE %
BNA T	Bowl-large	Native tradition bowl e.g. D&P No.700	5	0.49 %	240	0.94 %	27
BNN K	Bowl-large	Large bowl with no neck	4	0.39 %	156	0.61 %	24
BWM	Bowl-large	Wide-mouthed; D&P No 1225-30	9	0.88 %	388	1.51 %	58
BWM 1	Bowl-large	Wide-mouthed; D&P No.1225-7	3	0.29 %	299	1.17 %	33
BWM 2	Bowl-large	Wide-mouthed; D&P No. 1228	5	0.49 %	197	0.77 %	32
BWM 3	Bowl-large	Wide-mouthed; D&P No. 1229-30	3	0.29 %	395	1.54 %	28
BD	Bowl/dish	-	28	2.73 %	371	1.45 %	4
CLS D	Closed	Form	198	19.28 %	2604	10.15 %	0
27	Cup	Samian form- see Webster 1996	3	0.29 %	23	0.09 %	36
C	Cup	Unclassified form	1	0.10 %	17	0.07 %	0
18/31	Dish	Samian form- see Webster 1996	4	0.39 %	47	0.18 %	33
18/31 R	Dish	Samian form- see Webster 1996	4	0.39 %	487	1.90 %	29
31	Dish	Samian form- see Webster 1996	2	0.20 %	11	0.04 %	14
D?	Dish	Unclassified form	1	0.10 %	1	0.00 %	0
DPR	Dish	Plain rim	8	0.78 %	105	0.41 %	37

Form	Form Type	Form Descr.	Sherd	Sherd %	Wt (g)	Wt %	Total RE %
F	Flagon	Unclassified form	2	0.19 %	31	0.12 %	0
F?	Flagon	Unclassified form	8	0.78 %	133	0.52 %	0
FCR	Flagon	Cup-mouthed ringed	3	0.29 %	214	0.83 %	100
FDR	Flagon	Disk rim	4	0.39 %	107	0.42 %	100
FL?	Flagon	Large	14	1.36 %	140	0.55 %	0
FJ	Flagon/jar	Unclassified form	11	1.07 %	90	0.35 %	0
CPN	Jar	Native tradition	2	0.19 %	47	0.18 %	22
HP	Jar	Honey-pot	1	0.10 %	15	0.06 %	10
J	Jar	Unclassified form	54	5.26 %	1081	4.21 %	0
J?	Jar	Unclassified form	1	0.10 %	10	0.04 %	0
JCH	Jar	Channel rim- Iron Age type	2	0.19 %	23	0.09 %	15
JCUR	Jar	Curved	6	0.58 %	102	0.40 %	63
JDLS	Jar	Double lid-seated	6	0.58 %	178	0.69 %	43
JDW	Jar	Dales ware	13	1.27 %	231	0.90 %	69
JEV	Jar	Everted rim	16	1.56 %	332	1.29 %	165

Form	Form Type	Form Descr.	Sherd	Sherd %	Wt (g)	Wt %	Total RE %
JEVC	Jar	Everted rim- curved as Gillam type 135	6	0.58 %	64	0.25 %	26
JEVS	Jar	Everted rim- stubby	2	0.19 %	42	0.16 %	14
JL	Jar	Large	73	7.11 %	2604	10.15 %	79
JLH	Jar	Lug-handled	3	0.29 %	156	0.61 %	0
JLS	Jar	Lid-seated	1	0.10 %	50	0.19 %	10
JNK	Jar	Necked	17	1.66 %	272	1.06 %	50
JNN	Jar	Narrow-necked	2	0.19 %	62	0.24 %	44
JRUST	Jar	Rusticated	6	0.58 %	73	0.28 %	0
JS	Jar	Storage	7	0.68 %	783	3.05 %	16
JWM	Jar	Wide-mouthed as RPNV 3-5	1	0.10 %	43	0.17 %	12
JBK	Jar/Beaker	Small jar or beaker	2	0.19 %	11	0.04 %	0
JB	Jar/Bowl	Unclassified form	9	0.88 %	108	0.42 %	19
JBCAR	Jar/Bowl	Carinated	1	0.10 %	12	0.05 %	0
JBL	Jar/Bowl	Large	25	2.43 %	683	2.66 %	36
JBNK	Jar/Bowl	Necked	2	0.19 %	26	0.10 %	8

Form	Form Type	Form Descr.	Sherd	Sherd %	Wt (g)	Wt %	Total RE %
L	Lid	Unclassified form	3	0.29 %	86	0.34 %	42
LBIF	Lid	Bifurcated rim	4	0.39 %	46	0.18 %	24
BX	Misc	Castor box	1	0.10 %	14	0.05 %	7
LBX	Misc	Castor box lid	1	0.10 %	1	0.00 %	2
M	Mortaria	Unclassified Form	4	0.39 %	80	0.31 %	0
MHH	Mortaria	Hammerheads as Gillam 279-84	3	0.29 %	269	1.05 %	24
MHK	Mortaria	Hook-rimmed as Gillam 237-45	6	1.46 %	555	7.46 %	16
MRR	Mortaria	Reeded rim	3	0.29 %	394	1.54 %	46
OPE N	Open	Form	7	0.68 %	93	0.36 %	0
18	Plate	Samian form- see Webster 1996	1	0.10 %	6	0.02 %	8
PD	Plate/Dish	Form	1	0.10 %	17	0.07 %	8
-	Unknown	Form uncertain	236	22.98 %	1533	5.98 %	2

Table 4: The Samian Catalogue

context	vessel part	fabric	?	form	?	dec	cond	wear	No. of vessels	sherd count	weight	Rim Eve	rim Diam	Base Eve	base Diam	wall height	complete height	footring height	stamp	potter	die	Edate	Ldate	comments
421	complete profile	SAMCG		DR18/31R		ROD	unused		1	1	223	0.28	235	0.38	90	35						120	160	almost complete profile, the area near the centre of the base is missing. Very fresh, unused footring and rim. Very good CG fabric
421	rim	SAMMV		DR18/31					1	1	25	0.18	170			31						100	130	
421	flake	SAMCG		bowl					1	1	4											120	200	either from a Dr30 junction of wall and base or from a Wa81 junction of cordon and lower wall
388	complete profile	SAMCG		DR18/31R		ROD	unused		1	3	264	0.1	240	1	94	41			Y	Severus v	new	125	150	3=1 complete profile, very fresh, unused complete footring. Complete stamp: SEVERIM, Severus v, new die (B. Dickinson, pers comm). New die will probably be 3b but wait confirmation. This die is close to the incomplete one listed under 1 (H&D 2011, 268)
388	rim	SAMCG		DR27					1	1	10	0.18	120									120	160	
388	rim	SAMLG		DR27					1	1	10	0.18	95									80	110	the rim is thick and badly made, there is a groove on the bead. If LG, it's a late one
83	rim	SAMLG		DR18/31					1	1	11	0.08	180			30						70	110	
465	Body sherd	SAMLG		DE67		DEC			1	1	2											70	110	
901	rim	SAMLG		DR18					1	1	6	0.08	160			27						50	90	
245	Body sherd	SAMLG	?	cup					1	1	17											70	110	junction of wall and base from a Dr46 or OP55
1135	Body sherd	SAMCG		DR18/31					1	1	3											120	160	does not join with either of the 18/31Rs
426	rim	SAMCG		DR31					1	1	6	0.08	190									150	200	
426	rim	SAMEG		DR31					1	1	5	0.06	230									150	250	prob RZ and a LUDSa or Sb
482	rim	SAMCG		bowl					1	1	3	0.06	230									120	200	beaded rim-Dr37 or 38
416	flake	SAMLG		dish	?				1	1	1											50	110	

context	vessel part	fabric	?	form	?	dec	cond	wear	No. of vessels	sherd count	weight	Rim Eve	rim Diam	Base Eve	base Diam	wall height	complete height	footring height	stamp	potter	die	E date	L date	comments
80	Body sherd	SAMCG					burnt		1	1	2											120	200	
486	Body sherd	SAMCG		DR27					1	1	3											120	160	
71	flake	SAMCG							1	1	1											120	200	
725	rim	SAMMV	?	DR18/31					1	1	8	0.07	200			33						100	130	

Appendix 5: The Post-Roman Pottery

by Jane Young

A quantity of post-Roman pottery ranging in date from the late Saxon to early modern period was recovered during archaeological investigations at Church Street. In total, five hundred and seventy-three sherds of pottery representing four hundred and sixteen vessels were recovered from the site. The material was quantified by three measures: number of sherds, weight and vessel count within each context.

The pottery has been fully archived to the standards for acceptance to a museum archive and within the guidelines laid out in Slowikowski, *et al.* (2001). Visual fabric identification of the pottery was undertaken by x20 binocular microscope. The pottery data was entered on an access database using fabric codenames (see Table 1) developed for the Lincoln Ceramic Type Series (Young, Vince and Nailor 2005) and the preliminary Nottingham Type Series (Nailor and Young 2001). Four new Nottinghamshire pottery types were identified whilst working on this assemblage and these are described below.

Condition

The pottery is mainly in a slightly abraded condition with sherd size varying between 1 gram and 216grams, although some sherds are in a fairly fresh condition. Sixty-five of the vessels recovered are represented by more than a single sherd and seven cross-context joins were noted.

The Pottery

In total four hundred and sixteen vessels in fifty-eight identifiable main post-Roman ware types, were recovered from the intervention (Tables 1 and 2). The identifiable pottery is of late Saxon to early modern type.

Table 1 Pottery types with total quantities by sherd and vessel count

Codename	Full name	Earliest date	Latest date	Total sherds	Total vessels
BBAS	Black Basalt	1768	2000	1	1
BERTH	Brown glazed earthenware	1550	1800	3	3
BEVO1	Beverley Orange ware Fabric 1	1100	1230	12	10
BEVO1T	Beverley Orange-type ware Fabric 1	1100	1230	1	1
BEVO2	Beverley Orange ware Fabric 2	1230	1350	19	12
BL	Black-glazed wares	1550	1750	42	21
BRACKT	Brackenfield-type	1200	1450	3	2
CIST	Cistercian-type ware	1480	1650	3	3
CREA	Creamware	1770	1830	82	73
EMX	Non-local Early Medieval fabrics	1150	1230	2	1
EST	Early Stamford ware	870	1010	1	1
HUM	Humberware	1250	1550	2	2
LEMS	Lincolnshire Early Medieval Shelly	1130	1230	8	4
LERTH	Late earthenwares	1750	1900	31	25
LFS	Lincolnshire Fine-shelled ware	970	1200	36	30
LMLOC	Late Medieval local fabrics	1350	1550	2	1
LONS	London Stoneware	1670	1800	1	1
LSH	Lincoln shelly ware	850	1000	1	1
LSW1	12th century Lincoln Glazed ware	1100	1200	1	1
MEDLOC	Medieval local fabrics	1150	1450	3	3
MEDX	Non Local Medieval Fabrics	1150	1450	1	1
MP	Midlands Purple ware	1380	1600	8	7

NEWG	Newark Glazed ware	1200	1230	1	1
NEWS	Newark-Type ware	970	1040	3	3
NGR	Northern Gritty ware	1180	1450	1	1
NLSSQ	Nottinghamshire Late Saxon Shell and Quartz	900	1020	11	2
NLST	North Lincolnshire Shell-tempered	1180	1450	1	1
NNCSW	North Nottinghamshire Late Medieval Coarseware	1350	1550	1	1
NNLBCW	North Nottinghamshire Light-bodied Coarse ware	1550	1750	6	2
NNLBS	North Nottinghamshire Light-bodied Slipware	1650	1750	4	1
NNPMCW	North Nottinghamshire Post-medieval Coarseware	1500	1700	2	1
NNQS	North Nottinghamshire Quartz and	1100	1250	2	2
NOTGL	Light Bodied Nottingham Green Glazed ware	1220	1320	30	8
NOTGR	Reduced Nottingham Green Glazed	1280	1420	1	1
NOTGV	Nottingham Glazed ware Variant	1200	1350	7	7
NOTS	Nottingham stoneware	1690	1900	8	6
NSP	Nottingham Splashed ware	1100	1250	15	14
PEARL	Pearlware	1770	1900	15	15
POTT	Potterhanworth-type Ware	1250	1500	3	2
PSHW	Peterborough Shelly Ware	1175	1400	6	5
SACSPL	Southwell Area Coarse Splashed	1170	1230	8	7
SAQS	Southwell Area Quartz and Shell	1050	1200	8	6
SASPL	Southwell Area Splashed ware	1170	1230	3	2
SDOXMG	Southwell Dull Oxidised Medieval Glazed ware	1200	1350	8	7
SLIP	Unidentified slipware	1650	1750	2	1
SLSNT	South Lincolnshire St. Neots-type	980	1100	2	2
SLST	South Lincolnshire Shell Tempered	1150	1250	1	1
SNSPT	Southwell Nottingham Splashed-type	1170	1230	47	28
SNX	Non-local Saxo-Norman Fabrics	870	1150	1	1
ST	Stamford Ware	970	1200	11	6
STMO	Staffordshire/Bristol mottled-glazed	1690	1800	5	5
STSL	Staffordshire/Bristol slipware	1680	1800	4	4
SWSG	Staffordshire White Salt-glazed	1700	1770	18	11
TGW	Tin-glazed ware	1640	1770	3	2
THETT	Thetford-type fabrics	1000	1150	2	2
TORK	Torksey ware	850	1100	21	19
TPW	Transfer printed ware	1770	2000	48	34
WEST	Westerwald stoneware	1600	1800	1	1
Totals				573	416

Late Saxon

A small group of twenty-six vessels of definite Late Saxon type was recovered from the site. The presence in the group of a Lincoln-produced shell-tempered vessel suggests a late 9th to 10th century date for some of the activity. The Lincoln Shelly ware jar body sherd in Fabric B (LSH) is not typologically significant, although the vessel is most likely to be of 10th century date. Two wheel-thrown quartz and shell-tempered jars (NLSSQ) of probable 10th to early/mid 11th century date are possibly of Nottinghamshire production. This newly designated fabric contains common to abundant round to subround quartz of 0.2mm to

0.4mm, together with occasional larger grains and common coarse fossil shell. The fabric is similar to that used for the slightly later and probably handmade North Nottinghamshire Quartz and Shell vessels (NNQS). Three wheel-thrown sherds in grey sandy fabrics possibly come from jars in Newark-type ware (NEWS). This type probably dates to between the late 10th and early 11th centuries. The greater portion of the late Saxon-type vessels found on the site however, are of Torksey-type (TORK). The nineteen vessels recovered are mostly jars but one in-turned rim bowl, a large bowl with a pressed rim and a small everted-rim bowl also occur. Few sherds are chronologically significant, although the in-turned rim bowl is of early/mid 10th to early 11th century date and the large bowl with a 'pie-crust' rim edge is of late 10th to mid 11th century type. A jar rim recovered from linear feature 161 is of post-mid/late 10th century date. A single Early Stamford ware sherd (EST) comes from a pitcher in Fabric D with oblong roller-stamping on the shoulder. This pitcher is of 10th to early/mid 11th century date.

Saxo-Norman

Forty-one vessels are of Saxo-Norman type and date to the period between the 10th and 12th centuries. These industries represented produced pottery over long periods, often with little change in fabric or form, making close dating difficult. Thirty of the vessels are in Lincolnshire Fine-shelled ware (LFS). This ware type was probably mainly produced to the north of Lincoln from the late 10th to late 12th centuries. Most of the sherds come from small to medium-sized jars, but at least three bowls are present. Only two jar rims are chronologically significant and these suggest a probable post-conquest date for these vessels. Eleven sherds are from six Stamford ware vessels (ST). A small jar in Fabric A with a thin glaze is of late 10th to 11th century date. The jar/pitcher sherd in Fabric B is of post-conquest mid/late 11th to mid 12th century date whilst a similar sherd and a collared jar/pitcher in Fabric B/C are likely to be of Early/mid to mid 12th century date. Three jars or pitchers in Fabric C are of mid to late 12th century date.

Two small jar sherds and a fragment from a large jar or bowl are in a fabric similar to St. Neots ware but do not contain the diagnostic punctate brachiopod inclusions typical of the ware (SLSNT). A similar fabric occurs on sites in South Lincolnshire, mainly in deposits dating to between the late 10th and late 11th centuries. Two small Thetford-type (THETT) sherds probably come from separate jars of 10th to 11th century date. A small and very abraded oxidised sherd in a sandy fabric (SNX) is from a jar of probable Saxo-Norman type.

Early Medieval

A total of seventy-seven vessels of early/mid 12th to early/mid 13th century type came from the site. Most of the vessels are in Southwell-type Splashed ware (SNSPT). This type is visually similar to Nottingham Splashed ware but under microscopic examination the quartz inclusions are similar to those found in the medieval Southwell-type glazed ware. All identifiable sherds come from jugs with a splashed-type glaze. The single rim present in the group is of the slightly in-turned square type suggesting a date in the last quarter of the 12th century. Handles are of the wheel-thrown strap variety. Two jugs have rows of square roller-stamping on the shoulder and one has bands of horizontal combing with combed wavy lines between. Two other splashed-type fabrics are probably of fairly local manufacture. The first of these was formerly designated as a Nottingham Variant type (Fabric 2), but further sherds from this site show that the type is in fact a local late splashed-type (SASPL). The two vessels recovered from the site in this fabric are from jugs of probable mid/late 12th to early/mid 13th century date. Eight sherds in a medium to coarse sandy fabric are from seven vessels now identified as Southwell Area Coarse Splashed-type ware (SACSPL). This hard-fired fabric has a compact laminar clay with common rounded quartz grains of 0.4mm to 0.8mm with occasional larger grains together with sparse to moderate iron-rich grains and sparse calcareous grains. Vessels are usually fired to an oxidised/reduced/oxidised colour but may occasionally be fully oxidised. Four of the vessels are jugs, two are jars and one sherd could come from a jug or jar. Five handmade and one thrown jar are in a quartz and

shell-tempered fabric (SAQS). This mainly oxidised fabric may occasionally have a reduced core and contains abundant mixed round to subround quartz grains very similar to those occurring in the medieval Southwell Dull Oxidised Glazed ware. Also in the fabric are moderate fragments of fossil shell. The six jars include four of small size.

Fourteen jugs are of Nottingham Splashed ware type (NSP). The earliest of these Nottingham-type vessels found on the site are two jugs in a fine/sandy fabric. This vessel type usually dates to between the mid and mid/late 12th century. The other twelve are in sandy or coarse fabrics of a slightly later date and probably date to between the mid/late 12th and early/mid 13th centuries. Two of the jug handles have pressed edges.

Ten vessels are in Beverley Type 1 (BEVO1) and were probably produced in Beverley itself between the early/mid 12th and early/mid 13th centuries. All but one of the sherds are obviously from jugs of small to medium-sized. The earliest sherds are from jug with splashed-type glazes. Use of this glazing technique in Beverley was unusual after the mid/late 12th century (Watkins, 1991, 80 and Didsbury and Watkins 1992). The other vessels have a suspension-type glaze and belong to the period between the mid/late 12th and early/mid 13th centuries. Another jug sherd is visually similar to Beverley Type 1 ware but has a coarser variant fabric (BEVO1T). Similar vessels are known from several sites in Lincolnshire, York and East Yorkshire suggesting other production sites for the type. The jug from this site has a splashed-type glaze and probably dates to between the early and mid/late 12th century. A sherd from a small jug with a slightly copper-speckled glaze is probably a Lincoln product (LSW1) dating to between the late 12th and early/mid 13th centuries. Two sherds with a fabric containing moderate to common fragments of iron slag are from a jug with a slashed-type glaze (EMX). This jug is from an unknown regional production centre in the East Midlands operating between the mid 12th and mid 13th centuries.

Seven vessels are early medieval coarsewares from unknown centres. Two sherds are from handmade jars in a quartz-tempered fabric (NNQS). Similar vessels are found on sites in North Nottinghamshire. Eight sherds are from four vessels in Lincolnshire Early Medieval Shelly ware type (LEMS) and belongs to the period between the mid 12th and early/mid 13th centuries. Three of the vessels are jars and one is a large bowl. A small body sherd is from a small Northern Gritty ware jar (NGR) in a group A fabric (Vince and Young 2007, 257-262). This group of fabric dates to between the 12th and mid 13th.

Medieval

Fifty-one vessels in fourteen ware types are of medieval type. Eight sherds come from seven vessels in Southwell Dull Oxidised Medieval Glazed ware (SDOXMG). Three vessels are jugs, one is a jar and three sherds could come from jugs or jars. At present the type is dated to between the 13th and mid 14th centuries. A jug handle of unusual triangular profile in a light-firing fabric is probably of Newark Glazed ware type dating to the early part of the 13th century.

Eight vessels are in Nottingham Light Bodied Green Glazed ware (NOTGL) produced at several workshops in Nottingham between the 13th and early/mid 14th centuries. All of the vessels recovered from the site are jugs, of which one is decorated with horizontal incised wavy lines. A single abraded sherd is probably from the slightly later Nottingham Reduced ware industry (NOTGR). This type spans the period between the late 13th and 14th centuries. Seven sherds are in similar, but variant fabric to those found in the Nottingham glazed wares (NOTGV). Fabrics such as these are found throughout Nottinghamshire, western Lincolnshire and north-eastern Leicestershire and several production sites in the region must have been involved in their manufacture. All of the vessels found on this site are likely to be of 13th to early/mid 14th century date. Four different fabrics were encountered on this site.

Fabric 3 – Two sherds from jugs in a light oxidised fabric with a light reduced core were recovered from the site. The fabric contains common fine quartz below 0.2mm together with moderate sub-rounded to rounded quartz of 0.2 to 0.4mm and moderate to common, mainly fine but often prominent, iron-rich grains.

Fabric 4 – Two jug sherds are in a light reduced fabric with a thin externally oxidised surface. The fabric contains moderate mixed sub-rounded to rounded quartz mainly between 0.2 and 0.6mm, together with moderate to common mainly fine iron-rich grains, but including some coarse grains up to 2.5mm, sparse feldspars and sparse calcareous grains.

Fabric 5 – Two jug sherds in this fabric were found on the site. The vessels have an oxidised external surface, light grey core and darker reduced internal surface. The fabric contains moderate to common rounded to sub-rounded quartz of 0.2mm to 0.4mm and moderate to common mainly fine iron-rich grains, but also including coarser grains up to 2.8mm.

Fabric 6 – A single sherd from a jug in a pale reduced fabric with a thin light oxidised external surface has a fabric containing sparse to moderate rounded to sub-rounded quartz of 0.3 to 0.5mm together with moderate fine calcareous grains and moderate fine iron-rich grains.

Twelve vessels recovered from the site are jugs in Beverley Type 2 ware (BEVO2). Some of these jugs probably date to the first half of the 13th century, although the currency of the ware type extends into the first quarter of the 14th century. Two light firing jugs with pale green to yellow glazes are of 13th century Brackenfield-type (BRACKT). Three sherds are from jugs or jars of probable local origin (MEDLOC). These vessels are of 13th to 14th century type.

A wide range of shell and quartz-tempered coarsewares were found on the site, most of which are likely to come from unknown production centres within the East Midlands. The three shell-tempered provisionally identified as Potterhanworth-type (POTT) come from a medium-sized jar and a large jar or bowl. This ware was long-lived being produced at a village about 11km south east of Lincoln (Young, Vince and Nailor 2005). It is found in mainly 13th century deposits in Nottingham but continues to be used in Lincoln until at least the end of the 15th century. Single sherds from jar or bowls in North Lincolnshire Shell-tempered (NLST) and South Lincolnshire (SLST) were found on the site. Five vessels are in a coarse shell-tempered fabric (PSHW) that closely resembles vessels found in Peterborough (Spoerry and Hinman 1988). The group includes a medium-sized jar, a large bowl and three large jars or bowls. This type is thought to originate in the Rockingham Forest area of Northamptonshire and to date to between the late 12th and 14th centuries. Another small jar in a coarsely shelled fabric (MEDX) could be of South Lincolnshire or Peterborough type shelly ware. The fossil shell inclusions have been leached from the inner surface of this jar by an acid content.

Late Medieval to Early Post-Medieval

Fourteen vessels are of late medieval to early post-medieval type. Some of these industries start in the late 13th or 14th centuries but are not in common use in the area until between the later 14th and mid 16th centuries. Others do not develop until the second half of the 15th century and continue in production until the early part of the 17th century. Most of the vessels are of coarsely tempered Midland Purple ware (MP) or are drinking vessels or jugs in Cistercian ware (CIST). These types were produced together at a number of centres in Yorkshire and the East Midlands (Boyle 2006) between the 15th and 17th centuries. The seven Midlands Purple vessels found on the site appear to come from several different production sites, as the fabrics represented are quite variable. Of note is what may be a Nottinghamshire type with common, often well rounded, iron-rich grains. Other examples appear visually similar to pottery made at Ticknall in Derbyshire (Spavold and Brown 2005). Most sherds probably come from large handled bunghole jars with cut-outs in the rim, but one sherd may come from a bowl. Midlands Purple ware possibly starts in the late 14th

century as an over-fired version of coarse quartz-tempered late medieval-type vessels, but the typical tall handled bunghole jars with cut-outs in the rim are probably a mid 15th century innovation. Most of the vessels recovered from this site are likely to be of late 15th to 16th century date. Two of the Cistercian ware sherds appear to come from cups and one is from a jug. These vessels can only be dated between the mid/late 16th and early/mid 17th centuries.

One coarsely sand-tempered sherd is of probable North Nottinghamshire Late medieval production and resembles early Midlands Purple ware (NNCSW). The sherd is from a jug in Fabric 1 with an internal 'kettle fur' deposit. It is likely that this jug dates to between the 15th and mid 16th centuries. A pre-firing pierced base and a body sherd in an orange medieval sandy fabric appear to come from a watering can (LMLOC). The vessel has an external red slip and a thick olive brown glaze on the upper body. The vessel is likely to be a fairly local product of 15th to 16th century date.

Two sherds are identifiable as Humber ware jugs (HUM). One sherd is the rim of a small mid 14th to mid 16th century jug whilst the other is a handle from a large jug of late 14th to mid 16th century date. Humber ware is most commonly found in mid 15th to mid 16th century deposits in Nottinghamshire and Lincolnshire but can occur from the early 14th century onwards.

Post-medieval

Forty-one of the vessels recovered from the site are of mainly mid 16th to 18th century date. These include earthenwares, stonewares, slipwares and tin-glazed ware. Three of the post-medieval ware types are likely to have been produced within North Nottinghamshire between the mid/late 16th and 17th centuries. Two sherds with a pre-fired tapering hole through the base appear to come from a large garden bowl, although the base has sooting on the underside and the vessel may have been used for another purpose. The vessel is in a coarse fabric termed North Nottinghamshire Post-medieval Coarse ware (NNPMCW). Four sherds from a single large bowl are in a light firing fabric (NNLBS). The fabric contains abundant fine quartz below 0.2mm with moderate grains between 0.2mm and 0.4mm and sparse grains between 0.4mm and 0.6mm some of which are orange-tinged. Also included in the fabric are moderate to common iron-rich grains of between 0.2mm and 0.4mm and some streaks of clean light firing clay. The bowl has an internal tan and dark brown glaze over a patchy red slip. The fabric of this vessel suggests that it was produced in a similar area to the North Nottinghamshire Post-medieval Coarse wares. Six sherds in a coarse light firing fabric are from a large bowl and a jug or jar (NNLBCW). The fabric is tempered with moderate sub-rounded quartz of 0.2mm to 0.4mm, some of which is polycrystalline and also includes some slightly larger quartz grains up to 0.8mm and moderate iron-rich grains.

Twenty-four of the vessels found on this site are black or brown-glazed earthenwares of the type made in a number of centres in Yorkshire and the East Midlands between the late 16th and 18th centuries. Vessel forms produced were mainly large bowls and jars intended for use in the kitchen and dairy. Other vessels included drinking vessels, small jars and chamber pots. Two of the three Brown-glazed Earthenware vessels (BERTH) found on the site are of mid 17th to 18th century possible Staffordshire or Derbyshire type. One sherd comes from a cup and one from a jug. The third vessel is a jar or bowl of late 17th to 18th century date. The twenty-one black-glazed vessels (BL) include both fine ware drinking vessels and coarsely tempered jars and bowls. Several vessels are of mid or late 17th to 18th century Staffordshire or Derbyshire type. These include two large cylindrical jars and a small cylindrical cup. Other vessels include more local 18th to 19th century jars and bowls.

Four small Staffordshire-type Slipware sherds (STSL) of mid 17th to mid 18th century type were recovered from the site. They include two cups and a decorated press-moulded dish. One of the cups has an internal and external slip with a thick brown glaze over. Five sherds from drinking vessels are in late 17th to 18th century Staffordshire Mottled ware (STMO). Despite the name these vessels were made in other centres including London, Bristol and Yorkshire. The vessels include three identifiable mugs and a cup. Two sherds in a fine

orange fabric are from a small jar with a brown glaze. The jar has a thin yellow line of slip around rim and is probably of 18th century date.

The two Tin-glazed Earthenware vessels (TGW) are represented by fragmentary sherds and have lost most of their glaze. It is possible that they are from a bowl and a drug pot of mid 17th to 18th century date. The single imported German Stoneware sherd is from a Westerwald-type drinking jug of mid/late 17th to 18th century date (WEST).

Late Post-medieval to Early modern

One hundred and sixty-six of the vessels examined are of 18th to mid 20th century date. Most of these vessels are industrial types introduced after the 1720's in the Staffordshire potteries, but by the mid to late 18th century were also being produced at factories in Yorkshire and elsewhere. Eight small sherds are from six vessels in 18th century Nottingham Stoneware (NOTS). Included are three bowls, a jar and two tiny vessels. The eleven Staffordshire-type White Salt-glazed ware vessels (SWSG) are likely to have been made between the 1730's and the 1770's. They include plates, dish/bowls and a tea bowl. A large group of seventy-three vessels are Creamwares of mid 18th to mid 19th century date. A small rim sherd in Black Basal (BBAS) is probably from a jar of probable late 18th to mid 19th century date. They are mainly utilitarian plates, bowls, jars and dishes but one base appears to be from a transfer-printed tea bowl. Fifteen decorated Pearlware vessels (PEARL) are of late 18th to mid 19th century date. Most of the sherds come from late 18th to early 19th century tea sets and include at least five tea bowls and seven deep saucers. The latest vessels to be found on the site are transfer-printed plates, dishes, bowls and teapots of probable 19th century date (TPW).

Twenty-five unglazed earthenware (LERTH) flower pots and larger garden pots are of probable 18th to 19th century date. A large sherd comes from a London Stoneware (LONS) bottle of 17th to 18th century date.

The Site Sequence

The post-Roman pottery was recovered from seventy-three deposits on the site. These deposits were divided into eight site phases (Table 2). Much of the material was recovered from deposits designated to the modern period or listed as unassigned.

Table 2 Ceramic periods with total quantities by vessel count

Phase	2	3	4-6	5	5-6	6	7	7-Mod	Mod	U/S	Totals
Late Saxon	0	0	1	*4	*4	2	0	1	1	14	26
Saxo-Norman	1	0	1	3	2	21	0	0	1	12	41
Early medieval	0	0	0	2	*1	56	0	0	2	*17	77
Medieval	0	1	0	0	0	*32	0	0	6	*13	51
Late medieval to early post- medieval	0	0	0	0	0	2	5	0	3	4	14
Post-medieval	0	0	0	0	0	1	*16	0	20	*5	41
Early modern	0	1	0	1	0	0	9	2	105	48	166
Totals	1	2	2	*10	*7	*114	*30	3	138	*113	416

* denotes vessels with con-joins to other phases

Phase 2: Mid-Roman

A single sherd from a small Lincolnshire Fine-shelled ware jar of mid 11th to 12th century date was recovered from linear feature **792**.

Phase 3: Late Roman

Layer **513** produced a small sherd from a 13th to early/mid 14th century Beverley 2 jug or jar and layer 403 contained a small fragment from an early modern flowerpot.

Phase 4 to 6: Saxon to Post-Medieval

A sherd from a late 9th to mid 11th century Torksey ware jar was recovered from pit **61** in Phase 4 or 5. Pit **1114** in Phase 4 or 6 produced a sherd from a Stamford ware jar or pitcher in Fabric B. The vessel is of probable post-conquest mid/late 11th to 12th century date.

Phase 5: Medieval

Few vessels were recovered from deposits assigned to medieval Phase 5. Grave **45** contained a sherd from a Lincolnshire Fine-shelled ware jar of late 10th to 12th century date. A similar sherd was recovered from grave **47**, together with a sherd from a Newark ware jar of 10th to mid 11th century date. A small and very abraded oxidised sherd in a sandy fabric from a jar of probable Saxo-Norman type was recovered from grave **66**. Grave **79** contained two Southwell Area coarse splash-glazed jars and a Torksey ware jar of late 9th to mid 11th century date. The splashed glaze ware vessels date to between the mid/late 12th and early/mid 13th centuries. Linear feature **161** produced a Torksey ware jar sherd of mid/late 10th to mid 11th century date. Ten sherds from a late Saxon wheel-thrown jar in a quartz and shell-tempered fabric were recovered from posthole **896**. The jar is of 10th to mid 11th century date. Two sherds from an early modern flower pot were recovered from grave **180**.

Phase 5-6: Medieval to Post-Medieval

Five deposits assigned to Phase 5 to 6 produced post-Roman pottery. Linear feature **28** produced a sherd from a Torksey ware in-turned rim bowl of early/mid 10th to early 11th century date. This vessel has a con-joining sherd to pit **54** in Phase 6. Three sherds from Torksey ware jars or bowls were recovered from pit **105**. These vessels can only be dated to between the late 9th and mid 11th centuries. Linear feature **199** produced three sherds from a small Lincolnshire Fine-shelled ware jar of 11th to 12th century date and a single sherd from a similar vessel was recovered from linear **197**. Two sherds from a Southwell Nottingham-type Splashed ware jug with con-joins to un-stratified sherds was recovered from ditch **1145**. The jug is decorated with combed decoration and dates to between the mid/late 12th and early/mid 13th centuries.

Phase 6: Post-Medieval

A number of deposits assigned to post-medieval Phase 6 produced post-Roman pottery, although only one sherd can be considered to be of actual post-medieval date. Linear feature 412 produced a single sherd from a large Staffordshire/Derbyshire type Black-glazed Earthenware cylindrical jar of late 17th to 18th century date. Gully **1091** and beam-slot **1093** each produced single sherds of 15th to 16th century Midlands Purple ware. Of note amongst the medieval pottery is a small group from pit **923** containing nine jars or bowls in Lincolnshire Fine-shelled ware, a small Southwell Area Quartz and Shell-tempered jar and five splash-glazed ware vessels. The group most probably dates to the last quarter of the 12th century. Pit **1042** produced a small group of pottery of slightly later date. The group includes jugs of Beverley, Nottingham and Southwell type and probably dates to the first quarter of the 13th century. A mixed group of 12th and 13th century pottery was recovered from ditch **1087**. Most of the material is of 12th century date, but the latest sherds are probably of early/mid to late 13th century date. They include jugs of Nottingham, Southwell, Beverley and Brackenfield type.

Phase 7: Late Post-Medieval to Early Modern

Few vessels were attributed to this phase. Well **902** produced a sherd from a Midlands Purple ware jug or jar and a Cistercian ware jug of mid/late 15th to 16th century date. A single sherd from a Staffordshire/Derbyshire Black-glazed Earthenware jug or jar of mid 17th to 18th century date was recovered from posthole **360**. Pit **1045** contained a mixed group of twenty-three vessels. The group contains a mixture of 18th century industrial finewares, coarsewares and slipwares. The latest sherd is from a Creamware plate of probable post-1760 date, suggesting that the group probably belongs to the period between 1760 and 1770. Construction trench **646** produced five sherds from four vessels of late medieval to post-medieval date. The latest sherd is from a small vessel, probably a jar in Black Basalt. This type was manufactured from about 1768 until the present day.

Discussion

This is a small but important group of pottery and should be retained for further analysis. Type sherds for the newly defined fabric have been extracted and should form the basis of a Type Series for the area. Small numbers of late Saxon sherds suggest limited activity in this period and the few closely dateable Saxo-Norman sherds present in the assemblage suggest a post-conquest date. The graves attributed to medieval Phase 5 mainly contained sherds of late Saxon and Saxo-Norman date, possibly suggesting that these burials of pre-medieval date. Most of the early medieval and medieval pottery was recovered from features assigned to post-medieval Phase 6. If these features are correctly phased almost all of the 12th to 13th century pottery found on the site is residual. Later sherds indicate that the area was used for rubbish disposal up until the early modern period.

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Appendix 6: The Ceramic Building Material

by Jane Young

Introduction

A total of one thousand eight hundred and seventy-nine fragments of ceramic building material weighing a total of 307.241kgms were recovered from the site. The material was examined both visually and at where appropriate at x 20 binocular magnification. The Southwell Roman Tile Type Series was consulted and expanded for this site. Tegula flange and cut-out types follow the classification by Betts (1986). The resulting archive was then recorded on an Access database and complies with the guidelines laid out in Slowikowski, *et al.* (2001) and in accordance with the guidelines laid out by the Archaeological Ceramic Building Materials Group (2001).

Condition

The material is in variable condition with most tile fragments showing at least a little abrasion, although some of the tile is in an abraded to very abraded condition. Fragments range from large-sized (over 4500 grams) to small-sized (1 gram). Several tiles have evidence for manufacturing techniques in the form of impressions (cloth/wood grain), imprints and knife trimming.

The Ceramic Building Material

A range of ceramic building material including Roman Tegula, Imbrex, box flue and brick as well as medieval to early modern roof tile, floor tile, brick and drain was found on the site. The types are shown and quantified in Table 1.

Table 1: Ceramic Building material codenames and total quantities by fragment count + weight

Codename	Full name	Total fragments	Total weight in grams
BOX	Roman box tile	49	6076
BRK	Brick	28	25331
DAUB	Daub	2	72
DRAIN	Drain (general)	3	211
FIRE CLAY	Fired clay	8	147
FLOOR	Floor tile	2	434
GNIB	Glazed nibbed tile	1	197
GPNR	Glazed peg, nib or ridge	3	232
IMB	Imbrex	305	47563
MODTIL	Modern tile	4	162
NIB	Nibbed tile	9	1155
PANT	Pantile	3	250
PEG	Peg tile	2	369
PNR	Peg, nib or ridge tile	57	5355
RBRK	Roman brick	96	43567
RID	Unidentified ridge tile	4	385
RTIL	Roman tile	919	38153
RTMISC	Roman or post-Roman tile	29	514
TEG	Tegula	321	134599

Codename	Full name	Total fragments	Total weight in grams
TEGA	Adapted Tegula	1	1452
TESS	Tesserae	33	1017

Roman

One thousand six hundred and ninety-one identifiable fragments of Roman building material and thirty-three tesserae (TESS) were recovered from the site. The collection includes examples of brick (RBRK), Tegula (TEG), adapted Tegula (TEGA) box-flue tiles (BOX) and Imbrex (IMB).

Most of the Roman tiles are quartz-tempered and fall within a bright to dull oxidised colour range, although a few light firing examples also occur. Some of the tiles have streaks or patches of cream-coloured clay within the fabric. For the purpose of this assessment the fabrics have been divided into forty-five different fabrics using a x20 binocular microscope. Four of these fabrics (7, 8, 12 and 14) occurred during the evaluation (site MSS08, Young 2009b). Individual variations within these fabrics are described in the archive. A wide range of fabrics is present suggesting that the material does not all come from a single source. These fabrics are described below using a x20 binocular microscope.

