Northern Archaeological Associates

BRIDGE ROAD, BROMPTON ON SWALE
NORTH YORKSHIRE

ARCHAEOLOGICAL POST-EXCAVATION ASSESSMENT

VOLUME 2

for

THOMAS ARMSTRONG (CONSTRUCTION) LTD

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FLINT REPORT

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1 Introduction

The assemblage composition and incidence is given in table 1

The material comprises 10 struck pieces of flint (28 5g), 2 bladelets that have been manufactured of struck chert (records 6 & 14, contexts 29 & 101, weight 5 9g) and 3 pieces, of un-worked water worn natural (rolled) flint (13 5g) Despite being from predominately residual contexts, all of the pieces are intact, although 7 of the struck pieces (including chert) exhibit varying degrees of edge damage Only 1 piece (record 5) was recovered from a stratified Pre Roman context (context 21) This implement was a fine example of a core scraper, that had been manufactured on a small single platformed flake core

2 Reduction Sequence, Technology & Raw Material

Eight of the struck pieces come from tertiary stages of lithic reduction The remaining 4 pieces are from secondary stages of lithic reduction possess only minimal cortex Most of the flint assemblage has been manufactured on glacial till derived flint The chert bladelets and at least 2 of the struck flints have been manufactured on raw material that was probably obtained from the gravels of the River Swale

Table 1 The Flint & Chert Assemblage, Bridge Road, Brompton

Flint ID	Total No	Number Broken	Edge -Use	CONTEXT							
				11	12	21	29	30	45	52	101
Flake	6	NIL		1	1			1	1	2	
Bladelets	*2	NIL	1				*1				*1
UTILISED											
Edge Utilised Flakes	2	NIL	2					1		1	
RETOUCHED											
Core Scraper	1	NIL	1			1					
Scraper End & Side (Right)	1	NIL	1		1						
Total = 12		NIL	5	1	2	1	1	2	1	3	1

* = Chert

3 Chronology

The only piece recovered from a known Pre-Roman context, was a core scraper (record 5) This implement was recovered from the soil, sealed below Dere Street The core support is a small single platformed, flake variety that shows traces of at least 9 small (10-8mm long, 4mm wide) removals The platform edge has subsequently been retouched, transforming the implement into a scraper The overall form of the implement is consistent with the regions later Neolithic Grooved Ware assemblages of, Woodlands sub-style

Of the remaining pieces, only 3 are diagnostic The end and side scraper (record 3, context 12) is of an asymmetric form and possesses slightly scalar working Although not very diagnostic small size and asymmetry are traits usually found on scrapers in the regions Beaker and some Grooved Ware assemblages

The 2 bladelets (records 6 & 14, contexts 29 AC & 101) in the assemblage are notable for being manufactured of chert In overall size and form such pieces are consistent with later Mesolithic or later Neolithic, Grooved Ware assemblages The use of chert often imposes limitations on the size of blades and flakes hence metrical criteria are inherently unreliable in dating such pieces However local Grooved Ware assemblages contain many strikingly similar pieces, manufactured on fine grained till flint

4 The Archaeological Potential of the Assemblage

Overall it might be said that the assemblage is most probably a residual admixture of Beaker and/or Grooved Ware material, though it must be stressed that there is a possibility of a small residual, later Mesolithic component (this might include the chert bladelets) The sole stratified piece (ibid) probably has Grooved Ware associations

The material is remarkably consistent with the assemblage from Hollow Banks (N A A ref HBS'98 00 Nat Grid Ref SD 228998) where, as at Brompton, some finely knapped small parallel sided bladelets are present The use of chert is a recurring feature of the flaked stone assemblages in the immediate region The high quality of the Brompton chert knapping is also of note, since the knapped chert from North Yorkshire assemblages usually tends to be of rather poor quality and manufacture

Although the assemblage is to small for any detailed assumptions to be made, the material is in a somewhat finer state (i e , less abraded) than might normally be expected

5 Proposed Catalogue of Illustrated Lithics

The individual record number refers to the flint archive only At least 4 pieces are of a quality that might warrant illustration

5 1 Scraper, End & Side (Right) Context 12
Asymmetric with 65 degree distal and right side edge angles
Faceted butt and slight battering to left hand margin Pronounced bulb with scar
Olive grey, till flint Weight 4 8g Length 19 6mm Width 31 8mm Thickness 7 5mm

5 2 Core Scraper Context 21
Platform edge has been moderately used as a scraper, with an edge angle of 90 degrees
Core support has been battered
Olive grey, till flint Weight 8 9g Length 28mm Width 23mm Thickness 13mm

5 3 Bladelet (Chert) Context 29 Code AC
Single flake platform and step termination Light edge use Coarse grained chert
Brownish grey Weight 1 8g Length 33 6mm Width 12 1mm Thickness 3 Smm

5 4 Bladelet (Chert) Context 101
Moderate edge use Coarse grained chert
Dark olive grey Weight 4 1g Length 40 8mm Width 15mm Thickness 6 9mm

APPENDIX B

THE CARVED STONE ('ROCK ART')

Stan Beckensall and Aron Mazel

Introduction

This block of sandstone has motifs on two opposite faces One has more complex decoration than the other This indicates that at one phase of its history it had been used after being cut from outcrop in Neolithic/early Bronze Age times, the simple cups being secondary

The stone was then shaped into a building block, as the fine chipping on two faces shows Whether the significance of the motifs or even their presence was recognised is not known, but it may have been

Description

The block of fine-grained light coloured sandstone is 16 5cm thick, two faces having been carefully tooled with a toothed chisel still sometimes used by stonemasons A thin mineral vein runs through it

A) One decorated face has four cup marks (i) is 2 5cm deep, (ii) is 1 5cm deep and in both cases the pick marks that made them are visible, (in) is 1cm deep, extended with an arc, and smooth inside, and (iv) is shallow and small

B) The opposite face has a cup surrounded by three grooves, cut into by an angled groove with a cup at its centre There is another figure of a cup and circular groove that has been cut through to make the tooled edge of the block

The complexity of the peck-marking that is clearly visible on a rubbing is for the making of grooves that do not appear to have been fully completed, many of these pick marks show that there are two motifs, one partially superimposed on the other, but both motifs are partly tentative What is very interesting is that all the pick marks indicate the size of the tool used, no doubt impacted

The larger figure has a clear cup at the centre of a ring with the joined pick marks visible Concentric to this is a penannular groove that runs into an outer concentric angular groove in which the tooling is clear Towards the edge of the block this groove is made up of touching pick marks Part of the groove has been cut when the building block was made

A larger cup, 1cm deep, has a clear L-shaped groove enclosing two sides of the cup, and this cuts the outer ring of the other figure (and is thus later) Again, pick marks trace the intention of completing this enclosing angular groove There may have been more decoration, as the finely tooled edge cuts through this point

The third motif is a truncated cup at the centre of the arc, presumably once part of a ring

Discussion

The motifs are common in the British cup and ring tradition The clarity of the pick marks that have made the motifs is common Rarer is the indication that one motif has been imposed on another The time period for such markings is extensive, including the Neolithic and early Bronze Age

The most interesting feature is that there are decorations on opposite faces This indicates that we are not merely dealing with a possible decorated surface that has been removed from an outcrop but that it has been turned over, cups added, and the stone used for another purpose Parallels point to its use in a burial, in a cist If so, it would have been a very heavy slab One recent example is the Fulforth Farm excavation, Durham, where a large block of sandstone was decorated with cup and ring marks on the surface that faced into the cist burials, and the top was decorated profusely with simple cup marks (the full report is not yet published, but details of the rock

art appear in Beckinsall and Laurie 1998, 25-9) The importance of this is that rock art was taken out of the open air, buried with the dead, and therefore was unseen

The next phase of the use of the stone was as a building block Rock art removed from its original context can be used as a building material Out of many examples in Northumberland, a cup and concentric circles is built into an external cottage wall at Houxty, Bellingham, another from a demolished cottage at Wooler is in the stone store at the Museum of Antiquities, Newcastle, and others have been cemented to support the bridge piers at Paynes Bridge, Wallington Whether the motifs were deliberately displayed as a curiosity or accidentally incorporated is not known (Beckensall 2001)

APPENDIX C

ROMANO-BRITISH AND LATER POTTERY ASSESSMENT

Peter Didsbury M Phil

1 Introduction and methodology

A total of 6680 sherds, weighing 90314 grams, and having an average sherd weight (hereafter ASW) of 13 5 grams, was recovered from the excavations Included in this total are fragments of ceramic artefacts including a Venus figurine, and of sherds refashioned into roundels ("gaming counters"), spindle whorls and small receptacles

All material was quantified by the two measures of number and weight of sherds, according to fabric category, within archaeological context Data was entered onto an Access database, which is supplied as an integral part of this report, and which should be consulted on matters of detail where appropriate

The fabric nomenclature adopted, and the fabric codes employed in the database, are set out in the relevant section, below

2 Aims of, and constraints upon, the assessment

The quantification and assessment was undertaken over a period of eighteen days in April-May 2003 It conforms to the requirements for MAP 2 assessments in addressing the types and quantities of material found, their distribution, and their potential for further study In view of the limited time available, the principal aims were to provide a primary computerised archive for this class of find, and to address the chronology of individual contexts and phases

3 Fabric terminology, with fabric and other codes used in the database

The assessment was carried out without access to any of the fabric series for Catterick sites already published (Wilson 2002) For the most part, material has been attributed to broad fabric or ware categories, of a kind appropriate to this level of assessment Within certain categories, some named wares or fabric types have been individually coded and quantified, *e g* Crambeck greyware and rusticated ware within the overall greywares, in others, for example the colour-coated wares, ascription to production centre is simply noted within the "Remarks' field of the database

The nomenclature employed is set out below Bracketed codes are employed only m the "Remarks" field of the database

Code	*Common name*	*Remarks*
BB	Black Burnished Ware (BB1)	
BB T	Black Burnished *type* wares	Includes possible BB2, and a range of related dark burnished greywares
(CGCC)	Central Gaulish Colour-Coated	
DT	Dales *type* Ware	
HC	Huntchff Ware	
MED	Medieval	Individual fabrics ascribed or described in "Remarks" field of database
MOD	Modern	As above
(MOSELK)	Moselkeramik	
(NVCC)	Nene Valley Colour Coated	
PMED	Post-medieval	As above
RA	Amphorae	

RCC	Colour coated wares	
RCG	Calcareously tempered wares	Not attributable to named types
RG	Greyware	
RG(CRAM)	Crambeck greyware	
RG(PHB)	Poppyhead beakers	
RG(PW)	Parisian Ware	
RG(RUST)	Rusticated Ware	
RG	Grit-tempered wares	
RM	Mortaria	
RO	Oxidised wares	
RO(EBRP)	Ebor Red-painted Ware	
RO1	Distinctive late gritty oxidised variant	
RS	Samian	
RSH	Shell tempered	
RW	White wares	
RW(CRAM)	Crambeck white/parchment wares	
RWS	White-slipped wares	Mainly on oxidised bodies
UNAT	Unattributed to type/period	

Ceramic figurines in "pipeclay fabrics have been coded RW(FIG)

Re-fashioned potsherds have been coded according to their fabric, followed by the letter X and a bracketed suffix referring to the type of item CO = counter, SW = spindle-whorl, and FR = footring turned into receptacle (samian only) For example BBX(CO) refers to a counter fashioned from a sherd of Black Burnished Ware, RSX(SW) to a samian spindle-whorl etc

Non-ceramic material submitted for examination has been extracted, and its presence noted in the database under the code NONCER

Notes on the dating of certain contexts have been entered under the code NOTE

Form types are sometimes abbreviated, *e g* D/B = dish/bowl, LSJ = lid seated jar, SRD = simple rim dish, SSFB = straight sided flanged bowl etc

4 Fabric distribution

The fabric profile of the whole site assemblage is shown in Table 00 It should be noted that ceramic figurines, re fashioned sherds, and a single unattributable fragment are excluded from this profile Fabric profiles for the individual phases are included as queries within the database

Table 1 Site fabric profile

Fabric	Sherds	Weight (grams)	% sherds	% weight
	(n = 6661)	(n = 90129)		
Roman				
BB	502	6468	7 5	7 2
BB-T	84	1070	1 3	1 2
DT	3	37	<0 1	<0 1
HC	110	2328	1 7	2 3
RA	331	24432	5 0	27 1
RCC	655	3712	9 8	4 1
RCG	67	875	1 0	1 0
RG	2895	26954	43 5	29 9
RG(CRAM)	103	2057	1 5	2 3
RG(CRAM)?	22	163	0 3	0 2
RG(PHB)	2	8	<0 1	<0 1
RG(PW)	1	3	<0 1	<0 1
RG(RUST)	51	558	0 8	0 6

RGRIT	6	95	0 1	0 1
RM	132	6268	2 0	7 0
RO	661	6280	9 9	7 0
RO(EBRP)	1	21	<0 1	<0 1
RO1	10	343	0 2	0 4
RS	701	5099	10 5	5 7
RSH	1	10	<0 1	<0 1
RW	113	1760	1 7	2 0
RW(CRAM)	4	67	0 1	0 1
RW/RO	5	46	0 1	0 1
RWS	153	1243	2 3	1 4
Post-Roman				
MED	6	27	0 1	<0 1
PMED	7	42	0 1	<0 1
MED/PMED	5	61	0 1	0 1
MOD	30	102	0 5	0 1
TOTALS	6661	90129	99 7	99 8

5 Composition of ware categories requiring specialist assessment before publication

The following details will be required by the relevant specialists

Amphorae
331 sherds, 24432 grams Mainly Dressel 20 Contains at least 3 rims, at least 7 handles (one stamped), a base, and a body sherd with incised 'X" apparently cut after firing

Mortaria
132 sherds, 6268 grams Contains one stamped example

Samian
701 sherds, 5099 grams And 10 sherds, 87 grams as re used sherds Contains 94 decorated sherds, 10 stamps, 2 graffiti and 2 riveted sherds

6 The assemblages discussion by phase

Context numbers given in bold are Grade 1 contexts Others may be assumed to be Grade 2 unless specifically qualified as Grade 3, or ungraded

Phase 4
Sherds 51
Weight 1567 grams
ASW 30 7 grams

Pottery was recovered from three contexts, only one of which was Grade 1

Fill **[184]** of ditch **[183]** contained a small assemblage (20 sherds) of RG, RO and RS The RG contains jars of probable early to mid Antonine date (c 120 160) The RO contains a small globular redware jar with thin outbent rim, for which a close parallel cannot at the moment be suggested It should be noted that sherds from the same, or an identical, vessel also occur in Phase 10, context **[106]** The optimum spot date (TPQ) for this context is early to mid Antonine Specialist analysis of the samian scrap may help to refine the spot dating

Bank [5], which overlies the metalling of the early road, and is thought to consist of upcast from the above-mentioned ditch, contained a small assemblage (12 sherds) of RA, RS and RW The RA includes a Dressel 20 rim of probable second-century type, and the RW a flagon rim which may belong to the first half of the second century (cf Bell and Evans 2002, Type F2) Specialist examination of the samian and the amphorae may be expected to refine the dating of this assemblage

Context [25], consisting of finds recovered from cleaning over the bank, contained 19 sherds The latest is the rim of a third-century Nene Valley colour-coated folded beaker with funnel neck Attention may be drawn to a fragment of Gaulish colour-coated ware, possibly Moselkeramik rather than of Central Gaulish origin, since the fracture displays a two-tone "sandwich" effect The ware is usually dated c 180/190 – 250 in Britain (Richardson 1986, 118)

Phase 5

Sherds 85
Weight 1577 grams
ASW 18 6 grams

Pottery was recovered from five contexts, of which four were Grade 1

Contexts **[181]**, **[187]** and **[176]** are parts of a buried soil to the east of ditch **[183]** Only **[176]** contained useful diagnostic material, the majority (22 out of 25) sherds from this context deriving from two greyware jars with heavy rustication The remaining sherds are all greywares in fabrics of "early" appearance, and include a small jar body with *en barbotine* decoration A considerable part of the profile of one of the jars is ascertainable The production period of rusticated ware is c AD 70-130, and there would appear to be nothing in this assemblage which need fall outside that period

Context **[189]**, burnt areas on top of the original soil horizon east of the road, contained a small assemblage (10) sherds) of RG (including rusticated ware) and RO The greywares suggest contemporaneity with the material from the buried soil, discussed above The RO contains a small redware sherd in micaceous fabric, with scored encircling lines and small pushed-out boss Further research is needed on this sherd, but it is possibly to be regarded as belonging to a group of embossed beakers predominantly belonging to the second half of the first century AD (Marsh 1978, 151-152, Type 20)

Context [182], which derives from cleaning over **[176]** after machine stripping, yielded 42 sherds, some of which may be contemporary with the above contexts The greywares, however, strongly suggest that the latest material in the group belongs to the late second or early third century, and this is confirmed by a sherd from a Nene Valley (?) scroll beaker, cf Howe, Perrin and Mackreth 1980, fig 3, no 29

Phase 6

Sherds 67
Weight 1576 grams
ASW 23 5 grams

Pottery was obtained from two contexts, of which one was Grade 1

Context **[179]** I is the fill of slot [180], one of a series of cut features which may be contemporary with the use of the possible side-road established during this phase The context contained a small assemblage (6 sherds) Chronologically diagnostic are the rim of a reeded rim bowl of late first to early second century date (cf Bell and Evans 2002, Type B1), and a sherd of Ebor Red-Painted Ware of c AD 120-180, probably from a bowl of York Type BF (Monaghan 1997) Monaghan (*op cit*, 877 880) points out that the ware is virtually absent from the Northern Frontier, though broadly contemporary equivalent wares from other production centres are known) A second-century TPQ is established for the contents of this slot They may be closely contemporary with the material from Grade 1 contexts in Phases 4 and 5

Context [148] is the surface of a buried soil lying below the floors of Phase 7 Building B It yielded a fairly large assemblage consisting of 60 sherds and a probable roundel fashioned from a sherd of samian The pottery is overwhelmingly of second century date and much of it may be contemporary with material from Phases 4 and 5 The samian may span the Trajanic to Late Antonine periods, though specialist confirmation of this would be needed A coin of Severus Alexander dated AD 222-228 (Brickstock 2003) takes the group into the earlier third century The database may be consulted for a detailed account of the forms and fabrics present

Phase 7

Sherds 1394
Weight 17203 grams
ASW 12 3 grams

Pottery came from 25 contexts, of which 14 were Grade 1

Context [11] a lens of coal fragments and rubbish within hollow [105], contained 49 sherds Colour-coated wares give a TPQ in the first half of the third century for this context

Pit 1102]

This feature was cut through the surface of the side-road, and contained two fills Lower fill [103] yielded 99 sherds A second-century component is present, but the latest BB, RG and RCC wares all suggest that the group closes in the third century, c AD 200 – 250/280 Upper fill [101] had 119 sherds and is of very similar composition and closely contemporary date

Structure [126]

Pit [125] (not graded), the construction cut for structure [126], yielded 111 sherds (marked with cut number) The most that can be said is that the greywares are of third-century appearance

Structure [126] itself has three small sherds attributed to it, presumably from the fabric of the structure These comprise RG and RS of late first- to second-century date and are presumably long-term residual

Fills [129] and [130], respectively from the eastern and western cells of the structure, have an aggregated assemblage of 17 sherds The most diagnostic contents are BB wares suggestive of a late second- or early third century date, and these must provide the TPQ for the fills

Pit [175]

To the south of structure [126] Fill [174] contained an uninformative group of 18 sherds, the most diagnostic of which is *probable* Crambeck greyware, which came into production c AD 270, so that a TPQ in the late third or fourth century must be envisaged if the ware has been correctly identified

Cobbled surface [24/55/149]

The surface butts up to structure [126] and is thought to be contemporary with it Finds were recovered from [24], and from cleaning over the whole surface (contexts [26/54/150]) The material from [24] comprised 27 sherds with a wide date range, the latest of which are third-century RCC and a hammer head mortarium cf Gillam 280, dated c AD 210-320 The cleaned material from [26/54/150] has an aggregated assemblage of 299 sherds, the latest among which are greywares of the very late third or fourth century It also includes (context [26]) three coins, with an overall date range of AD 268-335 (Brickstock 2003)

Building B

Cobble surface [51], which delineated this building, yielded a small assemblage (2 sherds) of probably residual material, comprising an undatable greyware and a sherd of possibly Hadrianic Antonine samian Context [52], which consists of material recovered from the soil infills of this surface, yielded a large assemblage (358 sherds) with a maximum possible date-range from the late first to the mid fourth century In real terms, the assemblage may close in the second half of the third or the early fourth, though interpretation is very difficult The context also included a coin of Antoninus Pius, of AD 139 (Brickstock 2003)

Posthole [61]

Fill [62] of this feature contained a single amphora body sherd Specialist opinion is required as to its date

Spread of burnt clay/soil [137]

The spread contained three RG sherds in fabrics of second century appearance, including a bowl cf Bell and Evans 2002, fig 182, form B10 5 (first or second century)

Pits cutting through road metalling [84] and sealed by soil [83]

Fill [88] of Pit [89] contained 35 sherds, mainly of second century date The latest diagnostic material comprises sherds of an RCC decorated bag-shaped beaker and an RG folded beaker, which probably take the assemblage into the early third century

Fill [133] of Pit [134] contained 10 scrap sherds, including Rusticated Ware and probably contemporary greyware fabrics Fill [86] of Pit [87] contained 8 sherds of RG (including Rusticated Ware), RA, RO and RS, the latter a Drag 27 cup Fill [157] of Pit [156] contained 6 sherds, the most diagnostic elements being Rusticated Ware and a roughcast beaker None of the material from these two pits need be later than the mid second century

Fill [131] of Pit [132] contained 8 sherds which might be closely contemporary with the material from Pits [134] and [86] The RS includes a rouletted flake from the base of a dish in the Drag 18 to 31 series If from a 18/31R, then the group may belong to the first half of the second century, if 31R, then a TPQ post AD 160 would be the case Specialist opinion may refine the dating

A small group of material was also attributed to Pit [155] (cut number, ungraded) This consisted of a sherd from an unattributed globular beaker, possibly an import, and a BB jar body sherd with acute angled lattice A close dating cannot be suggested at this stage, but the material is likely to be of second century date

Other pottery-bearing contexts

Sand [12], the fill of a hollow above roadside ditch 183, contained 42 sherds, of which half were amphora bodies Accompanying RS included a Drag 27 cup, while the RG consisted principally of sherds from a Drag 37 copy (Gillam 196 and 197 have a date range of *c* AD 70 100) The material is probably all of second-century date

Cleaning layer [122] contained 40 sherds The latest material among the RCC, RG and RO is all of late second to mid third-century date The database may be consulted for details

Cleaning layer [124] contained 132 sherds Crambeck greyware takes the group post AD 270, while proto-Huntcliff jars and a hammer-head rim mortarium suggest that the latest material may belong to the first half of the fourth century

***Phase* 8**

Sherds 2630
Weight 36125 grams
ASW 13 7 grams

In addition, there was a samian roundel, and five joining sherds from a pipeclay Venus figurine

Pottery came from sixteen contexts, of which only one was Grade 1

Layer [139], which developed inside Building A, contained only 4 sherds A BB straight sided flanged bowl (cf Bell and Evans 2002, Type B17 1) is of late second to early third-century date, and fragments of RG, including a lipped dish, are probably contemporary

Layer [90/99], which developed inside Building B, contained a large aggregated assemblage of 410 sherds There is a wide range of material from at least the mid second century onwards, with the latest material being Huntcliff jars, taking the deposit to post c AD 355 The chronological range is mirrored in the three coins from the deposit (Brickstock 2003), which comprise two of the mid second century (Hadrian and Antoninus Pius) and one of the mid fourth (Helena, AD 337-340)

Dump [66], placed over the above deposit inside Building B, was another large group, consisting of 319 sherds It is of similar chronological range to layer [90/99], though the presence of Crambeck greyware Type 1b bowls, as well as of possible painted Crambeck parchment wares, shows that the latest material post dates *c* AD 360/370 A large com list (12 coins plus fragments) ranges from AD 260 to at least 340 and possibly as late as 378 (Brickstock 2003)

Layer [47], between Buildings B and C, contained 175 sherds, and is of similar range and composition to dump [66] Once again, it contains Crambeck greyware Type 1b bowls, taking the group to post c AD 360/370 Three Constantinian coins (Brickstock 2003) date to AD 323-335

Soil/cobble layer [81], which covered Building C and merged with [66], contained 189 sherds As with the above groups there is a wide chronological range In this case, the latest material is Crambeck greyware, which can only be dated as post *c* AD 270 Three coins date from AD 145 onwards, the latest being one of Constantine II as Caesar, AD 321 (Brickstock 2003)

