PROPOSED REDEVELOPMENT AT PLATTS ORCHARD, 39, CHURCH STREET, SOUTHWELL, NOTTINGHAMSHIRE

SCHEME OF ARCHAEOLOGICAL MITIGATION VOL. 3: APPENDICES

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Plate 21: Baulk section of later medieval ditch **449**/**452**/**461** at the S site edge, looking N.

Appendix 2: Context Summary

Area A1

Cxt	Type	Description	Finds, samples and dating
001	Layer	Topsoil – heavily re-worked garden soil. Dark brownish-black loamy silt with frequent charcoal flecks, up to 0.74m deep.	
002	Layer	Subsoil. Dark, slightly reddish-brown, slightly sandy silt, up to 0.35m thick.	
003	Layer	Natural substrate: exposed solid geology. Laminated bands of mid orange-brown-red silty clay and light grey soft mudstone with bands of solid mudstone.	
004	Fill	Dark brown loamy silt with frequent charcoal flecks, filling pit **005**: not excavated.	
005	Cut	Modern sub-circular pit, 0.22m diameter; probable garden feature. Not excavated.	
006	Fill	Mixed redeposited natural clay and dark brown silty loam filling pit **007**: not excavated.	
007	Cut	Modern sub-rectangular pit, 0.40m x 0.30m; probable garden feature. Not excavated.	
008	Fill	Dark brown loamy silt with frequent charcoal flecks, filling pit **009**. Not excavated.	
009	Cut	Modern sub-rectangular pit, probable garden feature. Not excavated.	
010	Fill	Dark brown loamy silt with common charcoal flecks, filling pit **011**: not excavated.	
011	Cut	Modern sub-circular pit. Not excavated.	
012	Fill	Apparent basal fill of post-hole **013**: mid-orange-brown silty clay with occasional small mudstone fragments	1 sherd mid-1st to 2nd-century pottery; sample <1> produced two small mid/late 12th to early/mid 13th-century sherds
013	Cut	Sub-rounded, steep-sided post-hole with a flat base. Appears to be part of 'double post-hole' with **195**; filled by 012 with fill 075 above.	
014	Fill	Dark brown loamy silt with common charcoal flecks, filling pit **015**. Not excavated.	
015	Cut	Modern sub-circular pit. Not excavated.	
016	Fill	Dark brown loamy silt with common charcoal flecks, filling pit **017**. Not excavated.	1 sherd 13th to 14th-century pottery
017	Cut	Modern sub-circular pit. Not excavated.	
018	Fill	Dark brown loamy silt with common charcoal flecks, filling pit **019**.	
019	Cut	Modern sub-circular pit with shallow, concave base, filled by 018.	
020	Fill	Mixed redeposited natural clay and dark brown silty loam with frequent small mudstone fragments, filling pit **021**.	
021	Cut	Circular, steep-sided pit with a concave base, possibly modern.	
022	Fill	Mid-orange-brown silty clay with occasional small pebbles, filling central 'post-pipe' in post-hole **023**.	1 sherd 2nd to 3rd-century pottery, CBM, bone
023	Cut	Circular post-hole with stepped sides, 0.53m diameter x 0.26m deep; filled by 022 and 024.	

Cxt	Type	Description	Finds, samples and dating
024	Fill	Mid-reddish-brown sandy clay with occasional small pebbles, surrounding central 'post-pipe' in post-hole **023**.	
025	Fill	Mid-orange-brown silty clay with occasional small stone fragments and charcoal flecks, filling possible pit **026**.	
026	Cut	Oval to sub-rounded, shallow concave base. Cut of pit/root disturbance?	
027	Fill	Mid-orange-brown silty clay with occasional small pebbles, filling natural feature **028**.	
028	Cut	Irregular feature - curving, shallow concave base. Root disturbance.	
029	Fill	Mixed redeposited natural clay and dark brown silty loam with frequent small mudstone fragments, filling pit **030**.	
030	Cut	Modern sub-rectangular pit. Not excavated.	
031	Fill	Mixed redeposited natural clay and dark brown silty loam with frequent small mudstone fragments, filling pit **032**.	
032	Cut	Modern sub-rectangular pit. Not excavated.	
033	Fill	Basal fill of pit **034**: dark greyish-brown silt with rare small stone fragments (waterlogged).	15th to 16th- century pottery, CBM, animal bone including pig, cattle, sheep/goat, fish and frog/toad; sample <3>
034	Cut	Sub-oval, vertical-sided pit, filled by 033 and 207. Not fully excavated (flooding). Domestic waste pit?	
035	Fill	Dark brown loamy silt with frequent charcoal flecks, filling pit **036**.	1 sherd Roman and 1 of mid-17th to 18th-century pottery, CBM, bone, shell; iron nail SF 4
036	Cut	Modern sub-rectangular pit, vertical-sided with a flat base.	
037	Fill	Dark brown loamy silt, filling pit **038**. Not excavated.	
038	Cut	Modern sub-rectangular pit. Not excavated.	
039	Fill	Dark brown loamy silt, filling pit **040**.	
040	Cut	Modern sub-circular pit, shallow concave base.	
041	Fill	Dark brown loamy silt, filling pit **042**. Not excavated.	
042	Cut	Modern square pit. Not excavated.	
043	Fill	Dark brown loamy silt, filling pit **044**. Not excavated.	
044	Cut	Modern square pit. Not excavated.	
045	Fill	Dark brown loamy silt, filling pit **046**.	
046	Cut	Modern sub-circular pit with shallow, concave base.	
047	Fill	Mid- to dark brown silt, filling pit **048**.	
048	Cut	Modern sub-circular pit with shallow, concave base.	
049	Fill	Mid- to dark brown silt, with occasional small pebbles, stone fragments and charcoal flecks, filling linear feature **050**.	1 sherd (residual) Roman and mid-17th to 18th-century pottery, CBM, animal bone including sheep/goat and cattle, shell

Cxt	Type	Description	Finds, samples and dating
050	Cut	Linear feature, aligned *c*. N-S (terminating to N), with moderate sloping sides and a flat base. Same as **173**. Post-med. trench for hedge planting?	
051	Fill	Mixed redeposited natural clay and dark brown silty loam with frequent small mudstone fragments, filling pit **052**.	2 sherds mid-17th to 18th-century pottery
052	Cut	Sub-circular pit, believed to be modern and not excavated.	
053	Fill	Mixed redeposited natural clay and dark brown silty loam with frequent small mudstone fragments, filling pit **054**. Not excavated.	
054	Cut	Modern sub-square pit. Not excavated.	
055	Fill	Dark brown loamy silt, filling pit **056**. Not excavated.	
056	Cut	Modern sub-circular pit. Not excavated.	
057	Fill	Dark brown loamy silt, filling pit **058**. Not excavated.	
058	Cut	Modern sub-square pit. Not excavated.	
059	Fill	Mid-orange-brown silty clay with occasional charcoal flecks, filling feature **060**.	
060	Cut	Natural hollow: irregular with shallow-moderate sloping sides and a concave base. Same as **064**.	
061	Fill	Dark brown loamy silt, filling pit **062**. Not excavated.	
062	Cut	Modern sub-circular pit. Not excavated.	
063	Fill	Mid-orange-brown silty clay with occasional charcoal flecks and pebbles, filling feature **064**.	1 sherd Roman and mid-15th to 16th-century pottery, animal bone including pig, sheep/goat, cattle and cat, shell; iron nails SF 2 + 3
064	Cut	Natural hollow: irregular with shallow-moderate sloping sides and a concave base. Same as 060.	
065	Fill	Mixed redeposited natural clay and dark brown silty loam with frequent charcoal flecks, filling pit **066**. Not excavated.	
066	Cut	Modern sub-rectangular pit. Not excavated.	
067	Fill	Mixed redeposited natural clay and dark brown silty loam with frequent charcoal flecks, filling pit **068**. Not excavated.	
068	Cut	Modern sub-rectangular pit. Not excavated.	
069	Fill	Mixed redeposited natural clay and dark brown silty loam with frequent charcoal flecks, filling pit **070**. Not excavated.	
070	Cut	Modern sub-rectangular pit. Not excavated.	
071		Void	
072		Void	
073	Fill	Dark brown loamy silt, filling pit **074**. Not excavated.	
074	Cut	Modern sub-circular pit. Not excavated.	
075	Fill	Mid-orange-brown silty clay with occasional small mudstone fragments, filling post-hole 013 above basal fill.	13th to 15th-century pottery, bone

Cxt	Type	Description	Finds, samples and dating
076	Fill	Dark brown loamy silt, filling pit **077**. Not excavated.	Sherd 19th to 20th-century pottery
077	Cut	Modern sub-circular pit. Not excavated.	
078	Fill	Dark brown loamy silt, filling pit **079**. Not excavated.	
079	Cut	Modern sub-square pit. Not excavated.	
080	Fill	Mixed redeposited natural clay and dark brown silty loam with frequent charcoal flecks and small mudstone fragments, filling pit **081**.	
081	Cut	Modern sub-circular pit, shallow concave base.	
082	Fill	Mixed redeposited natural clay and dark brown silty loam with frequent charcoal flecks and small mudstone fragments, filling pit **083**.	Bone
083	Cut	Modern sub-circular pit, shallow concave base.	
084	Cut	Natural hollow with irregular, shallow, concave to flat base. Same as 111.	
085	Fill	Mid-greyish-brown sandy silt with occasional pebbles and small mudstone fragments, filling feature **084**.	1 sherd Roman pottery, possible late medieval to early post-medieval window glass, bone; late medieval knife SF 1
086	Fill	Dark greyish-brown sandy silt with occasional charcoal fragments, filling pit **087**.	1 sherd 13th to 15th-century pottery
087	Cut	Modern sub-circular pit with moderate sides and narrow, concave base.	
088	Cut	Sub-rectangular post-hole with moderate sides and a flat base, to E of post-hole **090** and possibly forming part of a well-head structure with it.	
089	Fill	Mid-grey and yellowish-brown sandy silt with moderate sized packing stones, filling post-hole **088**.	
090	Cut	Sub-rectangular post-hole with moderate sides and a concave base, cutting fill 094 in construction cut of well 093: possible well-head structure?	
091	Fill	Mid-grey and yellowish-brown sandy silt with moderate sized packing stones, filling post-hole **090**.	
092	Cut	Circular, vertical-sided cut for well 093. Not fully excavated (flooding).	
093	Structure	Stone-lined well (truncated by pit 034) constructed from small, natural limestone fragments, unbonded. Not fully excavated (flooding).	
094	Fill	Backfill in cut **092** behind stone facing of well 093, consisting of redeposited natural mid yellow-brown silty clay with frequent small stone fragments.	
095	Cut	Linear feature, aligned *c*. NNE-SSW, with steep sloping sides and a concave base. Same as **108**, **222** & E303.	
096	Fill	Mid-reddish-brown silt with occasional small stone fragments, filling ditch section **095**.	Late 3rd-century or later pottery, bone; iron nail SF 6; sample <5>
097	Cut	Linear feature, aligned *c*. NNE-SSW, with steep sloping sides and a concave-flat base. Same as **099**, **106**, **176** & E311.	

Cxt	Type	Description	Finds, samples and dating
098	Fill	Mid-reddish-greyish-brown silt with occasional small stone fragments, filling ditch section **097**.	Late 3rd to mid-4th-century pottery including a mortarium sherd, animal bone including fish; sample <4>
099	Cut	Linear feature, aligned *c*. NNE-SSW, with steep sloping sides and a concave base. Same as **097**, **106**, **176** & E311.	
100	Fill	Mid-reddish-greyish-brown silt with occasional small stone fragments, filling ditch section **099**.	Mid- to late 2nd-century pottery, prehistoric struck flint, large animal bone assemblage including sheep/goat, cattle and eel
101	Cut	Linear feature, aligned *c*. N-S, with moderate sloping sides and a flat base. Same as E207 & E315. Post-med. trench for hedge planting?	
102	Fill	Dark brown silty loam with frequent charcoal flecks, pebbles and small mudstone fragments, filling linear feature **101**.	1 sherd Roman with mid- to late 18th-century pottery, fragment of probably 18th-century glass bottle, bone, 19th-century CTP
103	Cut	Sub-rectangular pit with steep sides and a concave base.	
104	Fill	Mid-reddish-brown silt basal fill of pit **103**.	
105	Fill	Mid-yellowish-brown silty clay with frequent small stone fragments, above fill 104 in pit **103**.	Possibly medieval pottery, bone
106	Cut	Linear feature, aligned *c*. NNE-SSW, with steep sloping sides and a concave-flat base. Same as **097**, **099**, **176** & E311.	
107	Fill	Mid-reddish-greyish-brown silt with occasional small stone fragments, filling ditch section **106**.	Mid- to late 2nd century pottery, bone
108	Cut	Linear feature, aligned *c*. NNE-SSW (terminates to south), with moderate sloping sides and a concave-flat base. Same as **095**, **222** & E303.	
109	Fill	Mid-reddish-greyish-brown silt with occasional small stone fragments, filling ditch section **108**.	Late 3rd to 4th-century pottery, CBM
110	Finds	Finds recovered from 'interface layer' between buried soil deposit 214/216 and the overlying subsoil 002.	Very late 4th-century pottery, CBM, glass, animal bone including pig, cattle, sheep, equid and goose
111	Cut	Natural hollow with irregular, shallow concave-flat base. Same as **084**.	
112	Fill	Mid-greyish-brown sandy silt with occasional small mudstone fragments, filling feature **111**.	13th-century pottery, bone, shell
113	Cut	Modern sub-rectangular pit. Not excavated.	
114	Fill	Dark brown silty loam with frequent charcoal flecks, pebbles and small mudstone fragments, filling pit **113**. Not excavated.	Sherd 19th to 20th-century pottery
115	Cut	Modern sub-circular pit. Not excavated.	
116	Fill	Dark brown silty loam with frequent charcoal flecks, pebbles and small mudstone fragments, filling pit **115**. Not excavated.	
117	Cut	Modern sub-rectangular pit with steep sides and a flat base.	

Cxt	Type	Description	Finds, samples and dating
118	Fill	Dark brown silty loam with frequent charcoal flecks, filling pit **117**.	
119		Void	
120		Void	
121	Cut	Modern sub-rectangular pit with steep sides and a flat base.	
122	Fill	Dark brown silty loam with frequent charcoal flecks and small mudstone fragments, filling pit **121**.	17th-century CTP
123	Cut	Circular modern pit. Not excavated.	
124	Fill	Dark brown silty loam with frequent charcoal flecks, filling pit **123**. Not excavated.	
125	Cut	Square, vertical-sided modern soakaway pit with a flat base, containing 126-8.	
126	Structure	Modern stone-lined soakaway in pit **125**, constructed from moderate-sized natural and re-used limestone blocks, unbonded.	
127	Fill	Backfill behind stone facing of soakaway 126, consisting of redeposited natural mid orange-brown silty clay with occasional small stone fragments.	
128	Fill	Late industrial-period rubbish within soakaway structure 126, consisting of bottles, jars, salt-glazed pipes, tin plate and other domestic waste within a dark loam matrix.	
129	Cut	Modern sub-rectangular pit with steep sides and a flat base, filled by 130.	
130	Fill	Dark brown silty loam with frequent charcoal flecks, pebbles and small mudstone fragments, filling pit **129**.	1 sherd 3rd to 4th-century pottery, bone
131	Cut	Modern sub-rectangular pit with steep sides and a flat base, filled by 132.	
132	Fill	Dark brown silty loam with frequent charcoal flecks, pebbles and small mudstone fragments, filling pit **131**.	
133	Cut	Modern sub-rectangular pit with steep sides and a flat base, filled by 134.	
134	Fill	Dark brown silty loam with frequent charcoal flecks, pebbles and small mudstone fragments, filling pit **133**.	
135	Cut	Modern sub-rectangular pit with steep sides and a flat base.	
136	Fill	Dark brown silty loam with frequent charcoal flecks, pebbles and small mudstone fragments, filling pit **135**.	Sherd 19th to mid-20th-century pottery, probable 13th to 14th-century sherd, CBM, bone
137	Cut	Multi-sided, sub-circular, modern cut feature, with vertical sides and a flattish base; filled by 138. Also recorded as E209. Possibly formerly an ornamental pond.	
138	Fill	Mixture of soil and modern demolition material including tarmac and concrete, filling possible pond **137**.	
139	Cut	Modern sub-rectangular pit, filled by 140; not excavated.	
140	Fill	Dark brown silty loam with frequent charcoal flecks; fill of pit **139**. Not excavated.	
141	Cut	Modern sub-rectangular pit. Not excavated.	
142	Fill	Dark brown silty loam with frequent charcoal flecks, filling pit **141**. Not excavated.	
143	Cut	Modern sub-rectangular pit with steep sides and a flat base.	
144	Fill	Dark brown silty loam with frequent charcoal flecks, filling pit **143**. Not excavated.	

Cxt	Type	Description	Finds, samples and dating
145	Cut	Modern sub-rectangular pit. Not excavated.	
146	Fill	Dark brown silty loam with frequent charcoal flecks, filling pit **145**. Not excavated.	
147	Cut	Modern sub-circular pit. Not excavated.	
148	Fill	Dark brown silty loam with frequent charcoal flecks, filling pit **147**. Not excavated.	
149	Cut	Modern sub-rectangular pit. Not excavated.	
150	Fill	Dark brown silty loam with frequent charcoal flecks, filling pit **149**. Not excavated.	
151	Cut	Modern sub-rectangular pit. Not excavated.	
152	Fill	Dark brown silty loam with frequent charcoal flecks, filling pit **151**. Not excavated.	
153	Cut	Modern sub-rectangular pit. Not excavated.	
154	Fill	Dark brown silty loam with frequent charcoal flecks, filling pit **153**. Not excavated.	
155	Cut	Modern sub-rectangular pit. Not excavated.	
156	Fill	Dark brown silty loam with frequent charcoal flecks and small mudstone fragments, filling pit **155**. Not excavated.	4 sherds late 18th to 19th-century pottery
157	Cut	Modern sub-rectangular pit. Not excavated.	
158	Fill	Dark brown silty loam with frequent charcoal flecks, filling pit **157**. Not excavated.	
159	Cut	Modern sub-rectangular pit. Not excavated.	
160	Fill	Dark brown silty loam with frequent charcoal flecks and occasional brick fragments, filling pit **159**. Not excavated.	Late 18th to mid-19th-century pottery, fragment of late 19th to early 20th-century glass bottle
161	Cut	Modern sub-rectangular pit. Not excavated.	
162	Fill	Dark brown silty loam with frequent charcoal flecks and occasional brick fragments, filling pit **161**. Not excavated.	
163	Cut	Modern sub-rectangular pit. Not excavated.	
164	Fill	Dark brown silty loam with frequent charcoal flecks, filling pit **163**. Not excavated.	
165	Cut	Modern sub-rectangular pit with steep sides and a flat base, filled by 166 and 178.	
166	Fill	Primary fill in pit **165**: mid-brown silt with frequent charcoal flecks and small mudstone fragments.	2 sherds 13th to early/mid-14th-century pottery, CBM, bone
167	Cut	Slightly curvilinear feature aligned *c*. NW-SE (terminating to NW), with moderate sloping sides and a flat base. Same as 169. Possible post-medieval trench for hedge planting.	
168	Fill	Mid- to dark brown silt, with occasional small pebbles, stone fragments and charcoal flecks, filling feature **167**.	13th to mid-14th-century pottery, bone
169	Cut	Slightly curvilinear feature, aligned *c*. NW-SE, with moderate sloping sides and a flat base. Same as 167. Possible post-medieval trench for hedge planting.	
170	Fill	Mid- to dark brown silt, with occasional small pebbles, stone fragments and charcoal flecks, filling feature **169**.	Late 17th to 18th-century pottery, CBM and bone
171	Cut	Modern sub-circular pit with steep sloping sides and a concave base.	
172	Fill	Mixed redeposited natural clay and dark brown silty loam, filling pit **171**.	Late 17th to 18th-century pottery

Cxt	Type	Description	Finds, samples and dating
173	Cut	Linear feature, aligned *c*. N-S with moderate sloping sides and a flat base. Same as 050. Possible post-medieval trench for hedge planting.	
174	Fill	Mid- to dark brown silt, with occasional small pebbles, stone fragments and charcoal flecks, filling feature **173**.	Mid-17th to 18th-century pottery, post-medieval window glass, animal bone including sheep/goat and cattle
175	Layer	Lower subsoil, only present in dip slope at eastern end of Area A1. Mid-dark red-brown silty clay, 0.32m deep; same as layer 193.	Late 2nd-century or later pottery, bone, undiagnostic slag; iron nail SF 5
176	Cut	Linear feature, aligned *c*. NNE-SSW, with steep sloping sides and a shallow concave-flat base. Same as 097, 099, 106 & E311.	
177	Fill	Mid-reddish-greyish-brown silt with occasional charcoal flecks and small stone fragments, filling feature **176**.	1 sherd samian ware, mid-2nd to early 3rd century
178	Fill	Dark brown silty loam with frequent charcoal flecks; upper fill in pit **165** above 166.	
179	Cut	Modern sub-circular pit with steep sloping sides and a concave base.	
180	Fill	Mixed redeposited natural clay and dark brown silty loam, filling pit **179**.	
181	Cut	Modern sub-rectangular pit. Not excavated.	
182	Fill	Dark brown silty loam with frequent charcoal flecks, filling pit **181**. Not excavated.	
183	Cut	Modern sub-rectangular pit. Not excavated.	
184	Fill	Dark brown silty loam with frequent charcoal flecks, filling pit **183**. Not excavated.	
185	Cut	Modern sub-rectangular pit. Not excavated.	
186	Fill	Dark brown silty loam with frequent charcoal flecks, filling pit **185**. Not excavated.	
187	Cut	Modern sub-rectangular pit. Not excavated.	
188	Fill	Dark brown silty loam with frequent charcoal flecks, filling pit **187**. Not excavated.	
189	Cut	Modern foundation trench, part of former bungalow.	
190	Structure	Brick footing of former bungalow.	
191	Cut	Modern sub-rectangular pit. Not excavated.	
192	Fill	Late industrial-period domestic waste, including glass bottles, jars, plates etc., filling pit **191**.	
193	Layer	Lower subsoil, only present in dip slope at eastern end of Area A1. Mid- to dark orange-brown silty clay, 0.38m deep, with occasional small limestone fragments, tufa, rare charcoal flecks and pebbles. Same as layer 175. Cut by channel section **199**.	Mid-1st to 2nd-century pottery, large assemblage of animal bone including pig, sheep/goat and possible goose
194	Layer	Mixed light yellowish-brown grey silty clay with mudstone fragments, below layer 193; 0.10m deep. Weathered/disturbed surface of natural 003.	
195	Cut	Sub-circular, steep-sided post-hole with a flat base. Part of 'double post-hole' with 013.	
196	Fill	Mid- to dark orange-brown silty clay with occasional small stone fragments, filling post-hole **195**.	Sample <2>; 1 sherd Roman pottery within sample, with animal bone including fish, frog/toad and field vole
197	Cut	Modern sub-rectangular pit with steep sides and a flat base.	
198	Fill	Mixed redeposited natural clay and dark brown silty loam, filling pit **197**.	

Cxt	Type	Description	Finds, samples and dating
199	Cut	Large feature extending beyond three sides of Area A1 (and across Area A2) – appears to be channel-like but may be part of a quarry, reservoir etc. Not fully excavated, but the portion exposed had a moderately sloping side. Same as **223**. Section **199** cuts lower subsoil 193.	
200	Fill	Mid-greyish-brown sandy silt-clay with occasional pebbles: basal fill of section **199** through 'channel'.	Bone
201	Fill	Light greyish-brown silty clay with occasional pebbles: upper fill of section **199** through 'channel'. Cut by post-medieval drain **202**.	
202	Cut	Linear feature (post-medieval drain) aligned *c*. NW-SE, with steep sloping sides and a shallow concave-flat base; cuts fill 201 in channel section **199**.	
203	Fill	Dark brown silt with frequent charcoal flecks and small stone fragments, filling drain **202**.	Late 17th to 18th-century pottery
204	Finds	Interface layer: finds recovered from intersection of channel cut **199** and lower subsoil deposits 193-4; partially truncated by drain **202** and a land drain, and thus a high risk of intrusive material.	18th to 19th-century pottery, CBM, large assemblage of animal bone including pig, sheep/goat, cattle, goose and fowl
205	Cut	Modern sub-circular pit, steep-sided with a flat base.	
206	Fill	Mid-brown silt with occasional small stone fragments, filling pit **205**.	Mid- to late 12th to early/mid 13th-century pottery
207	Fill	Upper fill of pit **034**: dark greyish-brown sandy silt-clay with occasional small stone fragments.	Mid-15th to mid-16th-century pottery, CBM, large animal bone assemblage including sheep/goat, pig and cattle, shell
208	Cut	Sub-circular post-hole with steep sloping sides and a concave base.	
209	Fill	Mid-reddish-brown silty clay with common moderate sized stones, filling post-hole **208**.	Bone
210	Cut	Modern sub-rectangular pit with steep sides and a flat base.	
211	Fill	Dark brown silty loam with frequent charcoal flecks, filling pit **210**.	
212	Cut	Modern sub-rectangular pit with steep sides and a flat base.	
213	Fill	Dark brown silty loam with frequent charcoal flecks, filling pit **212**.	
214	Layer	Dark greyish-brown loamy clay with rare moderate to large angular stones, 0.70m deep. Buried soil layer: same as layers 216 and 220.	Late 4th-century and post-medieval pottery, bone, shell, glass
215	Structure	Densely packed unworked limestone blocks, partially exposed at SE site corner (visible edge aligned *c*. NE-SW) to 1.35m x 0.62m in plan x 0.23m deep. Possible rubble footing; not excavated.	1 sherd Roman pottery, CBM
216	Layer	Dark greyish-brown loamy silt with occasional charcoal flecks, angular stones and tufa; 0.28m deep. Buried soil layer sealing structure 215; same as layers 214 and 220. The early medieval pottery is likely to be intrusive.	43 sherds 4th century pottery with possibly late 9th to 10th century pottery, CBM, animal bone including sheep/goat, pig, cattle and equid, shell; glass; lead fragment SF 7
217	Layer	Mid-brown silt with occasional redeposited natural clay and mudstone fragments. Original subsoil (colluvial deposit).	Late 4th century pottery, CBM, bone

Cxt	Type	Description	Finds, samples and dating
218	Fill	Mid-greyish-brown silty clay with occasional charcoal fragments, 0.10m deep as excavated. Redeposited material around structure 215 in construction cut **219**.	
219	Cut	Construction cut of structure 215: partially exposed at SE site corner (visible edge aligned *c*. NE-SW); 0.10m deep as excavated, with a flat base; cutting natural 003	
220	Layer	Dark greyish-brown loamy silt with rare small angular stones; 0.20m deep. Buried soil layer: same as 214 and 216.	
221	Fill	Mid-reddish-brown silt with occasional small stone fragments, filling linear feature **222**.	Mid-2nd century^{+} pottery, CBM
222	Cut	Linear feature, aligned *c*. NNE-SSW, with steep sloping sides and a shallow concave-flat base. Same as 095, 108 & E303.	
223	Cut	Large, irregularly-shaped, meandering linear feature, aligned *c*. ESE-WNW; characterisable only as a 'channel'. Section **223** through this feature displayed a steep S side (*c*.2-3m deep) and a broad flat base (*c*.10m wide) with only the base of the N side within the excavation area. Same as **199**.	
224	Layer	Mid-greyish-brown silt with occasional pebbles, up to 0.30m deep, overlying fill 225 in the E facing side of section **223** into the 'channel', sealing the 'channel' and its recuts and filling the final hollow where recut **342** had not completely filled up.	
225	Fill	Mid-brown sandy silt with occasional cobbles and pebbles, filling probable recut **342** in the E facing side of section **223** into the 'channel'.	
226	Fill	Mid-reddish-brown clayey silt with moderate pebbles, overlying fill 227 in the E facing side of section **223** into the 'channel'. Appears to be within the upper part of the stepped section through recut **341**.	
227	Fill	Mid-reddish-greyish-brown clayey silt with occasional angular stone fragments, apparently forming the lowest fill in the upper part of the stepped section through recut **341**.	
228	Fill	Light brown clayey silt with occasional small stone fragments and possible chalk flecks, overlying fill 229 in the E facing side of section **223** into the 'channel'.	
229	Fill	Light brown clayey silt with frequent angular stone fragments, occasional small stone fragments and possible chalk flecks, overlying fill 230 in the E facing side of section **223** into the 'channel'.	
230	Fill	Mid-greyish-brown silty clay with occasional small stone fragments and possible chalk flecks, forming the lowest fill in the upper part of the stepped section through possible 'channel' recut **339** in the E facing side of section **223**.	Bone
231	Fill	Mid light grey silty sand with frequent pebbles, probably stratigraphically above fill 244 in the E facing side of section **223** into the 'channel': area of root disturbance with remnants of tree stump and roots still present, causing difficulty in interpreting stratigraphic relationships between recut **339** and original channel **223**.	Tree root radiocarbon-dated to mid-5th century BC, suggesting that it is part of the original channel and the recut was cut around it.

Cxt	Type	Description	Finds, samples and dating
232	Fill	Mid-brown silty clay with occasional small stone fragments, possible chalk flecks and charcoal flecks, overlying fill 233 in the E facing side of section **223** into the 'channel'.	Late 18th to 20th-century pottery
233	Fill	Mid-brown silty clay with moderate small stone fragments, possible chalk flecks, overlying fill 234 in the E facing side of section **223** into the 'channel'.	1 sherd 2nd century or later pottery
234	Fill	Light brown sandy silt with frequent small angular stone fragments and possible chalk flecks, overlying fill 235 in the E facing side of section **223** into the 'channel'. Contained skeleton SK1.	CBM; animal bone; human bone SK1; sample <6>
235	Fill	Mid-brown sandy silt with occasional small angular stone fragments, overlying fill 236 in the E facing side of section **223** into the 'channel'.	
236	Fill	Mid-brown sandy, gravelly silt overlying fill 237 in the E facing side of section **223** into the 'channel'.	
237	Fill	Mid-grey silt with frequent pebbles overlying primary fill 238 in the E facing side of section **223** into the 'channel'.	
238	Fill	Light grey silty sand primary fill in the E facing side of section **223** into the 'channel'.	Roman pottery; SF 8; sample <10>
239	Fill	Mid-greyish-brown clayey silt overlying fill 240 in the E facing side of section **223** into the 'channel'. Stratigraphic relationships uncertain due to stepping of section: may be a fill in possible recut **341**.	
240	Fill	Dark grey sandy silt with occasional charcoal flecks, overlying fill 241 in the E facing side of section **223** into the 'channel'. Stratigraphic relationships uncertain due to stepping of section: may be a fill in possible recut **341**.	Possibly Roman pottery; probable medieval leather shoe sole SF 11; sample <8>
241	Fill	Small remnant deposit or lens of light yellowish-brown sandy, gravelly silt, overlying fill 242 in the E facing side of section **223** into the 'channel'. May lie on the base of recut **341**.	
242	Fill	Dark greyish-brown gravelly sand with silty clay lenses, overlying fill 243 in the E facing side of section **223** into the 'channel'; may represent a basal fill in possible recut **339**, but stratigraphic relationships unclear due to tree root disturbance and the stepping in of the section.	Roman pottery, CBM
243	Fill	Mixed orange-reddish-brown silt with frequent large angular stones and pebbles, overlying primary fill 238 in the E facing side of section **223** into the 'channel'.	Sample <11>
244	Fill	Mid-orange-brown gravelly sand with frequent angular stones, overlying fill 242 in the E facing side of section **223** into the 'channel'.	
245	Fill	Small (remnant?) deposit of mixed light grey and yellowish-grey silty clay with occasional charcoal flecks, overlying fill 246 in the E facing side of section **223** into the 'channel'.	
246	Fill	Mid-grey sandy silt, overlying fill 244 in the E facing side of section **223** into the 'channel'; possibly a fill in recut **339**, but stratigraphic relationships could not be confidently distinguished due to the stepping-out of the section.	