Table 2: Ceramic Building material by Fabric type with total quantities by fragment count

Fabric	BOX	IMB	RBRK	RTIL	TEG	TEGA	Totals
Roman Fabric 08	1	0	0	0	0	0	1
Roman Fabric 12	0	0	1	1	1	0	3
Roman Fabric 16	2	0	2	2	2	0	8
Roman Fabric 17	1	35	15	12	47	1	111
Roman Fabric 18	0	0	0	0	4	0	4
Roman Fabric 19	0	1	0	1	1	0	3
Roman Fabric 20	0	4	0	0	2	0	6
Roman Fabric 21	0	0	0	1	4	0	5
Roman Fabric 22	2	9	0	1	1	0	13
Roman Fabric 23	3	5	0	7	4	0	19
Roman Fabric 24	0	0	1	4	8	0	13
Roman Fabric 25	0	10	7	8	8	0	33
Roman Fabric 26	1	37	1	13	33	0	85
Roman Fabric 27	6	44	21	20	31	0	122
Roman Fabric 28	2	1	3	0	3	0	9
Roman Fabric 29	1	44	14	30	76	0	165
Roman Fabric 30	1	2	1	0	2	0	6
Roman Fabric 31	0	3	0	0	3	0	6
Roman Fabric 32	0	1	0	0	0	0	1
Roman Fabric 33	0	2	0	1	3	0	6
Roman Fabric 34	1	0	1	0	2	0	4
Roman Fabric 35	1	3	0	0	0	0	4
Roman Fabric 36	0	0	0	1	0	0	1
Roman Fabric 37	4	0	0	0	0	0	4
Roman Fabric 38	0	3	0	0	3	0	6
Roman Fabric 39	0	2	0	0	0	0	2
Roman Fabric 40	0	0	0	0	3	0	3
Roman Fabric 41	0	2	0	0	0	0	2
Roman Fabric 42	0	1	0	0	0	0	1

Fabric	BOX	IMB	RBRK	RTIL	TEG	TEGA	Totals
Roman Fabric 43	0	0	2	0	0	0	2
Roman Fabric 44	0	1	0	0	0	0	1
Roman Fabric 45	0	1	0	0	3	0	4
Roman Fabric 46	0	0	0	1	1	0	2
Roman Fabric 47	0	3	0	1	5	0	9
Roman Fabric 48	0	13	1	1	8	0	23
Roman Fabric 49	0	28	12	4	21	0	65
Roman Fabric 50	0	1	0	1	5	0	7
Roman Fabric 51	14	0	0	0	0	0	14
Roman Fabric 52	0	1	0	0	1	0	2
Roman Fabric 53	0	1	0	1	0	0	2
Roman Fabric 54	1	1	1	0	1	0	4
Roman Fabric 55	0	1	0	0	2	0	3
Roman Fabric 56	5	0	0	2	0	0	7
Roman Fabric 57	1	1	0	0	4	0	6
Roman Fabric 58	0	0	0	0	3	0	3
Totals							800

Table 3: Ceramic Building material by Site Phase with total quantities by fragment count

Phase	1	1-2	2	2-3	3	4	4-6	5	5-6	6	6-7	7	Undated	Totals
Fabric 08	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Fabric 12	2	0	0	0	0	0	0	0	0	0	0	1	0	3
Fabric 16	0	0	0	0	2	0	0	0	1	3	0	0	2	8
Fabric 17	38	11	13	1	21	13	0	1	0	4	0	2	7	111
Fabric 18	0	0	0	0	1	0	0	0	0	2	0	0	1	4
Fabric 19	1	0	0	0	0	0	0	1	0	0	0	0	1	3
Fabric 20	0	0	0	0	0	1	0	4	0	0	0	0	1	6
Fabric 21	0	0	0	0	0	0	0	1	0	1	0	0	3	5
Fabric 22	0	0	0	0	3	0	1	6	0	1	1	0	1	13
Fabric 23	0	0	2	0	5	0	0	2	2	6	0	1	1	19
Fabric 24	1	0	0	0	7	1	0	2	0	1	0	0	1	13
Fabric 25	2	4	1	1	14	1	0	3	1	2	0	0	4	33
Fabric 26	23	3	10	5	8	18	0	4	2	8	0	1	3	85
Fabric 27	14	2	17	12	31	3	3	13	7	10	0	0	10	122
Fabric 28	1	1	4	0	1	1	0	0	0	1	0	0	0	9
Fabric 29	53	7	29	1	30	14	0	5	4	5	0	0	17	165
Fabric 30	1	1	1	0	0	0	0	1	0	0	0	0	2	6
Fabric 31	1	0	0	0	0	4	0	0	0	1	0	0	0	6
Fabric 32	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Fabric 33	1	1	0	0	2	0	0	0	0	1	0	0	1	6
Fabric 34	1	0	1	0	0	1	0	0	0	0	0	0	1	4
Fabric 35	0	0	1	0	2	0	0	0	0	1	0	0	0	4
Fabric 36	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Fabric 37	0	0	0	1	0	0	0	0	0	3	0	0	0	4
Fabric 38	0	0	1	0	1	0	0	1	2	0	0	0	1	6
Fabric 39	1	0	0	0	1	0	0	0	0	0	0	0	0	2
Fabric 40	0	0	0	0	0	0	0	0	1	0	0	0	2	3
Fabric 41	0	0	0	0	0	0	0	2	0	0	0	0	0	2
Fabric 42	0	0	0	0	1	0	0	0	0	0	0	0	0	1
Fabric 43	0	0	0	0	2	0	0	0	0	0	0	0	0	2
Fabric 44	0	0	0	0	0	1	0	0	0	0	0	0	0	1

Phase	1	1-2	2	2-3	3	4	4-6	5	5-6	6	6-7	7	Undated	Totals
Fabric 45	0	0	0	0	1	0	0	0	1	0	0	0	2	4
Fabric 46	0	0	1	0	0	0	0	1	0	0	0	0	0	2
Fabric 47	0	0	1	1	2	0	0	1	2	1	0	0	1	9
Fabric 48	7	1	6	0	5	0	0	3	0	0	1	0	0	23
Fabric 49	23	2	11	0	10	8	0	2	0	5	0	0	4	65
Fabric 50	0	0	1	0	0	0	0	0	2	0	0	0	4	7
Fabric 51	0	0	0	0	4	0	0	2	2	4	0	0	2	14
Fabric 52	0	0	0	0	1	0	0	0	0	1	0	0	0	2
Fabric 53	0	0	1	0	0	0	0	0	0	0	0	0	1	2
Fabric 54	0	0	1	0	0	1	0	1	0	0	0	0	1	4
Fabric 55	0	0	0	0	0	0	0	1	0	0	0	0	2	3
Fabric 56	0	0	0	0	0	0	0	6	0	0	0	0	1	7
Fabric 57	0	0	1	0	0	1	0	1	1	0	0	0	2	6
Fabric 58	0	0	0	0	1	0	0	0	0	0	0	0	2	3
Totals	170	33	103	22	156	68	4	65	28	63	2	5	81	800

Fabric 8

The tiles in this micaceous fabric are fired to an orange colour and may have a light orange external surface. The fabric contains abundant fine background quartz below 0.1mm together with sparse subround quartz up to 0.4mm, moderate mainly fine iron-rich grains but variable up to 8.0mm, sparse calcareous grains up to 8.0mm, sparse fine aggregated sandstone and moderate organics. A single unremarkable fragment of box flue tile in this fabric was recovered from a Phase 5 deposit on this site.

Fabric 12

The tiles in this fabric are fired to a brown colour. The fabric contains abundant mixed iron-rich grains up to 3.0mm together with common subround to round quartz grains mainly of 0.4mm to 0.8mm but up to 2.0mm and sparse calcareous grains. A piece of Roman brick, a Tegula with a Type 6 flange and an un-diagnostic fragment in this fabric were recovered from the site. Two fragments were recovered from Phase 1 deposits.

Fabric 16

This fabric fires to a light orange colour with streaks and patches of clean cream clay. Some fine background quartz below 0.1mm together with sparse to moderate fine iron-rich grains, sparse clean cream clay pellets and organic voids. Eight fragments including brick, Tegula and box-flue tile were recovered from the site. The earliest material comes from Phase 3 deposits.

Fabric 17

This micaceous fabric fires to a light orange colour with some cream marbling. Tiles may have a cream external surface. Common fine calcareous grains with moderate larger up to 2.0mm, together with common to abundant mixed subround quartz of 0.2mm to 0.4mm (occasional larger), sparse to moderate mixed mainly fine iron-rich grains, sparse aggregated sandstone and sparse flakes of muscovite up to 0.2mm. This is the third most common fabric to be found on the site with one hundred and eleven fragments. Most fragments come from Tegula or Imbrex, but examples of box-flue and brick also occur. The only adapted Tegula (TEGA) from the site was recovered from pit 757 in phase 1? (TDR1). At least thirty-eight fragments were recovered from Phase 1 deposits. The fabric peaks again in Phase 3 with twenty-one examples.

Fabric 18

This is a clean pale orange fabric with common cream streaks containing moderate fine iron-rich grains and common organic voids. Only four examples of this fabric were recovered from the site. All the fragments come from Tegula of which the earliest example comes from a Phase 3 deposit.

Fabric 19

Common fine background quartz below 0.1mm together with rare larger grains, moderate mainly fine iron-rich grains but can be up to 1.5mm, moderate to common cream clay pellets and patches and sparse calcareous lumps up to 4.0mm. Sometimes patches of common fine calcareous grains. Two pieces of tile in this fabric were recovered from deposits in Phases 1 and 5. Another fragment was un-stratified. The fragments come from an Imbrex, a Tegula and an un-diagnostic tile.

Fabric 20

This micaceous fabric fires to an orange colour. Common fine background quartz below 0.2mm together with sparse to moderate mixed subround to subangular quartz of 0.2mm to 0.6mm, moderate iron-rich grains and sparse to moderate calcareous grains. The six fragments in this fabric come from Imbrex and Tegula. The earliest tile is from a probable Phase 4 deposit. Four examples are from Phase 5 deposits.

Fabric 21

This micaceous fabric fires to a mid to dark grey colour with thin dull oxidised surfaces. Abundant fine background quartz below 0.1mm together with sparse to moderate subround quartz of 0.2mm to 0.4mm, moderate iron-rich grains and moderate to common carbonised organic matter including chaff. Four Tegula and an un-diagnostic fragment occur in this fabric. The earliest tile occurs in a Phase 5 deposit.

Fabric 22

This fabric fires to an orange-red colour with most tiles having a light grey core. Moderate fine background quartz below 0.1mm together with moderate to common subround quartz of 0.2mm to 0.4mm, moderate variable iron-rich grains up to 2.5mm and sparse to moderate mainly fine calcareous grains. The eleven examples of this fabric come from Imbrex, Tegula and box-flue tile. The earliest tiles come from Phase 3 deposits.

Fabric 23

This micaceous fabric fires to a light grey fabric with orange-red surfaces. Moderate mixed iron rich grains up to 1.5mm together with common carbonised organics and voids, variable subround to round quartz of 0.4mm to 0.6mm which is mainly sparse but can occur in patches as moderate to common. The nineteen fragments in this fabric come from Imbrex, Tegula and box-flue tile. The earliest tiles come from Phase 2 deposits.

Fabric 24

This micaceous fabric fires to an orange colour. Abundant fine background quartz below 0.1mm together with moderate subround quartz up to 0.8mm, abundant variable iron-rich grains up to 2.0mm and sparse aggregated sandstone include iron-cemented. The thirteen tiles in this fabric mainly come from Tegula, although one piece is from a brick. A single fragment comes from a Phase 1 deposit but most come from Phase 3 deposits.

Fabric 25

This micaceous fabric fires to an orange colour. Abundant fine background quartz below 0.1mm together with sparse subround quartz up to 0.4mm, common mainly fine variable iron-rich grains including sparse slag, sparse fine calcareous grains and rare flattened voids possibly from fossil shell. Thirty-three fragments from Imbrex, Tegula and brick were recovered from the site. Fragments are spread from Phases 1 to 6, although most pieces come from Phase 3 deposits.

Fabric 26

This fabric fires to an orange colour. Mixed fabric with patches of abundant or common subround quartz grains of 0.2mm to 0.6mm (occasional larger) together with sparse to moderate calcareous grains, moderate iron-rich grains and sparse to moderate clean clay pellets. This fabric is quite common with eighty-five fragments occurring on the site. Most pieces come from Imbrex or Tegula, but single examples of brick and box-flue also occur. One Tegula has a pawprint of a dog on the upper surface (small than an adult Labrador). Twenty-three pieces come from Phase 1 deposits. The other pieces are spread through the phases.

Fabric 27

This micaceous fabric fires to a dull orange colour. Abundant fine background quartz below 0.1mm together with sparse subround quartz up to 0.4mm, moderate variable iron-rich grains up to 1.5mm, sparse to moderate fine calcareous grains below 0.3mm and sparse aggregated sandstone. This fabric is the second most common to occur on the site with one hundred and twenty-two examples. Most examples come from Imbrex and Tegula, although twenty-one pieces are from bricks and six are from box-flue tiles. Examples are spread throughout the sequence with the earliest tiles being found in Phase 1 deposits.

Fabric 28

This micaceous fabric fires to a brown colour with red external surfaces. Abundant fine quartz below 0.2mm together with moderate subround to subangular quartz between 0.2mm and 0.6mm (and occasionally larger) including polycrystalline, moderate variable iron-rich grains up to 1.5mm, sparse aggregated sandstone include iron-cemented. The nine fragments in this fabric come from box-flue, Imbrex, brick and Tegula with the earliest pieces coming from Phase 1 deposits.

Fabric 29

This micaceous fabric fires to a dull orange-red colour, or tiles may be grey with dull orange-red surfaces. Abundant subround to round quartz of mainly 0.2mm to 0.6mm (occasionally larger) together with moderate iron-rich grains, sparse aggregated sandstone including large lumps up to 20mm, sparse calcareous grains and sparse clean clay pellets. This is the most common fabric to occur on the site with one hundred and sixty-five fragments occurring. By far most of the pieces come from Tegula, but Imbrex are also well represented. Fourteen bricks and a single box-flue tile were also recovered. At least fifty-three fragments were recovered from Phase 1 deposits. There is also a peak in Phase 3 with thirty examples.

Fabric 30

This micaceous fabric fires to a dull orange to dull orange-red colour. Abundant subround to round quartz of mainly 0.2mm to 0.6mm (occasionally larger) together with moderate iron-rich grains, sparse aggregated sandstone including large lumps up to 20mm, sparse calcareous grains and sparse clean clay pellets. Only five tiles and a brick in this fabric were

recovered from the site. The tiles include box-flue, Imbrex and Tegula with the earliest example coming from a Phase 1 deposit.

Fabric 31

This micaceous fabric fires to a dull red to dull orange-red colour. Common to abundant subround to round quartz of mainly 0.2mm to 0.6mm (occasionally larger) in variable patches together with moderate iron-rich grains, moderate organics and sparse to moderate clean clay pellets. The six fragments in this fabric come from Imbrex and Tegula with the earliest example coming from a Phase 1 deposit.

Fabric 32

This micaceous fabric fires to an orange colour. Common mixed subround to round quartz of 0.2mm to 0.5mm together with moderate iron-rich grains, sparse to moderate calcareous grains and sparse organics. A single piece of Imbrex found in a Phase 6 deposit was recovered from the site.

Fabric 33

This micaceous fabric fires to a dull orange-red colour. Abundant fine quartz between 0.1mm and 0.2mm together with moderate subround to round quartz of 0.2mm to 0.4mm, moderate fine iron-rich grains, moderate fine calcareous grains moderate carbonised organic voids and sparse flakes of muscovite up to 0.2mm. The six fragments in this fabric come from Imbrex and Tegula found in deposits ranging from Phase 1 to Phase 6.

Fabric 34

This fabric fires to a dull orange colour. Abundant fine background quartz below 0.1mm together with moderate subround quartz of 0.2mm to 0.4mm (occasional larger), moderate iron-rich grains, moderate organics and moderate fine calcareous grains. Four fragments in this fabric come from box-flue, brick and Tegula. The earliest piece comes from a Phase 1 deposit.

Fabric 35

This micaceous fabric fires to a dull orange-red colour with tiles having cream surfaces. Common fine background quartz below 0.1mm together with moderate subround to round quartz of 0.2mm to 0.5mm, moderate iron-rich grains and sparse calcareous grains. Three fragments from Imbrex and one box-flue tile come from deposits in Phases 2, 3 and 6.

Fabric 36

The single example of this has fabric fired to a dull orange colour. Mixed fabric with abundant mixed subround to round quartz of 0.2mm to 0.5mm together with moderate iron-rich grains, sparse to moderate calcareous grains, sparse aggregated sandstone and moderate to common clean clay pellets. The fragment comes from an un-diagnostic tile found in a Phase 1 deposit.

Fabric 37

This micaceous fabric fires to a dull orange colour. Very mixed fabric with abundant fine background quartz below 0.1mm together with sparse to moderate subround to round quartz of 0.2mm to 0.5mm, moderate to common iron-rich grains, common coarse calcareous lumps up to 9.0mm and sparse carbonised organic voids. All four fragments in this fabric come from box-flue tiles found in Phases 2 to 3 and 6.

Fabric 38

This fabric is a dull orange colour with variable cream streaks and orange external surfaces. Moderate subround to subangular quartz between 0.2mm and 0.6mm including polycrystalline (occasional larger) together with common to abundant variable iron-rich grains up to 2.0mm and sparse clean cream clay pellets. The six fragments in this fabric come from Imbrex and Tegula. The earliest piece is from a Phase 2 deposit.

Fabric 39

This fabric fires to a dull red colour with tiles sometimes having an orange external surface. Very mixed fabric with common subangular to subround polycrystalline quartz of mainly 0.3 to 0.8mm but up to 1.5mm together with sparse to moderate calcareous grains, sparse to moderate iron-rich grains including slag, sparse to moderate clean clay pellets and carbonised organic voids. Large pebbles, probably of sandstone, occasionally occur. The two Imbrex fragments in this fabric come from Phase 1 and Phase 3 deposits.

Fabric 40

This fabric fires to a dull orange colour with partial dull grey cores. Very mixed fabric with moderate to common round to subround quartz of 0.4mm to 0.8mm together with common very mixed iron-rich grains, sparse calcareous grains and moderate flattened organic voids. Three Tegula fragments in this fabric were recovered from the site. The only stratified piece comes from a Phase 5-6 deposit.

Fabric 41

This fabric fires to a dull orange-red colour with some tiles having cream streaks or grey cores. Very mixed fabric with moderate to common round to subround quartz of 0.4mm to 0.8mm together with moderate to common very mixed iron-rich grains, moderate mainly fine calcareous grains, moderate organic and carbonised voids and sparse aggregated sandstone including iron-cemented. Two pieces of Imbrex were recovered from Phase 5 deposits.

Fabric 42

This fabric fires to an orange colour. Very mixed fabric with common to abundant subround to round quartz of mainly 0.2mm to 0.6mm but up to 0.8mm, common mixed calcareous grains of 0.3mm to 3.0mm, moderate iron-rich grains, sparse flint and sparse aggregated sandstone. A single piece of Imbrex was recovered from a Phase 3 deposit.

Fabric 43

This micaceous fabric fires to a light orange colour with cream surfaces and a cream to pale grey core. Abundant fine background quartz below 0.2mm together with moderate mainly fine iron-rich grains, moderate to common carbonised organics including flattened voids and sparse fine calcareous grains. Two fragments of Roman brick were recovered from Phase 3 deposits.

Fabric 44

This micaceous fabric fires to a red colour with orange external surfaces and grey internal surfaces. Abundant fine background quartz below 0.1mm together with sparse subround quartz up to 0.4mm, common variable iron-rich grains that are mainly slag, sparse to moderate fine calcareous grains below 0.3mm and sparse aggregated sandstone. A single piece of Imbrex was found in a Phase 4 deposit.

Fabric 45

This micaceous fabric fires to an orange colour with tiles having a grey core. Abundant fine background quartz below 0.2mm together with sparse subround to round quartz grains up to 5.0mm, moderate iron-rich grains, and moderate fine calcareous grains. Two pieces of Tegula and an Imbrex were found in Phase 3 and 5-6 deposits.

Fabric 46

This micaceous fabric fires to an orange colour with tiles usually having a grey core. Abundant mixed subround to round quartz (occasional larger) together with moderate to common fine iron-rich grains, moderate to common flattened organic voids and sparse to moderate fine calcareous grains. A fragment from a Tegula and an un-diagnostic piece of tile were recovered from Phase 2 and Phase 5 deposits.

Fabric 47

This fabric fires to an orange colour. Common large calcareous lumps of up to 9.0mm but mainly between 2.0mm and 3.0mm together with moderate fine calcareous grain in a fabric with abundant fine background quartz below 0.1mm, sparse to moderate subround quartz of 0.2mm to 0.4mm and moderate iron-rich grains including slag. Eight tiles including three Imbrex and five Tegula were recovered in this fabric. The earliest tile is in a Phase 2 deposit.

Fabric 48

This fabric fires to a dull orange-red colour with a red core. Occasional large lumps of white aggregated sandstone are visible. Calcareous fabric with abundant fine background calcareous grains below 0.3mm together with mixed moderate to common subround to round quartz between 0.2mm and 0.6mm (occasional larger grains), moderate calcareous grains up to 1.0mm, sparse to moderate iron-rich grains and sparse white clay pellets. Twenty-three fragments in this fabric were recovered from the site. Most of them come from Imbrex, but some Tegula and a brick are also present. The earliest fragments are from Phase 1 deposits.

Fabric 49

This fabric fires to a red colour. Calcareous fabric with abundant fine background calcareous grains below 0.3mm and abundant fine quartz below 0.1mm together with moderate calcareous grains up to 3.0mm, moderate mainly fine iron-rich grains including rare slag. Sixty-five fragments in this fabric were recovered from the site. Most of the fragments come from Tegula or Imbrex, but eleven Roman brick also occur. At least twenty-one tiles occur in Phase 1 deposits.

Fabric 50

This micaceous fabric fires to a dull orange-red colour. Abundant fine background quartz below 0.1mm together with moderate subround to round quartz grains of 0.2mm to 0.4mm (often found in patches), common fine calcareous grains, moderate fine iron-rich grains and sparse flakes of muscovite up to 0.2mm. Seven fragments, mainly from Tegula, were recovered from the site. The earliest pieces come from Phase 2 deposits.

Fabric 51

This fabric fires to grey colour with dull orange surfaces. Abundant mixed fine to coarse fossil shell and moderate to common iron-rich grains. These shell-tempered tiles are likely to be from production sites in Northamptonshire or Bedfordshire (Brown 1994). Fourteen fragments, all from box-flue tiles, were recovered from the site. The earliest examples occur in Phase 3 deposits.

Fabric 52

This fabric fires to an orange colour. Calcareous fabric with common large calcareous lumps of up to 9.0mm but mainly between 2.0mm and 3.0mm together with moderate to common mixed iron-rich grains up to 2.0mm and sparse subround quartz of 0.2mm to 0.4mm. An Imbrex and a Tegula fragment in this fabric were recovered from Phase 3 and Phase 6 deposits.

Fabric 53

This fabric fires to an orange colour with light orange surfaces. Calcareous fabric with abundant fine background calcareous grains below 0.1mm together with rare mainly polycrystalline quartz of between 0.2mm and 0.4mm, moderate iron-rich grains of 0.1mm to 0.4mm and sparse larger calcareous grains. An Imbrex and an un-diagnostic tile in this fabric were recovered from the site. One piece comes from a Phase 1 deposit.

Fabric 54

This powdery micaceous fabric fires to an orange. Abundant subround to round quartz of mainly 0.2mm to 0.6mm (occasionally larger) together with moderate iron-rich grains, sparse aggregated sandstone including large lumps up to 20mm, common fine calcareous grains and sparse clean clay pellets. Four fragments of mixed type occur in this fabric. The earliest piece is from a Phase 1 deposit.

Fabric 55

This fabric fires to a dull red colour with one tile having reduced grey surfaces. Variable fabric with patches of moderate subround to subangular quartz grains of 0.2mm to 0.8mm including polycrystalline grains and patches of common quartz, together with moderate to common iron-rich grains including slag and sparse calcareous grains. Two Tegula and an Imbrex are in this fabric. The only stratified fragment comes from a Phase 5 deposit.

Fabric 56

This light orange fabric has cream surfaces and a partial cream core. Sparse fine background quartz below 0.1mm together with rare subround quartz between 0.2mm and 0.6mm, common mainly fine iron-rich grains but up to 1.8mm and sparse calcareous grains. Five box-flue fragments and two miscellaneous pieces in this fabric were recovered from the site. The five stratified fragments all come from Phase 5 deposits.

Fabric 57

This micaceous fabric fires to a light orange-buff colour with light orange surfaces. Abundant fine background quartz below 0.1mm together with sparse to moderate subround quartz up to 0.8mm (occasionally up to 1.2mm), abundant variable iron-rich grains up to 2.0mm, sparse aggregated sandstone and sparse calcareous grains. Four Tegula and single examples of box-flue tile and Imbrex were found in this fabric. The earliest piece comes from a probable Phase 2 deposit.

Fabric 58

This micaceous fabric fires to an orange colour. Abundant mixed subround to subangular quartz between 0.1mm and 0.6mm with most being polycrystalline, together with moderate iron-rich grains up to 0.6mm, sparse calcareous grains, moderate clean clay pellets and sparse organic voids. Three fragments of Tegula were recovered from the site. The only stratified piece is from a Phase 3 deposit.

The three hundred and twenty-one Tegula fragments found represent about two hundred and ninety-two different tiles and include one hundred and fifty-six with flanges. Many of these flanges do not fit exactly into the classification by Betts (1986) and have for the purposes of this report been given the closest Betts type numbers in the archive list. Several flange types are present with the most common including Betts' Types 1 (53 examples) and Type 31 (11 examples). The range of flange types is quite wide (twenty-three different varieties) but in most cases only a few examples of each type are present. Thirty-six identifiable upper cut-outs occur, fourteen of which are Bett's Type B, eleven are Type A and one example each are of Types C, D and E. Several of the Tegula have evidence for knife-trimming along the external basal angle or part of the underside. Manufacturing traits are found in the form of finger impressions on the edge of two tiles and strike marks on the upper surface of several tiles. A number of tiles have signature marks on the upper surface and one tile has what appears to be an X-shaped batch mark incised on the side. One tile has post-firing 'rubbing' to a vertical break, possibly forming a half tile. One tile (TDR1) appears to be an adapted form (TEGA). This tile has a 23-27mm thick base with a side or flange of 43mm thickness and 84+mm height.

Three hundred and five fragments of Imbrex (IMB) were recovered from the site. Thickness varies from 9mm to 35mm and manufacturing techniques appear to vary with several tiles being finger-struck and six tiles having possible cloth marks. One piece appears to have a bark impression on the internal surface, possibly having been formed over a recently cut branch. The fragments are in thirty different identified fabrics and appear to come from about two hundred and sixty-two different tiles.

Ninety-six Roman bricks (RBRK) were found on the site, some of which are represented by sizeable fragments. The tiles are in fifteen different fabrics of which Fabric 27 is the most common (21 examples). No complete measurements were possible but tile thickness varies widely ranging from 25-68mm and one tile has a width of 210mm. These measurements are typical of Bessales, Pedales or Sesquipedalis and suggest that they may have come from a hypocaust system. Two bricks have paw prints, possibly from dogs and one has what appear to be nail holes on the upper surface. The nail holes may have come from a hob-nailed shoe. One brick appears to have had post-firing 'rubbing' to one break.

Forty-nine fragments were identified as box flue tiles (BOX) although some of these could come from hollow voussoirs used to form arches. The most common fabric is shell-tempered Fabric 51 (14 examples). This fabric most probably comes from kilns in Northamptonshire. The other fragments are in sixteen of the designated fabrics. Many of the tiles have combed keying, mainly cross-hatched (TDR2) but also including wavy or curved lines. Nine of the tiles have incised keying (TDR3). At least one fragment comes from a half box tile.

Post-Roman

In total one hundred and sixteen fragments are identifiable as being of definite post-Roman date. These pieces range in date from the medieval to early modern date and include roof tile, floor tile, drain and brick.

The sixty-eight unglazed (NIB, PEG and PNR) and three glazed flat roof tiles (GNIB and GPNR) are of medieval to early modern type, although most probably date to between the late 12th and 14th centuries. Eighteen medieval to post-medieval fabrics were identified and are described below at x20 binocular magnification (Table 4).

Table 4: Post-Roman Tile Fabrics by Site Phase with total quantities by fragment count

Fabric	GPNR	PNR	GNIB	NIB	PEG	RID	Totals
Post Roman Tile Fabric 1	0	11	1	5	0	0	17
Post Roman Tile Fabric 2	0	1	0	0	0	0	1
Post Roman Tile Fabric 3	0	5	0	0	0	0	5

Fabric	GPNR	PNR	GNIB	NIB	PEG	RID	Totals
Post Roman Tile Fabric 4	2	7	0	0	0	0	9
Post Roman Tile Fabric 5	0	2	0	0	2	0	4
Post Roman Tile Fabric 6	0	1	0	1	0	0	2
Post Roman Tile Fabric 7	0	1	0	0	0	0	1
Post Roman Tile Fabric 8	0	2	0	0	0	0	2
Post Roman Tile Fabric 9	0	2	0	2	0	0	4
Post-Roman Tile Fabric	0	0	0	1	0	0	1
Post Roman Tile Fabric	0	5	0	0	0	0	5
Post Roman Tile Fabric	0	3	0	0	0	2	5
Post Roman Tile Fabric	0	1	0	0	0	0	1
Post Roman Tile Fabric	0	1	0	0	0	0	1
Post Roman Tile Fabric	0	1	0	0	0	0	1
Post Roman Tile Fabric	0	0	0	0	0	1	1
Post Roman Tile Fabric	1	1	0	0	0	0	2
Post Roman Tile Fabric	0	2	0	0	0	0	2
Totals	3	46	1	9	2	3	64

Fabric 1

A very mixed oxidised micaceous fabric with common to abundant mixed round to subround quartz of mainly 0.2mm to 0.6mm but up to 0.8mm together with common calcareous lumps up to 8.0mm and very variable moderate to common iron-rich grains up to 3.0mm including slag. This was the most common post-Roman fabric to be recovered from the site. Most of the tiles are unglazed but one tile has a spot of brown glaze on the nibbed side. These tiles are very carefully manufactured with several tiles having both sides struck or smoothed. One tile has knife-trimmed edges and one has apparent cloth impressions. The five fragments with suspension nibs suggest that applied rectangular nibs were used. This fabric probably belongs to between the late 12th and 13th centuries.

Fabric 2

This oxidised mixed micaceous and calcareous fabric has abundant fine background quartz below 0.1mm and abundant fine calcareous grains below 0.2mm together with sparse mixed subround to round quartz of 0.2mm to 0.8mm, sparse calcareous grains of 0.2mm to 1.0mm and sparse to moderate fine iron-rich grains. A single flat roof tile fragment with sanded sides was recovered in this fabric. This fabric probably belongs to the medieval to early post-medieval periods.

Fabric 3

This oxidised micaceous fabric contains abundant fine quartz below 0.2mm together with moderate subround to round quartz of 0.2mm to 0.4mm (occasional larger), common fine calcareous grains mainly below 0.3mm and moderate mixed iron-rich grains up to 1.2mm. Five fragments from four flat roof tiles in this fabric were recovered from the site. These tiles are between 18mm and 20mm thick with one example having a paw print possibly from a cat on the upper surface. These tiles are probably of late 12th to 13th century date.

Fabric 4

This oxidised micaceous fabric contains abundant fine background quartz below 0.1mm together with sparse subround to round quartz of 0.2mm to 0.6mm (occasional larger), sparse to moderate fine calcareous grains, moderate iron-rich grains and sparse cream clay pellets. Two glazed and seven unglazed fragments of flat roof tile occur in this fabric. These

tiles are of variable 13mm to 24mm thickness. Two examples have spots of glaze including a misfired example with glaze over a break. These tiles are probably of late 12th to 13th century date.

Fabric 5

This oxidised micaceous fabric contains abundant fine quartz below 0.2mm together with moderate to common subround to round quartz of 0.2mm to 0.4mm (occasional larger), abundant fine background calcareous grains below 0.2mm with moderate larger grains up to 0.6mm and moderate mixed iron-rich grains up to 1.2mm. Two un-diagnostic flat roof tile fragments and two pieces from a single tile with a large tapering circular hole of 8mm to 15mm diameter were recovered from the site. The tiles vary between 14mm and 22mm in thickness. These tiles probably date to between the late 12th and 13th centuries.

Fabric 6

This very mixed oxidised micaceous fabric contains common to abundant variable calcareous inclusions, moderate round to subround quartz of 0.4mm to 0.8mm, and common mixed iron-rich grains including slag. Two fragments of flat roof tile including one with a small applied rectangular nib. Both tiles have knife-trimmed edges and the nibbed fragment has two smoothed surfaces. These two tiles are likely to be of late 12th to 13th century date.

Fabric 7

A very mixed oxidised micaceous fabric with common to abundant variable calcareous inclusions, moderate to common laminated clay pellets, sparse round to subround quartz of 0.4mm to 0.8mm, and moderate to common mixed iron-rich grains. A single flat roof tile fragment of 10mm to 12mm thickness occurs in this fabric. The tile has a knife-trimmed side and is probably of late 12th to 13th century date.

Fabric 8

This oxidised micaceous fabric contains moderate to common variable calcareous inclusions, moderate to common laminated clay pellets up to 12.0mm, common to abundant mixed round to subround quartz of mainly 0.2mm to 0.6mm but up to 0.8mm and moderate mixed iron-rich grains. Two fragments of flat roof tile of 13mm and 16mm thickness were recovered in this fabric. The fabric probably dates to between the late 12th and 13th centuries.

Fabric 9

This very mixed oxidised micaceous fabric has common to abundant calcareous lumps up to 8.0mm in a fabric with abundant fine quartz and calcareous grains below 0.1mm together with sparse round to subround quartz of mainly 0.2mm to 0.6mm but up to 0.8mm and common to abundant iron-rich grains up to 3.0mm including slag. Four fragments from three flat roof tiles in this fabric were recovered from the site. The tiles are 14mm thick and the single prominent nib present is of the applied rounded type. This fabric is probably of late 12th to 13th century date.

Fabric 10

A poorly mixed red and white clay with moderate subround to subangular quartz of 0.2mm to 0.6mm including polycrystalline, moderate to common mixed iron-rich grains and moderate to common clean clay pellets. A single 15mm thick fragment with an applied and folded nib was recovered from the site. This tile is likely to date to the late medieval to post-medieval periods.

Fabric 11

This oxidised fabric contains abundant fine background quartz below 0.1mm together with patches of moderate to common subround to round quartz of 0.2mm to 0.5mm (occasional larger), moderate mainly fine calcareous grains, moderate mainly fine iron-rich grains, sparse to moderate aggregated sandstone and sparse to moderate organic voids. Five flat roof tiles of between 14mm and 22mm thickness occur in this fabric. These tiles are likely to date to between the medieval and post-medieval periods.

Fabric 12

This oxidised fabric contains abundant fine background quartz below 0.1mm together with sparse to moderate aggregated sandstone, sparse to moderate fine iron-rich grains, sparse to moderate organic voids and sparse calcareous grains up to 0.8mm. Three flat roof tiles and three pieces of probable ridge tile were recovered in this fabric. The tiles vary between 12mm and 17mm thick. The fabric probably dates to between the medieval and post-medieval periods.

Fabric 13

A very mixed oxidised calcareous fabric with abundant fine background calcareous grains below 0.1mm, moderate to common subround to round quartz of 0.2mm to 0.6mm, common mixed iron-rich grains and rare flint. A single 14mm thick fragment of flat roof tile was recovered in this fabric. The tile possibly dates to the medieval period.

Fabric 14

This oxidised fabric contains abundant fine background quartz below 0.1mm together with common subround to round quartz of 0.2mm to 0.4mm including polycrystalline, common variable calcareous inclusions, moderate iron-rich grains and sparse aggregated sandstone. A single 16mm thick fragment of flat roof tile was recovered in this fabric. The tile possibly dates to between the medieval and post-medieval periods.

Fabric 15

This oxidised fabric has common fine background quartz below 0.1mm together with common subround to round quartz of 0.2mm to 0.6mm and moderate to common mainly fine iron-rich grains. A single 16mm thick fragment of flat roof tile was recovered in this fabric. The tile possibly dates to the late medieval to early post-medieval periods.

Fabric 16

This oxidised fabric contains abundant fine background quartz below 0.1mm together with patches of abundant round to subround quartz of 0.4mm to 0.6mm, patches of common fine calcareous grains below 0.1mm and sparse to moderate larger grains of up to 2.0mm as well as variable sparse to moderate iron-rich grains up to 2.5mm and sparse flakes of muscovite. A single 18mm thick fragment of ridge tile was recovered in this fabric. The tile possibly dates to the late medieval to early post-medieval periods.

Fabric 17

This mixed oxidised micaceous fabric with common to abundant round to subround quartz 0.2 to 0.4mm (occasionally larger) together with sparse to moderate calcareous grains up to 2.0mm, common iron-rich grains up to 2.0mm, moderate to common organic voids and sparse aggregated sandstone including iron-cemented. One glazed and one unglazed fragment of 15mm thick flat roof tile in this fabric occur on the site. One tile has a splashed-

type green glaze over a red slip. This tile has knife-trimmed upper and lower surfaces and edges. The tiles probably date to between the late 12th and 13th centuries.

Fabric 18

This oxidised fabric contains abundant round to subround quartz of 0.3mm to 0.8mm together with moderate iron-rich grains and sparse calcareous inclusions including fossil shell. Two fragments of flat roof tile in this fabric were recovered from the site. One piece appears to have an impression of a groove in the wooden bed used for forming the tile on. The other tile has grass markings in the bedding. The tiles possibly date to between the mid 12th and mid 13th centuries.

The similarity of manufacture between Fabrics 1, 6, 7 and 17 suggests that these might be part of the same production. Knife trimming of tile edges is uncommon on medieval tiles, but is found at one Lincoln industry sited in the Wigford suburb. Type 4 and Type 10 tiles at Beverley are similarly knife trimmed (Armstrong 1991), as are those from St. Katherine's Priory in Lincoln (Young 2009a)

The two unglazed floor tiles (FLOOR) are of late 19th to 20th century early modern type as are four miscellaneous industrially manufactured fragments (MODTIL). Three pantiles are likely to be of 19th to 20th century date as are three pieces of drain (DRAIN).

Twenty-eight brick fragments (BRK) were recovered from the site. Three pieces are from early modern industrially produced bricks of 19th or 20th century date and a further three late bricks are possibly extruded. The other bricks are all hand moulded and probably range in date from the late medieval to early modern periods. Eight fabrics were identified.

Fabric 1

This oxidised calcareous fabric has an abundant fine background of calcareous grains below 0.2mm with common calcareous lumps up to 10.0mm, moderate iron-rich grains and sparse aggregated sandstone pebbles. The three brick fragments in this fabric are slop-moulded and probably date to the 19th or 20th centuries. The most complete fragment measures 113mm in width and 55mm in thickness.

Fabric 2

This oxidised micaceous fabric has abundant fine background quartz below 0.1mm together with sparse subround quartz up to 0.4mm, moderate variable iron-rich grains up to 1.5mm, sparse to moderate calcareous grains up to 2.0mm as well as patches of calcareous clay, sparse clean clay pellets and sparse aggregated sandstone. The five bricks in this fabric are sand-moulded and vary between 53mm and 58mm in thickness. The most complete brick measures 121mm width and 53mm thickness. These bricks probably date to the post-medieval to early modern periods.

Fabric 3

This oxidised orange-red calcareous fabric contains abundant fine background calcareous grains below 0.3mm and common larger calcareous lumps up to 11mm together with moderate to common iron-rich grains, patches of moderate to common subangular to subrounded quartz of 0.2mm to 0.3mm and sparse sandstone pebbles. The two bricks in this fabric are slop-moulded and are between 53mm and 55mm in thickness. One brick measures 117mm in width and has a buff end whilst the other has purposely been over fired and has a vitrified glassy end. These bricks were probably intended to be used as part of a diapered pattern and are likely to date to the post-medieval period.

Fabric 4

This oxidised calcareous fabric has an abundant fine background of calcareous grains below 0.2mm with common calcareous lumps up to 10.0mm, moderate iron-rich grains, common clean clay pellets and sparse aggregated sandstone pebbles. One complete brick and a large flake are in this fabric. The bricks are slop-moulded with a variably sanded underside. The complete brick measures 238mm x 118mm x 55mm. These bricks probably date to the post-medieval to early modern period.

Fabric 5

This oxidised micaceous fabric contains abundant fine background quartz below 0.1mm together with moderate to common clean clay pellets and moderate to common calcareous lumps up to 5.0mm. A single fragment of 116mm width and 66mm thickness is in this fabric. It is unclear how this brick was moulded. The brick possibly dates to the post-medieval or early modern periods.

Fabric 6

This oxidised micaceous fabric contains abundant fine quartz below 0.2mm together with moderate subround to subangular quartz between 0.2mm and 0.6mm (and occasionally larger) including polycrystalline, moderate to common iron-rich grains up to 1.5mm and sparse calcareous grains. The single fragment in this fabric is 70mm thick and has been sand-moulded. It is likely to date to between the 15th and 16th centuries.

Fabric 7

This oxidised micaceous fabric contains abundant mixed but mainly fine quartz of 0.2mm to 0.6mm (occasionally larger) together with moderate to common iron-rich grains. The two fragments in this fabric appear to have been sand-moulded. Both bricks have sunken stretcher margins. Both bricks are 120mm wide and 50mm thick. These bricks probably date to between the 15th and 16th centuries.

Fabric 8

This oxidised micaceous fabric contains abundant fine background quartz below 0.1mm together with mixed moderate to common subround to round quartz between 0.3mm and 0.8mm, moderate iron-rich grains, moderate to common organics, sparse to moderate calcareous grains and sparse flint. The two bricks in this fabric have been sand-moulded but also have some grass and straw marks. One brick is 115mm wide whilst the other is 113mm wide and 55mm thick with a reduced vitrified end. These bricks probably date to between the 15th and 16th centuries.

Fired clay and daub

Eight miscellaneous fragments of fired clay and two pieces of Daub in four fabrics were recovered from the site.

Fabric 1

Fragments are a dull orange colour and the micaceous fabric contains abundant fine sub-round to round quartz with occasional larger grains, moderate organic voids, white clay pellets and what appears to be calcined bone. Two very abraded formless lumps and two pieces of daub in this fabric were recovered from the site. These pieces were recovered from a Phase 1 ditch (601) and a Phase 2 pit (696).

Fabric 2

Fragments in this micaceous fabric range between orange-red and light dull orange in colour. The fabric contains common large calcareous lumps and organic voids. Four formless pieces recovered from pit 212 in Phase 1, linear feature 294 in Phase 3 and grave cut 058 in Phase 5.

Fabric 3

A single flake with one flattened surface in this fabric was recovered from a modern construction cut. The fragment is a mid orange colour and contains common large calcareous lumps and grog.

Fabric 4

A single abraded flake in this fabric was recovered from ditch 572 in Phase 6. The fragment is a red colour with a reduced grey core and the fine micaceous fabric contains moderate subround to round quartz of 0.4mm to 0.8mm and some organic voids.

The Site Sequence

The ceramic building material was recovered from two hundred and seventy-two deposits on the site with most of the material coming from Roman deposits.

Phase 1: Pre-Roman and Early Roman

Upper fill 228 in section **226** of linear feature **G288** produced six fragments of Roman tile including two Tegulae and two Imbrices. The tiles are in Fabrics 27, 29 and 30. Pit **212**, to the north of **G288** produced three Tegula in Fabric 29, a Roman brick in Fabric 49 and a small abraded fragment of fired clay. The three Tegula are similar and probably came from the same roof. Truncated feature **214** produced another fragment of Tegula in Fabric 29 and a piece of Imbrex in Fabric 19. A single small and very abraded flake of tile was recovered from post-hole **733**. Pit **727** produced a large group of sixty-nine tiles and a brick. The twenty-seven Imbrices occur in six different fabrics, suggesting that they do not all come from the same building. Fabrics 17 and 49 were the most common fabrics with six tiles in each. The twenty-six identified Tegula occur in four fabrics of which Fabric 29 is the most common with eleven examples. These tiles are sufficiently similar to those recovered from linear feature **G288**, pit **212** and feature **214** to suggest that they come from the same build. The other tiles are in Fabrics 17, 26 and 27. A single fragment from a Tegula or brick in Fabric 29 was recovered from pit **729**.