Context [82], cleaning over [81], yielded a further 244 sherds, predominantly late and including Crambeck and other greywares of the late third to fourth century, with contemporary mortaria The latest material, however, is medieval, including the rim of a twelfth century white gritty ware jar

Soil [45] contained 234 sherds The latest are Crambeck greyware Type 1b and painted Crambeck parchment ware, both of which take the group to post *c* AD 360/370 A coin of Constantine II as Caesar is dated to AD 323-324

Soil [46] contained 9 undiagnostic greyware fragments

Soil [83] contained 181 sherds from the mid second century onwards Much may be of third-century date, and the deposit certainly continues after *c* AD 270 because of the presence of Crambeck greyware There is no definite evidence of fourth-century material

Soil [29] contained 113 sherds The Roman material has a wide chronological range from the earlier second century to at least the late third or early fourth, and there is a coin of Constantius II as Caesar, AD 325-326 (Brickstock 2003) There is also a single sherd of post medieval Glazed Red Earthenware

Soil [36] was a large deposit of 191 sherds The latest Roman material is of fourth century date There are also two sherds of modern (nineteenth- or twentieth-century) white earthenware The database may be consulted for details

Soil [48] contained 74 sherds The latest are Huntcliff and red-painted Crambeck parchment ware The group must close post c AD 360 370

Soil [193], the only Grade 1 context from the phase, contained 61 sherds Most of the assemblage appears to be of second-century date, the latest material being a probable late second- to early third-century colour coated scroll beaker

Phase 9

Sherds 1487
Weight 20560 grams
ASW 13 8 grams

There were also a fragment of white pipeclay figurine, a samian roundel, a samian spindle-whorl, and a samian "footring receptacle"

Pottery came from 23 contexts, of which 13 were Grade 1

Deposits associated with the later Dere Street

Soil [75], the secondary silting of the eastern ditch of the late Dere Street, contained 18 sherds, of little evidential value The latest diagnostic material was greyware with third-century decoration

Fill **[114]** of the western road ditch contained 29 sherds The latest material may be of late second- to earlier third-century date

Context [6], cleaning over the latest Dere Street surface, contained **9** sherds The only chronologically diagnostic material was imported Gaulish RCC of late second or earlier third-century date

Deposits associated with cobble footing **[39]**

Cobble footing **[39]** contained 4 sherds These included a second-century poppy-head beaker, and unattributed and un-dated RO

Context [40], cleaning over the above cobble structure, contained 44 sherds The latest components were a BB straight sided flanged bowl of late third- or fourth-century type, and an RO bowl or wall-sided mortarium of *c* AD 360-400

Cleaning over cobble surfaces [43] and [41], contexts [44] and [42] respectively, contained a large aggregated assemblage of **399** sherds Both exhibited a wide chronological range, The latest Roman material in [44] was painted Crambeck parchment ware, post c AD 360/370, with a coins ranging in date from AD 156 335 There was also a fragment of *possible* medieval ware The latest Roman material in [42] is probably from the later third to mid fourth century There is also a definite sherd of medieval glazed lightly gritted ware

Cobble surface **[16]** contained **19** sherds Three large joining sherds of a Drag 31R are post AD 160, and scrap fragments of Nene Valley RCC beakers give a TPQ in at least the late second century

Deposits associated with Building E

Cleaning [33], over walls **[31]** and **[32],** contained 112 sherds There is very little diagnostic material, the latest Roman wares being late third- or fourth century BB, and possible Crambeck mortaria There is also a glazed sherd from a medieval jug A coin from the context is of Septimius Severus, AD 202-210 (Brickstock 2003)

Ash/clay layer **[192]**, on floor **[111/185]** of the building, contained 47 sherds There is a chronological range from the late first or early second century through to the late second or early third, the latter represented by large sherds (complete profile) of a BB bowl cf Bell and Evans 2002, Type B17 1/17 2

Sand **[191]**, subsequently laid upon the above layer, contained six sherds These are of little evidential value, though they are of second-century appearance This might tend to confirm the suggestion that the sand was derived from fill [12] of the earlier roadside ditch (see Phase 7, above)

Contexts associated with Building F

Cleaning [35], over wall [34], contained 10 sherds There is a third century RCC beaker, and BB including a type which was current from AD 190 340

Cleaning [38], over stones [37], yielded only 6 sherds There is BB of the same date as in [35], and Crambeck greyware, the latter giving a date of post AD 270 for the latest material

Contexts associated with the graves

Fill **[119]** of Grave [121], contained 15 small and relatively uninformative sherds, though they include sherds from RG and BB jars which suggest a date of c AD 120 160 Specialist examination of a mortarium sherd may be expected to refine this dating A com of Victorinus/Tetricus is dated to AD 268-273 It should be noted that only the latter coin is tabulated in Brickstock 2003, though the discursive text refers also to a corroded coin of AD 330-335 from the context

Fill [145] of Grave [147] contained 18 sherds Crambeck greywares take the group to post AD 270, and a RCG jar shoulder of near-Huntcliff form probably into at least the mid fourth

Fill **[169]**, of Grave [171], contained 23 sherds There is a wide date-range, but the key material for understanding this group is a RG globular jar with short everted rim and pedestal foot (7 joining sherds) The sherd is in Crambeck or near-Crambeck fabric, and its closest parallel would appear to be in the burial pot from

Cist 1 at Crambeck (Corder 1928, Plate VII, no 192) The burial had been cut through the fumace of abandoned Kiln A, and it may be noted that the backfill of this disused kiln contained a painted vessel of Type 5b, suggesting a date for the burial after c AD 360 370 A similarly late date may be proposed for the Catterick grave (See also Phase 10, Pit [50])

Fill [56] of Grave [57] contained 10 sherds, the only closely diagnostic material being the rim of a Huntcliff jar, dating to after c AD 355 NB that pottery from this grave has been marked with the cut number

Fill [151] of Grave [153] contained 17 sherds, the most closely datable being a Crambeck greyware straight-sided flanged bowl, which therefore provides a TPQ of c AD 270 for the contents of the fill Given the relatively local distribution of Crambeck greyware in the late third century, it is likely to be a fourth century product, consistent with the date of the material from most of the other grave-fills

Pit [96]

Primary fill [104] had 63 sherds Most of this seems to derive from late second to early third-century activity, though the latest BB includes obtuse angled lattice jar sherds, perhaps cf Gillam Type 147 (AD 290-370)

Ash layer [95] contained 152 sherds and a samian spindle whorl There is nothing which need post-date the third century, and a majority of the material may date from the late second to mid third

Possible cess deposit [94] had 216 sherds and a samian roundel The material is of similar date and composition to that in [95], though there is a BB T straight sided flanged bowl which may be late third century or later, and a parchment ware with red painted bands Jars with this kind of decoration are known from Crambeck (cf Corder 1928, 18, and Plate IV, no 94), though it is unclear whether or not they have the same very late date as the rest of the red-painted wares The cess deposit may cautiously be given a late third or fourth-century TPQ

Context [97], the designation given to mixed finds from fills [94] and [95] m the north western quadrant of the pit, contained 146 sherds and a possible fragment of a whiteware figurine There are several sherds from a BB jar cf Gillam 145 (AD 230-300), and a mortarium with hammerhead rim which could be as late as the early fourth century The remainder would appear to consist of late second- and third century wares

Cobbles [93] contained 146 sherds The assemblage is distinctively different from the Grade 1 fills discussed above, in having a large and distinctive fourth-century component, including RCC pentice beaker fragments, Huntcliff Ware and red-painted Crambeck types The latest material in the group therefore post-dates *c* AD 360/370

Phase 10

Sherds 273
Weight 3208 grams
ASW 11 8 grams

Pottery came from 11 contexts, of which 9 are Grade 1

Building G

Fill [78] of post-pit [77] yielded 10 sherds, the latest diagnostic material being from a BB jar of c AD 160-220 A coin of Victorinus/Tetricus is dated to AD 268 273 (Brickstock 2003)

Cleaning [166] over the area of this structure produced 159 sherds, the latest material being late third- or fourth century Crambeck greyware, and the base of a fourth century Nene Valley RCC flagon (cf Howe, Perrin and Mackreth 1980, nos 64, 65)

Building H

Fill [112] of slot [113] contained 13 sherds, ranging in date from the late second century to the late third or fourth century (Crambeck greyware, post c AD 270)

Post pits

Fill [59] of post-pit [60] contained 22 sherds, none closely diagnostic The latest may be BB of the late second or early third century

Fill [106] of post pit [107] contained two sherds, one of which was from the same, or an identical, small globular RO vessel previously recorded in Phase 4 context [184]

Fill [108] of gully [109], linking the western post-pits, contained 22 sherds Nothing is closely diagnostic, though second- and probably third century material is certainly present, and specialist examination of the mortarium may refine the spot-dating

Fill [79] of post-pit [80] contained 3 sherds, including one from a probable third-century RCC beaker

Fill [158] of post pit [159] had two undiagnostic body sherds of RA and RO

Finds from gully [117] were recorded under both the cut and fill ([116]) numbers The material was largely undiagnostic but included oblique lattice decoration on an RO jar A coin of the House of Constantine was dated to AQD 330 335 (Brickstock 2003)

Feature [50]

Fill [49] contained 11 sherds, including Crambeck wares of post AD 360/370, and parchment ware with red painted bands A complete greyware globular jar of identical form to that in Grave [171] was also included (see Phase 9, above) It is held likely that this vessel originated in the fill of Grave [57]

Phase 11

Sherds 307
Weight 2758 grams
ASW 9 grams

Pottery came from 6 contexts, none of which were Grade 1

Soil [7] had 18 sherds, the latest being late eighteenth- or early nineteenth century Creamware There was also thirteenth- or fourteenth-century material The latest Roman material was of the late second to early third century

Soil [9] had 20 undiagnostic Roman fragments

Soil [15] had 11 Roman sherds, the latest being a late third or fourth-century mortarium with hammer-head rim

Soil [28] produced 140 sherds, the latest being early nineteenth-century Pearlware/White Earthenware The remainder was Roman material ranging from Rusticated Ware to the late third or fourth century (mortarium)

Soil [30], which sealed the above soils, contained Roman material ending with types of the second half of the fourth century A seventeenth- and eighteenth-century contribution is reflected in Ryedale Ware, Tin-Glazed Earthenware, Staffordshire Slipware and White Enghsh Salt Glazed Stoneware The latest component is nineteenth century, comprising Pearlware, Creamware, Brown Stoneware, White Dipped Ware and Glazed Red Earthenwares

7 Ceramic artefacts and re-fashioned pot sherds

Pipeclay figurines

Phase 8 45 AJ

Five joining fragments of a white "pipeclay" female (Venus?) figurine The figurine is hollow-cast, and is extant from the upper back to the lower legs on the reverse, and from waist to ankles on the front Her left hand clutches folds of drapery Such figurines were produced in Central Gaul in the first and second centuries Cf Cooper 2002, 200, and fig 327

Phase 9 Context [97]

A solid fragment white "pipeclay" may be a fragment from a similar figurine, perhaps from part of a leg and buttock

Both objects should be submitted to an appropriate specialist

Roundels ("counters")

The occurrence of these objects is listed below Cf Cooper, Evans and Willis 2002a, 209 210 for a catalogue of pottery roundels from Catterick sites

Phase	Context/find	Fabric	Diameter (mm)	Remarks
6	148AD	RS	15	
S	S1AK	RG	32-35	
8	S2AC	RS	27-30	
9	94AG	RS	25-27	
9	104AB	BB	30 35	
11	28AC	RS	15	
11	28AJ	RS	30 x 25	Stamped

Spindle-whorls

All the items conform to the criteria established by Crummy (1983, 67 and 94) for identification of perforated ceramic roundels as spindle-whorls Cooper, Evans and Wilhs (2002b, 208) point out that common ware (i *e* non-samian) spindle-whorls from Catterick Sites 433 and 434 appear to be largely of third- and fourth-century date

Phase	Context/find	Fabric	Diameter (mm)	Remarks
9	44AJ	RS	40	Perforation 5 mm Broken through perforation and with rough edges Broken during manufacture?
9	95AE	RS	36	Perforation 6 mm Broken through centre, possibly during use
11	9AB	RS	37	Perforation 7 mm

Re-fashioned samian footrings

Two samian footrings, both from cup forms, appear to have been chipped down for probable use, inverted, as small receptacles A wide range of functions might be suggested, including use as ointment or cosmetic pots

Phase	Context/find	Remarks
9	33AF	Stamped MARTINI
11	2SAK	Stamped AT[ ]ILLIM (?)

8 Summary of phase chronology

Phase 4

The small amounts of material from this phase suggest a possible early to mid-Antonine date for the fill of Ditch [183], and a second-century date, possibly broadly contemporary with the above, for the material from bank [5] Third-century material (possibly all early) only appears in cleaning layer [25] Specialist examination of the samian has the potential for refining the TPQs for the material from the ditch

Phase **5**

The buried soils east of Ditch [183] and the areas of burning on top of the original soil horizon to the east of the road, are characterised by the presence of rusticated ware and contemporary material These assemblages may thus be contemporary with the fill of the ditch, or be somewhat earlier Only in cleaning context [182] does any later material appear, and this is suggestive of a late second to early third-century date

Phase 6

Slot [182] contains second century pottery, much of it possibly contemporary with that from the Grade **1** contexts in Phases 4 and 5 Material from buried soil [148] was also overwhelmingly of second century date, though the latest samian may belong to the later second century (specialist examination will refine), and the deposit also contained a coins of the AD 220s

Phase 7

Pit [102] contains third-century material Material of this probable date is also attributed to the construction cut for Structure [126] The structure itself incorporates a small amount of late first- or early second material Material from the fills of the cells of this structure provides a TPQ m the late second to early third century Pit [175] contains late third to fourth-century pottery, while the latest from cobbled surface [24/55/149] is probably of the third to early fourth Cleaning over the cobbled surface produced material of similar date, an interpretation supported by a coin list ending in the AD 330s

Contexts connected with Building B, and burnt clay/soil layer [137] provide little useful dating evidence

Pits cut through road-metalling [84] contain largely second century material, with only Pit [89] going into the (early?) third century It may be noted that material from the fills of Pits [86], [134] and [156] could all pre date the mid second century, and presents a very similar appearance to that from the "rusticated phase ' of Phases 4-6 Pit [131] may be chronologically similar, though interpretation will depend upon specialist samian opinion Pit [155] has second century material which is not closely datable

For other contexts, see the main phase discussions, above

Phase 8

Pottery came almost entirely from Grade 2 layers and soils

The latest material inside Building A, context [139], belongs to the late second or early third century

The latest material from layer [90/99] and dump [66], inside Building B, is datable to post c AD 355 and post *c* AD 360/370 respectively, while the coin list from each of these groups goes to c AD 340

Layer [47], between Buildings B and C, has pottery later than c AD 360/370, and coins of the AD 320s/330s

Soil/cobbles [S1] over Building C has late third- or fourth century pottery and a coin of AD 321 Roman pottery from cleaning [82], above the latter, is of similar date, but the latest ceramic belongs to the twelfth century AD

Soil [46] is not datable

Soils [45] and [48] have pottery later than c AD 360/370, with a coin of the AD 320s in the former

Soil [83] has third or fourth century pottery as its latest material

Soil [29] has late third- or fourth century pottery and a coin of the AD 320s, though the latest ceramic content is modern Soil [36] is of similar composition (without coin evidence)

Soil [193], the only Grade **1** context from the phase contains mainly second-century material, the latest being late second to early third century colour coated ware

Phase **9**

Cobble footing **[39]** incorporated small amounts of probably second century pottery, while cleaning context [40], contained pottery belonging to the second half of the fourth century

No pottery came from cobble surfaces [43] and **[41]**, while cleaning over them yielded pottery post-dating AD 360/370 and a coin list closing in AD 335 At least one sherd of medieval pottery came from these cleaning contexts

Cobble surface **[16]** had pottery which probably post-dates the late second century

The latest pottery from ash/clay layer **[192],** on the floor of Building E, is of late second to early third-century date For other contexts associated with Building E, and for those associated with Building F, see the main phase discussion (above)

The backfill of Grave **[121]** has probable Antonine pottery, and an as yet undated mortarium, specialist opinion on which may refine the TPQ for the fill All the remaining graves have fourth-century pottery in their backfills, that from **[171]** probably post-dating AD 360/370, and that from **[57]** post dating c AD 355

Pit **[96]** may cautiously be given a late third to fourth-century TPQ, though it may be noted that much of the material in each of its fills appears to date from the late second to early third century Cobbles **[93]**, which seal the pit, contain clearly diagnostic material of post c AD 360/370

Phases 10 and 11

See the main phase discussion, above

9 Conclusions and recommendations

Interpretation of this large site assemblage was constrained by both the nature and the quality of the individual context assemblages A large number of pot groups were from "open" deposits, and this is reflected in a low overall site ASW (despite the presence of a large amphora component) of only 13 5 grams Furthermore, although the number of contexts categorised as belonging to Grade 1 and 2 were almost equal (respectively 43 and 42), material from Grade 1 contexts accounted for only c **19** 5% (by either number or weight of sherds) of the site total

In view of these constraints, only a very limited chronological sequence can be suggested at present Initial roadside activity (Phases 4 to 6) is dominated by material suggestive of deposition before the mid second century The primary structural phase (Phase 7) is difficult to interpret a group of pits cut through the road metalling have material which is indistinguishable from that of Phases 4 to 6, while other features yielded a range of material from the early third century, perhaps, in some cases, into the early fourth It is recommended that particular attention be paid to re examining the contexts currently allocated to this phase The date of the "temporary abandonment of the site" (Phase 8) is particularly difficult to assess, because almost the entire phase assemblage derives from Grade 2 soils Many of these have clear evidence of material later than AD 360/370, but the only Grade **1** soil contains material no later than the early third The secondary structural phase and burials (Phase **9**) also presents problems most of the grave-fills have fourth-century pottery, in two cases in the second half of the century, and Pit **[96]** is possibly late third or fourth, though most of its contents are much earlier, the presence of large sherds of late second- to early third-century pottery on the floor of Building E is also interesting The final phase of structures (Phase **10**) had a majority of contexts of Grade 1, but many of these were the fills of post pits, which can be expected, typically, to yield small amounts of long term residual material The limited evidence suggests a TPQ in the late third or fourth century for the construction of Buildings G and H, while Feature **[50]** clearly contains material which post dates AD 360/370 Post Roman activity (Phase **11**) is represented ceramically only in a number of Grade 2 "soils", all of which contained a wide chronological material, with medieval to early modern material (c twelfth to nineteenth century) being present in small quantities in several contexts

It is appropriate here to note that the coin list end appreciably earlier than the date of the latest pottery being used on the site The latter certainly post-dates AD 360/370, and, since the site sequence end with the latest types in use in Roman Britain, possibly considerably later This will be of interest to the coin specialist and

Richard Brickstock's views on the interpretation of this, in comparison with other regional sites, should certainly be sought

Given the limits of this exercise, it is hardly possible at this stage to assess the range of wares in use in terms of the fabric and form series already constructed for other Catterick sites, although it may be noted that a number of forms are present which do not appear to have been published in Wilson 2002 (see database for details) Attention to such matters could conceivably be afforded at the report stage, though it must be apparent that the publication potential of the material is limited The demands of publication could probably be satisfied by a discursive treatment supported by detailed analysis and illustration of some key Grade 1 groups, with attention also being paid to previously unrecorded forms and vessels of intrinsic interest Any further work towards publication could, furthermore, only be carried out *after* the specialist analyses recommended below

The samian and the mortaria both have the potential to refine the site dating, and both should be submitted to specialist analysis in the interests of augmenting the studies of these classes of material from Catterick sites which have already been published Brenda Dickinson and Kay Hartley should be contacted with a view to undertaking this The details which each will need to arrive at a costing for the work are given earlier in this assessment

The Venus figurine, and a possible fragment of another similar object, should be submitted to an appropriate Roman small-finds specialist

The contents of complete globular pot 49AA have been removed and bagged separately in case analysis is thought to be necessary,

All material should be retained in an appropriate museum in the interests of future ceramic research in the region

The Venus Figurine

Philippa Walton

H 102mm W 37 6mm

Four joining fragments of a white pipe clay Venus figurine The head and most of the front of the body are missing, as is the base The figurine is of better quality than many, with the moulded details of her drapery picked out well

The figurine is of the Chart Sutton type (Jenkins, 1958), Venus is portrayed naked and holds drapery in her left hand Figurines such as this example were mass produced in central Gaul and Cologne in the 1st and 2nd centuries and the majority found in Britain date to this period It is likely that they represent ex votos presented to deities at temples and household shrines and with burials (Jenkins, 1986, 206)

The distribution of pipeclay Venus figurines is concentrated in south east England but there are at least nineteen examples from the north (Allason-Jones and Miket, 1984) Chart Sutton type figurines predominate and similar, although not identical, examples have been recovered from excavations at Chesterholm (Green, 1978, pl 41), South Shields (Allason Jones and Miket, 1984, 341, no 9 63), Chester (Green, 1978, pl 42) and Carlisle (Green, 1978, pl 36, 37 and 38) We cannot therefore necessarily interpret these northern examples as being the work of one mould from one workshop, nor the result of one shipment from Gaul

APPENDIX D

THE COINS

R J Brickstock

1 Introduction

This series of excavations produced 48 coins, all of them Roman The full catalogue deposited with the site archive is ordered according to context and small find numbers, while the listing below provides a summary in chronological order Of the coins, four are illegible third- or fourth century issues, but the rest are more fully identifiable A further coin-like object (36AH) is probably a stud or tack rather than a coin

Table 1 Summary listing in date order

Sf No	Ruler	Date	Denom	Catalogue	Wear
99AA	HADRIAN	134-38	SEST	743	W/VW
52AC	ANTONINUS PIUS	139	AS	569	?W/W
90AA	ANTONINUS PIUS	139-61	DP	as 933	W/W
44AD	ANTONINUS PIUS	156-57	DEN	as 263	W/VW
81AA	FAUSTINA II (A PIUS)	145-61	AS	A Pius 1395	W/W
166AA	MARCUS AURELIUS, CAESAR	139-61	AS	as Pius 1254	VW/EW
33AB	SEPTIMIUS SEVERUS	202-10	DEN	265	SW/SW
148AE	SEVERUS ALEXANDER'	222-28	DENpl	c as 127 ff	?SW/C
14AA	CLAUDIUS II	268-70	ANT	as 45	SW/W?
66AH	VICTORINUS	268-70	ANT	as 118	SW/?SW
66AO	VICTORINUS	268-70	ANT	as 118	?SW/SW
78AA	VICTORINUS/TETRICUS I	268-73	ANT	as Victorinus 40	C/?W
119AA	VICTORINUS/TETRICUS I'	268-73	ANT	c as Tetricus 132	?SW/SW
26AD	VICTORINUS/TETRICUS I'	268-73	ANT	c as Tetricus 100	?W/W
81AC	TETRICUS I	270-73	ANT	as 86	W/W
44AE	TETRICUS I	270-73	ANT	as 87	W/W
66AD	TETRICUS II, CAESAR	270-73	ANT	as 223	?W/W
66AB	TETRICUS II CAESAR	270-73	ANT	270	SW/SW
66AM	RADIATE	260-73	ANT	-	C/C
02AA	CONSTANTINE I	316	FOLL	7TR 105	SW/SW
81AB	CONSTANTINE II, CAESAR	321	-	7LG 148	SW/SW
26AE	CONSTANTINE II CAESAR	322-23	-	7LN 255	?SW/SW
47AA	CONSTANTINE II CAESAR	323-24	-	as 7TR 441	?W/SW
45AC	CONSTANTINE II CAESAR	323-24	-	7LN 287	SW/SW
29AA	CONSTANTIUS II CAESAR	325-26	-	as 7TR 464	?SW/SW
66AA	CONSTANTINE I	330-31	-	7LG 246 HK 191	W/W
66AK	CONSTANTINE I	330-31	-	7TR 529 HK 58	SW/SW
26AB	CONSTANTINE I	330-35	-	as 7LG 241 HK 185	?SW/SW
66AN	CONSTANTINE I	330-35	-	as 7TR 518 HK 48	?SW/SW
66AC	CONSTANTINE II, CAESAR	330-31	-	7TR 527, HK 56	SW/SW
47AF	CONSTANTINE II CAESAR	330-35	-	as 7TR 520 HK 49	SW/SW
66AE	CONSTANTINE II CAESAR	330-35	-	as 7TR 520, HK 49	SW/SW
27AC	CONSTANTINE II CAESAR	332	-	7LG 249, HK 193	SW/SW
98AB	CONSTANTINE II CAESAR	333-34	-	7TR 557, HK 82	SW/SW
44AA	CONSTANTINE II, CAESAR	333-35	-	7TR 556, HK 81	SW/SW
166AB	CONSTANTINE II CAESAR	335-37	-	as 7TR 591, HK 93	SW/SW
27AD	CONSTANTIUS II CAESAR	332-33	-	7AR 367 HK 370	SW/SW
47AI	HOUSE OF CONSTANTINE	330-35	-	as 7TR 518 HK 48	C/SW
117AA	HOUSE OF CONSTANTINE	330-35	-	as 7TR 518, HK 48	C/C
99AH	HELENA	337-40	-	as 8TR 63, HK 112	SW/SW
66AJ	HELENA	337-40	-	as 8TR 78, HK 119	SW/SW
98AE	CONSTANTINE I'	330-35	-	c as 7TR 523 HK 52	?SW/C
98AA	'HOUSE OF CONSTANTINE	330-35	-	c of 7TR 518 HK 48	C/?W
66AI	CONSTANTINE II	337-40'	-	c of 8LG 5 HK 240	SW/SW
66AG	ILLEGIBLE FRAGMENTS	c 260-378	-	-	C/C
9SAG	ILLEGIBLE	c 260-402	-	-	C/C
98AF	ILLEGIBLE	c 318-55	-	-	C/C
98AC	ILLEGIBLE COIN?	C3rd/4th?	-	-	C/C
36AH	NOT A COIN	-	-	-	C/C