Cxt	Type	Description	Finds, samples and dating
247	Fill	Mid-greyish-brown clayey silt final fill above 248 in channel section **255**.	Mixed pottery - medieval and Roman, slag including possible iron smithing residue, large animal bone assemblage including sheep/goat, cattle, pig, goose and possible teal; ferrous object SF 9
248	Fill	Mid-brown clayey silt fill above 249 in channel section **255**.	Mixed pottery - mid-12th to mid-13th-century and Roman, CBM, large animal bone assemblage including sheep/goat, pig, cattle, equid, dog, goose and fowl, slag including possible iron smithing residue; iron bar fragment SF 10
249	Fill	Mid-orange-brown clayey silt fill above 250 in channel section **255**.	
250	Fill	Mid-greyish-brown clayey silt with moderate charcoal flecks, above 251 in channel section **255**.	Roman pottery, bone; sample <7>
251	Fill	Mid-brown clayey silt fill above 252 in channel section **255**.	Late 3rd to 4th-century pottery, large animal bone assemblage including sheep/goat, pig, cattle, dog, goose and possible teal, undiagnostic slag
252	Fill	Mid-orange-brown clayey silt fill above 253 in channel section **255**.	
253	Fill	Mid-brown clayey silt fill above 254 in channel section **255**.	
254	Fill	Mid-orange-brown clayey silt primary fill in channel section **255**.	
255	Cut	Section through 'channel' near W edge of Area A1: not fully excavated; only part of the steep, irregular E side exposed. Same as **199** and **223**.	
256	Finds	Finds recovered from machine exposing of the 'channel', likely to be from multiple unspecified contexts.	3rd to 4th-century pottery, CBM
257	Fill	Final fill in channel **223**, sealing fill 258 in possible recut **340** and fill 259 in possible recut **343**: mid-greyish-brown silt with occasional pebbles.	
258	Fill	Mid-brown sandy silt with occasional cobbles and pebbles, overlying fill 270 in possible channel recut **340**.	
259	Fill	Fill of possible channel recut **344**: mid-reddish-brown clayey silt with moderate pebbles.	
260	Fill	Final fill of possible channel recut **343**: mid reddish-greyish-brown clayey silt with occasional angular stone fragments, overlying fill 261.	
261	Fill	Light- to mid-reddish-brown clayey silt with moderate pebbles, overlying fill 262 in possible channel recut **343**.	
262	Fill	Basal fill of possible channel recut **343**: mid-reddish-brown clayey silt with moderate pebbles.	
263	Fill	Final fill in possible channel recut **340**, overlying fill 264: mid-reddish-brown clayey silt with lenses of light yellow-brown silty sand and occasional pebbles. Cut by possible recut **343**.	

Cxt	Type	Description	Finds, samples and dating
264	Fill	Mid-reddish-greyish-brown clayey silt with occasional small stone fragments and pebbles, overlying fill 265 in possible channel recut **340**.	
265	Fill	Mid-reddish-brown clayey silt with moderate pebbles, overlying fill 266 in possible channel recut **340**.	
266	Fill	Mid-greyish-brown silty clay with occasional charcoal flecks and possible chalk flecks, overlying fill 267 in possible channel recut **340**.	
267	Fill	Basal fill in possible channel recut **340**: mid-greyish-brown sandy silt with occasional charcoal flecks and large angular stone.	
268	Fill	Light yellowish-brown silt with frequent angular stones, overlying fills 274 and 281 in the W-facing side of section **223** into the 'channel'. Stratigraphic relationships made unclear by stepping-in of section.	
269	Fill	Dark grey sandy silt with occasional charcoal flecks, overlying fills 271 and 286 in possible channel recut **340**.	Roman pottery, slag including possible iron smithing residue; Roman leather shoe sole SF 12; sample <9>
270	Fill	Mid-greyish-brown clayey silt overlying fill 269 in possible channel recut **340**.	
271	Fill	Light yellowish-brown sandy, gravelly silt fill in possible channel recut **340** above fill 273.	
272	Fill	Basal fill in the W-facing side of section **223** into the 'channel': mixed orange- to reddish-brown silt with frequent large angular stones and pebbles.	
273	Fill	Dark greyish-brown gravelly sand with silty clay lenses: probably a remnant of a primary fill in recut **340**.	
274	Fill	Mixed light yellowish-greyish-brown silt with frequent small angular stone fragments, partially overlying fill 278 in the W-facing side of section **223** into the 'channel'.	
275	Fill	Redeposited natural with large angular stones, partially overlying fill 277 near the base of the W-facing side of section **223** into the 'channel'.	
276	Fill	Light- to mid-grey silty sand with frequent pebbles, filling 'channel' section **255**.	
277	Fill	Light- to mid-grey silty sand with frequent pebbles, overlying basal fill 272 in the W-facing side of section **223** into the 'channel'.	
278	Fill	Mid-grey silt with frequent pebbles, overlying fills 275 and 276 in the W-facing side of section **223** into the 'channel'.	
279	Fill	Mid-brown sandy gravelly silt partially overlying fill 278 in the W-facing side of section **223** into the 'channel'.	
280	Fill	Mid-greyish-brown silty sand with frequent angular stone fragments and pebbles, overlying fill 279 in the W-facing side of section **223** into the 'channel'.	
281	Fill	Thin layer of mid-greyish-brown silty clay with occasional stone fragments, overlying fill 280 in the W-facing side of section **223** into the 'channel'.	
282	Fill	Mid-brown sandy silt with occasional small angular stone fragments, overlying fill 268 in the W-facing side of section **223** into the 'channel'. Stratigraphic relationships uncertain due to stepping-out of section.	

Cxt	Type	Description	Finds, samples and dating
283	Fill	Mid-brown sandy silt with occasional small angular stone fragments and pebbles overlying fill 282 in the W-facing side of section **223** into the 'channel'. Stratigraphic relationships uncertain due to stepping-out of section.	
284	Fill	Dark brown silty clay with frequent small angular stone fragments and pebbles, overlying fill 283 in the W-facing side of section **223** into the 'channel'.	
285	Fill	Dark greyish-brown silt with frequent small angular stone fragments, overlying fill 284 in the W-facing side of section **223** into the 'channel'.	
286	Fill	Dark greyish-brownish-black silt with frequent charcoal flecks and small angular stone fragments, including heat-affected stones, forming a small discrete deposit on the base of possible channel recut **340**.	
287	Fill or layer	Mid-orange-reddish-brown clayey silt overlying fill 286 in the W-facing side of section **223** into the 'channel'. Uncertain whether this is a fill as such, or part of a layer sealing the original channel.	
288	Fill	Mid-brown silty clay with frequent small stone fragments, overlying fill 287 in the W-facing side of section **223** into the 'channel'. Uncertain whether this is a fill as such, or part of a layer sealing the original channel. No stratigraphic relationship with recut **340**.	
289	Fill	Fill in section **223**: same as 224.	
290	Fill	Heat-affected stone fragments contained within fill 287 in the W-facing side of section **223**	
291	Fill	Fill of kiln flue **292**: dark greyish-brownish-black silt with frequent charcoal flecks and small angular stone fragments, including heat-affected stones.	
292	Cut	Linear feature, aligned *c*. NE-SW, with shallow to moderately steep sides and gently concave to flat base; same as 319. Flue of kiln **318/327**; discharges into the 'channel'.	
293	Fill	Light yellowish-brown sand-grit lens within fill 291 in kiln flue **292**.	
294	Fill	Light yellowish-brown sand-grit lens within fill 291 in kiln flue **292**.	
295	Fill	Light orange-brown silty clay with occasional small stone fragments, filling partial channel section **296**; cut by kiln flue **292**.	
296	Cut	Section into 'channel' at its intersection with kiln flue pit **292**: only a small portion exposed.	
297	Fill	Mid-orange-brown sandy silt with occasional small stone fragments, above fill 306 in kiln flue **292**.	
298	Layer	Mixed mid-greyish-brown silt and orange-brown silty clay with occasional small stone fragments, overlying fill or layer 288 in the W-facing side of section **223** and sealing final fill 297 in kiln flue **292**. May be the final fill in the original cut of the channel or part of a sealing layer equivalent to 224 in the E-facing section, but stratigraphic relationships machined away.	

Cxt	Type	Description	Finds, samples and dating
299	Cut	Linear feature, aligned *c*. NE-SW with steep sides and a flattish base; directly adjacent to, but having no stratigraphic relationship with, the Roman kiln. Same as 301.	
300	Fill	Fill of gully/ditch **299**: mid-reddish-brown silt with occasional small mudstone fragments. Cut by modern pond **137**; relationship with 'channel' uncertain.	Roman pottery; large animal bone assemblage including sheep/goat, pig, cattle and goose
301	Cut	Linear feature, aligned *c*. NE-SW with steep sides and a flattish base. Same as **299**.	
302	Fill	Fill of gully/ditch **301**: mid-reddish-brown silt with occasional small mudstone fragments.	
303	Cut	Additional section through 'channel': same as **296**.	
304	Fill	Light orange-brown silty clay with occasional small stone fragments, filling partial section **303**.	
305	Fill	Dark greyish-brownish-black silt with frequent charcoal flecks and small angular stone fragments, including heat-affected stones, within flue cut **319**.	
306	Fill	Light grey silty clay with frequent large stone fragments, overlying fill 291 in flue cut **319**.	Roman pottery
307	Fill	Light yellowish-brown sand-grit lens, within flue cut **319**.	
308	Fill	Mid greyish-reddish-brown sandy silt with occasional charcoal flecks, within flue cut **292/319**.	
309	Fill	Dark greyish-brownish-black gritty silt with frequent charcoal, within flue cut **319**.	
310	Fill	Mid greyish-reddish-brown sandy silt with occasional charcoal flecks and small stone fragments, within flue cut **319**.	Sample <12>
311	Fill	Dark greyish-brownish-black gritty silt with frequent charcoal, within flue cut **319**.	Sample <13>
312	Fill	Light- to mid-orange-brown silty sand-grit with occasional charcoal flecks and stone fragments including burnt tufa, within flue cut **319**.	
313	Fill	Mid-brown sandy silt with occasional small stone fragments, within flue cut **319**.	Roman pottery
314	Fill	Mid- to dark brown sandy silt with occasional small stone fragments, within flue cut **319**.	
315	Fill	Light yellowish-brown gritty silt-sand with frequent burnt stone fragments and large angular stones, within flue cut **319**.	
316	Fill	Mid yellowish-brown silt-sand with frequent burnt stone fragments and large angular stones, within flue cut **319**.	
317	Fill	Light- to mid-orange-reddish-brown silt with small stone fragments, within flue cut **319**.	
318	Structure	Keyhole-shaped kiln, constructed of roughly shaped limestone blocks bonded with light- to mid-orange-brown clay, survives to six courses. Same as 327.	
319	Cut	Linear feature, aligned *c*. NE-SW, with shallow-moderately steep sides and gently concave-flat base. Flue of kiln 318: same as **292**.	
320	Fill	Basal fill within flue cut **319**: mid-reddish-brown clay with small mudstone fragments, possibly slumped/redeposited natural	
321	Fill	Mid-orange-brown clayey silt with rare charcoal and small mudstone fragments, within flue cut **319**.	

Cxt	Type	Description	Finds, samples and dating
322	Cut	Construction cut of kiln 318: keyhole shape with vertical sides and a flat base. Cut through natural substrate on edge of the 'channel'. Same as 326.	
323	Fill	Light brown gritty sand with heat-affected stone: demolition backfill in 322/318.	
324	Fill	Unworked limestone blocks: demolition backfill in 322/318	Roman pottery
325	Finds	Material recovered from top of 324. Possible contamination from 138.	Roman pottery
326	Cut	Construction cut of kiln 327: keyhole shape with vertical sides and a flat base. Same as 322.	
327	Structure	Keyhole-shaped kiln, constructed of roughly shaped limestone blocks bonded with light-mid orange-brown clay. Survives to six courses. Same as 318.	
328	Fill	Dark greyish-brownish-black gritty silt with frequent charcoal within structure 327.	Samples <14>,<15>
329	Fill	Mid-brown clayey silt with frequent heat-affected stone fragments within structure 327.	Sample <16>
330	Fill	Mid-brown clayey silt with frequent pebbles and small stone fragments, moderate limestone blocks and occasional charcoal flecks within structure 327.	
331	Fill	Mid-reddish-brown silty clay with frequent limestone blocks within structure 327.	
332	Structure	Concreted floor layer consisting of small stone fragments cemented in an off white-orange red matrix.	Sample <18>
333	Fill	Dark greyish-brownish-black silt with frequent charcoal with frequent small stone fragments within structure 336.	Sample <17>
334	Fill	Mixed orange-red-yellow-grey silty sand with frequent heat-affected stones within structure 336.	
335	Cut	Construction cut of 'firepit' within kiln 318-327. 'Tennis racket' shape, with vertical sides and a flat base	
336	Fill	Heat-affected stone packed with clay, lining 'firepit' 335.	
337	Fill	Mid greyish-reddish-brown sandy silt with occasional charcoal flecks and small stone fragments in kiln flue **319**.	
338	Fill	Mid greyish-reddish-brown sandy silt with occasional charcoal flecks in kiln flue **319**.	
339	Cut	Poorly defined, steep-sided linear feature, aligned *c*. E-W, apparently cutting fill 232 (and possibly fill 243) in the E facing side of section **223** into the 'channel'. Same as **340**. Possibly a recut of the 'channel' or an unrelated later feature.	
340	Cut	Poorly defined, steep-sided linear feature, aligned *c*. E-W, cutting fills 287 and 274 in the W-facing side of section **223** into the 'channel'. Equivalent of possible recut **339** in the E-facing section.	
341	Cut	Poorly defined, steep-sided linear feature, aligned *c*. E-W, apparently cutting fill 228 (and possibly fill 245) in the E facing side of section **223** into the 'channel'. Same as **343**. Possible recut of feature **339**.	

Cxt	Type	Description	Finds, samples and dating
342	Cut	Poorly defined, steep-sided linear feature, aligned *c*. E-W, cutting fills 226 and possibly 239 in the E facing side of section **223** into the 'channel'. Same as **344**. Possible recut of feature **341**.	
343	Cut	Poorly defined, steep-sided linear feature, aligned *c*. E-W. Same as 341.	
344	Cut	Poorly defined, steep-sided linear feature, aligned *c*. E-W. Same as 342.	

Area A2

Cxt	Type	Description	Finds, samples and dating
401	Layer	Topsoil: heavily re-worked garden soil. Dark brown-black loamy silt with frequent charcoal flecks.	
402	Layer	Dark, slightly reddish-brown, slightly sandy silt subsoil.	
403	Layer	Natural: laminated bands of mid orange-brown-red silty clay and light grey soft mudstone with bands of solid mudstone. Exposed surface – probably weathered – of the solid geology.	
404	Cut	Rectangular pit with rounded corners, steep, near vertical sides and a flat base, cutting post-holes **437**, **447**, **457** and **459** near N boundary of area.	
405	Fill	Lower fill in pit **404**: mid-greyish-brown silt with occasional small stone fragments.	Mid-17th to 18th-century pottery, CBM, animal bone including sheep/goat and cattle, shell.
406	Fill	Upper fill in pit **404**: dark brown sandy silt with frequent charcoal flecks and occasional stone fragments.	Mid-16th to mid-17th-century pottery, CBM, post-medieval window glass, very large animal bone assemblage including sheep/goat, cattle, pig, cat, dog, rabbit, goose, fowl, equid and deer, shell; Roman copper alloy wire bracelet SF 13, copper alloy sheet SF 14
407	Cut	Partially exposed E-W aligned linear feature, with moderate sloping side (base and other side not seen), cutting possible 'channel' fill 418. May correspond to possible 'channel' recut **430**.	
408	Fill	Primary fill in ditch **407**: mid-yellowish-brown silt with occasional stone fragments.	Mid-17th to 18th-century pottery, CBM, bone
409	Fill	Redeposited natural mudstone fragments overlying fill 408 in ditch **407**.	
410	Fill	Final fill in ditch **407**: dark brown loamy silt with occasional charcoal flecks and small mudstone fragments, overlying fill 409.	15th to 17th-century pottery, CBM, post-medieval window glass, large animal bone assemblage including cattle, sheep/goat, pig, goose and dog, shell
411	Cut	Irregular pit with shallow sloping sides and a gently concave base. Corresponds to evaluation feature **E612**.	

Cxt	Type	Description	Finds, samples and dating
412	Fill	Dark brown silty loam with occasional charcoal flecks and small stone fragments, filling 'charnel pit' **411**. Contained disarticulated human bone.	Mid-17th to 18th-century pottery, CBM, post-medieval window glass, human bone, animal bone including cattle, sheep/goat, pig and equid, shell, 17th-century CTP
413	Cut	Poorly-defined grave cut with rounded W end, moderate sloping sides and a flat base; truncated to E by modern bungalow footings; contained Sk 2 and dog skeleton 415, with grave fill 414.	
414	Fill	Mid-reddish-brown clayey silt with occasional small mudstone fragments, filling grave **413**.	Roman CBM
415	Skeleton	Articulated skeleton of dog associated with Skeleton 2 in grave **413**.	Animal bone
416	Cut	Sub-rectangular, vertical-sided post-hole with a concave base, cutting Skeleton 2.	
417	Fill	Fill of post-hole **416**: mid-greyish-brown sandy silt with moderate sized packing stones.	
418	Layer	Deposit of redeposited natural mudstone: unexcavated, but believed to be a 'channel' fill. Cut by **407**.	
419	Fill	Lowest (but not earliest) fill reached in possible section through 'channel': light- to mid-greyish-brown sandy silty clay with occasional small stone fragments and pebbles, overlying fill 420.	
420	Fill	Earliest fill reached in a section excavated at N side of Area A2 in order to locate the northern side of the 'channel': a sequence of fills was exposed, but no cut was reached, and these fills can only conjecturally be ascribed to the 'channel'. Mid-reddish-brown silty clay with occasional small stone fragments and pebbles.	
421	Fill	Mixed light greyish-brown and orange-brown clayey silt with rare charcoal and small stone fragments, overlying fill 420 in possible section through 'channel'.	
422	Fill	Light greyish-brown clayey silt with rare charcoal and small stone fragments, overlying fills 419 and 421 in possible section through 'channel'.	
423	Fill	Final fill in possible section through 'channel': mid-greyish-reddish-brown sandy silt with occasional pebbles, overlying fill 422.	
424	Fill	Mid-greyish-yellowish-brown silty clay with frequent small stone fragments and occasional pebbles, overlying fill 423 in possible section through 'channel'.	
425	Cut	Linear feature, aligned *c*. E-W with moderate sloping side with a poorly defined concave base; filled by 426-9. Same as 443.	
426	Fill	Fill in ditch **425**: mid-greyish-reddish-brown sandy silt with occasional pebbles.	
427	Fill	Fill in ditch **425**: mid-orange-reddish-brown sandy silt-clay with occasional stone fragments including tufa.	

Cxt	Type	Description	Finds, samples and dating
428	Fill	Fill in ditch **425**: mid-greyish-brown sandy silt with occasional small stone fragments and pebbles.	
429	Fill	Fill in ditch **425**: mid-greyish-yellowish-brown silty clay with frequent small stone fragments.	
430	Cut	Linear feature, aligned *c*. E-W with moderate sloping side, filled by 431. Same as 407.	
431	Fill	Mid-brown silt filling ditch section **430**	Medieval to post-medieval pottery, animal bone
432	Layer	Topsoil: heavily disturbed around former bungalow.	
433	Cut	Rectangular pit with rounded corners, steep, near vertical sides and a flat base. Filled by 434, 435 and 436. Same as **404**.	
434	Fill	Primary fill of pit **433**: dark greyish-brown clayey silt with rare small stone fragments.	Mid-17th to 18th-century pottery, CBM, animal bone including sheep/goat, cattle, roe and fallow deer and bird; sample <21>
435	Fill	Dark greyish-brown peaty silt second fill in pit **433**.	Animal bone, shell; sample <20>
436	Fill	Final fill in pit **433**: mid greyish-brown clayey silt with frequent charcoal flecks and rare small stone fragments.	Mid-17th to 18th-century pottery, CBM, glass, very large animal bone assemblage including sheep/goat, cattle, pig, equid, fish, eel, goose, cetacean and red and roe deer; sample <19>
437	Cut	Circular post-hole, steep-sided with a flat base; one of a group of 5 on N edge of area.	
438	Fill	Mid-orange-brown clayey silt fill in post-hole **437**; cut by pit **433**.	Roman pottery
439	Cut	Partially exposed, E-W aligned feature; exposed portion truncated by ditch **443**, but the remaining fragment has a steep side and a shallow or flat base. Possibly part of the 'channel'. Filled by 440-2. Same as 493?	
440	Fill	Mid-orange-brown clayey silt at the base of possible 'channel' section **439**.	
441	Fill	Mid-greenish-grey clayey silt with rare charcoal, small stone fragments and pebbles, above fill 440 in possible 'channel' section **439**.	Possible Roman pottery, Roman CBM
442	Fill	Mid- greyish-brown clayey silt with rare charcoal flecks, above fill 441 in possible 'channel' section **439**; cut by ditch **443**.	
443	Cut	Linear feature, aligned *c*. E-W with moderate sloping sides and an irregular concave base, filled by 444-6. Same as **425**.	
444	Fill	1st fill of **443**: mid-brown clayey silt with rare charcoal flecks and moderate small stone fragments.	
445	Fill	2nd fill of **443**: mid-greyish-brown clayey silt with rare charcoal flecks.	
446	Fill	3rd fill of **443**: mid-orange-brown clayey silt with frequent small stone fragments.	
447	Cut	Circular, steep-sided post-hole with a concave base; filled by 448; one of a group of 5 on N edge of area.	
448	Fill	Dark greyish-brown clayey silt with moderate charcoal flecks, filling post-hole **447**; cut by pit **433**.	

Cxt	Type	Description	Finds, samples and dating
449	Cut	Large, rectangular pit with vertical sides and a flat base, filled by 450 and 451.	
450	Fill	Primary fill in pit **449**: mid- to dark brown silt with frequent charcoal flecks and occasional small stone fragments.	Sample <22>
451	Fill	Upper fill in pit **449**: mid-brown silt with occasional small stone fragments and pebbles.	13th to mid-14th-century pottery, animal bone including sheep/goat, pig, cattle and fowl
452	Cut	Additional section through pit **449**.	
453	Fill	Primary fill in pit section **452**: mid- to dark brown silt with frequent charcoal flecks and occasional small stone fragments.	
454	Fill	Mid-brown silt with occasional small stone fragments and pebbles; upper fill in pit section **452**.	13th to mid-14th-century pottery
455	Cut	Sub-circular, steep-sided post-hole with a concave base, filled by 456; one of a group of 5 on N edge of area.	
456	Fill	Mid-greyish-brown clayey silt with rare charcoal flecks, filling post-hole **455**.	
457	Cut	Sub-circular post-hole, steep-sided with a flat base, filled by 458; one of a group of 5 on N edge of area.	
458	Fill	Mid- greyish-brown clayey silt with rare charcoal flecks and moderate small stone fragments, filling post-hole **457**; cut by pit **433**.	18th to 20th-century pottery
459	Cut	Sub-circular, steep-sided post-hole with a concave base, filled by 460; one of a group of 5 on N edge of area.	
460	Fill	Mid-greyish-brown clayey silt with rare charcoal flecks, filling post-hole **459**; cut by pit **433**.	
461	Cut	Additional section through pit **449**.	
462	Fill	Dark brown silt with occasional charcoal flecks and small stone fragments, filling pit section **461**.	
463	Fill	Mid-greyish-brown sandy silt with occasional stone fragments: lowest exposed fill in drawn section 73 through 'channel'. No underlying deposits or cut recorded.	
464	Fill	Mid-reddish-brown sandy silt above fill 463 in drawn section 73 through 'channel'.	Roman pottery, bone
465	Fill	Mid-greyish-brown sandy silt with occasional stone fragments, above fill 464 in drawn section 73 through 'channel'.	Roman pottery, CBM, bone, post-medieval window glass
466	Fill	Mid-orange-brown clayey silt with rare small stone fragments and pebbles, above fill 465 in drawn section 73 through 'channel'. Cut by pit **449/461**.	Roman pottery, CBM, bone
467	Fill	Mid-greyish-brown sandy silt with occasional stone fragments; uppermost fill in drawn section 73 through 'channel', above fill 466 (no stratigraphic relationship with pit **449/461**).	Roman pottery, CBM, bone
468	Cut	Sub-rectangular post-hole with vertical sides and a flat base, filled by 469.	

Cxt	Type	Description	Finds, samples and dating
469	Fill	Mid-greyish-brown sandy silt with rare charcoal flecks and large packing stones, filling post-hole **468**.	Mid-1st to 2nd-century pottery
470	Cut	Linear feature, aligned *c*. N-S with moderate sloping sides and a concave base, filled by 471.	
471	Fill	Mid-greyish-brown clayey silt with rare charcoal flecks and small stone fragments, filling gully/ditch **470**.	Roman pottery, prehistoric struck flint
472	Cut	Sub-rectangular post-hole with vertical sides and a concave base.	
473	Fill	Fill of post-hole **472**: mid- to dark greyish-brown clayey silt with rare charcoal flecks and small stone fragments.	
474	Cut	Cut of 'channel', seen in a repeatedly extended section: approx. 9.8m wide x 1.8m deep in drawn section 80, with moderate N side, shallow S side and concave base. Filled by 480, 475 and 476 in drawn sections 78 and 79, but by 475-6, 480-4 and 488 in section 80.	
475	Fill	Light greenish-grey clayey silt with rare charcoal flecks and small stone fragments: second fill above 480 in 'channel' **474** in drawn sections 78 and 79, but 6th fill, overlying 484, in section 80.	Roman pottery, bone
476	Fill	Mid-orange-brown clayey silt with rare charcoal flecks, small stone fragments and pebbles: final fill in 'channel' section **474**, overlying fill 475.	Roman pottery, CBM, bone
477	Cut	Possible recut of 'channel' section **474**, filled by 478-9. Identification uncertain: initially interpreted as a discrete feature cutting the 'channel fills', then after further investigation as a recut of the 'channel', and then possibly as an optical illusion, with no cut present and fills 478-9 representing final fills in 'channel' section **474**.	
478	Fill	Possible primary fill in doubtfully identified recut **477**: light greenish-grey clayey silt with rare charcoal flecks and small stone fragments. Seen in drawn sections 78-9, but not in 80.	Late 3rd to 4th-century pottery, CBM, bone
479	Fill	Possible upper fill in doubtfully identified recut **477**: mid- to dark brown silt with occasional charcoal flecks, small stone fragments and pebbles. Present in all three drawn sections.	12th-century pottery, CBM, animal bone including sheep/goat, pig and cattle
480	Fill	Primary fill in drawn sections 78 and 79 through 'channel' **474**: mid-greyish-brown sandy silt with moderate charcoal flecks and occasional small stone fragments and pebbles. In drawn section 80, fill 480 appears as an isolated lens of material on the S side of the feature, below fill 481 and possibly contemporary with 488.	Bone; sample <23>
481	Fill	Mid-greyish-brown silt with common organic (grass-like) material and rare small stone fragments and pebbles, in the base of drawn section 80 through 'channel' cut **474**, overlying possible slumped deposit 488.	Late 2nd-century+ pottery, animal bone including cattle, equid and possible fallow deer; sample <25>

Cxt	Type	Description	Finds, samples and dating
482	Fill	Light brownish-grey sandy silt deposit overlying fill 481 in drawn section 80 through 'channel' cut **474**. The profile of this deposit suggests a deliberate dump rather than a natural accumulation.	
483	Fill	Dark reddish-brown silt with peat-like flecks and occasional charcoal flecks and pebbles, overlying fill 482 in drawn section 80 through 'channel' cut **474**.	Burnt pottery, possibly Roman, disarticulated human finger bone; sample <24>
484	Fill	Mid- to dark greyish-brown silt with rare small stone fragments and pebbles, overlying fill 483 in drawn section 80 through 'channel' cut **474**.	Mid- to late 2nd-century pottery, CBM
485	Cut	Possible recut of 'channel' **474**, seen in drawn section 80, cutting fill 476 – may be equivalent to possible recuts **425** and **443**. Truncated by later cut **477**: portion seen has moderate sides and a slightly convex base.	
486	Fill	Basal fill in possible 'channel' recut **485**: mottled reddish-brownish-grey silt with occasional charcoal flecks and small stone fragments.	
487	Fill	Mid-greyish-brown silt with occasional charcoal flecks, small stone fragments and pebbles, overlying fill 486 in possible 'channel' recut **485**.	
488	Fill	Small deposit of redeposited natural at the base of 'channel' cut **474** in section 80, possibly representing a slump from the side of the feature.	
489	Fill	Lens of light- to mid-grey sandy silt overlying deposit 487 in possible 'channel' recut **485**.	
490	Fill	Mid-greyish-brown clayey silt overlying lens 489 in possible 'channel' recut **485**; horizon with underlying layer 487 indistinct.	
491	Fill	Mottled reddish-greyish-brown sandy silt with redeposited natural stone, overlying fill 490 at N edge of section 80 through 'channel'. Probably a final fill in recut **485**, cut by ditch **493**, but horizon unclear; overlain by fill 492 and therefore theoretically cut by the possible unrecorded recut it may occupy.	
492	Fill	Redeposited natural occupying possible unrecognised recut of ditch or 'channel' recut **477**.	
493	Cut	Partially exposed linear feature, aligned *c*. E-W, with moderate S side; base and N side not seen. Cuts N edges of 'channel' **474** and its recut **485**; filled by 494-6	
494	Fill	Light- to mid-greyish-brown clayey silt fill in ditch cut **493** above primary fill 496.	Roman pottery, bone
495	Fill	Redeposited natural sealing ditch cut **493** above fill 494.	
496	Fill	Primary fill in ditch cut **493**: mid-greyish-brown clayey silt with rare charcoal flecks and pebbles.	Bone; sample <26>

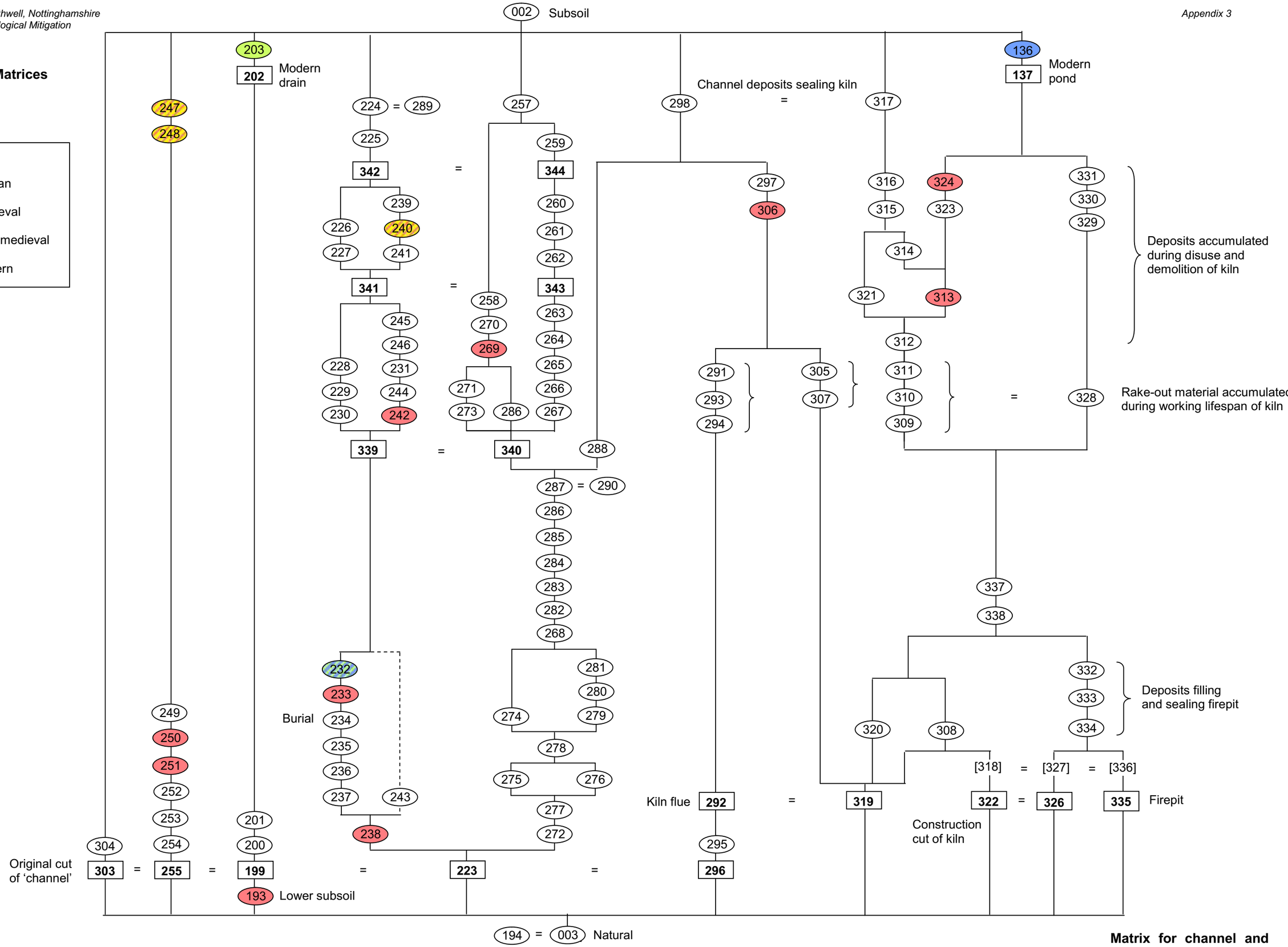
Area C

Cxt	Type	Description	Finds and samples
501	Layer	Topsoil heavily re-worked garden soil. Dark brownish-black loamy silt with frequent charcoal flecks, up to 0.57m deep.	
502	Layer	Subsoil: dark, slightly reddish-brown, slightly sandy silt, varying in depth from 0.17m to 0.40m.	
503	Layer	Natural: exposed solid geology. Mid-reddish-orange-brown silty clay and light grey soft mudstone.	
504	Cut	Probable linear feature, 0.48m wide, aligned *c*. E-W. Seen at limit of excavation: not excavated.	
505	Fill	Mixed subsoil and redeposited natural filling probable linear feature **504**; not excavated.	Human and animal bone
506	Finds	Finds recovered from the mechanical excavation of the service trench in Area C: contexts poorly defined and as such finds can not be securely assigned to any context.	Mid-17th to 18th-century pottery, bone, CTP dating to 1680 or earlier