Pit groups **G501** and **G506** produced ceramic building material fragments from several pits. Pits **552**, **596**, **610**, **614** and **665** in group **G501** contained variable amounts of ceramic building material with most of the material coming from pit **665** (108 fragments). Most of the fragments come from Tegula and Imbrex, but there are also seven bricks. Fabrics 17 and 29 are the most common to occur. Only two pits in **G506** produced ceramic building material (pits **551** and **620**). The fragments mainly come from Imbrex and Tegula, but include one brick in Fabric 27.

Phase 2: Mid-Roman

Ditch **1128** produced a piece of Imbrex in Fabric 57 and a fragment from a box-flue tile in Fabric 35. Unusually both these fabrics are a pale reduced colour.

Fill 345 in section **344** (part of **G405**) contained a piece of brick in Fabric 49 and a small un-diagnostic flake of tile; fill 443 in section **442** in group **G405** produced a fragment from an

Imbrex in Fabric 38 and a Tegula and box-flue tile in Fabric 27. Also in this deposit were fourteen flakes of un-diagnostic tile.

Ditch **G453** produced three fragments of Imbrex in Fabrics 26 and 29 and a small corner flake in Fabric 26 that may be from a box-flue tile.

Ditch **G404** produced fragments of ceramic building material from several fills (404, 576, 343, 388, 426 and 445). The large group (153 tiles) is mainly comprised of Tegula and Imbrex in a wide range of fabrics, but also includes twelve bricks and a single box-flue tile. Some of the material in Fabrics 26, 27 and 29 is similar to that first found in Phase 1 deposits. Two very small and abraded flakes of tile were attributed to cut **423**, believed to derive from fill 424 in the cut of this number through ditch group **G404**. Four Imbrices and a Tegula were also retrieved from fill 434 in section **433**. The tiles are in mixed fabrics.

Pits **550** and **552** produced a small number of unremarkable fragments of ceramic building material in Fabrics 17, 26, 27 and 29. Ditch group **G792** produced a few pieces of unremarkable brick and tile. A tiny very abraded flake of tile was recovered from linear feature **G844**. A single piece of Tegula in Fabric 27 was recovered from pit **713**.

Phase 3: Late Roman

Construction trench **810** of structure **693** produced two pieces of box-flue tile in Fabric 51 and a small fragment of Imbrex. A few very abraded flakes of brick and tile were recovered from earth floor **811**. Linear feature **G282** produced a small group of tile and brick. Most fragments are in a very abraded condition. The fabrics suggest that this material was derived from Phase 1 buildings. Section **206** produced three fragments of tile and a square Tessera formed from a tile. The material including the Tessera is abraded and obviously residual.

Ditch **415** (fill 416) produced a single very abraded fragment from a Roman brick.

Linear feature **G437** produced a small scrappy group of ten fragments of tile. Few forms can be identified, but at least three Imbrex are represented. The fabrics (Fabrics 25 and 29) suggest that these tiles derived from Phase 1 deposits. Re-cut **G281** contained three miscellaneous pieces of tile and a small piece of an Imbrex in Fabric 27. Linear **G281** is re-cut by linear **G548** containing an abraded fragment of a Tegula in Fabric 25. Possible quarry pit **G401** produced a small mixed group of seventeen pieces of tile and a fragment of Roman brick. The group includes Tegula, Imbrex and box flue tile. A wide range of fabrics is present suggesting that the ceramic building material is representative of in-fill from a number of sources. Some of the fabrics (Fabrics 17, 26, 27, 29 and 46) indicate the presence of Phase 1 material. Possible quarry pit **G402** produced a small mixed group of fragments of ceramic building material. The group includes box-flue, Imbrex, Tegula and brick in nine different fabrics. As with the group from **G401** the material indicates mixed sources. Curvilinear feature **G400** contained two pieces of Tegula, a Roman brick and two pieces of possible daub. Linear feature **618** produced a small mixed group of twelve fragments of ceramic building material. Four of the fragments come from Imbrex in Fabrics 17 and 29 and one is from a Tegula in fabric 29.

Ditch **G437** produced a small mixed group of thirteen fragments of ceramic building material mainly comprised of un-diagnostic flakes. The fabrics (Fabrics 25, 27 and 29) suggest that this is Phase 1 material. A small group of four tiny very abraded flakes of tile and a small and abraded piece of Imbrex in a similar state were recovered from ditch **G281** and ditch **G548** produced a single abraded piece of Tegula in Fabric 25. A small mixed group of nineteen tiles and two Tesserae were recovered from gully **195**. One Imbrex is represented by six pieces. The group looks early with Imbrex in fabrics 27 and 47 and the single Tegula in Fabric 27.

Pit/post-hole group **G629** produced a sizeable mixed group of Roman ceramic building material comprising sixty-eight fragments of Imbrex and Tegula and one piece of brick. The most common fabrics are Fabric 17 (seven examples), Fabric 26 (eighteen examples), Fabric 29 (eleven examples) and Fabric 49 (seven examples). All of these fabrics are found in Phase 1 deposits suggesting that the material in this pit/post-hole group represents residual or disturbed material from this phase.

Forty-eight of the pieces were recovered from post-hole **676**.

Linear feature **G446** contained a mixed group of one hundred and twenty-seven fragments of building material. Much of this assemblage is comprised of small un-diagnostic flakes, but large fragments of Imbrex, brick and Tegula are also present. Fifteen different fabrics are represented, with early Fabrics 17, 27 and 29 being the most common. Parallel linear feature **G449** produced only thirteen pieces of tile. Many of the fragments are in an abraded condition. Only Imbrex and Tegula in Fabrics 17, 23, 25, 27 and 45 are identifiable in the group.

Ditch **G448** produced twenty very abraded flakes and one small piece of Roman tile.

Post-hole **406** contained twelve very abraded flakes and a small piece of un-diagnostic tile. A tiny un-diagnostic flake of Roman or post-Roman tile was recovered from post-hole **306**.

Two pieces of Tegula from a single tile in Fabric 27 and a brick in Fabric 49 were recovered from linear feature **G394** along with an un-diagnostic flake of Roman tile. A very abraded fragment of Roman brick in Fabric 27 was found in parallel linear feature **G395**.

Unspecified Roman

[No CBM received from fills 261 & 265 allocated to gully G287 as stated in report]

Post-hole 462 contained seven fragments of ceramic building material, most of which are abraded. The group includes Tegula, Imbrex and brick in Fabrics 17, 29, 44 and 57.

Pit **1114** (fill 1113) produced an Imbrex in Fabric 22, a box-flue tile in Fabric 27 and three small flakes of Roman tile.

Phase 4: Saxon and early medieval

A number of features in this phase produced residual fragments of Roman tile including linear features **G035**.

Phase 5: Medieval

Few fragments of post-Roman tile were recovered from this phase. Thirteen ceramic Tesserae come from a number of deposits in this phase. Eleven flakes could be of Roman or post-Roman date. The only medieval tile comes from grave cut **G154**. The fragment comes from a flat roof tile of possible mid 12th to mid 13th century date in Site Fabric 18. Grave **G136** produced a flake from a brick of 19th to 20th century date and linear **G285** contained a piece of early modern drain.

Phase 6: Post-medieval

A number of features produced residual Roman material. Seven fragments of ceramic building material were recovered from the upper fill (903) of stone-lined well **G889**. A single fragment of Roman tile is from a Tegula. The four bricks are of types 6, 7 and 8 probably dating to between the 15th and 16th centuries. The fragment of flat roof tile in Fabric 15 and ridge tile in Fabric 16 are probably of similar date.

Linear **G870** produced a mixed group of thirty fragments of ceramic building material. Four abraded fragments are of Roman date and two pieces are of Roman or post-Roman date. The other twenty-four fragments come from medieval flat roof tiles of probable late 12th to 13th century date. The tiles are in Post-Roman Fabrics 1, 3, 4, 5, 6, 7, 8, 9 and 17. Four of the tiles have spots or splashes of reduced glaze. The four suspension nibs present are all of the small and applied oblong type and the single peg hole is of the tapering rounded type. Fabric Types 1, 6, 7 and 17 appear to be related and probably come from the same workshop suggesting that at least ten of the tiles may have come from the same building.

Layer 962 produced a fragment from a Roman Tegula and fragment of late 12th to 13th century flat roof tile in Fabric 1.

A single fragment from a late 12th to 13th century flat roof tile in Fabric 9 was recovered from pit **G1038**.

The upper fill (1139) of ditch **G1087** produced a group of twenty-one fragments of ceramic building material of mixed date. The sixteen Roman pieces include four Tesserae. The three medieval flat roof tile fragments are of late 12th to 13th century date and occur in Fabrics 1 and 4. A single fragment comes from a late 18th to 20th century pantile.

Eight of the twelve fragments of ceramic building material recovered from linear/ditch **G1204** are of Roman date. A further two could be of Roman or post-Roman date. A flat roof tile fragment in Fabric 18 is of probable mid 12th to mid 13th century date whilst the unglazed floor tile is of modern late 19th to 20th century type.

Statement of Potential

This is a large diverse group of ceramic building material, mainly of Roman date, which exhibits a wide range of fabric types and manufacturing traits suggesting that it originated from a large number of buildings. Unfortunately it is probable that most, if not all, of the material represents residual deposition. It is likely that much of the Roman tile and brick found on this site originally came from the nearby villa site (Daniels 1966).

Comparative analysis of fabrics and forms with material recovered from the nearby 1960's site would possibly help determine the date of the tile found on this site and then further inform the site dating. Initial fabric work suggests that much of the Roman and medieval tile found on the site may come from fairly local sources. These fabrics should be further characterised to enhance our knowledge of Romano-British brick and tile manufacture and distribution within Nottinghamshire and the local medieval tile sequence.

Recommendations

Unfortunately as most, if not all of the ceramic building material is likely to be residual it is not possible to put this assemblage within a chronological framework. Nevertheless this assemblage has the potential to answer several questions about Roman and medieval tile production in the area.

Further useful work would include:

- 1) The Tegula flange types and fabrics should be correlated with material excavated at the villa site.
- 2) If the material is similar a chronology of types should be attempted.

3) The material would benefit from a programme of scientific characterisation using thin section analysis, especially to confirm the source of the clay used. Should further work take place on the site this could be extended to include chemical ICPS analysis.

The retained material is in a stable condition and should be kept for future study.

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Appendix 7: Foot Impressions on Tiles

by Jennifer Browning

Four fragments of Roman tile with foot impressions were recovered, which were evidently made as the tiles were laid out to dry. The prints were compared with examples in Lawrence and Brown (1973). The track width was measured across the widest part of the print.

The Prints

A tile from context 643 had two overlapping paw prints, made by a dog. The marks were clear and both the pads and claws could be seen. The track width was 51mm, which compared well with an example referred to as 'medium' (Lawrence and Brown 1973, 48).

Two dog prints, slightly overlapping, were recorded on a tegula from context 098. Both the pads and claws are evident. The front impression was deeper but the one at the rear had been made second, slightly obscuring the central pad of the earlier impression. The track width was 43mm.

Contexts 245 and 879 produced tiles with less distinct impressions. The tile from context 245 has two fairly complete prints (toes only) and a possible third along the broken edge of the tile; none are impressed deeply. The claws are not visible here, which could indicate that it was made by a cat. However, the width of the (rear) track was 44mm, which is larger than the domestic cat shown in Lawrence and Brown (1973, 75) (although size variation in domestic animals is acknowledged). In addition, the relative position of the toes, with the middle two further forward, is more characteristic of dogs.

The prints on the tile from context 879 are not distinct and are much smaller than the others. A minimum of two are observed, impressed almost on top of each other. No claw marks are visible and the track width is estimated at c. 20mm. It is tentatively suggested that these could belong to a cat.

Cram notes that dog footprints are most common among the large studied assemblage from Silchester (2000, 177) and based on this very small sample the same seems to be true here. The track widths for dogs at Silchester varied from 25-69mm, averaging at 48mm. All of the Southwell tracks are within this range, except for the suspected cat print.

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Appendix 8: The Worked Flint

by Tom Lane

A single worked flint, from context 825, was identified. The artefact was a utilized blade flake, measuring 62 x 20 x 3mm, with minor secondary working on both sides; a notch had been removed close to the proximal end. The flake is of probable Final Upper Palaeolithic date.

Appendix 9: The Metal and Other Finds

by Gary Taylor and Denise Buckley

Introduction

Ninety items weighing a total of 638g were recovered.

Condition

The metal finds are in moderate-good condition, though all the iron items in particular are corroded, some severely so.

Results

Table 1: Metals

Cxt	Material	Description	NoF	W (g)	Date
027	Iron	Uncertain, 1 is possible suspension hook: L-shaped bar, narrowing to both ends which are curved or coiled. Other two pieces unidentified.	3	68	
038	Iron	Loose ring snaffle bit.	1	143	medieval?
067 Sf/1\	Iron	Rectangular sheet, 35mm x 23mm x 5mm, possibly part of strap hinge	1	9	
072	Iron	Nails, large	2	73	
072 Sf/2\	Iron	Socketed Y-shaped bird hunting arrowhead, late 14th century	1	12	medieval, late 14th century
	Iron	Uncertain. Approximately rectangular strip, 40mm long, approx 5mm thick. Square at one end which is 12mm wide, then narrowing to 10mm wide, before flaring to 18mm wide. Possible tanged arrowhead???	2(link)	6	
076	Iron	Horseshoe, 1 branch, 2 linking pieces	2	95	medieval?
083	Iron	Nails	5	87	
		Spike	1	43	
083 Sf/3\	Copper alloy	Steelyard, 2 suspension hooks on opposite sides of the beam, and a suspension ring at one terminal	1	32	1st century
098	Iron	Nail shaft and head	2	6	
098 Sf/4\	Copper alloy	Armlet/bracelet (half of), comprising of three wires twisted together with probable hook and loop fastening, loop missing, 57mm diameter	1	6	4th-mid 5th century
100 Sf/5\	Iron	Nail (coffin nail?)	1	9	
104 Sf/6\	Iron	Nail	1	11	
106	Iron	Rectangular-sectioned iron bar, 102mm long, 9mm square	1	47	
112 Sf/7\	Iron	Nail	1	12	
112 Sf/8\	Iron	Nail, turned over head	1	6	
112 Sf/9\	Iron	Hobnail	1	1	
112 Sf/12\	Iron	Nail shaft?	1	3	

Cxt	Material	Description	NoF	W (g)	Date
128 Sf/10\	Copper alloy	Ring, 24mm diameter	1	3	
131 Sf/11\	Iron	Possible nail, extremely encrusted	1	26	
135 Sf/13\	Iron	Nail	1	9	
135 Sf/14\	Copper alloy	Penannular/split ring, 17mm diameter – possible ear-ring?	1	1	medieval??
135 Sf/17\	Iron	Nail shaft, no head	1	14	
144 Sf/15\	Iron	Nail (coffin nail?)	1	12	
144 Sf/16\	Iron	Nail (coffin nail?)	1	13	
146	Iron	Probable nail shaft, in 2 pieces	2	7	
146 Sf/20\	Iron	Nail (coffin nail?)	1	10	
148 Sf/18\	Iron	Nail, bent	1	13	
148 Sf/19\	Iron	Ferrous encrustation	1	2	
158 Sf/21\	Iron	Nail	1	6	
158 Sf/22\	Iron	Possible nail, extremely encrusted	1	14	
168	Copper alloy	Wire, possible double-hook fastener, post-medieval?	1	<1	Post-medieval?
	Iron	Whittle tang blade, extremely fragmented and corroded, medieval?	5	24	
175 Sf/24\	Iron	Nail?	1	5	
196	Iron	Nail	1	5	
196 Sf/23\	Lead	Sheet with 3 surviving rivets and 2 further rivet holes. probable roofing patch	1	52	
200?	Iron	Nails	4	32	
		Sheet object, approximately rectangular, approximately 35mm square, 5mm thick, corroded and encrusted	1	22	
215	Iron	Probable nail shaft	1	1	
229	Iron	Nail shaft	1	5	
248	Iron	Possible handle; circular-sectioned wire 5mm diameter, broad U-shape, 78mm x 23mm	1	15	
249	Iron	Nail	1	6	
257	Lead	Melt, cut/scored	1	7	
314	Iron	Uncertain, possible heel of horseshoe with calkin	1	21	medieval?
391	Iron	Probable nail shaft	1	4	
429	Lead	Probable sheet offcut	1	37	
	Lead	melt	1	28	
467	Iron	Nail	1	15	
513 Sf/27\	Iron	Nail?	1	2	
576	Iron	Probable nail shaft	1	1	
611	Iron	Probable nail shaft, square-sectioned, extremely corroded	1	14	
639	Iron	Nail	1	2	
649	Iron	Unidentified, sheet, curved/bent over at one end	2	65	

Cxt	Material	Description	NoF	W (g)	Date
728 Sf/29\	Iron	Nail	1	9	
730 Sf/30\	Iron	Nail, end bent over	1	21	
800	Iron	Probable nail	1	5	
834	Iron	Nail/bolt	1	24	
928	Iron	Nails	2	16	
962 Sf/32\	Lead	Uncertain; appears to be combined sheets, uppermost with combing	1	62	
1009 / 10	Iron	Nail, vivianite staining	2	8	
1048 Sf/33\	Iron	Blade, 82mm long, 16mm max width, no surviving tang, vivianite staining	1	10	
1048 Sf/34\	Iron	Staple / bracket, U-shaped, square section	1	36	
1109	Iron	Nail	1	4	
1139	Iron	Nail	1	6	
1191	Iron	Large T-headed nail/bolt	1	26	
1238 Sf/35\	Iron	Whittle tang knife, blade 80mm long x 20mm wide, angled back; tang 80mm long, set just below back, in line with blade, sloping shoulder, tapering; corroded and encrusted, bent at blade-tang junction	1	46	late 12th century
Totals			90	638	

Provenance

The metal finds were recovered as unstratified material (027, 072, 083, 098, 128, 429), from a ditch/gully fills (038, 196, 200, 576, 800, 834, 1139), grave fills (067, 100, 104, 112, 131, 135, 144, 146, 148, 158, 175), construction trench fill (083, 649, 1191), pit fills (106, 248, 249, 314, 467, 611, 639, 728, 928, 1048, 1238), shallow scoop (168), indeterminate features (215, 730), layers (229, 391, 513, 962, 1009, 1109) and posthole fill (257).

Range

A large quantity of metal artefacts was recovered. Most are of iron though there are several copper alloy items and a number of lead ones.

Nails occur abundantly and some are probably coffin nails. Others associated with graves probably had the same function. There are also other fixing items including spikes, studs, bolts and staples.

Several knives were found. The knife from (1238) is near-identical to a late 12th century example from London (Cowgill *et al.* 1987, no 5) and is probably of the same date. A probable whittle-tanged knife of likely medieval date was recovered in an extremely fragmented state from (168). A third knife was retrieved, from (1048), but is incomplete, lacking the tang, and is of uncertain date.

Material associated with horses was also recovered. A snaffle bit was retrieved from (038). It is jointed in the middle and has ring terminals that take large ring cheek pieces. It bears some similarity to a 14th-century example from London (Clark 2004, 49-50).

One branch of a horseshoe was recovered from (076). It is too corroded for clear identification but is probably medieval. A second possible horseshoe fragment was recovered from (314). This appears to be a heel with calkin. Intended to provide a good

foothold, calkins are found on horseshoes throughout the medieval period. Although by the 17th century their benefits were disputed (Clark 2004, 81-2), calkins continued in use later (Hume 1991, 238).

A Y-shaped arrowhead was recovered from (072). This is of Jessop's Type H2, of late 14th-century date, and was possibly used for hunting fowl (Jessop 1996, fig 1; 199). The same context yielded a possible second arrowhead. Although incomplete, this item (in 2 linking pieces) bears some similarities to a tanged arrowhead of Jessop's Type T3, though this type has a tang that tapers away from the blade, whereas the example from (072) has a 'tang' that narrows toward the base of the point. The type T3 arrowhead is generally dated to the 12th-13th century (*ibid.* fig 1; 195).

There is a possible double-hook fastener made from wire from (168), though the piece is corroded and distorted and the identification tentative. Such fasteners are typically post-medieval in date, occurring in 15th-18th century levels in Norwich (Margeson 1993, 18-19).

A probable suspension ring was recovered from (128). Such items occur in late medieval-early post-medieval horizons at Norwich (Margeson 1993, 82).

There is a split copper alloy ring from (135). This may be a suspension ring or washer. However, it also resembles an ear-ring of 14th-century date found at Beverley (Goodall 1991, 149; fig 114, no 580).

A twisted cable armlet from (098) is very closely similar to one found associated with a burial at Colchester and dated to the 4th to mid-5th century (Crummy 1995, 38-9)

A steelyard was recovered from (083). This is closely comparable to an example of mid-1st-century date found at Colchester (Crummy 1995, 99-100). The bar lacks a terminal stop, which would have prevented the suspended, moveable, weight sliding off, and the weight and pan are also absent.

Several of the iron items, including pieces from (1009/1010 and 1048), carry blue vivianite staining. Vivianite is a complex iron phosphate that is formed when iron objects are in deposits with high phosphate content, such as those containing bone, or cess.

Potential

The other finds are of moderate potential. They provide a variety of functional and chronological evidence. This includes activity of Roman, medieval and post-medieval dates, evidence of burials, the use of horses, hunting, the possible presence of structures, and personal adornment. In addition, staining of some of the items indicates burial conditions that have high phosphate content, such as pits containing bones, or perhaps cess.

A selection of the iron, to include items from (028, 038, 067, 072, 076, 106, 131, 314, 649), possible nails from (131, 158, 175, 215, 391, 576, 611), ferrous encrustation from (148), and all knives/blades, should be X-rayed and then re-examined with the plates. The possible suspension hook, snaffle bit, Y-shaped arrowhead, steelyard, armlet and knife from (1238) should be drawn.

OTHER FINDS

by Gary Taylor and Denise Buckley

Introduction

Two other finds weighing a total of 63g were recovered.

Condition

The other finds are in good condition.

Results

Table 2, Other Materials

Cxt	Material	Description	NoF	W (g)	Date
038	Slag	Iron smithing slag	1	39	
393 Sf/28\	Ceramic	Ceramic vessel possibly used as crucible for melting glass	1	24	16th- 18th century
Totals			2	63	

Provenance

The other finds were recovered from ditch/gully fills (038, 393).

Range

There are two other finds, both of industrial nature. One of these is a piece of iron smithing slag from (038). The second item is the base of a red earthenware vessel of post-medieval, probably 16th-18th century, date (A. Beeby, pers comm.). The melting point of glass is in the 1400-1600 °C range, enough to transform pottery to stoneware or porcelain, which has clearly not occurred with the pottery vessel here. However, the glass transition temperature, where it becomes rubbery, is around 600 °C, below normal pottery firing temperature. The object may, therefore, be some form of glass-melting crucible which has only been used to make the glass slightly viscous.

Potential

The other finds are of limited-moderate potential. As an isolated find the iron smithing slag is perhaps an import to the site, as such industrial debris is produced in significant quantity by smithing. The possible glass melting crucible is of note and may indicate some attempt at glass melting and re-use.

SPOT DATING

The dating in Table 3 is based on the evidence provided by the finds detailed above.

Cxt	Date	Comments
027		
038	medieval?	based on 1 metal
067		
072	medieval/late 14th century	
076	medieval?	based on 1 metal
083	1st century	based on 1 metal
098	4th-mid 5th century	based on 1 metal
100		
104		
106		
112		
128		
131		
135	medieval/14th century??	based on 1 metal
144		
146		
148		
158		
168	post-medieval?	based on 1 metal
175		
196		
200		
215		
229		
248		
249		
257		
314	medieval?	based on 1 metal
391		
393	post-medieval, 16th-18th century	based on 1 ceramic
429		
467		
513		
576		
611		
639		
649		
728		
730		
800		
834		
928		
962		
970		
1009		
1048		
1109		
1139		
1191		
1238	late 12th century	based on 1 metal

ABBREVIATIONS

CXT	Context
NoF	Number of Fragments
W (g)	Weight (grams)

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Appendix 10: The Painted Wall Plaster and other Building Materials

by Graham Morgan, University of Leicester Archaeological Services

Plaster

Microscopic examination was carried out on the samples to determine the nature of the plasters and to measure the thicknesses of the various layers present. Samples were taken from the larger specimens for chemical analysis of the lime and aggregate ratios, together with the geological identification of the residues. The measurements given are for the thicknesses of the paint layers, the *intonaco*, the layer of lime on to which the paint was applied, and the lower or *arriccio* layers of plaster.

u/s pink band on red on white, 0.1mm, on white *intonaco*, 0.4mm, on coarse white quartz sand and gravel plaster, 14mm thick.

137 traces of red on grey, <0.1mm, on sandy white *intonaco* traces, 0.2mm, on coarse pale buff sand and gravel plaster, 12mm thick.

196 *opus signinum* fragment, 17mm thick.

513 coarse *opus signinum* fragment, 25mm thick.

623 This is the large bulk sample;

The plaster is all of the same type: paint on off-white *intonaco*, 1mm, on pale grey coarse sand and gravel plaster, apparently in two layers, 18mm + 13mm thick. It was notably light in weight compared with normal sand and gravel plasters. Of interest is the fact that the plaster is almost totally calcareous, the sand and gravel sized components being composed of crushed pale grey "limestone" with lime, traces of charcoal and burnt red clay. Acid dissolution left just a dark brown silt with flecks of charcoal. The micro-cracking was seen in the *intonaco*. The various paint styles are as follows:

plain white, plain red on white, grey and red splashes on white, white lines, 2mm wide, on red, red lines, 6mm wide, red bands or areas, >30mm wide, pale green band, 7mm wide, grey band or area, >50mm wide. With the suggestion of burning, the colours may have changed. The schemes present are of red-bordered panels, some with pseudo marbling of paint splashes, and some with the suggestion of green foliage or lianas.



Plate 1: Grey and red splashes of pseudo-marbling

625 coarse pale buff calcareous sandy lime mortar with small shells, 55mm thick, with the impression of a wooden plank or beam.

725 burnished black, <0.1mm, on off-white *intonaco*, 0.6mm, on coarse pale buff sand and gravel plaster, 14mm thick with fragments of red haematite.

728 micro-cracked white lime *intonaco*, 0.4mm, on coarse friable pale grey calcareous sandy plaster, 17mm thick. This is very similar to the bulk sample (623)

739 dark red, white and black splashes and pale buff on white *intonaco*, 0.5mm, on grey coarse calcareous sand and gravel plaster, 12mm thick. This is similar to the bulk sample (623)

1048 plain white, <0.1mm, on fine off-white sandy plaster with reed bundle impressions, 13 – 22mm thick. This could be ceiling plaster.



Plate 2: Reed bundle impressions

1113 burnished white *intonaco*, 1.5mm, on pale reddish sandy plaster, 10mm thick.

1167 sand and gravel plaster with brick or tile traces on pink *opus signinum*, 18mm thick.

1175 yellow on white *intonaco*, 0.2mm, on coarse sand and gravel plaster, 11mm thick.

Tesserae

083 hard fine grained pale grey limestone with fossil traces.

248 fine grained grey micaceous sandstone.

513 hard fine grained pale grey limestone.

818 hard fine grained pale grey limestone.

859 hard white chalk with a sand white lime grout.

1185 hard white chalk.

Discussion

The colours present are all naturally occurring earth pigments or ochres; red ochre – haematite, yellow ochre - limonite or goethite, green earth – glauconite, and grey, being soot or charcoal with white lime.

The reed bundle impressions are usually associated with ceilings but they may also have been used in partition wall construction. The burnishing is of note as it points to very high technical quality, great skill being needed to polish the plaster at just the right state of hardness.

Opus signinum is the typically pink mortar made with lime and crushed brick or tile. It is often associated with water resisting structures such as baths or in damp areas. The sample here is made simply of lime and crushed brick or tile. It is the dust which particularly gives the mortar or plaster hydraulic properties and the pink colour.

There are at least three types of plaster present here, lime with sand and gravel, lime with crushed "limestone" as the calcareous aggregate and lime with crushed brick or tile. The fact that the *intonaco* layers are white does show that a white limestone was available to make the white lime for this mixture, as opposed to the grey "limestone" used as one of the aggregates. The hard white chalk seen in the tesserae may have been the source. Partial dissolution of one of the calcareous samples in dilute acetic acid left a residue of calcareous tufa fragments, with brown silt and charcoal.

This shows that the grey "limestone" was in fact calcareous tufa, a very unusual material to be found in plaster. The sand and gravel seen in most samples was of round to sub-angular quartz with lesser amounts of quartzite, flint and ferruginous sandstone. The calcareous samples had traces of these aggregates but much brown silt, flecks of charcoal and traces of mica.

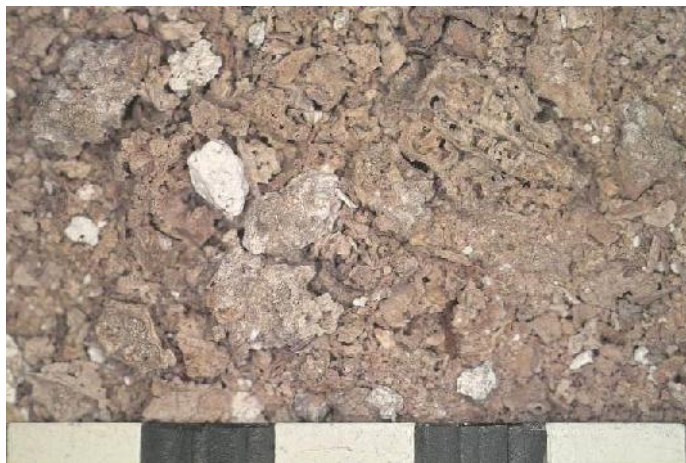


Plate 3: The calcareous tufa residue from the partial dissolution of a sample from 623. Fragments of undissolved white lime can also be seen.

Appendix 11: The Worked and Unworked Stone

by Rebecca Hearne, University of Leicester Archaeological Services

Introduction

A total of 215 fragments of stone were recovered from 59 contexts during the excavations. Each fragment has been identified geologically with the aid of low power microscopy and described and recorded on an MS Excel spreadsheet (see digital appendix 11.1).

Overview of Geological Sources

Identification of the rocks represented within this assemblage indicates that they are geologically common. Although not immediately local to Southwell, most of the stones are fragments which do not appear to be dressed or display working traces and may thus be considered detrital. Two coarse-grained sandstone fragments exhibit fire-reddening (859, 879) and 10 others of varying rock type from two contexts display some iron-staining (658, 666). One quartzite cobble displays some reddening (879), while another unstratified quartzite half-cobble was also recovered which may have been collected from local boulder clay.

Many of the rocks have significant mica content, particularly the grey-brown mudstones and siltstones of which there are 23 fragments in total, as well as 32 limestone or marl (calcareous mudstone) fragments. Also present are 23 fragments of sandstone, of which the majority are medium- to coarse-grained red-brown sandstones. It is likely that most of these mudstones, siltstones and sandstones derive from the Mercia Mudstone group which predominantly underlies western Leicestershire. Some of the fragments are true organic limestones; 3 fragments of oolitic limestone and one fossil-bearing grey limestone fragment (693) are present, both of which occur in the environs of Rutland and more extensively in Lincolnshire.

There are 49 fragments of slate and shale, 37 of which are dark blue-black and 11 green. The 3 roof slates which exhibit pecked nail holes (072, 257, 654) are made from blue-black slate. The one grey-black slate fragment (249) may be a Swithland Slate. Both green and dark blue-black roofing slate quarries are known in Groby, Leicester. Roman roof tiles possibly made on Groby slate have been discovered at villa locations in Leicester and along the Fosse Way adjacent to Southwell including Castle Hill, East Stoke and Brough (Ramsey 2007, 27). The largest blue-black slate fragment (098) measures <26.0 cm long by <21.0 wide and weighs 1.93 kg; however, no working traces are discernable.

Every rock type present in this assemblage presents at least one worked example. Tesserae, of which there are 21 good examples, are made predominantly on laminated or pink-grey limestone and red sandstone/siltstone. One rectangular block with two dressed faces (693), possibly representing a cornerstone, is made on a fossil-bearing grey limestone, while one dressed architectural stone with elongated tool marks (962/979) is composed of coarse red-brown sandstone. All the rock types represented within this assemblage can be found, if not immediately locally, within a few kilometres of Southwell.

Ramsey, D., 2007. Early slate quarries North West Leicestershire. *Leicestershire Industrial History Society Bulletin* Number 18, July 2007.

Appendix 12: Industrial Residues and charcoal from Southwell, SCSX 12

by Graham Morgan, University of Leicester Archaeological Services

Microscopic examination of the residues, sectioned where necessary, gave the following information;

[023]	Orange to black vitrified and vesicular clay – hearth lining?	25g	Dubiously phase 7
[148]	Vesicular fayalite hearth slag with wood impressions.	15g	Phase 5 (grave fill)
	Haematite or burnt goethite.	4g	
[207]	Bituminous coal.	5g	Phase 2-3
[391]	Black, partly vesicular melted clay, possibly hearth lining.	35g	Phase 7-8
[482]	Black, partly vesicular melted clay, possibly hearth lining.	38g	Phase 3
[494]	Vesicular fayalite with rust – hearth slag.	10g	Phase 4
[513]	Black partially vitrified and vesicular sandy clay hearth lining?	345g	Phase 3
	Clear glass? on fired clay. This could be a glazed fragment or possibly part of a glass crucible.	0.5g	
[597]	Partially vitrified vesicular clay hearth lining?	79g	Dubiously phase 4
[656]	Black, partly vesicular melted clay, possibly hearth lining.	28g	Otherwise undated
[811]	Burnt lime with traces of iron – probably lime with goethite.	67g	Phase 3
	Black, partly vesicular melted clay, possibly hearth lining. (Roman building)	68g	
[899]	Partially vitrified vesicular clay hearth lining?	30g	Dubiously phase 5
[906]	Grey, partly vesicular fused sandy clay – hearth lining?	44g	Phase 4
[907]	Vesicular fayalite with quartzite and partly vitrified sandy clay, probably hearth lining.	577g	Phase 1
[947]	Coal.	25g	Phase 7
[1113]	Lead droplet or casting waste with red lead oxide or dross.	35g	Debatable – 4 or 6
[1139]	Calcareous fossil – coprolite?	5g	Phase 6
[1048]	Partially vitrified sandy clay - brick or hearth.	216g	Phase 7
[171]	Charcoal		Dubiously phase 2
	Oak	20mm 23 rings	23 years Quercus spp.
	Field Maple	50mm 12 rings	15 years Acer campestre

In general, this collection does show industrial activity, with fairly high temperatures being used. There is however little evidence for serious iron-working in view of the very small amounts of fayalite present, and it is perhaps just the residues from a range of workshop activities.

Appendix 13: Osteological and Funerary Analysis of the Human Remains

by L.L. Keal

Introduction

In the summer of 2012 Pre-Construct Archaeological Services Ltd undertook an archaeological excavation on land off Church Street, Southwell, in Nottinghamshire, prior to redevelopment at the site of the former Minster School.

Part of the site was known to contain elements relating to a substantial Roman Villa (SAM 138) which had been truncated by later burials, believed to be middle/late Saxon or early medieval in date and associated with Southwell Minster. During the excavation, articulated and disarticulated remains were encountered: 42 skeleton numbers were assigned, disarticulated material was collected by context number, and a further undefined number of inhumations were identified but were left undisturbed.

The Assemblage

On assessment of the assemblage, it was found that of the 42 skeleton numbers assigned, 39 were discrete burials (lifted), 1 was a disarticulated deposit and was added to the disarticulated material, and 2 were burials that had been exposed but due to location were left in-situ (within the villa area and consequently scheduled). In addition, disarticulated remains recovered unstratified and from 43 contexts had also been collected. These comprised more than 699 fragments of bone and represent a minimum number of 11 individuals.

This number greatly underestimates the original number of individuals that were interred within the cemetery: highlighted by the outlying skeletons seen in this excavation area (Sk1, 26 and 38; see fig. 6), the undefined area of burials exposed but left in-situ during the works, the high level of observed truncation and the previously recorded burials encountered in and round the site (discussed below).

Funerary Context

The burials indicate a formal cemetery, represented possibly by seven surviving north-south rows, all from the seemingly same stratigraphic layer. The burials were all east-west, aligned with the heads to the west, as is Christian custom. Although not directly associated with any contemporary structural remains, these burials are likely to relate to a predecessor of the existing minster that stands c.150m to the west.

Dating

Pottery sherds and ceramic building material fragments from the graves date from the Roman to the post-modern period, representing residual and intrusive material. It is not thought that any of the material recovered with the inhumations is contemporary. Radiocarbon dating has been established for 7 of the burials, producing calibrated dates from the 7th-9th century:

- Skeleton 14 (revealed in an evaluation in 2009, known as Grave A). This produced a date of 1262±34BP which when calibrated gave a 95.4% probability of being 660AD-870AD (7th to 9th century).

- Skeleton 20 produced a date of 12824±32BP which when calibrated gave a 95.4% probability of being 650AD-780AD (7th-9th century).
- Skeleton 24 produced a date of 1262±29BP which when calibrated gave a 95.4% probability of being 668AD-860AD (7th-9th century).
- Skeleton 25 produced a date of 1239±30BP which when calibrated gave a 95.4% probability of being 686AD-875AD (7th-9th century).
- Skeleton 29 produced a date of 1216±30BP which when calibrated gave a 95.4% probability of being 693AD-889AD (7th-9th century).
- Skeleton 33 produced a date of 1204±29BP which when calibrated gave a 95.4% probability of being 668AD-860AD (7th-9th century).
- Skeleton 35 produced a date of 1254±29BP which when calibrated gave a 95.4% probability of being 673AD-866AD (7th-9th century).

The neighbouring Minster itself can be dated to at least the Late Saxon period, with evidence provided by both surviving fragments of masonry and historical references. A list of Saxon saints and their resting places, compiled around 1014, indicates that the Minster was in existence at this time and contained the remains of St. Eadburh, Abbess of Repton, daughter of King Aldwulf, King of the East Angles. It has been speculated that the remains of the 7th century Abbess may have been moved from Repton in the later part of the 9th century at a time of increased Danish raiding prior to the sacking and occupation of Repton in 874 - possibly indicating an even earlier origin for the Minster at Southwell (Beaumont, 1994). This is now supported by the burials and dating evidence recovered during the current works, although it is unclear whether a minster was first constructed and the burials came later, or a burial area was established and the minster built after this.

Quantification and Extent

It is clear from previous archaeological works on the site and surrounding area that this assemblage is part of a much larger cemetery population. This evidence can be summarised as follows:

- Two skeletons lying upon a tessellated pavement in a north-south direction were discovered by workman in the late 19th century within the garden of Vicars Court (Baylay Thornton society v p 58).
- 30 E-W (head at the west) inhumations cutting into villa mosaics discovered in 1959 during an evaluation of the Roman Villa to the west of the site, a large quantity of disarticulated remains and 1 inhumation deemed deviant, positioned east of the other burials and assumed to represent the limit of consecrated ground (Daniels, 1966).
- There is no record of any archaeological work being undertaken during construction in the area principally disturbed by the school, so the loss of archaeology and burials in this area is unknown but could have been substantial. This is supported by the evidence uncovered during the comparatively small area of extension excavated in 1975.
- 225 burials were noted during a very limited watching brief undertaken in 1975 during extension works to the school. Limited time was given to plot and measure the outline of burials before 'the machine tore through the earth'. Records of the work state that only a few of the burials were noted not to be east-west and that a mixture of ages of individuals was expressed and family groups could be distinguished (though it is not clear what is meant by this). Further areas to the south and west were also noted to contain burials but these were left undisturbed. The burials had been substantially damaged by mechanical excavator and so were re-buried in spoil heaps to the west.

and rear (south?) of the new building (the very southwest of the current development area and outside the limits of the current excavation). A corroded bronze buckle was discovered with one skeleton and tentatively dated as medieval (Alvey, 1975:14).

- Such a small area expressing such a volume of burials suggests a long period of use either with multiple intercutting or numerous stratigraphic tiers of burials as the ground built up, possibly representing continued burial beyond the middle Saxon period. This area is now scheduled and it is unclear what remains within. It is possible that the area of the current excavation had a similar high burial content and that what we have been left with (following construction of the school) is the lowest level of burials which possibly represent the earliest burials.
- 1 inhumation and a quantity of disarticulated material recovered north of the site during a watching brief at South Muskham Prebend (JSAC 2003).
- 5 E-W burials (Graves A-E) and a quantity of disarticulated material representing 3 individuals (MNI) were uncovered during a 2009 evaluation by PCA Ltd. With the exception of Burial E and the disarticulated material, all of those seen form part of the current excavated area and are included in this report (Rowe, 2009).
- 10 E-W burials and a quantity of disarticulated material (not collected) were revealed during an evaluation at Platts Orchard northeast of the site during an evaluation by PCAS Ltd in 2011. A single carbon date of 1265 +/- 35 BP which when calibrated gives a 95% probability of being between 665 AD to 866 AD (7th-9th Century) was provided for one of the burials (Rowe, 2011).
- A single infant burial possibly relating to this cemetery and disarticulated material representing 4 individuals (MNI) was revealed during PCAS Ltd's later 2012 excavation at Platts Orchard. It should be noted, though, that the presence of early Roman burials also on this site highlights that not all human remains found within this area of Southwell form part of the Saxon cemetery (PCAS, forthcoming).