2 General discussion

The various excavations and surveys in and around *Cataractonium* in recent decades have produced considerable amounts of numismatic data a recent CBA monograph itemized some 1209 Roman coins (Wilson, 2002b), survey work in the late 1990s produced another 332 (as well as 89 post Roman coins, Wilson, in prep), and the present assemblage brings the total up to 1589 Roman coins

Roughly half of these finds came from extra mural sites (Sites 240, 251, 273 and 434, as well as the 1997 9 survey, *ibid*), but the current assemblage is perhaps best compared with the finds from Prof Wacher's 1972 excavations in the northern suburbs of Cataractonium (Site 434, Wilson 2002a, 122 ff, 2002b, 1 ff) on a site immediately adjacent to the present one Both the Site 434 and the Brompton Road assemblages are relatively small (109 and 48 coins, respectively), so that separate graphical treatment would perhaps be more likely to mislead than enlighten however, the two adjacent sites combined are perhaps worthy of statistical comparison with other assemblages Fig 1 therefore represents the finds from the two sites, using the oft-used formula

$$\frac{\text{No of coins}}{\text{No of years}} \times \frac{1000}{\text{site total}}$$

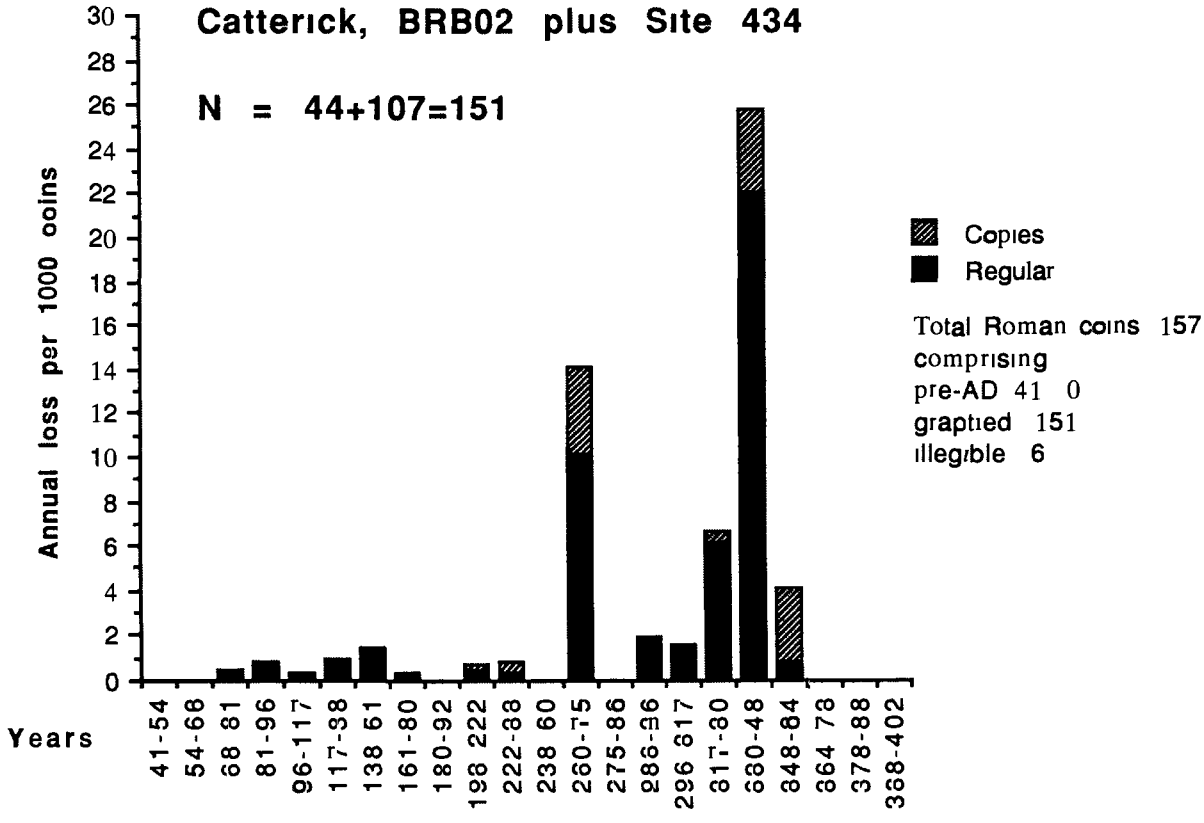

Figure 1 Bridge Road, Brompton and Site 434 Histogram showing combined annual coin loss per thousand coins

This histogram may be compared directly with, for example, the overall site list for Catterick and environs (Wilson 2000b, Fig 238, up dated in Wilson, in prep) or the combined extra mural finds prior to these excavations (Wilson, 2002b, Fig 236)

The finds at Site 434 were very heavily biased towards the late third and fourth centuries, largely because the constraints of time and resources limited the investigation of earlier occupation levels to only one of the four

excavated areas (Wilson, 2002a, 125) The Brompton Road finds demonstrate a similar overall bias, for exactly the same reasons

Coin finds from Site 434 span the period from Vespasian through to the mid-350s, and, although some of the first and second century issues show very considerable wear commensurate with much later deposition, a proportion of the early coin is relatively little worn and thus consistent with deposition relatively soon after the date of issue The pattern of the early finds from Brompton Road is, however, rather different in that all six pre Severan coins were issued between 134 and 161 (i e in the late Hadrianic and Antonine periods), and all exhibit considerable (though not excessive) wear

The reasons for the development of a defended enclosure on the north bank of the Swale are not well understood the defences may relate to presumed disturbances in Britain in the 150s or 160s or to an entirely different scenario and date (Wilson 2002a, 137) it should be observed, however, that Antonine coinage was, until now, almost entirely absent from the extra mural assemblages at Catterick (though present within the main settlement, Wilson, 2002b, 3 etc)

In the early third century there is close correspondence between the two assemblages two Severan *denarii* (one a counterfeit) as well as a *denarius* of Severus Alexander recovered from Site 434 and, at Brompton Road, a *denarius* of Septimius Severus (33AB) and a counterfeit *denarius* of Severus Alexander (148AE) 33AB is probably a regular issue, its broken edge suggesting a coherent silver alloy rather than a silver coated copper alloy, and XRF analysis suggesting a silver copper ratio of rather more than 2 1 148AE is almost certainly a counterfeit, an identification confirmed by an XRF analysis which suggests a leaded bronze with a little zinc (and virtually no silver at all)

Later issues at both sites include a reasonable number of 'Radiates' of the period following AD 260, and greater numbers of Constantinian types (at Brompton Road spanning the period from AD 316 through to c 340) Carausian com, present at other extra-mural sites, was not found at Brompton Road, but the relatively small size of the assemblage means that this absence should not be taken a statistically significant

The latest coins recovered at Site 434 were *Fel temp reparatio* copies of the AD 350s, suggesting that occupation of the area ended soon afterwards since the copper coinage of the House of Valentinian (AD 364 ff) is normally abundant on occupied sites At Brompton Road the assemblage ends still earlier coins of the 320s and early 330s (particularly Constantine II) are present in abundance, but two issues in the name of Helena (AD 337-40) are the only regular issues clearly datable to later than the death of Constantine in 337 There are, however, also three Constantinian copies (66AI, 98AA and AE) of types of the 330s these could have been produced at any time after the issue date of their prototypes, but they are normally assigned to the years c 341-46 when an apparent hiatus in supply of small change to Britain appears to have prompted wholesale copying of Constantinian types We appear, therefore, to have an assemblage that reaches into the early 340s but no further, contrasting with most other areas of Catterick and environs where coin use continues down to the end of the fourth century and perhaps beyond

3 Discussion of specific contexts

The second century coins from Brompton Road are distributed through a number of contexts (44, 52, 81, 90 and 99, 166) 52 AC, a worn *as* of Antoninus Pius, is the only coin from that context, while above it context 90/99 contained both a worn Antonine *dupondius* (90 AA) and a *sestertius* of Hadrian (W/VW, 99 AA), as well as one of the latest coins from the site (99 AH, Helena) To complicate the issue, the only coin in context 148, below both 52 and 90/99, was a counterfeit *denarius* of Severus Alexander (148 AE AD 222 28 or later) There is still some uncertainty surrounding the issue date of such counterfeits this one could be roughly contemporary with its prototype or up to two decades later (i e up to c AD 250) Worn second-century issues fractional coinage might still have been in circulation in the early third century but are unlikely to have survived much beyond the middle of the century (when large quantities of debased 'antoniniani became the norm) – which makes the achievement of a coherent relative chronology for layers 148, 52, 90/99 and 66 rather tight

Above 52 and 90/99, context 66 contained a mixture of 'radiates' and Constantinian issues, including the other coin of Helena (66 AJ) and one of the copies (66AI) Context 81, analogous to 66/7, contained another 'mixed bag' another worn Antonine *as* (81 AA) as well as a radiate (81 AC) and a coin of Constantine II, Caesar, issued in AD 321 (81 AB) The mixed numismatic content of context 66 in particular (i e the strong third century presence) appears typical of dumped material rather than a coherent occupational level of the AD 330s and 340s

The same date-range is visible in context 119, the two coins recovered from the fill of this grave being a 'radiate copy' (119 AA) and a corroded coin of AD 330-35 (119 AB) The other two contexts containing Antonine coins also contained much later issues context 44 produced a very worn Antonine *denarius* (44 AD) but also Tetrican and Constantinian issues (44 AA, AE), while context 166 yielded an extremely worn coin of Marcus Aurelius as Caesar (166 AA) and yet another Constantinian coin (166 AB)

All other com-bearing contexts contained either third- or fourth century issues, or both, but appear to present no particular stratigraphical problems

Acknowledgement

As ever, I am grateful to Jennifer Jones for Xrays and XRF analyses

APPENDIX E

THE SMALL FINDS

Lindsey Allason-Jones

Comments

As a general assemblage this material could be compared with that from any small town or village in Roman Britain and, as such, is not an unexpected result of excavations in a suburb of *Cataractonium* The most curious feature is the number of styli which were found, as these artefacts are not particularly common on sites in Roman Britain, although a considerable number have been discovered in previous excavations in the Catterick area, indeed, Hilary Cool has remarked that they 'are ubiquitous' in *Cataractonium* and she concluded that 'literacy and/or numeracy was a widespread skill, opening up the possibility of the presence of clerks or secretaries' (Wilson 2002, 36)

There is very little jewellery with a lack of brooches being particularly conspicuous, but this probably indicates that the occupants had limited cash to spend on accessories rather than evidence for the lack of women on the site There is also limited evidence for army activity as the military material, other than one iron spearhead, mostly consists of fasteners and pendants with a bias towards harness fittings, which are easily lost as individual riders pass along a road

The most interesting group is the tools, particularly the flesh hook, shears and axehead, which may suggest an agricultural element to the site The rest of the ironwork consists mostly of architectural elements There is some slag, which may indicate metalworking, but as the amount is limited it is equally possible that the slag had been included in hardcore for road repairs

Catalogue

White Metal

1 Very small finger ring of circular sectioned wire with a central panel devised by intertwining the ends into a spiral motif XRF analysis indicates that this is not silver
D 15mm, W of panel 4mm, 11AA

2 Part of a white metal buckle, pierced laterally to take an iron pin, with raised decoration of lozenges and bosses set in a channel Post medieval m date Pewter or other lead alloy
L 28mm, W 09mm, H < 5mm, 12AA

Copper Alloy

3 Small finger ring of circular section expanding to enclose a plain oval panel of degraded glass, now green but probably white or yellow originally There are no indications that this panel has had any device incised on it Cf Castleford Cool and Philo 1998, fig 18, no 162
D 19mm, W 2-8mm, 90AD

4 Fragment of circular sectioned wire with lateral grooving across outer face Incomplete ear ring of Allason Jones 1989, Type 2e
L 12mm, W 2mm, 52AB

5 Fragment of rectangular sectioned strip with incised oblique lines on one edge Distorted bracelet of Allason-Jones and Miket 1984, Type 5 Cf Catterick Wilson 2002, 49, no 60
L 66mm, W 2m, 66AU

6 Barrel shaped bead or collar
D 10-18mm, L 47mm, Th 1mm, 46AA

7 Tapered fragment with linear design on one side and smooth on the other There is no evidence of a catchplate at the back suggesting it is part of a box hasp rather than a brooch

L 31mm, W 11 21mm, H 1mm, 47AC

8 Distorted loop of circular sectioned wire with intertwined ends This is of the form of an Allason Jones 1989, Type 3 ear-ring but could equally be identified as the loop from a chatelaine
D 20 40mm, Th 2mm, 76AA

9 Narrow strip which expands in the middle, one end is rounded and curved, the other is rounded with a 2mm pierced hole Ear scoop from a chatelaine Cf Gadebridge Neal 1974, fig 62, 184
L 51mm, W 4-7mm, Th 1mm, 94AC

10 Strap end with an expanded, pointed terminal and a rectangular loop still attached through which passes a folded bronze strip, cut away at the 'hinge' One end of the strip has a short, bent spigot Cf Turret 50b on Hadrian's Wall Allason-Jones 1988, 213
Total L 82mm, L of strap end 37mm, Max W of strapend 9mm, W of loop 10mm, W of strip 9mm, 66AP

11 Rectangular strap fastener with two shanks projecting from back from end projects semi circular plate with keyhole shape cut through See Bishop 1988, fig 54
L 48mm, W 11mm, H 1 7mm, 12AA

12 Needle of circular section broken across its eye
L 125mm, W 2-3mm, 52AA

13 Rod of roughly circular section, tapering to one broken end and flattening to the break at the other end Pin?
L 81mm, W 3-5mm, 164AA

14 End of circular-sectioned pin or needle
L 71mm, D 3mm, 148AA

15 Extended hexagonal mount The curved plate has a central oval boss, hollow at the back and with a narrow transverse groove across its face Two shanks with hammered ends project from the back Female mount of 3rd century AD date from hamess, cf Bidwell 1985, 119, no 18
L 33mm, W 23mm, Total H 12mm, 27AA

16 Distorted strip of flattened u-sectioned edge sheathing
L 25mm, W 9mm, 67AE

17 Distorted rectangular plate pierced by a square rivet hole (6 x 6mm) and with one end folded over The opposite edge has a bronze strip folded over it, held by semi circular rivet Possibly a lock plate
L 62mm, W 45mm, 90AC

18 Strip folded into a mount of hollow triangular section to enclose leather The face is convex with a deep median groove
L 21mm, W 18mm, Max Total Th Smm, 108AA

19 Curled, thin fragment of wire
L 15mm, W 1mm, 66AF

20, Narrow, curved strip pierced by a 2mm diameter circular hole
L 30mm, W 4mm, Th 1mm, 124AA

21 Distorted sheet
L 30mm, W 27mm, Th 1mm, 90AF

22 Triangular off-cut
L 19mm, W 4mm, 28AL

23 Thin, rectangular strip
L 30mm, W 11mm, 99AI

24 Two fragments of thin sheet

L 13mm, W 24mm, H 3mm, L 22mm, W 18mm, H 2mm, 166AD

25 Fragment of sheet, curved in section
L 25mm, W 9mm, Th 1mm, 67AE

26 Fragment of fine sheet
L 7mm, W 10mm, 26AA

27 Two fragments of rod
L 16mm, W 5mm, L 13mm,W 6mm, 83AC

28 Circular button with loop scar on the back 19th / 20th century
D 27mm, H 1-5mm, 02AD

29 Disced strap fitting with a narrow raised rim In the centre there is a prominent dimpled boss A flat, rectangular-sectioned loop extends across the back Cf Catterick Wilson 2002, 64, no 208
D 31mm, Total H 14mm, L of strap 22mm, W of strap 4mm, 94AA

30 Hollow domed stud with central shank
D 35mm, H 16mm, 176AB

31 Stud with counter sunk circular head with a concentric groove and short angled shank
D 11mm, H 5mm, 28AA

32 Fragment of bronze washer
L 22mm, W 7mm, Th 2mm, 44AC

33 Thick, oval collar flattened on one side
D 11mm, H 7mm, Th 1mm, 36AG

34 Penannular collar of semi-circular section
Int D 17mm, W 2mm, Th 2mm, 101AB

Rings
35 Fragment of a circular-sectioned ring
Int D 13mm, Th 2mm, 148 AC

36 Small, undecorated annular ring of oval section
Int D 14mm, Th 3mm, 184AA

37 Small, undecorated annular ring of circular section
Int D 14mm, Th 3mm, 94AB

38 Fragment of rectangular plate broken across central hole (D 7mm) with rivet hole (D 2mm)
47AG

Copper alloy waste
52AF
104AC
156AB

Lead Alloy
39 Globular steelyard weight with central rectangular hole where the iron loop has been
L 31mm, D of hole 2 7mm, 2AK

40 Irregular lead cake with thin rectangular strip sunk into copper alloy on one face
L 136mm, W 96mm, H 12mm, 95AC

41 Rough lead edging/infill Probably structural
L 212mm, Max W 19mm, Max Th 12mm, 149AA

42 Dribble
L 49mm, W 12mm, Max H 10mm, 40 AA

43 Rod of rectangular section curving to a hook
L 48mm, W 9, 90AJ

Iron
44 Three fragments of a socketed spearhead Manning 1985, Group III, 166, suggested as being from a cavalry lance
Total 186mm, 166AC

45 Circular sectioned rod with a double hooked end Flesh hook? See Manning 1985, 105, Type 1 See also Catterick Wilson 2002, 90, no 115, 101, no 30
L 216mm, Th 7mm, 45AA

46 One blade of a pair of spring shears with a straight cutting edge and a slightly curved back which expands to the U shaped 'hinge' Manning 1985, 34, Type 2
L 236mm, Max W of handle 32mm, 128AB

47 Very corroded wedge-shaped block Rock wedge or hammer blade broken at the socket
L 40mm, W at break 25mm, W of blade edge 37mm, 67AI

48 Axehead with a rectangular head tapering to a short butt The circular sectioned solid shank is short, as if designed to be set into a shaft
L of blade 136mm, W of cutting edge 41mm, D of shank 13mm, 42AA

49 Knife with a straight back line and a curved cutting edge The tapering, circular sectioned tang emerges from the back line and still retains some mineralised wood Manning 1985, Type 12a
Total L 160mm, L of blade 110mm, Depth of blade 41mm, 47AB

50 Very small knife with a curved cutting edge and a straight back line slightly tilted at the tip The rectangular-sectioned shank emerges in a straight line from the back Manning 1985, Type 12a
Total L 65mm, L of blade 41mm, Depth of blade 16mm, 82AA

51 Knife with a straight cutting edge and a slightly curved back line The rectangular sectioned tang emerges from the back line Manning 1985, Type 13
Total L 140mm, L of blade 105mm, Depth of blade22mm, 93AC

52 Fragment of a knife blade with a straight back and a curved cutting edge The tang has been set lower than the back line Manning 1985, Type 15
Surv Total L 70mm, Depth of blade 22mm, 36AB

53 Knife blade with a straight back line rising to meet the curved cutting edge at the tip
L of blade 110m, Depth of blade 35mm, 28AB

54 Strip tapering to a hooked tang, possibly a knife fragment, although neither edge has been obviously sharpened
Total L 107mm, L of blade 78mm, D of blade 18mm, 148AD

55 Triangular strip, possibly the tip of a knife blade
L 24mm, Depth 18mm, 76AC

56 Strip with one curved edge and one straight edge, possibly fragment of knife blade although neither edge has been obviously sharpened
L 60mm, Depth 20mm, 26AF

57 Strip with one straight edge and one curved edge, possibly a fragment of a knife blade X-ray suggests possible plating
L 63mm, Depth 23mm, 67AJ

58 Narrow rectangular strip which contracts to a tang, possibly a knife blade
L 88mm, Depth of blade 13mm, 81AD

59 Thick, rectangular strip which contracts to a tang, possibly a knife fragment
L 84mm, W 15mm, 33AC

60 Strip tapering to a tang but with no blade edge
L 83mm, W 20mm, 83AA

61 Curved rectangular plate with a vestigial shank, possibly a small shovel Cf Manning 1976, no 149
Surv Total L 85mm, W 60mm, 52AD

62 Stylus with a semi circular eraser and circular sectioned shank There is a 10mm band of ribbing acting as a collar for the point X-ray suggests possible plating Manning 1985, Type 4, cf Wallsend Manning 1976, No 114
L 107mm, Th 4mm, W of eraser 9mm, 44AG

63 Stylus with a semi circular eraser and a circular sectioned shank There is a 9mm band of incised decoration acting as a collar for the point X ray suggests possible plating Manning 1985, Type 4
L 102mm, Th 2mm, W of eraser 7mm, 128AA

64 Stylus of circular sectioned with a shouldered eraser The point has a simple collar X-ray suggests possible plating Manning 1985, Type 4
L 112mm, Th 3mm, W of eraser 15mm, 99AD

65 Incomplete stylus of circular section with a 12mm band of ribbing acting as collar for the point
Surv L 60mm, W 6mm, 104

66 Coil of iron strip ending in a marked point These objects are traditionally identified as ox goads (Rees 1979, Type 1, 75, fig 73a) but recent work at Vindolanda has suggested that they may have been used as pen nibs (Birley 2000, 35, fig 26) This particular artefact has a very blunt point, and seems always to have done so, suggesting the former suggestion is more valid, however, the discovery of several styli on the site indicates that the later identification should not be discounted On the other hand, similar artefacts found in medieval contexts have been idenufied as candle holders Egan 1998, 142
D 13mm, Total L 33mm, 52AJ

67 Drop handle of rectangular section tapering to circular section at the broken terminals This may have come from a helmet of Imperial Gallic or auxiliary cavalry type (Robinson 1975, 48, fig 76-8, 92, fig 117-9) but could equally come from furniture
W across terminals 84mm, W 5mm, Th 4mm, 166AE

68 Oval-sectioned rod bent to form a semicircle, broken at both ends Handle?
L 65mm, W 5mm, T 6mm, 150AA

69 Three fragments of a door or box hinge The first element is a tapering strip with a curled end, the other end forming a broken, distorted loop The second part is a similar strip with one curved end and one pierced by a 4mm circular rivet hole The final piece is a short loop
L 145mm, 94mm, 33mm, W 18mm, 15mm, 24mm, Th 14mm, 4mm, 6mm, 45AD

70 Part of a large horseshoe with three 6x3mm rectangular nail holes, one still with its nail in situ The x-ray shows the holes are countersunk in a groove There is still some debate as to whether horsehoes of this type are of Roman date For a summing up of the argument and references to the debate, see Manning 1976, 31-2
L 120mm, W 22mm, Th 6mm, 2AM

71 Length of circular sectioned wire coiled to form a flat, spiral terminal
D of spiral 16mm, Total L 40mm, 98AD

72 Solid cone, possibly a terminal
L 45mm, D 15mm, 90AB

73 Lozenge-shaped plate with a short flat shank pieced at its rounded end by an oval (10x7mm) hole This is not a spearhead but was probably used as a decorative terminal
L 75mm, Original Max W 40mm, 33AA