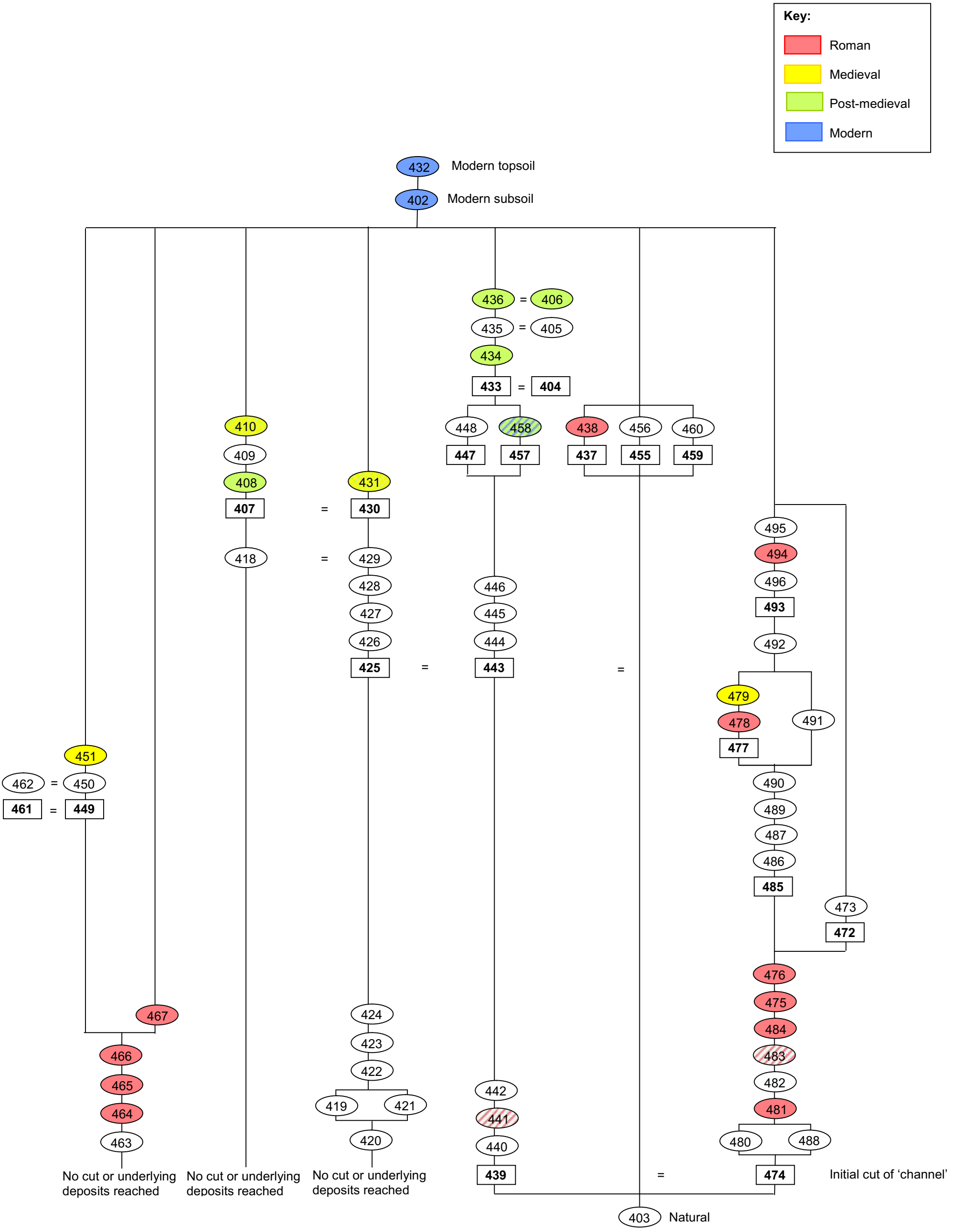
Appendix 3: Matrices

Key:

- Roman
- Medieval
- Post-medieval
- Modern



Matrix for channel and kiln sections in Area A1



Matrix for channel sections in Area A2

Appendix 4: The Roman Pottery

by Ian Rowlandson with K.F. Hartley

Introduction

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). As there is no standardised agreed fabric series for Nottinghamshire the pottery has been recoded utilising codes developed by the City of Lincoln Archaeological Unit- CLAU (see Darling and Precious *forthcoming*). An attempt at a 'maximum' vessel estimate has been made following Orton (1975, 31). Samian, mortaria, amphorae and vessels selected as suitable for illustration have been bagged separately for ease of future reference. 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. The report was produced on the basis of context information by PCAS Ltd. IR wishes to thank Alison Wilson for a copy of her unpublished BA dissertation and the Daniels report (1966).

Condition

The Roman pottery presented for assessment totalled 297 sherds, weighing 5.106kg (RE5.01), from 54 contexts from a scheme of archaeological excavation. A total of 87 sherds signs of abrasion and a small number (14) showed signs of carbonised residues or being burnt. Mortaria from contexts 247 and 506 showed signs of internal use wear along with a colour coated bowl from context 110. White 'kettle fur' type deposits from boiling water or urine were noted on 3 vessels. Much of the pottery from this site was residual in later deposits and few contexts contained more than 20 sherds. The post-Roman pottery and ceramic building material archives are reported on by Young (this volume).

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 report has been written following the split of the pottery and preliminary dating undertaken by Young. As highlighted by Leary for the MSS08 Southwell assemblage (2009), 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. A small number of sherds in the CR, LEG? and GROG fabrics suggest the possibility of some 1st century activity but no medium or large groups of this date were found. Good evidence for activity from the 2nd century onwards is present amongst this assemblage although much of the earliest pottery is residual in later groups. The majority of the pottery present dates to the late Roman period, including some groups dating to the end of Roman pottery production in the region in the very late 4th to early 5th century AD.

Roman Pottery Dating Summary

Area	Fill of	Feature Type	Cxt no.	Spot date	Comments	Sherd	Weight (g)	Total RE %
A1	013	Posthole	012	M1-2	Dated on a single cream ware flagon sherd.	1	5	0
A1	013	Posthole	022	2-3C	A single greyware sherd.	1	8	0
A1	036	Postpit	035	ROM*	A single greyware sherd.	1	2	0
A1	050	Linear	049	ROM*	A single sherd.	1	3	0
A1	064	Linear	063	ROM*	A single greyware sherd.	1	3	0
A1	084	Postpit	085	ROM	A single coarse greyware sherd.	1	13	0
A1	095	Ditch	096	L3+	A small group including a fragment from a wide-mouthed bowl.	2	33	7
A1	097	Ditch	098	L3-M4	A small group including a fragment of colour coated pottery and a Mancetter/ Hartshill mortarium with a hammer-head rim.	14	149	24
A1	099	Ditch	100	M2	A small group including a fragment of a greyware bowl with a triangular rim and a colour coated beaker with barbotine decoration.	5	47	13
A1	101	Ditch	102	ROM*	A single greyware sherd.	1	6	0
A1	106	Ditch	107	ML2	A small group including fragments from a flange rimed bowl, a rusticated jar and a carinated bowl similar to those produced at Torksey (1937a, No.37).	14	179	13
A1	108	Ditch	109	L3-4	A small group including greyware and Trent Valley ware .	5	48	0
A1	110	Layer	110	VL4*	A good fresh group including fragments from a glass making vessel, a Swanpool colour coated bowl, jars, bowls and painted beakers in Nene Valley colour coat. A range of greywares are present including bead and flanged bowls (Illustrations 2-3) and large jars typical of Swanpool type products.	69	1919	199
A1	129	Postpit	130	3-4C	A single shell gritted sherd.	1	6	0
A1	175	Layer	175	L2+	A small group including greyware and a fragment from a grog gritted large storage jar with combed decoration.	5	116	0
A1	176	Ditch	177	M2-E3	A single sherd of samian.	1	2	0
A1	193	Layer	193	M1-2	A small group including fragments of a cream ware flagon and a greyware sherd.	3	23	0
A1	195	Posthole	196	ROM	A single shell gritted scrap from sample 2.	1	5	0
A1	214	Layer	214	L4*	A medium sized group including a fragment from a bead and flanged bowl with a high bead, a plain rimmed dish and a fragment of a glass making vessel.	13	233	15
A1	215	Structure	215	ROM	A single abraded greyware sherd.	1	4	0

Area	Fill of	Feature Type	Cxt no.	Spot date	Comments	Sherd	Weight (g)	Total RE %
A1	216	Layer	216	4C*	A good fresh but possibly residual group of Roman pottery including fragments from a large greyware jar and a bowl with an everted rim (Webster and Booth 1947, Fig. 3.C17) and shell gritted Dalesware. Three fragments from a glass making vessel are also present. Finewares present include fragments from a colour coated plain rimmed dish and a flagon or necked jar in a Swanpool oxidised fabric with white painted decoration.	43	839	59
A1	217	Layer	217	L4	A small group including fragments from a wide mouthed bowl and a bead and flanged bowl with a high bead.	11	89	17
A1	222	Ditch	221	L2+	A small group including greyware and fragments of Black Burnished 1 type fabric.	5	73	0
A1	223	Ditch	233	2C*	A single fragment of Trent Valley ware	1	28	0
A1	223	Ditch	238	ROM	A single greyware sherd.	1	10	0
A1	255	Ditch	247	L3-4*	A small group including a fragment from a Swanpool mortarium.	5	66	5
A1	255	Ditch	247SP2	3-4C*	A small abraded group of Roman pottery including a fragment from a greyware wide mouthed bowl and a sherd of colour coated pottery.	6	45	0
A1	255	Ditch	248SP3	L3+*	A small group of greyware and a fragment from a large Derbyshire Ware jar.	11	196	4
A1	255	Ditch	248SP4	L3+	A small group including greyware and colour coat.	3	24	0
A1	255	Ditch	248SP5	L4	A small group including fragments from a colour coated beaker, a greyware dish with a grooved rim and a Huntcliff type jar in a coarse greyware.	8	62	33
A1	255	Ditch	250	M2+	A small group including a fragment of Nene Valley Greyware.	4	8	4
A1	255	Ditch	251	L3-4	A small group including a base trimmed to a disc.	4	146	11
A1	255	Finds Collection	256	3-4C	A single fragment from from a greyware jar.	1	77	0
A1	292	Kiln	306	L3-4	A fragment from an greyware everted rimmed jar (Webster and Booth 1947, Fig.3.C21).	1	24	17
A2	404	Pit	406	2C*	A small residual group ioncluding a fragment from a large bowl with a hooked everted rim in a Trent Valley Ware fabric.	3	85	8
A2	407	Drain	410	ROM*	Two coarse greyware sherds.	2	8	0
A2	437	Posthole	438	ROM	A single greyware sherd.	1	7	0
A2	452	Pit	454	ROM*	Two residual greyware sherds	2	8	9
A2	461	Ditch	464	ROM	A single greyware sherd.	1	7	0
A2	461	Ditch	465	ROM	Two greyware sherds.	2	18	0
A2	461	Ditch	466	ROM	A small group including small fragments of oxidised and cream fabrics.	3	19	0
A2	461	Ditch	467	3C	A small group including a fragment from a greyware dish with a grooved rim.	6	38	5
A2	468	Posthole	469	M1-2C	A single native tradition/ Trent Valley Ware sherd.	1	8	0

Area	Fill of	Feature Type	Cxt no.	Spot date	Comments	Sherd	Weight (g)	Total RE %
A2	470	Ditch	471	2C+	A small group including a fragment from a lid-seated jar.	3	28	8
A2	474	Ditch	475	ROM	A small group including a greyware sherd.	2	12	0
A2	474	Ditch	476	ROM	A small group including a fragment from a shell gritted necked jar or beaker and sherds of greyware.	4	39	15
A2	477	Ditch	478	L3-4	A fragment from a greyware wide mouthed bowl and a sherd of samian.	1	83	16
A2	477	Ditch	479	3-4C*	A small abraded group including a fragment from a colour coated vessel.	11	91	7
A2	485	Ditch	481	M2+	A single basal sherd from a Rough-cast beaker and a fragment from a hemispherical flanged samian bowl form 38 (AD140+).	1	5	0
A2	485	Ditch	483	ROM	A single burnt and abradred Dressel 20 amphora fragment.	1	13	0
A2	485	Ditch	484	AD130-155	A stamped rim fragment from the Mancetter/Hartshill potter Icotasgus.	1	70	7
A2	493	Ditch	494	2C	A small group including a fragment from an oxidised beaker and a Trent Valley Ware sherd.	2	10	0
A2	493	Ditch	496	ROM	A single scrap of greyware from sample 26.	1	1	0
C	506	Finds collection	506	L2+*	A single residual Mancetter/Hartshill mortarium base fragment.	1	54	0

Fabrics and forms

Fabric summary

Fabric	Fabric group	Fabric details	Sherd	Sherd %	Weight (g)	Weight %	Total RE %
SAM	Samian	Undifferentiated	1	0.34%	1	0.02%	0
SAMCG	Samian	Central Gaulish	3	1.01%	11	0.22%	10
SAMEG	Samian	East Gaulish	2	0.67%	4	0.08%	0
DR20	Amph	Dr 20 amphorae	1	0.34%	13	0.25%	0
MOMH	Mort	Mancetter-Hartshill mortaria	3	1.01%	174	3.41%	15
MOSP	Mort	Swanpool mortaria	1	0.34%	29	0.57%	0
CGBL	Import	Central Gaulish Blackware	1	0.34%	2	0.04%	0
CC	Fine	Other colour-coated wares	3	1.01%	8	0.16%	0
NVCC	Fine	Nene Valley colour-coated ware	1	0.34%	7	0.14%	0
NVCC1	Fine	Nene Valley Colour-coat- light firing fabric	11	3.70%	264	5.17%	23
NVCC2	Fine	Nene Valley Colour-coat- late red fabric	1	0.34%	3	0.06%	0
RC	Fine	Miscellaneous rough-cast colour-coated beakers	1	0.34%	5	0.10%	0
SPCC	Fine	Swanpool colour-coated	1	0.34%	73	1.43%	0
CR	Oxid	Roman cream wares (various)	4	1.35%	27	0.53%	0
OX	Oxid	Misc. oxidized wares	15	5.05%	145	2.84%	7
SPOX	Oxid	Swanpool oxidized wares	3	1.01%	34	0.67%	0
BB1	Reduced	Black burnished 1, unspecified	1	0.34%	4	0.08%	5
BBT	Reduced	Black Burnished type copies	6	2.02%	51	1.00%	0
DERB	Reduced	Derbyshire ware	2	0.67%	128	2.51%	0
GFIN	Reduced	Miscelaneous fine grey wares	2	0.67%	2	0.04%	0
GREY	Reduced	Miscellaneous grey wares	140	47.14%	2274	44.54%	257
GREYB	Reduced	High fired late Roman greywares	45	15.15%	1045	20.47%	122
GREYC	Reduced	Coarse Greyware	8	2.69%	61	1.19%	3
GROG	Reduced	Grog-temprered wares	3	1.01%	58	1.14%	0
GYMS	Reduced	Grey wheel-made with minimal fine shell	1	0.34%	3	0.06%	0
IAGR	Reduced	Native tradition/transitional grit-tempered wares	11	3.70%	293	5.74%	12
LEG?	Reduced	Lincoln Legionary type cream/light grey	1	0.34%	15	0.29%	0
LGRL1	Reduced	Lincoln grey ware with light firing core fabric 1	4	1.35%	31	0.61%	0
LGRL2	Reduced	Lincoln grey ware with light firing core- fabric 2	2	0.67%	26	0.51%	0
NVGW	Reduced	Nene Valley grey ware	1	0.34%	1	0.02%	0
DWSHT	Calcareous	Dalesware type	9	3.03%	221	4.33%	20
SHEL	Calcareous	Miscellaneous undifferentiated shell-tempered	8	2.69%	85	1.66%	27

QRY Form percent 3

Form	Form Type	Form Description	Sherd	Sherd %	Weight (g)	Weight %	Total RE %
A	Amph	Unclassified form	1	0.34%	13	0.25%	0
BK	Beaker	Unclassified form	6	2.02%	29	0.57%	8
BK?	Beaker	Unclassified form	1	0.34%	86	1.68%	0
BKEV	Beaker	Everted rim	1	0.34%	1	0.02%	0
BKRC	Beaker	Roughcast	1	0.34%	5	0.10%	0
37	Bowl	Samian form- see Webster 1996	1	0.34%	4	0.08%	5
B	Bowl	Unclassified form	2	0.67%	80	1.57%	5
B38	Bowl	Imitation samian 38	2	0.67%	70	1.37%	0
BCAR	Bowl	Carinated	2	0.67%	10	0.20%	0
BEV	Bowl	Everted rim	1	0.34%	74	1.45%	17
BFB	Bowl	Bead and flange bowl	2	0.67%	76	1.49%	9
BFBH	Bowl	Bead and flange high bead	5	1.68%	265	5.19%	35
BFL	Bowl	Flange rimmed	2	0.67%	45	0.88%	20
BGR	Bowl	With grooved rim	1	0.34%	13	0.25%	5
BIBF	Bowl	Inturnend bead and flange Swanpool D13-23	1	0.34%	44	0.86%	7
BPR	Bowl	Plain rimmed	1	0.34%	26	0.51%	10
BTR	Bowl	Triangular rimmed	1	0.34%	20	0.39%	7
BHER	Bowl- large	Hooked everted rim as Rigby & Stead 1976 Fig 64.4	1	0.34%	63	1.23%	8
BL	Bowl- large	Large	2	0.67%	52	1.02%	0
BNAT	Bowl- large	Native tradition bowl eg. D&P No.700	1	0.34%	38	0.74%	4
BWM	Bowl- large	Wide-mouthed; D&P No 1225-30	5	1.68%	175	3.43%	28
BWM2	Bowl- large	Wide-mouthed; D&P No. 1228	2	0.67%	100	1.96%	20
CLSD	Closed	Form	68	22.90%	900	17.63%	0
31	Dish	Samian form- see Webster 1996	1	0.34%	6	0.12%	5
DGR	Dish	Grooved rim	1	0.34%	21	0.41%	13
DPR	Dish	Plain rim	2	0.67%	40	0.78%	14
FJ	Flagon/jar	Unclassified form	2	0.67%	14	0.27%	0
J	Jar	Unclassified form	19	6.40%	340	6.66%	35
JCUR	Jar	Curved	1	0.34%	24	0.47%	0
JDW	Jar	Dales ware	2	0.67%	43	0.84%	20
JEV	Jar	Everted rim	12	4.04%	129	2.53%	81
JHUN	Jar	Huntcliff	1	0.34%	9	0.18%	3
JL	Jar	Large	19	6.40%	929	18.19%	25
JLS	Jar	Lid-seated	2	0.67%	20	0.39%	12
JNK	Jar	Necked	2	0.67%	58	1.14%	11
JNN	Jar	Narrow-necked	2	0.67%	142	2.78%	53
JRUST	Jar	Rusticated	1	0.34%	13	0.25%	0
JBK	Jar/Beaker	Small jar or beaker	1	0.34%	7	0.14%	0
JBKNK	Jar/Beaker	Necked	2	0.67%	23	0.45%	15
JB	Jar/Bowl	Unclassified form	4	1.35%	31	0.61%	11
JBL	Jar/Bowl	Large	5	1.68%	113	2.21%	0
M	Mortaria	Unclassified Form	2	0.67%	83	1.63%	0
MHH	Mortaria	Hammerheads as Gillam 279-84	1	0.34%	50	0.98%	8
MHK	Mortaria	Hook-rimmed as Gillam 237-45	1	0.34%	70	1.37%	7
OPEN	Open	Form	10	3.37%	68	1.33%	0
-	Unknown	Form uncertain	94	31.65%	684	13.40%	0

Samian

A very small quantity of samian is present in this assemblage from Central and Eastern Gaulish production centres the recognisable forms present include fragments from form 31 and 37 bowls in the SAMCG fabric. It is possible this small group represents vessels used on the site in the 2nd century AD but it is also possible that the sherds are from vessels that were curated into the late Roman period (Wallace 2006) or as artefacts with symbolic significance or practical uses, such as jewellers' rouge, for the post-Roman inhabitants of the site (Campbell 2012).

Amphora

A single fragment from a Dressel 20 amphora was retrieved from context 483. It is possible that this vessel represents some limited use of olive oil on the site but it may have reached the site following reuse of a vessel as a container or some other use (Peňa 2007).

Mortaria

by I. Rowlandson

There is a small quantity of mortaria from this site as would be expected amongst groups from this region of the late Roman period. The majority of the mortaria from the Mancetter/Hartshill industries including a hook rimmed form (see Hartley below, Illustration 1) and a hammer-head type (context 098, Gillam 1970, Type 283, Daniels 1966, Fig. 15.15).

There is a single worn fragment from a Swanpool mortaria amongst the assemblage (context 247) that suggests the vessels may have continued in use until the end of the Roman period. It should be noted that the internal use wear from within the Swanpool colour coated bowl (SPCC) from context 110 suggests that other vessels may have also been utilised for grinding foodstuffs in the 4th century.

Stamped mortarium from context 484

by K.F. Hartley

POSM12 (484) 70gms Diam 290mms. 7%. Illustration 1

Fabric: hard, white; with traces of what may be a slightly brownish-cream slip;

Inclusions: moderate, mostly small, but not well-sorted, mostly transparent quartz with rare red-brown and black material; very rare larger red-brown and black material.

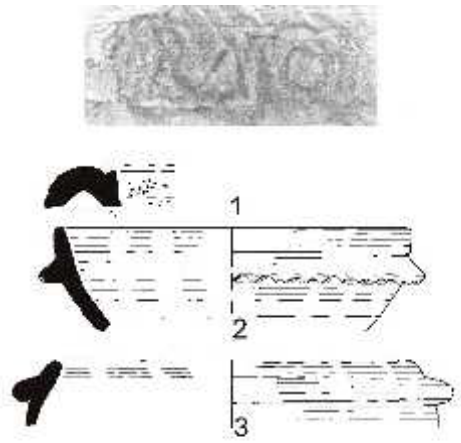
Trituration grit: few survive on this fragmentary sherd, but notably, they extend to about 8mms below the rim; red-brown sandstone and black rock.

A poorly impressed, impression of the left-facing stamp survives with the beginning of the name broken away and the end of the name virtually complete. The letters [..]OTASG[..] retrograde survive; it reads ICOTASGI retro when complete, A blind and G with dash, the genitive form of Icotasgus. It is from one of at least nine dies used by him.

At least ninety-six mortaria of Icotasgus are now known from sites in Britain, including at least five from Scotland and excluding twenty stamps from the kiln-site outside Manduessdum. He has a typical distribution for a Mancetter-Hartshill potter active in the early to mid-Antonine period, but many of his mortaria show pre-Antonine characteristics in

the rim-form and spout, and he sometimes used a range of trituration grit which changed at the Mancetter-Hartshill potteries within the period AD130-150. The optimum date for his production is probably within the period AD125-155. For some other details of this potter's activity see Ferris, Bevan and Cuttler (2000, 33, no.4).

The swelling and distal bead beneath the flange are quite unusual.



The illustrated Roman pottery: mortarium stamp rubbing shown at 1:1, drawings at 1:4

Glass-making crucibles

by I.M. Rowlandson

A total of 6 sherds which show glass-making residues were retrieved from contexts 110, 214 and 216. 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. Similar glassmaking evidence has been found at 16-22 Coppergate, York (Cool et al. 1999) and at the Bishops' Palace, Lincoln (Rowlandson 2012). 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 site appear 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 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 (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 these groups dates to the 4th century at the latest all of the contexts also contain post-Roman pottery. 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.

The other wares

A small quantity of colour coated pottery is present including a Rough cast beaker possibly imported (Symonds 1990) and a fragment from a Central Gaulish Blackware beaker also a continental import. Present in the assemblage is a range of beakers, jars and bowls from the Nene Valley industry including a painted beaker and a bowl with a hemispherical flange mimicking samian form 38. A bowl in the brown slipped Swanpool colour coat from context 110 highlights that finewares were also brought from Lincoln to the site in the 4th century AD.

A small quantity of micaceous white wares (CR) 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.

A small quantity of Derbyshire ware is present amongst the assemblage including a basal fragment from a large jar. Of note is the presence of the 4th century SPOX fabric with two sherds showing the remains of white painted decoration. The oxidised vessels associated with glass production have been discussed above.

The greywares present here are broadly similar to the products of Lincoln and the Trent Valley industries (cf. Leary 2009). The GREYB fabric includes vessels that are very similar to Swanpool kiln products and are similar to the 'East Midlands Burnished' ware as defined by Malcom Todd. The two illustrated flanged bowls from context 110 (Illustrations 2-3) are both in the GREYB fabric and are typical of the latest pottery found in assemblages from the Lincoln *colonia*. Also of note is the presence of a Huntcliff jar type (Gillam 1970 Type 162-3) in a coarse greyware. 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.

Also present in the assemblage is a possible sherd of the Lincoln Legionary fabric (LEG?) and light firing greyware fabrics that were produced at Lincoln during the 2nd century AD (LGRL 1&2). Although it is possible that a small amount of the fabric group GREY may have been produced to the west of the Trent there is a strong bias towards Lincolnshire for the supply of the pottery to the site from the 2nd century onwards. Small quantities of local Black Burnished ware 1 types (BBT), Dorset Black Burnished ware (BB1) and Lower Nene Valley Greyware (NVGW) are also present amongst this assemblage.

A typical range of grog gritted 'Trent Valley' wares are present in small quantities (IAGR) and sherds from a grog gritted storage jar with combed decoration (GROG) that may have been manufactured in the 1st or early 2nd century AD. The IAGR fabrics were produced in western Lincolnshire and Nottinghamshire from the 1st into the 2nd century AD and therefore they may predominantly represent 2nd century activity on the site. Small quantities of shell gritted pottery (SHEL) and Dalesware (DWSHT) are also present within the assemblage and it is likely that a considerable proportion of these fabrics were also manufactured in Lincolnshire.

Discussion

Small quantities of pottery from this site suggest activity on the site during the 1st and 2nd centuries AD until the end of the Roman period. The majority of the pottery can be dated to the late Roman period. 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 (2009). Leary has also recognised occupation stretching back to the mid-late 1st century AD (Leary 2009).

The vessels from other investigations at Southwell include the shell gritted jar with a double lid-seat (Daniels 1966, Fig.14.5, Leary 2009, 6) 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, Rowlandson in prep., 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.

As discussed above, the complicated sequence of post Roman activity on the site has resulted in the likelihood that much of the Roman pottery on this site has been redeposited in post-Roman deposits. It is also possible that the Roman pottery on this site may have continued in use into the 5th century. The presence of small quantities of Anglo-Saxon period pottery (Young this volume, Daniels 1966, Fig. 15.21) and perhaps other finds raise the possibility that the site continued to be occupied into the 5th century despite the end of supply from the Roman pottery industries.

Recommendations

Future research on the site at Southwell might consider drawing together all of the pottery from the vicinity of the 'villa' to produce an overall summary as suggested by Leary (2009).

This assemblage should be deposited in the relevant local museum.

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Appendix 4.1: The Roman Pottery Archive

Area	Context	Fabric	Form	Decoration	Vessels	Alt	Drawing	Comments	Join	Sherd	Weight	Rim diam	Rim eve
A1	012	CR	CLSD		1			BS; PROBABLY FROM A LINCOLN FLAGON-MICA		1	5	0	0
A1	022	GREY	CLSD		1			BS; LIGHT FIRING WITH GREY SURFACES AND ANGULAR ?FE; LINCOLN?		1	8	0	0
A1	035	GREY	-		1	VAB		BS		1	2	0	0
A1	049	BBT	-		1	VAB		BS		1	3	0	0
A1	063	GREY	CLSD		1			BS		1	3	0	0
A1	085	GREYC	JBL		1	ABR		BS; TRENTSIDE QUARTZ GREYWARE		1	13	0	0
A1	096	GREYB	BWM2		1			RIM SHLDR		1	29	22	7
A1	096	SHEL	-		1	VAB		BS		1	4	0	0
A1	098	GFIN	CLSD		1	ABR		BS THIN WALLED		2	2	0	0
A1	098	GREY	-		2			BS FLAKE; SAMPLE 4		2	3	0	0
A1	098	GREY	JNK		1			RIM; LARGE JAR		1	41	22	11
A1	098	GREY	J		1			BS SHLDR		1	10	0	0
A1	098	GREY	CLSD		1	CALC DEP INT		BS		1	14	0	0
A1	098	GREYB	CLSD		1			BS		1	11	0	0
A1	098	GREYB	J		1			RIM		1	6	14	5
A1	098	GREYC	CLSD		1			BS COARSE FABRIC OCC FLINT; SAMPLE 4		1	5	0	0
A1	098	MOMH	MHH		1			RIM; FINE WHITE FABRIC; FORM AS GILLAM TYPE 283 AD250-350		1	50	30	8
A1	098	NVCC1	CLSD		1			BS		1	5	0	0
A1	098	OX	-		1			BS SCRAP SAMPLE 4		1	1	0	0
A1	098	SAM	-		1			BS FLAKE; SAMPLE 4		1	1	0	0
A1	100	CC	BK	BARB	1	BURNT		BS; ?NENE VALLEY CC BURNT ?ID FOR FABRIC		1	5	0	0
A1	100	GREY	CLSD		1			BS		1	8	0	0
A1	100	GREY	BTR		1	ABR		RIM		1	20	22	7
A1	100	GYMS	-		1	VAB		BS; GREY SMOOTH SPARSE SHELL		1	3	0	0

Area	Context	Fabric	Form	Decoration	Vessels	Alt	Drawing	Comments	Join	Sherd	Weight	Rim diam	Rim eve
A1	100	SHEL	JB	WM	1			RIM		1	11	20	6
A1	102	GREYB	CLSD		1			BS		1	6	0	0
A1	107	BBT	CLSD		1			BS		1	12	0	0
A1	107	GREY	BFL		1			RIM		1	29	20	13
A1	107	GREY	-		4			BS		4	40	0	0
A1	107	GREY	BCAR	BWL	1			BS CARINATION BURNISHED WAVEY LINE AS TORKSEY OSWALD 1937A NO.37		2	10	0	0
A1	107	GREY	JRUST	RLIN	1			BS		1	13	0	0
A1	107	GREY	JL		1	CALC INT		BS		1	51	0	0
A1	107	GREYC	-		1	ABR		BS		1	2	0	0
A1	107	LGRL1	-		3			BS		3	22	0	0
A1	109	GREY	-		1			BS		1	3	0	0
A1	109	GREYB	J	BDL	1			BS		2	21	0	0
A1	109	IAGR	J		1			BASE; PATCHY FIRING		1	19	0	0
A1	109	OX	-	LA	1			BS		1	5	0	0
A1	110	DERB	CLSD		1	BURNT		BS		1	15	0	0
A1	110	DWSHT	J		1			BS		1	98	0	0
A1	110	DWSHT	JDW		1			RIM		1	23	14	12
A1	110	DWSHT	-		3			BS		3	27	0	0
A1	110	GREY	BWM2		1			RIM SHLDR		1	71	24	13
A1	110	GREY	-		1	ABR		BS		1	8	0	0
A1	110	GREY	-		10	ABR		BS		10	158	0	0
A1	110	GREY	JEV		1	ABR		RIM SIMILAR TO LINCOLNSHIRE DARK SURFACED DSSA FABRIC SEE ROWLANDSON 2012		4	38	14	10
A1	110	GREY	CLSD		1	VAB		BASE		1	12	0	0
A1	110	GREY	JL		1			BASE		1	23	0	0
A1	110	GREY	-		1	VAB		BS		1	4	0	0
A1	110	GREY	BFB		1	VAB		RIM FRAG		1	19	0	2
A1	110	GREY	JNN		1	ABR		RIM		1	49	12	28
A1	110	GREY	JL		1	ABR		RIM SHLDR		1	46	14	15