The radiocarbon dates noted above, proximity to the minster, layout and description of the burials, suggests that the burials all form part of the same formal middle/late Saxon burial ground. The assemblage from this report is a sub-sample of a cemetery group in excess of 328 burials; clearly an underestimation of the total, given the spatial limits the cemetery potential covers.

It is unclear what the actual limits of the middle Saxon cemetery on Church Street were, in any direction, but burials have been recorded as far at north as South Muskham Prebend (north of Church Street), as far west as the Vicars Court, as far south as the edge of the playing field and potentially spread to the natural barrier formed by Potwell Dyke to the east, as indicated by the presence of the formal burial area seen at Platts Orchard.

Layout and burial position

All of the articulated individuals were supine and fully extended; the position of the legs being straight or crossed at the ankles and the arms being at the sides, in the pelvis, crossed at the wrists in the pelvis, one hand at the side and one in the pelvis or one hand at the side and one flexed to the face. No correlation was observed between sex, age or location and burial position.

It was not always possible to determine burial position due to the level of truncation and disarticulation seen within the inhumations. The majority of the bodies had suffered from some level of disarticulation ranging from minimal normal movement to complete disarticulation. There are a number of potential causes for the movement observed: the affects of roots, burrowing animals and the rise and fall of ground water or modern disturbance such as horizontal and vertical truncation. The site appears to have undergone

ground reduction (levelling by bulldozer) and potentially compaction. This could remove or fragment bone, causing other bones to shift. The decomposition of the body and burial container can also cause shifting of bones such as finger bones from hands laid on the torso falling into the void produced by the decomposed body or where ribs and vertebral column have splayed and shifted, potentially caused by the decomposition of the body within an open space such as a coffin. There does appear to be a correlation between size of grave cuts (potentially indicative of a coffin) and the level of disarticulation.

A number of inhumations on the site, however, were outside these 'normal' patterns of disarticulation and appear to represent the reburial of individuals. The skeletons seemingly indicative of reburial are Sk 11, 13, 16, 31 and 34. Disarticulation within this group also differs but they all retain alignment and rough anatomical positions (i.e. with the head at the west, ribs and vertebrae in the centre and lower limbs in the east). They are all found within large rectangular cuts suggestive of coffins and this may explain the disarticulation but some retention of order. The exhumation, movement and subsequent reburial of coffined bodies within different stages of decomposition would allow movement and disarticulation of the bones but retention of some order.



Plate 1: An example of possible 'reburial'. Skeleton 16 showing a level of disarticulation but retention of anatomical order.

No correlation between age, sex or pathology of those chosen for such 'reburial' was obvious, nor were they clustered within a particular area of the cemetery. They were all contained within the same row, but numerous others within the same row and between the individuals did not indicate the same level of disarticulation. Perhaps these burials were removed to protect them from construction/alterations to the local cemetery landscape and were buried within an 'active' row as and when they were deemed at risk. This could explain their presence within a single row and why they are not all clustered together (ie next to each other). The potential for numerous other burials to be like this but unexcavated/lost is high, so the true levels of 'reburial' are unclear.

Burial Containers

Small finds, potentially evidence of coffin furniture, were recovered from the fills of 9 graves (See Appendix 2). Unfortunately, at the time of writing these finds were yet to be assessed so their true nature was unclear. It is equally unclear whether the possible coffin-nails were redeposited or *in situ*, but they do probably indicate that coffins had at one time featured on

the site. A number of the burials are likely to have been shrouded, given the constriction of the skeleton and the size and shape of the grave cut (See Appendix 13.2). The fill of Skeleton 33 contained abundant charcoal, but the excavated grave does not indicate that this was a layer/lining for the burial, being more distributed through the fill as though the grave had been cut through an existing burnt ashy deposit. No evidence for more elaborate burial containers were recorded during this excavation, but it should be noted that a potential hinge fitting for a chest burial was recovered from the Platts Orchard site to the north-east, which as indicated above is part of the same cemetery (Rowe, 2011).

Methodology

Each skeleton was individually catalogued with an inventory, record of preservation and completeness and all available scores for sex, age, pathology, metrical and non-metrical traits noted on this primary record in accordance with the guidelines specified by BABAO and the IFA (Brickley and McKinley, 2004). Methods for the individual scored traits are outlined in Appendix 13.1.

Results

Due to the volume of data derived from this analysis, the specialist reader is referred to the primary record. Appendix 13.2 should be consulted for skeleton-specific summaries; due to the large size of the full database, Appendix 13.3, it is included within the printed report on an accompanying CD.

A record of the disarticulated remains is contained within the primary record and Appendix 13.3.

The Disarticulated Remains

Disarticulated material represented the bones of an additional eleven individuals, details summarised below:

- 1 Neonate/Infant
- 1 Child/Juvenile
- 1 older Juvenile/Young Adult
- 1 unspecified aged adult possible female
- 7 unspecified aged adults

In addition, the disarticulated remains did indicate the presence of males, female, young adults, prime adults and mature adults. A full demographic profile, bar foetal remains, was highlighted in the disarticulated deposits. Dental pathologies such as calculus, caries, periodontal disease and ante-mortem tooth loss were recorded, highlighting poor dental health. The pathologies evident were degenerative joint disease, degenerative disc disease, Schmorl's nodes and osteoarthritis. Evidence for infections and of childhood stresses such as nutritional deficiencies were seen on the teeth and bones, and musculoskeletal markers and trauma in the form of fractured bones were also present.

The details below relate to the 39 excavated inhumations only and, without stratigraphic differences or more dating, they have been treated as one phase.

The Articulated Remains

Preservation

Table 1 Summary of bone preservation

Stage of preservation	0	1	2	3	4	5
Counts	1	12	12	13	1	0

Table 1 shows that preservation of the assemblage was good to fair; none of the individuals from the assemblage were in the worst possible stages of preservation and only one was within the best stage. The number of individuals from stages 1-3 were roughly equal, where bone condition ranges from slight and patchy erosion to most of the bone reflecting some erosion but morphology maintained.

Completeness

Below, Table 2 summarises the number of individuals in the different stages of completeness.

Table 2 Summary of Skeletal completeness

Stage of Completeness	1	2	3	4	5	6
Counts	7	11	4	8	7	2

A total of 56% (N22) of the individuals were more than 50% complete; the majority of those (50%, N11) being at least 75<95% complete.

As the assemblage was recovered during an open area excavation, high levels of completeness were expected. The often encountered collection constraints of development footprint, foundation trenches and bulk edges were not an issue here; equally the preservation rates discussed above were conducive to the survival of the bone elements. What had impacted the survival and collection of the remains was the level of modern truncation and intrusion. As can be seen from Appendix 2, thirty one of the burials had been subjected to some level of truncation from either school foundations, levelling associated with its construction, services, and the excavation of later features (both archaeological and modern).

Preservation and completeness can often be affected by age and sex, as juvenile and female bone is not as robust and strong as adult male bone. However, as can be seen in Appendix 2, the youngest individual (Sk36) has a good state of preservation; the worst preserved is a young adult male, and a normal distribution of males and females are seen within the best and worst preserved stages. Appendix 2 also shows that stage of completeness within this assemblage is more correlated with truncation than taphonomic factors.

The incomplete nature of the assemblage will have a detrimental effect on the level of data available for collection.

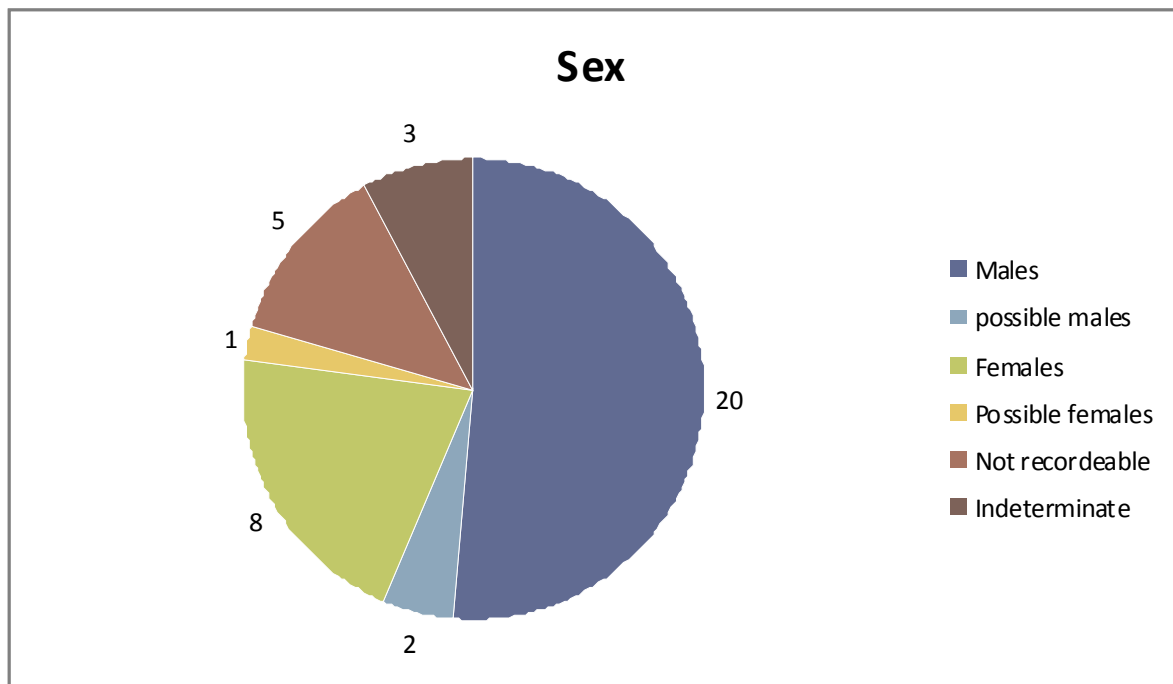
Demography

Sex

Chart 1 shows the total number of males, females, unsexed adults (not recordable), possible males and females and unsexed sub-adults (indeterminate). The assemblage appears to be dominated by males: including all possible males and possible females, the male to female ratio is 1: 0.40. However, the male count is still only 56% of the group and sex cannot be determined for 13% of the adult assemblage. The assemblage is also a sample of a much

larger population; therefore it is unclear whether it represents a real bias in the cemetery. What is clear is that the presence of both sexes and of subadults indicates that it represents the lay community and not a distinct ecclesiastical burial area linked to those from the minster.

Chart 1, Distribution of Sex



Age

Chart 2 summarises the distribution of age ranges identified. All but three individuals were adult, with the highest proportion occurring within the Prime Age Adult range. The only sub-adults recovered were juveniles, the youngest having a mean age of 12 and the remaining two having mean ages of 16 and 17. The lack of sub-adults, especially from below the age of 12 could suggest they were excluded, were it not for the presence of such representations within the disarticulated material and noted in the previous archaeological works in the area (see above). Their apparent absence from the articulated burials within this area could simply reflect sample bias and result from the level of heavy truncation; their bone is more fragile, they could have been buried shallower, and a modern intrusion that would remove part of an adult burial could easily remove an infant or child burial in its entirety. Due to the nature of disarticulated material and the limited information from earlier archaeological works, the original location of the younger sub-adults and through this evidence of possible segregation/zoning within the overall cemetery landscape is impossible to establish.

Chart 2, Frequency of Age Categories

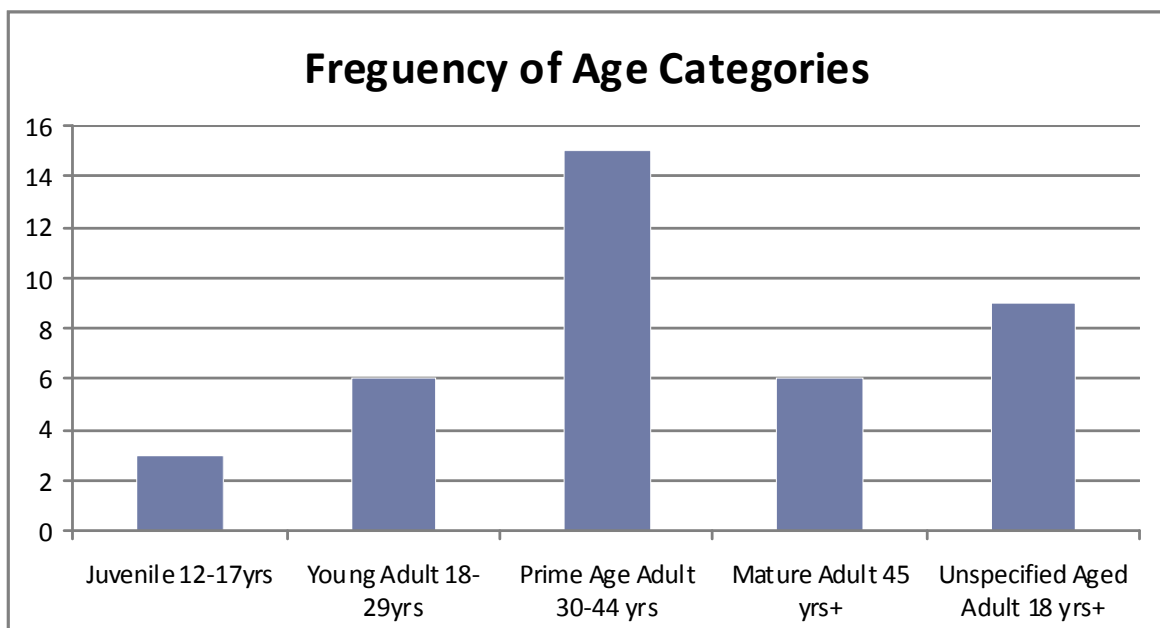
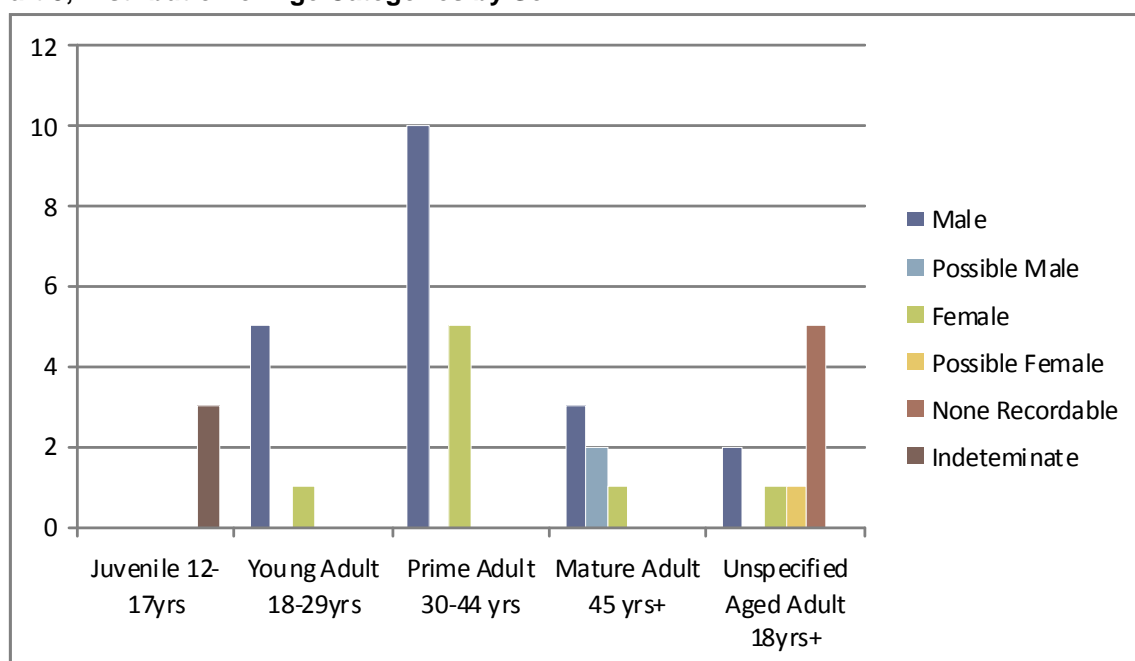


Chart 3 summarises the distribution of age categories by sex. As can be seen, males and females are found within all the adult categories, with the majority of individuals dying at a prime age. This graph highlights the problem of the large number of unsexed individuals that can only be assigned 'Adult' which will affect and bias all interpretations.

Chart 3, Distribution of Age Categories by Sex



Metric variation

Of the 36 adults within the assemblage, stature could only be estimated for 14 individuals. Female stature ranged between 1.53m-1.66m (5'1"-5'5") and male stature ranged between 1.64m-1.87m (5'5"-6'2"). Table 3 shows the mean statures for both sexes.

Table 3 Summary statistics for stature

Males			Females		
N	mean	Height	N	mean	Height
10	1.73m	5'8"	4	1.58m	5'3"

N= number of individuals. Height is to the nearest inch.

Table 3 shows that males on average were bigger than females, as would be expected. It also shows that the females from the cemetery are slightly smaller than the average 1.61m expected for an early medieval group, but that the male average is just higher than the 1.72m expected for an early medieval group (Robert and Manchester, 2010: 396).

Pathology

As stated above, the assemblage has been treated as a whole due to the lack of phasing. Furthermore, due to the small size of the assemblage and the limited number of females the pathological data has not been separated by sex. This data is available in the skeleton specific summaries and the primary record.

Below, the pathological evidence recorded in the assemblage has been separated into categories and the rates of prevalence discussed. This can be expressed in two ways: as the number of individuals expressing the pathology as a percentage of the total number of individuals from the assemblage or as the number of bones or teeth expressing the pathology as a percentage of the total number of that same skeletal element present. The former is more of an estimate and can be misleading as it does not account for the level of completeness of the individuals within the assemblage. However these counts are more representative when calculating rates of a pathology that is more generalised throughout the skeleton and are more commonly recorded throughout comparative literature. Where possible, both have been recorded but it should be noted that with small assemblages, particularly those known to be a sample from a much larger, though unspecified, group both are only indicators of the true rates.

Dental Pathologies

Of the 39 individuals, 13 had dental pathologies that were completely non-recordable due to the effects of truncation. All others showed at least one form of dental pathology (see Appendix 2). That left 26 individuals, 632 recordable sockets and 518 recordable teeth. 93 teeth had been lost post-mortem; 7 teeth (all third molars) were un-erupted/missing, and 26 teeth had been lost ante-mortem. A number of dental pathologies were recordable in the assemblage, with individuals expressing multiple conditions. This is because these diseases do not develop in isolation but are inter-linked with one condition often causing another.

Ante-mortem Tooth loss

Eleven individuals had lost a total of 26 (adult) teeth during their lifetime; 4.1% of the tooth sockets observable. This is lower than the average 8.0% from early medieval British cemeteries (Roberts and Manchester, 2010:74). This count does include the sub-adults who are much less likely to have lost teeth ante-mortem but even when they are discounted the rate is only 4.4%. It should be noted though that to be classed as ante-mortem loss, the tooth needs to be absent and the jaw showing evidence of healing. It is possible that a number of the teeth recorded as post-mortem losses were actually lost during the individual's lifetime but healing had yet to become apparent. Also, a number of the teeth within this assemblage were worn down to the roots, in some cases having lost part of the roots, but as they were still within the socket they were recorded as present. This low count of ante-mortem tooth loss could also relate to the age group of the individuals as loss increases with age and as shown above the group are predominantly young to prime aged.

Table 4, Location and frequencies of ante-mortem tooth loss

Left								Right								Tooth Position
8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	
1	1	2	1	0	0	0	0	0	0	0	0	1	3	0	2	No. Ante-mortem Loss
3	2	3	1	0	0	0	0	0	0	0	0	0	4	1	1	No. Ante-mortem Loss
8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	Tooth Position

Although tooth loss during life can be due to occupational or cultural processes, it can also be an additional sign of tooth decay; caries, abscess and periodontal disease can all lead to tooth loss. Table 4 shows that tooth loss was roughly even between the jaws and was most commonly recorded for the molars. This is not unusual as due to their location and shape they are more prone to retain food stuffs, are harder to clean and therefore most prone to conditions leading to tooth loss such as calculus and caries.

Root Exposure and Periodontal Disease

Exposure of the tooth roots and an increase in the distance between the cemento-enamel junction and alveolar bone (space between the base of the crown and the jaw line) can occur in response to high wear, which causes the teeth to continue erupting. High dental attrition, where the average wear for the teeth present was 5 and above, represented by large areas of dentine exposure and progressive enamel rim destruction, was visible on 11 (42%) of the recordable individuals. 9 of these individuals had the worst stage of wear, with complete crown obliteration and the remaining tooth taking on the shape of the root.

Root exposure can also occur due to the re-absorption of the alveolar bone (bone of the tooth socket surrounding the roots). Mild to pronounced alveolar re-absorption was seen on 65% of individuals (n17) not all of which had high tooth wear but all did have calculus; in some cases pronounced deposits. This material acts as a tissue irritant leading to an inflammation of the gums and can lead to periodontitis. This was manifested as horizontal and, in some cases, vertical re-absorption of the alveolar bone. Root exposure, through high attrition and periodontal disease can lead to tooth loss.

Dental Calculus

Dental calculus is the hardened plaque composed largely of bacteria and food substances found adhering to inadequately cleaned teeth. 25 of the 26 recordable individuals had calculus build up (to some degree) which is 82% (N424) of the recordable teeth expressing the pathology.

Calculus deposits were recorded across all teeth and were found both supra and sub-gingival (above and below the gum line), 2 individuals even expressed calculus on the occlusal (biting) surface of the teeth (Sk 4 and Sk 36). Supragingival calculus was more common with 23 of the individuals expressing it while only 19 displayed subgingival calculus. Deposits were found to range from slight to extensive, being slight to moderate on 12 individuals and more pronounced on 13 individuals.

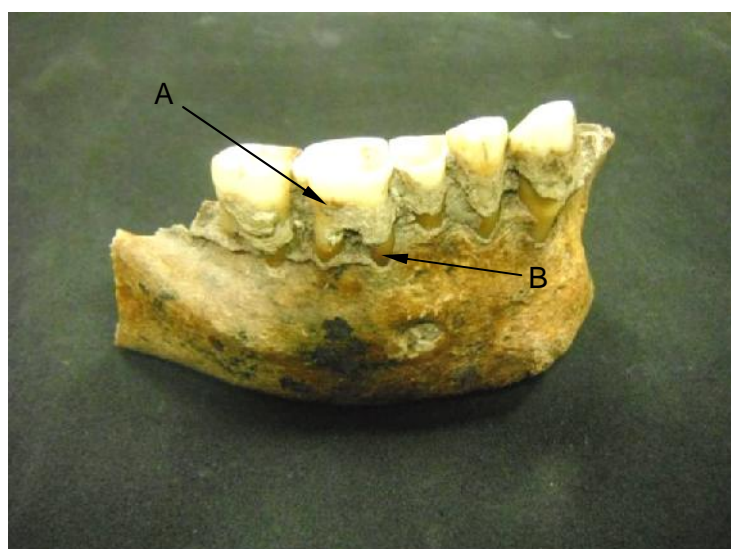


Plate 2: Sk 14, Right side of the Mandible. Pronounced subgingival calculus deposits can be seen on all the teeth (A). Note the root exposure also present (B).

Dental Caries

Dental caries are caused by the fermentation of food sugars, in particular sucrose, and by bacteria that occur in plaque. The acids produced demineralise the teeth, leaving cavities (Roberts and Manchester, 2010: 65).

Table 5, Location and frequencies of dental caries

Left								Right								Tooth Position
8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	
0	3	3	2	0	0	0	0	0	0	0	0	2	3	1	0	No. Dental Caries
2	3	2	4	1	0	0	1	1	0	0	0	2	3	3	1	No. Dental Caries
8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	Tooth Position

Caries were recorded in 15 of the recordable individuals; these were seen from small pinprick size to large >5mm and ranged from just within the enamel to well within the pulp cavity. A total of 37 caries were visible on 35 teeth which is 6.8% of the available teeth. This is a little high for the average 4.2% from early medieval British cemeteries (*ibid.*, 69). This could indicate this population's higher access to sugary foods but it should be noted this is simply an average in comparison to a wide variety of sites from a large bracket deemed 'early medieval'.

As can be seen in Table 5, the caries have formed predominantly on the molars and pre-molars, which is the common pattern (Brothwell 1981:154). As stated above due to the shape and location of these teeth they are most likely to retain food stuffs which can lead to the fermentation of the sugars and development of calculus which can lead to caries. For this population the caries are predominately seen at the cemento-enamel junction (where the tooth crown meets the root) so are likely to have been caused by calculus deposits formed in these areas. It should be noted though that the high wear rates in the dentition could have removed evidence for occlusal caries if they existed.

Dental Abscesses

When micro-organisms build up in the pulp cavity of a tooth the resulting action is a build up of pus or 'abscess'. Once enough pressure has built up, a hole, or sinus develops in the surface of the jaw (Roberts and Manchester, 2010:70). Evidence for abscesses was noted within the dentition of skeletons 4, 13, 25, 32 and 33. They were visible within the dentition of the maxilla and mandible. A total of 12 abscesses were noted which is 1.9% of the recordable sockets. This is slightly below the average 2.8% for early medieval British cemeteries (*ibid.*, 71). The distribution is roughly equal between the jaws and is seen on the

canines, premolars and most commonly on the molars. Given the nature of the causes and formation of abscesses this pattern is unsurprising.



Plate 3: Sk 33, Inferior view of the right side of the maxilla. The damage caused to the maxilla by an abscess of the 2nd molar can clearly be seen (Arrow). Note also the high tooth wear (Grades 6 to 8 shown).

Enamel Hypoplasia

Only 10 out of 26 scoreable individuals showed evidence of enamel hypoplasias, which are lines, pits or grooves on the enamel highlighting arrested enamel deposition during development. These are indicators of stress and can be due to illness or nutritional deficiency during childhood (Roberts and Manchester 2010:75). The hypoplasias in this assemblage were recorded on 52 teeth, which is 10% of the recordable teeth. These were visible as between 1-3 horizontal grooves on anterior teeth. Extensive hypoplasia grooves were seen on skeletons 4 and 25, where 12 and 13 teeth respectively expressed the pathology. This may suggest extensive periods of growth arrest during their development. It should be noted that this forms something of an osteological paradox where this does not necessarily reflect the low status of the individual but possibly the higher status as they survived such an insult during childhood.

Non-Dietary Usage

Cultural behaviours can alter dentitions (ornamental inlays, fillings etc) and some inadvertently caused by using the teeth as tools. Evidence of possible non-dietary usage of the teeth was recorded on Skeletons 2, 4, 10, 11, 13, 16, 17, 20, 25, 27, 29, 31, 32, 33, and 34. This was evident as unusual wear patterns (oblique) and chipping of the teeth (vertical grooves). The unintentional mutilation of teeth is commonly present on the anterior teeth that have been used as a third hand. Activities such as working vegetable or animal fibres wear the surface obliquely in the direction of the pulling force. Once the enamel of the crown has been worn down, secondary activities such as opening mollusc shells and nuts can lead to the remaining enamel flaking off in vertical voids (Aufderheide and Rodriguez-Martin, 2005:410).

Skeletal Pathologies

Skeletal pathologies visible in the assemblage include evidence of traumatic events, congenital defects and acquired pathologies in the form of infectious diseases, metabolic and deficiency disease, neoplastic conditions and joint disease. As with dental pathologies these are often linked, with one condition resulting from the formation of another. Examples of this will become clear below.

Trauma

Trauma was visible on only 14 individuals (12.9% of the assemblage), though due to the incomplete nature of the assemblage this number could be much higher. As Table 6 shows, trauma was seen on both males and females and was evident as fractures, the ossification of muscle tissue and weapon traumas. With the exception of Skeletons 8 and 16, all of the traumas showed evidence of bone response highlighting healing or the bodies compensating actions to the trauma.

Table 6, Summary of observed trauma

Sk	Sex	Age	Pathological Condition	% Indiv	% bones
3	M	AA	Left 5th metatarsal has a complete transverse healed fracture. Break through midshaft, bone is thickened on the dorsum surface. Broken through from planta to dorsum (direction of force -under the foot)	2.6 (n1)	0.4 (n1)
7	M	YA	Cut mark to the posterior of the right scapular blade. Runs diagonally superior-laterally to inferior-medially. Evidence of some healing and union but still partly open. Post-mortem damage prevents complete assessment.	2.6 (n1)	3.7 (n1)
8	F	YA	Fracture through the superior part of the auricular surface of the left of the sacrum. Evidence of healing but non-union of elements. Evidence of bone proliferation and destruction from bone to bone contact on both the sacrum and the 6th lumbar vertebra.	2.6 (n1)	4.5 (n1)
8	F	YA	Bilateral spondylolysis of the 12th thoracic vertebra, no signs of healing.	15.4 (n6)	8.2 (n8)
11	M	PA	Unilateral spondylolysis of the 5th lumbar vertebra. Fracture through the right pars interarticularis. Evidence of healing but non-union.	15.4 (n6)	8.2 (n8)
12	F	MA	Complete transverse fracture of the left acromion. Evidence of healing but non-union. The superior element was not recovered.	2.6 (n1)	3.7 (n1)
13	M	MA	Two complete transverse healed fractures of lower left ribs and two further healed fractures on unnumbered and unsided ribs. Fractures located at angle or just anterior medially to the angle (direction of force to the side of the back).	5.1 (n2)	1 (n5)
13	M	MA	Two depressed skull fractures. The first injury sustain to the left parietal is visible as a large oval of depressed bone that is well healed, with no fracture lines visible. The second injury is visible on the frontal and both parietals. The central depressed area is round and much smaller (thumb size) and is situated on the coronal suture just to the left of the bregma. The outer circular fracture lines are much larger and run over the frontal and both parietals, including across the earlier injury. Two radiating fracture lines are visible, one on the left parietal and one on the frontal. The central depressed area and anterior fracture lines are fused and the bone is thickened and bulbous but elements of the posterior of the fracture are unhealed.	2.6 (n1)	11.8 (n2)
13	M	MA	Compression fracture of 12th thoracic vertebra.	2.6 (n1)	4.8 (n1)

Sk	Sex	Age	Pathological Condition	% Indiv	% bones
16	M	PA	Complete transverse fracture of the atlas. Fracture through the right anterior arch and partially through the superior facet. No signs of healing but not obviously (late) post-mortem. Occurred during reburial?	2.6 (n1)	4.5 (n1)
17	M	MA	Complete transverse fracture on unnumbered right rib fragment. Bone healed shortened and thickened with bony spurs on the superior edge.	5.1 (n2)	1 (n5)
17	M	MA	Unilateral spondylolysis of the 5th lumbar vertebra. Fracture through the right pars interarticularis. Evidence of healing but non-union.	15.4 (n6)	8.2 (n8)
20	M	YA	Damage to the left pubic symphysis. Post-mortem damage obscures the detail of the cause but a fragment of the face is missing, subchondral bone and secondary osteoarthritis with bone growth and eburnation is visible.	2.6 (n1)	3.1 (n1)
20	M	YA	Bilateral spondylolysis of the 5th lumbar vertebra. Fracture through the pars interarticularis with evidence of healing but non-union.	15.4 (n6)	8.2 (n8)
25	M	MA	Complete transverse fracture of the styloid process of the left 3rd metacarpal, tip missing. End shows healing and secondary osteoarthritis but the fractured tip is united and was not recovered.	2.6 (n1)	0.4 (n1)
27	F	PA	Bilateral spondylolysis of the 3rd, 4th and 5th lumbar vertebrae. Fracture through the pars interarticularis with evidence of healing but non-union of parts.	15.4 (n6)	8.2 (n8)
29	M	PA	Myositis ossificans (traumatic). A small triangular bone spur is visible on the medial posterior of the right tibia, along with a large elongated bone spur also on the posterior right tibia but located laterally. These are located at muscle attachment sites and represent ossification of the muscle tissue due to injury.	5.1 (n2)	/
31	F	PA	Myositis ossificans (traumatic). An irregular oval bone formation on the midshaft medial side of the right humerus. This is located at a muscle attachment site and represents the ossification of the muscle tissue due to injury.	5.1 (n2)	/
34	M	PA	Osteochondritis Dissecans. Destructive oval lesion on the medial condyle of the right femur. Sharp edge, rough bottom. This joint collapse is caused by death of the bone tissue of the joint and usually has a traumatic cause.	2.6 (n1)	2.3 (n1)
35	M	YA	Bilateral spondylolysis of the 5th lumbar vertebra. Fracture through pars interarticularis and down to the right of the spinous process. Separates the vertebra into three pieces; the top and left and right. Evidence of healing but non-union.	15.4 (n6)	8.2 (n8)

Table 6 highlights that the most commonly occurring condition (in terms of % of individuals) is spondylolysis, the separation of vertebra into two parts, or in the case of Skeleton 35, three parts. It is unilateral or bilateral, most commonly in the 5th lumbar but is also seen here in the 3rd and 4th lumbar and the 12th thoracic. It is thought to be caused by the recurrent stresses of bending and lifting, acute injury or may represent a congenital weakness in the vertebrae (Roberts and Manchester, 2010, 106).



Plate 4: Sk 27, 3rd, 4th and 5th lumbar vertebrae. Upper segments viewed from above, lower segments viewed from the back. The bilateral fractures can clearly be seen (Arrows). Bone response is evident but no union has occurred due to the constant movement of the two halves.

This is followed by myositis ossificans traumatica (soft tissue trauma). This occurs where the muscle tissue has been involved in a trauma, with the resulting hematoma interacting with the bones' periosteum and calcification of the tissue occurring. Equally as common are rib fractures: these can purely be evidence of a physically demanding, risk-prone life but can also be evidence of interpersonal violence, as can fractures to the metacarpals and phalanges as representations of defensive injuries (Roberts and Manchester, 2010: 104-105).



Plate 5: Sk 13 Rib fracture viewed from superior internal side. The arrow indicates the area of healing.

It is evidence of interpersonal violence that is the most interesting outcome from the analysis of trauma on the assemblage. In addition to fractured ribs seen in Skeletons 13 and 17, a blade wound to the posterior of the right scapula of Skeleton 7 has been recorded. This injury appeared to be caused from a blow from the back with a directional force downwards from the outer shoulder towards the spine. The wound was not fully healed at the time of death.

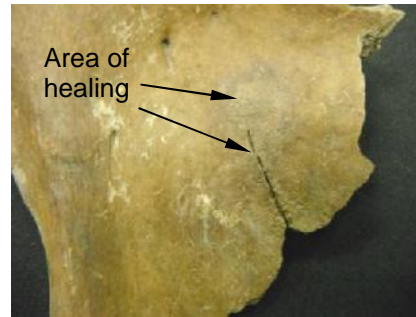


Plate 6: Sk 7 Left: Right scapula from the anterior with the cut mark indicated (arrow). **Above:** shows close up of cut and healing evident. Cut visible through bone, direction from the posterior. From superior lateral to inferior medial.

The most obvious evidence of interpersonal violence was recorded on Skeleton 13. In addition to the rib fractures were two depressed skull fractures, one of which was well healed, the second of which was still healing at the time of death. Skull injuries are usually the result of hand-to-hand combat, usually located on the left side of the skull resulting from face-to-face combat with a right handed attacker (Roberts and Manchester, 2010:109). Skeleton 13, had suffered two blunt traumas, one to the left parietal (skull bone above the ear) that was struck from the front and a second still focused to the left of the skull but a lot more central and superior. In this instance the attacker would appear to have had the advantage of height. The wounds differ in size and shape so different weapons were used to inflict the damage but weapons such as the mace or battle hammers are known to cause depressed fractures (Wells, 1964). Depressed fractures can often lead to brain damage and other complications leading to death (Roberts and Manchester, 2010: 113). The second injury had not fully healed at the time of death, so could have been a contributing factor in this individual's demise.

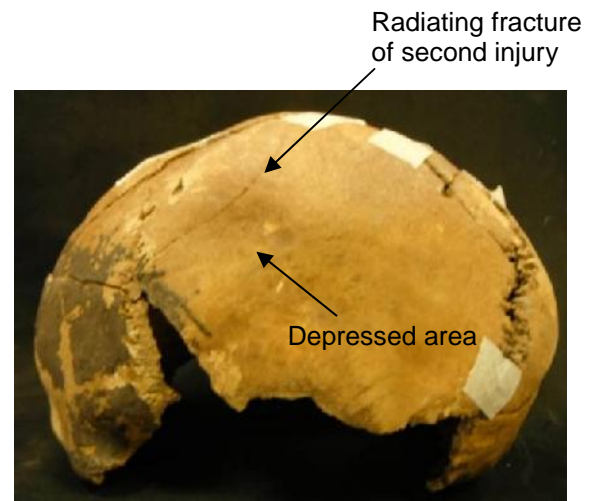


Plate 7: Sk 13. Left: Cranium from above. The small depressed area of the 2nd injury can be seen (red arrows). The much larger external area of the depressed fracture is also visible (black arrows). The green arrow indicates the position of the 1st depressed fracture and the white arrow highlights the area of most post-mortem damage and 'tar' deposits. **Above:** Cranium from the left side, showing the 1st injury with the healed fracture line of the 2nd injury running across it.

Congenital or developmental abnormalities occur in both the soft and skeletal tissues, commencing during foetal development which present at birth or during developmental years. They range from minor anomalies that will not affect the individual's life to severe cases which could ultimately lead to death (Roberts and Manchester 2010, 44). A number of possible congenital pathologies were noted within the assemblage, but the majority of these would have had little adverse affect on the individuals' lives.

Table 7: Summary of Congenital Abnormalities

Pathological Condition	Sk No showing condition	% Individuals	% bones
Supernumerary vertebra. Addition vertebra present beyond 7 cervical, 12 thoracic and 5 lumbar. In these cases an extra Lumbar vertebra- L6 is present.	8, 15, 20, 31 & 34	1.6 (n5)	/
Sacralisation of the lowest lumbar vertebra. The lowest lumbar vertebra takes on characteristics of the 1st sacral vertebra and can become fused to the sacrum. Sk 8 is unfused, and unilateral. Sk 34 is partially fused and bilateral.	8 & 34	5.1 (n2)	/
Coccyx sacralisation. The coccyx becomes fused to the base of the sacrum.	7	2.6 (n1)	/
Asymmetry of the sacrum and lowest lumbar vertebra. Sk 2 has asymmetrical lower facets and tilted spinous process (L5) with corresponding asymmetrical superior facets of S1. Sk 8 has asymmetrical L6 with partial sacralisation this has caused asymmetry of auricular surface of sacrum and pelvis.	2 & 8	5.1 (n2)	/
Transitional vertebra. The vertebrae take on characteristics of vertebra from different sections of the column. In this case a lumbar vertebra retains upper facet characteristics of thoracic vertebra.	31	2.6 (n1)	/
Spina bifida occulta. The incomplete fusion of the posterior neural arches of the sacrum. Sk 2 is completely open from S1-S5 while Sk 11 is partially open beyond S1 into S2.	2 & 11	5.1 (n2)	15 (n3)
Supernumerary ribs. Presents more than 12 ribs. Sk 2 has an additional 1, Sk 29 has an additional 2.	2 & 29	5.1 (n2)	/
Abnormality of the calcaneus and navicular both sides (bones of the foot). The calcaneus is shorter than expected and missing anterior facet, the navicular is also an unusual shape and larger- possibly compensating action for the calcaneus. Degeneration of the joint on both bones.	22	2.6 (n1)	2.4 (n2)
Abnormality of the intermediate phalanges of the feet. The phalanges are more stunted than expected and the heads of the bones were missing their distinctive groove and condyles. Those from 3-5th digits have become almost disc like.	23	2.6 (n1)	24 (6)
Congenital absence of 3rd molars	3, 17 & 35	7.7 (n3)	/

Table 7 shows that 15 individuals (38.5% of the assemblage) expressed evidence of potential developmental anomalies. Only 3 abnormalities are extra-spinal, 2 seen in the feet and 1 potentially in the dentition. The lack of third molars was seen in 3 adults (11.5% of the individuals with recordable dentition). Third molars often fail to erupt, but without radiographic evidence it is unclear whether they are congenitally absent or simply unerupted (Mays, 2010:162). Table 7 also shows that a number of the individuals expressed more than one anomaly, which are most probably linked. For example skeletons 8 and 34 have additional lumbar vertebrae, which have become fused to the sacrum during later development and, in the case of skeleton 8, have produced asymmetry of the lower spine and pelvic girdle.

The majority of the conditions would lack symptoms, with the exception of the asymmetry seen in Skeleton 2 and 8. Here the asymmetry caused, in skeleton 8 by the sacralisation of the 6th lumbar vertebra, and the spina bifida occulta in skeleton 2 would have caused a

lateral shift in the lower spine and mild curve (scoliosis), though the extent to which this would have been visible in the individual is unclear.

In addition to those congenital defects listed in Table 7 spondylosis should also be noted here because, as mentioned above, it could possibly be a congenital weakness that is affected by trauma.



Plate 8: Sk 2, Left: Posterior view of the sacrum. The incomplete fusion of the posterior neural arch of the 1st-5th sacral units is visible (black arrow). Note also the asymmetrical upper facets (white arrow).

Plate 9: Sk 8, Above: Anterior view of the sacrum showing the unfused unilateral asymmetrical sacralisation of the 6th Lumbar. Note the fracture of the superior part of the left auricular surface (white arrow).

Infectious Disease

Infectious disease covers a wide variety of conditions which affect both the soft and skeletal tissue. Obviously only those infections that affect skeletal material and those individuals who have survived long enough for changes to occur will have been noted here. Infections are recorded as specific, where the characteristics and distribution patterns of lesions can lead to an accurate diagnosis or non specific where the characteristics are too generalised to a number of causes and the distribution patterns are not specific to a cause or skeletal elements are lacking (Roberts 2002).