74 Joiner's dog of rectangular section with two tapering arms Cf Manning 1985, R52 and R53
L 95mm L of arms 35mm, Th 7mm 81AF

75 Joiner's dog of rectangular section with two tapering arms, as above
L 95mm, L of arm 35mm, Th 9mm, 81AF

There were numerous fragments of unidentified iron objects and several hobnails A full list of these is to be found within the site archive

Nails
A large number of nails were discovered, mostly of a size that suggests use with timber rather than masonry The majority have the usual disc heads although an appreciable number have square heads, this may be the result of rough workmanship or corrosion A few nails are bent, implying that they have been deliberately removed but the majority are straight suggesting that they had fallen from rotting timbers

A full catalogue of the nails is included within the site archive

APPENDIX F

The Glass

H E M Cool

The vessel glass

During the excavations, 54 fragments of Roman vessel glass were recovered Where dateable, the majority of the assemblage may be attributed to the 2nd century with a few fragments from the early to mid part of the 3rd century There is no material that must belong to the 1st century, and no later 3rd or 4th century glass The glass is summarised by colour and phase in Table 1

Phase	*Yellow/green*	*'Black*	*Colourless*	*Blue/green*	*Bottle*	*Total*
6	-		-	1	1	4
7		1	-	9	4	14
8	1	-	2	4	10	17
9			3	6	6	15
10	-		1		2	3
11	1			-	2	3
Total	2	1	6	20	25	54

Table 1 Roman vessel glass from Bridge Road Brompton

The tablewares of the early to mid 2nd century consist of the handle fragments of two conical or globular jugs (nos 1 and 13 – Price and Cottam 1998, 150 57), and fragments from probably two different colourless wheel-cut beakers (nos 4-5 – Price and Cottam 1998, 88-9) Both forms were in use in the later 1st century, the jugs earlier than the beakers, but the beakers are especially typical of the 2nd century There is one example of a colourless cylindrical cup (no 6), the dominant drinking vessel of the later 2nd to earlier 3rd century (Price and Cottam 1998, 99-101), and one fragment (no 7) which is most likely to come from a hemispherical cup with pulled up decoration These are typical of the mid 3rd century (Cool forthcoming) One unusual item of tableware is the blue/green cylindrical cup (no 10) It is very large and has a very pronounced thickening to the outer rim, but probably came from the same type of vessel as no 6 Blue/green examples of the form are much less common than colourless ones but have been found before at Catterick (Wilson 2002ii, 225 nos 52 3, 257 no 4)

Generally containers tend to be long lived functional forms, but here one of the vessels recovered can be assigned to the period when most of the tablewares were in use It is the small bath flask no 11 Bath-flasks are a long-lived form in use from the mid 1st century to well into the 3rd century (Price and Cottam 1998, 188-200), but delicate, small examples such as this did not come into use until the 2nd century (Allen in Zienkiewicz 1986, 104) The dominant container form is the blue/green bottle (nos 23-45) The majority of the fragments (nos 26 45) probably come from square bottles which were in use from the later 1st to mid 3rd century (Price and Cottam 1998, 194-8 with revised dating into the 3rd century in Cool forthcoming) there is also one shoulder fragment that may be from a cylindrical bottle (no 25) which would date it to the later 1st to early 2nd century (Price and Cotiam 1998, 191-4)

All of the material discussed so far consists of common forms that have frequently been found at Catterick before (see Wilson 2002ii, 212 58) The small rim fragment no 3 is much more unusual It is clearly from an open form, but precisely what that is, is unknown What makes it unusual is that it is made of very dark glass which appears black One of the periods when this very rare colour was in use was the later 2nd to 3rd century (Cool and Price 1995, 103) The piece was found in a pit fill assigned to Phase 7 which would be consistent with this typological date

If any vessel glass was recovered from the earlier excavations on the Cadbury Schweppes site, nothing is known of it A small assemblage was recovered from the 1972 excavations to the south (Price and Cool in Wilson 2002ii, Table 111, 233 6), and this glass has both a date and functional profile very similar to that material As is to be expected, the mix of tablewares and containers, as far as can be judged from these small assemblages, is

typical of 2nd to 3rd century urban assemblages Currently as can be seen in Table 1, two thirds of the fragments come from contexts that post-date this period, and must either be residual or possibly hint that some features should be dated earlier Of particular interest is the glass from the fill of Pit 96, currently assigned to Phase 9 (late 4th century) It consists of the cups nos 6 and 7, the neck fragment no 15 and the bottle rim no 23 Nos 6 and 7 would have been in contemporary use during the first half of the 3rd century, and the other two forms could have contemporary It is an unusual little group to recover from a later 4th century pit

Catalogue

Yellow / Green

1 Jug, handle fragment Angular ribbon handle with central rib Present length 37mm, handle section 29 x 5 5mm EVE 0 14 (28) AG Phase 11 (DRAW)

2 Body Fragment (66) AV Phase 8

'Black'

3 Cup, beaker, bowl or jar, rim fragment Slightly curved, out bent rim with fire rounded rim edge Dimensions 12 x 10mm, wall thickness 1mm (82) AE Phase 7

Colourless

4 Beaker, rim and body fragment Out bent, slightly curved rim, edge cracked off and ground, straight side Rim diameter c 60mm wall thickness 1 5mm, present height 11mm EVE 0 2 (67) AL Phase 8

5 Beaker, lower body and base fragment Slightly convex-curved lower body sloping into solid pushed in base ring, small part of high domed base Base diameter 38mm, wall thickness 2 5mm, present height 12mm EVE 0 2 (166) AI Phase 10 (DRAW)

6 Cylindrical cup, rim fragment Vertical rim with fire thickened rim, straight side Wall thickness 1 5mm, present height 18mm EVE 0 2 (97) AA Phase 9

7 Hemispherical cup(?), lower body and base fragment Pale green tinged colourless side curving into slightly concave base, parts of two tooled-up vertical ribs Wall thickness 2mm, present height 16mm EVE 0 4 (104) AE Phase 9 (DRAW)

8-9 Two undecorated body fragments (67) AK Phase 8, (104) AF Phase 9

Blue/green

10 Cylindrical cup, rim and joining body fragment Vertical rim with fire thickened rim with pronounced thickening on exterior, straight side Rim diameter 105mm, wall thickness 1 5mm present height 42mm EVE 0 4 (81) AH Phase 8 (DRAW)

11 Bath flask, rim and handle fragment Complete rim bent out, up, in and flattened, cylindrical neck, one complete handle attached to (missing) shoulder, trailed up neck, looped over to attachment, then trailed back up itself to rim edge, second handle represented by trail atiached to neck and underside of rim Rim diameter 22mm, present height I5mm EVE 0 5 (44) AH Phase 9 (DRAW)

12 Flask, shoulder fragment Base of neck with tooling marks, convex curved side Dimensions 25 x 18mm , wall thickness 2mm (EVE 0 2) (67) AA Phase 8

13 Jug, handle fragment Ribbon handle with central rib Present length 22mm, handle section 25 x 4 5mm EVE 0 14 (148) AF Phase 6

14 Jug or bottle Cylindrical neck fragment Present length 20mm (25) AA Phase 4

15 Flask, jug or botile Cylindrical neck fragment Present length 10mm (93) AF Phase 9

16 Bowl or jug, base fragment Tubular pushed in base ring, side mostly missing, slightly concave base Base diameter 80mm (28) AH Phase 7 Also one similar fragment, possibly from the same vessel (99) AO Phase 9

17 Body fragments (3) Convex curved with parts of wide optic blown ribs Also 3 unribbed body fragments Dimensions (largest ribbed fragment) 26 x 21mm, wall thickness 1 5mm (103) AC Phase 7

18-22 Five blue/green body fragments (26) AM Phase 7, (35) AA Phase 9, (82) AF Phase 8, (101) AD Phase 7, (145) AC Phase 9

23 Bottle, rim fragment Rim bent out, up, in and flattened, small part of cylindrical neck Rim diameter 70mm EVE 0 14 (93) AD Phase 9

24 Bottle, rim fragment Rim bent out, up, m and flattened Rim diameter c 70 80mm EVE 0 14 (45) AH Phase 8

25 Cylindrical bottle Shoulder fragment (28) AF Phase 11

26 Square bottle Shoulder and side fragment broken at edge of neck EVE 0 14 (36) AN Phase 8

27 Square bottle Two shoulder and side fragments (45) AE Phase 8, (90) AG Phase 8

28 Prismatic bottle, 2 joining shoulder fragments (99) AN Phase 8

29 Square bottle Comer fragment from side and base Present height 16mm EVE 0 14 (166) AK Phase 10

30-31 Square bottle, 2 body fragments (29) AE Phase 8, (33) AE Phase 9

32-45 Prismatic bottle 14 body fragments (28) AI Phase 11, (29) AF Phase 9, (36) AO Phase 8, (52) AL Phase 7, (52) AM Phase 7, (67) AM Phase 8, (83) AB (2 joining fragments, jig saw fracture) Phase 8, (97) AB Phase 9, (114) AA (jig-saw fracture) Phase 7, (125) AA Phase 6, (148) AG Phase 7, (150) AE Phase 10, (166) AJ Phase 9, (192) AB (jig-saw fracture) Phase 9

46 Blue/green chip (122) AC Phase 7

The Roman glass and frit personal ornaments

The melon bead (no 1) is an example of a very common 1st to mid 2nd century object, 15, for example, have previously been recorded from Catterick (Wilson 2002ii, 259, 261), Most long cylindrical blue beads such as no 2 come from late Roman contexts (Guido 1978, 94), but a group are known from mid 2nd century contexts at Castleford (Cool and Price in Cool and Philo 1998, 181) Given the volume of 2nd and 3rd century material in the vessel glass assemblage, and the absence of late Roman vessels, it might be suspected that this bead is another early example of the type

A small fragment of a glass bangle was also recovered The unmarvered white trail is not parallel to the edge and so the likelihood is that the trails were applied in a pot hook pattern This would make it an example of a Kilbride Jones (1938) Type 3F This is a northern British type, probably in use during the later 1st and 2nd centuries (Price 1988, 351) This is the second example to have been found from Catterick, the other having been found at the Bypass site (Cool and Price in Wilson 2002ii, 242 no 1)

Catalogue

1 Bead, melon, frit retaining turquoise glaze in base of gadroons, perforation edges worn Length 18mm, diameter 26 x 24mm, perforation diameter 13mm (182) AA Phase 5

2 Bead, long cylindrical, translucent dark blue glass Length 18mm, diameter 4mm, perforation diameter 1 5mm (90) AE Phase 8

3 Bangle, D-section, blue/green with unmarvered opaque white trail on one side Section 10 x 6mm, length 15mm (93) AH Phase 9

The Roman window glass

Fragments from two window panes made of matt/glossy cast glass were recovered This was the type in common use during the 1st to 3rd centuries At Catterick similar fragments of window glass have been found on many sites, both inside and outside the defended area, with the greatest concentrations naturally being at the bath-house site (Wilson 2002ii, 236-41, 249 no 39, 258) The implication would be that glazed windows were not at all uncommon in and around the town

Catalogue

(11) AN (4cm^2, Blue/green, 2 fragments) Phase 7
(36) AA (6cm^2, Light green with rounded edge) Phase 8

APPENDIX G

THE BRICK AND TILE

John Tibbles and Sophie Tibbles

Summary

Although within close proximity to Cataractonium, a potential source of ceramic building material, the Brompton assemblage is noticeable small However, the assemblage represents a diverse range of brick and tile that would have been used in various aspects of Romano British building construction and reflects the presence of an 'affluent/high status' building or buildings within the vicinity of the excavation The presence of bricks and flue tiles associated with the construction of hypocausts indicates that at least one building contained underfloor heating Other possible indicators of affluence are evident in the form of decorative slips

The variety of flange types, dimensions and fabrics exhibited is indicative of material originated in a number of structures, although there was no direct evidence to suggest that such structures lay within the area of excavation 8% of the assemblage displayed evidence of heat exposure and/or post breakage burning, and while this could be evidence of re use, it is as likely to be the result of demolition destruction

Despite a paucity of complete tiles and the abraded appearance of some of the material, there are sufficient joins within the assemblage to suggest that the majority of the material was complete or near complete at the time of deposition Few fragments had mortar adhering

Although the presence of this material may be attributed to repair/maintenance as opposed to construction with this material, the roof tile may have originally been used for roofing at least one building It was considered rare for builders to roof in tile by the 4th century and tiles were often re used, for example at Cirencester (McWhirr and Viner 1978, 371) The paucity of quantity may be attributed to re use elsewhere as ceramic building material was a salvageable and valuable commodity

The potential of the assemblage is limited Although it can be suggested that the material may have been imported into the area, the source of manufacture cannot be ascertained Further analysis (see recommendations) would contribute significant data pertaining to this query It is hoped that future work on establishing the sources of the various fabrics and forms

Introduction and methodology

The assemblage of Romano-British ceramic building material was quantified by count and weight and examined using a low powered binocular microscope (x 15) A Munsell colour code has been incorporated where appropriate and the presence of original has also been taken into consideration to aid identification

Information regarding the dimensions, shape and fabric of the material was recorded and catalogued accordingly and where possible, compared with existing typologies

It should be noted that the diversity of size and colour within the brick and tile caused during the manufacturing process must be taken into consideration when comparing examples within collected assemblages and typologies The varying sizes and colours can be attributed to that variation in the clays used, shrinkage during drying, firing within the kiln or clamp and the location of the brick/tile within the kiln

The dating of brick and tile can be highly contentious due to its re usable nature and therefore the date range given is that of known dates where material has been recorded

The following building material forms were present

Roof tiles *Tegidae* had flanges along their sides, set uppermost, with *imbrices* covering two adjoining flanges All *tegulae* had cut-away sections at the top and bottom of the flange to allow them to slot over each other Cut-aways were formed by the removal of a section of the flange (upper cut away) and a section of the underside of the tile (lower cut away) with a knife or finger/thumb, prior to firing Ridge tiles were used on the apex of the roof (Brodribb 1987, 27)

Bricks *Bessales* were the smallest of the Roman bricks, with an average dimension of 198mm square, equivalent to 8 Roman inches (*ibid* 34), they were mainly used to construct hypocaust pillars (*pilae*), but they were used in other aspects of building construction such as archways and flooring *Pedales* – used mostly used for the base or capping of the *pilae* – were around 297mm square, conforming to one square Roman foot (*ibid*, 36)

Flue ules *Tubuli* were square pipes that carried hot air from the hypocaust through cavity walls Diagnostic elements include combing, the keying element for the adhesion of plaster or mortar, and lateral vents, finished by knife trimming and/or finger smoothing

Tubili lingulati (pipe)? Earthenware pipes (*tubi fictiles*) were used of convey water and served a variety of functions within bath-houses, downfall pipes and for roadways to act as drainage (*ibid*, 84)

The assemblage

An assemblage of 811 fragments of brick and tile was recovered from forty contexts, with a total weight of 43 950kg and a fabric colour range of Red (10R/5/6) to Yellowish Brown (10YR/5/6) The majority displayed moulding sand and/or moulding/finger impressions from their method of manufacture

The assemblage included one hundred and forty eight fragments unidentifiable by form however, they were of Romano British fabrics

Fabric Types

Six broad fabric types and three sub-types were identified, as it was appropriate to sub-divide the fabric groups to reflect slight but significant variations within their composition The sources of the fabrics are difficult to determine without scientific analysis, however, it is likely that at least some of the fabrics may have come from kilns at York or some other kiln as yet not known (Betts 1990, 165)

It is worthy of note that fabric 4a is possibly comparable to fabric TF1b identified within the assemblage of Romano British ceramic building material recovered from the Roman town of *Caractonium* (R M J Isserlin 2002) It should be noted that this comparison is based on the published descriptive text only It is recommended that fabric analysis of the Brompton fabrics is undertaken to confirm

The fabrics are listed in Appendix 1 Distribution of fabrics by form is summarised in Appendix 2

Forms

Tegulae

Eighty-two fragments were recovered twenty-two of which bore means of attachment in the form of flanges, nail holes and/or cutaways A minimum of seven individual tiles were ascertained The predominant fabric was Fabric 4 They ranged in thickness from 15mm to 33mm Four different flange types were recorded, most with the usual rounded and square profiles as seen in other assemblages (Tibbles and Tibbles 2003, Tibbles forthcoming (a) (b)) The predominant flange type was Type 6 (mostly of Fabric 2/2a), although 11% of the flanged fragments could not be assigned to type due to damage in antiquity

The flanges had a range of widths and heights – 20mm to 30mm and 45mm to 57mm, respectively – and were finished by finger smoothing and/or knife trimming (blade 'scars' were evident on a number of fragments) Both knife-trimmed and finger smoothed upper or lower cut aways were noted on eight fragments Two types of lower cut-aways were identified – Type 1 and Type 5 (Brodribb 1987, fig 7) – with Type 5 (mainly of Fabric 1 and 3/3a) being predominant Nail holes were evident on two *tegulae* of Fabric 4/4a, circular in form with diameters of 9mm and 13mm Tiles secured by nails are likely to have been used for the lower tile courses above the eaves (Betts 1990, 166)

Some *tegulae* displayed knife trimming in part or along the edges/underside resulting in a very smooth finish, this removal of excess clay was carried out while the tile was at the 'green' stage of manufacture, prior to firing The assemblage also included four fragments with fabric discolouration associated with lower quality 'seconds'

Four *tegulae* fragments bore the remnants of semi circular signatures made up of one to four concentric finger strokes Although Brodribb suggests that this type of signature is common (1979, 215) these are the only examples within the assemblage

Only one fragment bore evidence of mortar, White (5Y/8/1)

Imbrices

Sixty-four fragments were recovered Fabrics 1 (27%) and 4 (27%) were predominate with abraded surfaces, Fabric 5 was not represented Though no complete *imbrices* were recovered, there were enough joining fragments evident to infer that the tiles were complete/near complete prior to deposition

The thickness of the *imbrices* ranged from 14mm to 22mm and the majority (78%) were oxidised The remaining fragments (14) were almost entirely reduced Five *imbrices* bore evidence of possible ?slips Two fragments (of Fabric 6) bore remnants of a Pale Yellow ?slip (2 5Y/8/2) and three (of Fabric 4) a Pale White ?slip (2 5Y/8/1) The use of coloured washes or slips on roof tiles has been noted within assemblages from Piddington, Towcaster and Peterborough (Brodribb 1987, 137) and Catton (Tibbles Forthcoming (a) and may have been used as a form of decoration

One fragment displayed four incised 'zig-zag' lines on the external surface, scored pre-firing The 'V' profile of the grooves was of similar ilk to the scoring on the box flue tiles, which suggests they were possibly made with a tine of a comb The remainder of the original surface in between the lines was smooth and no mortar was evident within the grooves to suggest a keying element

According to Brodribb (1987, 24) decorated *imbrices* are rare, however at Piddington, several decorated *imbrices* were noted (Ward 1999, 21) to which the Brompton example had comparable characteristics (*ibid* fig 9, cat no 22) Though the possibility of graffiti is not discounted, it is likely that the incised lines represent a form of decoration

Ridge?

One fragment within the assemblage was tentatively identified as ridge tile, from phase 11 context [28] Of fabric 4, the fragment had a thickness of 30mm, significantly thicker than the *imbrices* within the assemblage Ridge ules were noted within assemblages at Littlecote, Alcester, Sparsholt and Newport (Brodribb 1987, 27)

Bricks

Four hundred and ninety fragments of brick – *bessales* and *pedales* were recovered Although numerically, this material category was the largest, a minimum of twenty two individual bricks were identified

The complete dimensions of three *pedales* were recorded Of the remainder of the assemblage, only the complete thickness was recorded Fabrics 3a and 5 were not represented, Fabric 2 was the most predominant One pedalis fragment (of Fabric 2a) bore evidence of a Pale Yellow ?slip (2 5YR/8/2) similar to that seen on five *imbrices* (see above) suggesting that these fragments originally came from a common source

Bessales – The assemblage comprised sixteen fragments with a weight of 4 024kg All were non diagnostic with a thickness range of 30mm to 50mm Pre-depositional burning was evident on three fragments, probably from original use Post breakage burning was noted on four fragments Knife-trimmed edges and smoothed surfaces were evident

Pedales – The assemblage comprised four hundred and seventy four fragments with a weight of 22 610kg

Six non-diagnostic fragments were recorded and ranged in thickness from 54mm to 60mm As with the *bessales*, knife-trimmed edges and smoothed surfaces were noted

Though Brodribb states that complete *pedales* area a rare occurrence (1987, 36), two complete and one near complete examples were recovered from context [51], recorded as AA, AB and AC respectively, which represented the diagnostic elements of the *pedalis* assemblage, four hundred and sixty eight fragments

The complete dimensions of, 305mm square x 65mm thickness, 295 300mm square x 65mm thickness and 295mm square x 60mm thickness were recorded The majority of the breaks were 'fresh' and crisp suggesting breakage in antiquity, it is therefore likely that the bricks were complete upon deposition The paucity of other ceramic building materials from context [51] suggests that the bricks were possibly used for patches of repair within the pebble and tile floor surface

Tubili lingulati (pipe)?