Area	Context	Fabric	Form	Decoration	Vessels	Alt	Drawing	Comments	Join	Sherd	Weight	Rim diam	Rim eve
A1	110	GREY	JL		1			RIM SHLDR CORDON		1	44	14	10
A1	110	GREY	CLSD		1	VAB		BASE		1	15	0	0
A1	110	GREY	JNN		1	ABR		RIM LARGE NARROW NECKED JAR		1	93	13	25
A1	110	GREYB	CLSD		1			BS		4	19	0	0
A1	110	GREYB	CLSD		1			BS		1	12	0	0
A1	110	GREYB	-		1			BS		1	7	0	0
A1	110	GREYB	CLSD	STRING	1			BASE		1	30	0	0
A1	110	GREYB	-		2			BS		2	24	0	0
A1	110	GREYB	JL	LA	1			BS		1	36	0	0
A1	110	GREYB	BFBH	FRILL	1		D2	RIM		1	110	19	15
A1	110	GREYB	BIBF		1		D3	RIM		1	44	25	7
A1	110	GREYB	BFB		1	ABR		RIM		1	57	20	7
A1	110	GREYB	BPR		1	SOOT		RIM		1	26	10	10
A1	110	GREYB	JEV		1			RIM SHLDR		1	13	12	7
A1	110	GREYB	JL	STRING	1			BASE		2	228	0	0
A1	110	GROG	-		1			BS ?VESSEL		1	21	0	0
A1	110	IAGR	BNAT	WM	1			RIM		1	38	36	4
A1	110	IAGR	JL	WF	1			BS		1	95	0	0
A1	110	LEG?	CLSD		1			BASE;FTM; NEATLY MOULDED MICA RICH FINE FABRIC PERHAPS LINCOLN LEGIONARY GREYWARE OR SIMILAR LIGHT CORED FUMED WARE		1	15	0	0
A1	110	NVCC1	B38		1	ABR		BS		1	49	0	0
A1	110	NVCC1	J		1	VAB		EIM LITTLE CC SURVIES		1	23	20	8
A1	110	NVCC1	OPEN		1	ABR		BS		1	12	0	0
A1	110	NVCC1	BK?		1	BURNT		BASE AND LOWER WALL OF LARGE BEAKER?		1	86	0	0
A1	110	NVCC1	JBK		1	ABR		BS		1	7	0	0
A1	110	NVCC1	B38		1	ABR		BS FLANGE ONLY		1	21	0	0
A1	110	NVCC1	BK	PA	1			BS; PAINTED SCROLLS WHITE PAINT		1	9	0	0
A1	110	NVCC1	J		1			RIM		1	24	22	8

Area	Context	Fabric	Form	Decoration	Vessels	Alt	Drawing	Comments	Join	Sherd	Weight	Rim diam	Rim eve
A1	110	OX	BFBH		1	ABR; ?BURNT		RIM		1	24	20	7
A1	110	OX	OPEN		1	GLASS RESIDUE EXT		BS		2	12	0	0
A1	110	SAMCG	37		1	ABR		RIM		1	4	17	5
A1	110	SAMCG	OPEN		1			BS		1	1	0	0
A1	110	SHEL	JEV		1			RIM		1	12	14	6
A1	110	SHEL	JCUR		1			BS SHLDR NECK OXID- MIMICIN SOUTH MIDLANDS SHELL FORM		1	24	0	0
A1	110	SPCC	B		1	WORN INT		BASE; FTR; FOOTRING		1	73	0	0
A1	110	SPOX	CLSD	PA	1			BS; PAINTED SCROLLS AND DOTS WHITE PAINT		1	20	0	0
A1	130	SHEL	-		1	SOOT INT		BS		1	6	0	0
A1	175	GREY	BWM		1			BS SHLDR		1	22	0	0
A1	175	GREY	JL		1			BS		1	37	0	0
A1	175	GREYC	J		1			RIM		1	20	0	0
A1	175	GROG	JL	COMB	1			BS; IRF; COMBED AS LATE LA TENE TYPE STORAGE JARS		2	37	0	0
A1	177	SAMEG	OPEN		1			BS		1	2	0	0
A1	193	CR	CLSD		1			BS; ?FLAGON; ?LINCOLN		2	20	0	0
A1	193	GREY	-		1	ABR		BS		1	3	0	0
A1	196	SHEL	CLSD		1			BS; LINCS; SAMPLE 2		1	5	0	0
A1	214	GREY	BFBH		1			RIM		2	107	25	8
A1	214	GREY	-		1			BS		1	7	0	0
A1	214	GREY	-		6	ABR		BS		6	57	0	0
A1	214	GREYB	DPR		1			RIM		1	13	18	7
A1	214	GREYB	FJ		1			BS		1	5	0	0
A1	214	OX	BL		1	GLASS RESID		BS; PALE GLASS ON INTERNAL SURFACES EXTERNAL FLECKS AND OVER ONE BREAK		1	30	0	0
A1	214	OX	-		1	BURNT?		BS		1	14	0	0
A1	215	GREY	-		1	VAB		BS		1	4	0	0
A1	216	DWSHT	J		2			BS		2	15	0	0

Area	Context	Fabric	Form	Decoration	Vessels	Alt	Drawing	Comments	Join	Sherd	Weight	Rim diam	Rim eve
A1	216	DWSHT	JDW		1			RIM; AS GILLAM 157		1	20	16	8
A1	216	DWSHT	J		1			BASE		1	38	0	0
A1	216	GREY	-		1			BS		1	4	0	0
A1	216	GREY	-	BWL	1			BS		1	5	0	0
A1	216	GREY	JLS		1	ABR		RIM		1	4	16	4
A1	216	GREY	BK		1			RIM		1	9	12	8
A1	216	GREY	BWM		1	ABR		RIM		1	30	36	5
A1	216	GREY	JBL		1			BS SHLDR		1	21	0	0
A1	216	GREY	J		1			RIM		1	8	14	10
A1	216	GREY	JL	BL; NOTCH	1			BS; BURNISHED SALTAIRE CROSS NOTTSCHED DEEP ROULETTINGAND BURNISHED SCROLLS CF WEBSTER AND BOOTH 1947 FIG.3.C22		5	176	0	0
A1	216	GREY	BEV		1			RIM SHLDR AS WEBSTER AND BOOTH 1947 FIG3 C17		1	74	20	17
A1	216	GREY	J	LA	1			BS		1	12	0	0
A1	216	GREY	CLSD	STRING	1	DISC		BASE; TRIMMED TO DISC 95MM		1	62	0	0
A1	216	GREY	JL	BL	1			BS		2	43	0	0
A1	216	GREY	CLSD		2			BASE		2	18	0	0
A1	216	GREY	CLSD		7			BS		7	137	0	0
A1	216	GREYB	JBL	BSC	1			BS		1	19	0	0
A1	216	GREYB	CLSD		1			BS		1	12	0	0
A1	216	GREYB	CLSD		1			BS NECK		1	4	0	0
A1	216	GREYB	JBL	BSC	1			BS		1	28	0	0
A1	216	LGRL1	CLSD		1			BS		1	9	0	0
A1	216	LGRL2	CLSD		1			BS		1	14	0	0
A1	216	NVCC1	DPR		1	ABR		RIM		1	27	18	7
A1	216	OX	OPEN		1	GLASS RESIDUE INT		BS; INTERNAL GLASS RESIDUE		1	6	0	0
A1	216	OX	OPEN		1	GLASS RESID INT AND EXT		BS; INTERNAL AND EXTERNAL GLASS RESIDUE		1	5	0	0

Area	Context	Fabric	Form	Decoration	Vessels	Alt	Drawing	Comments	Join	Sherd	Weight	Rim diam	Rim eve
A1	216	OX	OPEN		1	GLASS RESID INT EXT OVER BREAK		BS; GLASS RESIDUE OVER BREAK; THICKFUSED FRAGMENTS OF GLASS PRESENT ON EXTERNAL SURFACE		1	21	0	0
A1	216	OX	-		1	VAB		BS; ?TILE		1	4	0	0
A1	216	SPOX	FJ	PD	1			BS NECK FLAGON OR JAR; SELF SLIP; WHITE PAINTED DOTS AROUND NECK		1	9	0	0
A1	216	SPOX	CLSD		1			BS		1	5	0	0
A1	217	BBT	-		1	BURNT		BS		1	4	0	0
A1	217	GREY	BWM		1	BURNT		RIM		1	22	30	7
A1	217	GREY	B		1			RIM BEAD RIM INTURNED		1	7	22	5
A1	217	GREY	BFBH		1	VAB		RIM		1	24	21	5
A1	217	GREY	-		7			BS		7	32	0	0
A1	221	BBT	J		1			BS SHLDR		1	16	0	0
A1	221	BBT	J	LA	1			BS		1	10	0	0
A1	221	GREY	-		2			BS		2	32	0	0
A1	221	GREY	CLSD		1	CALC DEP INT		BS		1	15	0	0
A1	233	IAGR	CLSD	WM	1			BS GROG AND QU SAND		1	28	0	0
A1	238	GREY	CLSD		1			BS		1	10	0	0
A1	247	BB1	JB		1			RIM		1	4	22	5
A1	247	GREY	-		1	ABR		BS		1	3	0	0
A1	247	GREYB	CLSD		1			BS		1	25	0	0
A1	247	MOSP	M		1	WORN INT		BS; OX WHITE SLIP SLAG TRITS- LOOKS LIKE A SWANPOOL PRODUCT		1	29	0	0
A1	247	OX	CLSD		1			BS; BURNT?		1	5	0	0
A1	247SP2	CC	-		1	ABR		BS		1	1	0	0
A1	247SP2	GREY	-		3	ABR		BS		3	22	0	0
A1	247SP2	GREY	BWM		1	VAB		RIM; ?DIAM		1	18	0	0
A1	247SP2	GREYC	-		1	ABR		BS; ?ID SPARSE SHELL- DATE?		1	4	0	0
A1	248SP3	DERB	JL	STRING	1			BASE		1	113	0	0
A1	248SP3	GREY	JEV		1	ABR		RIM		1	4	16	4
A1	248SP3	GREY	-		1			BASE		1	8	0	0

Area	Context	Fabric	Form	Decoration	Vessels	Alt	Drawing	Comments	Join	Sherd	Weight	Rim diam	Rim eve
A1	248SP3	GREY	-		2			BS		2	9	0	0
A1	248SP3	GREY	CLSD		1			BASE		1	19	0	0
A1	248SP3	GREYB	CLSD	STRING	1			BASE		1	19	0	0
A1	248SP3	GREYB	-		4			BS		4	24	0	0
A1	248SP4	CC	CLSD		1			BS; ?FLAGON OR BEAKER		1	2	0	0
A1	248SP4	GREYB	CLSD		2			BS		2	22	0	0
A1	248SP5	CGBL	BK		1			BS		1	2	0	0
A1	248SP5	GREY	-		1	SOOT EXT		BS		1	2	0	0
A1	248SP5	GREY	J	LA	1			BS		1	6	0	0
A1	248SP5	GREY	JEV		1			RIM		1	8	16	7
A1	248SP5	GREY	JEV		1			RIM		1	10	14	10
A1	248SP5	GREYB	CLSD		1			BS		1	4	0	0
A1	248SP5	GREYB	DGR	BWL	1			RIM		1	21	15	13
A1	248SP5	GREYC	JHUN		1			RIM SHLDR; TRENT VALLEY TYPE SAND		1	9	16	3
A1	250	GREY	J		1	SOOT EXT		RIM; ?CUP RIMMED/LID-SEATED AS GILLAM 152?		1	5	18	4
A1	250	GREY	CLSD		1			BS; SAMPLE 7		1	1	0	0
A1	250	NVCC1	CLSD		1			BS; SAMPLE 7		1	1	0	0
A1	250	NVGW	BK		1			BS		1	1	0	0
A1	251	GREY	CLSD	STRING	1	DISC		BASE; STRING CUT BASE 7CM DIAM TRIMMED TO DISC		1	76	0	0
A1	251	GREY	JBL		1			BS		1	32	0	0
A1	251	GREYB	JEV		1	ABR		RIM		1	16	15	11
A1	251	GREYB	BL		1	BURNT		BS SHLDR WIDEMOUTH BOWL TYPE; BURNT TO PARTIAL OXIDISED SURFACES		1	22	0	0
A1	256	GREY	CLSD	STRING	1			BASE		1	77	0	0
A1	306	GREYB	JEV		1			RIM SHLDR		1	24	12	17
A1	378	SAMCG	31		1			RIM		1	6	21	5
A1	406	SAMEG	OPEN		1	ABR		BS SCRAP		1	2	0	0
A2	406	IAGR	BHER	WF	1	ABR		RIM; GROG AND QU SAND		1	63	34	8
A2	406	IAGR	CLSD		2	ABR		BS		2	22	0	0

Area	Context	Fabric	Form	Decoration	Vessels	Alt	Drawing	Comments	Join	Sherd	Weight	Rim diam	Rim eve
A2	410	GREYC	-		1	ABR		BS		2	8	0	0
A2	433	NVCC2	BK		1	ABR		BS		1	3	0	0
A2	438	GREY	-		1			BS		1	7	0	0
A2	454	GREY	CLSD		1			BS		1	4	0	0
A2	454	GREY	JEV		1			RIM		1	4	12	9
A2	464	GREY	CLSD	LA	1			BS; NONE LINCS?- PERHAPS DERBYSHIRE?		1	7	0	0
A2	465	GREY	CLSD	BDL	1			BS		1	10	0	0
A2	465	GREYS	CLSD		1			BS; SANDY FABRIC		1	8	0	0
A2	466	CR	CLSD		1	VAB		BS SCRAP		1	2	0	0
A2	466	OX	-		2	ABR		BS		2	17	0	0
A2	467	GREY	BGR		1			RIM		1	13	19	5
A2	467	GREY	-		4	ABR		BS		4	18	0	0
A2	467	IAGR	JB		1	VAB		BS		1	7	0	0
A2	469	IAGR	-		1			BS		1	8	0	0
A2	471	BBT	-		1			BS		1	6	0	0
A2	471	GREY	-		1			BS; OXID?; HANDMADE?		1	6	0	0
A2	471	GREY	JLS		1	BURNT?		RIM; PARTIALLY OXIDISED		1	16	17	8
A2	475	GREYB	CLSD		1			BS		1	8	0	0
A2	475	IAGR	CLSD	WM?	1	BURNT EXT		BS		1	4	0	0
A2	476	GREY	CLSD		1			BS		2	16	0	0
A2	476	SHEL	JBKNK	WM	1			RIM		2	23	12	15
A2	478	GREYB	BWM		1					1	83	23	16
A2	479	GREY	BFL		1	ABR		RIM		1	16	20	7
A2	479	GREY	JB		1	ABR		BS		1	9	0	0
A2	479	GREY	-		6	ABR		BS		6	30	0	0
A2	479	GREYB	JNK		1			BS NECK		1	17	0	0
A2	479	LGRL2	CLSD		1			BS		1	12	0	0
A2	479	NVCC	OPEN		1	ABR		BS		1	7	0	0
A2	481	RC	BKRC		1			BASE; FINE SANDY WHITE FABRIC WITH A DARK BLUE GREY COLOUR-COAT;		1	5	0	0

Area	Context	Fabric	Form	Decoration	Vessels	Alt	Drawing	Comments	Join	Sherd	Weight	Rim diam	Rim eve
								CONTINENTAL?					
A2	483	DR20	A		1	VAB; BURNT		BS		1	13	0	0
A2	484	MOMH	MHK	NAME	1			RIM; STAMP OF ICOTASGUS SEE K.F. HARTLEY REPORT		1	70	29	7
A2	494	IAGR	J		1			BS		1	9	0	0
A2	494	OX	BKEV		1	ABR		BS		1	1	0	0
A2	496	GREY	-		1			BS SMAPLE 26		1	1	0	0
C	506	MOMH	M		1	WORN INT		BS; FINE WHITE FABRIC RED AND BLACK GROG/META SEDIMENT TRITS		1	54	0	0

Appendix 5: The Post-Roman Pottery

by Jane Young

Introduction

A quantity of post-Roman pottery ranging in date from the Anglo-Saxon to early modern period was recovered during archaeological investigations at Southwell. In total, two hundred and eighty-three sherds of pottery representing two hundred and twenty-six vessels were recovered from three areas across 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 Slowikowskki, *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). Six new North Nottinghamshire pottery types were identified whilst working on this assemblage and these are described below.

Condition

The pottery is mainly in a slightly abraded to abraded condition with sherd size varying between 1 gram and 429grams, although some of the early post-medieval pottery is in a fairly fresh condition. Thirty of the vessels recovered are represented by more than a single sherd and seven cross-context joins were noted. The shell and limestone temper has not been leached from any of the vessels containing these inclusions.

The pottery

In total two hundred and twenty-five vessels in fifty-four identifiable main post-Roman ware types, together with one miscellaneous vessel, were recovered from the intervention (Tables 1 and 2). The identifiable pottery is of Anglo-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
BERTH	Brown glazed earthenware	1550	1800	3	3
BEVO1	Beverley Orange ware Fabric 1	1100	1230	4	4
BEVO1T	Beverley Orange-type ware Fabric 1	1100	1230	1	1
BEVO2	Beverley Orange ware Fabric 2	1230	1350	13	7
BL	Black-glazed wares	1550	1750	11	10
BOU	Bourne D ware	1350	1650	1	1
CIST	Cistercian-type ware	1480	1650	56	38
CMW	Coal Measures whiteware	1250	1550	3	2
DERMSH1	Derbyshire Medieval Shell-tempered	1180	1350	1	1
DST	Developed Stamford ware	1150	1230	2	2
EMHM	Early Medieval Handmade ware	1100	1250	1	1
EMX	Non-local Early Medieval fabrics	1150	1230	1	1
ENGS	Unspecified English Stoneware	1750	1900	3	1
ESAXLOC	Early Anglo-Saxon Local wares	450	650	2	2
FREC	Frechen stoneware	1530	1680	1	1

Codename	Full name	Earliest date	Latest date	Total sherds	Total vessels
HUM	Humberware	1250	1550	3	3
LEMS	Lincolnshire Early Medieval Shelly	1130	1230	1	1
LERTH	Late earthenwares	1750	1900	1	1
LFS	Lincolnshire Fine-shelled ware	970	1200	7	7
LKT	Lincoln kiln-type shelly ware	850	1000	1	1
LSH	Lincoln shelly ware	850	1000	1	1
LSIMP	Late Saxon misc imported fabrics	870	1010	1	1
LSLOC	Late Saxon Local Fabrics	850	1050	1	1
LSX	Non-local late Saxon fabrics	870	1080	1	1
MEDLOC	Medieval local fabrics	1150	1450	1	1
MEDX	Non Local Medieval Fabrics	1150	1450	5	5
MISC	Unidentified types	400	1900	1	1
MP	Midlands Purple ware	1380	1600	50	40
MY	Midlands Yellow ware	1550	1650	1	1
NCBW	19th-century Buff ware	1800	1900	1	1
NCSW	Nottingham Coarse Sandy ware	1200	1500	6	4
NNCSW	North Nottinghamshire Late Medieval Coarseware	1350	1550	4	4
NNLBCW	North Nottinghamshire Light-bodied Coarse ware	1550	1750	1	1
NNLBS	North Nottinghamshire Light-bodied Slipware	1650	1750	4	1
NNPMCW	North Nottinghamshire Post-medieval Coarseware	1500	1700	7	5
NOTGE	Early Nottingham Green Glazed ware	1200	1230	2	1
NOTGI	Iron-rich Nottingham Green Glazed ware	1200	1230	3	3
NOTGL	Light Bodied Nottingham Green Glazed	1220	1320	12	12
NOTGV	Nottingham Glazed ware Variant	1200	1350	11	10
NOTS	Nottingham stoneware	1690	1900	2	2
NSP	Nottingham Splashed ware	1100	1250	22	20
PEARL	Pearlware	1770	1900	1	1
POTT	Potterhanworth-type Ware	1250	1500	3	3
PSHW	Peterborough Shelly Ware	1175	1400	4	2
PSHW2	Peterborough Shelly Ware Fabric 2	1175	1400	1	1
SLSQ	South Lincs Shell and Quartz (generic)	1200	1500	2	1
SNEOT	St Neots-type ware	870	1200	3	3
ST	Stamford Ware	970	1200	2	2
STANLY	Stanion/Lyveden ware	1150	1250	1	1
STMO	Staffordshire/Bristol mottled-glazed	1690	1800	1	1
STSL	Staffordshire/Bristol slipware	1680	1800	1	1
SWSG	Staffordshire White Saltglazed	1700	1770	3	2
TGW	Tin-glazed ware	1640	1770	6	2
TPW	Transfer printed ware	1770	1900	1	1
WHITE	Modern whiteware	1850	1900	1	1

Unknown Types

A single tiny sherd of unknown, but possibly post-Roman type was recovered from the site. The reduced medium quartz-temper flake was recovered from sampling of deposit 96.

Anglo-Saxon

One of the sherds recovered from the site is certainly of Anglo-Saxon type (ESAXLOC). The sherd, which appears to be from a small jar, was recovered from Ditch 255. It is tempered with a Trent Valley sand consisting of abundant mixed round to sub-round quartz of 0.2mm to 0.8mm together with carbonised vegetable voids. A second tiny fragment in a similar fabric was recovered from sampling of Ditch 485. The use of this fabric in both Nottinghamshire and Lincolnshire is thought to span the period between the 5th and 8th centuries.

Late Saxon

A small group of four vessels of definite Late Saxon type and one possible import were recovered from the site. The presence in the group of two Lincoln-produced shell-tempered vessels suggests a late 9th to 10th century date for some of the activity. Neither the Lincoln Kiln-type jar rim (LKT) or the Lincoln Shelly ware jar body sherd (LSH) are chronologically significant, although production of the LSH fabric found on the site is most likely to be confined to the 10th century. One jar rim found in deposit 247 spit 1 is in a dense shell-tempered fabric made somewhere in Lincolnshire between the mid/late 9th and early 10th centuries (LSLOC Fabric A). A coarse shell-tempered sherd from a small wheel-thrown jar is undoubtedly of Late Saxon type, but comes from an as yet unknown centre somewhere in the East Midlands. The rim of a small jar in a fine pale reduced micaceous sandy fabric may be a Late Saxon import (LSIMP).

Saxo-Norman

Twelve vessels are of Saxo-Norman type and date to the period between the 10th and 12th centuries. The industries represented produced pottery over long periods, often with little change in fabric or form, making close dating difficult. Seven of the vessels are in Lincolnshire Fine-shelled ware (LFS). This ware type was produced, probably to the north of Lincoln, from the late 10th to late 12th centuries. Two glazed Stamford ware vessels (ST) are of post-conquest type, although they probably date no later than the mid/late 12th century. One sherd in Fabric B has a thick yellow glaze and probably comes from a jug or jar of mid to mid/late 12th century sherd. The other jar or pitcher sherd is in transitional Fabric B/C and has a thinner glaze suggesting that it is of early/mid to mid 12th century type.

Three basal sherds are in a fabric similar to St. Neots ware (SNEOT) but do not contain the diagnostic punctate brachiopod inclusions typical of the ware. A similar fabric occurs on sites in South Lincolnshire, mainly in deposits dating to between the late 10th and late 11th centuries.

Early Medieval

A total of thirty vessels of early/mid 12th to early/mid 13th century type came from the site. Most of the vessels are in Nottingham Splashed ware (NSP). The earliest of these Nottingham produced vessels found on the site is a collared pitcher in a fine/sandy fabric Ditch 255 in Area 1. This vessel type usually dates to between the early/mid and mid 12th century. Three other sherds in this intermediate fabric that spans the period up to the mid/late 12th century are from jugs or pitchers. The other sixteen vessels 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. Most of these vessels are identifiable as jugs, but at least two small jars and an internally glazed base from a jar or bowl are present in the group.

Four vessels are in Beverley Type 1 (BEVO1) and were most probably produced in Beverley itself between the early/mid 12th and early/mid 13th centuries. The earliest sherd is that from a

jug found in deposit 479 as it has a splashed-type glaze. 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 three vessels have a suspension-type glaze and belong to the period between the mid/late 12th and early/mid 13th centuries. Two of these sherds are from jugs whilst one may be from a jug or jar. Another jug sherd is visually similar to Beverley Type 1 ware but has a much 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 thick suspension glaze and slightly inward-angled cuffed rim with sharp edge. It is of mid/late 12th to early/mid 13th century date.

Two sherds are of Developed Stamford ware type (DST). Both come from jugs and have copper-coloured glazes. The jug from Post hole 13 is decorated with applied combed strips typical of mid/late 12th to early 13th century production. The other jug is probably of similar date.

Three vessels are early medieval coarsewares from unknown centres. The small jar sherd found in Pit 449 is of Early Medieval Handmade type (EMHM). Similar vessels were made at a range of centres in East Anglia, Lincolnshire and possibly East Yorkshire from the late 11th to late 13th centuries, but this vessel has a fabric that would be more consistent with a Nottinghamshire source. A jar rim is of Lincolnshire Early Medieval Shelly ware type (LEMS) and belongs to the period between the mid 12th and early/mid 13th centuries. The rim from a tiny jar found in deposit 247 spit 2 is in a non-local coarse quartz and calcareous-tempered fabric (EMX). The gritty fabric is consistent with a Derbyshire or Yorkshire source.

Medieval

Fifty-two vessels in thirteen ware types are of medieval type. These vessels only include twenty-eight from known production centres. The most common of these industries represented is Nottingham Light Bodied Green Glazed ware (NOTGL) produced at several workshops in Nottingham between the 13th and early/mid 14th centuries. Eleven of the twelve vessels recovered from the site are jugs, none of which appear to have been decorated. The twelfth sherd, which is likely to be from a large jug or jar, is represented by a sherd with an internal glaze and external soot residue. Two other early Nottingham medieval industries are also represented. The three Iron-rich Nottingham Green Glazed ware (NOTGI) sherds include a small jug, ajar and one small sherd either from a jug or jar. This type of pottery is found in Nottingham in the first quarter of the 13th century and appears to represent a transition between the later coarsely sandy splashed ware and the new suspension-glazed wares. Another transition type, but in a light-bodied fabric (NOTGE) was recovered from deposit Ditch 255. This sherd is from a jug with a light reduced-green glaze. Evidence from both Nottingham and Lincoln suggests that this vessel is also of early to early/mid 13th century date.

Ten 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 northeastern 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. Seven different fabrics were encountered on this site, most of which were only represented by a single sherd:

Fabric 1 A single sherd from a large jug in a light reduced fabric with a dark reduced-green glaze was recovered from Posthole 13. The fabric contains abundant fine quartz below 0.2mm together with moderate sub-rounded to rounded quartz of 0.2 to 0.4mm and common fine black iron-rich grains.

Fabric 2 Five sherds from four different vessels including two identifiable jugs and a jar are in oxidised fabrics. The vessels have a light reduced-green glaze that may also be iron-

flecked. The fabric contains abundant mixed quartz mainly varying between 0.1 and 0.6mm, but also occasionally up to 0.8mm, together with common fine iron-rich grains, sparse calcareous grains and rare pieces of flint.

Fabric 3 – A single sherd from a jug in a light oxidised fabric with a light reduced core was recovered from Ditch 111. The jug has a light green reduced glaze with copper-coloured mottling. 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, iron-rich grains.

Fabric 4 – The jug sherd found in Pit 34 is 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 – A jug sherd in this fabric was recovered from Pit 34. The vessel has 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. The fabric is similar to Fabric 7 but contains more frequent quartz and has a 'dirtier' clay matrix.

Fabric 6 – A single sherd from a jug in a pale reduced fabric with a thin light oxidised external surface and a thin darker reduced internal surface was recovered from Pit 34. The jug has a very thin light green reduced glaze. The fabric contains 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.

Fabric 7 – The jug sherd found in Pit 34 is in a light reduced fabric with an external light oxidised surface and a dark reduced internal surface. The jug has a splashed-type light green edging to yellow glaze. The fabric contains moderate 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. The fabric is similar to Fabric 5 but contains less frequent quartz and has a 'cleaner' clay matrix.

Six sherds from four vessels are in oxidised coarse quartz-tempered fabrics (NCSW). In Nottingham most utilitarian vessels (jars, bowls, bottles etc.) continued to be made in coarse quartz-tempered fabrics similar to that used for the splash-gazed ware vessels long after the introduction of finer and lighter firing fabrics for the manufacture of jugs. These fabrics are termed Nottingham Coarse Sandy ware (NCSW), although at least some of the production of this type was probably carried out elsewhere in Nottinghamshire. All four vessels found on this site are unglazed jars of general 13th to 15th century date.

Seven vessels recovered from the site are jugs in Beverley Type 2 ware (BEVO2). These jugs include three decorated examples and 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. A jug base found Pit 34 is in a fine oxidised fabric and has runs from a thick white slip applied to the upper body (MEDX). The jug, which is likely to be of 13th century date, is possibly from a source in North Lincolnshire or Yorkshire.

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 Potterhanworth sherds include a large jar and a large sloping 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. A basal sherd from a late 12th to 14th century shell-tempered jar or bowl found in Layer 110 is of Stanion/Lyveden type (STANLY). Three other shell-tempered vessels were probably also

manufactured in the Rockingham Forrest area (PSHW and PSHW2) but are less obviously Stanion/Lyveden products (Spoerry and Hinman 1988). One unusual shell-tempered sherd from the base of a jar or bowl is of Derbyshire-type (DERMSH1) whilst a shell and quartz-tempered (SLSQ) jar or bowl is likely to be of South Lincolnshire manufacture. A small jar with a quartz and calcareous-temper has a fabric consistent with a Trent Valley source (MEDLOC). The other four vessels are in non-local quart-tempered fabrics of general medieval date (MEDX).

Late Medieval to Early Post-Medieval

Eighty-eight 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 either 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 forty 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, but at least three jugs are represented amongst the assemblage. 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. Most of the thirty-eight Cistercian ware vessels are cups, although at least three jugs and a possible costrel were recovered. Only two cups have traces of decoration with one vessel have applied notched strips in white firing clay. Nine of the vessels are thick-walled and appear to represent late post-mid/late 16th century production.

Four coarsely sand-tempered sherds in two different fabrics are of probable North Nottinghamshire Late medieval production and resemble early Midlands Purple ware (NNCSW):

Fabric 1 - One of the two oxidised sherds in this fabric comes from a jar whilst the other could come from either a jug or a jar. The fabric contains common angular to sub-angular mixed quartz of 0.3mm to 1.5mm some of which, is polycrystalline, together with moderate iron-rich grains including some well-rounded examples and sparse calcareous grains. The fabric also includes variable clean light firing clay streaks.

Fabric 2 - The two sherds in this fabric are mainly reduced with oxidised surfaces. One sherd is from a jar and one from a jug or jar. The fabric contains common angular to sub-angular mixed quartz of 0.3mm to 2.0mm most of which, is polycrystalline, together with common irin-rich grains, moderate calcareous grains and sparse aggregated sandstone.

Six other vessels are regional imports, five of which are likely to come from production centres in Yorkshire (CMO and HUM). One of the three Humber ware sherds (HUM) is identifiable as a jug, but the other two fragments could either be from jugs or jars. 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. Neither of the two Coal Measures Whiteware sherds (CMW) is diagnostic of a specific form, but again these vessels are likely to be of mid 15th to mid 16th century date. A single sherd is of Late Medieval to Early Post-medieval Bourne-type ware (BOU). The basal sherd is from a jug or jar of mid 15th to 16th century date.

Post-Medieval

Twenty-seven of the vessels recovered from the site are of mid 16th to 18th century date. These include earthenwares, stonewares, slipwares and tin-glazed ware. The study of the material from this site has identified three new post-medieval ware types. All three of these wares are likely to have been produced within North Nottinghamshire between the mid/late 16th and 17th centuries. The most common type to occur has been termed North Nottinghamshire Post-medieval Coarse ware (NNPMCW). The five vessels in this ware type are mainly unglazed, although each vessel has at least a few spots of incidental glaze. The fabric varies in colour from light to bright orange and contains common to abundant sub-rounded to rounded quartz of between 0.2mm and 0.6mm with some larger grains, together with moderate iron-rich grains and occasional aggregated sandstone. Some of the quartz is orange-tinged. These vessels may not have all been made at the same production site but appear to be part of a similar tradition. Three of the vessels appear to be jars and one with a thick internal glaze at the base may be a large jar or bowl. The fifth vessel is more unusual as it is a chicken feeder (see Young, Vince and Nailor 2005, Fig. 142, 1119. 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 and external red slip with an orange-coloured internal glaze over. Light-bodied slipwares are found in several areas of Yorkshire as well as in North Staffordshire, but have not especially been noted in Nottinghamshire before. The fabric of this vessel suggests that it was produced in a similar area to the North Nottinghamshire Post-medieval Coarse wares. The base of a small jug or jar in a light orange fabric with a purple external slip (NNLBCW) is tempered with moderate sub-rounded quartz of 0.2mm to 0.4mm, some of which is polycrystalline. The fabric also includes some slightly larger quartz grains up to 0.8mm and moderate iron-rich grains.