Table 8: Evidence for infections

Sk No.	Sex	Age	Pathological Condition	% Individuals
4	M	AA	New bone deposits on the proximal 3rd of the anterior, medial and posterior of both femurs (upper legs). Visible as woven (active) and lamellar (healed) on the right and lamellar (healed) bone only on the left.	5.1 (n2)
8	F	YA	Small patch of woven (active) bone on the right temporal bone (bone by ear).	2.6 (n1)

Sk No.	Sex	Age	Pathological Condition	% Individuals
12	F	MA	Abnormality of the shape of both ulnae (lower arm bones). The midshaft and proximal shaft are bulbous and thickened in two distinct areas (left), slightly lower down on the shaft of the right ulna. Possible indication of internal bone infection (Osteomyelitis but without discharge hole?)	2.6 (n1)
13	M	MA	Extensive woven (active) bone on the right posterior scapular blade (shoulder blade) along lateral border, some lamellar (healed) bone present.	2.6 (n1)
13	M	MA	Extensive woven (active) bone visible along anterior border and medial shaft of right tibia (lower leg).	5.1 (n2)
13	M	MA	Extensive woven and lamellar bone (active and healed) on midshaft and medial side of right fibula (lower leg), moderate on the lateral proximal and midshaft.	2.6 (n1)
13	M	MA	Mild patches of woven and lamellar (active and healed) bone on the posterior of the left ilium blade (pelvis).	2.6 (n1)
13	M	MA	Moderate woven (active) bone on the internal surface of an upper right rib and woven and lamellar deposits (active and healed) on 10 further unnumbered, unsided rib fragments.	5.1 (n2)
13	M	MA	Mild woven bone (active) on the anterior proximal shaft of the right femur (upper leg) and lamellar bone (healed) on the posterior of the neck.	5.1 (n2)
14	M	PA	Moderate to pronounced lamellar (healed) bone visible on the anterior of the sacral bodies S2-S4.	2.6 (n1)
17	M	MA	Pronounced woven (active) bone on the ventral surface of the left pubis (pelvic bone), visible the length of the symphysis from the ventral rim to the obturator foramen.	5.1 (n2)
20	M	YA	Moderate lamellar bone (healed) on the medial body of the pubis (pelvic bone).	5.1 (n2)
33	M	PA	Pronounced woven bone (active) with mild lamellar bone (healed) on the medial side of the distal 3rd of the left tibia (lower leg).	5.1 (n2)
36	?	JU	Mild lamellar (healed) bone on the superior edge of two upper left ribs.	5.1 (n2)

Table 8 shows that only 9 individuals expressed evidence of infection (23% of the assemblage). These were both active and healed at the time of death and occur in a variety of skeletal elements. Unfortunately none of the evidence leads to specific diagnosis, having a variety of possible causes. Combined with evidence seen on the rest of the skeletons it is possible that the infections noted on some of the individuals is secondary to trauma. For example as discussed earlier Skeleton 13 expressed two depressed skull fractures and a number of broken ribs, and these would give ample opportunity for infection to enter and spread.



Plate 10: Sk 13, right fibula showing woven and lamellar bone.

Metabolic and Deficiency Diseases

Metabolic and deficiency diseases are a classification of diseases that interrupt the normal formation or remodelling of bone and are caused by a failure to obtain adequate levels of various vitamins and minerals. It includes a number of diseases such as scurvy and rickets (Brickley, 2002).

The only skeletal evidence for deficiency recorded within the assemblage was cribra orbitalia, seen on skeletons 2, 9 and 20 (7.8% of the assemblage and 15.6% of orbits) and cranial porotic hypostosis, seen on skeletons 2, 9, 13, 20, 21, 25, 29 and 36 (4.2% of the assemblage and 20.5% of the parietals and occipitals). These conditions, evident as porosity in the orbital roofs or cranial elements (usually the occipital and parietal bones), are thought to represent a non-fatal assault on the body, possibly caused by iron deficiency or bacterial infection at some point during childhood. It should be noted that Skeletons 20, 21, 25, 29 and 36 also express enamel hypoplasia which as discussed above can also indicate nutritional deficiency.

Processing from the samples of three of the skeletons provided evidence for the presence of intestinal worms. *Ascaris* Spp, a small intestinal roundworm was seen in samples from Skeleton 24 and 17 and *Thricuris* Spp a lower intestinal whip worm was seen in samples from Skeleton 16 (Appendix 17). These worms can compromise nutritional status but there was no skeletal evidence of such an effect on the related skeletons. The infections could have been insufficient to leave skeletal evidence such as responses to anaemia. Equally, it cannot be ruled out that the evidence present may not have related to these individuals at all; Skeleton 17 and 24 for example were heavily truncated by later pits.

Neoplastic Diseases

Neoplasms are masses of localised tissue growth whose expansion is no longer subject to the effects of normal growth regulating mechanisms (Aufderheide and Rodriguez-Martin, 1998, 371). These 'tumours' can be benign or malignant. Only two examples of neoplasms were seen in the assemblage (5.1% of the assemblage). Skeleton 10 expressed a very small round smooth bone formation on the left parietal (left side of the skull): this button osteoma is a benign bone formation and would not have had an negative impact on the individuals life. Skeleton 6 expressed a smooth 'tear drop' shaped bone formation on the lateral posterior aspect of the distal left femur (outside back of the lower thigh bone). It is unclear what caused this but it could represent another benign tumour.

Joint disease

Degenerative age related changes were the most common conditions visible in the assemblage, evident as bone degeneration (porosity and destructive lesions) or bone proliferation (osteophytes). Degenerative joint disease (DJD) was seen on 31 of the individuals (79.5% of the assemblage) and was seen at various joints throughout the skeletons. A record of these bony changes have been recorded in the primary record, including type, location and extent and Appendix 2 includes a list of those skeletons where changes have been seen but due to the extent of detail and limitations on space they are not discussed further here.

These skeletal changes; porosity, destructive lesions and osteophytes can also be an expression of a specific pathology, but only when seen in conjunction together or with additional conditions were tentative diagnoses assigned. Below the joint diseases recorded in the assemblage have been split into spinal and extra-spinal conditions.

Spinal Joint Disease

Table 9 Summary of spinal joint disease

Joint disease	% of total individuals (adult)	% of total vertebrae	% of cervical vertebrae	% of thoracic vertebrae	% of lumbar vertebra	% of 1 st sacral vertebrae
DDD	64 (n23)	36.7 (n211)	14.4 (n29)	52.5 (n128)	40.6 (n43)	47.8 (n11)
Schmorls nodes	53 (n19)	26 (149)	0.5 (1)	37.3 (n91)	52.8 (n56)	4.3 (n1)
Osteoarthritis	55.5 (n20)	9.9 (n57)	10.9 (n22)	11.5 (n28)	5.7 (n6)	4.3 (n1)

NB: The spinal joint disease has been calculated based on the adult counts alone (N 36)

Table 9 shows that degenerative disc disease (DDD) or spondylosis was the most common of the spinal joint diseases. This condition is caused when the intervertebral discs degenerate permitting the bones to contact one another, causing irritation which results in marginal osteophytes, coarse pitting and new bone growth on the surface of the vertebral bodies (Aufderheide and Rodriguez-martin, 2005,96). This degeneration of the discs is thought to be caused by the constant stresses of bending and lifting and so is closely connected to physical lifestyle and simple advancing of age (Roberts and Manchester, 2010: 139). These ranged from mild to extensive and were most common on the thoracic vertebrae.

Schmorl's nodes are frequently associated and are evident as indentations in the upper and lower surface of the vertebral bodies; these lesions are caused by vertical herniation of the disc material (Ibid, 140). These ranged from small to large and were most common on the lumbar vertebrae.



Plate 11: Sk 25, superior view of the 1st sacral vertebra. The extensive osteophytes on the superior right margin can clearly be seen (black arrow). Note also the porosity of the body surface.

Osteoarthritis also occurs in the spine, at the apophyseal joints (facets). This was the least common and was found most frequently on the cervical and thoracic vertebrae. It was recorded as present if eburnation (polishing) alone was evident, osteophytes and porosity were seen together or all three recorded.



Plate 12: Sk 33, Osteoarthritis of the apophyseal joints of two cervical vertebrae (black arrows). Note it is more pronounced on the left facets.

Extra-spinal Joint Disease

Osteoarthritis

The only specific extra-spinal joint disease recorded was osteoarthritis. Osteoarthritis involves damage to the cartilage at a synovial joint, and is characterised by osteophytes, porosity and eburnation (Rogers, 2002:166). As with spinal osteoarthritis it was recorded as present on eburnation (polishing) alone, where porosity and osteophytes were recorded together or where all three were seen.

Osteoarthritis was visible on 13 of the individuals (36.1 % of the adult assemblage) and was found at the jaw, collar bone, shoulder, elbow, wrist, hand, hip, knee and foot. A number of individuals displayed evidence for the condition at a number of joints.

Table 10 Summary of joint osteoarthritis

Joint	Bone elements	Skeleton number	% of individuals (adult)	% of bones
Wrist	Radius/Ulna (Distal)	1 & 33	5.5 (n2)	2.5 (n2)
Elbow	Humerus/ulna	1 & 16,	5.5 (n2)	3.7 (n3)
Elbow	Radius/Ulna (Proximal)	16,	2.8 (n1)	4.9 (n2)
Shoulder	Glenoid/Humerus	3, 7, 17, 32 & 33	13.9 (n5)	8.5 (n6)
Shoulder	Acromion/Clavicle	32	2.8 (n1)	2.7 (n2)
Knee	Femur/tibia	3	2.8 (n1)	2.3 (n2)
Knee	Patella/femur	16 & 24	5.5 (n2)	2.5 (n2)
Knee	Tibia/fibula	29	2.8 (n1)	6.7 (n4)
Hip	Femur/acetabulum	29, 33 & 38	8.3 (n3)	5.6 (n4)
Collar bone	Clavicle/Manubrium	24	2.8 (n1)	2.1 (n1)
Hand (finger)	Proximal/Intermediate phalanx	33	2.8 (n1)	1.9 (n1)
Thumb	1st Metacarpal/proximal phalanx	13	2.8 (n1)	3.1 (n1)
Big Toe	1st Metatarsal/proximal phalanx	14	2.8 (n1)	2.4 (n2)
Jaw	Temporal/Mandible	4 & 14	5.5 (n2)	5.3 (n2)

NB: Osteoarthritis has been calculated in relation to the adult counts alone (n36). % of bones relates to the number of specific joint bones. The bone elements listed indicate the joint represented- not that the pathology was visible on both bones at the joint.

Table 10 shows the joints affected by osteoarthritis and the prevalence rates. Osteoarthritis was most commonly seen at the shoulder, glenoid/humerus joint (where the arm meets the shoulder blade) and least common at the clavicle/manubrium (where the collar bone meets the breast bone). Osteoarthritis is the most common form of joint disease and due to its degenerative nature is highly correlated with age; however other factors such as a strong genetic predisposition, obesity, underlying trauma, other diseases that cause joint damage activity and lifestyle all contribute to its development (Roberts and Manchester, 2010:138).



Plate 13: Sk 33, Osteoarthritis expressed as marginal osteophytes and porosity visible in the base of an intermediate phalanx.

Musculo-Skeletal Stress Markers

The musculo-skeletal markers at tendon and ligament insertion sites may indicate the use of specific muscles or groups of muscles and so highlight common movements and activities an individual has undertaken. These markers were visible as pitting/lesions or as enthesophytes (bone destruction or development). They were recorded on the arms, legs, clavicles and feet. Size difference was also seen in a number of bones, the clavicle for example, possibly indicating handedness in a number of individuals. These markers were visible in both sexes, though more commonly in males. They were more often recorded on the upper body, on the upper arm and most frequent on the right side of the body. The most common locations from the upper body were the sites for pectoralis major (4 individuals/9 sites) and the costoclavicular ligament (4 individuals/6 sites). The most common site on the lower body was the ligament of the femur head (4 individuals/7 sites). The pectoralis major is responsible for adducting, medially rotating, flexing and extending the upper arm. Obviously a number of factors can influence the production of these markers and a number of actions can be carried out using these.

Discussion

The Southwell assemblage derives from a formal Christian cemetery; potentially related, though not conclusively linked, to an early minster. It comprises a sub-sample from a larger cemetery, potentially in excess of 328 burials, dating to the 7th-9th century. Late 7th-9th century cemeteries of any size have rarely been excavated in the East Midlands, and no middle Saxon church or monastic sites are recorded with certainty from Nottinghamshire, so its discovery and excavation is important (East Midlands Archaeological Research Framework).

Unfortunately, due to the targeted nature and limited archaeological coverage of previous works that have yielded funerary evidence, it is unclear what the extent of the cemetery is and what length of use the burials seen represent. A foundation and disuse date and information regarding the possible expansion and retraction of the cemetery site cannot be tracked, though this has been suggested in other ways.

To the east of a formal burial area, the 1959 excavation yielded linear features, truncating the Roman remains, which had been backfilled with partially articulated human remains and a 'deviant' burial which Daniels interpreted as possibly bodies denied proper internment, indicating the limit of consecrated ground and a limit to the formal cemetery, though unfortunately could not provide a date for this. It is possible that this represented a limit to the 'formal' cemetery at the time with a deviant burial at its limits but equally it is possible that these are simply disturbed remains and that the 'deviant' burial is not deviant at all.

This 'deviant' burial was recorded as being 'pierced at the shoulders, ankles and heart with iron studs' (Daniels 1966, 25). It has since been sensationally described as a 'vampire' burial (The Telegraph-online). It is not the purpose of this report to re-assess this burial and as it was presumably left *in-situ* all interpretations are based solely on a reproduction of a plan, a drawing of the studs and a grainy photograph. It should be noted that the burial was supine, extended, east-west (head in the west), with hands in the pelvis and as such does not deviate from the 'norm'. It is not clear what is meant by 'pierced', as the studs that 'stake' the burial were only 3 inches long (unlikely to be a sufficient length to pin a body), and most appear to have a head at either end (no sharp point). The report does not record whether any trauma (holes through bones) was noted and it is not uncommon for coffin nails to become adhered to bone within the burial environment. Given the existence of 'normal' burials to the east and west it is likely that this burial reflects a continuation of the formal cemetery and that the disarticulated remains near it derive from disturbed/ truncated burials.

The 2009 evaluation revealed a large Roman wall within a large cut feature running northwest-southeast across the eastern part of the site, the north-western side of which was

backfilled but the south-eastern side left open, forming a terrace that was backfilled much later (containing finds from the late Saxon/medieval period). This clearly formed a barrier and may have once been the limit of the cemetery. It is interesting to note that both the carbon dates available for burials to east of the wall date to the 7th-9th century, so burials were being undertaken whilst this feature was open. The burials east of the open feature are not 'deviant' and conform to those seen on the west so it is unlikely that this barrier was a significant divide but rather an existing landscape feature that necessity caused the cemetery to expand over.

As stated above it is currently impossible to track the exact course and development of the cemetery and there is not the space here to attempt further interpretation, but the funerary landscape and development of Southwell is clearly an area worthy of future research, and any further excavations within the area could improve this situation greatly.

The burial practices examined are not wide ranging, indicating coffins and shrouds, but the level of information lost due to truncation could greatly have affected this. Although the data and space for research and discussion here is limited, the apparent 'reburial' of a number of individuals is interesting.

The assemblage itself, although small, was reasonably well preserved with fragmentation and truncation causing the most issues with a detrimental effect on the quantity and quality of osteological data. This is clearest in the effect of the demographic profile and the inferences that can be drawn. The disarticulated material does, however, indicate the presence of a full demographic profile, and this is supported by previous discoveries from the surrounding area. What is unclear, though, is whether there was separation within the overall area regarding age, as has been observed within some Saxon cemeteries. For example the practice of burying the very youngest members of communities (those under 2) clustered around the walls of churches has been identified at a number of later Anglo-Saxon cemeteries such as Raunds (Boddington, 1996: 54-5 cited in Hadley, 2010:109).

The analysis recorded the average heights for males and females, indicated poor dental health, presence of congenital abnormalities, infectious, neoplastic and deficiency illnesses and most commonly joint disease. Trauma was also evident in relatively low levels and within this, most interestingly, evidence of interpersonal violence was recorded.

Prevalence rates were recordable in terms of general (individual expressing) and specific counts (total bones). Unfortunately without (local) comparatives, it is not possible to put the assemblage into true context. Throughout the report, the assemblage has been compared (where possible) to the British averages for the 'early medieval period' but there are limitations to drawing inferences based on this wide bracket of data. The data for this site is summarised in this report and retained in the primary record, so with future excavations in Nottinghamshire this site could be re-evaluated in context to contemporary sites or the potential comparisons to contemporary minster sites nationally could be researched.

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Appendix 13.1: Methodology of Osteological Analysis

Preservation and Completeness

An inventory for each inhumation was carried out, recording percentage of each bone present or for long bones which segment and joint surfaces were present. This allowed a better understanding of what the skeleton consisted of and allowed a proper analysis to take place. A dental inventory, recording whether teeth were present or absent, was carried out. This inventory noted whether those present still maintained their crown or whether just the root remained, whether those lost were lost ante- or post-mortem, and whether any teeth were still erupting. The overall degree of completeness was then recorded.

For this six stages were devised, ranging from 1, the most complete to 6, the least complete. The following stages were used:

Stage 1= >95%

Stage 2= 75<95%

Stage 3= 50<75%

Stage 4= 25<50%

Stage 5= 5<25%

Stage 6= <5%

Each skeleton was then assessed for its state of preservation in order to record its level of bone surface erosion and fragmentation. Again six stages of preservation (after IFA, 2004) were devised, ranging from 0, where the bone is still strong with no modifications of the surface or fragmentation to 5, where the bone is very fragile with a highly eroded surface and is highly fragmented.

Sex Estimation

As males and females differ in both size and shape, sex was determined in adults using both measurements of dimorphic dimensions and visual assessment of dimorphic aspects of the pelvis and skull (Measurements following Bass 1976) (Aspects following Schwartz, 1995; Ferembach et al, 1980; Krogman and Iscan, 1986; Phenice, 1969; Loth and Henneberg, 1996). No estimation of sex is made for sub-adult remains, as the sexually diagnostic characteristics are often quite ambiguous before puberty.

Age Estimation

In adults, age was estimated based on the ephyseal fusion of late fusing skeletal elements such as the clavicles and the sacrum (Schwartz, 1995), dental wear (Brothwell, 1981., Miles, 1962), ectocranial suture closure (Meindl and Lovejoy, 1985), age related change to the sternal end of the upper ribs (Iscan and Loth, 1986), pubic symphysis (Brooks and Suchey, 1990) and the auricular surface (Lovejoy et al 1985; Buckberry and Chamberlain, 2002).

In sub-adults, age was estimated based on ephyseal fusion of the available bones (Scheuer and Black, 2001) and dental development and eruption (Ubelaker 1978). Where possible multivariant analysis was utilised for both the adult and sub-adult remains, however, due to preservation or completeness this was not always possible.

The separate age estimates from different aspects of a single skeleton were combined to produce a summary age estimate, which is defined as an average of the separate estimates.

This produced an age in years; however, due to the inherent risk of under- or over-aging, the individual's age brackets for life stages were also recorded.

These age brackets were defined as:

FE (fetus)

NE (neonate-11 months)

I (infant/young child: 1-5years)

C (child: 6-11 years)

JU (juvenile: 12-17 years)

YA (young adult: 18-29 years)

PA (prime adult: 30-44 years)

MA (mature adult: 45-)

AA (adult: age unspecified)

Metric Data

Twenty-five post cranial metrics were recorded bilaterally, where possible, for each skeleton and a further twenty-one bilateral and unilateral cranial measurements were also recorded following Bass, 1978. These metrics help to analysis stature and sex and to highlight pathological and cultural processes that have acted on the bones.

Stature

Stature was estimated for the all the adults of the assemblage where at least one long bone from the lower limb had survived complete (where sex and age could be determined). The estimation was carried out using Trotter (1970). Stature was estimated using the median of lower limb bones only as the margin for error is less for these bones.

Non-Metrics

Non- metric variants were recorded for the post cranial, cranial and dental elements, where possible, for each skeleton. The presence, absence or instances when the observable trait could not be assessed were recorded for each unilateral and bilateral trait. For the skull the non-metric variants of Berry and Berry (1967) were recorded. For the post cranial skeleton the variants of Finnegan (1978) were recorded and for the dental elements the variants of Turner, Nichol and Scott (1991) were recorded. The non metrics for this assemblage were recorded so as to provide a full catalogue of information gleaned from this source so that it is available to future studies. This information is retained in the primary record.

Pathologies

Skeletal and dental pathologies and evidence for trauma form an integral part of understanding the lifestyles of individuals and the population under study as a whole. They can provide valuable insights into the dynamics of the working populations, especially when related to demographic information.

Each skeleton from the assemblage was visually assessed for evidence of skeletal and dental congenital and acquired abnormalities. Detailed descriptions including location and degree of severity were then recorded for those abnormalities noted. This information was

then used to provide tentative diagnoses, using Aufderheide and Rodriguez-Martin 1998. The specifics for recording and grading each pathology follow published guidelines from various authors and are contained within 'Key to recording terminology' and is included with the primary record.

Dental wear

Level of dental wear was recorded for all the teeth present (After Smith 1984).

Disarticulated Material

An inventory for the disarticulated material recording context, skeletal element, side, preservation, age bracket, sex and pathology was undertaken, using the methods detailed above. The minimum number of individuals (MNI) that the material represented was then determined. This was determined by the number of repeat elements within the assemblage taking into account age. The contextual information is usually pertinent to this task as the spatial and stratigraphic details will influence the counts, however due to the intercutting and redeposition encountered on site the MNI is by entire assemblage.

Appendix 13.2: Skeleton-Specific Summary

Sk	% comp	Skeletal Regions	Nº of teeth	Pres	Sex	Age Bracket	Mean Age	Stature	Dental Pathology	Skeletal Pathology	Funerary Context	Truncation
1	25<50	Lower section of upper limbs, hands, pelvic girdle, lower vertebral column, torso, upper section of lower limbs and feet	0 recovered all NR	1	M?	MA	50	NR	NR	AK of intermediate/distal foot phalanx, OA	E-W Inhumation. Supine and extended, arms extended at sides- burial suffering some disarticulation due to truncation. Possible shroud burial?	Truncated from pelvis up by school wall and truncated from knees to ankles by land drain
2	50<75	Cranium, left pectoral girdle, left torso, vertebral column, pelvic girdle, left upper limb and left hand	19 present, 2 Am loss, 8 Pm loss, 3NR	1	M	PA	38	NR	CAL, PER, NDU	Complete SBO, CO, CPH, DDD, SCH, OA, DJD, MSM, SR, ASY 5th lumbar and sacrum	E-W Inhumation. Supine and extended, head facing north, left arm bent at elbow with hand at pelvis	Truncated along right side by school wall and from pelvis down by ditch [039].
3	75<95	Cranium, pectoral girdles, torso, vertebral column, pelvic girdles, upper and lower limbs, hands and feet	10 present, 2 Am loss, 1 Pm loss, 2 unerupted/ congenitally absent, 17 NR	2	M	AA	?	NR	CAL, EH, PER	CF of the left 5th metatarsal, OA, DJD	E-W Inhumation. Supine and extended, head facing north, hands at pelvis, lower legs possibly crossed. Burial suffering some disarticulation due to vertical and horizontal truncation and possibly other factors. Large rectangular cut possible coffin?	Truncated through torso area by land drain and disturbed by machine during removal of overburden.
4	25<50	Cranium, pectoral girdles, torso, upper vertebral column, pelvic girdles, arms, hands and upper section of lower limbs	26 present, 1 Am loss 2 Pm loss, 3 NR	3	M	AA	?	NR	CAL CAR, AB, EH, PER, NDU	OA, DJD, NSI, DDD	E-W Inhumation. Supine and extended, right arm extended at side, head facing south? Burial suffering disarticulating due to truncation and other factors.	Truncated by land drain at head/neck area causing movement of skull, truncated by machine in central and right side and truncated from knees down by school wall.
5	5<25	Left hand, lower section of lower limbs and feet	0 recovered all NR	1	?	AA	?	NR	NR	DJD	E-W Inhumation. Supine and extended. Disarticulation due to truncation and later disturbance	Truncated from the knees upwards by ditch 285; area of feet disturbed by school groundworks
6	5<25	Lower section of left upper limb, hands, left pelvic girdle, lower limbs, and feet	0 recovered all NR	2	?	AA	?	NR	NR	DJD, OST	E-W Inhumation. Supine and extended. Arms at side? Possible shroud burial. Disarticulation caused by truncation and later disturbance.	Truncated diagonally from distal right femur to midshaft left radius and ulna upwards. Feet bones disturbed by later feature 039.

Sk	% comp	Skeletal Regions	Nº of teeth	Pres	Sex	Age Bracket	Mean Age	Stature	Dental Pathology	Skeletal Pathology	Funerary Context	Truncation
7	50<75	Right pectoral girdle, torso, mid-lower vertebral column, upper limbs, hands, pelvic girdle and upper section of lower limbs	0 recovered all NR	1	M	YA	29	NR	NR	CM on the right scapula, OA, DJD, DDD, MSM, COS	E-W Inhumation. Supine and extended. Left arm extended at the side, right arm bent at elbow across body, hand at pelvis. Some disarticulation of the torso caused by truncation/later disturbance. Possible shroud burial.	Truncated diagonally across the upper body from the right clavicle to the left elbow upwards by pit [054]. Truncated from the knees down by a school wall.
8	75<95	Cranium, pectoral girdles, torso, vertebral column, upper limbs, hands, pelvic girdle and upper section of lower limbs.	28 teeth present, 4 Pm loss	1	F	YA	24	5'5"	CAL	SCH, SP, ASY sacrum and illium, SAC, DJD, NSI, SV	E-W Inhumation. Supine and extended, head facing south, arms bent at elbows, hands at pelvis. Disarticulation of torso and pelvic area due to composition. Large rectangular cut suggestive of coffin?	Truncated from the knees down by ditch [038].
9	<5	Cranium, upper vertebral column, right pectoral girdle and right of torso	4 present, 1 Pm loss, 27 NR	2	F	AA	?	NR	CAL, CAR	DJD, CO, CPH, OA	E-W Inhumation. Position unknown due to level of truncation. Disarticulation due to truncation.	Truncated from left shoulder diagonally to right upper torso area downwards by land drain and construction of school
10	75<95	Cranium, pectoral girdles, torso, vertebral column, upper and lower limbs, hands and feet	30 present, 1 Am loss, 1 Pm loss	1	F	PA	38	NR	CAL, CAR, EH, NDU	OST, DJD, SCH, DDD, OA, DJD, SCH	E-W Inhumation. Supine and extended, hands at the pelvis, head facing north. Some disarticulation of torso, pelvic area, legs and feet. Small find 001 iron object recovered in fill. Large grave cut, possible coffin?	Not truncated.
11	75<95	Cranium, pectoral girdles, torso, vertebral column, pelvic girdles, upper limbs, hands, lower limbs and feet	16 present, 16 NR	2	M	PA	34	5'6"	CAL, CAR, PER, NDU	MSM, DJD, DDD, SCH, OA, SBO, SP	E-W Inhumation. Large rectangular cut suggestive of coffin? Body position unknown due to level of disarticulation. Completely disarticulated but still positioned roughly anatomical with head in the west and feet at the east, pelvis in the middle etc. Reburial?	Truncated from clavicle area upwards by modern intrusions?
12	75<95	Cranium, pectoral girdles, torso, vertebral column, upper limbs, hands, pelvic girdles, lower limbs and feet	9 present, 4 Am loss, 10 Pm loss, 9 NR	3	F	MA	49	NR	CAL, CAR	CF of the left acromion, NSI, DJD, OA, SCH, DDD	E-W Inhumation. Supine and extended, arms at sides, head facing north? Some disarticulation from decomposition some from modern disturbance- hit by machine?	Not truncated.

Sk	% comp	Skeletal Regions	Nº of teeth	Pres	Sex	Age Bracket	Mean Age	Stature	Dental Pathology	Skeletal Pathology	Funerary Context	Truncation
13	75<95	Cranium, pectoral girdles, torso, vertebral column, upper limbs, left hand, pelvic girdles, lower limbs and left foot	20 present, 2 Am loss, 10 Pm loss	2	M	MA	46	NR	CAL, AB, EH, PER, NDU	MSM, DJD, OA, NSI, CF of ribs, DF, CPH, CPF, DDD, SCH	E-W Inhumation. Body position unknown due to level of disarticulation. Completely disarticulated but still positioned roughly in anatomical order with head in west and legs in east and vertebra and ribs in the centre. Large grave cut, possible coffin. Reburial?	Ditch [075] truncates the lower leg/feet area.
14	>95	Cranium, pectoral girdles, torso, vertebral column, upper limbs, hands, pelvic girdles, lower limbs and feet	27 teeth present, 0 Am, 4 Pm, 2 NR	0	M	PA	35	6'1"	CAL, CAR, PER	DJD, DDD, OA, SCH, NSI, MSM	E-W Inhumation. Supine and extended, head facing south. Left arm extended? And right bent to chin. Some disarticulation of torso, pelvis area. Possible shroud burial? C14 dated from evaluation 1262± 34BP	No truncated. Seen in evaluation as Grave A [204], partially exposed. Left radius, ulna and femur removed during evaluation for C14 dating.
15	5<25	Pectoral girdles, torso, lower vertebral column, upper limbs, hands and upper section of left lower limb	1 tooth present, 31 NR	3	M	PA	32	NR	Mostly NR	MSM, DJD, DDD, OA, SCH, SV	E-W Inhumation. Supine and extended. Left arm extended at side, right arm slightly bent with hand in pelvis.	Truncated from clavicles up by school construction and from knees down by post medieval/modern intrusions.
16	>95	Cranium, pectoral girdles, torso, vertebral column, upper limbs, hands, pelvic girdles, lower limbs and feet	25 teeth present, 0 Am loss, 7 Pm loss	1	M	PA	30	5'7"	CAL, PER, NDU	DJD, DDD, SCH, OA, MSM, CF of the atlas	E-W Inhumation. Position unclear due to disarticulation. Some bones still in articulation but in the wrong place. Rough anatomical layout retained- head at the west, feet at the east but bones very disturbed rotated etc. Large rectangular cut, possible coffin? Reburial?	Not truncated.
17	75<95	Cranium, pectoral girdles, torso, vertebral column, upper limbs, hands, pelvic girdles and lower limbs	24 teeth present, 2 Am loss, 2 Pm loss, 4 unerupted/congenitally absent.	1	M	MA	49	NR	CAL, CAR, NDU	DJD, DDD, SCH, OA, MSM, NSI, SP, CF of a rib	E-W Inhumation. Supine and extended. Arms extended and at sides, head facing south. Lower body disarticulated due to modern truncation. Large rectangular cut-coffin?	Left side of lower arm and pelvis are truncated by modern pit [090] and below the pelvis is disturbed by tree roots.
18	5<25	Lower section of lower limbs and feet	0 recovered all NR	1	?	AA	?	NR	NR	MSM	E-W Inhumation. Supine and extended.	Truncated from the knees upwards by [037]

Sk	% comp	Skeletal Regions	Nº of teeth	Pres	Sex	Age Bracket	Mean Age	Stature	Dental Pathology	Skeletal Pathology	Funerary Context	Truncation
19	5<25	Right pectoral girdle, right torso, lower vertebral column, right arm, left hand and pelvic girdles	0 recovered all NR	3	F	PA	32	NR	NR	None	E-W Inhumation. Supine and extended. Right arm extended at side of body, left hand possibly at pelvis. Some disarticulation which is caused by later truncations.	Truncated down central line removing left side by school wall, truncated from the pelvis down by later feature 039.
20	>95	Cranium, pectoral girdles, torso, vertebral column, pelvic girdles, upper and lower limbs, hands and feet	29 teeth present, 3 Pm loss	1	M	YA	27	5'8"	CAL, EH, PER, NDU	CPH, CO, DJD, DDD OA, SCH, NSI, CF of pubic symphysis, MSM, SP,SV	E-W Inhumation. Supine and extended. Arms extended, hands at pelvis, head facing north. Tightly positioned bones indicating shroud burial. SF 005 Iron nail retrieved from fill. Minimal disarticulation due to decomposition. Chosen for C14 dating.	Not truncated.
21	25<50	Cranium, pectoral girdles, torso, upper section of right upper limb, right pelvic girdle upper vertebral column, hands and lower limbs	24 teeth present, 8 Pm loss	1	?	JU	16	NR	CAL, CAR,	CPH	E-W Inhumation. Supine and extended? Position unknown due to level of truncation. Disarticulation caused by truncation.	Central area from mid right humerus across torso is truncated by pit [090]. It is also truncated from the knees down by [151].
22	50<75	Cranium, pectoral girdles, torso, upper section of upper limb, hands, vertebral column, lower limb and feet	11 teeth present, 3 Am loss, 1 Pm loss, 17 NR	3	F?	AA	?	NR	CAL, CAR, PER, EH	DJD, DDD, SCH, OA, CA of navicular and calcaneous	E-W Inhumation. Supine and extended. Lower legs crossed at ankles. Large rectangular cut and presence of nail possibly indicated coffin burial. SF 006 Iron nail retrieved from fill.	Central area from mid humerus to knees right across the body has been removed by pit [105]. The majority of the cranium has been removed by ditch G285.
23	5<25	Lower limbs and feet	0 recovered all NR	2	?	AA	?	NR	NR	DJD, CA of intermediate phalanges (foot), MSM	E-W Inhumation. Supine and extended.	Truncated from knees up by ditch [037].
24	50<75	Right pectoral girdle, torso, lower vertebral column, left pelvic girdle, upper limbs, hands, lower limbs and left foot	0 recovered all NR	3	M?	MA	55	NR	NR	DJD, DDD, SCH, OA,	E-W Inhumation. Supine and extended. Selected for C14 dating.	Truncated through right side by later burial SK 25. Truncated from clavicles up by ditch [121], feet removed by modern levelling and further modern disturbances have affected the right side of pelvis and leg.

Sk	% comp	Skeletal Regions	Nº of teeth	Pres	Sex	Age Bracket	Mean Age	Stature	Dental Pathology	Skeletal Pathology	Funerary Context	Truncation
25	25<50	Cranium, pectoral girdles, torso, upper limbs, hands, vertebral column, pelvic girdles, lower limbs and feet	28 teeth present, 3 Am loss, 1 pm loss	2	M	MA	55	NR	CAL, AB, CAR, EH, PER, NDU	CPH, DJD, DDD, OA, MSM, CF of the left 3rd metacarpal	E-W Inhumation that truncates edge of grave SK 24. Supine and extended, head facing north. Arms extended with hands at pelvis? Selected for C14 dating. SF's 007, 008, 009 and 012 were recovered in the fill- all iron nails.	Feet removed by modern levelling. Disturbance of torso area, modern feature-undefined?
26	25<50	Lower vertebral column, pelvic girdles, upper limbs, hands, lower limbs and feet	0 recovered, all NR	3	M	YA	24	NR	NR	DJD, MSM	E-W aligned skeleton, supine and extended. On site interpretation states the skeleton is not in its original location, it has been bulldozed 'whole earth' into the backfill of a modern wall cut. This has lead to disarticulation and bone loss.	Disturbed due to the movement undertaken during the construction of the school.
27	75<95	Cranium, pectoral girdles, torso, upper limbs, hands, vertebral column, pelvic girdles and upper section of lower limbs	26 teeth present, 6 Am loss	1	F	PA	32	5'1"	CAL, CAR, PER, NDU	DJD, DDD, SCH, SP	E-W Inhumation. Supine and extended, head facing south. Left arm bent at elbow with hand at right pelvis, right arm extended at side of body. Some disarticulation of torso and pelvis area due to decomposition. Large rectangular cut possible coffin burial?	Truncated from the knees down by pit [094].
28	75<95	Pectoral girdles, torso, upper limbs, hands, vertebral column, pelvic girdles, lower limbs and feet	3 teeth present, 2 Pm loss, 27 NR	3	F	PA	34	5'3"	CAL, CAR, PER	MSM, DJD, DDD, OA, SCH	E-W Inhumation. Supine and extended. Arms are bent at elbows, wrists crossed with hands at the pelvis and lower legs crossed at the ankles. SF011 Iron nail recovered in fill. Possible shroud burial?	Cranium removed by levelling??
29	>95	Cranium, pectoral girdles, torso, vertebral column, pelvic girdles, upper and lower limbs, hands and feet	27 teeth present, 5 Pm loss	2	M	PA	40	6'2"	CAL, PER, EH, NDU	DJD, CPH, OA, MOT, SCH, DDD, SR	E-W Inhumation. Supine and extended, facing north. Arms are bent at the elbows, wrists crossed with hands at pelvis. Legs straight with feet together. Possible shroud burial? Selected for C14	Post-mortem disturbance by machine but otherwise untruncated.
30	25<50	Lower vertebral column, torso, lower section of upper limbs, pelvic girdles, hands and feet	0 recovered all NR	3	?	JU	17	NR	NR	None	E-W Inhumation. Supine and extended. Left arm bent at elbow with hands in pelvis, right arm extended hand at side, legs straight. Disarticulation caused by modern disturbance alone	Truncated from lumbar spine upwards by machining. Truncated through knee area by wheel rut [141].

Sk	% comp	Skeletal Regions	Nº of teeth	Pres	Sex	Age Bracket	Mean Age	Stature	Dental Pathology	Skeletal Pathology	Funerary Context	Truncation
31	75<95	Cranium, pectoral girdles, torso, vertebral column, upper and lower limbs, hands and feet	22 teeth present, 10 Pm loss	3	F	PA	34	5'1"	CAL, CAR, NDU	MOT, DDD, DJD, OA, SV	E-W Inhumation. Body position unknown due to level of disarticulation. Completely disarticulated but retaining rough very anatomical order with head in west and legs in east. Large grave cut, possible coffin. Reburial?	Not truncated.
32	25<50	Cranium, right pectoral girdle, torso, vertebral column, pelvic girdles, right upper limb, lower limbs, hands and feet	16 teeth present, 6 Am loss, 4 Pm loss, 6 NR	2	M	PA	37	5'6"	Calc, AB, CAR, PER, NDU	DJD, MSM, OA, DDD	E-W Inhumation. Supine, originally extended? Cut into the top of a Roman Wall. Head facing south, right arm bent at elbow hand at chin. Disarticulation of lower body due to tree rooting.	Left side truncated by ground works. Below elbow disturbed by tree rooting.
33	>95	Cranium, pectoral girdles, torso, vertebral column, pelvic girdles, upper and lower limbs, hands and feet	23 teeth present, 9 NR	3	M	PA	40	5'7"	CAL, NDU, CAR, AB, EH, PER	DJD, DDD, SCH, OA, MSM, NSI	E-W Inhumation. Supine and extended, head facing south. Arms bent at the elbows with the wrists crossed and hands at the pelvis, legs are straight. SFs 018 and 019 were recovered from the fill. Selected for C14 dating. Fill was highly abundant with charcoal. Possible shroud burial.	Skull disturbed by machine but otherwise untruncated.
34	>95	Cranium, pectoral girdle, torso, vertebral column, pelvic girdle, upper and lower limbs, hands and feet	32 teeth present	2	M	PA	42	5'7"	CAL, PER, NDU	CO, DJD, OD, SAC, MSM, DDD, SCH, OA, SV	E-W Inhumation. This burial is partially disarticulated so the original position is not certain-appears supine and extended with left arm bent with hand at chin and right arm extended at the side and legs straight. Disarticulation more than normal decomposition. SFs 013, 014 and 017 two iron nails and a copper alloy ring were recovered from the fill. Large rectangular cut suggests possible coffin. Reburial?	Not truncated.
35	>95	Cranium, pectoral girdles, torso, vertebral column, pelvic girdles, upper and lower limbs, hands and feet	26 teeth present, 2 Pm loss, 1 unerupted/ congenitally absent, 3 NR	2	M	YA	24	5'5"	CAL, CAR, PER	MSM, SP, DJD, SCH,	E-W Inhumation. Supine and extended, facing south, arms extended at sides. Pig tusk recovered at side of skull-deliberate/accidental inclusion? Selected for C14 dating. Large grave cut, possible coffin?	Not truncated.

Sk	% comp	Skeletal Regions	Nº of teeth	Pres	Sex	Age Bracket	Mean Age	Stature	Dental Pathology	Skeletal Pathology	Funerary Context	Truncation
36	75<95	Cranium, pectoral girdles, torso, vertebral column, pelvic girdles, upper and lower limbs, right hand and feet	9 present, 1 Pm loss, 22 NR	2	?	JU	12	NR	CAL, EH,	CPH, NSI	E-W Inhumation. Supine and extended, facing south, arms bent at elbow and crossed at pelvis? Legs straight. Disarticulation caused by truncation. Tightly constricted possible shroud burial.	Truncated by modern concrete intrusion from right side of pelvis down.
37	5<25	Lower limbs and feet	0 recovered all NR	3	?	AA	?	NR	NR	None	E-W Inhumation. Supine and extended. SFs 021 and 022 Iron nails recovered from fill.	Truncated through the midshaft femur by ditch [159].
38	5<25	Lower section of upper limbs, lower vertebral column, left pelvic girdle, lower limbs, hands and feet	0 recovered all NR	3	M	PA	41	5'7"	NR	DJD, OA, SCH	E-W Inhumation. Supine and extended, arms at sides. Size and shape of cut possibly indicate coffin burial. SF 024 Iron nail recovered from fill.	Truncated from just below the elbow upwards by school wall, bone disturbed then.
39	<5	Pelvic girdles, lower section of upper limbs and left hand	0 recovered all NR	4	M	YA	20	NR	NR	None	E-W Inhumation. Supine and extended?	Truncated from the pelvis up by ditch [182] and from the pelvis down by modern levelling.

Appendix 14: Radiocarbon Dating of Skeletal Material

by Anthony Krus (SUERC)

Seven radiocarbon measurements are available on samples from the Christian cemetery at the Minster School site. Six single-entity samples of articulated human bone from the excavation were submitted to the Scottish Universities Environmental Research Centre (SUERC); one sample from the evaluation, previously submitted to The University of Waikato Radiocarbon Dating Laboratory to be measured by Accelerator Mass Spectrometry (AMS), is also included in this report.