One fragment of ceramic building material recovered from Phase 8, context [67], soil over [66] soil & cobble dump over buildings 1(A & B) The fragment had a smooth internal surface, with some degree of curvature The fragment was tentatively identified as a possible pipe, *Tubili lingulati* A 'flared' indentation was also evident on the internal surface that suggested the interlocking system in conjunction with the next pipe

Box Flue Tile (*Tubuli*)

Twenty six fragments, with a total weight of 1 120kg ere recovered The thickness of the tiles ranged from 10mm to 25mm Eight of the nine fabric groups were represented, Fabric 4 predominated Twenty two fragments displayed lateral vents, combing and/or remnants of the returning edges The heights of two vents, >70mm and 90mm and one vent width 26mm was recorded

Combing was evident on fourteen fragments The number of tines per comb ranged from ?1 to 7 The use of a ?single tine was noted on two fragments and may represent the possible re use of a broken comb Single tine combing was evident at Hollow Banks, Scorton (Tibbles and Tibbles 2001, 10)

Although the tiles were incomplete, two patterns could tentatively be identified one vertical with one horizontal 'uncrossed , and two diagonal strokes to form an 'X' Burning through use was evident on the inner surfaces of the majority of the tiles Pinkish White mortar (5YR/8/2) was noted within the tine grooves on one fragment

Unidentifiable

One hundred and forty-seven fragments were recovered, with a weight of 3 187kg Of the assemblage, 86% were unidentifiable by form, though 8% were possibly bricks? and 6% tiles? Fabric 2 was predominating

Discussion

For the purpose of this discussion, the diagnostic *pedales* are considered as three individual bricks rather than the numerous fragments recovered The totals discussed equals three hundred and forty six fragments

There was no ceramic building material identified prior to the primary structural Phase 7 However, the presence of a single fragment of box flue tile within the construction fabric of the corn drier 126 may be associated with the long term residual pottery of 1st 2nd century date also recorded within the construction fabric This tends to suggest the possibility of earlier buildings existing in the vicinity prior to this phase

The cobbled surface 51/100 associated with Building B within Phase 7 contained substantial amounts of fragmented brick (*pedalis*) within its construction There is evidence to suggest that the bricks had been brought to the cobbled surface as complete or near complete bricks and only then fragmented At least three complete or near complete *pedales* were reconstructed from this assemblage It is interesting to note that the *pedales* sizes (295mm x 295mm x 60mm, 295-300mm x 295mm 68mm, 305mm x 305mm x 65mm) are of a slightly larger form then the examples recorded as *pila* at Catterick Bypass [site 433] and Thornbrough Farm [Site 452] (Isserlin 2002) The subsequent repairs (52) and levelling work to the cobble surface had utilised the thinner and less substantial *imbrices* and box flue tile as repair material The use of such material suggests that a hypercaust in the vicinity had been systematically robbed of its ceramic building material over a period of years After the more substantial pieces of building material such as *pedales* and *Bessales* had been robbed and re-used m the construction of the cobbled surface and other structures/surfaces, only the less substantial pieces now remained for re use

The latest layer 90/99 within the phase 8 building B contained fragments of both *pedales* and *tegulae*, the latter being more prominent and displaying post-breakage burning Although the presence of *tegulae* was evident, the absence of *imbrices* and the extremely small assemblage of material suggest a more casual deposition and dumping of material rather than residual roof collapse The subsequent dumps of material sealing buildings A and B (66,67) contained the largest assemblage of ceramic building material that included *tegulae, imbrices, pedales, bessales* and box flue tile This variety of cbm and fabrics suggest that continual dumping of material from several sources had taken place, perhaps the clearance of demolition material prior to new building However, it should be noted that only a small proportion of the material displays post-breakage burning The assemblage included at least one poorly made box flue tile fragment, possibly suggesting that repairs were cheaper than manufacturing new tiles, and a possible fragment of water pipe (*Tubili lingulati*)

The few fragments of ceramic building material recovered from the Phase 9 burials 151, 145 were of a residual nature, whilst the fragments from within the cobble surface 16/27 are probably the results of robbed material

incorporated within the surface The building material recovered from within the cleaning assemblages over the cobble surface was predominantly box flue tile, the majority of which was heavily abraded, possibly the result of its incorporation within the cobbled surface rather than casual deposition A single intrusive fragment of pantile was noted within the assemblage

The later cleaning material assemblage 35/38 from material over building F was exceptionally small and consisted of *tegulae* and *bessales* fragments, the latter displaying post-breakage burning The large late pit (96) contained a varied selection of ceramic building materials that included *tegulae, imbrices, pedales* and *bessales,* many displaying post breakage burning, suggesting deliberate infilling or consolidation with demolition material By Phase 10 and 11 the assemblages have become much more abraded and weathered indicating the long time residually of the material

Recommendations

Prior to further publication work, thin section analysis of the Brompton fabrics should be undertaken by Alan Vince

A selective discard policy should be implemented prior to deposition within the appropriate museum

Catalogue of Building Material Recommended for Illustration

Tegulae

1 Fabric 4a Nail Hole 13mm Diameter Thickness 22mm Context [2] Unstratified

2 Fabric 3 Signature, single semi-circular curve made up of three finger strokes Flange type 6, finger smoothed Knife trimmed lower cut away Reduced core Thickness 22mm Context [2] Unstratified

3 Fabric 1 Signature, single semi-circular curve made up of one finger strokes Thickness 19mm Context [67] Soil over [66] soil & cobble dump over buildings (A & B) Phase 8

4 Fabric 6 Signature, remnants of a single curve made up of two finger strokes Thickness 18mm Context [93] Upper fill of pit [96] Phase 9

5 Fabric 4 Signature, single semi-circular curve made up of four finger strokes Thickness 23mm Context [94] Fill of pit [96] above [95] Phase 9

Imbrex

6 Fabric 3a One diagnostic fragment ?Four incised zig zag lines Thickness 15mm Context [67] Soil over [66] soil & cobble dump over buildings (A & B) Phase 8

Ridge? Tile

7 Fabric 1 Thickness 30mm Context [28] Cleaning over [16=27] Phase 11

Tubuli Angulati

8 Fabric 5 One fragment with smooth internal and external surfaces Internal surface displays a 'flared' indentation Thickness 22mm Context [67] Soil over [66] soil & cobble dump over buildings (A & B) Phase 8

Appendix Catterick tile fabrics

R M J Isserlin

This covers all fabrics referred to apart from Site 46 material (described by Evans, Chapter 12 2 1 in Wilson 2002) or items mentioned in *RIB* (not accessible when this text was written) Three basic fabrics have been distinguished with the naked eye (TF1–3, variants distinguished as a, b, c) Any statement of quantity or of which forms occur in which particular fabrics is misleading given the quantities involved As variations Masquerading as individual fabrics may sometimes be concealed within a single brick, assignation must be regarded as rather tentative

Sandy Fabric TF1

Fabric TF1 Very hard, sandy, reddish yellow (5YR 6/8) throughout Sparse quartzite (0 3–1 5mm), grog (3 0mm) and limestone (1mm) Site 433 Possibly a York sandy fabric

Fabric TF1a Very hard, sandy reddish yellow (5YR 6/8) throughout Sparse quartzite, some sign of grass tempering Crisp fracture Site 433 Possibly a York sandy fabric

Fabric TF1b Medium hard grey (5YR 5/1) at core to reddish yellow (5YR 6/8) at exterior surface Smooth feel, crisp fracture Sparse grog (under 3mm) Sites 433, 425 Site 482(?) Possibly a York sandy fabric

Fabric TF1c Soft sandy reddish yellow (5YR 7/6) throughout Common grog (0 5–4mm), sparse quartzite (0 3mm) Possibly a York sandy fabric Site 433

Calcite Fabrics TF2 and TF3

Fabric TF2 Hard, sandy, reddish yellow (7 5YR 6/8) throughout Sparse white mica (0 3mm), sparse calcite (1–1 5mm) Site 425 Site 482

Fabric TF2a Soft reddish yellow (5YR 6/6) throughout Sparse grog (0 5–5mm) and very sparse mica (under 0 3mm) White streaks of calcareous clay Site 425 Site 482

Fabric TF3 Hard reddish yellow (7 5YR 7/6) at exterior surface to grey (5YR 7/1) at core Common calcite (0 5–1mm) and abundant quartzite (0 5–1mm) Possibly a variant of Site 46 fabric T2 (Evans and Bell, Chapter 12 2 1) or of the local calcite gritted ware CG599 (Busby *et al* 1996, 288), and therefore local Site 425

APPENDIX H

The Stone Objects

Elizabeth Wright

29AD
About half of a heavy hand quern of a feldspathic millstone grit of a grey/ brown/ white colour, poorly sorted and of medium to coarse grade, probably from the millstone grits of the Pennines, though this material does not show the abundant spotting of limonite characteristic of the Yoredale sandstones of Wensleydale and Swaledale, so may be from a more distant source

The worn grinding surface, which is estimated at 390 mm diameter, is slightly inclined and is rough both as a result of peck dressing and of use wear because of its coarse grained nature and the loss of feldspars, which wear out in use leaving voids in the surface The quern is an upper stone and has a gently rounded upper surface, now broken in parts There is a slot 45 mm wide and 90 mm long and 10 mm deep with a rounded end, being slightly undercut and with a sharply defined edge, excavated in the upper surface of the quern, probably to fix a radial handle Unfortunately, the stone is much broken around the central eye, obscuring much detail There is, however, a small area of drilled feedpipe remaining, estimated at 25 to 30 mm diameter, which is smooth and parallel sided Many flat Roman querns had the central eye fashioned by pecking through from either side to make an 'hour-glass type of perforation The drilling in this example suggests continuity from the Iron Age tradition of drilling the feedpipe and often also the handle holes in beehive querns, a skilled task The narrow, drilled feedpipe is most frequently observed in flat quems from the earlier part of the Roman occupation The quern is 85 mm high

A grooved rebate in the upper surface of the quern suggests that it may have been fitted with a metal rynd to support or centre the stone, but most of the evidence for this has been obliterated by damage As the quern is quite heavy for its size, the handle recess in the upper surface may have been paired with one on the opposite side The undercutting of the recess may suggest that a metal handle, probably of iron was set in it The breaking of the stone around this point of weakness probably caused the quern to be abandoned long before its potential life was over as the stone was very thick and weighty

The narrow, drilled feedpipe, thickness and rounded shape all tend to suggest a quern of relatively early type and native manufacture, probably manufactured quite locally

31AA (Phase 9)
A sub-rectangular block of grey/ brown fine grained sandstone showing some mica, very smooth on all surfaces, except where broken The block measures 290 x 250 mm over all with a maximum height of 95 mm and exhibits a bowl shaped hollow 80mm x 75 mm diameter and 30 mm deep The block appears to have been shaped roughly into its present form and has had the hemispherical bowl chipped into the upper, gently rounded surface The lower surface is flat, undulating and slightly less smooth

Initially this was thought to be a pivot stone for a door or gate However, when the interior of the bowl was examined in detail, the socket base retained some of its rough, pecked finish, whilst the upper part was more smooth and there were no signs of polish or scratches from circular motion of a pivot post This is unusual and makes it unlikely that this was the stone's function

It seems likely instead that the stone was employed in a craft activity, perhaps one involving fine grinding or polishing, perhaps of knife blades or similar, with the hollow used to hold a liquid, (probably water) or a polishing powder (fine sand, ochre, or similar) The upper part of the stone has a slightly dished area where it is more heavily worn and to one side of this a small area is polished particularly smoothly as if habitually used There are also slight, very narrow and shallow grooves in this polished upper surface to one side of the main polished area, perhaps created by sharpening the edge of a knife or tool?

51AD (Phase 7)
A fragment of a well-shaped upper quern stone in fine grained, micaceous sandstone with flecks of iron minerals (probably goethite/ limonite) The pinkish colour suggests some mild exposure to a source of heat The raw material is probably a local Yorkshire stone, perhaps a Yoredale sandstone from Wensleydale or Swaledale

The quem is an upper stone of a type having a large, heavy collar around its central eye, within which lies a small, funnel shaped hopper Surrounding the hopper and delineating it is a shallow decorative groove 5 mm wide The estimated diameter of the quern is 460 mm with an edge height of 40 mm, the quern circumference having a rounded edge to the upper surface, which shows some fine parallel tooling marks Some marks of pecking are visible on the collar The quern is well shaped and executed

The grinding surface is either flat or of quite a low angle and worn very smooth in some parts whilst elsewhere it retains marks of fine peck re dressing It is not possible to estimate accurately the diameter of the central eye though this was perhaps about 140 mm, but the collar is 85 mm wide and stands to a height of 25 mm above the remainder of the upper surface of the quern, thus giving a greater volume to the hopper

This type of quem, seen in small numbers from the excavations at Vindolanda (Welfare,1985), appears to represent a technological improvement on the earliest Romano British flat querns as the heavy collar reinforced the quern at its weakest point around the eye and rynd, increased the capacity of the hopper and also gave greater thickness to the centre where the quern upper stone often wore away most rapidly, thus again prolonging its useful hfe The greater weight at the centre probably provided greater stability in motion as there would be less inclination to eccentric wobbling These developed features would suggest a date perhaps in the second century or later for the manufacture of this quern, though its date of deposition in this context, when already broken, could be considerably later In Welfare (1985) one example , smaller than this was dated prior to 223 235 **AD** (1985,62),whilst another example, more similar in diameter, had a suggested period of use of late C3 or early C4

203AA
About one half to two thirds of the upper stone of a beehive quern in a well cemented, fine-grained sandstone with some iron and mica and of a brownish- cream colour The quern which had an original diameter of 320 mm or more and of which 170 mm of height remains, appears to have been only roughly shaped from a boulder, possibly a glacial erratic of fine grained sandstone The surface shows considerable smoothing m parts, perhaps from periglacial weathering or smoothing by water action of the original boulder or possibly as a result of heating effects or some other process

The quern now shows an almost hourglass shaped perforation through the centre in cross-section Part of this is the almost hemispherical hopper, which has been very finely pecked out and measures 100 mm in diameter by 60 mm deep A very narrow, drilled feedpipe measuring 30 mm in diameter at the hopper, narrows to only 15 mm diameter and is 65 mm long However at this point, 35 mm from the grinding surface, it flares out again to 85 mm The flaring out of the feedpipe a short distance from the grinding surface probably represents an alteration to the quern to improve the flow of grain to the grinding surface It is clear that this modification was made whilst the quem was still in use as wear grooves caused by the spindle and showing two different spindle heights are superimposed on it, the height of the spindles being 35 mm and 52mm above the present grinding surface One groove suggests a metal spindle no more than 9mm wide, the other worn groove measures 15mm in diameter, though the spindle would have been narrower than this

There are no signs of a handle socket, which was probably a single one in the missing part of the quern since almost two thirds of the quern circumference is preserved The angle of tilt of the feedpipe in relation to the remaining area of grinding surface also suggests that the handle was in the missing part of the quern and opposite to marks in the feedpipe made by successive spindles Although initially it was thought the stone might have been re used as a door socket hole, the wear traces which can be discerned can all be related to its period of use as a quern

From the amount of damage exhibited by this quern, it may have been deliberately destroyed Although it is apparent that some querns were not deliberately destroyed, others do seem to have been deliberately and often very thoroughly slighted with considerable force being applied in order to achieve this The reasons for this were probably either social or superstitious as even in more recent times ethnographic evidence suggests that hand quems were frequently items of dowry Following destmction, pieces of the quems were often discarded or else utilised for utilitarian grinding applications or re used in structures as was the case with this example

02 (unstratified)
Broken whetstone of very dense and fine-grained igneous or metamorphic rock (probably from a glacial erratic source and possibly of Scandinavian origin) Only part remains measuring 72 x 41 29 mm over all The whetstone is worn smooth on all unbroken surfaces

APPENDIX I

THE HUMAN BONE

Joanna Higgins

Summary
The skeletal remains of five individuals were recovered from a burial ground of Romano-British date during archaeological excavations at Bridge Road, Brompton on Swale, North Yorkshire These comprised three adult females, one adult male and one adolescent Several pathological conditions were observed including dental disease, joint disease, metabolic disturbance, and trauma The adolescent individual had been decapitated after death, and the head placed on the knees of the body in the grave

Introduction

A total of five human skeletons were recovered during archaeological excavations at Bridge Road, Brompton on Swale, North Yorkshire, in March and April 2002 The burials were located in an area contiguous with the northern boundary of the scheduled area of the Roman town of Cataractonium, outside the second century defences The inhumations were interred separately, in a group of widely spaced graves of varying orientation One burial was accompanied by a grey-ware drinking vessel The date of these inhumations had not been firmly established at this time due to on going post excavation work However, a provisional late Romano British date can be assigned on the basis of stratigraphy, grave goods, and on the custom of burial

Methodology

A detailed inventory of all skeletal elements present was made for each inhumation The level of preservation for each skeleton was recorded as good, fair or poor, depending on the condition of the bone tissue The relative completeness of each individual was recorded as a percentage of the total number of bones present in a normal human skeleton Animal bone and human skeletal material representing additional individuals were also noted

Estimation of sex in adult skeletons was made by analysis of sexually dimorphic features of the skull and pelvis, according to methods described in Buikstra and Ubelaker (1994) As an additional guide, measurements of sexually dimorphic joint surfaces were made and compared to published ranges for males and females (Bass, 1995), although no estimate was based solely on metric dimensions

No attempt was made to estimate the sex of immature individuals (less than eighteen years), as definitive sexually dimorphic traits do not develop in the skeleton until puberty (Krogman, 1962)

Age at death of immature individuals was estimated using long bone diaphyseal length (Hoppa, 1992), an assessment of dental development using schemes devised by Moorrees et al (1963), and by Smith (1991), and consideration of the stage of fusion between a range of ossification centres with reference to published values of the average age of attainment (Schwartz, 1995)

In adult skeletons, estimation of age at death was made using a range of methods These comprised the Suchey-Brooks system for age determination of the os pubis (Brooks and Suchey, 1990), the auricular surface ageing technique devised by Lovejoy et al (1985), and the dental wear scheme devised by Miles (1962) Late fusing epiphyses were also taken into consideration in estimating the age of young adults

Each individual was subsequently assigned to one of the age categories defined below in Table 1

Age Group	*Age Range*
foetus	less than 38 weeks post conception
neonate	38 weeks post conception to one month after birth
infant	1 month to one year
young child	1 to 5 years
older child	6 to 11 years
adolescent	12 to17 years
young adult	18 to 29 years
young / middle adult	30 to 39 years
middle adult	40 to 49 years
mature adult	50 to 59 years
old adult	over 60 years
adult	mature, but otherwise of indeterminate age

Table 1 Adult and sub-adult age categories

Estimation of stature was made for each adult individual according to the method devised by Trotter (1970), using measurements of all complete long bones from the lower limb Upper limb bones were substituted if lower limb bones were missing or significantly fragmented or eroded Stature was not calculated for non-adult individuals

Cranial and post cranial measurements were recorded were possible, according to standards described in Buikstra and Ubelaker (1994)

The presence or absence of 30 common cranial non-metric traits (Berry and Berry, 1967) and 30 common postcranial traits (Finnegan, 1978) were recorded for each adult individual, where observable

All skeletal elements were examined for visible abnormalities, and any pathological changes were described as appropriate

Results

Preservation and completeness

The skeletal remains of all five individuals were poorly preserved, with post-depositional erosion of the cortical bone surface and long bone epiphyses which was frequently considerable One individual was relatively complete with over 70% of skeletal elements represented Two individuals were less than 70% complete and the remaining two were less than 40% complete All the skeletons were fragmented to varying degrees The small bones of the hands and feet were frequently absent, and only two individuals had a substantial proportion of the vertebral column and rib cage remaining In one individual the skull and jaw bone were completely absent The condition of each skeleton is detailed in Table 2

skeleton	*preservation*	*completeness*
58	poor	< 40%
120	poor	40 - 70%
146	poor	<40%
152	poor	>70%
170	poor	40 - 70%

Table 2 Preservation and completeness

Estimation of sex

An estimation of biological sex was possible in four of the five skeletons Three individuals were female and one was probably a male Skeleton 120 was immature and therefore an estimation of sex was not possible Details of individual skeletons are provided in Table 3

skeleton	*sex*	*age range*	mean age	*age group*
58	female	25 – 49	34 5	young – middle adult
120	n/a	14 – 16	15	adolescent
146	female		-	mature old adult
152	female	50 – 60+		mature - old adult
170	male?	25 – 32	28 5	young adult

Table 3 Estimation of sex and age at death

Age at death

An estimation of age at death was made for all five individuals, and the population comprised one adolescent, one young adult, one young to middle aged adult, and two mature to old adults The absence of some skeletal age indicators due to poor preservation has led to rather a wide age range in one individual (skeleton 58) Skeleton 146 had none of the usual skeletal age indicators remaining, but an age estimate was possible due to the presence of a pathological condition which only occurs in post-menopausal women (see section 3 84) Details of individual skeletons are provided in table 3

Stature

Calculation of stature was possible in three individuals Skeleton 170, a male, was calculated to have had an *m vivo* stature of 168 8cm Skeletons 58 and 152, both females, had a stature of 157 6cm and 143 7cm respectively Skeleton 146 was not sufficiently preserved to establish stature

Metric analysis

Two individuals were insufficiently preserved to allow any measurement, and no cranial measurements were possible for any individual Post-cranial measurements were made where possible for skeletons 58, 152 and 170, and are presented in Appendix 2

Non metric analysis

Cranial and post-cranial traits were recorded where possible, although erosion and fragmentation limited the number of possible observations The data recorded is presented in Appendix 3

Health and disease

Dental pathology

The dentition of four individuals was present for examination, although none were complete Three individuals (120, 152, 170) had slight calculus, and one (170) had caries Four individuals had some ante mortem tooth loss, and this was particularly marked in skeleton 146 who had lost at least ten teeth before death, and suffered from severe periodontal disease Only one other individual had a sufficiently preserved dentition to assess periodontal disease (120), which was absent

No cases of dental enamel hypoplasia or dental abscess were present

Frequencies of calculus, dental caries, dental enamel hypoplasia are presented in Table 4, expressed as a percentage of the number of observable teeth The frequency of dental abscess and ante mortem tooth loss are also presented, expressed as a percentage of the number of sockets available for examination

	n	% affected
no of teeth	45	
no of sockets	81	
Calculus	22	48 9
caries	2	4 4
DEH	0	0
abcess	0	0
AMTL	14	17 3

Table 4 Frequency of dental pathologies Frequencies are expressed as a percentage of the number of observable teeth, or the number of sockets observable for dental abscesses and ante mortem tooth loss DEH =dental enamel hypoplasia, AMTL = ante-mortem tooth loss

Trauma
One skeleton (170) had a fracture of the left fibula which had healed in alignment, but had resulted in a bony callus formation approximately mid way along the shaft of the bone The fracture had healed by the time of death, as the callus was well-remodelled

Skeleton 120 had a small penetrating cut mark on the sixth cervical vertebra, located on the right lamina (posterior arch) immediately below the inferior articular facet, which measured 9mm in length The adjacent cervical vertebrae were fragmentary and eroded, and no other clear cut marks were observable

Joint disease
One individual (152) had eburnation (polishing) of the articular facets of three thoracic vertebrae, indicating vertebral osteoarthritis In addition, one lumbar vertebra had osteophytosis (bony growths on the vertebral body), which is caused by the breakdown of the intervertebral discs However, the spinal column was fragmentary and incomplete which prevented the full assessment of spinal joint disease in this individual

Skeleton 146 had indications of osteoarthritis in the left tempero-mandibular joint, with macroporosity and alteration of the bony contour of the mandibular articular condyle

Metabolic Disease
Skeleton 146 had a distinct thickening of the cranium, particularly of the frontal bone but the parietal bones were also affected In addition there was a small sub circular lesion of raised compact new bone on the internal surface of the frontal bone measuring 16mm in diameter, and more generalised plaques of striated or ridged new bone These bone changes are termed *hyperostosis frontalis interna*, a condition caused by a disturbance in pituitary function, almost exclusively found in post menopausal women Skeleton 152 also had a developing case of *hyperostosis frontalis interna*, indicated by plaques of striated or ridged new bone on the internal surface of the frontal bone, accompanied by slight thickening of the cranial vault This diagnosis is consistent with the mature age and female sex of both individuals

Enthesopathies
Only one skeleton (58) had enthesophytes, in the form of bony spicules on the superior aspect of the right patella, at the insertion of the quadriceps tendon This ossification of tendon fibres is common, and may indicate a bone reaction to strenuous physical activity In this case there was specific involvement of the right leg, as the left patella was not affected

Parasitic infestation
A small irregular nodule of bone was found with skeleton 146 The nodule measured approximately 13mm, and had some macroporosity, spur like irregularities and a very glossy appearance with some dark discoloured areas The nodule is not part of a normal human skeleton, and may be a mineralised piece of soft tissue, possibly derived from a cyst caused by a parasitic infestation

Discussion

This small population consisted of the poorly preserved remains of four adults and one sub-adult, and included both males and females The range of ages and sexes represented by these remains suggest they derive from an ordinary burial ground which served a nearby Romano-British settlement

The population was not of sufficient size to calculate a mean stature, and therefore comparisons with other populations were not possible However, the stature of the male individual (168 8cm) was consistent with the average male height of 167 8 cm for Iron Age populations in Britain (Roberts and Manchester, 1997)

The caries rate m this population (4 4%) and the instance of dental abscess (0%) was slightly lower than those reported for other Romano-British populations (Roberts and Manchester 1997) However, the small number of teeth available for examination in these individuals may not be representative of dental disease in the general population The high frequency of calculus (48 9%), which is usually the result of poor oral hygiene and results in mineral deposits on the tooth crowns, is a common occurrence in archaeological populations

The relatively high frequency of ante mortem tooth loss was mostly attributable to one individual, an elderly women (146) The concomitant occurrence of severe periodontal disease suggests the teeth were lost as a result of this condition, which develops secondary to gum disease (gingivitis) and results in the gradual loss of the bone surrounding the teeth (alveolar bone)

Ante mortem loss of both mandibular second premolars in the adolescent individual is more unusual, as the dentition is newly erupted and disease rarely has time to develop The teeth were not congenitally absent as indications of healing can still be observed in the mandible, and the absence of dental disease in all the other teeth with the exception of some slight calculus deposits suggests the teeth were more likely lost through traumatic insult In addition, the bilateral occurrence of this tooth loss suggests the teeth were not lost due to a blow or fall, but more likely due to the performance of a specific activity using the mouth and teeth, perhaps as part of food processing or craft making

Only one individual, an adult male, had evidence of traumatic injury which consisted of a healed fracture of the left fibula The fibula is a common fracture site in all populations, as it is less robust than the other lower limb bones

The two cases of joint disease are not unusual for the individuals of advanced age, and similarly metabolic disease associated with pituitary changes is very common m older females (Ortner, 2003)

The cut mark on the sixth cervical vertebra of the adolescent individual appears to have been inflicted on fresh bone by a very thin narrow blade which was then withdrawn The position and orientation of the incision suggests it was made from the side rather than the front or back of the neck The most likely cause of the cut-mark therefore was the post mortem removal of the head, shortly after death

Following its' removal, the head of the adolescent had been placed on the knees after the body had been laid in the grave This burial tradition has been observed m several fourth century Romano-British populations, although it appears to occur mostly in the south east of England, and is generally rare with an estimated 6 1 % of burials affected The head is removed post mortem and usually placed on the head or feet, as was the case here, although occasionally it is missing or replaced in the correct anatomical position Interestingly, although this tradition can involve most age and sex groups, no cases of adolescents aged between 11 and 15 years have yet been reported (Philpott, 1991)

As mentioned above, the irregular nodule of bone associated with skeleton 146, a mature female, may be a mineralised piece of soft tissue The external appearance resembles that of a mineralised hydatid cyst, which can form in the thoracic or abdominal cavity in response to infestation by the tapeworm *Echinococcus granulosa* The tapeworm is directly associated with domestic dogs, which may transmit the infection to humans through direct contact, through a secondary host such as a herd animal, or through contaminated drinking water or crops (Ortner, 2003) However, further analysis is required to confirm whether this nodule is a hydatid cyst or if it derived from another origin