Thirteen 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 Staffordshire or Derbyshire type. Both vessels are probably jars but one could be a bowl. The third vessel has a coarse Midlands purple-type fabric and may be from Ticknall in Derbyshire. This jug is of earlier probable late 16th to mid 17th century date. A similar vessel was found in Linear 50 but with a black glaze (BL). Six other black-glazed vessels (BL) and one unglazed sherd (LERTH) are of mid, or late 17th to 18th century Staffordshire or Derbyshire type. These vessels include both fine ware drinking vessels and coarsely tempered jars. Three coarsely tempered examples with abundant iron-rich inclusions are more likely to be North Nottinghamshire products of similar date.

Only two slipware vessels were recovered from the site. A Staffordshire-type Slipware dish (STSL) found in Linear 50 is of mid 17th to mid 18th century type. This vessel could have been made in North Staffordshire, Derbyshire or Yorkshire as recently similar vessels have been found at production sites near Leeds. A small body sherd from a drinking vessel is 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. A small sherd from a probable jar is in Midlands Yellow ware (MY) and is of mid 16th to 17th 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 small jars or drug pots of mid 17th to 18th century date. The single imported German Stoneware sherd is from a Frechen-type drinking jug of mid/late 16th to 17th century date (FREC).

Late Post-Medieval to Early Modern

Nine 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. Two small sherds are from a tiny jar and a drinking vessel in 18th century Nottingham Stoneware (NOTS). The two tiny jars in Staffordshire-type White Salt-glazed ware (SWSG) are likely to have been made between the 1740's and the 1770's. A single Pearlware sherd (PEARL) is likely to come from a mug of early/mid to mid 19th century date. Three sherds are from the lower part of a mid 19th century stoneware bottle (ENGS). The bottle is marked T SMITH & Co, London.

The latest vessels to be found on the site are a blue transfer-printed plate of probable 19th century date, a Whiteware (WHITE) vessel of unknown type and a sherd from a Nineteenth Century Buff ware slip-banded jar (NCBW).

The Site Sequence

The post-Roman pottery was recovered from two different areas on the site with most of the material coming from Areas 1 and 2 (Table 2).

Table 2 Ceramic periods with total quantities by vessel count

Ceramic period	A1	A2	Unassigned	Total vessels
Anglo-Saxon (5th to 8th)	1	1	0	1
Late Saxon (mid/late 9th to mid/late 11th)	5	0	0	5
Saxo-Norman (late 9th to 12th century)	6	6	0	12
Early medieval (mid 12th to early/mid 13th)	18	11	1	30
Medieval (13th to 14th)	36	16	0	52
Late medieval to early post-medieval(late 14th to	18	70	0	88
Post-medieval (late 16th to 18th)	13	13	0	26
Late post-medieval to early modern(18th to	9	1	0	10
Unknown	1	0	0	0
Total Vessels	107	118	1	226

Area 1

A total of one hundred and thirty-one sherds representing one hundred and seven vessels were recovered from thirty-two deposits in Area 1. Few deposits contain more than ten sherds and the only features to produce a group of more than ten vessels were Pit 34 and Ditch 255. Three 13th century Nottingham and Nottingham-type glazed jug sherds were recovered from Posthole 13. Sampling of one of the fills produced a further two small sherds of mid/late 12th to early/mid 13th century date. One of these sherds is from a decorated Developed Stamford ware jug. A single Light-bodied Nottingham Glazed ware jug sherd of general 13th to early/mid 14th century date came from Post-pit 17 and a Nottingham Splashed-glaze ware jug of mid/late 12th to early/mid 13th century date came from Post-pit 205. Two sherds, one of which dates to between the mid 17th and 18th centuries, were recovered from Post-pit 36. This Black-glazed earthenware jug or jar sherd may be a fairly local product. Two similar Black-glazed Earthenware jar or bowl sherds were also found in Post-pit 52. Post-Pit 87 contained a large Potterhanworth shell-tempered bowl of general 13th to 15th century date whilst Post-pit 165 produced two 13th to early/mid 14th century Nottingham Glazed ware sherds. Four post-pits contained pottery of early modern date (Pits 77, 113, 135 and 155). Post-pit 171 produced two drinking vessels of probable 18th century date.

Linear 50 contained four sherds from three different vessels. These vessels include A Staffordshire-type Slipware dish, a Cistercian ware cup and an early Black-glazed Earthenware jug or jar. The slipware dish can be dated to between the mid and late 17th century but the black-glazed sherd is unlikely to post-date the mid 17th century. The two sherds recovered from Linear 64 belong to the period between the mid 15th and mid 16th centuries. They comprise a Humberware jug and a tall Midlands Purple ware jar. The two sherds found in Drain 202 are both from drinking vessels. The latest sherd is in 18th century Nottingham Stoneware.

Only three layers in this area produced pottery. The earliest layer appears to be 216 as it contained three vessels of late 9th to 10th century Late Saxon date. A single shell-tempered Stanion-Lyveden-type jar or bowl sherd of late 12th to 14th century date came from Layer 110. Layer 214 contained a single Cistercian ware cup of mid 15th to mid 16th century date.

Pit 34 produced a small group of twenty-two sherds from twenty different vessels. The group is quite fragmentary and contains at least seven residual medieval sherds, although some of the later sherds are in a quite fresh condition. The six late medieval to early post-medieval ware types present include vessels manufactured in Derbyshire, Lincolnshire and Yorkshire as well as vessels probably made more locally. Identifiable form types are mainly jugs and jars, but the group includes one Cistercian ware cup. The composition of the group suggests that it was deposited between the late 15th and mid 16th centuries. The only other pit to produce pottery (Pit 103) contained two sherds from a single small Nottingham ware variant jar of 13th to 14th century date.

Four ditches produced small numbers of post-Roman sherds. Two of the ditches (167 and 112) each contained two sherds of early medieval or medieval type whilst Ditches 169 and 174 produced sherds of post-medieval date. A small group of thirty-four vessels was recovered from Ditch 255. The group contains a range of jugs and jars in ware types produced in Nottinghamshire, Yorkshire, Lincolnshire and a number of unknown regional centres. Some of the material is obviously residual as it probably dates to the first half of the 12th century. The latest pottery belongs to the first quarter of the 13th century and includes vessels made in Nottingham and Beverley.

Area 2

A total of one hundred and fifty-one sherds representing one hundred and eighteen vessels were recovered from fifteen deposits in Area 2. All of the pottery came from cut features, but most vessels were recovered from two main possibly related pits (404 and 433). A total of seven cross-joining vessels occur between these two features suggesting that they were filled with the same material. The forty-four vessels found in Pit 404 are mainly Cistercian ware cups or small jugs and Midlands Purple type jugs and jars, but the group also includes three North Nottinghamshire late medieval to early post-medieval vessels. Most of the Cistercian ware and Midlands Purple ware vessels are likely to be products of kilns at Ticknall in Derbyshire, but at least one of each type possibly come from more local kilns. Two low-fired sherds are from a tall Cistercian ware cup that has cross-joining sherds in Pit 433 (Vessel 4). The fabric of this vessel, which has a poorly fitting brown glaze, is unlike that of the other Cistercian ware vessels from the site. Two sherds from one of the Midlands Purple-type jugs are in a fabric that contains quite common iron-rich grains including ferrous slag. A sherd from a large North Nottinghamshire Light-bodied Slipware bowl joins to sherds in Pit 433 (Vessel 1). This bowl has a red slip over a light orange fabric and an internal orange glaze. The form is similar to bowls produced in Midlands Purple ware in the 16th century. The other cross-joining North Nottinghamshire-type sherd is from the base of a large jar or bowl with a wire-cut base (Vessel 2). Only two sherds in Pit 404, in the form of an external soot residue and an internal 'kettle-fur' residue, has any evidence for usage. The forty-three vessels recovered from Pit 433 include a slightly wider range of types than that found in Pit 404 and are mainly represented by larger sherds. The fifteen Cistercian ware vessels, four of which cross-join to Pit 404, include cups and small jugs. One of the thirteen Midlands Purple

ware jugs and jars has an internal white 'kettle-fur' deposit that extends upwards from a line 10cm upwards from the internal base angle (Vessel 7). All of the Midlands Purple ware vessels could be Ticknall products. The group includes further sherds of the North Nottinghamshire Light-bodied Slipware bowl (Vessel 1) and North Nottinghamshire Post-medieval Coarseware jar or bowl (Vessel 2) as well as six other North Nottinghamshire-type vessels. These possibly local vessels include two large sherds from a circular chicken feeder of a type used from at least the medieval period (see Young, Vince and Nailor 2005, Fig. 142, 1119). The other local-type vessels are probably jars. A large black-glazed jar in a coarse purple fabric is of Staffordshire or Derbyshire type. This vessel would be unusual in a deposit predating the early/mid 17th century and is stylistically the latest type to occur in the two pits. The only imported German Stoneware sherd to be recovered from the site came from this feature. This Frechen-type drinking jug dates from the mid/late 16th to 17th centuries. The dating of these two features is slightly problematical as without the presence of the Black-glazed ware jar the group would fit comfortably within the period between the mid/late 16th and early 17th centuries. Unless the presence of the jar sherd is considered intrusive the group was probably not deposited before the early/mid 17th century when several of the vessel types would have been archaic.

A single tiny sherd, possibly from an Anglo-Saxon vessel, was recovered from the sampling of Ditch 485. The sherd is in the same fabric as a slightly larger sherd recovered residually in Area 1, but is small enough to have been carried in worm cast. The two jug sherds recovered from Ditch 477 are of mid/late 12th to early/mid 13th century type. Drain 407 produced a small group of eleven vessels of which six sherds are possibly part of a vessel also recovered from Pit 404. The group is mixed and includes residual medieval sherds together with late medieval to early post-medieval Cistercian and Midlands Purple wares as well as a sherd from a Brown-glazed Earthenware jar of Staffordshire/Derbyshire mid 17th to 18th century type. A single 12th century Stamford ware sherd from a glazed jug or jar came from Drain 430.

A small group of ten sherds was found in Pit 449. The group contains mainly glazed jugs of Nottingham Splash-glazed type, but also includes coarseware jars and a Beverley-type jug. This small group appears to be transitional and probably belongs to the first quarter of the 13th century. Pit 452 produced a small mixed group of seven sherds. This group includes two medieval shell-tempered vessels from Potterhanworth near Lincoln. The group is too small to date closely but is most likely to be of 13th century date. Two Black-glazed Earthenware sherds of mid 17th to 18th century Staffordshire or Derbyshire type were recovered from Pit 411. A single unglazed mid 17th to 18th century jar sherd of Staffordshire or Derbyshire type was recovered from Posthole 457.

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. The presence of at least one identifiable Anglo-Saxon sherd suggests nearby 5th to 8th century activity in the area. Small numbers of late Saxon sherds suggest limited activity in this period in Area 1 only and the few closely dateable Saxo-Norman sherds present in the assemblage suggest a post-conquest date. Small numbers of sherds from the 12th and 13th to 14th centuries also suggest that nearby occupation may have continued throughout this period. More intense activity is suggested by the pottery during the period between the mid 15th an early 17th centuries, especially in Area 2. Sporadic later sherds perhaps indicate that the area was rarely used for rubbish disposal after the early post-medieval period.

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Appendix 6: The Ceramic and Stone Building Material

Introduction

A total of three hundred and three fragments of ceramic building material and three stone roof tiles weighing a total of 65.347 kgms recovered from the site were presented for examination. The material was examined both visually and at where appropriate at x 20 binocular magnification. 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).

Condition

The material is in variable condition with most tile fragments showing at least a little abrasion, although much of the tile is in an abraded to very abraded condition. Fragments range from large-sized (over 2000 grams) to tiny (below 1 gram). A large number of tiles have mortar over broken edges suggesting reuse, probably as rubble infill. Several tiles have evidence for manufacturing techniques in the form of impressions (cloth/wood grain), imprints (paw and fingerprints) and knife trimming. Two tiles have fuel ash slag deposits adhering which may either have formed during a fire, or during industrial activity.

The Ceramic and Stone Building Material

A range of ceramic building material including Roman Tegula, Imbrex, box-flue and brick as well medieval to early modern roof tile, floor tile and brick was found on the site. Fragments from three stone roof tiles were also recovered. The types are shown and quantified in Table 1.

Table 1: CBM codenames and total quantities by fragment count and weight

Codename	Full name	Total fragments	Total weight in grams
BOX	Roman box tile	3	460
BRK	Brick	10	2631
DAUB	Daub	1	27
FIRED CLAY	Fired clay	16	57
FLOOR	Floor tile	1	1724
GPNR	Glazed peg, nib or ridge	1	109
IMB	Imbrex	12	1642
NIB	Nibbed tile	6	1696
PANT	Pantile	3	555
PNR	Peg, nib or ridge tile	33	4745
RBRK	Roman brick	44	31775
RRID	Roman Ridge tile	2	1294
RTIL	Roman tile	41	2112
RTMISC	Roman or post-Roman tile	96	1099
STILE	Stone tile	3	3834
TEG	Tegula	34	11587

Roman

One hundred and thirty-six identifiable fragments of ceramic Roman building material were recovered from the site. The collection includes examples of brick (RBRK), Tegula (TEG), box-flue tiles (BOX) and Imbrex (IMB). Many of the tile fragments are in poor condition and have mortar over broken edges suggesting that they had been reused, probably as rubble infill. Most of the Roman tiles are quartz-tempered and fall within a bright to dull oxidised colour range, although a wide range of fabrics is present suggesting that the material does not all come from a single source. At least four tiles including two shell-tempered tiles that are likely to be from production sites in Northamptonshire or Bedfordshire (Brown 1994) are from production centres outside of Nottinghamshire.

The thirty-four Tegula fragments found represent thirty-three different tiles and include fourteen with upper flanges. The range of flange types is quite wide (eight different varieties) but in most cases only one, or two of each type is present. Some of the 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. The most common flange type appears to be a wide flattened top without an undercut inside face (Type 1). Ten of the tiles have cut-outs, most of which are from the upper part of the tile. The identifiable lower cut-outs are of Bett's Type A or B. A wide range of different fabrics is represented amongst the Tegula with fine to medium quartz-tempered fabrics being the most common. Several of the Tegula have evidence for knife-trimming along the external basal angle or part of the underside and one tile appears to have a 'brushed' upper surface. Other manufacturing traits are found in the form of a finger impression on the edge of one tile and strike marks on the upper surface of several tiles. A small paw marks was impressed on the upper surface of one tile suggesting that the tiles were laid out to dry in an unfenced open area.

Two examples of curved tile are probably fragments of specialised ridge tile (RRID). They are not especially thick at 22mm and 24mm but are more open than the fragments of Imbrex recovered from the site.

Twelve fragments of Imbrex (IMB) were recovered from the site. Thickness is extremely variable with one tile ranging from 7mm to 20mm, although most are within the 15mm to 24mm range. One thin tile at 9mm also appears to have not been very high, but is too incomplete to measure. Manufacturing techniques appear to vary with only one tile having possible cloth marks. The fragments are in a range of oxidised fabrics that vary from finely to coarsely quartz-tempered.

Forty-four fragments from forty-three Roman bricks (RBRK) were found on the site, some of which are represented by sizeable fragments. The tiles are in a range of oxidised, mainly fine to medium quartz-tempered fabrics, most of which have fired to a bright orange to red colour. No complete measurements were possible but tile thickness ranges from 32-68mm and several tiles are in excess of 175mm in length. These measurements are typical of Bessales, Pedales or Sesquipedalis and suggest that they may have come from a hypocaust system. A brushed upper surface similar to that found on one of the Tegula occurs on two of the bricks. Two of the bricks appear to have been shaped in antiquity by chipping away part of the tile, in one case to form a curved edge. Several fragments appear to have been burnt and two pieces have fuel ash slag residues.

Three fragments were identified as box flue tiles (BOX), one of which is in a shell-tempered fabric and possibly come from kilns in Northamptonshire. All three of the tiles have combing on at least one face.

Forty-one other tile fragments are certainly of Roman date (RTIL) but are too fragmentary to determine type and ninety-six other, mainly small fragments and flakes, could be of either Roman or post-Roman date.

Post-Roman

In total fifty-four fragments are identifiable as being of definite post-Roman date. These include handmade bricks (BRK), roof tile (GPNR, NIB, PANT and PNR) and floor tile (FLOOR). Most of the material is probably of post-medieval to early modern date but some of the tiles belong to the medieval to late medieval period.

Thirty-nine fragments from thirty-six different flat roof tiles and one possible fragment of ridge tile (GPNR, NIB and PNR) date to the period between the 13th and 17th or 18th centuries. A wide range of fabrics is represented but all are consistent with a Nottinghamshire source. One tile has a single spot of glaze suggesting perhaps that it was fired together with glazed ridge tiles. The tiles vary in thickness between 10mm and 23mm but were all prepared in a sanded mould. Six tiles have suspension nibs, five of which are the single applied bar type rather than the mid 12th to 13th century moulded nibs or the late medieval to early post-medieval folded type. These later nibs were applied to the upper smooth side of the tile and sometimes, as in the case of the tile found in Pit 34 (deposit 33) on this site also have a pre-punched nail hole. Each of the bar-type nibs recovered from this site is of a different type with some being placed centrally whilst others are offset to one side. Present dating evidence suggests that they do not occur before the mid 15th century, when they are almost always offset and continue to be used into the early modern period. The single folded-type nib was found in Pit 34 (deposit 207) associated with late 15th to mid 16th century pottery. This type of nib is found from the late 13th or early 14th century in industries based on the East Coast such as Boston (Mayes 1965) and Beverley (Armstrong 1991), but usually does not occur inland until the late 14th to 15th centuries.

Ten fragments of handmade brick were recovered from the site. Most of the bricks are likely to be of early to late post-medieval date, although the example from deposit 204 is more certainly of early modern 18th to mid 20th century type. Few fragments are measurable but surviving the thickness (between 40mm and 56mm) suggests a range of sizes. Five of the bricks are obviously sand-moulded whilst one probably non-local example in a fine red fabric has been slop-moulded. The slop-moulded brick has a worn upper surface and has presumably been used for flooring.

Three fragments of pantile and an unglazed floor tile are of early modern type.

The Fired Clay and Daub

Eleven very fragmentary pieces of fired clay and one identifiable fragment of daub were found on the site. The material is in several oxidised and reduced fabrics and appears to represent several different mixes. The single identifiable fragment of daub is abraded and only has a faint immeasurable wattle impression.

The Stone Tile

Three large flakes of grey fine-grained fissile sandstone appear to represent the use of stone tile on the site. All three tiles are from the back-fill of Kiln 322 (deposit 324).

The Site Sequence

The ceramic building material and stone tile was recovered from sixty-six deposits in two different areas on the site with most of the Roman material coming from Area 1 and the post-Roman from Area 2 (Table 2).

Table 2: Ceramic and Stone Building material with total fragment counts by Area

Period	Area 1	Area 2
Roman	91	45
Post-Roman	17	37
Unknown	58	58
Total fragments	166	140

Area 1

Few features in Area 1 produced large groups of building material and some of these groups such as that from Ditch 223 contain both Roman and post-Roman material. All of the identifiable tiles from the re-cut 269 of this ditch are of Roman date, but seventeen small pieces could be of post-Roman date. The main ditch fills contain four Roman tiles, fired clay and daub as well as post-medieval brick and early modern pantile and floor tile. Other ditches such as Ditch 255 also contain small groups of Roman tile but also include post-Roman pottery within their fills.

All of the identifiable tile from the back-fill of Kiln 322 and associated layers is of Roman date and includes examples of brick, Tegula, Imbrex and ridge tile. Also included in the group are three stone roof tiles.

Layer 110 contained a small group of Roman tile including Tegula, brick and Imbrex. The group is associated with pottery of probable late 4th century date. A similar but smaller group was recovered from layer 216 together with pottery of Roman and post-Roman late 9th to 10th century date.

Pit 33 produced a small group of late medieval to early post-medieval flat roof tile including two examples with suspension nibs. One of the nibs is of the folded type whilst the other is an applied offset bar nib with a square peg hole set to the left. This group is associated with pottery of mid 15th to mid 16th century date.

Area 2

Small numbers of Roman tile occurred in several deposits but only one feature produced more than a few fragments. The small group of sixteen fragments from Ditch 477 includes examples of brick, Tegula, ridge tile, Imbrex and box-flue tile. At least seven different fabrics are represented amongst the material suggesting that it does not all come from a single build. The group is associated with both late 3rd to 4th century Roman and mid/late 12th to early/mid 13th century post-Roman pottery.

Pit 404 produced a small group of late medieval to post-medieval brick and flat roof tile. Included in the group, which is associated with mid/late 16th to early 17th century pottery, are two tiles with applied bar nibs. Both bricks are handmade but one is sand-moulded and one is slop-moulded. The slop-moulded brick has a well-worn upper surface and appears to have been used for flooring. A similar, but slightly larger group was recovered from Pit 433. This group is more mixed and includes Roman material. All four handmade bricks recovered from this feature are sand-moulded. The only flat roof tile from the site to have evidence for glaze was found in this pit. The single small spot of glaze cannot however be taken as evidence for the use of glazed flat roof tile on the site as the tile may merely have acquired

an incidental spot from having been fired with glazed ridge tile. The pottery from Pit 433 is mainly of mid/late 16th to early 17th century but one sherd is more typical of mid to late 17th century production, although it is possible that the type was in production by the early/mid 17th century.

A small group of Roman tile was recovered from Drain 407 together with a handmade post-medieval brick and late medieval to post-medieval flat roof tile. The brick is most probably of 17th to 18th century date.

Discussion

This is a mixed group of Roman and post-Roman material that adds to our knowledge of building material types in Southwell. Unfortunately as most, if not all, of the ceramic building material is likely to be residual, it is not possible to put most of this assemblage within a tight chronological framework. Nevertheless this small group has the potential to answer several questions about Roman and post-Roman brick and tile production in the area and should be used together with other material recovered from sites in Southwell to construct a typology for the area.

A few undiagnostic fragments could be discarded; otherwise the material is in a stable condition and should be kept for future study.

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Appendix 7: The Lithic Materials

by Dr David Underhill BA(Hons) MA PhD

Introduction

Two pieces of flint were recovered from the site of Platt's Orchard, Southwell, Nottinghamshire. Both are genuine artefacts, but neither is particularly diagnostic; one broken flake and one broken blade from very different contexts. Unfortunately, the piece with the most potential for dating was redeposited in a Roman feature, and thus these pieces can offer no assistance in dating the site, although it does suggest that humans were active in the environs of the site potentially back to the upper Palaeolithic, although more likely in the Mesolithic or Neolithic.

Methodology

Both of the artefacts were examined and their attributes recorded and compiled to form a digital archive. Macroscopic analysis and the use of a x3 spectacle magnifier identified evidence of modification and established each pieces position in the reduction sequence, any observable characteristics of the reduction technology, and an assessment of functional potential. Metrical data was recorded for each piece.

Assemblage

Raw Material

Both the pieces are manufactured from flint, but very different types of flint. The flake is an opaque creamy brown whilst the blade is a dark caramel brown. Indeed the former is patinating a grey blue whilst the latter is recorticating white over the entire surface, excepting the distal which is completely covered by a patch of thick light brown cortex. The flake appears to be from a later stage in the reduction of a well worked core, with the two dorsal scars from the proximal actually having originated on a face of the core that was removed in advance of this flake, which itself plunged and removed some 8mm of the opposite surface.

Condition

Whilst the blade is in near mint condition, with very fresh lateral margins and arêtes, the flake is more damaged, with some crushing and possible chipping damage. Both appear to have been damaged during excavation.

Composition

In context 100, the fill of ditch section **099**, the distal section of a broken blade was recovered; the break looks fresh and it could be connected with excavation. The piece shows four prior removals on its surface and, as far as can be established, appears to be part of a prismatic reduction sequence. It is likely to be from quite early in the reduction sequence considering the amount of cortex present on the distal end, which prior removals where also catching.

The broken flake, recovered from fill 471 in ditch **470**, is broken only in so much as it did not detach in the manner the knapper intended, it plunged removing some 8mm of the opposite platform. Whilst there is some platform preparation evident the piece has failed. What it does reveal is that the core was approaching the end of its usefulness, the two dorsal scars from the lateral originated on a platform that has been removed prior to this flake. Additionally the

removal of the opposing platform whilst the flake is only 33mm long is confirmation that the core was becoming small.

Discussion

These two pieces are most likely unrelated; one shows skilful mastery over fresh material, whilst the other is a failed removal from exhausted material. Whilst it is impossible to put an age estimate on either piece the broken blade would most likely be older, potentially Palaeolithic, but perhaps more likely Mesolithic or Neolithic. The flake could be from almost any period and without more pieces can offer no clues as to its age.

Appendix 7.1: Lithic Materials Archive

Cxt	type	Flint	typology	technology	broken?	Spot Date	Dims.	platform	dorsal scar pattern	Cortex	Platform	Post-depositional damage?	Comments
100	blade	dark caramel brown	broken blade	unknown	yes - distal end 2(b?)	Meso/ Neolithic?	17.51x5.95		four from proximal	thick (2mm+) mid - light brown		yes	in almost mint condition, recorticating white
471	flake	opaque creamy brown	broken flake	direct hard hammer	yes - plunge	unknown	33.12x19.72 x7.15	6.56x2.13	1 distal 2 proximal and 2 latteral	0	plain	yes	recorticating a grey blue color; simple plunged flake, from a well worked core.

Appendix 8: The Metal and Other Small-Finds

by Gary Taylor

Introduction

Thirteen items weighing a total of 233g were retrieved.

Condition

The other finds are in moderate condition, though all the metal items are corroded.

Results

Table 1: The Small-Finds Archive

Cxt	Small find no.	Material	Description	NoF	W (g)	Date
035	4	iron	Nail, rectangular shaft, sub-rectangular head	1	10	
063	2	iron	Nail, rectangular shaft, sub-rectangular head	1	8	
	3	iron	Small nail/tack, rectangular shaft, L-shaped head	1	2	
085	1	Iron and bone	Knife with whittle tang and shoulder plate; separate fragment of bone handle	2	26	14th century +
096	6	iron	Nail, turned-over head	1	20	
175	5	iron	Small nail/tack, domed head	1	2	
216	7	lead	Possibly folded sheet or melt	1	14	
247	9	iron	Ferrous encrustations, 1 probably slag, 2nd possibly decayed object	2	93	
248	10	iron	Bar, 70mm x 15mm	1	50	
406	13	Copper alloy	Wire loop, probable bracelet, 3rd-4th century	1	4	3rd-4th century
	14	Copper alloy	Lozenge-shaped sheet, 27mm x 20mm	1	4	

Provenance

The finds were recovered from (035), (063), (085), (096), (175), (216), (247), (248), (406).

Range

Iron dominates the assemblage and most of the objects are nails or tacks of various kinds. There is also a small knife with an associate but detached fragment of bone handle. The knife has a thin ovoid shoulder plate at the junction of the tang and blade. Such thin shoulder plates appear to be a late medieval introduction. In London, examples of such shoulder plates first seem to appear in the late 14th century (Cowgill et al. 1987, nos. 116, 121-123). Too little survives of this knife to suggest closer dating; however, it could be considerably later than the 14th century.

There is also a probable Roman bracelet from (406). This is of copper alloy but has a coating of iron salts, probably due to geochemical processes. The object is a plain loop of wire of uniform thickness, with two inter-locking looped terminals formed by folding the wire back on itself. Simple undecorated wire bracelets, although with more elaborate closing connections than seen here, have been found at various Roman sites. At Colchester a fairly plain wire bracelet was found in a 3rd-4th century inhumation (Crummy 1995, 38-9) and another was recovered in a 4th century deposit at Richborough (Wilson 1968, 98; plate XLI, no 156). A near-identical example, with simple looped back terminals in a hook and eye arrangement, was found at Leicester in late 3rd-early 4th century levels (Cooper 1999, 261; fig 125, no 91)).

Potential

The other finds are of moderate potential. The nails are perhaps for connecting structural members, or furniture, and indicate the probability of buildings and occupation at the site, though of unclear date. A probable bracelet does, however, indicate late Roman activity in the area and such bracelets have been found in graves previously, thereby suggesting the possibility of Romano-British burials in the vicinity of the site.

The knife (small find no. 1), ferrous encrustations (small find no. 9) and bar (small find no. 10) should be X-rayed and re-examined.

ABBREVIATIONS

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

REFERENCES

Cooper, NJ, 1999 ‘The small finds’, in A Connor and R Buckley, *Roman and Medieval Occupation in Causeway Lane, Leicester*, Leicester Archaeology Monograph 5, 239-282

Cowgill, J, de Neergaard, M and Griffiths, N, 1987 *Knives and Scabbards*, Medieval Finds from Excavations in London 1

Crummy, N., 1995 *The Roman Small Finds from Excavations in Colchester 1971-9*, Colchester Archaeology Report 2

Wilson, MG, 1968 ‘Other objects of bronze, iron, silver, lead, bone, and stone’, in BW Cunliffe (ed), *Fifth Report on the Excavations of the Roman Fort at Richborough, Kent*, The Society of Antiquaries Reports of the Research Committee XXIII, 93-110

Appendix 9: Assessment of the Leather

by Quita Mould

1 Methodology

The leather was scanned, identified and diagnostic measurements were taken where necessary. Leather species were identified by hair follicle pattern using low-powered magnification. Where the grain pattern of the immature animal (calf) could not be easily distinguished from the mature animal (cattle hide) the term bovine leather has been used. Shoe bottom components may be assumed to be of cattle hide unless stated otherwise. All measurements are in millimetres (mm). Incomplete dimensions are indicated by +. A basic record of the leather for the site archive is appended to this assessment (Appendix 9.1).

2 Condition

The leather is wet, washed and stored in double, seal-sealing polythene bags. It is fragile, highly friable and vulnerable to further fragmentation. The leather should be kept cool and light excluded. **If the leather is intended for long term storage and potential further study it will require conservation.** The particular conservation requirements of SF11 are given in section 4 below.

3 Summary

A small amount of leather was recovered from two contexts, both comprising dark grey sandy silt and moderate amounts of charcoal flecks, encountered within the ditch **223**, attributed to the late Roman to Early/Middle Saxon periods. Context 240, which may have been a fill in the original ditch or in recut **341**, produced a single piece of secondary waste of bovine leather, probably calfskin, and fragments (SF11) apparently broken from a turnshoe sole. Context 269, within possible recut **340**, produced a broken sole from a small shoe of nailed construction. The shoe leather is fragmentary so that information is limited, however, it is clear that SF11 from [269] comes from a shoe of Roman date while features present on SF12 from [240] such as the edge/flesh seam, curvature of the pieces and the wear displayed suggest it to be a broken turnshoe sole and likely to be of later, medieval date. While no shoes of turnshoe construction have been found in late Roman contexts in this country to date, it must be said that the assemblages of leather footwear attributed to this date are few; shoes of turnshoe construction are known from the early/middle Saxon periods. Perhaps the earliest turnshoes in this country were recovered from Mound 1 at Sutton Hoo dated to c. AD625 (East 1983: 788-810; Cameron and Mould 2011: 99) with examples being found in contexts of late eighth and ninth century date onward in other parts of the country such as Oxford, Gloucester, York, London; summarised in Cameron and Mould 2011: 109).

4 Potential for Analysis

The suggested dating of the contexts in which the leather was found obviously makes it of local, regional and potentially national interest, but regrettably its highly fragmentary nature severely limits the information that can be gained from its study. The shoe sole of nailed construction (SF12) is of Roman date but few diagnostic features are present; neither the size, shape, nor the nailing pattern is preserved. The occurrence of a single piece of secondary waste (sample 8 context 240) does however provide evidence of leatherworking having taken place in the vicinity. The fragments, apparently broken from the sole of a shoe of turnshoe construction (SF11), might be of Saxon or medieval date but again no diagnostic

features other than the edge/flesh seam are preserved. The importance of the leather is totally dictated by the certainty of the dating of the deposits in which it was found. If the status of context 240 can be established with certainty ruling out the possibility of later medieval contamination then SF11 would represent an early example of turnshoe construction to be recovered from this country. As such it would be worthy of a brief note in a relevant journal and/or the Archaeological Leather Group Newsletter and require a photograph/illustration. It would also benefit from the conservator attempting to find any existing joins prior to conservation.

5 References

East, K. 1983 'The Shoes'. In Bruce-Mitford R.L.S. (author) and Care-Evans, A (ed.) *The Sutton Hoo Ship-Burial, Volume 3*, ii London: British Museum

Cameron, E. and Mould, Q. 2011 'Devil's Crafts and Dragon's Skins? Shoes and Other Leatherwork'. In legg Hyer, M. and Owen-Crocker Gale R. (eds.) *The Material Culture of Daily Living in the Anglo-Saxon World*, 93-115. Exeter: the University of Exeter Press.

Appendix 9.1: Basic record of the leather from Platts Orchard, Southwell, Newark, Notts (POSM12)

Context 240 Sample 8: Leather secondary waste.

A triangular piece of secondary waste, now torn into two pieces, with all edges cut. Bovine leather, delaminating in places, 0.97mm thick. Length 60mm, max width 40mm.