Human bone samples submitted to SUERC were pretreated following a modified Longin (1971) method and combusted in the manner described by Vandeputte *et al.* (1996). Graphite targets were prepared and measured following Naysmith *et al.* (2010). The sample submitted to The University of Waikato Radiocarbon Dating Laboratory was pretreated in the manner described by Petchey and Higham (2000). Both labs maintain rigorous internal quality assurance procedures, and participation in international inter-comparisons (Scott 2003) indicates no laboratory offsets; thus validating the measurement precision quoted for the radiocarbon ages.

Conventional radiocarbon ages (Stuiver and Polach 1977) are presented in Table 1, quoted according to the international standard set at the Trondheim Convention (Stuiver and Kra 1986), and calibrated with the internationally agreed curve of Reimer *et al.* (2013) using OxCal v4.2 (Bronk Ramsey 1995; 1998; 2001). The date ranges in Table 1 have been calculated using the maximum intercept method (Stuiver and Reimer 1986), and quoted with the endpoints rounded outward to 10 years. The probability distributions seen in Figure 1 were obtained by the probability method (Stuiver and Reimer 1993).

Methodological Approach

The chronology of the Minster School site's Christian cemetery has been interpreted using a Bayesian approach (Buck *et al.* 1996). Although calibrated dates are accurate estimates for the dates of the samples, in this case we are not interested in just the date of each burial, but also in the timing and span of burial activity. The date of this activity is estimated by using both information from radiocarbon measurements on samples, the context samples have been placed into, and the stratigraphic placement of contexts.

Methodology is now available which combines this information to produce realistic estimates of the dates of archaeological interest. The output of the modelling is the *posterior density estimate*. These are not absolute but are instead interpretive *estimates* that can and will change as further data become available. Posterior density estimates are usually presented in italics to separate modelling and calibration results.

The methodology has been applied using the program OxCal v4.2, which uses a form of Markov Chain Monte Carlo sampling. Details and algorithms used in this process are described in Bronk Ramsey (1995, 1998, 2001, 2009). The algorithm used in the model described below can be derived directly from the model structure shown in Figure 1.

The Samples and Model

Samples were grouped into stratified and unstratified contexts. Two of the dated skeletons (Sk24 and Sk25) could be ordered into a stratigraphic sequence. The remaining samples come from skeletons (Sk29, Sk33, Sk35, and Sk20) without stratigraphic relationships to other dated contexts.

Results and Discussion

Calibrated dates are given in Table 1. The radiocarbon dates are in good agreement with the model assumptions ($A_{\text{model}}=102$). The cemetery was used in the early medieval period and the modelling estimates that burials in the cemetery began in *cal AD 650–775 (95% probability; Figure 1; Boundary start)* and probably *cal AD 685–740 (68% probability)*. The modelling estimates that burials in the cemetery ended in *cal AD 710–890 (95% probability; Figure 1; Boundary end)* and probably *cal AD 720–805 (68% probability)*. The estimated span of burial activity at the cemetery is *1–145 years (95% probability; Figure 1; span of cemetery)* and probably *1–65 years (68% probability)*.

To evaluate if the radiocarbon ages from the burials were from an extremely short-term episode of occupation, a chi-square test was performed. If the dated material were to be from activity that took place over a very short period of time, the expectation would be for the radiocarbon ages to be nearly indistinguishable statistically, having effectively the same radiocarbon age (Ward and Wilson 1978:21). The radiocarbon measurements from burials pass the chi-square test ($T=5.0$; $df=6$; $P(0.05)=12.6$), suggesting that the burials could have been deposited over a shorter rather than longer period.

Lab ID	Context Reference	Material	^{13}C (‰)	Radiocarbon Age (BP)	Calibrated Date (95.4% probability)	Modelled results (68.2% probability)	Modelled results (95.4% probability)
Wk-25379	Sk 14; Grave 077	Human bone: left femur	-22.6 ± 0.2	1262 ± 34	AD 660-870	cal AD 685-770	cal AD 665-870
SUERC-49857	Sk 20; Grave 099	Human bone: left femur	-22.0	1282 ± 32	AD 650-780	cal AD 675-770	cal AD 665-780
SUERC-49554	Sk 24; Grave 109	Human bone: left femur	-19.7	1262 ± 29	AD 660-870	cal AD 685-770	cal AD 665-865
SUERC-49558	Sk 25; Grave 111	Human bone: left femur	-29.8	1239 ± 30	AD 680-880	cal AD 685-865	cal AD 685-880
SUERC-49559	Sk 29; Grave 132	Human bone: left femur	-20.2	1216 ± 30	AD 710-940	cal AD 765-875	cal AD 690-890
SUERC-49560	Sk 33; Grave 147	Human bone: left rib	-19.8	1204 ± 29	AD 710-940	cal AD 770-875	cal AD 710-940
SUERC-49561	Sk 35; Grave 152	Human bone: left rib	-19.7	1254 ± 29	AD 670-870	cal AD 685-775	cal AD 670-870

OxCal v4.2.3 Bronk Ramsey (2013), r5 IntCal13 atmospheric curve (Reimer et al 2013)

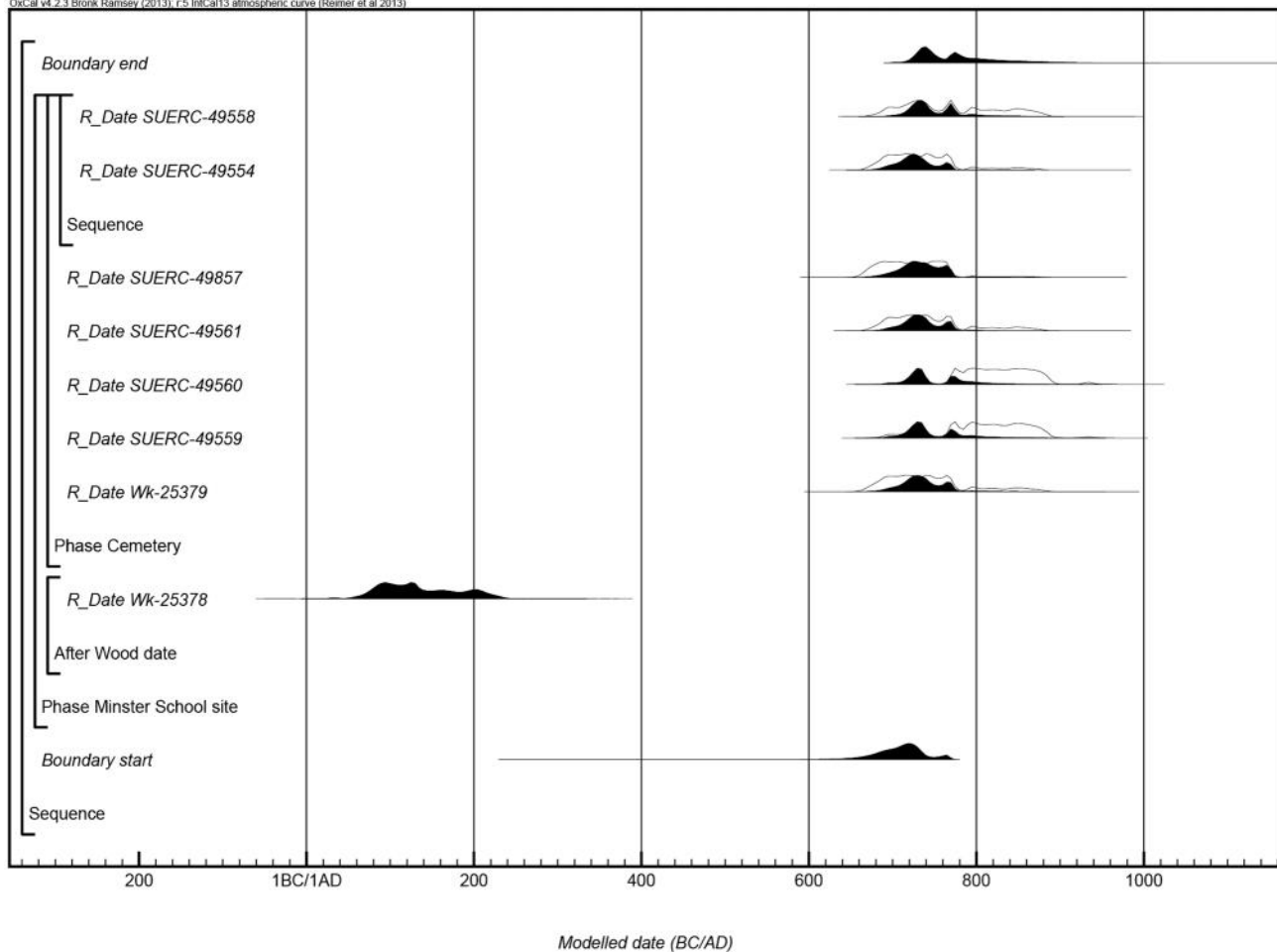


Figure 2: Chronological model for the Christian cemetery at the Minster School site. For each of the radiocarbon measurements two distributions have been plotted, one in outline, which is the result of simple radiocarbon calibration, and a solid one, which is based on the chronological model use. The other distributions correspond to aspects of the model. The large square 'brackets' along with the OxCal keywords define the overall model exactly. (This model also includes data for a wooden post sampled during the evaluation.)

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Appendix 15: The Faunal Remains

by Jennifer Browning

Introduction

This report presents the analysis of the animal bone recovered during excavations by Pre-Construct Archaeological Services Ltd, in advance of a proposed residential development on the site of the former Minster School in Southwell, Nottinghamshire. The site is situated south-east of the town centre, within the Minster Character Area of the Southwell Conservation Area. Church Street forms the northern boundary, while to the north-east it is bounded by the Old Rectory (Grade II listed), by the Potwell Dyke watercourse on the east, to the south by the former playing fields of the Minster School, and to the west by the scheduled area of SAM 138, a known Roman building.

During previous archaeological work at the site, a Roman villa was identified to the west of the current development site. A large inhumation cemetery was also revealed, probably dating to the late Anglo-Saxon/early medieval period and likely to be associated with Southwell Minster.

The current excavation uncovered the remains of two stone buildings and more of the cemetery. The two stone buildings were identified as Roman; a large, rectangular structure in the south-west corner of the site was associated with the villa and will now be preserved in situ. A smaller, square stone building was identified in the north-east quadrant of the site. In addition, a large number of pits and ditches were revealed across the site, dating from the early Roman through to the Anglo-Saxon/early medieval and medieval period. Post-medieval activity was located only on the northern edge of the site.

Hand-excavation of 445 contexts, including ditches, gullies, ring gullies and pits, produced a total of 2277 fragments of animal bone. A basic assessment was carried out for the whole assemblage to quantify the material, estimating the numbers of each taxa and the presence of contexts containing useful faunal information, such as epiphyseal fusion, toothwear, butchery, pathologies and burning. This information was passed back to the site director, who used it to help determine which contexts suitable for full analysis (see below).

Methodology

Specimens were identified with reference to comparative modern and ancient skeletal material held at the School of Archaeology and Ancient History, University of Leicester. A pro forma spreadsheet was used for recording data on preservation, taxa, bone element, state of epiphyseal fusion and completeness to elicit information on species proportions, skeletal representation, age and taphonomy. Where possible, the anatomical parts present for each skeletal element were recorded using the 'zones' defined by Serjeantson (1996), with additional zones ascribed to mandibles based on Dobney and Reilly (1988). Surface preservation was assessed after Harland et al (2003). The occurrence of burning, gnawing and pathologies was noted and described. Butchery was recorded using simple coding and description. Joining fragments were re-assembled and the resulting specimen counted as a single fragment, although a record of the original number of fragments was retained.

Analysis of age at death for cattle, sheep and pigs is normally carried out by reference to tooth eruption and wear, supplemented by the state of epiphyseal fusion of post-cranial bones. Recording of wear on mandibular teeth followed Grant (1982) and the resulting mandible wear stages were then grouped into age categories following O'Connor (2003, table 31), as shown below. Although there is no definitive sequence and age at which

epiphyseal fusion of each element occurs, it is possible to use the ranges provided by various authors as a guide. This report follows the figures from Silver (1969), grouping epiphyses into 'early', 'middle', 'late' and 'final' after O'Connor (2003).

Due to low numbers of bones from each phase, no minimum numbers estimations were carried out when examining the frequency of skeletal elements.

Provenance and Dating

Over 2000 bones were recovered from the site but, unfortunately, levels of disturbance were high, leading to significant residuality and intrusiveness. Many contexts were therefore either not stratigraphically secure or else undated; a full record was not considered appropriate for the entire assemblage. Following a simple assessment, the site director used the following criteria to select contexts for analysis:

- a) there had to be several identifiable bones within the context;
- b) the bones must be in fair or good condition;
- c) they must be stratified;
- d) they are not from a grave (these were from the Christian era);
- e) the parent feature must be dateable or have a meaningful relationship with other dateable features;
- f) features must be pre-18th-century, to avoid recent disturbance;

Application of these criteria resulted in a fully recorded assemblage of 667 bones, ranging in date from the Roman through to the end of the medieval period.

Table 1: Distribution of the faunal assemblage

Phase	Phase Dates	No.Frags	%
1	Pre-Roman and early Roman	134	20
2	Mid-Roman (mid-2nd to beginning of 4th century)	102	15
2-3		4	1
3	Late Roman (beginning of 4th century to end of Roman rule)	83	12
4	Unspecified Roman (finds could not be dated more accurately)	8	1
4 or 6		22	3
4-5		20	3
5	Saxon to early medieval (end of Roman rule to Norman Conquest)	4	1
5 or earlier		10	1
5-6		30	4
6	Medieval (Norman Conquest to Dissolution of the Monasteries)	250	37
Total		667	100

Preservation and Taphonomy

The assemblage exhibited both ancient and modern breakage and in some cases fragments of the same bones were present in the same context. Re-assembly of joining fragments reduced the total from 768 to 667 fragments. Surface condition was assessed for each specimen, following Harland et al (2003). There were variations between phases (Table 5); overall 72% were considered to be in good condition, defined as 'lacks fresh appearance but solid; very localized flaky or powdery patches'. Twenty-two percent were 'fair: surface solid in places, but flaky or powdery on up to 49% of specimen'. A total of 5% were classed as excellent condition, while 2% were in poor condition. The best preserved bones were recovered from features of Phase 2-3, while the worst appeared to be from Phase 4.

Burnt bones were rare comprising less than 2% of the recorded assemblage (n=13) and most were calcined, indicating that exposure to high temperatures had been prolonged. More than half of these were found within Phase 1 ditch context 576; a pig and a cattle phalanx were the only identified fragments. The remainder of the burnt bones were found within pit contexts 1175 and 915 and ditch fill 421.

A total of 34 bones exhibited signs of gnawing across the assemblage (5% of total assemblage). The majority of these (50%) were cattle long-bones, although smaller numbers of horse, pig and sheep bones were also affected. Generally 4-6% of bones in each phase group were affected but no particular concentrations were observed in any features. A goose femur in Phase 6 had tooth punctures that had probably been caused by a cat.

Taxa and Carcass Representation

The range of taxa recovered from the site included cattle, sheep/goat, pig, horse, dog, cat, fallow deer, domestic fowl, goose, duck and (cf) cod (Table 2).

Table 2: List of taxa ascribed to each phase

Taxon / Phase	1	2	2-3	3	4	4 or 6	4-5	5	5 or earlier	5-6	6	Total
Cattle (<i>Bos Taurus</i>)	11	13	1	22	4	7	3	3	3	5	54	126
sheep/goat (<i>Ovis/Capra</i>)	9	4		7	1	2	1	1	2	4	43	74
Sheep (<i>Ovis aries</i>)		1									1	2
Goat (<i>Capra hircus</i>)											1	1
Pig (<i>Sus scrofa</i>)	7	8		3	1	2	1			6	34	62
Cat (<i>Felis domesticus</i>)											5	5
Dog (<i>Canis domesticus</i>)				4								4
Horse (<i>Equus sp</i>)	26	2		1					2		6	37
Fallow deer (<i>Dama dama</i>)									3		1	4
Domestic fowl (<i>Gallus gallus</i>)		2				2					3	7
Duck (<i>Anas sp.</i>)		2										2
Goose (<i>Anser anser</i>)											6	6
cod family (<i>Gadidae sp.</i>)											1	1
lge mml	24	42	1	40	1	5	11			12	54	190
med mml	20	18	2	6	1	4	4			3	30	88
bird indeterminate	1										2	3
indeterminate	36	10									9	55
Total	134	102	4	83	8	22	20	4	10	30	250	667

Cattle

Cattle bones were recovered in greater numbers and occurred in a wider range of contexts than any other taxa at the site; there were very few contexts that did not contain at least one bovine bone. In general, fragments from the head and feet, particularly mandibles and phalanges, were more frequently recovered than limb-bones; these are elements more associated with hides than meat. The relative prevalence of tibiae, femora and humeri is also noted; these thick-walled bones tend to be more robust. However, the sample sizes from each phase (and definitely individual features) were not sufficient to clearly suggest the deposition of waste from one particular type of activity over another. Even the contexts with the highest number of cattle bones, ditch context 549, contained only 16 identified elements. These were predominantly diagnostic fragments from mandibles and tibiae rather than whole bones.

Toothwear evidence for Roman cattle comprised five mandibles and indicated a mixture of sub-adult and elderly animals (Table 11). Two of the sub-adult jaws, from ditch context 549, are likely to have derived from the same individual. The mandibles from Phase 6 represented a variety of ages, from a calf, less than 6 months old to an elderly animal. A juvenile cow partial skeleton from Phase 5 was less than a year old when it died. With this exception, almost all post-cranial cattle bones were fused, with the only three unfused specimens being late-fusing: epiphyseal closure occurring between 42 and 48 months (after Silver 1969, table A, 286-286).

There was little information on the appearance of the cattle, but it is probable that they were obtained from diverse sources during the lifetime of the site and may therefore have differed in size and appearance. Only one greatest length measurement was obtained (Phase 2-3 cattle metacarpal, see Table 14), which can provide little useful information on its own, particularly as the size of metapodials can vary considerably by breed or whether they are from entire males, females or castrates or (Albarella 1997, 46). A single example of a cattle horncore was recovered from Phase 6 ditch terminus (context 943). It was chopped through the frontal, removing part of the cranium along with the horncore. A slice was also taken from the basal part close to its junction with the frontal. The length of the horncore (125mm) places it in the small horn category, as defined by Sykes and Symmons (2007, table 1, 515).

Sheep and Goats

Bones referred to as sheep/goat were the second most common overall. The bones of sheep and goats can be difficult to distinguish in archaeological assemblages. While there are various methods for attempting to separate the two species (eg Halstead et al 2002; Prummel and Frisch 1986; Payne 1969; Boessneck 1969), few bones are readily distinguished, particularly when the samples are small and fragmented. Horncores, cranial fragments and metapodials are the most diagnostic elements. Two sheep and two goat horncores were recovered from the site. One was from Phase 2 but the rest were retrieved from ditches and a post hole in Phases 5 and 6. The more complete sheep horncore appeared to be from a ram, being large and D-shaped, with a slight twist. It measured 150mm in length (Phase 6 context 943). One of the sheep horncores was cleanly sawn through, both removing it from the skull and also bisecting the core, exposing the central cavity. The possibility that goat remains are also present among the post-cranial bones cannot be discounted, although despite the presence of horncores, no goat metapodials were seen. It is therefore likely that most of the sheep/goat bones belong to sheep, in common with most British archaeological sites.

The majority of sheep/goat bones were recovered from Phase 6 features. The mandible was the most common element and was twice as common as the next most frequently-recovered bone, the tibia, which is also robust. Across the assemblage, radii and metapodials were fairly frequently recovered but all other elements were recovered in very small numbers, thereby not permitting a clear interpretation of the types of waste deposited.

The single toothwear stage from a Roman sheep was indicative of an adult animal. There were no unfused post-cranial bones among the Roman assemblage, although the sample size was very small. Three Phase 6 mandibles were at a variety of life stages; immature, sub-adult and adult sheep were all represented. This is reflected among the post-cranial bones where a number of middle and late-fusing bones (around 2 years and later) were unfused.

Pigs

Pigs were the third most common taxa, after cattle and sheep/goat. In Phases 1-4, pig bones were mainly recovered from ditch deposits. The humerus was the most common of the post-cranial bones. A maxilla with adult dentition was present in Phase 1 ditch context 576. A pelvis and two humeri were butchered.

A larger number of pig bones, comprising a range of cranial and post-cranial elements, were recovered from Phases 4, 5 and particularly, 6. A partial skeleton was recovered from Phase 5-6 pit fill 106 and some partially articulated forelimbs were recovered from ditch terminal fill 1098. These are described below.

An ageable tooth from an adult pig was present in layer 962, in Phase 4 or 6. This was a permanent third molar from a pig aged just over 2 years of age; a prime meat animal. Although there were few epiphyses among the Roman and medieval (Phase 6) assemblage, it was notable that those which fuse before 24 months were fused, while closure had not yet occurred among the later-fusing elements. This also indicates that slaughter was taking place around the age of two, an optimum age for meat production among historical populations.

Canines of male and female pigs differ in morphology; of seven examples in Phase 6, only two were male. A single example of each was identified in a Roman ditch context 822.



Figure 1: Horse metapodial partially shaped into skate (ditch terminal 1095).

Equid (horse)

The bulk of the equid assemblage was recovered from a pit context 611 in Phase 1 and included a number of articulated hind-leg bones. A greatest length measurement of a metatarsal was 269mm, which equated to an estimated withers height of 1.43m (following Kiesewalter 1888). This is at the upper end of the height ranges for horse in the Roman period (Johnson 2004, 276-278). Three other contexts also contained equid bones but as isolated examples. Eight specimens were recovered from five Phase 6 deposits; there were no more than three examples in each context. Only adults were represented in both Roman and medieval features; there were no unfused bones. Three of the bones were butchered; a horse mandible had been disarticulated from the skull, a femur had been chopped through the distal shaft, opening up the medullary cavity, and a metapodial from ditch terminal 1095 (Phase 6) had been partially shaped into a bone skate (fig. 1 above). In this example, the anterior side of the distal articulation has been chopped off to create an upswept toe and there is some light polishing of the central strip down the plantar surface. The bone had later been irregularly broken through the middle of the shaft.

Cat

Cat bones were recovered from three Phase 6 pits (cut numbers: 1033, 1042 and 1113). All were limb-bones (humerus, femur, two ulnae and radius). A femur was completely unfused, placing the age of the animal below 36 weeks, while an unfused proximal ulna indicates that the individual died prior to the age of 52 weeks (Smith 1969, 525-6). No butchery marks were observed on the bones.

Dog

Four dog bones were recovered from Phase 3, within three different features; ditch fill 549, beam-slot fill 683 and floor layer 811. No concentrations of bones or partial skeletons were present and no post-cranial bones were complete enough to provide stature estimations. Three were humeri; one example found in the beam-slot was fox-sized, while another in a floor layer had an unfused distal articulation, indicating an age at death of below 8-9 months (Silver 1969, table A, 285).

Deer

A well-preserved fallow deer hock; consisting of astragalus, (unfused) calcaneum and distal tibia, were found within the fill of a construction trench (context 1142), dating to Phase 5 or earlier. A break through the distal tibia could be deliberate, isolating this joint.

Birds

The site produced evidence for domestic fowl, goose and duck. A carpo-metacarpus and tarso-metatarsus of domestic fowl were recovered from ditch contexts 421 and 794 in Phase 2. Ditch 421 also produced two duck bones (a carpo-metacarpus and ulna).

Goose bones were twice as common as domestic fowl in Phase 6 features (occurring in pit contexts 1034 and 1041 and ditch contexts 1096, 1098 and 1139). A domestic fowl tarso-metatarsus was juvenile but all the other bones were from adult birds.

Fish

The only fish bone in the assemblage was a vertebra from a fish of the cod family (Gadidae), recovered from Phase 6 pit fill 1034.

Pathologies and Measurements

Measurements taken during this project are recorded in Tables 14-17. While there are insufficient numbers to use for intra-site comparisons, they could potentially contribute to wider studies.

Abnormal bones were few and are listed in Table 12, constituting a very low percentage of the assemblage. Attempts at diagnosis are problematic because elements are often found in isolation, therefore making it impossible to establish the extent of the symptoms within the whole skeleton. Additionally, bone tissue can only make a limited set of responses to various infections and traumas, which means that it can react in a similar way to a number of very different conditions (Vann and Thomas 2006). Abnormal bone formation (exostosis) was most commonly seen in the assemblage. A nodule of bone was observed on two immature pig radii from the same individual, possibly occurring during growth. A bone callus was observed on the palate of a horse maxilla, tentatively suggested to be an abscess and poorly-defined exostosis was seen on a bovine metatarsal. Irregular tooth wear, probably age-related, was noted within a sheep mandible, manifesting on the posterior occlusal

surface of a 4th premolar and the anterior surface of a 1st molar. Exostoses noted on the semi-articulated horse limbs from pit fill 611 are discussed below.

Butchery

Butchery marks were present on cattle, sheep/goat, pig and horse bones, in a wide range of phases and contexts. In common with many archaeological assemblages, more cattle bones were butchered than any other taxa, particularly when combined with large mammal bones such as ribs and vertebrae, constituting 64% of butchery marks and affected 30% of bovine bones (Table 17). Only a small number of sheep/goat bones were butchered (n=5, 6%) but a greater proportion of pig bones were affected (n=9, 14%). The numbers are too small to analyse butchery patterns.

Cattle

Butchery of the cattle carcass was more intense in every phase than any other mammal, which is in line with observations made at other sites. Most of the marks in all phases were produced by a cleaver, particularly suitable for reducing the size of the large carcass. Among the Roman material, butchery marks indicated a range of processing activities. The scapula, distal humerus, distal femur, pelvis and distal tibia were all chopped, evidently during portioning. A mark which appeared to have been produced by a saw was noted on a proximal radius; this is quite unusual for the period unless associated with bone working (Grant 1987, 55). Fine knife cuts were found on the mandible, distal tibia and metapodials and were probably inflicted during skinning.

There were fewer examples among the medieval material. A pelvis from Phase 4 or 6 and a Phase 6 radius were sawn, which suggests that they might actually be quite late or intrusive, since saws were rarely used for food bones prior to the post-medieval/modern period (Grant 1987, 55). The humerus was the most frequently butchered element (n=4), followed by the tibia (n=2). A scapula was also chopped through the blade. Even the knife cuts in this period indicate dismemberment of the carcass.

Sheep/goat

All the butchered sheep/goat bones were recovered from Phase 6 deposits. The shaft of the tibia was a common site of butchery; two bones were chopped and a third was broken open for marrow. A radius was chopped through the proximal end, during separation of the foreleg into joints. A horncore was removed from the skull using a saw.

Pig

Three bones from Roman contexts were butchered, including two humeri and a pelvis. Both knife and cleaver marks were present, indicative of dismembering/portioning of the carcass and filleting. There were six butchered bones in the medieval assemblage; mandible, scapula, pelvis, rib and two radii. Fine cut marks were noted on the proximal part of the radius, probably where it was filleted, but the rest were chopped with a heavy blade and indicate the anatomical locations where the carcass was portioned.

Horse

Two horse bones were butchered, not including the partial skate, discussed above. A femur from Phase 5 or earlier was chopped, presumably to extract the marrow, while a Phase 6 mandible had a cut marks appearing to denote the disarticulation of the jaw from the cranium.

Large and medium mammal

Butchery marks were more common on large mammal than on medium mammal fragments, reflecting the fact that most of these are probably cattle bones. Phase 2 ditches produced a number of large mammal rib fragments (n=5), which had transverse cut and chop marks through the shaft, indicating division of the rib slab and filleting of the meat. Two medium mammal rib fragments were also processed in the same way and a vertebra was chopped through the body.

Similar processing of ribs was noted among the medieval assemblage. In addition, several vertebrae were divided in half through the centre of the vertebral body, indicating that professional butchers with facilities to hoist carcasses were operating at the time (Seetah 2006, 111).

Articulated Bones

Six sets of presumably articulated bones were observed within the assemblage. A number of activities can leave articulated remains, often referred to as Articulated or associated Bone Groups (ABGs), including natural mortalities, various stages of carcass processing and ritual activities and meanings can vary widely (see Hill 1996 and Morris 2011). One thing they have in common is that the parent deposit was not subsequently subject to extensive re-working. Some of the ABGs were noted during excavation, while others were identified during bone analysis. They were predominantly recovered from within the later phases (Phase 5 onwards) however, articulated horse bones were recovered from a Phase 1 pit (fill 611). These comprised part of both the left and right hind-limbs, apparently from the same individual, including the right tibia, left and right astragalii, calcanei, tarsals and metatarsals. The bones were all fused and belonged to an adult animal. No obvious butchery marks were seen, although they must have been separated from the rest of the carcass, probably during primary butchery and removal of the hide. Pathologies were noted on a number of bones associated with the hock joint. Exostosis (abnormal bone formation) was concentrated on and around the lower tarsals and the proximal part of the metatarsals (the astragalii and calcanei were unaffected). This is likely to be a condition known as spavin, which is particularly associated with cattle and horses. It is the result of joint inflammation, sometimes associated with overwork and ultimately leads to the fusion of the joint, causing lameness in the affected animal (Bartosiewicz and Gál 2013, 123-124). In this case, the lack of exostoses on the astragalus and calcaneum indicates that there would still have been movement in the joint (Bartosiewicz and Gál 2013, 124).



Figure 2: Exostoses observed on a pair of horse metatarsals from context 611

The partial skeleton of a pig was recovered from context 106. It comprised the right mandible, right radius and ulna, pair of humeri, pair of pelves, left femur and fragments from the ribs, vertebrae and skull. There were no fused bones, including the neural arches of the cervical and thoracic vertebrae. The deciduous 4th premolar was erupting through the jawbone, suggesting that the animal died in its first few weeks (Silver 1969, table F, 298). No butchery marks were visible on the bones and it may be that the animal was a natural mortality rather than part of a meal. The implication is that pigs were bred within the confines of the town, which is in keeping with archaeological evidence from other towns.

Two pig radii and an ulna, probably from one individual, were recovered from a Phase 6 ditch terminus (context 1098). One of the radii had fine cut marks at the distal end of the shaft, suggesting filleting or skinning.

The partial skeleton of a calf, in context 359, was represented by skull fragments, pair of mandibles, humeri, right metacarpal, left femur and tibia, a tarsal and rib fragments. None of the long-bones, with the exception of the proximal metacarpal, which fuses just after birth, were fused. The dental evidence suggested an age of a little over 7 months; the first permanent molar was in wear but the second molar was not yet erupted. The animal could have been slaughtered for veal or dairying purposes.

A fallow deer hock, consisting of the left distal radius, astragalus and calcaneum, was recovered from the fill of a construction trench (Phase 5 or earlier, context 1142). The hock bears little meat and is often one of the parts removed first during processing of the carcass. If this portion dates to no later than the Norman Conquest, as suggested by its phasing, then the following comments may not apply. It is generally agreed that fallow deer became widespread following their re-introduction after 1066, in order to stock new deer parks (Sykes 2010, 58). This was followed by increasing ritualization of hunting and butchery practices, during which the carcass was 'un-made' and apportioned according to a strict social hierarchy (Sykes 2006, 170). It is therefore interesting that the bones represented are from the hind-limb, as this is often the portion recovered from manor houses, castles and religious houses (Sykes 2006, 171).

A Phase 6 pit (context 1041) contained a cat forelimb (left humerus, radius and ulna). In the medieval period, cats were kept to keep down the rodent population but they were also a cheap source of fur (Serjeantson 1989). However, in this case there were no butchery marks to help suggest an interpretation.

Table 3: Articulated units in the assemblage

Phas	cut	Context	Taxo	Description
1	pit	611	horse	left and right hindlimb (right tibia, left and right astragalus,
5 or	constructio	1142	deer	hock (left distal radius, astragalus and calcaneum)
5	post hole	359	calf	partial skeleton (head, fore- and hind-legs represented)
5-6	pit	106	piglet	partial skeleton (head, thorax and limbs represented)
6	ditch	1098	pig	right radius and ulna, left radius (with skinning marks)
6	pit	1041	cat	forelimb (left humerus, radius and ulna)

Discussion

Provenance

The bone assemblage was recovered from a site with a long history, spanning the Roman through to the modern period. Plans indicate that there was complex stratigraphy resulting from successive phases of occupation. It is unfortunate that so many of the deposits were found to be mixed or disturbed, resulting in less than half the assemblage being securely

dated or having stratigraphic integrity. Although the disturbed and modern contexts contained well-preserved material, this is unsuitable for analysis since bones are not intrinsically dateable. For this reason, only a selected set of contexts were analysed, chosen by the author of the archaeological report. Comparison with the assessed assemblage suggests that the selected deposits seem fairly representative in terms of species, however, several hare bones and bird bones noted in the assessed material, including a *passeriform* (garden bird), could not be included in the final analysis. Bone preservation was generally good in all phases and there was little gnawing, suggesting that bones were buried rapidly.

The Roman animal bones were mainly recovered from ditches, with occasional beam-slots, pits and floor layers. During the Saxon period the cemetery appears to dominate the site and the non-grave bone assemblage is very small. Since the graves are Christian, food offerings as grave goods are unlikely and the bones from these features have not been prioritised.

Proportions of taxa

Cattle bones were most common at the site, followed by fairly even numbers of sheep/goat and pig. In addition to the main domesticates, mammals were also represented by horse, dog, cat and fallow deer, while avian bones identified as domestic fowl, goose and duck were recovered. A single fish bone, a vertebra of the cod family, probably from a stockfish (dried or salted fish, particularly popular in the medieval period), was found in a Phase 6 pit. A wider range of species among the medieval bones may be a consequence of the increased assemblage size.

Interpretations of activities taking place on or near the site are usually drawn from the frequency of particular taxa and the selection of bone elements deposited. However, assemblages are affected by a number of factors, such as differential survival of bones, mixing or re-deposition, recovery during excavation and the choice of deposits to be analysed. Small samples that lack a clear faunal signature can therefore be difficult to characterise. Although the sample sizes are small at Southwell, it was noted that the relative proportion of cattle bones, compared to sheep/goat and pig, increased between the early and the middle-late Roman and decreased again in the medieval period. Interestingly, the proportions were the same in both the early Roman and the medieval phases.

Table 4: Relative proportion of cattle, sheep/goat and pig bones (%)

Phase	cattle	sheep/goat	pig
Early Roman (Phase 1)	41	33	26
Middle- late Roman (Phases 2,3 and 4)	63	19	19
Medieval (Phase 6)	41	33	26

The relative proportion of pig is quite high, but still lower than sheep/goat in both the early Roman and the medieval period. Larger studies have suggested an association between elevated levels of pork and the adoption of Roman culture (Cool 2006, 83-84) with high proportions of cattle and pig compared to sheep noted on late Roman sites (King 1978, 216; 1991, 17). However, the prevalence of pig in the medieval phase is fairly high compared to many other sites, where it often falls far behind cattle and sheep. Sheep are often most frequent at this time, reflecting the importance of the wool trade. Wider trends indicate that pig husbandry reached its height in the Saxon period, with consumption later declining (Albarella 2006, 73).

Information on animal husbandry regimes was rare for all phases. The cattle appear to have been mostly mature at slaughter, although younger animals are represented among the medieval assemblage. The majority of the sheep/goat assemblage was recovered from medieval features and a variety of ages were represented. Where evidence exists, pigs appear to have been around the age of two, an optimum age for meat production. However,

younger animals may well be under-represented, as porous, immature bones are more prone to destruction.

Articulated bones were distributed across several phases and comprised the remains of different taxa, anatomical units and ages. Therefore, they cannot necessarily be interpreted in the same way. They do, however, represent short-lived depositional events and suggest that subsequent re-working has been minor within these contexts. Within this assemblage, the articulated remains include natural mortalities and carcass units.

Equid bones, probably horse, were concentrated in particular deposits, particularly a Phase 1 pit, which contained a number of articulated leg bones. The lower legs had pathological changes, which may be related to bearing loads. There was no evidence for juvenile horses in the assemblage and a small number of bones had been butchered; the marks appearing to represent dismemberment/disarticulation rather than filleting.

A skate, fashioned from a horse metapodial, was recovered from a Phase 6 pit. Bone skates are not uncommon among archaeological material. They are usually made from horse metapodials but occasionally cattle bones are also used. The method of skating with bone skates was different to the modern steel skate techniques and a pole was thought to have been employed to help propel the user across the ice or snow (MacGregor 1976, 61). They were used widely across Europe and, in Britain, examples have been found in contexts dating from the 8th century AD onwards, with numerous examples recovered from London, York and Lincoln (MacGregor 1976, 65).

The faunal assemblage is likely to have derived from a mixture of sources, encompassing a range of carcass processing activities. The site is located within the vicinity of a villa during Roman times and close to the Minster and Bishop's Palace in the medieval period. This position could explain the quantity of bones, which reflect the high levels of activity taking place around the site. Unfortunately, no previously-studied bone assemblages are listed in a review of faunal evidence from central England (Albarella and Pirnie 2008) or in the OASIS grey literature library to provide comparative results.

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Appendix 15.1: Tables

Table 5: Bone preservation within the assemblage % (after Harland et al. 2003)

Phase	Excellent	Good	Fair	Poor
1	0%	31%	69%	0%
2	6%	90%	1%	3%
2-3	75%	25%	0%	0%
3	0%	82%	16%	2%
4	0%	50%	38%	13%
4 or 6	14%	82%	5%	0%
4-5	5%	90%	5%	0%
5	0%	100%	0%	0%
5 or earlier	30%	70%	0%	0%
5-6	3%	93%	3%	0%
6	6%	80%	12%	2%
Total	5%	72%	22%	2%

Table 6: Number of taxa recorded in each phase and feature type

Phase/feature	cattle	sheep/goat	goat	sheep	pig	deer	horse	dog	cat	domestic fowl	duck	goose	cod family	lge mml	med mml	bird indet.	Indet.	Total
1																		
ditch	10	8			6									24	19	1	32	100
pit	1	1			1		26								1		4	34
2																		
ditch	10	1			1					1	2			34	6		10	65
ditch terminus	3	3		1	7		2			1				8	12			37
2-3																		
ditch	1													1	2			4
3																		
beam slot	1	2			1			1										5
ditch	17	5			1			2						38	2			65

Phase/feature	cattle	sheep/goat	goat	sheep	pig	deer	horse	dog	cat	domestic fowl	duck	goose	cod family	lge mml	med mml	bird indet.	Indet.	Total
floor layer	2							1							4			7
robber trench	2				1		1							2				6
4																		
ditch	2	1.0																3
grave	1				1									1	1			4
post hole	1																	1
4 or 6																		
layer	7	2			2					2				5	4			22
4-5																		
pit	3	1			1									11	4			20
5																		
post hole	3	1																4
5 or earlier																		
construction trench						3												3
ditch	3	2					2											7
5-6																	i	
ditch	3	1												3				7
pit	2	3			6									9	3			23
6																		
ditch	21	24		1	7							1		15	9			78
ditch terminus	2	3			10		3			1		1		3	4	1		28
gully	4	1			1									5				11
pit	27	15	1		16	1	3		5	2		4	1	31	17	1	9	133
Total	126	74	1	2	62	4	37	4	5	7	2	6	1	190	88	3	55	667

Table 7: Elements and anatomical units recovered for identified taxa. Raw fragment count with no allowance for minimum numbers of elements or side.