Recommendations for further work

No further work is required on this population at present, although it might be useful to firmly establish the origin of the bony nodule associated with skeleton 146 The skeletal material should be retained for future research purposes

Catalogue

A full catalogue of the human bone including metrical data and non-metric traits is incorporated within the site archive

APPENDIX J

THE BIOLOGICAL REMAINS (PRS Report 2003/51)

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Summary

Fourteen sediment samples, together with a small quantity of hand-collected shell, and over 9,000 hand collected bones, were submitted for analysis However, it must be noted that the integrity of many of the contexts was very poor and that this, together with extensive fragmentation, rendered much of the vertebrate assemblage of little value

Samples from seven Roman contexts were examined for their content of plant remains Charred plant material was present in all the samples, though the concentrations were very low The results are consistent with a pattern becoming apparent at sites of Roman and Romano British date in the Vale of York generally, in which there is evidence for the use of heathland resources (and specifically for turves) often with a small component of charred cereal remains No ancient invertebrate remains were recovered from the samples Three subsamples examined for microfossils were devoid of useful remains being composed almost entirely of inorganic grains

The hand collected shell was too little and far too poorly preserved to be of any interpretative value beyond indicating the importation of coastal food resources to the site

The animal economy throughout the represented periods was based almost wholly on the main domestic mammals Evidence for the utilisation of wild resources was scarce, with very few wild mammals and birds identified Some exploitation of river resources was hinted at by the presence of fish remains in two of the samples On the basis of fragment counts, the proportions of the major domesticates suggest that caprovids were the most numerous species present m *the earliest period, with a change in the later periods to a predominance of cattle In general, the vertebrate assemblages from Brompton show similarities with material already recovered from other excavations in the vicinity, the earliest phase retaining the character of the pre Roman dietary preferences, with the increase of cattle through time being a feature of the 'Romanisation' process*

[Note that this report was written before re phasing of the site but with some reference to pottery dating As a result of this, parts of the analysis of the data will be subject to changes and some of the conclusions may be subject to reinterpretation as a result of further analysis Where context phasing has been modified subsequent to the production of this report, this is shown with the new phase in bold in square brackets after the context number, e g [26]]

Introduction

Overall, the pottery, together with provisional analysis of the stratigraphic relationships between archaeological features and layers, suggested 12 principal chronological phase groups

Phase 1 – 'natural
Phase 2 – prehistoric features
Phase 3 – buried soil
Phase 4 – establishment of Dere Street
Phase 5 – initial roadside activity
Phase 6 – establishment of side road
Phase 7 – primary structural phase
Phase 8 – temporary abandonment
Phase 9 – secondary structural phase and burials
Phase 10 – final structural phase
Phase 11 – post-Roman
Phase 12 – modern

The examined samples and recorded hand-collected remains were from the following 'Romano British' phases, the suggested dates for which are extremely tentative and based on the pottery assessment (Didsbury 2003) and the excavator's notes

Phase 4 – ?late Ist/early 2nd century
Phase 5 – broadly contemporary with Phase 4
Phase 6 – ?2nd century
[Phase 6b] – ?mid 2nd century
Phase 7 – ?3rd century
Phase 8 – ?4th century
Phase 9 – ?4th century

During the excavations, large numbers of artefacts and faunal remains were recovered, mostly pottery and animal bone, but also coins, metal objects, glass, stone, worked bone and building materials However, it should be noted that the integrity of many of the contexts was very poor Time constraints placed on the excavation (and that the archaeological sequence proved more complex than the original trial trenching had indicated), resulted in the contamination of a number of deposits with material from later contexts Deposits were graded on the basis of their integrity Grade 1 deposits represent conventional contexts, e g sealed layers, whilst those of Grade 2 were probably contaminated with material from other deposits Contexts assigned to Grade 3 were deposits that were unstratified or very disturbed

Fourteen sediment samples ('GBA'/ BS' *sensu* Dobney *et al* 1992), together with a small quantity of hand-collected shell (from 10 contexts) and over 9,000 hand-collected bones, (representing 89 deposits), were submitted to PRS for analysis

The interpretative value of material from the Grade 2 and 3 contexts would be rather limited and a strong selection bias away from these deposits has been adopted In particular, selection of vertebrate material for detailed recording was strongly influenced by the uncertainty surrounding the integrity of some of the deposits The assessment of the pottery recovered from the site (Didsbury op cit) suggested that many deposits contained material representing a wide chronological range Over half of the fragments (4389) were recovered from just such deposits For example, pottery from Context 52 indicated a time span for the deposit from late 1st to mid 4th century The bones from this context were recovered from 'hollows in surface 51, a pebble and tile floor surface It is highly likely that the vertebrate remains were being used as levelling material to fill in the hollows and this infilling could have happened over a long period of time There can be no knowing exactly when the bones were deposited or if the deposition occurred as a single event or many Traditionally, such assemblages have been reported upon under the broad category of 'Roman but this diminishes the value of the information retrieved The relative importance of different species is established for a period spanning four centuries and thus detailed interpretations regarding changes in frequency, age-at death and variation in size of the main domesticates through time cannot be determined with any degree of precision These variations and changing frequencies can be used to identify, for instance, differing husbandry practises, the introduction of new/improved stock and changing dietary preferences during a crucial period of considerable change and innovation

Methods

Sediment samples

The submitted sediment samples were inspected in the laboratory Seven, representing a range of feature types (including pit fills, burnt layers and one associated with the flue of a ?corn drier), were selected for assessment and their lithologies were recorded using a standard pro forma Subsamples were taken for processing, following the procedures of Kenward et al (1980, 1986), for the recovery of plant and invertebrate macrofossils

The washovers resulting from processing were examined for plant and invertebrate macrofossils The residues were examined for larger plant macrofossils and other biological and artefactual remains

Three subsamples (from Contexts 21, 169 and 189) were examined for microfossil survival using the method of Dainton (1992) Those from Context 169 and 189 were investigated primarily for the eggs of intestinal parasites, whilst the subsample from Context 21 was to determine pollen survival

Hand-collected shell

The small amount of hand-collected shell was too poorly preserved to warrant detailed recording but was examined and a brief record made

Hand-collected vertebrate remains

Where applicable, fragments were identified to species or species group, using the reference collection at Palaeoecology Research Services Only vertebrate remains that could be identified to these categories were recorded Unidentified remains (those which could only be assigned to broad categories such as large or medium sized mammal) did not warrant recording in this instance because of the extensive fresh breakage encountered

For the vertebrate remains, both from hand-collection and from the samples, data were recorded electronically directly into a series of tables using a purpose built input system and *Paradox* software Subjective records were made of the state of preservation, colour of the fragments, and the appearance of broken surfaces ('angularity') Additionally, semi quantitative information was recorded for each context concerning fragment size, dog gnawing, burning, butchery, and fresh breaks Selected skeletal elements were recorded using the diagnostic zones method described by Dobney and Rielly (1988)

Measurements were taken where possible, all measurements followed those outlined by von den Driesch (1976) Withers heights were estimated using calculations devised by Foch (1966)

Caprovid tooth wear stages were recorded using those outlined by Payne (1973, 1987), and those for cattle and pig followed the scheme set out by Grant (1982) Cattle, caprovid and pig mandibles and isolated teeth were assigned to the general age categories outlined by O Connor (1989) and Payne (1973, 1987) Mandibles with incomplete tooth rows were assigned to age groups on the basis of comparison with the more complete aged mandibles from the assemblage The same was true for loose deciduous 4th pre-molars (dp4) and third molars (M3)

Mammal bones were described as 'juvenile' if the epiphyses were unfused and the associated shaft fragment appeared spongy and porous They were recorded as 'neonatal if they were also of small size Epiphysial fusion data are presented using the categories of O'Connor (1988)

Results

Sediment samples

Samples from seven Roman contexts were examined for their content of plant remains via 'washovers', which were briefly examined wet then dried for closer inspection Charred plant material was present in all the samples, though the concentrations were very low, some uncharred plant remains in the washovers, including roots and rootlets, are thought to be of recent origin (some small leguminous seeds, for example, were certainly not ancient and the remains of the burrowing snail *Cecilioides acicula* (Muller) in three samples is also indicative of some intrusive material) No insect remains were recovered

The results of the analyses are given in Tables 1 to 4 Clearly all the contexts received some burnt material, with ash probably making up a large proportion of the deposit in Contexts 95 and 130, where small whitish 'ash concretions' were rather frequent In most samples, these concretions were accompanied by glassy 'beads thought to result from burning of plant material The charred plant material consisted of charcoal and a small range of more or less identifiable remains, of which ?heather (*Calluna*) basal twig/root fragments were the most frequent That these remains probably *were* heather is indicated by the presence in several samples of traces of charred twig, shoot or flower of this plant Whilst this material may have originated in heather used for a variety of purposes, not least as fuel in its own right, the presence in several samples of remains thought likely to indicate the presence of cut heathland turves may mean that this was the actual source of the heather debris This group of plants comprises sedge (*Carex*) nutlets, fragments of monocotyledonous rhizome (included in the category 'root/rhizome' in Table 4), and probably also the charred moss stems seen in some samples Some fragments of charred amorphous organic material in samples from Contexts 95 and 99 may well be 'mor' humus from heathland turves Other charred plant material clearly originated in cereal crops there were traces of wheat (*Triticum*) and barley (*Hordeum*) grains, a little spelt wheat (*Triticum spelta*) chaff (glume bases), and some

seeds or fruits likely to have arrived from cornfield weeds—brome (*Bromus*) and wild radish (*Raphanus raphanistrum*) One further component in some samples was a trace of hazel (Corylus) nutshell

The sample residues were mostly of stones (to 70 mm), gravel and sand Biological remains were restricted to small quantities of charred plant material (mostly fine charcoal) as recorded from the washovers and a little bone Most samples produced moderate assemblages of bone which, overall, showed reasonable preservation, although some fragments had a rather battered appearance Burnt fragments were noted throughout, but only a few fragments were affected within each assemblage, with the exception of material from Context 130 Most bones from this deposit were scorched Overall, very few bones were greater than 20 mm in any dimension Generally, the remains represented small fragments of larger bones, probably representing medium-sized mammals, most were not identifiable to species However, fish bone (in very small amounts) was noted in the samples from Contexts 94, 99 and 179, which included vertebrae of eel (*Anguilla anguilla* (L)) and pike (*Esox lucius* L) Several small mammal remains were present, of which one tooth fragment (Context 99) was identified as water vole (*Arvicola terrestris* L) A pelvis from Context 94 may have been from a mouse (*Mus* sp) rather than a vole Summary information for the residues is presented as Table 2

The 'squash' subsamples from Contexts 21 and 189 contained no recognisable microfossils, consisting entirely of inorganic mineral grains The subsample from Context 169 was also devoid of useful remains being composed of inorganic grains, with only traces of fungal hyphae

Hand-collected shell

For each shell-bearing context (10 in total), the excavator had recorded the number of fragments and an approximate total weight of material Most of the shell was of extremely heavily fragmented and eroded marine shellfish and was continuing to disintegrate in its bags Context 36 (Phase 8) [now 7] gave remains of three land snails, one of which was identified as *Trichia hispida* One Phase 9 [now 7] deposit (Context 114) contained a little eggshell as well as oyster and mussel A summary of the hand collected shell is presented as Table 5

Hand-collected vertebrate remains

Vertebrate material was recorded from the 33 deposits which appeared to be, from the stratigraphy and from the artefacts, fairly securely and tightly dated These were largely, though not exclusively, contexts with integrity of Grade 1 Some Grade 2 deposits and those described as cleaning layers were included Some Grade 1 material was not recorded because there were no identified remains within a particular context or because the animal bone was likely to be of a secondary nature, e g recovered from grave fills

The identified vertebrate remains recorded from this site amounted to 662 fragments Unidentified remains from these deposits (amounting to 2939 fragments) were not recorded in any detail, but some notes were made concerning the composition of the assemblages Additionally, several of the larger assemblages from the site, for which only very broad dating was available, were scanned Generally, material from Phases 4-6 (including 6b) was amalgamated being of a similar date (i e late 1st/2nd centuries) for the purpose of increasing the assemblage size

Overall, preservation of the remains was quite good, although variability of the colour of the fragments was recorded for the material from thirteen of the deposits Heavy fragmentation of the remains was widespread and characteristic of much of the vertebrate assemblage from the site For the material from some contexts this could be attributed partly to fresh breakage during excavation and/or post-excavation processes However, it was apparent from the nature of the broken surfaces of many of the bones that some fragmentation had occurred in the past Unfortunately, this damage substantially reduced the number of elements that could provide useful biometrical information

Some fragments showed areas of scorching Heating or burning bone renders it more brittle, thus facilitating the breaking of bones into pieces, in this instance, perhaps, for the extraction of marrow

Species representation

A range of domestic and wild mammals was represented in the assemblage, but, as might be expected, the bulk of the remains were cattle, sheep/goat and pig (Table 6) Very few fragments of other species were present, however, these included a number of dog bones from Phases 7, 8 and 9, and a cat ulna from Phase 8 Wild

mammals were represented by a rat tibia (assumed to be black rat) from Phase 7 [now 8] (Context 24) and a single roe deer radius was identified from Phase 9 [now 8] (Context 122)

Birds were rather scarce, their remains dominated by chicken Several goose fragments were also identified and a single crane tibiotarsus was recorded from Context 45 (Phase 8) [now 9] The former were of a size consistent with that of grey-lag geese, but this does not necessarily imply that the bones were from wild individuals, although, bones from domestic geese do tend to be larger than all the wild species

When comparing the relative abundance (using fragment counts) of the four main domesticates (cattle, caprovid, pig and horse) in more detail, it is apparent that in the earliest period (amalgamating fragment counts from Phases 4, 6 and 6b), caprovid remains predominated (Figure 1) From Phase 7 onwards, however, cattle were the most frequently occurring species, and this prevalence gradually increased through time Pigs were less abundantly represented, but their frequency stayed fairly constant throughout—between 14% and 16%—with the exception of Phase 7 Here, the percentage of pig remains dipped to 11% The proportion of horse remains was similar for Phases 7 and 8 at 9% and 8% respectively, but both the earliest phase (Phase 4 6b) and the latest phase (Phase 9) produced significantly fewer horse bones (2% and 3% of the main domesticates) It is worth noting, however, that both these assemblages were smaller than those from Phases 7 and 8

When MNI frequencies are plotted a somewhat different pattern is seen (Figure 2), although the overall trend, i e the dominance of caprovids m the earliest period (Phases 4 6b), and the rise in the importance of cattle in Phase 7, stay the same It is m the later phases that the patterns differ Cattle, instead of gradually increasing in frequency (as seen in the values produced by the fragment counts), decrease in Phases 8 and 9, whilst sheep, having declined from 57% to 29% from Phases 4-6 through to 8, increase to 36 % in Phase 9, equalling the frequency for cattle in this phase This is at odds with the frequencies produced from the fragment counts which showed cattle dominating in Phase 9, with 58%

MNI figures also raised the importance of pigs which showed a marked increase from Phase 4 to 8 and then a relatively sharp decline in Phase 9 Regardless of the method of quantification, the frequency of pig remains is high

Skeletal element representation

Skeletal element representation was clearly affected by the extensive fragmentation, whether of recent occurrence or as a result of ancient butchery techniques Some elements, particularly the meat-bearing bones of cattle, had been subjected to a higher degree of fragmentation—split for marrow extraction etc—than bones of smaller mammals (such as caprovids and pigs) and hence were less easily recognisable and could not always be confidently identified to species This can create a bias in favour of smaller, denser bones which remain intact and are, therefore, more readily identifiable In the assemblage from Brompton, there was some evidence for this provided by the numerous cattle phalanges, calcanea and astragali recorded When considering the smaller mammals (caprovids and pigs), the very same skeletal elements appeared to be under-represented, these are the small bones which are often overlooked during hand collection

Tables 7 10 show the fragment counts for individual species by phase and by element Figures 3 and 4 show MNI values for individual skeletal elements for cattle and caprovids expressed as a proportion of the most frequent element (shown as 100%)

Cattle

Overall, a range of skeletal elements representing all parts of the body were present for cattle throughout Phases 4-9 Figure 3 suggests that in Phase 7, meat-bearing elements were prevalent, humeri and radii in particular, however, the frequencies for lower limb elements (e g astragali, calcanea and metapodials) were not insignificant Phase 8 material had a greater proportion of head (mandibles) and terminal limb elements, but meat-bearing bones were still relatively numerous Interpretation of the occurrence of different skeletal elements in Phase 9 is somewhat limited by the small size of the assemblage, but humeri and scapulae were common, and primary butchery waste, in the form of head and lower limb bones (in this case mainly phalanges), was again represented

Large mammal remains from all phases cannot be ignored Scanning these bones suggests that rib and shaft fragments, together with small numbers of vertebrae form a large proportion of this fraction of the assemblage

Cattle remains represent a mixture of waste, chiefly refuse from primary and secondary carcass preparation, together with some domestic rubbish There were no concentrations of remains that were clearly indicative of craft activities such as tanning or hornworking

Caprovids
With the exception of the earliest phase (Phase 4 6b), mandibles were the most commonly occurring skeletal element, with metapodials (and calcanea in Phase 7) also being strongly represented (Figure 4) Material from Phase 4-6b showed a prevalence of humeri, whilst other meat bearing elements also had relatively high frequencies Most parts of the body were represented, and as for cattle, these remains were waste from butchery and food consumption The assemblages from each phase were too small to enable changes through time to be identified

Pigs
Pig remains were rather too scant to provide much information regarding body part representation Where more data were available, i e from Phase 8 deposits, mandibles and isolated teeth were predominant, whilst Phase 7 material included humeri and radii fragments (see Table 8)

Horses
Horses were represented by a range of elements, with teeth predominating in Phases 7 and 8 deposits (Tables 8 and 9) Metapodials and phalanges were also quite numerous Remains of horses appeared to be treated in much the same way as those of cattle or sheep and their bones were found in all context types

Butchery

Evidence of butchery was noted throughout the assemblage, particularly in the material from Contexts 44, 45, 93 and 94 (all of probable 4th century date) and included several distinctive features associated with the organised, large scale processing of cattle carcasses recorded from other sites dated to this period (Dobney *et al* 1996, Maltby 1989, Smith 1996) Processing of cattle carcasses was achieved by the use of a heavy chopper, although knife marks were recorded on some humems shaft fragments, scapulae blades and phalanges Knife marks were more commonly noted on pig and sheep bones Characteristic of the assemblage was the numerous cattle shaft fragments that had been split longitudinally, most being radii, tibiae and metapodials Distal humeri were subjected to similar treatment—typically one side of the articulation was removed The intensive butchery was for the systematic reduction of the carcass into smaller joints and subsequently, certain long bones were chopped longitudinally for the extraction of marrow

Several cattle scapulae were recovered, mainly from Phases 8 and 9 (Contexts 45 and 93) [now both phase 9], some of which had been trimmed around the glenoid cavity Evidence for the removal (or partial removal) of the spinus and small nicks or shaving marks on the margo thoracalis were also apparent on some specimens Similar damage was noted on scapulae from 1st and 4th century deposits in Lincoln (Dobney *et al* 1996) and from 1st and 2nd century deposits in York (O'Connor 1988) It has been suggested (O=Connor *op cit*, Dobney *et al op cit*) that these scapulae represent the remains of cured shoulder joints, possibly brined or smoked The trimming around the glenoid cavity possibly allowed access for the salt into the muscle mass Undertaken correctly, meat salted in this way would be preserved and could be stored for some considerable time

Other distinctive features were the knife and shallow chop marks noted just below the proximal articulation of first phalanges of cattle These were apparent on phalanges from six deposits (Contexts 44, 93, 94, 95, 103 and 122) A recent study on butchery techniques (Seetah 2002) involving the replication of some of the butchery marks identified from Romano British material has suggested that these characteristic 'nicks' found on phalanges represent the skinning of the foot to retrieve the metapodial for possible processing for bone working Elsewhere (e g Stallibrass 2002), these marks are thought to be indicative of hide removal

Butchery marks were also noted on several horse bones, mainly from Phases 7 and 8 Two metatarsals (Contexts 45 [now phase 9] and 122 [now phase **8**]) appeared to have been split longitudinally, butchered in much the same way as the cattle long bones which had been chopped for marrow extraction Evidence for the possible skinning of a dog was noted on a femur from Context 103

Age-at-death

Cattle
Dental attrition for cattle was restricted to data from a small number of mandibles and isolated teeth The data suggest that in all three phases represented (Phases 7, 8 and 9, see Table 11) cattle reached maturity before being slaughtered and that most of the cattle could be assigned to the general age categories of adult or elderly suggested by O Connor (1988) None were juvenile or sub-adult No evidence was available from the earliest phase group

Fusion data corroborate this general pattern, although there are a small number of bones (6) which represent individuals less than two years of age, whilst several represent animals between the ages of two and three A single metatarsal fragment was from a foetus

Caprovids
Data from caprovid mandibles and isolated teeth were assigned to broad age categories outlined by O'Connor (1989), whilst the same data were also categorised according to a system suggested by Payne (1973, 1987) No clear patterns were evident but animals with a wide range of ages were represented (Tables 12 and 13) Whereas no young individuals were identified from the cattle mandibles, over half of the caprovid mandibles (and isolated teeth) represented animals that were two years old or younger when they were culled Most of the older individuals were recovered from Phase 8 deposits, all of which were aged four years or over The mandible representing the oldest individual (an animal aged between 8 and 10 years) was identified from a Phase 7 context

Epiphyseal fusion data was somewhat limited but, in general, supported the dental evidence All but material from Phase 7 included bones indicating the presence of animals which had died before the age of 10 months In all phases, 50% or more animals survived beyond the age of three Late fusing bones (those which fuse at 3 3 5 years) were few, with most in Phase 7 being unfused, whilst the reverse was true for Phase 8 This may suggest a trend towards culling sheep at an older age but the sample size is rather too small to be conclusive

Pigs
Pig mandibles were mainly recovered from Phase 8 and included juvenile, immature and sub adult individuals Only one adult individual was represented from a Phase 9 deposit, whilst a single mandible from Phase 7 was assigned to the sub-adult category Evidence from epiphyseal fusion correlates well with data from the mandibles, in that only bones in the 'early fusing' category (i e those which fuse at approximately 12 months) were fused Most other bones represented animals that were killed before reaching the age of two years The primary function of pigs was for the provision of meat, so it is not surprising that very few adult individuals were represented The pigs at Brompton were killed at the optimum age for consumption

Horses
Most horses represented within the assemblage were adult, isolated incisors generally suggesting ages of between three and eight years A mandible was recorded from Context 150 (Phase 7) [now 8] with deciduous premolars, representing an individual of less than two and a half years old All of the bones recorded were fused

Biometrical analysis

As a consequence of the extensive fragmentation, measurable bones were scant A record of the measurements taken is retained within the site archive

A single withers height of 1 22 m was calculated from a complete cattle metacarpal from a Phase 9 deposit (Context 93) When compared with heights estimated from cattle metapodials from other sites in the Catterick area (Stallibrass 2002), it falls within a group of larger individuals from 3rd-4lh century deposits (ranging from 1 22m to 1 31m) Stallibrass tentatively suggests that these larger outliers may represent new livestock, perhaps imported to improve the local animals The single value for Brompton may be evidence of this too, but more data would be required to determine this conclusively

Discussion

For the plant remains, the results of these analyses are consistent with a pattern becoming apparent at sites of Roman and Romano-British date in the Vale of York generally (A R Hall, unpublished data and Hall and Huntley, in prep) in which there is evidence for the use of heathland resources, and specifically for turves, often with a small component of charred cereal remains, including spelt chaff Other examples of sites with a regular

occurrence of small amounts of ?heather root/twig and other remains of the kinds noted at Bridge Road are 66 Burringham Road, Scunthorpe, North Lincolnshire (Hall et al 2003c), Billingley Drive, Thurnscoe, near Barnsley, South Yorkshire (Rackham et al 2001), and several sites along the line of the BP Teesside-Saltend Ethylene Pipeline, e g at West Lilling, North Yorkshire (Hall et al 2002), and near High Catton and Goodmanham, East Riding of Yorkshire (Jaques et al , 2002, Hall et al 2003a) This kind of material has even been noted recently from a single Roman context from a site close to one of the roads leaving York and only a few hundred metres from the NW corner of the fortress (Hall et al 2003b) These results may have implications for our understanding both of the use of resources at this period and for the nature of the vegetation over wide tracts of lowland Central Yorkshire