Context 240 SF11: Leather turnshoe sole, fragmentary.

Eight fragments of worn bovine leather, including six with remains of an edge/flesh seam with stitch length 5mm with all other edges torn. Only one small piece joins to another no other obvious joins are present; it may be possible to find other joins but this is unlikely following conservation. Three of the larger pieces are curved in profile. Fleshing lines are visible on the flesh side in places. The wear, curved profile and the edge/flesh seam all suggest the fragments are broken from a turnshoe sole. Leather cattle hide 2.94mm thick.

Dimensions of fragments: 91+x41+mm; 86+x29+mm; 82+x60+mm; 39+x40+mm; 38+x24+mm; 30+x12+mm; 21+x16+mm; 20+x16+mm

Context 269 SF12: Leather nailed shoe bottom component, fragmentary

Fragmentary sole from a shoe of nailed construction comprising four principal and other very small fragments; no obvious joins survive. The largest piece comes from the centre of the 'waist' area of the sole, torn away across the lower tread and upper seat. The right edge is intact the left edge is broken so that the original waist width of the sole is not represented. A line of nail holes runs along the surviving edge with other nail holes apparently infilling the seat and waist areas, there is no obvious coherent line of nailing down the left (broken) side. No hobnails are present but iron staining is visible, the impression of the hobnail heads are visible on the grain side. The sole is small and is estimated to have originally been of adolescent/small adult size at its largest. Leather cattle hide.

Dimensions of fragments: 81+x53+mm; 71+x46+mm; 34+x46+mm; 34+x26+mm

Appendix 10: Assessment of Possible Metalliferous Slag and Industrial Process Residues.

by Dr R. Mackenzie

The following report is an archaeometallurgical assessment of possible metalliferous slag and industrial process residues recovered during archaeological fieldwork at Platts Orchard, Southwell, Nottinghamshire. The aim of the assessment has been to identify the slag and residues, and determine whether further analysis could provide additional information about the site, or activities carried out there. The slag and residues have been visually examined and the results of the assessment are described below.

General discussion of archaeometallurgical slag types

In some types of metal production, the slag and residue by-products can be linked to a specific process. However, in many cases, it can be extremely difficult to identify the production source of a fragment of slag from its morphology alone. The difficulties of determining the process origin of slags from the Iron Age to Medieval period are discussed by McDonnell (2001, 163) and Bachmann (1982:31).

Pre-industrial iron smelting and smithing processes in particular both produced a high proportion of indistinct undiagnostic slags. In general, iron smelting produced a much higher volume of distinctive diagnostic slags than iron smithing. However, as iron smithing was far more common and geographically widespread than smelting, undiagnostic slags tend to be the most common type found in the archaeological record.

In some cases, scientific analysis can help to determine the process origin of slags, although this is normally only justified where there is supporting archaeological or historical evidence, or the particular slag found is of an archaeometallurgically significant type.

Results of Assessment

Context Number	Provisional Date of Context	Number of pieces	Weight	Description of material
175	Romano-British	1	23g	Fragment of undiagnostic slag
247	Medieval	1	164g	Fragment of possible iron smithing slag
247	Medieval	2	420g	Fragments of possible metalliferous slag, but undiagnostic of production process
248	Medieval	3	359g	Fragments of undiagnostic slag
248	Medieval	3	330g	Fragments of possible iron smithing slag
251		3	240g	Fragments of undiagnostic slag
269	Romano-British	2	103g	Fragments of possible metalliferous slag, very weathered, but may relate to iron smithing
269	Romano-British	5 (from sample 9)	27g	Fragments of possible metalliferous slag, but undiagnostic of production process
196	Medieval to Post-Med	Microresidues from sample 2	<1g	Fine sand-like particles and possible iron filings, no spheroidal or flake hammerscale present.

Table 1: Results of Assessment of Slag and Industrial Process.

Discussion and interpretation of results

The diagnostic material in the assemblage all appears to relate to iron smithing. Although none of the pieces were recovered from archaeological contexts that directly relate to a forge, the historical records do show that there was a blacksmiths forge relatively close to the Platts Orchard site. The type of contexts that the diagnostic slag was recovered from suggests that it had been redeposited as backfill material. The appearance of possible smithing slag in contexts dating from both the Romano-British and medieval period is interesting, as it suggests that smithing was potentially being carried out in the same location over an extended period of time. The presence and proximity of the former forge makes it the most likely source of the slag found.

A very small amount of magnetic micro-residues were recovered from environmental sample 2, but this material does not appear to relate to iron smithing; although there are a few very fine iron filings present, most of the sub-sample appears to be naturally magnetic grains of sand or soil.

Recommendations

The material in the assemblage is not archaeologically significant enough to warrant further analysis or retention in the site archive. No further work on the assemblage is recommended and it can be disposed of in the normal manner.

Bibliography

Bachmann H.G.	1982	*The Identification of Slags from Archaeological Sites.* London: The Institute of Archaeology
McDonnell J.G.	2001	*Dunadd, the site archive, Cardiff Studies in Archaeology Specialist Report No.19*. Cardiff: Cardiff University Available from - http://www.gla.ac.uk/archaeology/resources/dunadd/data/3_1.pdf

Appendix 11: The Glass

by Rachel Tyson

Fifteen fragments of glass excavated from Platt's Orchard were submitted for specialist examination. The majority (11 fragments, cxts. 85, 110, 174, 406, 410, 412, 465) are window fragments, although some are too small to be certain. Fragment GL1 (cxt. 85) has one or two partially grozed edges, where the glass quarry has been shaped by clipping it with a grozing iron, a technique typical of the medieval period, and the fragment may be late medieval/early post medieval. Most other window fragments are post-medieval, with iridescent surface weathering typical of that period, with at least one fragment (GL6) being 19th or 20th century. Two fragments (GL2-3, cxt. 98) are too small to attribute to any form, and the date of the glass could only be confirmed by chemical analysis.

Two fragments come from vessels: GL4 (cxt 102) is a base fragment from a hand-blown wine bottle. The height of the kick suggests an 18th-century type rather than any earlier. The side of a pale greenish octagonal moulded bottle (GL7, cxt. 160) dates to the end of the 19th or early 20th century. It may have had embossed lettering on the missing parts of the bottle to indicate its contents, and would have contained a chemist's or grocer's products.

Further details of all fragments can be found on the associated spreadsheet.

Other than one small window fragment that may be late medieval/early post medieval, all the glass finds are post-medieval or modern in date, and even those are sparse, suggesting only the occasional dropped bottle and a little broken window glass spread from nearby buildings. No glass was found from any earlier periods.

Appendix 12: The Clay Pipes

Introduction

Analysis of the clay pipes followed the guidance published by Davey (1981) and the material is detailed in the accompanying table.

Condition

All of the clay pipes are in good, archive-stable condition.

Results

Table 1, Clay Pipes

Context no.	Bore diameter /64"					NoF	W(g)	Comments	Date
	8	7	6	5	4				
102				1	1	2	7	Stems only, slightly abraded	19th century
122			1			1	2	Stem	17th century
412		1				1	4	Stem	17th century
506		1	1			2	6	Stems only, 1 towards bowl and with rouletted X and impressed stamp reading 'RY' on top	1680 or earlier
Totals		2	2	1	1	6	19		

Provenance

The clay pipes were recovered from (102, 122, 412, 506). One of the pieces is marked with the initials of a known Southwell pipe maker and it is likely that most, if not all, of the pipes were manufactured in or fairly locally to Southwell, perhaps no further away than Newark.

Range

Only stems were recovered and the majority are probably 17th century date, with only one-third of the assemblage being later than this.

Within the assemblage there is one decorated stem which is marked with a rouletted X and, beneath it, an impressed stamp containing the initials RY. This is the trademark of Robert Young, a Southwell pipe maker who died in 1680 (Alvey and Gault 1979, 390). Pipes with this mark are fairly common in Nottinghamshire and examples have also been found in Lincolnshire, including in and near Grantham (P Hammond, pers comm).

Potential

Other than providing dating and functional evidence the clay pipes are of limited potential, though the stamped local product is of note.

ABBREVIATIONS

NoF Number of Fragments

W (g) Weight (grams)

REFERENCES

Alvey, R. C. and Gault, W. R., 1979 'County lists of clay tobacco-pipe makers', in P. Davey (ed), *The Archaeology of the Clay Tobacco Pipe 1*, British Archaeological Reports British Series 63, 363-411

Davey, P. J., 1981, Guidelines for the processing and publication of clay pipes from excavations, *Medieval and Later Pottery in Wales* **4,** 65-88

Appendix 13: Osteological and Funerary Analysis of the Human Remains

by L.L.Keal

Introduction

In the spring and summer of 2012 Pre-Construct Archaeological Services Ltd undertook a strip, map and recording programme on Land at Platts Orchard, 39 Church Street, Southwell, Nottinghamshire (POSM12, PCA/871). This site was known to contain elements of a potentially substantial Anglo-Saxon cemetery based on previous archaeological works at the site itself and neighbouring area (Rowe, 2011). During the archaeological programme articulated and disarticulated human remains were encountered consisting of potentially three inhumations and commingled remains from two additional deposits.

The Assemblage

The human remains were recovered from Area A1 (Skeleton 1), Area A2 (Skeleton 2) and Area C (Skeleton 3) (Fig 4). Disarticulated remains were recovered from a charnel pit (412) and from the fill of a large channel (483) [474], both from Area A2. The disarticulated bone consisted of 137 fragments and represented a minimum number of 4 individuals. The previous evaluation at this site identified an additional 10 graves (left *in-situ*). The minimum number of individuals identified on the site was therefore 17. This greatly underestimates the number of individuals originally interred within the site. This is highlighted by the previous results of the evaluation indicating in addition to the 10 discrete burials an area of undefined burials/disarticulated remains at the southern end of the site, the level of potential truncation caused by the modern developments on site and the potential uncounted individuals within unexcavated areas still *in-situ* highlighted by disarticulated bone recovered within a section of the channel.

Funerary Context

The funerary activity at Platts Orchard can be split into two very distinct phases. The northern and central areas of the site (Areas A1 and A2) yielded funerary activity dating to the Roman period but do not appear to represent an organised cemetery, while the southern area of the site (Areas B and C) forms part of the northern limit of the Anglo-Saxon cemetery, associated with the early minister, which is focused predominately across Church Street to the south.

Skeleton 1 Area A1

Skeleton 1 was recovered prone, in a somewhat ungainly position, within the 5th fill of the large, probably natural channel [223]. The body was situated on the southern side of the feature sloping downwards with the feet at the edge of the feature and the head towards the centre. It was orientated northeast-southwest with the head in the northeast, facing southwest. The left arm was at the side of the body bent upwards towards the head with the palm of the hand down, while the right arm was positioned extended along the side of the body with the palm upwards. Both legs were straight with the right foot turned out to the side and the left foot truncated away.

Plate 1: Showing the prone and ungainly position of Skeleton 1

There was no discernible grave cut or evidence for shroud or coffin to suggest this was a formal burial cut into the disused feature and the body was simply sealed by a later fill of the channel. These factors would suggest that the individual had been deposited into the open channel/ditch feature. A radiocarbon date for this skeleton of 1891± 37 years, with a highest probability of being between 50 and 226AD (1st-3rd Century AD) was provided for this skeleton (Appendix 15).

Skeleton 2 Area A2

Skeleton 2 was orientated east-west with the head in the east on the southern side of the large channel feature. It was recovered lying on its right side, with the left side heavily truncated from being higher up. The right arm was extended with the palm down but slightly away from the side of the body. The left arm was across the chest with the left hand under the right forearm. The legs were extended with the left slightly behind the right and the feet were together.

The upper body had been truncated away by the concrete footings of a modern building, approximately from the sternum (breastbone) upwards. The left leg had also been truncated by a posthole [416]. A radiocarbon date for this skeleton of 1806± 37 years, with a highest probability of being between 124 and 264AD (2nd- 3rd Century AD) was provided for this skeleton.

Lying to the right side and slightly beneath the legs of Skeleton 2 was a canine skeleton. This hound was positioned with its snout against the ankles, its forelimbs under the knees and its hind legs bent and against the thigh of the human skeleton. The right hand of Skeleton 2 is placed at the rump of the dog. Specialist assessment records it as an adult male but the breed and evidence for cause of death was not recordable (Appendix 14). A radiocarbon

date for this skeleton of 1783± 37 years, with a highest probability of being between 130 and 345AD (2nd- 4th Century AD) was provided for this canine skeleton.

Plate 2: Showing the position of Skeleton 2 in relation to the dog

There was only one discernible grave cut and fill and no evidence for shroud or coffin. The dog skeleton had not been truncated by the human inhumation, which had simply been placed over and against it. These factors would suggest that this was a joint human and canine inhumation.

Skeleton 3 Area C

Skeleton 3 was assigned a number during post-excavation but its classification as a discrete grave is not certain. The remains were recovered within an east-west aligned feature partially exposed within a service trench in Area C close to the junction of Church Street. The machine disturbed the surface of the feature but was not fully excavated. The bones are all from one individual but do not represent a complete skeleton. Due to the nature of its discovery it is unclear whether this was a grave or a feature containing the remains from a disturbed grave. Details regarding the skeleton's position and grave container/linings were not recovered and a carbon date was not taken for this burial, but given its location it is likely it represents the grave or remains of a grave that formed part of the Anglo-Saxon cemetery.

Disarticulated remains

The majority of the disarticulated remains were recovered from a charnel pit [411]. This pit was exposed in Area A2 and was first revealed within Trench 6 of the evaluation [E612]. It was cut into the top of the large channel feature. The fill of this feature also yielded mid 17th-18th century pottery and although not conclusive it is likely that these remains are derived

from post-medieval/early modern truncation of the Anglo-Saxon cemetery to the south of the site and reburied here in a space deemed 'out of the way'.

The only other context that yielded disarticulated material was (483) a fill of the large channel [474] and was recovered in a section within Area A2. This single finger bone did not derive from either of the two Roman burials and is spatially and stratigraphically separate from the charnel pit deposit. It is likely therefore that this represents the remains of a further individual buried within the channel.

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. An inventory of element, side, preservation, age bracket, sex and pathology was recorded where possible for the disarticulated bone and is contained within Appendix 2 and the primary record. A digital photographic archive of each skeleton and the main pathologies noted is also provided within the primary record. The Radiocarbon results are contained within Appendix 15.

Results

For a comprehensive verification of the results for each skeleton, the reader is directed to the primary record. Below the results for the disarticulated remains and each skeleton are summarised.

The Disarticulated Remains

The disarticulated remains represent a random selection of skeletal elements, are of moderate to poor condition with high fragmentation, as would be expected of remains that represent elements of accidentally disturbed and redeposited inhumations. The remains comprise a minimum of four people;

- 1 Prime/mature female
- 1 prime/mature male
- 1 Prime aged male
- 1unsexed unspecified aged adult

A full demographic profile is not represented by these remains but as these remains were recovered from a charnel pit and probably relate to a single disturbance event and relate to a small number of graves they are probably not representative of the whole cemetery that they came from. The pathologies visible on the remains indicate age related changes, poor dental hygiene and non-fatal assaults on the body, possibly caused by iron deficiency or bacterial infection at some point during childhood. No evidence for trauma or cultural alterations were visible on the remains.

Skeleton 1

Skeleton 1 was between 75% and 95% complete, consisting of the skull, thorax, vertebral column, pectoral and pelvic girdles, upper limbs and hands and lower limbs and right foot. The remains were well preserved with only slight and patchy surface erosion (Stage 1) but with moderate to high fragmentation caused by post-mortem damage. Dimorphic traits and metrics suggest this individual was female with age related changes suggesting she was a prime aged adult with a mean age estimate of 39.4 years. She was approximately 5'.1" tall which is below the average 5'.3" for women of the Roman period (Roberts and Manchester, 2010:41).

Post-Mortem damage prevented accurate assessment of her dental inventory but she had lost at least 2 teeth before death, most probably as a result of poor hygiene. There were additional signs of this with calculus (hardened food and bacteria) deposits above and below the gum line; these deposits were pronounced on some teeth. Only a single small cary was visible on one tooth, indicating a diet low in sugary foods. Tooth wear was moderate to high with a number of teeth showing full dentine exposure with barely a rim of enamel remaining. This was worse on the molars and more pronounced on the left side, indicating a chewing preference. Root exposure was also evident along both jaws and ranged from slight on the right to moderate on the left. This can be a result of high wear with the teeth continuing to erupt in an attempt to compensate but is also likely to relate to periodontal disease, where calculus deposits act as a tissue irritant leading to an inflammation of the gums and lead to horizontal reabsorption of the alveolar bone. This is visible on both her jaws.

A single linear chip was seen on the left first incisor, which is possibly an indicator of non-dietary usage; the anterior teeth are often used as a third hand, which can cause chips and unusual wear patterns.

Analysis of the carbon and nitrogen isotopes from this skeleton indicates she had a predominantly terrestrial diet, as expected for this inland location.

Bony changes were seen on a number of the joint areas and are normal indicators of use and correlate to age. The most considerable changes were seen at the pelvis where bone growth around the joint between the pelvis and sacrum is pronounced. This is more evident on the right than the left with the bone growth here acting as an anchor between the joints and forming as a response to movement at the joint.

In addition to these were evidence of bony changes relating to osteoarthritis which include bone growth, porosity and polishing of the bones. This was visible in her right foot and knee. She also had evidence of degenerative disc disease in a number of her vertebrae in the form of holes in the vertebral bodies (schmorls nodes); these lesions are caused by vertical herniation of the disc material. Mild to severe bone growth around the edge of the bodies (osteophytes) is also evident. Degeneration of the intervertebral discs permits the bones to contact one another, causing irritation which has resulted in marginal osteophytes. This degeneration of the disks 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: 140).

Her 8th and 9th thoracic vertebrae have also fused together, possibly as a result of this growth, thought the exact cause is not clear. Her 4th lumbar vertebra has become separated bilaterally across the pars interarticulars, effectively separating the top from the bottom. There may have been a congenital weakness in her vertebrae that predisposed her to the bilateral spondylolysis seen in the lower vertebrae, or it could have been the result of trauma but this can be also be caused by recurrent stresses of bending and lifting. Given the evidence seen in the rest of her skeleton the later is more likely.

Skeleton 2

Skeleton 2 was between 25-50% complete, consisting of the thorax, right pectoral and pelvic girdles, partial vertebral column, right arm and leg, upper left arm, lower left leg, both hands and feet. The remains were well preserved with only slight and patchy surface erosion (Stage 1) but with moderate to high fragmentation caused by the truncation of later features. Dimorphic traits and measurements are limited due to truncation and fragmentation but the skeleton is large and robust and the minimal evidence present suggest the individual is probably male. Based on size and the assessment of the fusion of elements available the individual is adult but of unspecified aged. Stature could not be determined either.

No pathological changes were visible on the surviving skeletal remains. Carbon and nitrogen istope analysis of this skeleton showed he had a predominantly terrestrial diet as would be expected of an individual living in this area.

Skeleton 3

Skeleton 3 was less than 5% complete, consisting of a few fragments of skull, cervical vertebrae, ribs and part of the left humerus. The remains were well preserved with only slight and patchy surface erosion (Stage 1) but with moderate to high fragmentation caused by post-mortem damage. Based on the state of fusion of the surviving elements the individual is an infant of approximately 2-3 years. The only pathology visible was evidence for inactive new bone growth on the endocranial (internal) surface of a single fragment of parietal. The specific cause of this is unclear but is possibly the result of a non-specific infection.

Discussion and Conclusion

Although the osteological data is limited due to fragmentation and the number of missing elements, the funerary context of the remains is of some considerable potential interest, representing a number of burial variants and covering at least two distinct archaeological phases.

Skeleton 1 is of note as it represents an early Roman prone female ditch burial. Burials within ditches are common throughout Britain and prone burials happen with enough frequency to be suggestive of a deliberate burial variant. Ditch burials have included carefully laid out individuals as well as those interpreted as the disposal of undesirables (Cleary 2000; Philpott 1991). The example seen here does not appear to represent a formal or even simply expedient burial making use of an open feature but rather a disrespectful, hasty, possibly more sinister burial.

Prone burials are equally not necessarily indicative of disrespect, just of the marking of a distinction, which could be positive. However, examples of weighing down or bound prone skeletons have suggested this is used to prevent dangerous ghosts from walking (Taylor 2003). This skeleton was neither bound nor pinned but its position at the edge of the ditch, angle and layout suggest a discard without reverence. This may be indicative of a sinister event, though no trauma was visible on the bones, or could indicate disapproval of the individual for some reason. For example near Huntingdon at the cemetery of Roman Godmanchester a single female was recovered prone from the organised cemetery but was different in no other respect, but the remains of a second elderly female suffering from severe osteoarthritis was recovered outside the cemetery prone with her limbs at unnatural angles (Nicholson 2006, in Taylor 2010). Unfortunately no one explanation is possible for this skeleton’s position and location, partly as contextual data regarding the local contemporary formal cemetery is unknown and often the same burial rite is undertaken for a number of different reasons.

Skeleton 2 is of more note as it represents an early Roman joint human and canine burial. Ritual dog burials are known from the Iron Age to Roman periods in Britain. It has been suggested that animal burials form a focal point for the development of cemeteries (Cleary, 2000) but there are few examples of inclusions of dogs with the deceased. Where they are seen it has more often been in association with infants. For example at Springfield, Kent small dogs were found buried in caskets with neonates and were interpreted as sacrificial (Taylor 2003). More comparable is the discovery from Paternoster Square, London of an adult male recovered lying on his right side within a ditch with a dog skeleton placed over the knees (Watson and Heard, 2006). Platts Orchard like Paternoster Square represents a deliberate joint burial, not a food offering or accidental proximity but possibly relates to a domestic animal or pet. The inclusion of pet with master is quite a sentimental thought, though this would have involved the deliberate dispatch of the animal upon its master's demise. The relationship, however, between man and dog during the Roman period is not completely understood, nor is the potential symbolic nature of the dog in antiquity. For example throughout history and various cultures dogs have been companions, hunters, herders, status symbols, symbols of death, or healing and guard dogs. The inclusion of the dog burial could relate to its function to guard the soul of the deceased on its journey to the afterlife, this could be why they are most commonly recovered with infants. The fact this adult had one could indicate status or his additional need for guarding, unfortunately due to the level of truncation evidence for a disability or reflection of status in grave goods, if any were present, was not recovered.

The other funerary activity on the site is spatially and stratigraphically separate, relating to elements of a potentially substantial multi-phased Anglo-Saxon cemetery belonging to an early minster. This phase of works did not specifically target this zone, so little can be added to the data derived from the evaluation, save the identification of the inclusion of infants (as evidenced by Skeleton 3) and confirmation for the potential limit of the cemetery area at the north of Area B.

The funerary evidence seen at Platts Orchard adds to our knowledge of 'deviant' burial practices from the early Roman period, even if inconclusive. If further funerary evidence was uncovered on the site or immediate vicinity, the data could be reassessed. Further work on the Anglo-Saxon cemetery located across Church Street is pending and the information from this evaluation and excavation will be added to that.

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Appendix 13.1: Methodologies

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. Thus allowing a better understanding of what the skeleton consisted of and allowing a proper analysis to take place. Due to the absence of teeth from the assemblage a simple presence-absence dental inventory was completed.

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

Stage1= >95%

Stage 2= 75<95%

Stage 3= 50<75%

Stage4= 25<50%

Stage5= 5<25%

Stage6= <5%

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

Metric Data

Twenty-Five post cranial metrics were recorded bilaterally, where possible, for each skeleton and a further twenty-one bilateral and unilateral cranial measurement 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.

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 form this source so that it is available to future studies.

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 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.

Sex Estimation

As males and females differ in both size and shape sex was determined using measurements of dimorphic dimensions and visual assessment of dimorphic aspects of the pelvis (Measurements following Bass 1976) (Aspects following Schwartz, 1995; Ferembach et al, 1980; Krogman and Iscan, 1986; Phenice, 1969; Loth and Henneberg, 1996).

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), ectocranial suture closure (Meindl and Lovejoy, 1985), age related change to 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).

Where possible multivariant analysis was utilised, 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 (foetus)

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)

Stature

Stature was estimated where a least one long bone had survived complete. The estimation was carried out using Trotter (1970).

Appendix 14: Animal Bone Assessment

by Jennifer Wood

Introduction

A total of 1727 (28863g) refitted fragments of bone were recovered by hand during a scheme of archaeological works undertaken at Platts Orchard, Southwell, Nottinghamshire. A further 528 (283g) fragments of bone were recovered from sieved environmental samples.

The animal remains were recovered from a scheme of trial trenching which were then expanded into three targeted areas of excavation referred to as Areas A1, A2 and C. The excavation area was predominantly characterised by a large channel dated from the Romano-British period with a series of ditches and post holes dated from the Roman and Medieval/post-Medieval periods and a possible Roman Lime kiln and two inhumation burials.

Area B encompassed a Saxon Cemetery; no animal bone was produced for assessment from this area.

Methodology

Identification of the bone was undertaken with access to a reference collection and published guides. All the animal remains were counted and weighed, and where possible identified to species, element, side and zone (Serjeantson 1996). Also fusion data, butchery marks (Binford 1981), gnawing, burning and pathological changes were noted when present. Ribs and vertebrae were only recorded to species when they were substantially complete and could accurately be identified. Undiagnostic bones were recorded as micro (mouse size), small (rabbit size), medium (sheep size) or large (cattle size). The separation of sheep and goat bones was done using the criteria of Boessneck (1969) and Prummel and Frisch (1986). Where distinctions could not be made, the bone was recorded as sheep/goat (s/g).

The condition of the bone was graded using the criteria stipulated by Lyman (1996). Grade 0 being the best preserved bone and grade 5 indicating that the bone had suffered such structural and attritional damage as to make it unrecognisable.

The quantification of species was carried out using the total fragment count, in which the total number of fragments of bone and teeth was calculated for each taxon. Where fresh breaks were noted, fragments were refitted and counted as one.

Tooth eruption and wear stages were measured using a combination of Halstead (1985), Grant (1982) and Levine (1982), and fusion data was analysed according to Silver (1969). Measurements of adult, that is, fully fused bones were taken according to the methods of von den Driesch (1976), with asterisked (*) measurements indicating bones that were reconstructed or had slight abrasion of the surface.

Results

Condition

Condition of the bone was relatively uniform, the hand collected bone averaging between grades 2 and 3 on the Lyman criteria (1996) giving a general overall condition of good to moderate and the sieve collected bone averaging more at grade 3, suggesting a slightly more moderate over all condition.

Due to the fairly good condition of the bone, observable traits such as butchery and gnawing were visible within the assemblage.

Summaries of the number of observed traits within the assemblage by Trench or by Area are displayed within Tables 1 and 2 below.

Table 1, Number of Observable Traits, Romano-British Deposits

	Butchery	Gnawing	Burning	Measurable	Tooth Wear Age Score
Mid 1st-2nd Century	0	0	0	2	1
Late 2nd Century +	1	1	0	2	2
3rd Century	0	0	3	0	0
Mid 3rd-mid 4th Century	0	0	0	17	0
Late 3rd-4th Century	1	4	0	5	2
Late 4th Century	3	8	0	9	5
Roman	2	0	2	6	1
Roman?	2	2	0	3	0

Table 2, Number of Observable Traits, Medieval/Post-Medieval Deposits

	Butchery	Gnawing	Burning	Measurable	Tooth Wear Age Score
Late 9th-10th Century	3	0	0	1	2
12th Century	2	4	0	3	1
12th-13th Century	5	4	1	8	3
13th-14th Century	4	1	1	7	0
15th-16th Century	11	1	3	7	2
15th-17th Century	5	4	0	3	0
16th-17th Century	21	21	0	24	17
17th-18th Century	30	27	4	35	13
18th-19th Century	3	1	0	10	2
19th-20th Century	0	0	0	1	0
Undated	1	2	5	10	0

The frequencies of the observed traits within the assemblage are generally directly proportional to the size of the assemblages for the specific date range. The numbers of mandibles, that may produce a tooth wear age score, show a good potential to provide useful data that may indicate the underlying economies that were being utilised at the site.

Species Representation

Table 3 and 4 summarises the number of fragments of bone identified to species or taxon from the Romano-British deposits from the hand and sieve collected assemblages. Tables 5 and 6 displayed the number of fragments of bone identified to taxa from the hand and sieve collected assemblages recovered from the medieval and post-medieval deposits.

Table 3, Number of Identifiable Taxa, Romano-British Deposits, Hand Collected

Taxon	1st-2nd Century	2nd-3rd Century	3rd Century	3rd-4th Century	Late 4th Century	Roman	Roman?	Roman/14th-Post-Medieval	Total
Equid (Horse Family)		1			1	2			4
Cattle		4		8	14	9	3	1	39
Sheep/Goat	5			25	6	10	9	1	56
Sheep					1	1			2
Pig	6	2		10	3	6	1	1	29
Dog (*Canis* Sp.)				1		1			2
Fallow Deer? (*Dama dama*)		1							1
Goose (*Anser* Sp.)				2	3		1		6
Goose Size	1								1
Domestic Fowl	1								1
Teal? (*Anas Crecca*)				1					1
Bird	2			3					5
Large Mammal	17	8		15	10	20	4	1	75
Medium Mammal	30	8		55	17	24	5	2	141
Unidentified	12	1	1	13	6	14	3		50
N=	74	25	1	133	61	87	26	6	413

Table 4, Number of Identifiable Taxa, Romano-British Deposits, Sieve Collected

Taxon	1st-2nd Century	2nd-3rd Century	3rd Century	3rd-4th Century	Roman	Total
Sheep/Goat	1		1	1		3
Pig					1	1
Vole		1		3	4	8
Anuran (Frog/Toad)	1			1	2	4
Eel *(Anguilla anguilla)*				2		2
Fish	1		1			2

Taxon	1st-2nd Century	2nd-3rd Century	3rd Century	3rd-4th Century	Roman	Total
Large Mammal			1			1
Medium Mammal	2			4	4	10
Micro Mammal				2	26	28
Small Mammal				2		2
Unidentified	15	3	14	16	28	76
N=	20	4	17	31	65	137

Table 5, Number of Identified Taxa, Medieval and Post-Medieval deposits, Hand Collected

Taxon	Late 9th-10th Century	12th-13th Century	12th-17th Century	13th-14th Century	13th-15th Century	15th-16th Century	15th- 17th Century	16th-17th Century	17th-18th Century	18th-19th Century	19th-20th Century	Medieval?	Undated	Total
Equid (Horse Family)	1	1				1		1	4				1	9
Cattle	7	18	1	7		11	8	32	41	6			5	136
Sheep/Goat	5	28	1	16	1	8	5	52	68	9	1		3	197
Sheep		1				1		1	1	1				5
Pig	4	16		5		6	2	10	9	5				57
Dog *(Canis Sp.)*		1					1	1	4				258*	265
Cat *(Felis Sp.)*						1		1						2
Cetacean (Whale Family)									1					1
Red Deer *(Cervus elaphus)*									5					5
Fallow Deer *(Dama dama)*								4	3					7
Fallow Deer? *(Dama dama)*									2					2
Roe Deer *(Capreolus capreolus)*									4					4
Deer								1						1
Rabbit *(Oryctolagus cuniculus)*				1				1	1					3
Goose *(Anser Sp.)*		3		1			1	1	1	1				8

Taxon	**Late 9th-10th Century**	**12th-13th Century**	**12th-17th Century**	**13th-14th Century**	**13th-15th Century**	**15th-16th Century**	**15th- 17th Century**	**16th-17th Century**	**17th-18th Century**	**18th-19th Century**	**19th-20th Century**	**Medieval?**	**Undated**	**Total**
Goose Size		1		1						1				3
Domestic Fowl *(Gallus Sp.)*		4		2				2		1				9
Duck *(Anas Sp.)*				1										1
Teal?				1										1
Bird		5		2				6	1	1			1	16
Gadidae (Cod Family)								1						1
Large Mammal	3	39		20		25	8	43	37	22			9	206
Medium Mammal	4	80	2	53	1	19	10	34	36	22	1	1	6	268
Small Mammal		1		1										2
Unidentified	1	25		15		1	1	21	29	10	1		1	105
N=	25	223	4	125	2	73	36	212	247	79	3	1	284	1314

*Almost complete skeleton

Table 6, Number of Identified Taxa, Medieval and Post-Medieval deposits, Sieve Collected

Taxon	15th-16th Century	17th-18th Century	Undated	Total
Cattle			2	2
Sheep/Goat		6		6
Pig		1	1	2
Mole *(Talpa europea)*	1			1
Field Vole *(Microtus agrestis)*			1	1
Bird		11	1	12
Anuran (Frog/Toad)	6		4	10
Eel *(Anguilla anguilla)*		1		1
Herring? *(Clupea clupea)*		3	4	7
Fish	4	97	2	103
Large Mammal	2	3	1	6
Medium Mammal	2	18	14	34
Small Mammal		1		1
Micro Mammal			13	13
Unidentified	22	84	86	192
N=	37	225	129	391

As can be seen within tables 3 and 4, from the Romano-British assemblages, Sheep/Goat were the predominant species identified followed by cattle, then pig. Small numbers of goose, *equid* and dog were also present with single fragments of possible fallow deer *(Dama dama)*, domestic fowl and possible teal *(anas creca).* In addition, from the sieved collected assemblages produced small numbers of vole, anuran (frog/toad), eel *(Anguilla anguilla)* and fish.