Taxa/element	Anatomical unit	1	2	2-3	3	4	4 or 6	4-5	5	5 or earlier	5-6	6	Total
cat												5	5
humerus	fore-limb											1	1
radius	fore-limb											1	1
ulna	fore-limb											1	1
ulna	fore-limb											1	1
femur	hind-limb											1	1
cattle		11	13	1	22	4	7	3	3	3	5	54	126
horncore	head											1	1
incisor	head											1	1
ldp4	head				1								1
lm1/2	head				1							3	4
lm3	head						1						1
mandible	head		2		5		1			1		11	20
premaxilla	head						2					2	4
premolar	head		1										1
skull fragment	head											3	3
tooth	head				3								3
um	head					1							1
um1/2	head								2			6	8
zoned skull	head											2	2
rib head	trunk						1						1
scapula	shoulder-girdle	2			1						1		4
humerus	fore-limb	1	1		1							6	9
radius	fore-limb		1		1							3	5
ulna	fore-limb											1	1
pelvis	hip-girdle	2					1						3
femur	hind-limb	1	3		2							3	9
tibia	hind-limb	1			4	1		2				3	11
1st phalanx	foot				1						1	3	5
2nd phalanx	foot	2											2
3rd phalanx	foot	1											1

Taxa/element	Anatomical unit	1	2	2-3	3	4	4 or 6	4-5	5	5 or earlier	5-6	6	Total
astragalus	foot							1					1
calcaneum	foot		1										1
metacarpal	foot		1	1							3	4	9
metapodial	foot		1									1	2
metatarsal	foot	1	2		1	2	1			2		1	10
tarsal	foot				1								1
partial skeleton									1				1
deer										3			3
tibia	hind-limb									1			1
astragalus	foot									1			1
calcaneum	foot									1			1
dog					4								4
mandible	head				1								1
humerus	fore-limb				3								3
domestic fowl			2				2					3	7
coracoid	shoulder-girdle						1						1
carpo-metacarpus	wing		1										1
humerus	wing						1						1
ulna	wing											2	2
tibio-tarsus	hind-limb		1										1
tarso-metatarsus	foot											1	1
duck			2										2
carpo-metacarpus	wing		1										1
ulna	wing		1										1
cod family												1	1
vertebra	trunk											1	1
goat												1	1
horncore	head											1	1
goose												6	6
carpo-metacarpus	wing											1	1
humerus	wing											2	2
ulna	wing											1	1

Taxa/element	Anatomical unit	1	2	2-3	3	4	4 or 6	4-5	5	5 or earlier	5-6	6	Total
digit	wing											1	1
pelvis	hip-girdle											1	1
horse		26	2		1					2		6	37
lower canine	head				1								1
mandible	head											1	1
skull fragment	head	1											1
tooth	head											1	1
zoned skull	head											1	1
scapula	shoulder-girdle											1	1
humerus	fore-limb									1			1
femur	hind-limb									1			1
tibia	hind-limb	1										1	2
astragalus	foot	2											2
calcaneum	foot	2											2
lateral metapodial	foot	3											3
metapodial	foot											1	1
metatarsal	foot	2	1										3
tarsal	foot	9											9
1st phalanx	foot	2	1										3
2nd phalanx	foot	2											2
3rd phalanx	foot	2											2
ovis			1									1	2
horncore	head		1									1	2
pig		7	8		3	1	2	1			6	34	62
incisor	head		1				1					3	5
lm1/2	head										1		1
lm3	head						1						1
lower canine	head		2								1	5	8
mandible	head											3	3
maxilla fragment	head	1											1
premaxilla	head		1										1
premolar	head										1		1

Taxa/element	Anatomical unit	1	2	2-3	3	4	4 or 6	4-5	5	5 or earlier	5-6	6	Total
skull fragment	head	1											1
um1/2	head											1	1
upper canine	head											1	1
rib head	trunk											1	1
scapula	shoulder-girdle											1	1
humerus	fore-limb	1	3									3	7
radius	fore-limb		1		1							4	6
ulna	fore-limb											3	3
pelvis	hip-girdle				1							4	5
femur	hind-limb	1			1							1	3
fibula	hind-limb										1		1
tibia	hind-limb											1	1
1st phalanx	foot	1				1							2
2nd phalanx	foot	1											1
lateral phalanx	foot										1		1
metacarpal	foot							1				1	2
metapodial	foot	1											1
metatarsal	foot											2	2
partial skeleton											1		1
sheep/goat		9	4		7	1	2	1	1	2	4	44	75
atlas	head		1									1	2
axis	head		1										1
horncore	head								1				1
ldp4	head	1											1
lm1/2	head	1											1
lm3	head											1	1
mandible	head				2					2		11	15
maxilla fragment	head											1	1
skull fragment	head											1	1
tooth	head				1								1
um1/2	head	1										2	3
um3	head											2	2

Taxa/element	Anatomical unit	1	2	2-3	3	4	4 or 6	4-5	5	5 or earlier	5-6	6	Total
zoned skull	head				1								1
scapula	shoulder-girdle											2	2
humerus	fore-limb					1						2	3
radius	fore-limb	1	1		1		1					2	6
ulna	fore-limb											1	1
pelvis	hip-girdle		1								1	1	3
tibia	hip-girdle	2					1					7	10
femur	hind-limb										1	2	3
1st phalanx	foot				1							2	3
2nd phalanx	foot	1											1
astragalus	foot											1	1
metacarpal	foot	2			1						1	2	6
metatarsal	foot							1			1	3	5
Grand Total		134	102	4	83	8	22	20	4	10	30	250	667

Table 8: Epiphyseal fusion recorded among cattle bones for all phases (F=fused; U=unfused), age in months after Silver (1969)

Bone	Age (mo)	1		2		2-3		3		4		4-5		5-6		6	
		F	U	F	U	F	U	F	U	F	U	F	U	F	U	F	U
Pelvis (acet)	7-10																
Scapula D	7-8	2						1									
1st Phal P	13-15							1					1			3	
Humerus D	15-18							1								1	
Radius P	15-18			1												2	
2nd Phal P	18	2															
MetaC D	24-36			1		1										1	
Tibia D	24-30							2		1		2					
Metat D	27-36		1							1						1	
Femur P	42	1															
Calc P	36-42																
Radius D	42-48																
Ulna P	42-48															f	u

Humerus P	42-48								1								
Femur D	42-48																
Tibia P	42-48								1								

Table 9: Epiphyseal fusion recorded among pig bones for all phases (F=fused; U=unfused). age in months after Silver (1969) Partial skeleton excluded

Pig		1		2		3		6	
Bone	Age (mo)	F	U	F	U	F	U	F	U
Scapula D	12								
Humerus D	12							1	
Radius P	12			1		1			
Pelvis (acet)	12								
2nd Phal P	12	1							
Metac D	24								
Tibia D	24								
1st Phal P	24		1				1		
Calc P	24-30								
Metat D	27								
Ulna P	36-42								1
Humerus P	42				1				1
Radius D	42				1				
Femur P	42								
Femur D	42								
Tibia P	42								

Table 10: Epiphyseal fusion recorded among sheep/goat bones for all phases age in months after Silver (1969) (F=fused; U=unfused)

Sheep		1		2		3		4-5		6	4 or 6	
Bone	Age (mo)	F	U	f	u	f	u	f	u	f	u	u
Pelv (acet)	6-10			1								
Scapula D	6-8									1		
Humerus D	10									2		
Radius P	10			1						1		
1st Phal P	13-16	1				1						

2nd Phal P	13-16												
Metac D	18-24												
Tibia D	18-24												1
Metat D	20-28							1					
Ulna P	30								1	1			
Femur P	30-36								1	1			
Calc P	30-36									1			
Radius D	36										1		
Humerus P	36-42												
Femur D	36-42												
Tibia P	36-42												

Table 11: Toothwear stages (after Grant 1982) with age stages after O'Connor 2003 Key: J=juvenile; I=immature; SA= sub-adult; A=adult; E=elderly)

Date	Feature	cut	Context	Taxon	Element	dp4	m1	m2	m3	Age Stage
2	ditch	537	538	cattle	mandible		k	k	j	E
3	ditch	392	549	cattle	mandible	j	g	f	E	SA2
3	ditch	392	549	cattle	mandible	j	g	f	E	SA2
3	ditch	392	549	cattle	ldp4	j				SA
3	ditch	618	619	cattle	mandible			k	j	E
6	ditch	1061	1064	cattle	mandible	g	1/2			J
6	ditch	1087	1139	cattle	mandible		k	g	b	A1
6	pit	1042	1041	cattle	mandible		m	k	k	E
4 or 6	layer	zone 5	962	cattle	lm3				h	E
4 or 6	layer	zone 5	962	pig	lm3				c	A2
3	ditch	392	549	sheep/goat	mandible			g	g	A3
6	ditch	1172	1173	sheep/goat	mandible				g	A3
6	pit	1042	1041	sheep/goat	mandible	m	f	C		I
6	gully	814	813	sheep/goat	mandible		g	d		SA

Table 12: Abnormal bones within the assemblage

Date	Feature	Context	Taxon	Element	Artic.	Notes
6	ditch terminus	1098	pig	radius	y	Nodule of bone growth on lateral palmar surface.
6	ditch terminus	1098	pig	radius	y	same nodule as above (2-3mm diameter)
3	beam slot	683	dog	humerus		slight expansion of the proximal shaft,
5 or earlier	ditch	1229	sheep/ goat	mandible		extreme wear on surface of posterior p4 and anterior m1
6	pit	1251	horse	skull		Pathology on left palate, bone formation, raised oval callus 30mm x 15mm, poorly defined, irregular surface (porous) probably active.
4	post hole	463	cattle	metatarsal		raised abnormal bone formation on dorsal distal face (centre) 19x 21mm, irregular surface, poorly-defined.

Table13: Tooth measurements (after von den Driesch 1976 and Payne and Bull 1988)

Date	Context	Taxon	Dp4 L	Dp4 WP	M1 L	M1 WA	M1 WP	M2 L	M2 WA	M2 WP	M3 L	M3 WA	P2 L	P2W	P3 L	P3 W	P4 L	P4 W
2	445	cattle			29.1	14.5		24	15.4		35.6	14.6						
6	183	cattle									34.4	12.1						
6	1064	cattle	30.6	10.3														
6	1092	cattle	26.2	13	24	12.2		26.1	12		33.1	12.3						
6	1139	cattle			22.6	13.9		26.8	12									
6	1041	cattle			19.5	13		23	14.9		33.5	14.8						
3	549	cattle	31.5	12.3	26.3	12.7		26.7	12.8									
3	549	cattle	26.3	13		13.2			13.1									
3	549	cattle	30.7	12.8														
3	619	cattle						24.6	14.8		35.3	14						
2	538	cattle			23.9	17.1		26.6	18.3		38.4	18.4						
4 or 6	962	cattle									34.5	15.8						
3	549	dog			21.3	8.7		8.5	5.7									
6	915	horse			24.7	17.3		24.4	16.4		31.4	14.9	36.4	16.4	27.6	18.6	26.7	18.5
6	1175	pig			13.8	9.8	10.1	19.9	12.2	12.9	29.2	14.3						
4 or 6	962	pig									30.5	14.2						

Date	Context	Taxon	Dp4 L	Dp4 WP	M1 L	M1 WA	M1 WP	M2 L	M2 WA	M2 WP	M3 L	M3 WA	P2 L	P2W	P3 L	P3 W	P4 L	P4 W
6	1064	sheep/goat									15.9	10.2						
6	1113	sheep/goat				10.4												
6	1173	sheep/goat									22.5	8.4						
6	1173	sheep/goat									23.1	8.1						
6	1139	sheep/goat	15.5	6.3	15.4	8.2		18.7	7.2									
6	1041	sheep/goat	14.7	6.5	14.6	7.1												
3	549	sheep/goat						13.3	7.9		21.5	8.3						
1	576	sheep/goat	18.9	6.3														
6	813	sheep/goat			12.7	7		16.2	7.2									
6	1224	sheep/goat			9.9	7.3		13.1	8		23	8.5						

Table14: Measurement of mammal long bones (after von den Driesch 1976; Payne and Bull 1988; Payne 1969 and Davis 1992)

Date	Ctxt	Taxon	Element	GL	von den Driesch 1976								Payne and Bull 1988		Payne 1969				Davis 1992
					Bp	Bd	SD	Dd	Dp	bfd	glc	BF (cranial)	Bt	HT C	WT L	WT M	WC L	WC M	3
4	451	cattle	metatarsal		46.9														
2-3	295	cattle	metacarpal	209	60.8	65.1	35.1												
4-5	61	cattle	tibia			58													
2	420	cattle	metacarpal			66.6											32	31.9	31.3
6	1098	pig	metatarsal	83		17													
6	1098	sheep/goat	tibia			24.1													
6	1113	cattle	radius		79.6														
5 or earlier	1142	deer	tibia			41.8		33.9											
6	1096	cattle	metacarpal			61.2										29.1	30		29.1
6	1096	horse	tibia			70.													

					von den Driesch 1976								Payne and Bull 1988		Payne 1969				Davis 1992
Date	Ctxt	Taxon	Element	GL	Bp	Bd	SD	Dd	Dp	bfd	glc	BF (cranial)	Bt	HT C	WT L	WT M	WC L	WC M	3
						7													
6	1139	sheep/goat	radius		26.4														
6	1139	cattle	metatarsal			42.7		23.4									22	19.1	23
6	1041	sheep/goat	tibia			25.5		19.8											
6	1041	sheep/goat	humerus			29.9							28.6	14.3					
6	1041	cat	humerus	79.2	17.5	15	5.1												
6	1041	cat	ulna	90.2															
6	1041	cat	radius	75.9	6.8	10.4													
1	611	horse	metatarsal	269		47.1													
1	611	horse	metatarsal																
1	611	horse	1st phalanx	79.8	52.8	42.6	32.5	24	38										
1	611	horse	1st phalanx	79.9	53.1	41	31.8	24.4	37										
1	611	horse	3rd phalanx									42.1							
3	683	dog	humerus		16.1				25.2										
3	549	cattle	tibia			58.1													
3	549	dog	humerus			26.6													
1	576	cattle	metatarsal			57.5											27	27.3	27.4
4 or 6	962	sheep/	radius			28.				23.									

					von den Driesch 1976								Payne and Bull 1988		Payne 1969				Davis 1992
Date	Ctxt	Taxon	Element	GL	Bp	Bd	SD	Dd	Dp	bfd	glc	BF (cranial)	Bt	HT C	WT L	WT M	WC L	WC M	3
		goat				4				8									
3	811	cattle	humerus			76							70.2	29.8					
2	822	pig	humerus			39.2							29.8	18.6					
2	822	horse	metatarsal		36.8														
2	822	horse	1st phalanx	83	50	41.5	34.6	23.4	32.9										
5 or earlier	1229	horse	humerus		80.9	85	36.4				28.2		75.1						
6	1224	sheep/goat	metacarpal			24.1		15.2							9.7	10.8	11	11.1	
4	463	cattle	metatarsal	194	63.1	65.2	34.8										31	30.6	31.6

Table 15: Measurements from mammal bones (excluding long bones) after von den Driesch 1976 and Payne and Bull 1988)

Phase	Context	Taxon	Element	GL	Bd	GLP	SLC	GLI	GLm	LA	H	GH	GB	lmt	bfd
5 or earlier	1142	deer	astragalus		29.9			49.6	48.4						
6	1139	sheep/goat	astragalus		18.2			27	25.9						
6	1041	sheep/goat	pelvis							26.2					
1	611	horse	calcaneum	107											
1	611	horse	calcaneum	107											
1	611	horse	astragalus									56.1	59	55.2	49.4
1	611	horse	astragalus									56.3	58.7	54.7	48.5
1	576	cattle	scapula			65.1									
4 or 6	962	cattle	pelvis							60.4	11				
6	1226	horse	scapula			93.4	63.7								

Table16: Measurement of bird bones (after Cohen and Serjeantson 1997)

ID	Date	Context	Taxon	Element	GL	DL	Bp	Dip	Did	Bf
10	2	421	duck	carpo-metacarpus			14.2			
102	6	1098	goose	ulna			15	17.7		
211	6	1041	goose	humerus			32.6			
212	6	1041	goose	carpo-metacarpus					11	
214	6	1041	domestic fowl	ulna	65.5		8.5		9.1	
215	6	1041	domestic fowl	ulna					8.8	
346	4 or 6	962	domestic fowl	coracoid	49.2					12
347	4 or 6	962	domestic fowl	humerus			17.7			

Table 17: Summary of butchery within the assemblage. Key: P=chop; T=cut; S=saw

Phase /Type	cattle	sheep/goat	sheep	pig	horse	lge mml	med mml	Total	% butchered
1									3
P	3			1				4	
2									16
P	3					2	4	9	
S	1					1		2	
T	1			1		2	1	5	
2-3									25
T	1							1	
3									
P	2							2	
T	1			1				2	
4									0
P	1							1	
T	1							1	
4 or 6									27
P	1	1				1		3	
S	1							1	
T							2	2	
4-5									5

P	1							1	
5 or earlier									10
P					1			1	
5-6									
P	4					1		5	
6									15
M		1						1	
P	13	2		4	1	4	1	25	
S	1		1					2	
T	2			2	1	1	3	9	
Total	37	4	1	9	3	12	11	77	12

Table 18: Butchery marks by Phase, taxon, element and type (P=chop by cleaver or similar; S=saw; T=cut by knife; M; deliberate fracturing). Excluding partial skeletons.

Phase	Taxa	Element	P	S	T	M	Total
1	cattle	femur	1				1
		pelvis	1				1
		scapula	1				1
	pig	humerus	1				1
2	cattle	humerus	1				1
		mandible			1		1
		metacarpal	1				1
		metatarsal	1				1
		radius		1			1
	lge mml med mml	rib	2	1	2		5
		rib	1		1		2
		skull fragment	1				1
		thoracic V	2				2
	pig	humerus			1		1
2-3	cattle	metacarpal			1		1
3	cattle	humerus	1				1
		metatarsal	1				1

Phase	Taxa	Element	P	S	T	M	Total
	pig	tibia			1		1
		pelvis			1		1
4	cattle	metatarsal			1		1
		tibia	1				1
4 or 6	cattle	metatarsal	1				1
		pelvis		1			1
	lge mml	rib	1				1
	med mml	rib			2		2
	sheep/goat	tibia	1				1
4-5	cattle	tibia	1				1
5 or earlier	horse	femur	1				1
5-6	cattle	1st phalanx	1				1
		metacarpal	2				2
		scapula	1				1
	lge mml	femur	1				1
6	cattle	horncore	1				1
		humerus	3		1		4
		mandible	3				3
		metacarpal	3				3
		premaxilla	2				2
		radius		1			1
		tibia	1				1
		zoned skull			1		1
	horse	mandible			1		1
		metapodial	1				1
	lge mml	lumbar v	1				1
		rib	2				2
		shaft fragment			1		1
		thoracic V	1				1
	med mml	rib shaft	1		3		4
	pig	mandible	1				1
		pelvis	1				1
		radius	1		1		2

Phase	Taxa	Element	P	S	T	M	Total
		rib			1		1
		scapula	1				1
	sheep	horncore		1			1
	sheep/goat	radius	1				1
		tibia	1			1	2
	Total		51	5	20	1	77

Appendix 16: Southwell Minster: the oyster shells

by Rachel Small, University of Leicester Archaeological Services

Introduction

Excavations in the precinct of Southwell Minster were recently carried out by Pre-Construct Archaeological Services (Lincoln) revealing Roman and medieval deposits. This included the discovery of a Roman wall 20m long and three courses high, reminiscent of a temple structure. Also a cemetery, with graves radio-carbon dated to the early medieval period, AD 660 – 870 (CBA 2011).

Analysis was carried out on European flat oyster shells (*Ostrea edulis* Linnaeus) from 50 contexts – it is thought the contexts date to the Roman period (pers. comm. N. J. Cooper). The oyster shells were analysed for subtle variations including: size, infestations and unusual characteristics. This method was pioneered by Winder (1993) and is useful for interpreting the source and exploitation of oysters over time. Because there were too few left valves for statistical analysis and the shell was not from a single deposit or phase, it was compared with known groups of shell from the region (Monckton 1994 and 1999) so the conclusions are less certain (Monckton 2012).

Method

The oyster shells from Southwell Minister had been washed using a tooth brush, instead of a soft bristled paintbrush. This more vigorous scrubbing had etched the shell and led to a loss of information. A prime example is the destruction/loss of the delicate sand tubes created by the worm *Sabellid* so the extent of occurrence is uncertain (Winder 2011).

The procedure detailed in Winder (2011) was used for recording. Firstly, shells were distinguished as left or right valves - the left valve being concave and the right valve flat. The width and length of the oysters were measured to the nearest millimetre by placing them onto a ruler with the internal surface facing downwards. The criteria used for suitability of measurement were: the possession of the ligament scar; the adductor muscle scar; and, at least two thirds of the shell intact. Where parts of the edge of the shell were missing, the measurement was estimated by following the natural curve.

The presence of infestations was noted, including: the burrows of marine worms (*Polydora ciliata* and *Polydora hoplura*); bore holes created by boring sponges (*Cliona celata*) and gastropod predators; calcareous tubes and sand tubes formed by marine worms (*Pomatoceros triqueter* and *Hydroides norvegica*); and attached barnacles and sea matt (*Polyzoa*). Any unusual characters of the shells were also recorded together with the presence of notches or cut marks.

The percentage of all measured shells (left and right) with each infestation or character was calculated (table 1). Also, the minimum number of individuals (MNI), which is the largest number of left or right valves totalled for the group. The left valve maximum diameter (LVMD) was calculated; this measurement is the largest diameter of the left valve (either width or length), this gives the maximum size of the live oyster (Winder 1993). The shape of left valves was considered by dividing the width by the length; those with a ratio of more than one were classified as broad, those less than one as long.

Results

General

In total, there were 181 specimens that represented a minimum of 72 individual oysters. Ninety-one were measurable, 51 left and 40 right. This is a small sample; it is generally considered that a minimum of 100 individuals is needed for reliable conclusions to be drawn (Winder 1993).

On the whole the condition of the shells was adequate. For measurable shells, wear (a loss of detail and lamination to the shell) was common (57.1%), and reminiscent of water/sand erosion. A flakey texture was noted on two *broken* shells.

Size and shape

The mean of the left valve maximum diameter was 74.3mm. Looking at the distribution of sizes (figure 1), it is not a typical normal distribution, there were slightly more shells just below the average size and this indicates that they are mixed groups of oysters as would be expected from grouped contexts as found in some groups of shells from Leicester (Monckton 1999). Calculation of shape proved most (94.1%) to be biologically broad shells – that is having a greater dimension from the hinge to the outer edge rather than across the shell.

Infestations

Polydora ciliata was the most common infestation found on the oyster shells (33%). The worm has a known East Coast distribution; the absence of the worm *Polydora hoplura* which is found on the South Coast (Hancock 1974) supports this east coast connection. Other infestations included the boring sponge (6.6%), barnacles (5.5%), and *Polyzoa* (1.1%). Bore holes were present on a few oysters (7.7%). All except for one, on a small shell, were sealed and this may have been because the predatory gastropods became detached before completing the attack, or older oysters fended off attack by rapidly laying down new shell layers to seal the holes (Winder 2011). For the small oyster shell where the bore hole was not sealed this probably led to the death of the oyster, as the predators suck out the meat from within (Winder 2011). The remains of sand tubes were seen on three examples (3.3%). Percentage abundance would have been much higher, but as mentioned in the method, evidence of this infestation was removed when cleaning the oysters with a tooth brush. The absence of calcareous tubes may also be due to this factor.

Unusual characteristics

Only a few oyster shells were thick (12.1%) and heavy (3.3%) and thus of an older age. Natural variation in colour was present - red colour banding was seen on some of the shells (8.8%). No ligament residues were seen, but generally this is only found on fresh or very well preserved shells (Winder 1993). Chambering was common (24.2%) and chalky deposits were present on most of the oysters from sample 906 and 907; both of these features form during rapid salinity changes possibly indicating estuarine conditions (Winder 2011). Many of the shells were irregular in shape (75.8%), and some were noted as having young oysters attached (6.6%); this a result of overcrowding, which is characteristic of natural un-managed populations, as opposed to managed beds where oysters are spread out to ensure an equal growth (Winder 1993). Notches of triangular shape were found on the outer edge of few (7.7%) oyster shells; these were probably made when opening the shells with a pointed knife.

Comparison with other Roman oysters

To draw further conclusions on the source of the oysters and their exploitation over time a comparison will be made to the Shires and Causeway Lane excavations, Leicester

(Monckton 1994; Monckton 1999). These were large scale excavations and comprehensive analysis of finds, including Roman oyster shell, was carried out.

The LVMD for the Causeway Lane oysters ranged from 71.82 - 80.21mm for the different Roman phases (table 1). For the Shires excavation it ranged from 72.79 – 79.11mm. The LVMD for the Southwell Minster oysters was 74.3mm. This falls into the range for the two Leicestershire sites, with a tendency towards the smaller end of the scale. All three sites had a higher proportion of broad to long shells. Unfortunately this could not be demonstrated statistically because of the small sample size here.

The range of infestations identified at the three sites was the same; of note, is a distinct lack of the burrowing worm *Polydora hoplura*, which is associated with the south coast. The percentage abundance of infestations present on the Southwell Minster oysters falls broadly into the range for the two Leicestershire sites. Differences include the frequency of bore holes is much higher in the Southwell Minster assemblage; this difference may not be genuine instead a result of small sample size. Also, the abundance of *Polyzoa* is slightly lower than expected; however, this delicate sea matt may have been destroyed during washing.

The percentage abundance of unusual characteristics is again broadly similar. Differences include a slightly higher proportion of thick and heavy shells in the Southwell Minster assemblage. Also, irregularity in shape was far more common; this may suggest the oysters found at Southwell Minster grew in a much more crowded environment than the Leicestershire shells, but again it may be a result of small sample size.

On the whole, there are broad similarities between the oysters found at Southwell Minster and those found at Causeway Lane and the Shires, Leicestershire. It was suggested that the oysters from Causeway Lane (phase 6) and the Shires (2nd century) were very similar to those from North Shoebury, which is on the Essex coast (Monckton 1999).

Other shells

Mussel (*Mytilus edulis*) shells were found. One fragment in sample 388; three fragments in sample 697; and 1 fragment in sample 947. The fragments were too incomplete for measurements to be carried out. Of note was the mussel in sample 388 had a thin brown shell with dark purple lines; this suggests it lived offshore (Wallace 2012). The other mussels had a thick shell and were purple/blue in colour, these probably lived onshore, and were thick for protection, growing slowly (Wallace 2012). Mussels are also a common shell found on Roman sites.

Discussion

Source

The oysters probably came from the east coast; the main evidence for this being the lack of infestation by the burrowing worm *Polydora hoplura*. Also, due to a similarity with the Roman oyster shells found in Leicester at Causeway Lane (phase 6) and the Shires (2nd century), both of which were shown to be statistically similar in size to shell from North Shoebury, Essex (Monckton 1999: 340). The presence of chambering and chalky deposits on some of the oyster shells suggests growth in estuarine conditions, perhaps this was the Essex tidal creeks. The oysters were bred in an overcrowded environment, which is characteristic of natural un-managed populations.

Transport

The route taken to transport oysters in Roman times is unknown but could have involved coastal barges and then transport inland along the rivers or roads (Monckton 1999). It is known that oysters can survive up to ten days out of water if kept moist and cool (Winder 1993). *Apicius* describes the use of wide-necked jars or *ollas* coated with bitumen for the transportation of oysters, and an example was found at Richborough (Edwards 1984). Other containers such as barrels and baskets may have been used, but these rarely survive in the archaeological record.

Consumption

The oyster is generally served in the left valve (Winder 1993); therefore, analysis of the ratio of left to right valves can indicate whether a deposit represents waste (from preparation of the oysters) or consumption refuse. The ratio is more or less even, 72 left and 67 rights, suggesting the deposit represents both food preparation and consumption waste; perhaps the two activities occurred in the same area.

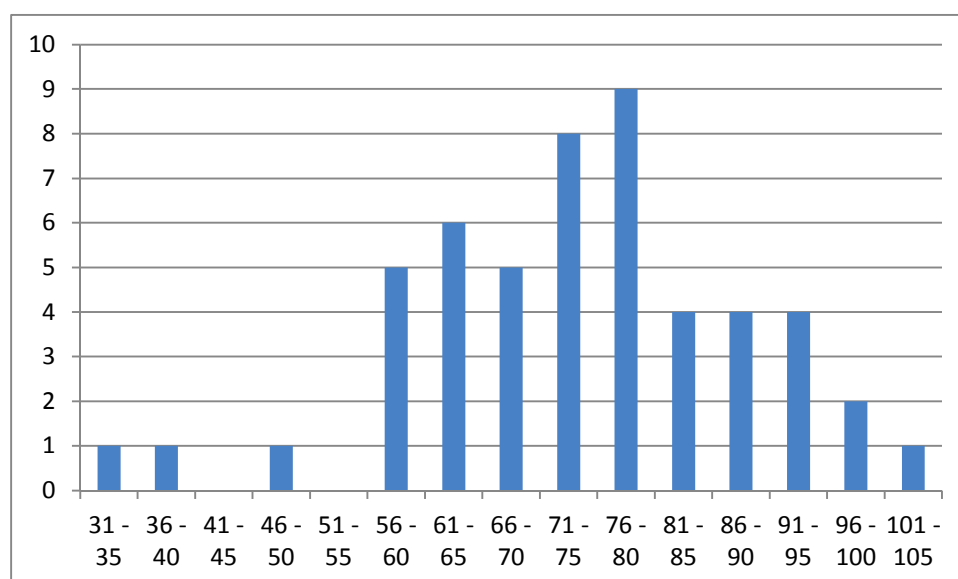
Conclusion

This report was based on a small sample, under 100 individuals. Patterning in the assemblage has been suggested. From this it has been postulated that the oysters grew in crowded conditions in east coast estuaries. When they arrived in Southwell they were prepared and consumed in close proximity, the waste from the two activities being deposited together. These conclusions seem justifiable and similar to those reached for Causeway Lane and the Shires, Leicestershire. However, the suggestions made should still be treated with a degree of caution, due to the low number of oysters on which the inferences were made.

Table 1: The percentage abundance of infestations and unusual characteristics present on the measurable shell assemblages from Southwell Minster, Causeway Lane and the Shires, Leicestershire. Also, basic statistics for the assemblages. (Information taken from Monckton 1994 and 1999).

	Southwell Minster	Causeway Lane				Shires		
	Roman	Phase 6	Phase 6A	Phase 5C - H	Phase 1 - 5B	F186 1264	F186 othe	Rest of RB
% <i>Polydora ciliata</i>	33	61.3	49	40.7	24.5	18.7	18.8	16.3
% <i>Polydora hoplura</i>	0	0	0	0	0	0	0	0
% <i>Cliona celata</i>	6.6	4.3	5.3	3.2	2.5	1.3	2.3	2.4
% Calcareous tubes	0	0	0	0	0.4	0	0	0
% Barnacles	5.5	13	14.5	5.2	5.4	4.8	6.5	4.5
% Polyzoa	1.1	9	8.3	7.5	3.3	13.8	12.4	2.8
% Bore holes	7.7	1	0.5	2.4	0.8	1.8	2.5	3.3
% Sand tubes	3.3	11	6.8	7.9	1.7	8	5.2	1.2
% Thin	0	1.7	2.4	0.4	1.3	0	0	0
% Thick	12.1	8.3	11.7	4.2	1.7	3.4	4.9	5.3
% Heavy	3.3	1.7	2.4	1.2	1.7	0.7	1.8	2.4
% Chambered	24.2	27.7	27.7	17.8	11.6	14.5	16.9	10.9
% Chalky deposit	14.3	12.7	3.4	25.7	26.6	4.8	9.4	2.4
% Worn	57.1	41.3	37.9	83	36.1	0	0	26.4
% Flakey	0	45	41.8	79.1	50.6	1.5	19.3	30.9
% Colour/stain	8.8	1.3	0.5	0.4	0.8	6.9	7.4	2.4
% Oysters attached	6.6	7.7	8.3	6.3	6.6	11.3	11.9	8.5
% Irregular shape	75.8	33	36.9	27.3	29	15.1	12.4	15
% Notches/cuts	7.7	4.7	5.8	2.4	6.6	8.9	3.8	1.6
% Ligament	0	0	0	0	0	0	0	0
Measured left	51	167	123	140	128	301	233	134
Measured right	40	133	83	113	113	409	212	112
Total measured	91	300	206	253	241	710	445	246
Broken left	21	69	24	65	67	16	80	88
Broken right	27	33	15	40	41	25	43	63
Fragments	42	0	0	0	0	0	0	0
% Broken	50	25.4	15.9	29.3	30.9	5.5	21.7	38
Total specimens	181	402	245	358	349	751	568	397
MNI	72	256	161	236	251	434	313	222
LVMD	74.3	79.47	80.21	72.45	71.82	79.11	74.49	72.79
Long:Broad	16:1	1:15	1:11	1:11	1:9	1:4	1:4	1:4
% Long	5.9	6.6	8.9	9.3	11.7	20.07	20.89	19.41

Figure 1: The distribution frequency of LVMD.



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Appendix 17: Archaeobiological analysis at Southwell Minster, Nottinghamshire

by Anita Radini, ULAS

Introduction

During excavations conducted at Southwell Minster by Pre-Construct Archaeological Services Ltd, a number of environmental samples were taken from different features, including pits, ditches and post-holes, amongst others that may provide evidence of food production, consumption and trade on site. The samples dated from the Roman to the medieval periods. Furthermore, during the excavation a number of burials dating between 7th and the 9th Centuries AD were unearthed. Samples associated with the skeletons were taken to assess the presence of intestinal parasites. The skeletons also provided the opportunity to conduct preliminary analysis of human dental calculus. Human dental calculus, also known as tartar, may entrap micro-debris of dietary and non-dietary origin, providing insight into food consumption and living conditions experienced by past populations. A small number of studies have in fact demonstrated that a range of micro-debris of non-dietary origin and chemical compounds can become entrapped in the calculus. For instance, smoke, occupational dust generated by pottery making and plant fibres, such as cotton (*Gossypium* spp.), have been recovered from the calculus matrix of past populations (Blatt *et al.*, 2011; Blondiaux and Charlier, 2008; Hardy *et al.*, 2012; Radini, Nikita and Shillito, in press). In this report, dental calculus evidence is approached as an atypical environmental deposit to complement the more traditional analysis of bulk soil samples.

Materials and dating evidence

Lines of evidence

Three principal lines of evidence were recorded, assessed and/or analysed in this report:

- 1) The plant macro-remains
- 2) The presence and survival of intestinal parasites ova
- 3) The nature of micro-debris in human dental calculus from 10 skeletons

Soil samples

A total of 153 samples were taken during excavation. Of these, 87 samples were associated with the excavated skeletons, and were submitted for intestinal parasite analysis. These samples came from the area of the pelvis, and were normally coupled with at least one from either head or feet, or from both locations, taken as control samples. The remaining samples were bulk samples of soil, where volume varied between 10 to 40 litres.

Dating evidence from sampled contexts was generally poor, with a good number of samples coming from features with no dating evidence (see Table 1). However, 41 samples contained pottery dating to the Roman period, with few being medieval and post medieval in date (see Table 2). The skeletons dated between the 7th and the 9th century AD.

Methods

Plant macro-remains

Visual assessment of the samples taken for plant macro-remains indicated that a number did not appear to have charred or waterlogged remains and were not selected for analysis. In total, 50 samples of between 10 to 40 litres in volume were therefore processed for the retrieval of plant remains (see Table 1 and 2). Between 10 and 20 litres of soil from each sample were processed in a sieving tank with 0.5mm mesh and flotation into a 0.3mm mesh sieve. Residues were all air-dried and separated on a 4mm mesh riddle; the coarse fractions (CF), over 4mm, were sorted for all environmental remains and other finds whilst the fine fractions (FF), below 4mm, were reserved for sorting during the analysis stage if required. The flotation fractions (flots) were transferred from the sieve into plastic boxes and air-dried. All flots from the samples were scanned, noting the species present. Morphological criteria were used for the identification of plant species, based on modern reference material and seed identification manuals (e.g. Berggren 1981; Anderberg 1994; Cappers *et al.* 2006). Classification and nomenclature follow Stace (1997).

Human dental calculus

Ten skeletons were sampled for dental calculus for this report (see table 3), which forms part of a larger study in progress, conducted as doctoral research by the author. A small quantity of calculus was removed from the teeth using disposable stainless steel sterile blades. A sub-sample between 8 to 10 mg in weight was prepared and analysed microscopically. Laboratory procedures followed the protocol described in detail by Warinner *et al.* (2014) and Radini, Nikita and Shillito (in press.) and summarised briefly below:

- 1) the calculus was washed and the external facets dissolved in HCl of low molarity to remove surface contaminants.
- 2) The 'clean' calculus was then dissolved in HCl of low molarity in a sterile tube.
- 3) The debris freed from the calculus was siphoned out with an Eppendorf pipette until no residue was left.
- 4) The retrieved remains were mounted on a glass slide in a 50:50 solution of glycerol and ultrapure water.
- 5) The slide was then observed under low (x200) and high magnification (x400 and x630) using a Zeiss compound microscope.
- 6) Debris was identified and quantified wherever possible

The identification of the micro-fossils retrieved was based on anatomical and optical properties, followed by visual comparisons with a modern reference collection, created as part of the author's PhD project. Furthermore, comparison with published material was also possible (e.g. Petraco and Kubic 2003; Piperno 2006; Torrence and Barton 2006; Warinner *et al.* 2014). The above steps are standard procedure for the identification of both modern and ancient micro-remains.

Parasites

Samples from the area of the pelvis were processed first. First a sub sample of soil, of around 15 g were treated in 15 ml of 1M hydrochloric acid, and left for digestion in acid for a minimum of a week to a maximum of two weeks. After this length of time a swirling movement was produced to encourage further disaggregation and the formation of a suspension, and sieved through a set of stainless steel sieves with apertures between 500 to

20 microns. A small volume of the organic matter collected on sieves below 300 microns aperture (between 0.2 and 0.15 ml) were pipetted on to a microscope slide and a solution of 50% glycerol and 50% ultrapure water was put a top of the suspension. Finally, the mixture was covered with a coverslip; a drop of nail polish was placed at each corner of the coverslip to maintain it in situ. Identification was conducted using descriptions and size charts from modern atlases and published data of modern and archaeological material (e.g. Ash and Orihel 1990; Foreyt 2013). Where parasites were found, further control samples were scanned if necessary, to confirm that the parasites were only present in the pelvis and not in the burial soil.

Results and Discussion by Period

Due to the fact that this report combines multiple lines of evidence, it was decided to present and discuss the finds by period of time. This was chosen as no soil samples from the 7th to the 9th century were analysed for this report. Considering therefore the calculus as an atypical environmental deposit forming in the mouth, it was decided to use such evidence, to bridge the Roman to the Later Medieval and Post medieval samples.

The un-phased samples

Twenty-five un-phased samples were scanned for this report. Overall, the archaeobotanical assemblage was consistently fair to poor across site. The majority of the samples had a good amount of modern root and rootlets and uncharred seeds of modern origin, suggesting a degree of soil disturbance. The charred remains retrieved were tabulated by broad category of remains in Table 1. In those samples in which plant macro-remains were found, these were mainly charred grains of barley (*Hordeum vulgare* L.) and wheat (*Triticum* sp.) and very common weeds of crops such as goosefoots (*Chenopodium* spp.) and sorrels (*Rumex* spp.). Several seeds of grasses (Poaceae) and sedges (Cyperaceae) were also found, together with a few seeds of cabbages/mustards (*Brassica/Sinapis*). These could be weeds of crops and/or plant material used for kindling or bedding/flooring. Overall, the assemblage points to consumption of cereal remains and food spillage, but due to the small amount of remains and the lack of dating evidence, the un-phased samples will not be discussed further.

The Roman Period

An overview of the assemblage

Thirty-five samples dating the Roman period were scanned for plant remains. Many had small amounts of charred plant remains, as would be expected for this period nationally. Less than half of the samples contained between 12 to 20 seeds/cereals grains, whilst the remainder of the samples yielded less than 10 items each. Results are shown in Table 2 by category of remains. The major form of preservation was by charring but a few fragments of wood and roots appeared to be waterlogged, possibly due to the wet conditions in the ground. All samples had at least some modern or recent contaminants consisting of roots, rootlets and uncharred seeds. Uncharred seeds were mainly of elder (*Sambucus nigra* L.).

Cereals

The cereal remains found in Roman contexts were identified as spelt (*Triticum spelta*), glume wheat (*T. dicoccum/spelta*) and hulled barley (*Hordeum vulgare*), together with a few examples of unidentified and badly preserved grains which could either be examples of the above species or large seeds of grasses (Poaceae). Only three samples, 1 (3), 114 (325) and sample 149 (1135), contained glume bases, which were a mixture of emmer (*Triticum dicoccum* L.), and spelt (*Triticum spelta* L.), with spelt chaff being higher in number. Cereal remains were higher in number in samples: 90 (335) 99 (257) 113 (316), all fills of post holes; sample 125 (407), a pit fill; 1 (3), 121 (365) and 149 (1135) which were ditch fills. Worthy of

mention were the backfills of two of the Anglo-Saxon graves which are considered to contain residual Roman material: the grave back fill of skeleton 5, sample 13 (48), and skeleton 33, samples 76, 77, 78 (148), respectively from head, pelvis and feet, which were rich in charcoal flecks and chaff. Over 100 glume bases of spelt and some emmer wheat were retrieved in both cases, suggesting that such crops were very likely cultivated locally, brought on site and processed, dry or possibly by parching.

Other plant remains

A few charred grains of large grasses (Poaceae) were found in most samples. The weeds comprised a few seeds of goosefoot (*Chenopodium* sp.), some rare spring-germinating weeds of crops and disturbed ground, such as seeds of chickweed type (*Stellaria* sp.) and seeds of docks (*Rumex* spp.) andampions (*Silene* spp.), all of which occur as annuals or as short-lived perennials on arable land. A few seeds belonging to plants associated with damp ground such as sedges (Cyperaceae) were also recovered. Seeds of cabbages/mustards (*Brassica/Sinapis* sp.) were also recorded and could have been brought to the site with the crops, because they can grow as weeds of the field and its margins. Alternatively a number of those species are edible and or are used for fodder, or could also have been brought to the site as roofing or flooring material. Due to the uniformity of the weed/disturbed ground assemblage, and the low number of seeds recovered in the category, it was not possible to gather information regarding the crop husbandry practice. This is not due to their absence from the fields or the environment, but due to the nature of the assemblage itself and its form of preservation, by charring, which very likely damaged many species of plants.

Summary of the Roman period

The Roman assemblage indicates that crops of barley and glume wheat, in particular spelt, were brought on site and processed for consumption. The majority of the samples are consistent with food spillage or the accidental burning of such crops.

The Anglo Saxon Period: evidence from the skeletons

The evidence from the Anglo-Saxon Period is represented by the non-skeletal evidence of parasites and human dental calculus.

Parasites

Intestinal parasite ova (see Fig. 1) were recovered from three skeletons:

- 1) Sk16: sample 32 (82) from the pelvis was found positive for intestinal parasite ova, while sample 31 and 33 (82), taken from the area of the head and feet respectively, were negative for such evidence.
- 2) Sk 17: sample 37 (87) from the pelvis. Control samples taken from the head, sample 36 (87) and the feet, sample 38 (87), were negative for intestinal parasites ova.
- 3) Sk 24: sample 50 (110), pelvis was found to have a small number of intestinal parasite ova, while control samples 51 (110) and 52 (110), from head and feet were negative.

The ova found associated with skeletons Sk 17 and Sk 24 belonged to small intestinal roundworm (*Ascaris* spp.; see Fig. 1), while whipworm ova (*Trichuris* spp.; see Fig. 2) were found in low number with skeleton Sk 16.