No interpretatively valuable microfossil were seen in the examined subsamples No pollen survived in Context 21 (a pre-Roman buried soil horizon sealed by the first phase of Dere Street) and no eggs of intestinal parasites were noted in the subsample from the abdominal area of Skeleton 170 (Context 169, Grave 171) or the slightly concreted areas of Context 189

The hand collected shell was too little and far too poorly preserved to be of any interpretative value beyond indicating the importation of coastal food resources to the site

Although the recorded bone assemblage from this site is small, there are a number of useful conclusions which can be drawn from analysis of the vertebrate remains

The animal economy throughout the represented periods was based almost wholly on the main domestic mammals Evidence for the utilisation of wild resources was scarce, with very few wild mammals and birds identified Some exploitation of river resources was hinted at by the presence of fish remains (eel and pike) in two of the samples

On the basis of fragment counts, the proportions of the major domesticates suggest that caprovids were the most numerous species present in the earliest period (late 1st 2nd century), with a change in the later periods (Phases 7, 8 and 9) to a predominance of cattle In general, the MNI figures support this picture but reduce the importance of cattle somewhat in Phase 9 The MNI method is less affected by taphonomic and recovery biases and may be reflecting a more accurate pattern It must be stressed, however, that the number of fragments of use for this analysis was not particularly large

If this pattern of animal exploitation tmly reflects the significance of the different species, then it appears to show a trend common to many sites during the Roman period The shift in emphasis to a diet based on beef is seen as an adoption of ideas associated with the incoming Roman military population, the cultural and dietary traditions represented being more characteristic of the Low Countries and Germany from where most of the army based in Britain originated (Dobney 2001) King (1978), in his extensive survey of vertebrate remains from Romano British sites, suggests that very high frequencies of cattle (70% and over) are more likely to be encountered at military sites, whilst unromanised rural settlements typically have higher percentages of caprovid remains Urban sites, villas and vici have proportions that fall between the two Relatively high proportions of pig remains, as seen at Brompton, have also been interpreted as an indication of more 'Romanised' settlement King (1978) also suggested that assemblages with 10% or more pig bones tended to be either from villa sites or 'Roman' settlement sites Some researchers have argued (King 1978, 1984, Dobney 2001) that higher proportions of pig remains provide evidence of higher status occupation or could be related to occupancy by people of Mediterranean origin When one considers the location of the excavated site at Brompton within the northem suburbs of the Roman town of *Cataractonium*, and closely associated with military occupation, it is not surprising that the bones reflect a higher degree of Romanisation than might be found on, for example, a mral site

Where enough data were available, the age-at death profiles suggested that cattle were not bred specifically for any one product Most were mature or elderly when they were slaughtered and were probably valued for milk, breeding and for traction For sheep, production of meat was of some importance, as suggested by the presence of animals culled between the ages of 6 months and 2 years However, the older individuals, more numerous in Phase 8, are likely to have been used primarily for providing wool and then subsequently for meat

Observations of the skeletal element representation for the major domesticates indicates that all parts of the carcass were represented, including waste representing primary and secondary carcass preparation and also refuse of a more domestic nature The type of the deposits excavated and the comparatively large concentrations of material suggests that these remains may have been deliberately collected and used for the purposes of

levelling uneven surfaces or for filling hollows where the surfaces had become worn This is not unlike material recovered from the 4th century waterfront deposits at Lincoln (Dobney *et al* 1996), although the quantities of bones from Brompton are somewhat smaller

Overall, a high degree of fragmentation was apparent, which was partly the result of the systematic breaking up of cattle bones, probably for the extraction of marrow Extensive chopping of all major elements and the splitting of long bones is typical of vertebrate assemblages from many Roman sites throughout Britain, e g Tanner Row, York (O'Connor 1988), Welton Road, Brough (Hamshaw-Thomas and Jaques 2000), Elms Farm, Heybridge, Essex (Johnstone and Albarella 2002), Lincoln (Dobney *et al* 1996) The remains here clearly indicate the centralised large scale butchery of cattle, with the purpose of utilising the carcass to its fullest extent

A comparison of the frequencies of the major domestic mammals from the various phases at Brompton with those from other sites m the vicinity can be seen in Figure 5 The high proportion of sheep noted from the Phase 4 6b assemblage from Brompton is not replicated at any of the sites outlined in Stallibrass's review (Stallibrass 2002) of vertebrate remains from sites in and around Catterick Numbers of fragments for this phase are very hmited, but the early date of the material may suggest that this pattern is reflecting the pre Roman conquest preferences for the consumption of lamb and mutton King (1991) has found that material from early Roman military bases frequently shows dietary patterns more akin to the local 'native' diet, a consequence of availability

Values for the later phases, 7 and 8, show similarities with the frequencies recorded for late 2nd-3rd century deposits at Bainesse (a roadside settlement to the south of Catterick) and late 3rd 4th century material from Thornbrough Farm (an area associated with the fort(s) (2nd-3rd century) and small town (3rd-4th century) None of the material from Brompton shows the very high cattle frequencies seen from all phases at Catterick Bridge (a civilian settlement in the northern suburbs)

Figure 6 shows the combined data for the major domesticates from the various sites around Catterick by period and site type (i e military or civilian) From this the gradual increase of the importance of cattle through time is clearly visible Material from late 2nd -3rd century military deposits, however, has similar frequencies for cattle and caprovids where one might expect catde to be dominant Stallibrass suggests that this may represent requisition by the army of provisions from the indigenous population and this may be similar to the pattern seen from the earliest phase at Brompton The later phases at Brompton fit well with the frequencies from the Late 3rd -4th century civilian material

In general, the vertebrate assemblages from Brompton show similarities with material already recovered from other excavations in the vicinity, the earhest phase retaining the character of the pre Roman dietary preferences, with the increase of cattle through time being a feature of the 'Romanisation' process (King 1991)

Archive

All material is currently stored by Palaeoecology Research Services (Unit 8, Dabble Duck Industrial Estate, Shildon, County Durham), along with paper and electronic records pertaining to the work described here

Acknowledgements

The authors are grateful to John Buglass and Greg Speed of Northern Archaeological Associates for providing the material and the archaeological information

Table 1 Bridge Road, Brompton on Swale Summary information and sediment descriptions for the processed samples Key CN = Context number, S = NAA sample, PRS = PRS sample, Wt = weight of processed subsample (kg), Rm = approximate volume of unprocessed sediment remaining (litres)

CN	S	PRS	Context description	Sediment description	Wt	Rm	Processing
94	AA	9401	Romano-British fill of a large pit	Just moist, mid greyish brown, crumbly to unconsohdated, slightly clay sandy silt Charcoal (or other fine charred material) was present	3	14	sieved to 300 microns with washover
95	AA	9501	Romano British fill of a large pit	Moist, light to mid brown to mid to dark grey brown, crumbly (working soft), slightly clay sandy silt Stones (6 to 20 mm), fragments of rotted ?brick/tile, ?charcoal (or other fine charred material) and bone were present	18	5	3 kg sieved to 300 microns with washover 15 kg sieved to 1 mm for bone
99	AB	9901	Romano-British deposit lying over the floor of an earlier building	Moist, mid to dark grey-brown (with a slight purplish cast), cmmbly to unconsolidated (working more or less soft), slightly clay sandy silt Stones (2 to 60 mm), large mammal bone and modern rootlets were present	15	5	sieved to 300 microns with washover
103	AB	10301	Romano British pit fill	Just moist, mid grey brown, unconsolidated to cmmbly, slightly clay sandy silt Stones (6 to 60 mm) and charcoal (and possibly other fine charred material) were present	9	10	sieved to 300 microns with washover
130	AA	13001	Romano British ash deposit within the flue of a burnt stone structure (?corn drier)	Just moist, light to mid grey-brown to mid to dark grey-brown to black, unconsolidated to cmmbly, slightly clay sandy silt, with mid brown clay sand in casts of up to 15 mm Fine charred material, including ?charcoal (resulting in the 'black' colour) was common to abundant	7	10	sieved to 300 microns with washover
179	AA	17901	earlier Romano British ashy fill of slot sealed beneath earliest recognised phase of structures	Moist, mid to dark brown to dark grey brown, cmmbly to unconsohdated (working more or less soft), shghtly clay, silty sand to sandy silt Stones (2 to 60 mm) and charcoal were present	5	14	sieved to 300 microns with washover
189	AA	18901	earlier Romano-British burnt area on top of buried soil	Moist, mid brown to mid to dark grey-brown, crumbly and shghtly layered (in places) to unconsolidated (working more or less soft), slightly clay, silty sand to sandy silt, with occasional lumps of shghtly orange-brown clay Stones (6 to 60 mm) and ?charcoal were present	3	14	sieved to 300 microns with washover

Table 2 Bridge Road, Brompton on Swale Summary information for the residues from the processed samples Key CN = Context number, S = NAA sample, PRS = PRS sample, Wt = approximate residue dry weight (kg), Other components show an approximate weight in grammes – b/t/pot = brick/tile/pot, Fe/slag = iron object (mostly nails) or slag and associated mineral concreted sediment, ?Cu = possible copper object/fragment, ch = charred plant remains (mostly fine charcoal)

				Other components								
CN	**S**	**PRS**	**Wt**	**?daub**	**b/t/pot**	**mortar**	**Fe/ slag**	**?Cu**	**glass**	**coal/ cinder**	**ch**	**Bone**
94	AA	9401/T	0 68		6			2		6	<1	4
95	AA	9501/T	0 45		10		35			2	1	3
95	AA	9501/BS	0 85		3		2	<1		4	10	21
99	AB	9901/T	3 30		56	27	9	<1	<1		<1	59
103	AB	10301/T	3 23		14						<1	21
130	AA	13001/T	0 75	50	10		7		4		2	5
179	AA	17901/T	1 45	72			2				<1	6
189	AA	18901/T	0 50		6		14				1	5

Table 3 Bridge Road, Brompton on Swale Plant taxa from deposits

(nomenclature and taxonomic order follow Tutin et al *1964 80) Taxa marked * were present as uncharred remains and are likely to be of recent origin*

Corylus avellana L (hazel)	charred nut(s) and/or nutshell fragment(s)
**Urtica dioica* L (stinging nettle)	achene(s)
**Polygonum aviculare* agg (knotgrass)	fruit(s)
Rumex sp(p) (docks)	charred fruit(s)
**Chenopodium album* L (fat hen)	seed(s)
**Atriplex* sp(p) (oraches)	seed(s)
**Fumaria* sp(p) (fumitories)	seed(s)
Raphanus raphanistrum L (wild radish)	charred pod segments and/or fragruent(s)
**Rubus fruticosus* agg (blackberry/bramble)	seed(s)
Crataegus monogyna Jacq (hawthorn)	charred pyrene(s)
*Leguminosae (pea family)	waterlogged seed(s)
Calluna vulgaris (L) Hull (heather, ling)	charred capsule(s), flower(s), shoot fragment(s), twig fragment(s)
cf *C vulgaris*	charred root and/or basal twig fragment(s)
Galium aparine L (goosegrass, cleavers)	charred fruit(s)
**Myosotis* sp(p) (forget me-nots)	nutlet(s)
**Lamium* Section *Lamiopsis* (annual dead nettles)	nutlet(s)
Plantago cf *media* L (?hoary plantain)	charred seed(s)
Sambucus nigra L (elder)	seed(s)
Gramineae (grasses)	charred caryopsis/es
cf Gramineae (?grasses)	charred culm fragment(s)
Cerealia indet (cereals)	charred caryopsis/es
Bromus sp(p) (bromes, etc)	charred caryopsis/es
Triticum spelta L (spelt wheat)	charred glume-base(s)
Triticum sp(p) (wheats)	charred caryopsis/es
Hordeum sp(p) (barley)	charred caryopsis/es
Avena sp(p) (oats)	charred caryopsis/es
Carex sp(p) (sedges)	charred nutlet(s)

Table 4 Bridge Road, Brompton on Swale Plant remains and other components of the samples recorded on a four point semi quantitative scale of abundance from 1 (one or a few specimens or fragments) to 4 (abundant remains or a major component of the sample) Key to abbreviations caps—capsules, ch—charred, fgts—fragments, fls—flowers, glb—glume base(s), inc—including, mun—mineral replaced, rt tw—root/basal twig, segs—segments, spr—sprouting, st—stem, tw—twig

Phase 5		
Context 189 (area of burning on soil)		
Sample 18901 (3 kg)		
Corylus avellana (ch)	1	
Rumex sp(p) (ch)	1	
cf *Calluna vulgaris* (ch rt tw fgts)	1	maximum dimension 5 mm
Triticum sp(p)	1	
Triticum spelta (glb)	1	
Hordeum sp(p)	1	
Cecilioides acicula	1	
ash concretions	1	maximum dimension 2 mm
charcoal	1	maximum dimension 10 mm
coal	1	maximum dimension 5 mm
moss (ch st fgts)	1	
root/rhizome fgts (ch)	1	maximum dimension 5 mm
Phase 6		
Context 179 (fill of slot)		
Sample 17901 (5 kg)		
Calluna vulgaris (ch tw fgts)	1	maximum dimension 10 mm
cf *Calluna vulgaris* (ch rt-tw fgts)	1	maximum dimension 10 mm
cf Gramineae (ch culm fgts)	1	maximum dimension 5 mm
Cerealia indet	1	
Bromus sp(p)	1	
Avena sp(p)	1	
Carex sp(p) (ch)	1	
'ash beads'	1	maximum dimension 5 mm
ash concretions	1	maximum dimension 2 mm
charcoal	1	maximum dimension 10 mm
cinders	1	maximum dimension 10 mm
fly puparia	1	modern
herbaceous detritus (ch)	1	maximum dimension 5 mm
Phase 7		
Context 103 (lower fill of pit 102)		
Sample 10301 (9 kg)		
Urtica dioica	1	modern
Atriplex sp(p)	1	?modern
Fumaria sp(p)	1	modern
cf *Calluna vulgaris* (ch rt-tw fgts)	1	maximum dimension 15 mm
Sambucus nigra	1	modern
Gramineae (ch)	1	
Triticum sp(p)	1	
'ash beads'	1	maximum dimension 5 mm
beetles	1	?modern
bone fgts	1	maximum dimension 10 mm
charcoal	1	maximum dimension 15 mm
coal	1	maximum dimension 5 mm
fish bone	1	maximum dimension 3 mm
herbaceous detritus (ch)	1	maximum dimension 3 mm
root/rhizome fgts (ch)	1	maximum dimension 3 mm

root/rootlet fgts (modern)	1	

Context 130 (fill of construction cut/pit 125)
Sample 13001 (7 kg)

Corylus avellana (ch)	1	
Chenopodium album	1	?modern
Calluna vulgaris (ch fls)	1	
Calluna vulgaris (ch sht fgts)	1	
Calluna vulgaris (ch tw fgts)	2	maximum dimension 5 mm
cf *Calluna vulgaris* (ch rt tw fgts)	1	maximum dimension 15 mm
Plantago cf *media* (ch)	1	
Bromus sp(p)	1	
Triticum sp(p)	1	
Triticum spelta (glb)	1	
Hordeum sp(p)	1	
Avena sp(p) (inc spr)	1	
Carex sp(p) (ch)	1	
'ash beads'	1	maximum dimension 1 mm
Cecilioides acicula	1	
ash concretions	2	maximum dimension 2 mm
charcoal	1	maximum dimension 5 mm
herbaceous detritus (ch)	1	maximum dimension 15 mm
moss (ch st fgts)	1	

Phase 8 [now phase 9]
Context 99 (layer inside Building B)
Sample 9901 (15 kg)

Corylus avellana (ch)	1	
Urtica dioica	1	?modern
Polygonum aviculare agg	1	
Atriplex sp(p)	1	?modern
Caltha palustris (?min)	1	a single specimen
Rubus fruticosus agg	1	?modern
Crataegus monogyna (ch)	1	
Leguminosae (w/l)	1	modern
Calluna vulgaris (ch tw fgts)	1	maximum dimension 5 mm
cf *Calluna vulgaris* (ch rt tw fgts)	1	maximum dimension **10** mm
Myosotis sp(p)	1	?modern
Lamium Section *Lamiopsis*	1	?modern
Sambucus nigra	1	modern
Gramineae (ch)	1	
Triticum sp(p)	1	
Carex sp(p) (ch)	1	
beetles	1	?modern
bone fgts	1	maximum dimension 5 mm
charcoal	1	maximum dimension 5 mm
cinders	1	maximum dimension 10 mm
coal	1	maximum dimension 5 mm
fish scale	1	maximum dimension 2 mm
root/rhizome fgts (ch)	1	maximum dimension 5 mm
root/rootlet fgts (modern)	1	
small vertebrate bones	1	

Phase 9
Context 94 (fill of pit 96 (?cess layer))
Sample 9401 (3 kg)

Chenopodium album	1	modern
Fumaria sp(p)	1	modern

Raphanus raphanistrum (ch pod segs/fgts)	1	
Calluna vulgaris (ch caps)	1	
cf *Calluna vulgaris* (ch rt-tw fgts)	1	maximum dimension 10 mm
Bromus sp(p)	1	a single fragment
Triticum spelta (glb)	1	
ash beads'	1	maximum dimension 2 mm
Cecilioides acicula	1	
charcoal	1	maximum dimension 10 mm
cinders	1	maximum dimension 5 mm
coal	1	maximum dimension 5 mm
herbaceous detritus (ch)	1	maximum dimension 5 mm
moss (ch st fgts)	1	
root/rootlet fgts (modern)	1	
small vertebrate bones	1	a single specimen
Context 95 (fill of pit 96 (ash layer))		
Sample 9501 (3 kg)		
Rumex sp(p) (ch)	1	
Calluna vulgaris (ch fls)	1	
Calluna vulgaris (ch sht fgts)	1	
Calluna vulgaris (ch tw fgts)	1	maximum dimension 10 mm
cf *Calluna vulgaris* (ch rt-tw fgts)	2	maximum dimension 15 mm
Galium aparine (ch)	1	
Hordeum sp(p)	1	
Carex sp(p) (ch)	1	
?burnt peat/mor humus	1	maximum dimension 5 mm
ash concretions	2	maximum dimension 10 mm
burnt bone fgts	1	maximum dimension 10 mm
charcoal	1	maximum dimension 5 mm
cinders	1	maximum dimension 5 mm
herbaceous detritus (ch)	1	
moss (ch st fgts)	1	
root/rhizome fgts (ch)	1	maximum dimension 10 mm
root/rootlet fgts (modern)	1	

Table 5 Bridge Road, Brompton on Swale summary information for the hand collected shell

Context	Phase	Frags	Wt (g)	Notes
12	7 [6]	107	12	fragments of mussel (*Mytilus edidis* L) shell
36	8 [7]	3	<1	1 *Trichia hispida* (L) and 2 other unidentified land snail fragments
83	8 [9]	54	4	?fragments of oyster (*Ostrea edulis* L) shell
95	9	5	5	?fragments of mussel shell and 1 piece of burnt bone
114*	9 [7]	109	94	mostly fragments of oyster and mussel shell with a little ?eggshell
133	7	1	0	unidentified
137	7	1	0	unidentified
184	4	1	2	fragments of mussel shell
186	5	1	2	fragments of oyster shell
193	8 [7]	5	13	fragments of oyster shell

* weight of shell for Context 114 includes some lumps of concreted sediment containing fragments of ?eggshell

Table 6 Bridge Road, Brompton on Swale hand collected bone by phase

Species		4	6	6b	7	8	9	Total
Rattus rattus (L)	black rat				1		-	1
	dog							
Canid	family	-				1	1	2
Canis f domestic	dog	-		-	2	3		5
Felis f domestic	cat	-		-		1		1
Equus f domestic	horse	1		-	20	22	3	46
Sus f domestic	pig		5	2	23	42	14	86
Capreolus capreolus (L)	roe deer	-			1			1
Bos f domestic	cattle	2	11	1	107	136	59	316
Caprovid	sheep/goat	3	10	3	58	59	21	154
Capra f domestic	goat	-				1		1
cf Capra f domestic	?goat	-		-		1		1
Ovis f domestic	sheep		3	5	9	9	4	30
Anser sp	goose	-			2			2
cf *Anser* sp	?goose			-	-		1	1
Gallus f domestic	chicken		2	1	6	3	1	13
Grus sp	crane	-				1	-	1
Homo sapiens	human		-		1		-	1
Total		**6**	**31**	12	**230**	279	104	662

Table 7 Bridge Road, Brompton on Swale MNI values for individual skeletal element for the main domestic mammals for Phase 4 6b

element	cow	horse	pig	sh/g	Total
horncore	-		-		0
mandible	-		2	2	4
isolated teeth	2		2	2	6
scapula	-		-	2	2
humerus	3			5	8
radius	-			2	2
ulna		-	-	1	1
metacarpal	1	-	-	1	2
pelvis	1		1	2	4
femur	-		-	-	0
tibia	-			3	3
astragalus	2			1	3
calcaneum	2	-	1	1	4
metatarsal	1	-		2	3
metapodial			-		0
phalanx 1	-		-		0
phalanx 2	2		-		2
phalanx 3	-	1	-	-	1
carpal/tarsal	-			-	0
patella	-			-	0
Total	14	1	6	24	45

Table 8 MNI values for individual skeletal element for the main domestic mammals for Phase 7, from Bridge Road, Brompton

element	cow	horse	pig	sh/g	Total
horncore	1	-		-	1
mandible	6	1	1	10	18
isolated teeth	6	4	3	17	30
scapula	3	-	1	4	8
humerus	13	1	3	2	19
radius	10		4	3	17
ulna	4			3	7
metacarpal	8	1		3	12
pelvis	6			3	9
femur	-	1	1	-	2
tibia	2	1	2	5	10
astragalus	7	2	1		10
calcaneum	6		-	6	12
metatarsal	8	1	1	5	15
metapodial	1	2	1	1	5
phalanx 1	14	1		4	19
phalanx 2	4	1		-	5
phalanx 3	3	4	1	-	8
carpal/tarsal	5	-		-	5
patella	-	-		-	0
Total	107	20	19	66	212

Table 9 Bridge Road, Brompton on Swale MNI values for individual skeletal element for the main domestic mammals for Phase 8

element	cow	horse	pig	sh/g	Total
horncore	1	-	-	3	4
mandible	15		13	13	41
isolated teeth	27	6	14	18	65
scapula	3	1	5	3	12
humerus	6	1	1	4	12
radius	6	-	2	6	14
ulna	2	-	-	2	4
metacarpal	11	1	-	8	20
pelvis	10	1	2	3	16
femur	2	2		2	6
tibia	3	1	1	1	6
astragalus	3	1			4
calcaneum	8		1	-	9
metatarsal	11	1		1	13
metapodial	1	2	-	-	3
phalanx 1	15	1	-	2	18
phalanx 2	5	3			8
phalanx 3	3	-	-	-	3
carpal/tarsal	2	-	-		2
patella	-	1			1
Total	134	22	39	66	261

Table 10 Bridge Road, Brompton on Swale MNI values for individual skeletal element for the main domestic mammals for Phase 9

element	cow	horse	pig	sh/g	Total
horncore	1	-	-	-	1
mandible	1	-	1	9	11
isolated teeth	4	1	3	1	9
scapula	3		1	1	5
humerus	4		-	3	7
radius	3	-	-		3
ulna		-	1	2	3
metacarpal	5	-	-	4	9
pelvis	4		3	1	8
femur	1	-	1		2
tibia	3	1		1	5
astragalus	2	-	-	-	2
calcaneum	1		-	1	2
metatarsal	1	1	-	2	4
metapodial	1	-	2		3
phalanx 1	14	-	1		15
phalanx 2	3	-		-	3
phalanx 3	1		-	-	1
carpal/tarsal	6	-			6
patella		-	-	-	0
Total	58	3	14	25	99

Table 11 Bridge Road, Brompton on Swale number of cattle mandibles or isolated teeth which could be assigned to the various age categories (after O Connor 1989)

Age	Phase 7	Phase 8	Phase 9
Juvenile	0	0	0
Subadult	0	0	0
Adult1	0	1	0
Adult2	1	0	0
Adult3	2	4	1
Elderly	1	3	1

Table 12 Bridge Road, Brompton on Swale number of sheep/goat mandibles and isolated teeth for age categories outlined by Payne (1973, 1987)