Within tables 5 and 6, from the medieval and post-medieval deposits Dog remains were the most abundant species identified within the assemblage, however this predominance is biased due to the remains being from a single fragmentary dog skeleton. Sheep/Goat remains were the next most abundant, followed by cattle and pig. Smaller numbers of domestic fowl *(gallus sp.)*, goose *(anser sp.)*, red deer *(cervus elaphus),* fallow deer *(dama dama),* Roe deer *(capreolus caperolus),* cat *(felis sp.)*, rabbit (*oryctolagus cuniculus)* and single fragments of duck *(anas sp.)*, teal *(anas creca)*, gadidae (cod family) and cetacean (whale family). The sieved assemblage in addition also produced a small assemblage of unidentified fish remains and small numbers of anuran (frog/toad), eel *(anguilla anguilla),* possible herring *(clupea clupea)*, field vole *(Microtus agrestis)* and mole *(talpa europea).*

Features of Interest

'The Channel'

The channel contains a number of deposits which dated from the Romano-British period and later 12th century deposits. The nature of deposition appears relatively complex; however, the associated assemblages suggest domestic refuse deposition over time which may provide useful information on the domestic consumption and underlying husbandry practices undertaken during these periods.

Pits [404] and [433]

Both pits contained relatively large bone assemblages from the 16th-17th century and 17th-18th century respectively. Both contain what appears to be a mixture of both food and butchery discard, including especially within pit [433] the slightly more unusual species such as cetacean and various deer species. Further analysis of these individual features in conjunction with other associated finds may provide a better indication of the site status and on-site practices during these periods of occupation.

Dog Burial [413]

An almost complete, but highly fragmentary adult male dog skeleton was recovered from [413] and was considered to be associated with the inhumation burial SK2. The burial of dogs in conjunction with inhumation burials was commonly considered a Saxon practice. Dating of the skeletal remains and further analysis of the burial location of the remains my provide further information on the funerary practices undertaken on site.

Discussion

The scheme of archaeological works from Platts Orchard, Southwell has produced a medium sized animal bone assemblage of good condition. The animal remains have been recovered from a series of archaeological deposits from two distinct periods providing a good opportunity to further investigate animal bone assemblages from an area rarely investigated. The good condition of the assemblage in association with a good proportion of measurable and ageable bones present provides very good potential for further analysis of the remains to indicate the underlying husbandry practices and economies that would have influenced the site.

As can be seen from the identified taxa from both periods contain more than the commonly expected domestic animals. Within the Romano-British assemblage, a fragment potentially identified as fallow deer *(dama dama)* was recovered. During the Romano-British period within the UK fallow deer was a rare commodity and until recently was considered to have not been introduced to the British shores until after the Norman Conquest. More recent studies indicate that fallow deer were very occasionally present mostly traded as cuts of meat or as a small number of live animals kept in possible 'deer parks' such as the one potentially sited at Fishbourne (Sykes *et al*, 2006:956). Due to the rarity of confirmed fallow deer remains from Romano-British deposits, it would be important to confirm the identification of the possible fallow deer fragment and the security of the dating of the deposit from which the bone was recovered.

The medieval and post-medieval assemblages encompass the main body of the animal bone assemblage. Similarly to the Romano-British assemblage there are more species present than the common domestic species, predominantly within the 16th-17th and 17th-18th century deposits, possibly suggesting that the diet was supplemented by fish, fowl and the hunting of wild species during these times. The inclusion of several species of deer, rabbit and even cetacean suggests that the site enjoyed a relatively rich diet, which may suggest a higher status of living during these periods.

Although the site assemblage is of only moderate size, the assemblage appears to be slightly atypical to remains commonly associated with 'normal' domestic consumption and therefore should be analysed further once the site stratigraphy and phasing has been finalised. It would also be beneficial to make comparisons with other find types from the site to establish if there are other higher status indicators on site.

A small number of fish remains were recovered from the assemblage, several of which were not identifiable to species by the author. It is recommended that these remains were sent to a fish specialist to complete the dataset.

Recommendations

Confirm identification of Romano-British fallow deer specimen and associated deposit.

Further identify cetacean species, if possible.

A fish specialist would be required to fully archive and analysis the small number of fish remains.

Calculations of minimum number of individuals from the assemblages to calculate accurate abundances of each species, removing bias caused by the presence of partial/complete skeletons.

Analysis of materials with finalised phasing data to check patterns across phases where possible.

Tooth wear and epiphyseal aging data analysed to assess potential husbandry strategies, if deemed suitable once site phasing is finalised.

Element analysis to try to establish any evidence of trade of meat joints on to site.

Analysis of specific deposits and associated finds to establish higher status deposits.

Comparisons with other similar assemblages such as both regionally and nationally where data is available.

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Serjeantson, D, 1996 The Animal Bones, in *Refuse and Disposal at Area 16, East Runnymede: Runnymede Bridge Research Excavations,* Vol. 2, (eds) E S Needham and T Spence, British Museum Press, London

Silver, I, A, 1969, The Ageing of Domestic Animals*,* in D. Brothwell and E.S. Higgs*, Science in Archaeology*, Thames and Hudson.

Sykes, N. White, J. Hayes, T. & Palmer, M. 2006 Tracking animals using strontium isotopes in teeth: the role of fallow deer (Dama dama) in Roman Britain in *Antiquity 80:*948-959.

Appendix 14.1: Key

Codes and references used in cataloguing animal bone

Taxon: Species, family group or size category.

Non-species specific codes: -

: Equid- Horse Family

: Gadidae- Cod Family

: Passer- *Passerine*, Small songbirds i.e. Sparrow or Finches

: Turdid- *Turdidae*, Blackbird/Thrush family

: Corvid- *Corvidae*, Crow family i.e. Crow, Rook or Jackdaw

: Galliform- Fowl or Pheasant

: Large Mammal Cattle, Horse, Red Deer size

: Medium Mammal- Sheep/Goat, Pig, Dog, Roe Deer size

: Small Mammal- Cat, Rabbit size

: Micro Mammal- Mouse sized

: Unidentified- Not identified to species

Element: Skeletal element represented.

: Unidentified- Not identified to element

Side: L-Left, R- Right, B- Both

Zones: Records presence/absence of individual areas of the bone.

Based on Zone illustrations in Serjeantson, D, 1996 The Animal Bones, in *Refuse and Disposal at Area 16, East Runnymede: Runnymede Bridge Research Excavations,* Vol. 2, (eds) E S Needham and T Spence, British Museum Press, London.

Prox & Dist: Fusion of proximal and distal epiphyses

: X- Not present, F- Fused, U- Unfused, B- Unfused diaphysis and epiphysis present, V- Fusion Line visible.

Age Range: Age range based on age at fusion. Based on

Silver, I, A, 1969, The Ageing of Domestic Animals*,* in D. Brothwell and E.S. Higgs*, Science in Archaeology*, Thames and Hudson.

Path: Presence of pathology, details in notes column.

Butch: Presence of butchery, details in notes column.

Burnt: Presence of burning, details in notes column.

Gnaw: Presence of gnawing, details in notes column.

Worked: Fragment shows evidence of working, details in the notes column.

Fresh Break: Fresh break noted, fragments re-fitted as one bone.

Associated: Articulating or adjoining bones.

Measured: Measurements taken as according to Von den Driesch, A, 1976 *A Guide to the Measurement of Animal Bones from Archaeological Sites*, Peabody Museum.

Tooth Wear: Tooth wear score for aging data, taken as according to:

Grant, A, 1982 'The Use of Tooth Wear as a Guide to the Age of Domestic Ungulates', in B Wilson *et al*. *Ageing and Sexing Animal Bones from Archaeological Sites*, BAR British Series 109, 91-108, Oxford

Halstead, P, 1985 A Study of Mandibular Teeth from Romano-British Contexts at Maxey, in F Pryor, *Archaeology and Environment in the Lower Welland Valley*, East Anglian Archaeology Report 27:219-224

Levine, M A, 1982 The Use of Crown Height Measurements and Eruption-Wear Sequences to Age Horse Teeth. In Wilson, B et al. *Ageing and Sexing Animal Bones from Archaeological Sites*. BAR British Series 109. 223 – 250

Surface: Taphonomies noted on the bone surface:

W - Weathered

A - Abraded

R - Rootlet etched

D - Chemical etching from digestion

Condition: Grades 0-5, where 0 = pristine and 5= indicating that the bone had suffered such structural and attritional damage as to make it unrecognisable. Based on Lyman, R L, 1996 *Vertebrate Taphonomy*, Cambridge Manuals in Archaeology, Cambridge University Press, Cambridge

No.: Number of individual bones/fragments

(g): Weight in grams

Notes: Notes on observed taphonomies, differences and associations.

Appendix 15: Radiocarbon dating of skeletal material and timber samples

Sample Details

During the excavation two isolated burials (SK 1 and Sk2) were revealed in the north and northeast of the site; Sk 2 was seemingly buried with a dog.

A Right Femur from both individuals and a Left femur from the dog were sampled for radiocarbon dating.

Sk 1 was recovered prone within a large 'channel' that was possibly Romano-British in date, while Sk 2 was a simple inhumation without evidence of a coffin.

A single timber sample was taken from a tree root ball which appeared to be *in situ* within a lower fill of the large channel.

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RADIOCARBON DATING CERTIFICATE

01 October 2012

Laboratory Code	SUERC-42219 (GU28282)
Submitter	Johanna Gray Pre-Construct Archaeological Services Ltd 47 Manor Road Saxilby Lincoln LN1 2HX
Site Reference	Platts Orchard, Southwell, Newark, Notts
Context Reference	C234
Sample Reference	SK1
Material	Bone : Human
$\delta^{13}C$ relative to VPDB	-20.6 ‰
$\delta^{15}N$ relative to air	12.1 ‰
C/N ratio (Molar)	3.2
Radiocarbon Age BP	1891 ± 37

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 standards, background standards and the random machine error.

The calibrated age ranges are determined using the University of Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.1 (Bronk Ramsey 2009). Terrestrial samples are calibrated using the IntCal09 curve while marine samples are calibrated using the Marine09 curve.

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 g.cook@suerc.gla.ac.uk or Telephone 01355 270136 direct line.

Conventional age and calibration age ranges calculated by :- B Tripney Date :- 2-10-12

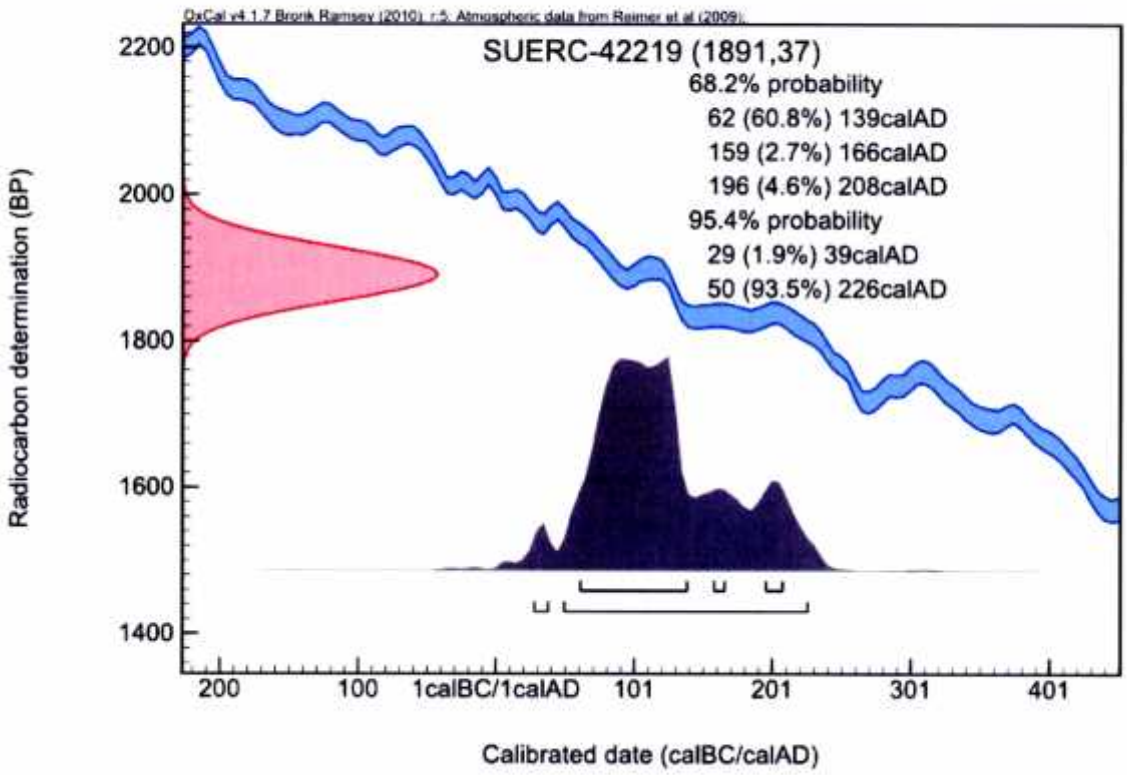
Checked and signed off by :- P. Naysmith Date :- 2·10·12

University of Glasgow

The University of Glasgow, charity number SC004401

The University of Edinburgh is a charitable body.

Calibration Plot



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RADIOCARBON DATING CERTIFICATE

01 October 2012

Laboratory Code	SUERC-42220 (GU28283)
Submitter	Johanna Gray Pre-Construct Archaeological Services Ltd 47 Manor Road Saxilby Lincoln LN1 2HX
Site Reference	Platts Orchard, Southwell, Newark, Notts
Context Reference	C414
Sample Reference	SK2
Material	Bone : Human
$\delta^{13}C$ relative to VPDB	-20.1 ‰
$\delta^{15}N$ relative to air	11.6 ‰
C/N ratio (Molar)	3.4
Radiocarbon Age BP	1806 ± 37

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 standards, background standards and the random machine error.

The calibrated age ranges are determined using the University of Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.1 (Bronk Ramsey 2009). Terrestrial samples are calibrated using the IntCal09 curve while marine samples are calibrated using the Marine09 curve.

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 g.cook@suerc.gla.ac.uk or Telephone 01355 270136 direct line.

Conventional age and calibration age ranges calculated by :- B Tripney Date :- 2-10-12

Checked and signed off by :- P. Naysmith Date :- 2-10-12

University of Glasgow

The University of Glasgow, charity number SC004401

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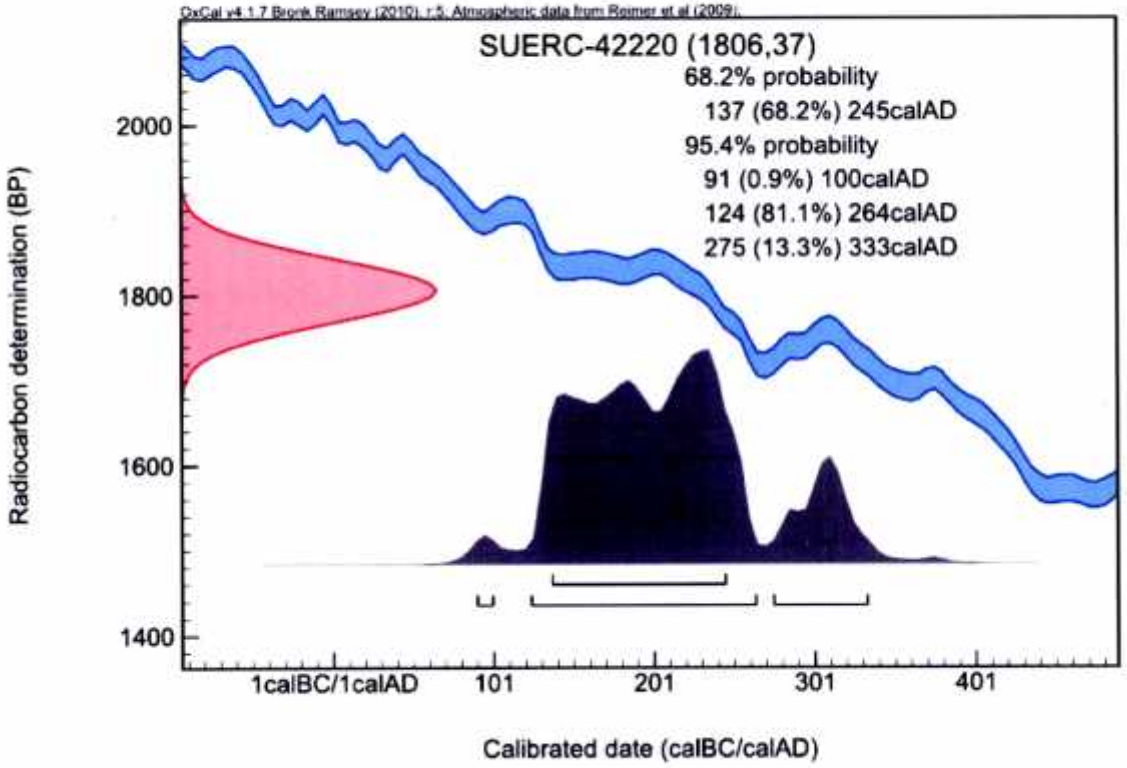
Calibration Plot



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RADIOCARBON DATING CERTIFICATE

01 October 2012

Laboratory Code	SUERC-42221 (GU28284)
Submitter	Johanna Gray Pre-Construct Archaelogical Services Ltd 47 Manor Road Saxilby Lincoln LN1 2HX
Site Reference	Platts Orchard, Southwell, Newark, Notts
Context Reference	C415
Sample Reference	Buried with SK2
Material	Bone : Canine
$\delta^{13}C$ relative to VPDB	-20.9 ‰
$\delta^{15}N$ relative to air	11.1 ‰
C/N ratio (Molar)	3.3
Radiocarbon Age BP	1783 ± 37

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 standards, background standards and the random machine error.

The calibrated age ranges are determined using the University of Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.1 (Bronk Ramsey 2009). Terrestrial samples are calibrated using the IntCal09 curve while marine samples are calibrated using the Marine09 curve.

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 g.cook@suerc.gla.ac.uk or Telephone 01355 270136 direct line.

Conventional age and calibration age ranges calculated by :- B Taggart Date :- 2-10-12

Checked and signed off by :- P. Naysmith Date :- 2-10-12

University of Glasgow

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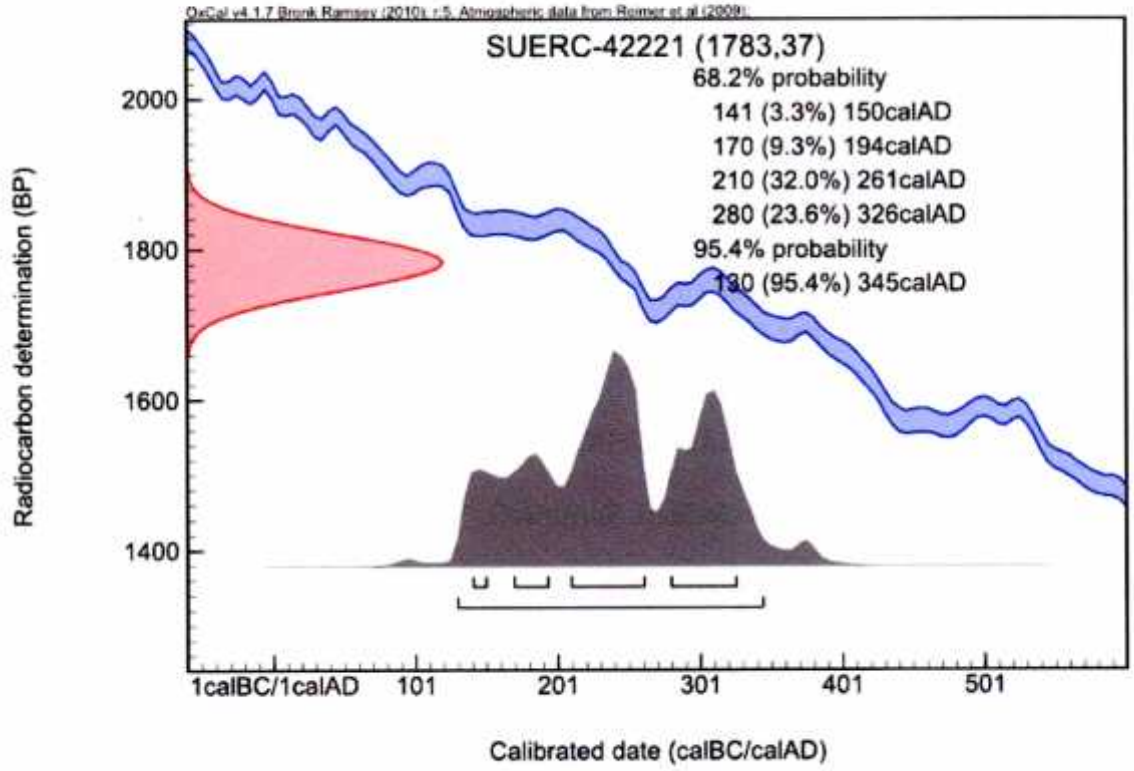
Calibration Plot



Appendix 16: Marine Mollusc Shell Archive

Context	ID	Number	Comments
033	Clam?	Fragments	From sample <3>
035	Oyster	1	
049	Oyster	Fragment	
063	Cockle	1	
096	Oyster	Fragments	From sample <5>
110	Oyster	1	
112	Oyster	1	
207	Oyster	5	
214	Oyster	1	
216	Oyster	2	
269	Oyster	1	
405	Oyster	2	
406	Oyster Clam	14 2	
410	Oyster	1	
435	Oyster	Fragments	From sample <20>
436	Oyster	3	1 shell from sample <19>
450	Oyster	Fragment	From sample <22>

Appendix 17: Palaeoenvironmental Assessment

Summary

The project

This report presents the results of palaeoenvironmental assessment of 26 bulk samples taken during archaeological works at Platts Orchard, Southwell, Nottinghamshire.

The works were commissioned by Pre-Construct Archaeological Services Ltd, and conducted by Archaeological Services Durham University.

Results

Many of the samples produced evidence of domestic waste with varying amounts of burnt and unburnt bone, fish bone, charcoal, coal/coal shale, clinker/cinder, marine shell and fired clay/CBM recorded. Charred plant remains occurred in many of the samples and include cereal grains, hazel nutshells and various weed seeds.

A large assemblage of spelt wheat glume bases and spikelet forks and a small number of wheat and barley grains were recovered from Romano-British ditch fill (096). Spelt wheat and hulled barley were major field crops at the time of the Roman occupation in Britain.

Anaerobic conditions within the lower and middle fills of post-medieval rubbish pit [433] allowed the preservation of a diverse range of waterlogged plant remains. These include a wide variety of species of arable, ruderal, tree/shrub, aquatic and wet ground habitats indicating the feature held standing water during the early stages of its use. Fruitstones of edible plants such as fig, bramble, bullace/damson and elder were recorded, demonstrating the wide range of edible foods utilised during this period.

Waterlogged plant remains occurred in abundance in eight of the ten contexts relating to the large channel, reflecting the damp, anaerobic conditions of preservation within this feature. The presence of spelt wheat in the lower fills of the channel indicates that the feature was accumulating domestic waste during the late prehistoric or Roman period. The channel also contains deposits with a range of crops more typical of the medieval and post-medieval periods including bread wheat, oats, barley and pea, suggesting the feature was also in use or was re-cut during the medieval or post-medieval periods. The occurrence of leather fragments and fuel waste in these later deposits may indicate small-scale industrial or craft processes were occurring within the area during this time.

Charred grains from postholes and pits dating to the medieval or post-medieval periods suggest that typical arable crops of these periods were in use, including barley, oats, bread wheat and rye. Hazel nutshell fragments were also noted. These are likely to reflect the use of gathered wild foods.

The residues of the kiln fills comprised small fragments of charcoal, lime-rich deposits, heat-affected stone and tufa. It is likely that this reflects the range of materials involved at the various stages of lime production. Charred plant macrofossils from the kiln comprise only two wheat grains. An initial scan of the charcoal assemblages noted the presence of small fragments of charcoal from a variety of species.

Recommendations

This assessment has shown that the palaeoenvironmental samples contain a resource of information about activities during the Roman and medieval/post-medieval periods in

Southwell, Nottinghamshire. Full analysis of some of the contexts has the potential to provide further information about diet, land use and industrial activities at the site.

The deposits from the large channel feature suggest a feature with a long period of use, with both Roman and medieval/post-medieval assemblages being identified. Full analysis of the plant macrofossils from primary channel fills (238) and (481), is recommended to allow further consideration of the palaeoenvironmental conditions of the channel during the Romano-British use of the site. Analysis of the assemblages of snail shells from the channel fills would also provide further palaeoenvironmental information. Rivet wheat has been identified from an increasing number of sites in the Midlands from the Early Medieval period onwards, however further consideration of its occurrence has been identified as an important area of future research (Moffett 1991; Monckton 2003). Further plant macrofossil analysis of the charred and waterlogged plant macrofossils from context (240) to confirm the identification of rivet wheat and to provide further information about the environs of the site during this later phase of use of the feature is recommended. Channel fill (234) should be processed in full to ensure the retrieval of all human remains.

Full analysis of plant macrofossils from the Romano-British ditch fill (096), to further examine crop use and diet during this period is recommended. If the context is securely dated, full analysis of the plant macrofossils from pit fill (450) is also recommended in order to provide further information about crop husbandry practices at the site.

Further details of the use of pit [433] would be provided by full analysis of the plant macrofossils from contexts (434) and (435). Analysis of the lower pit fills for the presence of eggs of gut parasites and insects is also recommended in order to confirm the presence of human and/or animal faecal material, to determine whether the feature originally functioned as a cess pit.

Due to the lack of charcoal investigations from lime kilns in general and the varying nature of the charcoal assemblages noted in this assessment, full analysis is recommended for the charcoal assemblages from kiln fills (328B) and (333). Their analysis would provide information about the resources available and fuel use in the context of such features.

The flots should be retained as part of the physical archive of the site. The residues were discarded following examination. If additional work is undertaken at the site, the results of this assessment should be added to any further palaeoenvironmental data produced.

Project background

Location and background

Archaeological works were conducted by Pre-Construct Archaeological Services Ltd (PCAS) at Platts Orchard, Southwell. This report presents the results of palaeoenvironmental assessment of 26 bulk samples. The bulk samples were taken from a variety of features including a possible lime kiln, a large waterlogged channel and posthole, pit and ditch fills. The site is located near to the remains of Southwell Roman villa, the extent of which has not yet been fully ascertained.

Objective

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

Dates

Samples were received by Archaeological Services on 24th July 2012. Assessment and report preparation was conducted between 1st August and 11th September 2012.

Personnel

Assessment and report preparation was conducted by Dr Carrie Drew. Sample processing was carried out by Janet Beveridge, Rebekah Watson and Dr Carrie Drew.

Archive

The site code is POSM12. The flots are currently held in the Environmental Laboratory at Archaeological Services Durham University awaiting collection or return. The finds were returned to PCAS on 9th August 2012. The charred plant remains will be retained at Archaeological Services Durham University.

Methods

The bulk samples were manually floated and sieved through a 500µm mesh. The residues were examined for shells, fruitstones, nutshells, charcoal, small bones, pottery sherds, flint and industrial residues, and were scanned using a magnet for ferrous fragments. The flots were examined at up to x60 magnification for charred and waterlogged botanical remains using a Leica MZ6 stereomicroscope. Identification of these was undertaken by comparison with modern reference material held in the Environmental Laboratory at Archaeological Services Durham University. Plant nomenclature follows Stace (1997). Habitat classifications follow Preston et al. (2002).

Where possible, a selection of charcoal fragments >4mm was examined, in order to identify material suitable for radiocarbon dating. The transverse, tangential and radial sections were examined at up to x600 magnification using a Leica DMLM microscope. Identifications were assisted by the descriptions of Hather (2000) and Schweingruber (1990), and modern reference material held in the Environmental Laboratory at Archaeological Services Durham University.

Results

Many of the samples produced evidence of domestic waste with varying amounts of burnt and unburnt bone, fish bone, charcoal, coal/coal shale, clinker/cinder, marine shell and fired clay/CBM recorded. Anaerobic conditions within the lower and middle fills of pit [433] and a number of the channel fills allowed the preservation of a diverse range of waterlogged plant remains. While uncharred seeds occurred in low numbers in many of the other contexts, the majority of these provided no indication of waterlogging, with the presence of modern roots suggesting that the uncharred seeds in these contexts are later intrusive material. Charred plant remains occurred in many of the samples and include cereal grains, hazel nutshells and various weed seeds. Material suitable for radiocarbon dating is available for 19 of the samples examined in this assessment, although the material from contexts (328A), (328B), (333) and (436) may have an insufficient weight of carbon. The results are presented in Appendices 1-4.

Postholes [013] and [195]

Fragments of pottery were recovered from both posthole fills, (12) and (196), and traces of hammerscale were also noted in context (196). Charred cereal grains were present in both contexts and comprise a barley grain and two indeterminate cereal grains in context (12) and

two cf. bread wheat grains, two indeterminate cereal grains and a wheat grain from (196). Low numbers of charred weed seeds were present in the assemblages and include seeds of the pea family, pale persicaria nutlets, and caryopses of the grass family from context (196); and a seed of the cabbage family from fill (12). A fragment of hazel nutshell was also identified in context (12).

Pit [034]

Charred plant macrofossils were present in low numbers in context (33), the lower fill of pit [034]. Charred remains included single occurrences of barley, cf. bread wheat and small oat grains. A fragment of charred hazel nutshell was also present. A single achene of stinking chamomile and a large grass caryopsis represented the charred weed seeds in the assemblage.

Pit [433]

Contexts (434), (435) and (436), the primary, secondary and upper fills respectively of rubbish pit [433] were assessed. A fragment of tile was noted in the primary fill, and a nail and a metal object (probably a nail) were recovered from upper fill (436). Fragments of pottery were also recovered from contexts (434) and (436). Charred plant macrofossils were present in the lower pit fills, however none were identified from context (436). Barley grain or chaff was identified from both contexts (434) and (435). Small oat and rye grains were also noted in context (434), and a single rachis fragment of bread wheat was identified from this context. Context (435) contained a small charred weed seed assemblage, comprising a thistle achene and a grass caryopsis. Weed seeds of cornflower, goosefoots and the daisy, thistle and pea families formed the weed assemblage in context (434). Waterlogged remains were abundant in the primary and secondary fills, reflecting anaerobic conditions of preservation within the pit. The waterlogged remains include a wide variety of species of arable, ruderal, tree/shrub, aquatic and wet ground habitats. Fruitstones of edible plants such as fig, bramble, bullace/damson and elder were also recorded.

Pit [449]

Charred remains were particularly abundant in context (450), the primary fill of pit [449], with a large cereal grain assemblage present. A number of these grains were identified as barley, with cf. bread wheat grains and two small oat grains also noted. A fragment of hazel nutshell was also present in this pit fill. Charred weed seeds of redshank and knotgrass were also identified. The presence of uncharred weed seeds was limited, with no indication of waterlogged preservation. A trace of hammerscale was present and two fragments of pottery were also recovered from this context.

Romano-British ditches [095] and [097]

Charred plant macrofossils were present in both Romano-British ditch fills and were particularly abundant in context (96), the fill of ditch [095]. Fragments of pottery were recovered from both context (96) and (98) and two fragments of glass were also recorded in context (98) (fill of ditch [097]). An assemblage of spelt wheat glume bases and spikelet forks and a small number of wheat and barley grains were recovered from ditch fill (96). One of the barley grains was hulled. Context (98) had a more limited charred cereal grain assemblage, with two indeterminate cereal grains and a single spelt wheat glume base recorded. A single hazel nutshell fragment was also recorded from context (98). The charred weed assemblages from these ditch fills was limited, with no weed seeds identified from context (98). Context (96) comprised two charred brome-grass caryopses, two wild raspberry fruitstones, a dock nutlet and a small number of grass caryopses.

Channel fills

The flot and/or residues from the channel fills, contexts (234), (238), (240), (243) (250), (269), (480), (481) and (483) and associated ditch fill (496), comprise varying amounts of charcoal, unburnt bone, snail shell and insect/beetle remains. Small amounts of fish bone were recovered from context (238) and fragments of leather were present in context (240). An animal tooth fragment was recovered from context (250) and pottery fragments were noted in contexts (250), (481) and (496). Fragments of fired clay were present in contexts (234), (250), (269), (481), (483) and (496).