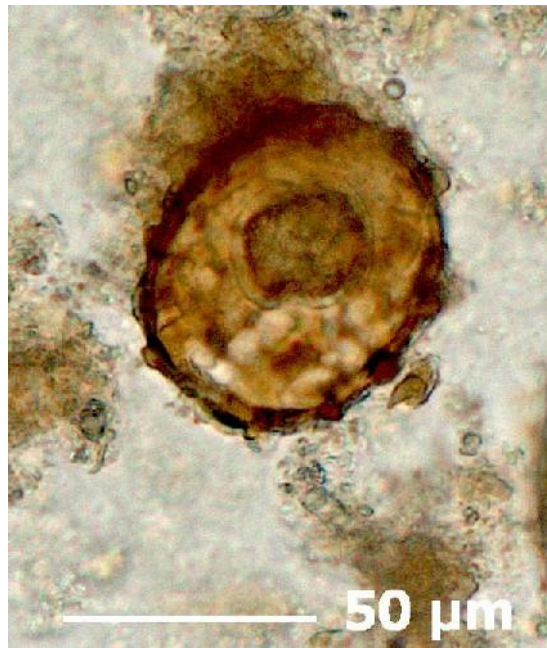


Fig.1: roundworm egg, from Sk 17

In the case of skeletons Sk 17 and Sk 24, which show evidence for roundworm, both graves were “truncated as well- including ‘later/modern disturbance within pelvis area’” according to the site documents. Such evidence therefore remains doubtful and will not be discussed further. The ova of whipworm found in Sk 16 ranged between 52 to 56 micron by 22 to 25, which is consistent with the size range of modern porcine whipworm that affects pig (*T. suis*). While pig is the natural host for this parasite, where it is normally a mild pathogen, it can also affect people and other animals.

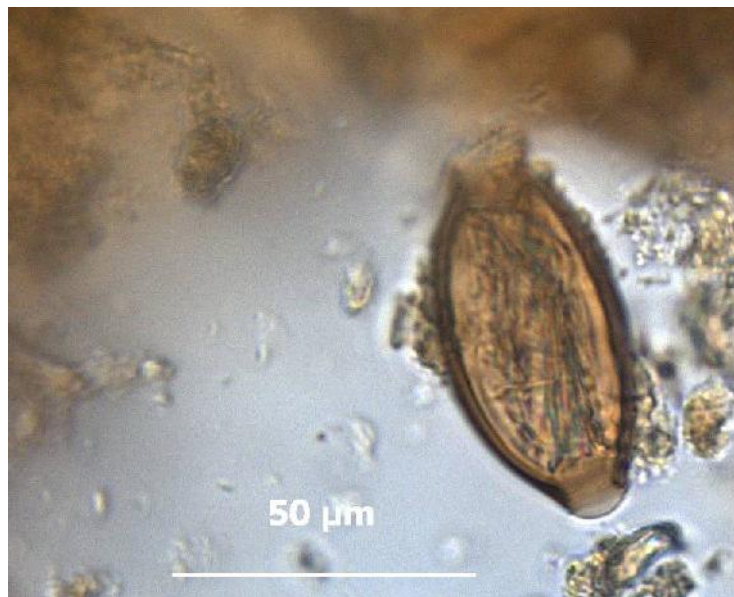


Fig.2: Whipworm egg, from Sk 16

The human dental calculus

The analysis of human dental calculus yielded a variety of micro debris, of both dietary and non-dietary origin, alongside starch granules and micro-charcoal, which was ubiquitous across the population. Preliminary results of such analysis are recorded in Table 3.

Among the dietary debris, starch granules and cereal bran belonged to the tribe Triticeae, that of barley, rye (*Secale cereale* L.) and wheat; all staple crops in Anglo-Saxon diet (Banham 2004). Very interesting was the retrieval in almost all the skeletons of starch granules belonging to legumes, potentially species field/broad beans and vetches (*Vicia* spp.), another group of plants considered staple food in the Anglo-Saxon (Banham, 2004). Among them the plant hair of field vetch (*Vicia faba v minuta*) in SK 3, suggests that field beans may be the source of the starch granules from legumes. Such remains are considered crops with lower archaeological visibility than cereals (Hall 2001), making these almost ubiquitous finds, a very important one. Another important find was the epidermis of leek (*Allium porrum* L.), a vegetable normally consumed during the Anglo-Saxon period, but thought to have been gradually replaced by cabbage in the diet during the later medieval period (Hall 2001). Together with un-diagnostic plant tissue, also present in all the calculus samples, the presence of leek tissue confirms a diet including leafy greens.

Potential evidence of medicinal plants was also retrieved associated with one skeleton (SK21) which yielded the pollen of agrimony (*Agrimonia* sp). This is also a plant found in the pollen load of honey which, before the introduction of sugar, was the main form of sweetener (Crane 1984), and so honey consumption could also be a possibility. Other pollen grains were found belonging to wood species (see table 3), including those of fruit trees such as apples normally grouped in the Pomoidae pollen category.

The most interesting evidence revealed by the calculus analysis was the occurrence of un-burnt phytoliths from the epidermis of common reed (*Phragmites* spp.). Common reeds are widespread in many areas of world in damp condition such as near rivers, ponds and marsh lands, and are still used in roofing, rope making and basketry today. They were found in a large proportion of the male individuals in this population, suggesting that some form of occupational dust was the sources of such debris. Other phytoliths found are those of grasses (Poaceae), the daisy family (Asteraceae) and sedges (Cyperaceae), all families of plants with several species useful to humans but also many that are weeds of crops. The pathways of inclusion of such debris are therefore many. Other non-dietary debris recovered were bast fibres, potential flax (cf. *Linum usitatissimum* L.) and hemp (cf. *Cannabis sativa* L.), and wool, all of which were mainly found in the calculus of females.

Microcharcoal, which in common with fibres and pollen was a potential respiratory irritant, was common in all calculus samples, suggesting consumption of burnt food, smoked meat, and exposure to smoke in general. Mineral grit was also present in all calculus samples, and could be accidentally ingested in food, for example from the quern stones used to process cereal crops. It must be stressed that these are very preliminary results and research is still ongoing, therefore a number of items are currently in the process of being identified and contextualised.

The Medieval Period

Five bulk soil samples were scanned from the medieval period with pottery dating between the 10th to the 12th centuries. The assemblage had a little bit more charcoal and coal than the Roman samples and plant remains were fewer, possibly suggesting a more 'industrial' function for the site. In common with all the other samples, root, rootlets and modern uncharred seeds were found in all samples, suggesting a degree of disturbance.

Cereals

Low numbers of cereal grains were found in all samples. All of them were consistent with free-threshing wheat (*T. aestivum/durum*), the most common type of wheat in medieval England (Dyer, 2003). No chaff was found in the samples to allow further identification to species level.

Arable and disturbed ground plants

Low numbers of seeds belonging to arable weeds of cereal crops such as stinking mayweed (*Anthemis cotula* L.), normally found on heavy soils, cleavers (*Galium aparine*) and corncockle (*Agroemma githago* L.) were recovered. Cleavers are autumn germinating species and when found associated with cereals suggest that they may have been autumn sown (Hall 2000). Weeds associated with spring sown crops and garden cultivation were goosefoots (*Chenopodium* spp.), and docks (*Rumex* spp.), commonly found in settlements and disturbed ground as well.

Seeds of oat (*Avena* spp.) and other small grasses were also recovered, although preservation did not allow their identification as the cultivated or the wild form. Oats often infested fields in the past and it was likely to have been left undisturbed and eaten together with the cultivated crops (Banham, 2004).

Summary of the medieval samples

Plant remains found in the samples dating to the medieval are consistent with most plant assemblages of the period, but are in low concentration compared with others (Hall 2000).

Summary and Conclusions

Despite the low concentration of plant macro-remains retrieved from the majority of the samples, the integrated approach adopted on site has revealed a number of aspects of diet and living conditions at Southwell from the Roman to medieval periods. The evidence from the Roman period suggests spelt was widely consumed as a main crop, associated with barley. The evidence from the dental calculus of skeletons dated to the Anglo-Saxon period shows that a variety of food plants, such as cereals, legumes and leafy greens, were widely consumed among the population. These results were complemented by those of non-dietary nature, suggesting exposure to smoke and other potential respiratory irritants, such as fibres from plants perhaps of occupational origin. The medieval samples demonstrate the expected shift from spelt wheat to bread wheat and the occurrence of weeds such as stinking mayweed, normally associated with cultivated clay-lands.

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Appendix 17.1 Tables

Table 1. Unphased Samples

Sample	Context	Notes	Ch	ChGr	Chf	ChSe	UnCh	MdRt	Comments
102	358	Brownish-grey clayey silt with frequent large sub-rounded limestone frags, 0.22m deep, filling post-hole 340 above fill 357	x					xx	
101	339	Basal fill in post-hole 340: mid-brown sandy silt with no inclusions of its own, but limestone fragments pressed in from fill 357 above; 0.11m deep	x				x	x	
106	276	Mid-yellowish-brown silty clay fill in post-hole 275: contains abundant medium/large sandstone fragments, chiefly at base and edges of feature, forming post-pad/packing.	x	1Ba		3	x	xx	1x <i>Rumex</i> sp.; 2x Cyperaceae
107	355	Mid- to dark grey clayey silt with frequent large angular/platy stones and occasional pebbles, 0.15m deep, filling post-hole 336 above fill 337	x				x	xx	
108	356	Mid-grey sandy silt with frequent large angular/platy stones and occasional pebbles, 0.15m deep, filling post-hole 347 above fill 348	x				x	xxx	
109	268	Mid-brownish-grey friable gritty clayey silt with moderate small cobbles/large pebbles and rare charcoal flecks; contains frequent small/medium sandstone fragments as post-packing. Principal fill in post-hole 267.	x	1Ba				xx	
110	280	Fill of post-hole 279: dark grey sandy silt with frequent flecks of charcoal and/or manganese, containing frequent large angular stones and occasional large pebbles; some of these have been pushed through the edges of the feature.	x	1Wht	1xWht		x	x	
111	301	Mid-brownish-grey sandy silt with frequent angular/platy and rounded medium to large stones, some pushed through the feature sides, filling post-hole	x				x	xx	
116	329	Mid-grey silty clay with abundant limestone and sandstone fragments serving as post-packing, filling post-hole 328	x			1		x	1x seed of <i>Chenopodium</i> sp.
117	190	Basal fill of post-hole 189: grey clayey silt with patches of brown sandy silt and flecks of possible deteriorated mortar or lime, 0.25m deep. Contains several large stones, placed as post-packing.	x	3xBa 1xWht				x	

Sample	Context	Notes	Ch	ChGr	Chf	ChSe	UnCh	MdRt	Comments
118	221	Mid- to dark brown silty clay with occasional charcoal flecks, filling feature 220: a number of medium to large angular stones suggest post-packing.	x			3		xx	1x <i>Rumex</i> sp.; 2x Cyperaceae
119	185	Dark brown clayey silt filling post-hole 184; contains frequent large angular limestone fragments, probably post-packing	xx	7xWht		5	x	x	3x Cyperaceae, 1x <i>Chenopodium</i> sp., 1 x <i>Polygonum</i> sp.
120	367	Mid-brownish-grey fine-sandy clayey silt with rare charcoal flecks, filling drain 366 around timber structure 368	x	3xBa 1xWht		3		xx	1x <i>Rumex</i> sp., 2x <i>Brassica/Sinapis</i>
122	191	Light bluish-grey silty clay filling a post-pipe within fill 190 in post-hole 189, 0.25m x 0.20m x 0.30m	x				x	x	
123	370	Mid- to dark brown friable to loose organic clayey silt surrounding timber 371 in drain 369					x	xx	
126	441	Mid-greyish-brown silty clay with CBM and charcoal flecks, filling ditch section 440	x					xxx	
127	411	Mid-greyish-brown clayey silt with abundant snail shells and rare small stones, filling ditch section 410; cut by 412					x	xxx	
129	496	Fill of post-hole 495: mid-grey shelly silt with moderate stone inclusions that may represent post-packing	x	3xBa		5	x	x	2x <i>Brassica/Sinapis</i> , 2x Poaceae, 1x Cyperaceae
133	651	Natural marl – specific location unrecorded, no context sheet (same as 651?)						xxx	
134	652	Natural deposit of whitish-grey lime marl, compact but very friable, overlying natural clay deposit 807, 0.08m deep					x	xxx	
135	660	Light brownish-red plastic silty clay basal fill of post-pit 659						x	
138	573	Light- to mid-brownish-grey friable fine-sandy silt with rare charcoal flecks and CBM frags, forming the primary fill of ditch section 572.					x	x	
147	914	Dark brownish-grey friable silt with frequent charcoal flecks at the base of section 912 through pit G955; 0.06m deep.	xx	1xBa		11	x	x	3x <i>Brassica/Sinapis</i> ; 2x <i>Chenopodium</i> sp., 5x Cyperaceae, 1x Poaceae
148	971	Mid-grey clayey silt, loose and very soft, containing frequent wood and charcoal frags, 0.14m deep, overlying fill 970 in section 969	x	3xWht		7	x	x	5xPoaceae, 2x <i>Chenopodium</i> sp.
150	1062	Basal fill in ditch section 1061: mid-brownish-grey friable fine-sandy silt with moderate charcoal flecks and rare small pebbles and mudstone frags, 0.64m deep.	x			3	x	x	3xPoaceae

Ch=charcoal; ChGr=charred cereal grains; Chf=cereal chaff; ChSe=charred seeds; UnCh=uncharred seeds and fruits; MdRT=modern root and rootlets; Ba=barley; Wht=wheat

Table 2: Phased samples

Sample	Context	Notes	Phase	Ch	ChGr	Chf	ChSe	UnCh	MdRt	Comments
1	003	Very dark brown silty clay with abundant stone inclusions, filling ditch 002	Roman CBM	xx	5xBa; 3xWht	2	5	x	xx	Chaff: 2x <i>T. Spelta</i> ; 1x <i>Stellaria</i> sp., 3x Poaceae, 1x <i>Chenopodium</i> sp.
99	257	Fill of post-hole 256: mid-yellowish-brown silty clay with rare charcoal flecks, containing abundant medium and large sandstone fragments as post-packing. Disturbed by tree-roots and by post-packing stones being pressed into edges/base by the weight of the building	Mid-2nd-century pottery (1 sherd), CBM	xx	10xWht		3	x	x	1x <i>Rumex</i> sp.; 1xCyperaceae; 1xPoaceae
98	318	Mid-grey compact silty clay with occasional CBM frags and rare sandstone frags, filling ditch section 317	Roman CBM (3 frags)	x	1xBa			x	x	
91	327	Mid-greyish-brown silty clay with abundant small/medium sub-rounded sandstone frags and manganese flecks, filling post-hole 326; contains a single re-used worked stone set in base as a post-pad	1 sherd mid-1st-century or later pottery	x				x	x	
90	335	Fill of post-hole 334: mixture of light brown sandy clay with orange sand and greyish-white friable clayey silt, containing sub-angular limestone fragments	1 frag Roman CBM	x	5xBa; 7xWht		4	x	x	1x Poaceae; 2x <i>Brassica/Sinapis</i> ; 2x <i>Chenopodium</i> Sp.
89	266	Dark greyish-brown silty clay with occasional small/medium sub-rounded stones, overlying the fills of the post-holes making up structure 292: remnant of a larger layer mostly removed by machining.	Late 2nd-century or later pottery (6 sherds), CBM	x	1xBa			x	x	
88	312	Primary fill in pit section 311: mid-brownish-grey friable fine-sandy clayey silt with rare charcoal flecks and small mudstone/sandstone frags, 0.12m deep in excavated section	1 sherd Roman pottery	x	2xWht			x	x	
87	306	Dark brown clayey silt with occasional rounded stones, filling ditch section 305, cut by post-hole 300	1 frag Roman CBM	x	1xBa			x	x	

Sample	Context	Notes	Phase	Ch	ChGr	Chf	ChSe	UnCh	MdRt	Comments
152	1096	Basal fill in section 1095: dark brownish-grey friable sandy clayey silt with moderate charcoal flecks and rare small pebbles, 0.20m deep.	Roman pottery, AD 70-200 (4 sherds)	x				x	x	
149	1135	Principal fill of ditch 1128, above fill 1134, surviving to 0.23m deep; truncated above by ditch cut 1088. Greyish-black clayey sandy silt with charcoal flecks and organic material.	Roman pottery, AD 70-200 (4 sherds)	xx	4xBa; 5xWht	3	8	x	x	Chaff: 1x <i>T.diccocum</i> , 2x <i>T. Spelta</i> ; 5x Poaceae; 1x <i>Brassica/Sinapis</i> ; 2x <i>Chenopodium</i> Sp.
146	928	Dark brownish-grey friable clayey sandy silt with occasional small limestone frags, filling small pit 927.	Roman CBM (6 frags)	x	1xWht			x	x	
144	811	Mid-greyish-brown compact clayey silt with streaks of possible organic material, 0.15m deep, overlying stone floor 812 in structure 693. Possible compacted earth floor of second building phase.	Late 1st to early 2nd-century pottery (1 sherd)	x				x	x	
143	822	Dark brownish-grey silty clay with patches of orange-brown redeposited marl natural, charcoal flecks and tufa flecks, filling section 821.	Roman CBM (3 frags)	x			1	x	x	1x <i>Rumex</i> sp.
142	794	Dark brown to black compact silty clay with tufa fragments, filling section 793 in G792.	Roman pottery (1 sherd)	x	1xBa			x	x	
141	777	Dark brownish-grey loose clayey silt with charcoal and occasional small angular stones, filling central post-pipe in post-pit 778	Mid-2nd-century or later pottery (6 sherds)	xx	3xBa; 8xWht		4	x	x	1x Poaceae; 1x <i>Brassica/Sinapis</i> ; 2x <i>Chenopodium</i> Sp.
139	715	Fill of post-pipe in post-pit 713, above fill 714: dark brownish-grey friable fine-sandy silt with moderate charcoal flecks and fired clay frags and rare abraded CBM frags, small pebbles and small/medium mudstone and limestone frags	Mid- to late 3rd-century pottery (1 sherd)	x	2xWht		1	x	x	1x <i>Brassica/Sinapis</i>
137	661	Mixture of dark greyish-brown silt and mid-brownish-red fired clay with charcoal inclusions, filling post-pit 659 above fill 660	Late 3rd-century pottery (21 sherds)	x				x	x	
136	675	Pinkish-red clay with frequent medium to large pebbles, filling pit 673 above fill 674	Flavian/Trajanic pottery, AD 70-120 (3 sherds)	x				x	x	

Sample	Context	Notes	Phase	Ch	ChGr	Chf	ChSe	UnCh	MdRt	Comments
132	623	Principal fill in pit 621, overlying fill 626: fragments of wall plaster in a matrix of dark grey silt, with fragments of CBM. Possible fill of post-pipe.	Roman pottery (1 sherd)	xx	3xWht		1	x	x	1x <i>Stellaria</i>
131	619	Blackish-grey silty clay with frequent charcoal and fired clay frags and occasional sub-rounded platy stones, filling ditch 618.	Roman CBM (12 frags/flakes)	xx	1xBa		1	x	x	
130	513	Spread of CBM rubble in a matrix of greyish-brown silty clay, with charcoal flecks and occasional pebbles. Covers an area of at least 3.5m x 2.3m, and also fills feature 518.	Roman CBM (6 frags)	x	5xBa; 7xWht		1	x	x	
128	451	Mid-greyish-brown silty clay containing CBM rubble, filling section 450	Roman CBM (12 frags)	x	2xBa		3	x	x	2x Poaceae, 1x <i>Silene</i> sp.
126	441	Mid-greyish-brown silty clay with CBM and charcoal flecks, filling ditch section 440	Late 4th-century pottery (60 sherds)	x	3xWht		1	x	x	1x <i>Stellaria</i>
125	407	Dark grey sandy clay containing a single mudstone fragment, filling pit 406	Roman pottery (2 sherds)	x	5xBa; 4xWht		7	x	x	3x Poaceae; 1x <i>Rumex</i> sp.; 1x <i>Chenopodium</i> sp.; 2x Cyperaceae
124	403	Mid-brownish-grey clayey silt with rare small to medium quartz pebbles and limestone fragments and abundant snail shells, overlying natural to a depth of 0.20m on E side of site; cut by wood-filled drains G366 and 369.	Roman pottery (1 sherd)	x	4xBa; 7xWht		1	x	x	1x Poaceae
123	370	Mid- to dark brown friable to loose organic clayey silt surrounding timber 371 in drain 369	Roman CBM (13 frags)	x	1xBa		1	x	x	1x <i>Stellaria</i> sp.
122	191	Light bluish-grey silty clay filling a post-pipe within fill 190 in post-hole 189, 0.25m x 0.20m x 0.30m	3rd-century or later pottery	x	5xBa; 6xWht			x	x	
121	365	Mid-brownish-grey fine-sandy clayey silt with rare charcoal flecks and small/medium mudstone frags, filling ditch section 364, cut by 362	Roman pottery (1 sherd)	xx	4xBa; 9xWht		6	x	x	3x Poaceae, 1x Cyperaceae; 2x <i>Brassica/Sinapis</i>
114	325	Light to mid-grey silty sandy clay with frequent small pebbles, containing frequent angular and platy stones in assorted sizes from small to large as post-packing, filling post-hole 324	Roman CBM (4 frags)	x	3xBa; 9xWht	3	5	x	x	2x <i>Silene</i> sp.

Sample	Context	Notes	Phase	Ch	ChGr	Chf	ChSe	UnCh	MdRt	Comments
113	316	Mid- to dark brownish-grey sandy clayey silt filling post-hole 315; contains frequent angular and platy stones in assorted sizes from small to large, with frequent pebbles.	Roman CBM (5 frags)	xx	5xBa; 7xWht		4	x	x	1x <i>Stellaria</i> sp., 1x Poaceae; 1x <i>Brassica/Sinapis</i> ; 1x <i>Chenopodium</i> sp.
112	278	Mid-brownish-grey fine-sandy clayey silt with rare charcoal flecks and large pebbles, filling post-hole 277; contains frequent small to medium sandstone frags as post-packing	1 frag Roman or medieval CBM	x	3xBa			x	x	
104	359	Brownish-grey clayey sandy silt with rare small to medium pebbles, 0.11m deep, filling post-hole 341 above fill 346	Roman CBM (10 frags)	xx			1	x	x	1x <i>Rumex</i> sp.
103	346	Basal fill in post-hole 341: mixed orange- and greyish-brown friable sandy silt with occasional limestone fragments, chiefly towards N side	1 frag Roman CBM	xx	3xWht			x	x	
100	238	Mid-greyish-brown silty clay with frequent manganese flecks and small sandstone fragments, filling post-hole 237: contains a quantity of medium to large sandstone fragments, probably representing post-packing.	Roman CBM (2 frags)	x	1xBa			x	x	
105	274	Mid-grey plastic silty clay filling post-hole 274; contains frequent medium sandstone fragments as post-pad or –packing material	1 frag Roman CBM	x				x	x	
86	198	Blackish-brown silty clay with occasional small to medium angular platy stones, filling ditch section 197; cut by 199	spot date of possible late 10th to 12th-century		10xWht		4	x	x	2x <i>Brassica/Sinapis</i> ; 2x Poaceae
153	1094	Mid-orange-brown compact clayey silt with moderate charcoal flecks, filling possible beam slot 1093.	Mid-12th to mid-13th-century pottery (6 sherds)		8xWht		2	x	x	1x <i>Agrostemma githago</i> ; 1x <i>Avena</i> sp.
151	1014	Dark brown silt with patches of red clay (mixture of topsoil and redeposited natural), filling small feature 1013; sealed by layer 962.	Mid-12th to mid-13th-century pottery (6 sherds)		3xWht		4	x	x	2x <i>Anthemis cotula</i> ; 1x <i>Chenopodium</i> sp.; 1x <i>Avena</i>
145	899	Shared upper fill across ditch section 895 and post-hole 896: mid-grey silt with moderate charcoal flecks.	11th to 12th-century pottery (1 sherd)	x	8xWht		2	x	x	1x Poaceae; 1x <i>Rumex</i> sp.

Sample	Context	Notes	Phase	Ch	ChGr	Chf	ChSe	UnCh	MdRt	Comments
140	728	Dark greyish-brown silt with lenses of light reddish-brown clay, filling pit 727; contains abundant CBM, wall plaster fragments in greater quantities at the top of the fill, and occasional small rounded stones.	11th- to 12th-century pottery (4 sherds)	x	5xWht		4	x	x	1x <i>Agrostemma githago</i> ; 1x <i>Avena</i> sp.; 1x <i>Rumex</i> sp.; 1x <i>Chenopodium</i> sp.

Ch=charcoal; ChGr=charred cereal grains; Chf=cereal chaff; ChSe=charred seeds; UnCh=uncharred seeds and fruits; MdRt=modern root and rootlets; Ba=barley; Wht=wheat

Table 3. Micro-debris in human dental calculus

Sk	3	13	8	20	21	27	29	32	33	34
Weight in Mg	10	9	10	10	11	9	10	12	10	8
Sex	M	M	F	M	M	M	F	M	M	M
Starch granules										
<i>Triticeae</i>	12	7	21	13	16	23	22	11	3	15
<i>Fabaeae</i>	9	3	7	15	7	12	5	3	6	10
Unidentified	x	x	x	x	x	x	x	x	x	x
Cereal bran										
<i>Triticum</i> sp.	1			1		1				1
<i>Secale cereale</i> L.		1			1				1	
Plant hairs										
<i>Vicia faba</i> v. <i>minuta</i>	1							1		
Plant fibres										
cf. <i>Linum usitatissimum</i>	1		14	2		1	7		1	
cf. <i>Cannabis sativa</i> L.					1		8	1		1
Undiagnostic	1		1				7			
Pollen										
<i>Betula</i> sp	1		1						1	1
<i>Alnus</i> sp.				1			1			
<i>Pinus</i> sp.										
<i>Quercus</i> sp.				1			1			1
<i>Corylus avellana</i> L.	1			1	1		1			1
Pomoidae		1								
<i>Agrimonia</i> sp.					1					
Phytoliths										
<i>Phragmites australis</i>	3	1		7	13	4		8	13	1

Sk	3	13	8	20	21	27	29	32	33	34
Weight in Mg	10	9	10	10	11	9	10	12	10	8
Sex	M	M	F	M	M	M	F	M	M	M
Triticeae					1		1			1
Asteraceae	1			1		2	1			1
Cyperaceae	3	1		12		11	3	2	1	
Monocots	2		2	2	1	4	2		1	2
Undiagnostic	1									
Microcharcoal	x	x	x	x	x	x	x	x	x	x
Others										
Wool fibres			2		1			1		
Soil flecks/dirt	x	x		x	x	x	x	x	x	x
Unidentified	xx	xx		xx	x	x	xx	x	x	xx

Appendix 18: Wood identifications of archaeological samples

by Ian Tyers, Dendrochronological Consultancy Ltd.

Eleven samples of hardwood timbers excavated from Church Street, Southwell, Nottinghamshire (sitecode SCSX12, NGR *c.* SK 703 537) were submitted for wood identification, one of these was subsequently sub-sampled and submitted for radiocarbon analysis. This material was derived from a series of linear features on a site that included Roman structural remains.

Methodology

The site was visited during 2012 to assess the potential of the material for dendrochronological analysis. This assessment identified none of the material was suitable for dendrochronological analysis. The timbers were supplied in 2015 for wood identification and radiocarbon sub-sampling.

The wood type of the identification samples was determined by taking hand cut thin sections of each timber in three planes (radial, transverse and tangential sections). These sections were placed on glass slides and examined at between 40x and 1000x magnification. The comparison of these sections with permanent reference slides and reference keys such as Schweingruber (1978), (1990) and online resources such as [Inside Wood - Search the Inside Wood Database](#) (Wheeler 2011) and [Microscopic Wood Anatomy](#) (Schoch *et al* 2004) enabled identifications to be made for the material. Note it is rarely possible to identify timbers to species level, and it is sometimes possible to only identify timbers to the level of botanical family or sub-family group. Archaeological samples may have degraded during their burial, or during their storage, this may lead to the loss of one or more critical features that prevent identifications being made. It should also be noted that juvenile material does not always exhibit the diagnostic features necessary to separate similar species.

Results

The submitted material included 11 samples. The material was successfully identified, and includes at least 3 types of timber (Table 1).

The outermost rings of sample 397 160 were sub-sampled for radiocarbon analysis. This sample was submitted to the Scottish Universities Environmental Research Centre (SUERC), where it was treated to extract the cellulose and dated by AMS (Freeman *et al* 2010). The SUERC laboratory maintains a continual programme of quality assurance procedures, in addition to participation in international inter-comparisons (e.g. Scott *et al* 2010). These tests indicate no laboratory offsets and demonstrate the reproducibility and accuracy of these measurements. The result is a conventional radiocarbon age (Stuiver & Polach 1977). Radiocarbon measurements, as in Table 2, are expressed in radiocarbon years BP, quoted in accordance with the international standard known as the Trondheim convention (Stuiver & Kra 1986).

Radiocarbon dating is based on the radioactive decay of carbon-14 (^{14}C) and can be used to date organic materials, including wood. A small proportion of the carbon atoms in the atmosphere are of a radioactive form, ^{14}C . Living trees take up carbon from the environment, and therefore contain a constant proportion of ^{14}C . Once a tree dies, however, its ^{14}C decays at a known rate. This makes it possible to calculate its date from the concentration of ^{14}C atoms remaining.

Radiocarbon ages are not the same as calendar ages because the concentration of ^{14}C in the atmosphere has fluctuated over time. Thus a radiocarbon measurement has to be calibrated against an independent scale to arrive at the corresponding calendar date. In simple terms the radiocarbon ages are converted to 'real' calendar years by calculating intercepts to a 'calibration curve'. If, as in this period, the curve is non-linear there may be 2 or 3 discontinuous intercept bands each with some statistical probability.

The independent scale used here is the IntCal13 calibration curve (Reimer *et al* 2013) which was constructed from radiocarbon measurements on tree rings, plant macrofossils, speleothems, corals, and foraminifera. The calibration which relates the radiocarbon measurement directly to the calendrical time scale have

been calculated using IntCal13 and the program OxCal v4.2 (Bronk Ramsey 1995; 2001; 2009). The calibrated date range quoted in Table 2, expressed as 'cal AD', was calculated by the maximum intercept method (Stuiver & Reimer 1986) and is rounded outwards. The graphical distribution of the uncalibrated date, the form of the calibration curve and graphical distribution of the calibrated date is shown in the SUERC output file.

The radiocarbon result given in Table 2 needs no further interpretation as this timber retained bark-edge and the sample included only the outermost rings, hence no further age allowance need be made in this instance.

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Table 1. Wood identifications from Church Street, Southwell, Nottinghamshire (sitecode SCSX12)

KEY

Quercus; *Quercus spp*, oak, widespread native, one of 2 species or their hybrid
Pomoideae; *Pyrus/Malus/Crataegus* type, apple/pear/hawthorn indeterminate,
native hedgerow shrub or orchard tree
Salicaceae; willow and/or poplar indeterminate, native

Timber	Identification	English Name
371 155	<i>Quercus</i>	oak
371 156	<i>Quercus</i>	oak
371 157	<i>Quercus</i>	oak
371 158	<i>Quercus</i>	oak
371/369 154	<i>Quercus</i>	oak
396 159	<i>Quercus</i>	oak
397 160	<i>Quercus</i>	oak
398 161	<i>Quercus</i>	oak
399 162	cf <i>Pomoideae</i>	fruitwood
414 163	<i>Salicaceae</i>	willow/poplar
414 164	<i>Pomoideae</i>	fruitwood

Table 2. SUERC ¹⁴C result and initial SUERC calibration of a sample from Church Street, Southwell, Nottinghamshire (sitecode SCSX12). This oak needs no additional age allowance for outermost missing sapwood.

Timber	Type	Lab # SUERC	Lab # GU	¹⁴ C Age (BP)	calibrated ¹⁴ C date cal AD (95.4% probability)
397 160	oak	60748	37672	131±31	1670-1780, 1795-1895, 1905-1945

Appendix 18.1: Radiocarbon dating of wood sample

by Scottish Universities Environmental Research Centre

RADIOCARBON DATING CERTIFICATE

01 July 2015

Laboratory Code SUERC-60748 (GU37672)

Submitter Ian Tyers
Dendro Co Ltd
Lowfield House
Smeath Lane
Clarborough
Notts, DN22 9JN

Site Reference Southwell SCSX12

Context Reference 397

Sample Reference 160

Material Waterlogged Wood : Oak

$\delta^{13}\text{C}$ relative to VPDB -26.6 ‰

Radiocarbon Age BP 131 ± 31

N.B. The above ^{14}C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

The calibrated age ranges are determined from the University of Oxford Radiocarbon Accelerator Unit calibration program (OxCal4).

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email Gordon.Cook@glasgow.ac.uk or telephone 01355 270136 direct line.

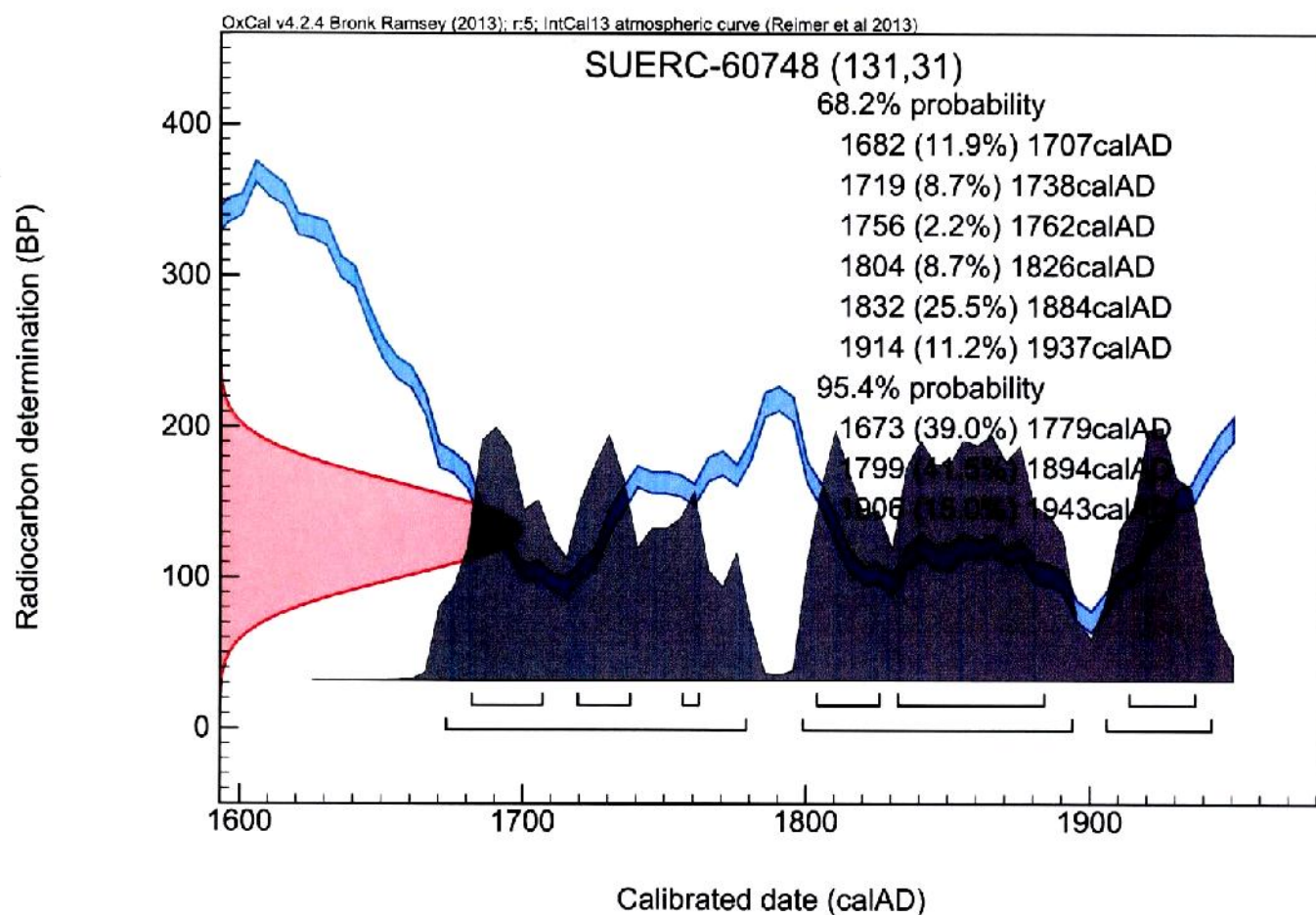
Conventional age and calibration age ranges calculated by :- *E. Dunbar*

Date :- 01/07/2015

Checked and signed off by :- *P. Naylor*

Date :- 01/07/2015

Calibration Plot



Appendix 19: Soil Evaluation Report

by R. I. Macphail, Institute of Archaeology

Summary

A field evaluation of the 'white layer' at the Old Minster site, Southwell, suggested this was a largely weathered natural tufa or marl, of likely early Holocene date. Samples were collected to further this suggested identification through laboratory analysis.

Introduction

The Old Minster site, Southwell, Nottinghamshire was visited on the 10th of October 2012, in order to help determine the nature of a white layer which was present across major parts of the site, and was believed to be either 1) a lime-based foundation material for various structures or 2) a natural deposit (Johanna Gray and Neil Parker, Pre-Construct Archaeological Services Ltd, pers. comm.). Various examples of this white layer were discussed with Neil Parker, and two locations were selected for study and sampling, namely Contexts 133 and 134 (Figs 1-4). These were examined employing standard techniques (Goldberg and Macphail, 2006; Hodgson, 1997).

Results

Local soils

The Soil Survey of England and Wales mapped the soils surrounding Southwell as formed in Permo-Triassic reddish mudstone, and employing this information alongside field evidence a Typical Argillic Pelosol soil cover can be interpolated for the unmapped 'urban' area (Hodge et al., 1983). These soils (Worcester soil association) are described as "Slowly permeable non-calcareous and calcareous reddish clayey soils over mudstone - - -".

White Layer

At both Locations/Contexts studied (133 and 134) the 'white layer' appears to be weathered, but essentially is a light grey colour (10YR6/1) when pure. It is, however, often rooted and burrow mixed, becoming a weakly humic soil and/or an anthropogenic soil containing charcoal and rubefied sand/fine brick material layer. Intact white layer material at 133 seems to include monocotyledonous plant fragments and possibly molluscs also occur within the white layer. Thin section soil micromorphology would be necessary to clarify this, however. At 134, the white layer is weakly iron-stained (?) in places giving it a reddish yellow colour (7.5YR6/8). It seems that the whitish layer is present over the dark grey and grey (5Y4/1-5/1) clay substrate (weathered Permo-Triassic mudstone). Some whitish nodules occur along the boundary between the two layers.

Discussion

The field evidence and previous experience with such deposits suggests that the white layer is a natural marl or tufa (travertine) deposit; its preservation may be too poor to take this identification further, however (Hatch and Rastall, 1965; Weiner, 2010). If tufa, it may have formed as spring water emerged over the semi-impermeable clayey weathered mudstone geology on the slope north west of the Potwell Dyke. Numerous instances of tufa/marl formation dating to the early Holocene can be cited, for example at the Upper Paleolithic and

Early Mesolithic site of Three Ways Wharf, Uxbridge, and within alluvium at Pilgrims School, Winchester (Lewis et al., 1992; Lewis and Rackham, 2011; Macphail et al., 2009). A much nearer example is the early post-glacial marl on the A46 at Margidunum, Nottinghamshire (Wessex Archaeology)(Macphail, 2012). These examples, formed through calcium carbonate deposition from CaCO_3 -charged groundwater/springs, and calcium carbonate can embed plants growing on site or detrital plant material, as suspected at Southwell. It is very unlikely that a lime mortar foundation (white layer) would include unburned plant material and molluscs (Karkanas, 2007; Rentzel, 1997).

The field evidence suggests that the white layer is weathered tufa/marl, of natural origin. This tufa has been affected by weathering after exposure through erosion, building works, and possible liquid waste contamination; it has also been rooted and burrowed. Previously, this location would have been a source of clean water.

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Fig. 1: Southwell Old Minster site; large area of white layer, with surface water, running down towards the Potwell Dyke (N. Parker, pers.comm.).



Fig. 2: White layer (Location/Context 133); Kubiena box micromorphological sample 651 collected from light grey (10YR6/1 – when pure) 'white layer'. Monocotyledonous plant remains were found in this layer. Tree root and burrowing disturbance of the layer was also noted.



Fig. 3: Location/Context 134; section through feature edge; white layer sampled by Kubiena box 652.



Fig. 4: Detail of Sample 652 through light grey (10YR6/1) 'white layer' and an underlying reddish yellow (7.5YR6/8) layer. Whitish material can be found within the dominantly dark grey and grey (5Y4/1-5/1) clay substrate (weathered Permo-Triassic mudstone).

Table 1: Southwell Minster; 'white layer' samples collected for study

Context	Sample	Thin section	Bulk sample
133	651	M651	x651 – white layer
134	652	M652	x652 – white layer

Appendix 20: OASIS Summary

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Minster School, Southwell - Pre-Construct Archaeological Services Ltd

OASIS ID - preconst3-197002

Versions

View	Version	Completed by	Email	Date
View 1	1	Mrs. R. D. Savage	rachel@pre-construct.co.uk	2 December 2014
View 2	2	Mrs. R. D. Savage	rachel@pre-construct.co.uk	24 September 2015

Completed sections in current version

Details	Location	Creators	Archive	Publications
No	Yes	Yes	Yes	1/1

Validated sections in current version

Details	Location	Creators	Archive	Publications
No	No	No	No	0/1

File submission and form progress

Grey literature report submitted?	No	Grey literature report filename/s
Boundary file submitted?	No	Boundary filename
HER signed off?		NMR signed off?

Grey literature	Upload images	Upload boundary file	Update project entry
Request record re-opened	Printable version		

Email Nottinghamshire SMR about this OASIS record

OASIS:

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