Charred plant macrofossils were present in seven of the ten channel contexts. Charred remains were particularly abundant in contexts (240) and (269). The grain assemblages included cf. bread wheat, oat and barley in contexts (240) and (269) with cf. bread wheat grain also being noted in context (496). Rachis fragments of two-row barley and cf. rivet wheat (*Triticum* cf. *turgidum*) were identified in context (240), and fragments of pea were noted in these contexts. A number of spelt wheat glume bases and spikelet forks were present in contexts (238), (240), (243), (250) and (481) and barley grains were also noted in contexts (250) and (496). A single fragment of hazel nutshell was present in context (496). The charred assemblages contained a small number of weed seeds including docks, vetches, sedges and members of the grass family.

Waterlogged plant remains occurred in abundance in eight of the ten contexts relating to the large channel, reflecting the damp, anaerobic conditions of preservation within this feature. These were contexts (238), (240), (243), (269), (480), (481) and (483) and associated ditch context (496). These include a wide variety of species of arable, ruderal, tree/shrub and wet ground habitats.

Kiln fills

The residues of the kiln fills, contexts (310), (311), (328A), (328B), (329), (332) and (333), comprised small fragments of charcoal, snail shell, heat-affected stone and tufa. Lime-rich deposits were present in all seven contexts and small fragments of fired clay were recovered from contexts (311) and (332). Two tooth fragments were noted in context (310) and unburnt bone fragments were present in contexts (310) and (311).

Charred plant macrofossils from the kiln deposits comprise only two wheat grains from context (311). The grains were unable to be identified to species due to the poor surface condition of the grains. Puffing and pitting of grain may reflect exposure to intense heat (cf. Boardman & Jones 1990), although some of the surface damage may also have been post-depositional. An initial scan of the charcoal assemblages to identify material suitable for radiocarbon dating noted the presence of a variety of species including alder, hazel, oak, *Prunus* sp (cherries), willow/poplar and Maloideae (hawthorn, whitebeam, apple or pear). Many of the charcoal fragments were of a small size although stoke-hole context (333) included a number of more sizeable fragments of hazel and *Prunus* sp (cherries).

Discussion

Medieval/Post-Medieval postholes and pits

Features [013], [195], [034], [433] and [449] appear to date to the medieval or post-medieval periods. Many of the fills contain evidence of domestic waste, with fragments of animal bone, pottery, shell, charcoal, cinder, hammerscale and low numbers of charred plant macrofossils recorded. Although the charred plant macrofossil assemblages were generally small in size, pit fill (450) comprised a larger number of remains. A range of cultivated crops, wild food resources and weeds were represented in the features. The results suggest that barley, oats, bread wheat and rye were in use, which are typical arable crops of both the medieval and

post-medieval periods in England (Greig 1991). Hazel nutshell fragments were also noted. These are likely to reflect the use of gathered wild foods, which was also common during the medieval and post-medieval periods (Greig 1991; Hall & Huntley 2007).

While the charred plant macrofossil assemblages from these deposits were dominated by cereal remains, low numbers of weed seeds were also noted in some of the features. These included those with a wide habitat range, such as docks, vetches, goosefoots and members of the grass, daisy, pea and cabbage families. A small number of arable weeds were also identified including stinking chamomile and cornflower, which may have been brought to site with the cereals. Ruderal weed seeds of redshank and knotgrass indicate rougher ground was also present in the local environs. This is supported by the waterlogged seeds from contexts (434) and (435) where both arable and ruderal types are also present.

There is evidence in the lower fills of rubbish pit [433] for waterlogged conditions and the presence of fruits of the aquatic plant duckweed in the primary fill indicates that the feature held standing water during the early stages of its use. The waterlogged remains identified in contexts (434) and (435) support the charred plant macrofossil evidence, with assemblages indicative of the disposal of domestic consumption waste from the medieval or post-medieval periods. Fig seeds and elderberry fruitstones recovered from both contexts, and a bullace/damson and bramble fruitstone from (435) demonstrate the wide range of edible foods utilised during this period (Greig 1991). Fig seeds (which probably derive from imported dried fruits), are often noted on sites dating to the post-medieval period (Hall & Huntley 2007) and are commonly associated with deposits of cess (Murphy & Scaife 1991). This may reflect that the feature originally functioned as a cess pit, prior to (or in conjunction with) its use for rubbish disposal. Further analysis of the lower fills of the pit would allow this to be determined.

Romano-British Ditches

A large assemblage of charred cereal remains were recovered from context (96), the fill of Romano-British ditch [095], with the assemblage dominated by spelt wheat glume bases and spikelet forks. The dominance of spelt wheat chaff in this context may indicate the feature was used for the disposal of cereal processing waste during this period. Spelt wheat and hulled barley were major field crops in the later prehistoric and at the time of the Roman occupation in Britain (Greig 1991) and the presence of spelt wheat in both contexts (96) and (98) as well as hulled barley grains in context (96) supports the interpretation of these ditches as dating to the Roman period.

Channel fills

A diverse range of waterside/damp ground plants are represented in several of the channel fills indicating that the feature formerly comprised a damp environment, providing waterlogged preservation for the material. However the absence of obligate aquatic plants suggests that the channel is unlikely to have contained a substantial depth of water at this time and was probably marsh-like in character. The presence of a number of ruderal types suggests rough or waste ground was present nearby and many of the arable weeds identified may also have grown on such rougher waste ground in the vicinity of the feature or on cultivated land.

The frequent occurrence of spelt wheat amongst the charred plant macrofossils recovered from the lower fills of the channel including (238), (243), (250) and (481) indicate that the feature was open and accumulating domestic waste during the late prehistoric or Roman periods. Contexts (240) and (269) indicate the feature was also in use or was re-cut during the medieval or post-medieval period with these deposits containing a range of crops more typical of the medieval and post-medieval periods including bread wheat, oats and pea (Greig 1991). Barley grains were also common in these fills (some of which were hulled). A single rachis fragment of cf. rivet wheat was identified from context (240) although this needs

further analysis to confirm the identification. Rivet wheat has been identified at a number of sites in the Midlands from the early medieval period onwards (Moffett 1991) and generally occurs in assemblages also containing bread wheat, as here, with the wheat types exploited for different purposes. The occurrence of leather fragments in context (240) and metal-based fuel waste in context (269) may indicate small-scale industrial or craft processes were occurring within the area during this period.

Kiln fills

All of the kiln samples contained lime-rich deposits. A sample of the accretion from context (329) reacted violently with 25% hydrochloric acid (HCl), confirming that the deposits contain high levels of calcium carbonate. Such material supports the interpretation that this feature is a lime-processing kiln within which calcium carbonate rich material, such as limestones and chalks, were calcined to produce quicklime. Tufa, also known as travertine, was noted in many of the contexts. Tufa is a soft limestone rock, formed by the precipitation of water with a very high calcium content. When originally laid down, the precipitate was colonised by various forms of algae, which leave characteristic irregularly shaped holes (vesicles) in the later rock. Many of the fragments of tufa appeared to have been affected by heat and it is probable that the tufa was being utilised as a source of calcium carbonate.

While all of the contexts contained lime-rich deposits, the character of these deposits varied. The lime-rich material from contexts (310), (328B) and (332) contained a number of inclusions. These predominantly appear to be sand and grit and give the deposits a mortar-like appearance, although the material from kiln floor deposit (332) also had charcoal inclusions. Other of the deposits from the kiln appeared much purer, with fewer inclusions noted. It is likely that this reflects the range of materials involved at the various stages of lime production.

The kiln deposits contained few charred plant macrofossil remains, confirming that the kiln did not have a domestic function such as an oven or grain-drier. Charcoal was noted in all of the flots and no coal or evidence of other fuel sources were identified, suggesting that wood or charcoal were the primary fuels used. Wood was often the main fuel used in medieval lime kilns, although after c. 1500 in some regions it was gradually replaced by coal. Whilst scanning the charcoal for suitable radiocarbon material, identifiable fragments indicated a range of wood types were used, including hazel, alder, ash, willow/poplar, oak, Maloideae (Hawthorns, whitebeams and apple) and *Prunus* species (cherries).

Recommendations

This assessment has shown that the palaeoenvironmental samples contain a resource of information about activities during the Roman and medieval/post-medieval periods in Southwell, Nottinghamshire. Full analysis of some of the contexts has the potential to provide further information about diet, land use and industrial activities at the site.

The deposits from the large channel feature suggest a feature with a long period of use, with both Roman and medieval/post-medieval assemblages being identified. Full analysis of the plant macrofossils from primary channel fills (238) and (481), is recommended to allow further consideration of the palaeoenvironmental conditions of the channel during the Romano-British use of the site. Analysis of the assemblages of snail shells from the channel fills would also provide further palaeoenvironmental information. Rivet wheat has been identified from an increasing number of sites in the Midlands from the Early Medieval period onwards, however further consideration of its occurrence has been identified as an important area of future research (Moffett 1991; Monckton 2003). Further plant macrofossil analysis of the charred and waterlogged plant macrofossils from context (240) to confirm the identification of rivet wheat and to provide further information about the environs of the site

during this later phase of use of the feature is recommended. Channel fill (234) should be processed in full to ensure the retrieval of all human remains.

Full analysis of plant macrofossils from the Romano-British ditch fill (96), to further examine crop use and diet during this period is recommended. If the context is securely dated, full analysis of the plant macrofossils from pit fill (450) is also recommended in order to provide further information about crop husbandry practices at the site.

Further details of the use of pit [433] would be provided by full analysis of the plant macrofossils from contexts (434) and (435). Analysis of the lower pit fills for the presence of eggs of gut parasites and insects is also recommended in order to confirm the presence of human and/or animal faecal material, to determine whether the feature originally functioned as a cess pit.

Due to the lack of charcoal investigations from lime kilns in general and the varying nature of the charcoal assemblages noted in this assessment, full analysis is recommended for the charcoal assemblages from kiln fills (328B) and (333). Their analysis would provide information about the resources available and fuel use in the context of such features.

The flots should be retained as part of the physical archive of the site. The residues were discarded following examination. If additional work is undertaken at the site, the results of this assessment should be added to any further palaeoenvironmental data produced.

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Appendix 17.1: Palaeoenvironmental assessment of posthole, pit and ditch fills

Context		**12**	**196**	**33**	**98**	**96**	**450**
Sample		**1**	**2**	**3**	**4**	**5**	**22**
Feature		**posthole**	**posthole**	**pit**	**ditch**	**ditch**	**pit**
Material available for radiocarbon dating							
Volume processed (l)		17	9	8	9	9	8
Volume of flot (ml)		100	75	320	70	135	45
Residue contents							
Bone (burnt)	indet. frags	-	+	-	-	(+)	+
Bone (unburnt)	fish	-	+	(+)	-	-	-
Bone (unburnt)	indet. frags	+	++	+	++	+	++
Charcoal		-	-	+	-	-	-
Clinker / cinder		-	-	-	-	-	(+)
Coal shale		-	+	+	-	-	-
Fired clay / CBM		+	+	-	-	(+)	++
Glass (number of fragments)		-	-	-	2	-	-
Hammerscale		-	(+)	-	-	-	+
Marine shell		-	-	+	-	+	+
Pot (number of fragments)		3	1	-	5	2	2
Shell (freshwater / terrestrial)		(+)	(+)	-	-	-	-
Tooth (number of fragments)		1	-	-	-	-	-
Flot matrix							
Bone (unburnt)	fish	-	-	+	-	-	-
Bone (unburnt)	indet. frags	-	-	+	+	-	(+)
Charcoal		-	-	++	+	-	-
Clinker / cinder		+	+	-	+	-	-
Coal / coal shale		+	-	++	-	+	++
Heather twigs (charred)		-	-	-	-	+	-
Insect / beetle		(+)	-	-	-	+	-
Pre-Quaternary megasporangia		+	-	+	(+)	-	-
Roots (modern)		++	-	++	+	++	+
Shell (freshwater / terrestrial)		-	(+)	+	-	++	-
Uncharred seeds		(+)	(+)	(+)	(+)	+	+
Vegetative material (uncharred)		+	++	-	-	-	-
Charred remains (total count)							
(a) *Anthemis cotula* (Stinking Chamomile)	achene	-	-	1	-	-	-
(a) *Bromus* sp (Bromes)	caryopsis	-	-	-	-	2	-
(c) *Avena* sp (Oat species)	small grain	-	-	1	-	-	2
(c) Cerealia indeterminate	grain	2	2	1	2	8	40
(c) *Hordeum* sp (Barley species)	grain	1	-	1	-	3	19
(c) *Hordeum* sp (Barley species)	hulled grain	-	-	-	-	1	-
(c) *Triticum* cf. *aestivum* (cf. Bread Wheat)	grain	-	2	1	-	-	7
(c) *Triticum spelta* (Spelt Wheat)	glume base	-	-	-	1	94	-
(c) *Triticum spelta* (Spelt Wheat)	spikelet fork	-	-	-	-	5	-
(c) *Triticum* sp (Wheat species)	grain	-	1	-	-	14	1
(r) *Persicaria maculosa* (Redshank)	nutlet	-	-	-	-	-	1
(r) *Polygonum aviculare* (Knotgrass)	nutlet	-	-	-	-	-	1
(t) *Corylus avellana* (Hazel)	nutshell fragment	1	-	1	1	-	1
(t) *Rubus idaeus* (Wild Raspberry)	fruitstone	-	-	-	-	2	-
(w) *Persicaria lapathifolia* (Pale Persicaria)	nutlet	-	2	-	-	-	-

Context		**12**	**196**	**33**	**98**	**96**	**450**
Sample		**1**	**2**	**3**	**4**	**5**	**22**
Feature		**posthole**	**posthole**	**pit**	**ditch**	**ditch**	**pit**
(x) Brassicaceae undiff. (Cabbage family)	seed	1	-	-	-	-	-
(x) Fabaceae undiff. (Pea family)	seed	-	1	-	-	-	-
(x) Poaceae undiff. (Grass family)	>1mm caryopsis	-	4	1	-	1	-
(x) Poaceae undiff. (Grass family)	<1mm caryopsis	-	-	-	-	7	-
(x) *Rumex* sp (Docks)	nutlet	-	-	-	-	1	-
(x) *Vicia* sp (Vetches)	seed	-	-	-	-	1	2

[a-arable; c-cultivated; r-ruderal; t-tree/shrub; w-wet/damp ground; x-wide niche.
(+): trace; +: rare; ++: occasional; +++: common; ++++: abundant]

Appendix 17.2: Palaeoenvironmental assessment of pit [433]

Context		**436**	**435**	**434**
Sample		**19**	**20**	**21**
Feature		**Pit**	**pit**	**pit**
Material available for radiocarbon dating		(✓)	✓	✓
Volume processed (l)		9	10	8
Volume of flot (ml)		370	2450	900
Residue contents				
Bone (calcined)	indet. frags	-	-	(+)
Bone (unburnt)	fish	+	-	-
Bone (unburnt)	indet. frags	++	++	+
Charcoal		+	++	-
Clinker / cinder		-	-	++
Coal		-	-	+++
Coal shale		+++	+	+++
Fired clay / CBM		++	(+)	+
Marine shell		+	+	-
Metal object (number of fragments)		1	-	-
Nail (number of fragments)		1	-	-
Pot (number of fragments)		1	-	1
Shell (freshwater / terrestrial)		(+)	-	-
Tile (number of fragments)		-	-	1
Tooth (number of fragments)		2	-	-
Flot matrix				
Bone (unburnt)	fish	-	+	-
Bone (unburnt)	indet. frags	-	+	+
Charcoal		+	++	+
Clinker / cinder		+	+	-
Coal / coal shale		++	+++	+
Insect / beetle		-	+	-
Roots (modern)		++	-	-
Shell (freshwater / terrestrial)		-	+	-
Uncharred seeds		+	+++	+++
Vegetative material (uncharred)		-	-	++
Wood		-	-	+
Charred remains (total count)				
(a) *Centaurea cyanus* (Cornflower)	achene	-	-	3
(c) *Avena* sp (Oat species)	small grain	-	-	1
(c) Cerealia indeterminate	grain	-	-	5
(c) *Hordeum* sp (Barley species)	grain	-	-	4
(c) *Hordeum* sp (Barley species)	rachis fragment	-	3	-
(c) *Secale cereale* (Rye)	grain	-	-	2
(c) *Triticum aestivum* (Bread Wheat)	rachis fragment	-	-	1
(x) Asteraceae undiff. (Daisy family)	achene	-	-	1
(x) *Chenopodium* sp (Goosefoots)	seed	-	-	1
(x) *Cirsium* / *Carduus* sp (Thistles)	achene	-	1	2
(x) Fabaceae undiff. (Pea family)	seed	-	-	2
(x) Poaceae undiff. (Grass family)	>1mm caryopsis	-	1	-
Waterlogged remains (abundance)				
(a) *Aethusa cynapium* (Fool's Parsley)	fruit	-	2	1
(a) *Fumaria* sp (Fumitories)	seed	-	2	2
(a) *Raphanus raphanistrum* (Wild Radish)	pod	-	-	1
(a) *Solanum nigrum* (Black nightshade)	seed	-	-	1
(a) *Urtica urens* (Small Nettle)	achene	1	-	-
(q) *Lemna* sp (Duckweeds)	fruit	-	-	3
(r) *Hyoscyamus niger* (Henbane)	seed	-	1	-
(r) *Lamium* sp (Dead-nettles)	nutlet	-	-	2
(r) *Sonchus asper* (Prickly Sow-thistle)	achene	-	1	3
(r) *Urtica dioica* (Common Nettle)	achene	-	3	4

Context		**436**	**435**	**434**
Sample		**19**	**20**	**21**
Feature		**Pit**	**pit**	**pit**
(r) *Verbena officinalis* (Vervain)	fruit	-	1	-
(t) *Ficus carica* (Fig)	seed	-	1	3
(t) *Prunus domestica* ssp *insititia* (Bullace, Damson)	fruitstone	-	1	-
(t) *Rubus fruticosus* agg. (Bramble)	fruitstone	-	2	-
(t) *Sambucus nigra* (Elder)	fruitstone	2	3	3
(w) *Carex* sp (Sedges)	trigonous nutlet	-	-	3
(w) *Conium maculatum* (Hemlock)	fruit	-	2	2
(x) *Cirsium* / *Carduus* sp (Thistles)	achene	-	3	3
(x) *Heracleum sphondylium* (Hogweed)	fruit	-	-	1
(x) *Ranunculus* subgenus *Ranunculus* (Buttercup)	achene	-	2	-

[a-arable; c-cultivated; q- aquatic; r-ruderal; t-tree/shrub; w-wet/damp ground; x-wide niche.
(+): trace; +: rare; ++: occasional; +++: common; ++++: abundant
Waterlogged remains are scored from 1-5 where 1: 1-2; 2: 3-10; 3: 11-40; 4: 41-200; 5: >200]
( ) there may be insufficient weight of carbon available for radiocarbon dating]

Appendix 17.3.1: Palaeoenvironmental assessment of channel and associated ditch fills - residue/flot contents and charred plant remains

Context		**234**	**250**	**240**	**269**	**238**	**243**	**480**	**483**	**481**	**496**
Sample		**6**	**7**	**8**	**9**	**10**	**11**	**23**	**24**	**25**	**26**
Feature		**channel**	**channel**	**channel**	**channel**	**channel**	**channel**	**channel**	**channel**	**channel**	**ditch**
Material available for radiocarbon dating		-				-	-	-			
Volume processed (l)		8.5	7	9	8	9	8	9	10	9	8
Volume of flot (ml)		10	40	400	325	400	65	230	175	570	85
Residue contents											
Bone (unburnt)	indet. frags	+	++	+	-	(+)	+	+	++	+	(+)
Charcoal		(+)	+	++	+++	-	-	-	+	(+)	-
Coal shale		-	(+)	-	-	-	-	-	-	-	-
Fired clay		+	+	-	++	-	-	-	+	(+)	++
Fuel waste		-	-	-	++	-	-	-	-	-	-
Heat-affected stone		-	-	-	+	-	-	-	-	-	-
Leather (fragments)		-	-	+	-	-	-	-	-	-	-
Lime-rich deposit		-	-	-	+	-	-	-	-	-	-
Pot (number of fragments)		-	2	-	-	-	-	-	-	1	1
Shell (freshwater / terrestrial)		-	++	+	-	+	-	(+)	-	++	-
Tooth (number of fragments)		-	1	-	-	-	-	-	-	-	-
Wood		-	-	+	+	-	++	-	-	-	-
Flot matrix											
Bone (unburnt)	fish	-	-	-	-	+	-	-	-	-	-
Bone (unburnt)	indet. frags	+	-	-	-	-	-	-	-	-	-
Charcoal		+	++	++	++	(+)	-	+	++	+	-
Insect / beetle		-	-	+	++	+	+	+	+	+	-
Monocot stems (charred)		-	-	-	+	-	-	-	-	-	-
Roots (modern)		-	+	-	-	-	-	-	-	-	-
Shell (freshwater / terrestrial)		+++	+++	+	-	+	-	++	-	++	-
Tuber / rhizome (charred)		-	+	-	-	-	(+)	-	-	-	-
Uncharred seeds		-	-	+++	+++	+++	++	++	++	++	+++
Vegetative material (uncharred)		++	-	++	+	++	++	-	-	+	-
Wood		-	-	-	++	++	++	-	-	-	+
Charred remains (total count)											
(c) *Avena* sp (Oat species)	large grain	-	-	-	3	-	-	-	-	-	-
(c) *Avena* sp (Oat species)	small grain	-	-	1	-	-	-	-	-	-	-

Context		**234**	**250**	**240**	**269**	**238**	**243**	**480**	**483**	**481**	**496**
Sample		**6**	**7**	**8**	**9**	**10**	**11**	**23**	**24**	**25**	**26**
Feature		**channel**	**channel**	**channel**	**channel**	**channel**	**channel**	**channel**	**channel**	**channel**	**ditch**
(c) Cerealia indeterminate	grain	-	-	24	-	-	-	-	-	-	4
(c) Cerealia indeterminate	rachis fragment	-	-	-	3	-	-	-	-	-	-
(c) *Hordeum* sp (Barley species)	grain	-	1	16	6	-	-	-	-	-	3
(c) *Hordeum* sp (Barley species)	rachis fragment	-	-	-	1	-	-	-	-	-	-
(c) *Hordeum distichum* (2-row Barley)	rachis fragment	-	-	1	-	-	-	-	-	-	-
(c) *Pisum sativum* (Pea)	fruit	-	-	1	1	-	-	-	-	-	-
(c) *Triticum aestivum* (Bread Wheat)	rachis fragment	-	-	6	5	-	-	-	-	-	-
(c) *Triticum* cf. *aestivum* (cf. Bread Wheat)	grain	-	-	15	11	-	-	-	-	-	3
(c) *Triticum* sp (Wheat species)	grain	-	10	1	3	-	-	-	-	2	3
(c) *Triticum spelta* (Spelt Wheat)	glume base	-	12	1	-	1	1	-	-	6	-
(c) *Triticum spelta* (Spelt Wheat)	spikelet fork	-	4	-	-	-	-	-	-	-	-
(c) *Triticum* cf. *turgidum* (cf. Rivet Wheat)	rachis fragment	-	-	1	-	-	-	-	-	-	-
(r) *Sonchus asper* (Prickly Sow-thistle)	achene	-	-	-	-	-	1	-	-	-	-
(t) *Corylus avellana* (Hazel)	nutshell fragment	-	-	-	-	-	-	-	-	-	1
(t) Indeterminate deciduous tree	cone	-	-	-	-	-	-	-	-	1	-
(w) *Carex* sp (Sedges)	trigonous nutlet	-	2	-	-	-	-	-	-	-	-
(x) Poaceae undiff. (Grass family)	>1mm caryopsis	-	4	-	1	-	-	-	-	-	-
(x) Poaceae undiff. (Grass family)	<1mm caryopsis	-	2	-	-	-	-	-	-	-	-
(x) *Ranunculus* subgenus *Ranunculus* (Buttercup)	achene	-	-	-	1	-	-	-	-	-	-
(x) *Rumex* sp (Docks)	tepal	-	-	-	1	-	-	-	-	-	-
(x) *Vicia* sp (Vetches)	seed	-	-	-	1	-	1	-	-	-	-

[a-arable; c-cultivated; q- aquatic; r-ruderal; t-tree/shrub; w-wet/damp ground; x-wide niche.
(+): trace; +: rare; ++: occasional; +++: common; ++++: abundant]

Appendix 17.3.2: Palaeoenvironmental assessment of channel and associated ditch fills - waterlogged plant remains

Context		**240**	**269**	**238**	**243**	**480**	**483**	**481**	**496**
Sample		**8**	**9**	**10**	**11**	**23**	**24**	**25**	**26**
Feature		**channel**	**channel**	**channel**	**channel**	**channel**	**channel**	**channel**	**ditch**
Waterlogged remains (abundance)									
(a) *Aethusa cynapium* (Fool's Parsley)	fruit	1	-	-	-	1	-	1	-
(a) *Anthemis cotula* (Stinking Chamomile)	achene	3	2	-	-	-	-	-	3
(a) *Fumaria* sp (Fumitories)	seed	2	2	2	2	2	2	-	-
(a) *Raphanus raphanistrum* (Wild Radish)	pod	1	1	-	-	-	-	-	-
(a) Thlaspi arvense (Field Penny-cress)	seed	-	-	1	-	-	-	-	-
(a) *Urtica urens* (Small Nettle)	achene	1	1	-	1	-	2	-	-
(q) *Ranunculus* subgenus *Batrachium* (Crowfoots)	achene	4	4	2	2	-	-	3	-
(r) *Coronopus squamatus* (Swine-cress)	fruit	3	3	-	-	-	-	1	2
(r) *Galeopsis* sp (Hemp-nettles)	nutlet	-	-	1	-	-	-	-	-
(r) *Hyoscyamus niger* (Henbane)	seed	3	3	-	-	-	-	-	2
(r) *Persicaria maculosa* (Redshank)	nutlet	1	1	-	-	-	-	-	1
(r) *Polygonum aviculare* (Knotgrass)	nutlet	2	2	2	2	-	-	2	-
(r) *Ranunculus parviflorus* (Small-flowered Buttercup)	achene	-	-	-	1	-	-	1	-
(r) *Sonchus asper* (Prickly Sow-thistle)	achene	1	-	-	-	-	-	-	-
(r) *Sonchus* sp (Sow-thistles)	achene	3	-	-	-	-	-	-	-
(r) *Stellaria media* (Common Chickweed)	seed	2	-	2	2	-	-	-	-
(r) *Urtica dioica* (Common Nettle)	achene	4	5	3	3	-	-	2	4
(t) *Alnus glutinosa* (Alder)	fruit	-	-	-	1	-	-	-	-
(t) *Corylus avellana* (Hazel)	nutshell fragment	1	-	-	-	-	-	-	-
(t) *Crataegus monogyna* (Hawthorn)	fruitstone	-	-	1	-	-	-	-	-
(t) *Ficus carica* (Fig)	seed	-	-	-	-	-	-	-	1
(t) *Rubus fruticosus* agg. (Bramble)	fruitstone	3	-	2	2	4	3	-	2
(t) *Sambucus nigra* (Elder)	fruitstone	3	3	1	2	3	2	2	4
(w) *Ajuga reptans* (Bugle)	nutlet	-	1	1	-	-	-	-	-
(w) *Carex* sp (Sedges)	trigonous nutlet	3	2	2	2	2	2	2	-
(w) *Cladium mariscus* (Great Fen-sedge)	nutlet	-	-	-	1	-	-	-	-
(w) *Conium maculatum* (Hemlock)	fruit	1	2	-	-	-	-	-	-
(w) Cyperaceae undiff. (Sedge family)	nutlet	-	-	-	-	-	1	-	-
(w) *Eleocharis* sp (Spike-rushes)	nutlet	-	1	-	-	-	-	-	-
(w) *Juncus* sp (Rushes)	seed	-	1	-	-	-	-	-	-
(w) *Montia Fontana* (Blinks)	seed	-	-	1	1	-	-	-	-
(w) *Persicaria lapathifolia* (Pale Persicaria)	nutlet	-	-	1	-	-	-	-	-

Context		**240**	**269**	**238**	**243**	**480**	**483**	**481**	**496**
Sample		**8**	**9**	**10**	**11**	**23**	**24**	**25**	**26**
Feature		**channel**	**channel**	**channel**	**channel**	**channel**	**channel**	**channel**	**ditch**
(w) *Ranunculus sceleratus* (Celery-leaved Buttercup)	achene	3	-	-	-	2	-	-	-
(w) *Rorippa nasturtium-aquaticum* agg. (Water-cress)	seed	1	-	-	-	-	-	2	-
(x) *Aphanes arvensis* agg	seed	-	-	-	-	-	-	1	-
(x) Apiaceae undiff. (Carrot family)	fruit	-	-	-	-	2	-	3	-
(x) *Apium* cf. *nodiflorium* (cf. Fools' water-cress)	fruit	3	3	-	1	1	2	1	-
(x) Asteraceae undiff. (Daisy family)	achene	2	-	-	2	1	-	-	1
(x) Caryophyllaceae undiff. (Pink family)	seed	1	-	-	-	-	-	-	2
(x) *Chenopodium* sp (Goosefoots)	seed	3	2	3	1	1	2	-	-
(x) *Cirsium* / *Carduus* sp (Thistles)	achene	2	-	-	1	2	-	1	-
(x) Fabaceae undiff. (Pea family)	seed	-	1	-	-	-	-	-	-
(x) Poaceae undiff. (Grass family)	>1mm caryopsis	-	-	-	1	-	-	-	-
(x) Poaceae undiff. (Grass family)	<1mm caryopsis	-	-	-	2	-	-	-	-
(x) *Potentilla anserina* (Silverweed)	achene	-	1	-	-	-	-	-	-
(x) *Potentilla* sp (Cinquefoils)	achene	1	-	-	-	-	-	-	-
(x) *Prunella vulgaris* (Selfheal)	nutlet	-	-	-	-	1	-	-	-
(x) *Ranunculus* subgenus *Ranunculus* (Buttercup)	achene	3	3	2	2	2	2	1	3
(x) *Rumex* sp (Docks)	nutlet	2	3	3	2	-	-	1	2
(x) *Rumex* sp (Docks)	tepals	2	1	1	-	-	-	2	1
(x) *Stachys* sp (Woundworts)	nutlet	1	2	-	-	1	-	-	-
(x) *Viola* sp (Violets)	seed	-	-	-	-	1	1	-	-

[a-arable; c-cultivated; q- aquatic; r-ruderal; t-tree/shrub; w-wet/damp ground; x-wide niche.
(+): trace; +: rare; ++: occasional; +++: common; ++++: abundant
Waterlogged remains are scored from 1-5 where 1: 1-2; 2: 3-10; 3: 11-40; 4: 41-200; 5: >200]

Appendix 17.4: Palaeoenvironmental assessment of kiln fills

Context		**310**	**311**	**328A**	**328B**	**329**	**333**	**332**
Sample		**12**	**13**	**14**	**15**	**16**	**17**	**18**
Feature		**kiln**	**kiln**	**kiln**	**kiln**	**kiln**	**kiln**	**kiln**
Material available for radiocarbon dating		-		( )	( )	-	( )	-
Volume processed (l)		9	7.5	8	9	8	5	1.5
Volume of flot (ml)		45	160	150	425	-	305	20
Residue contents								
Bone (unburnt)	indet. frags	++	+	-	-	-	-	-
Charcoal		-	-	-	+	-	++	+
Fired clay		-	++	-	-	-	-	+
Heat-affected stone		+	-	+	-	-	+++	-
Heat-affected tufa		+	+	+	++	-	+	-
Lime rich accretion		+++	+	++	++	++++	+	+++
Snails		-	+	-	(+)	-	-	-
Tooth (number of fragments)		2	-	-	-	-	-	-
Flot matrix								
Bone (unburnt)	indet. frags	-	(+)	-	-	-	-	-
Charcoal		++	++	++	++++	-	+++	++
Insect / beetle		+	-	-	-	-	-	-
Lime-rich accretion		+	-	-	+	-	-	+++
Shell (freshwater / terrestrial)		-	++	+	+	-	+	(+)
Uncharred seeds		(+)						
Charred remains (total count)								
(c) *Triticum* sp (Wheat species)	grain	-	2	-	-	-	-	-

[c-cultivated; (+): trace; +: rare; ++: occasional; +++: common; ++++: abundant
( ) there may be insufficient weight of carbon available for radiocarbon dating]

Appendix 18: OASIS Summary

OASIS DATA COLLECTION FORM: England

List of Projects | Manage Projects | Search Projects | New project | Change your details | HER coverage | Change country | Log out

Platts Orchard, Southwell - Pre-Construct Archaeological Services Ltd

OASIS ID - preconst3-257392

Versions

View	Version	Completed by	Email	Date
View 1	1	Mrs. R. D. Savage	rachel@pre-construct.co.uk	12 July 2016

Completed sections in current version

Details	Location	Creators	Archive	Publications
Yes	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 | Request record re-opened | Printable version

Email Nottinghamshire SMR about this OASIS record

OASIS:

Please e-mail Historic England for OASIS help and advice
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