Age category	Phase 4 6b	Phase 7	Phase 8	Phase 9
A (0-2 months)			-	-
B (2 6 months)	-	-		1
C (6-12 months)			2	1
C/D (6 months 2 years)	-	1	1	-
D (1-2 years)	1	1	2	3
E (2-3 years)		1	-	-
F (3-4 years)	-	1	1	-
G (4 6 years)			-	-
G/H (4 8 years)	-	-	2	1
H (6 8 years)			1	-
I (8-10 years)	-	1		-

Table 13 Bridge Road, Brompton on Swale number of sheep/goat mandibles and isolated teeth for age categories outlined by O'Connor (1989)

Age category	Phase 4-6b	Phase 7	Phase 8	Phase 9
Neonatal		-	-	
Juvenile	-			1
Immature		-	2	1
Immature/subadult		1	1	
Subadult	1	1	2	3
Adult 1	-	1		
Adult 2		-	-	
Adult 3		1	4	1
Elderly	-	1		

Figure 1 Bridge Road, Brompton on Swale proportions of the major domestic mammals using fragment counts by phase

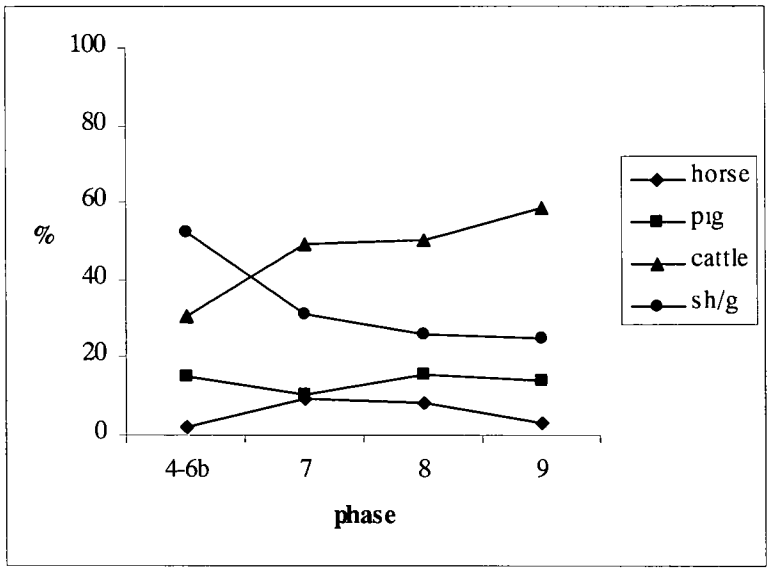


Figure 2 Bridge Road, Brompton on Swale Proportions of the major domestic mammals usmg MNI values by phase

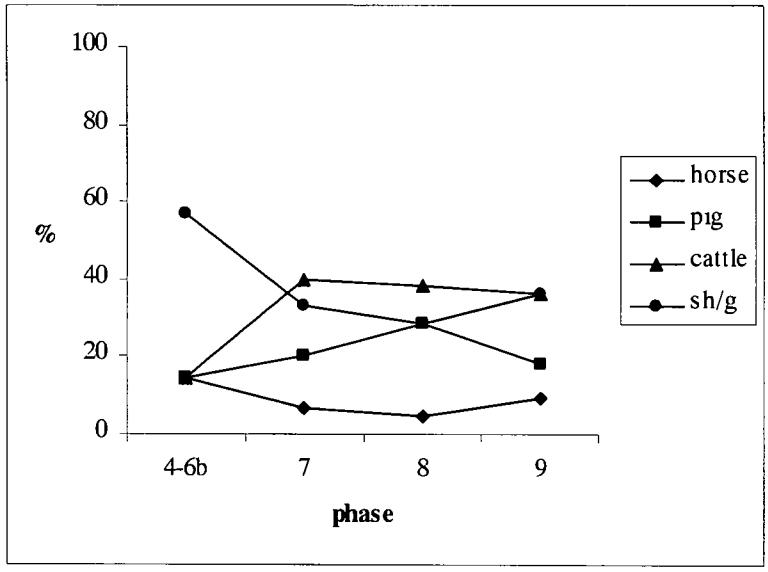
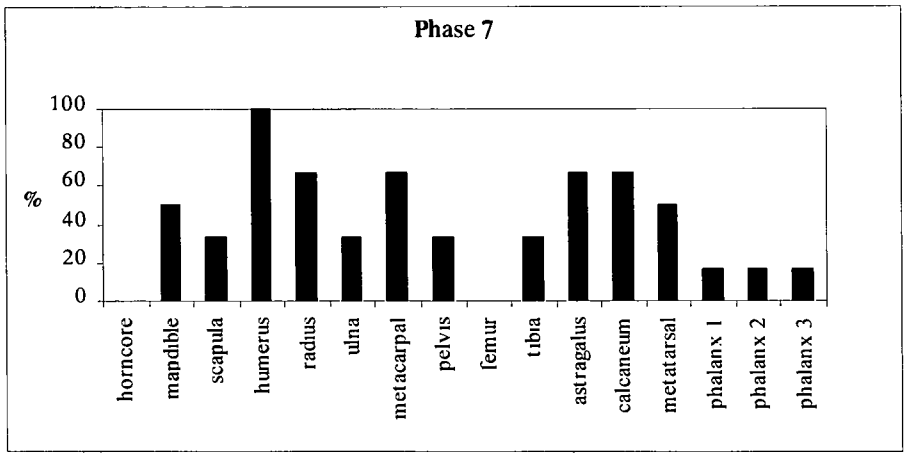
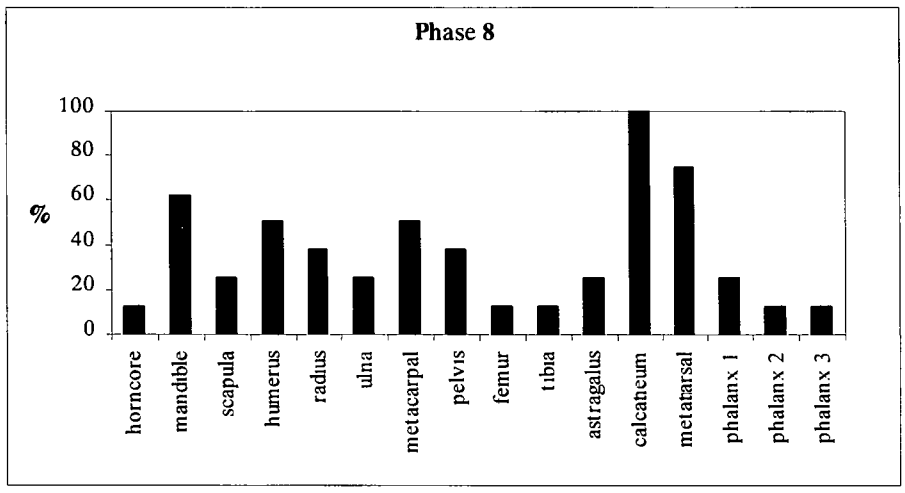


Figure 3 Bridge Road, Brompton on Swale skeletal element representation for cattle (where MNI values for individual skeletal elements are expressed as a proportion of the most frequent element) Values for the combined Phase 4 6b were insufficient for useful interpretation





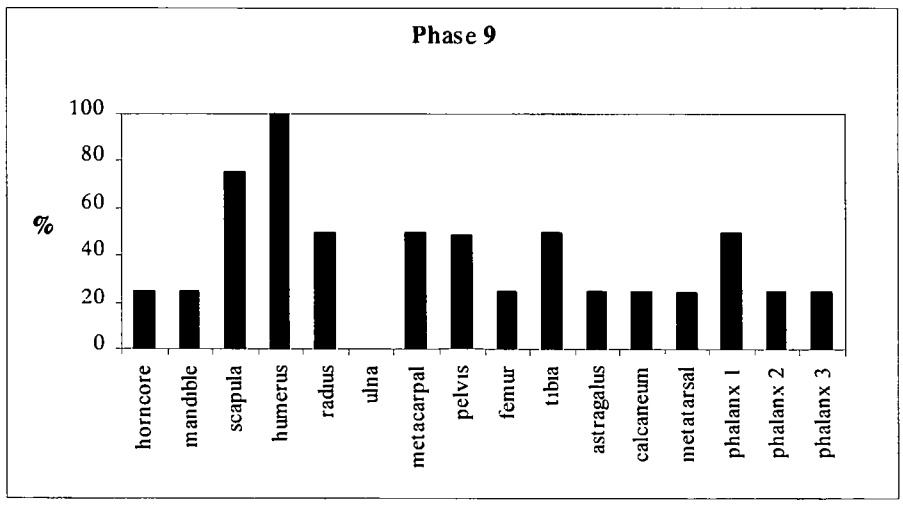
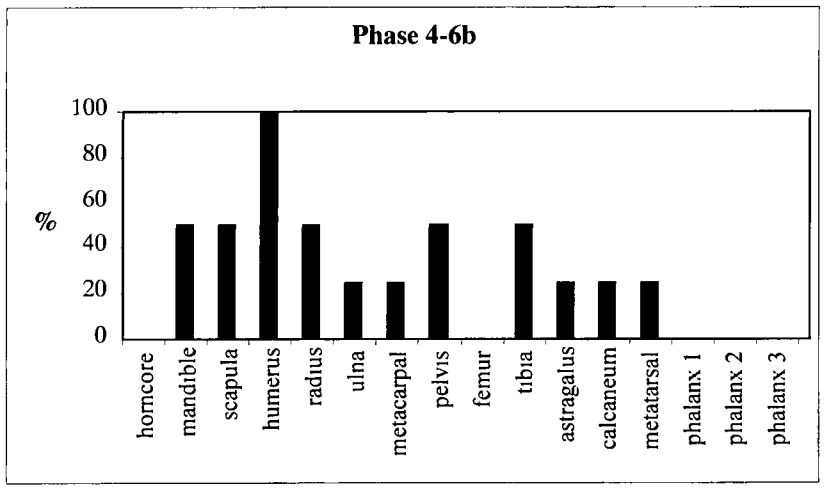
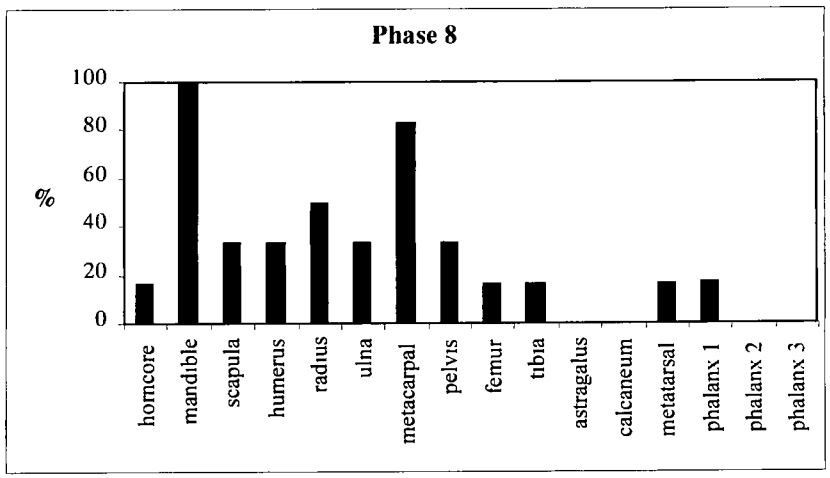
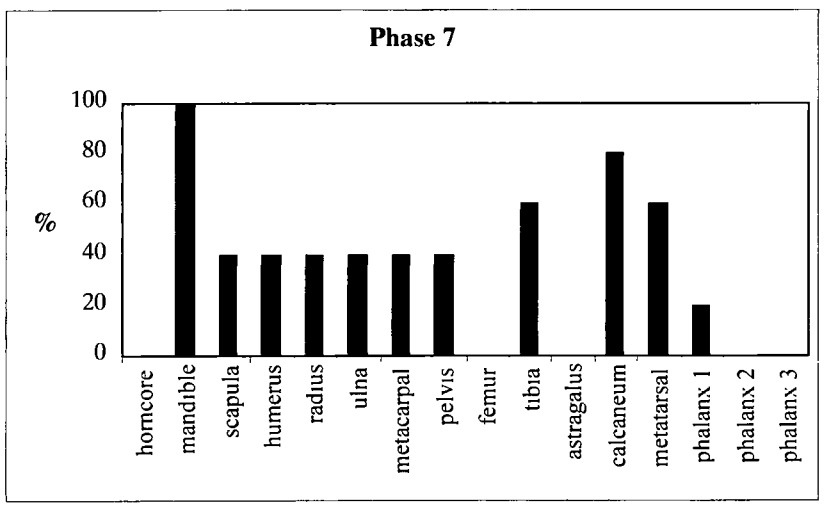


Figure 4 Bridge Road, Bromptoa on Swale skeletal element representation for sheep/goat (where MNI values for individual skeletal elements are expressed as a proportion of the most frequent element)







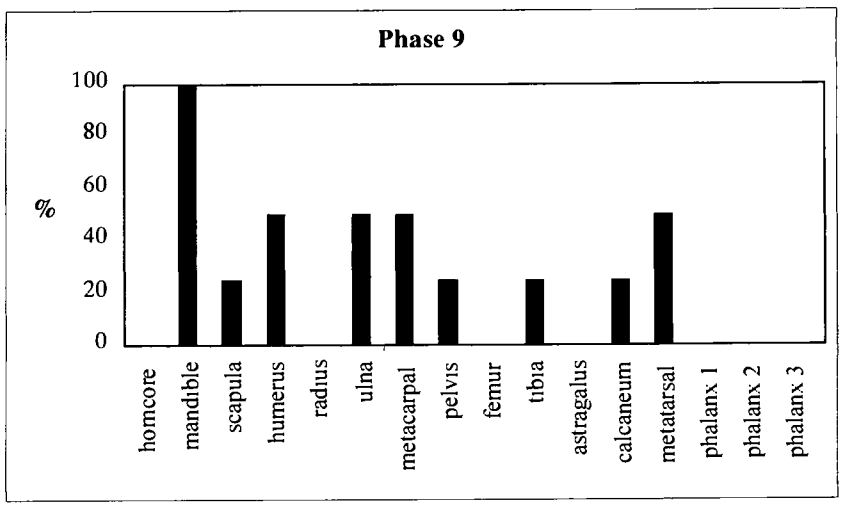


Figure 5 Frequencies of the major domestic mammals from Bridge Road, Brompton on Swale, and various other sites around Catterick Key ThornL2 3 = vertebrate remains from Late 2nd 3rd century deposits from excavations at Thornborough Farm, CatBL2-3 = vertebrate remains from late 2nd 3rd century deposits at Catterick Bridge, BarnL2 3 = remains from Late 2nd 3rd century deposits from excavations at Bamesse, ThornL3 4 = remains from Late 3rd 4th century deposits from excavations at Thornborough Farm, CatBL3-4 = vertebrate remams from Late 3rd 4th century deposits at Catterick Bridge, Site 434L3 4 = vertebrate remains from Late 3rd -4th century deposits at Site 434, BRB4 6/7/8/9 = Bridge Road, Brompton – numbers represent various phases Data taken from Stallibrass 2002

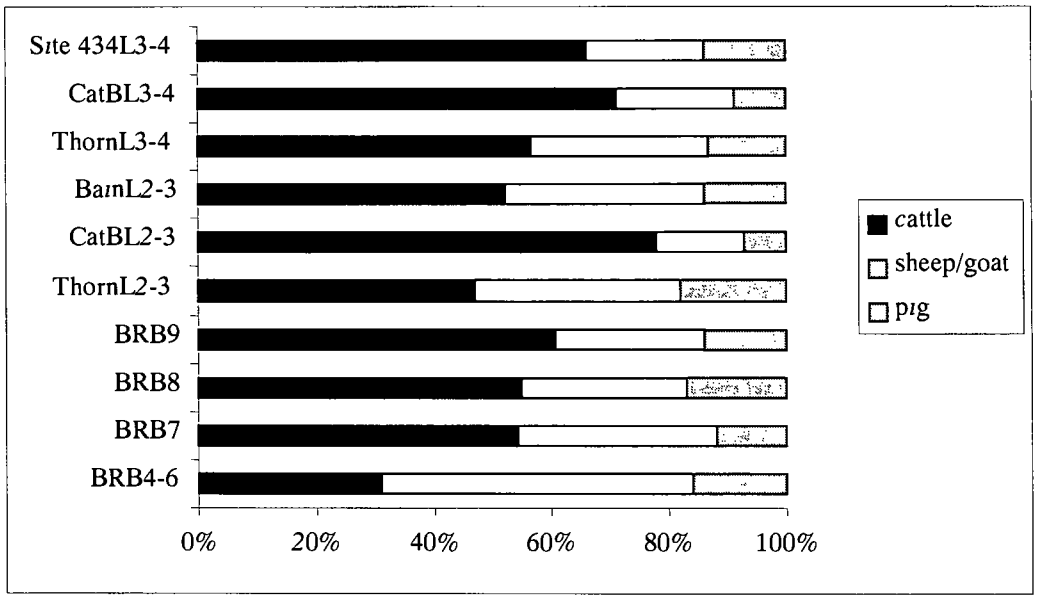
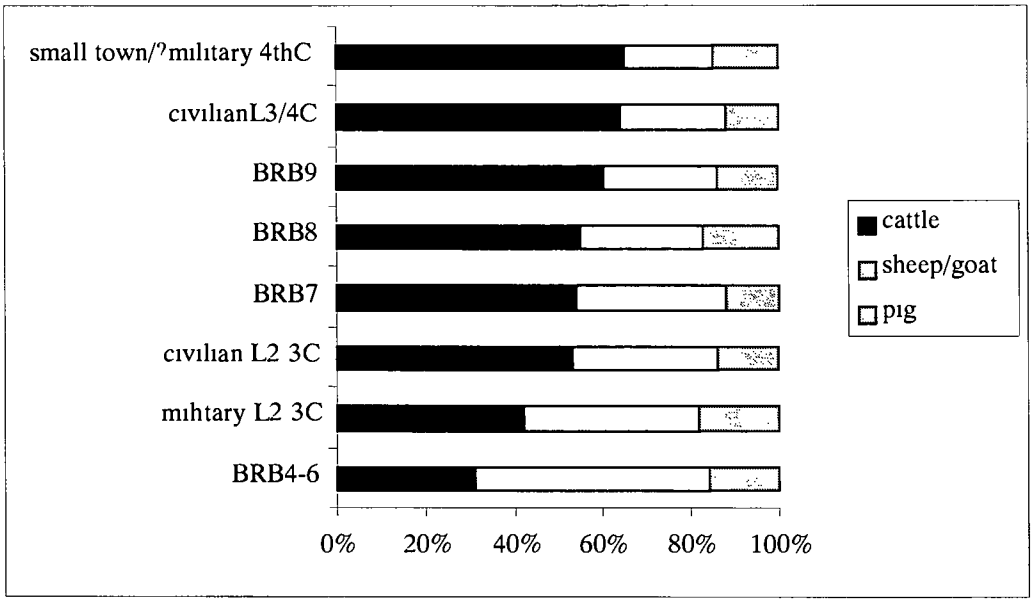


Figure 6 Frequencies of the major domestic mammals from Bridge Road, Brompton on Swale, compared with data from different site types at different periods All data from sites around Catterick (Stallibrass 2002)



APPENDIX K CONTEXT AND FINDS CATALOGUE

Context	Phase	Description	Ag Alloy	Animal bone	CBM	Clay pipe	Cu alloy	Fe	Fired clay	Flint	Glass	Human bone	Ind Waste	Lava stone	Pb	Pipe clay	Pottery	Sample	Shale	Shell	Wood	Worked bone	Worked stone
1	12	Post 1960s topsoil																					
2		Unstratified finds		380	28		2	16	3		1		2	22	1		286					1	1
3	11	Med/post med field wall footing																					
4	11	Cleaning over 3		2	4			1									5						
5	4	Roadside bank E side of earlier Dere Street		2				1									13						
6	7	Cleaning over later Dere Street surface 20		6				1					1				10						
7	11	Stone free soil layer similar to 9 14 15 28		2				11									18						
8	11	Demolition/construction rubble to W of wall 3																					
9	11	Stone free soil layer similar to 7 14 15 28		4				1									23						
10	12	Modern gravel dumps over 13/30 below 1																					
11	7	Coal lens in hollow 105 above roadside ditch 183		148			1	14		1	2		5				50						
12	6	Yellow sand fill of hollow above roadside ditch 183		8					4	1					1		42			107			
13	11	Same as 30 Pre 1960s topsoil																					
14	11	Stone free soil layer similar to 7 9 15 28					1																
15	11	Stone free soil layer similar to 7 9 14 28		48				2									11						
16	9	Same as 27 Cobbled surface		8	4			4									19						
17	9	Stone free soil layer similar to 29 36 45 46 48 83 193																					
18	7	Ditch defining E side of later narrower Dere Street																					
19	7	Overall fill of ditch 18																					
20	7	Gravel make up of central part of Dere Street																					
21	3	Pre Roman buried soil sealed by Dere Street							2	2							1	2					
22	2	Fill of prehistoric feature 110																					
23	1	Natural gravel																					
24	8	Cobbled surface towards southern side of site		60				6					1				37						

Context	Phase	Description	Ag Alloy	Animal bone	CBM	Clay pipe	Cu alloy	Fe	Fired clay	Flint	Glass	Human bone	Ind Waste	Lava stone	Pb	Pipe clay	Pottery	Sample	Shale	Shell	Wood	Worked bone	Worked stone
25	4	Cleaning over cobble bank 5		16				2	3		1						18						
26	8	Cleaning over surface 24		90	1		4	13			1						111						
27	9	Cobbled surface along southern side of site					3	2															
28	11	Cleaning over 27		178	7		2	24	1		4		2				154					1	
29	7	Soil layer across central part of site		264	8		1	9			2		1				118						3
30	11	Same as 13 Pre 1960s topsoil		35	12	4		19		2			4				104						
31	7	Footing west wall of Building E																					1
32	7	Footing south wall of Building E																					
33	9	Cleaning over 31 and 32		144			1	5	5		1		1				114						
34	8	Footing south wall of Building F																					
35	8	Cleaning over 34		2	1						1		1				10						
36	7	Brown soil in area to north of wall 34		268	3		2	37	9		3		16	6			192			3			
37	8	Possible footing extending line of 34 to east																					
38	8	Brown soil over/around 37		3	1												7						
39	9	N S cobble wall footing in cut 123		6													4						
40	9	Cleaning over footing 39		59	1			4							1		42						
41	9	Cobbled surface butting to E side of footing 39																					
42	9	Cleaning over 41		104	6			5					1				50					1	
43	9	Cobbled surface butting to W side of footing 39																					
44	9	Cleaning over 43	1	336	7		3	26	1		1		1				361					1	
45	9	Soil layer below surface 41		500	3		1	65		1	2		1	11		5	239						
46	9	Soil layer below surface 43		17			1										9						
47	9	Soil layer E end of site over/between 66 and 81		233	4		6	12					2				190					1	
48	9	Brown soil layer to north of footing 39		61	40			3							1		74						
49	10	Cobble fill of 50		43				1									11						
50	10	?Pit packed with cobbles																					
51	7	Pebble and tile floor surface in Building B			370												2						2

Context	Phase	Description	Ag Alloy	Animal bone	CBM	Clay pipe	Cu alloy	Fe	Fired clay	Flint	Glass	Human bone	Ind Waste	Lava stone	Pb	Pipe clay	Pottery	Sample	Shale	Shell	Wood	Wdrkeil bone	Worked stone
52	8	Fill of 53		531	8		4	37		3	3		56	14	2		391				12		
53	8	Hollows in surface 51																					
54	8	Cleaning over cobbles 55 to E of cut 50		101	1			14									78						
55	8	Cobbled surface to E of cut 50																					
56	9	Grave cut Filled by 57 58																					
57	9	Backfill of grave 56 above 58 Cut by 50		42				3									10						
58	9	Skeleton in grave 56 below 57										1											
59	10	Fill of postpit 60		59				1									24	2			1		
60	10	Postpit cutting surface 27 Filled by 59																					
61	8	Posthole cutting surface 55 Filled by 62																					
62	8	Fill of posthole 61		1													1						
63	8	Posthole cutting surface 55 Filled by 64																					
64	8	Fill of posthole 63																					
65	7	Footing at N edge of site South wall of Building A																					
66	9	Soil and cobble dump over Buildings A and B		769	27		16	19	6		1		6	2			327					1	
67	9	Soil overlying dump 66		355	84		1	29	7		4		7				321						2
68	4	Upper gravel layer NE corner of wider Dere Street																					
69	4	Iron pan layer below 68															29						
70	4	Reduced layer below 69																					
71	4	Iron pan layer below 70																					
72	3	Buried soil layer sealed by 71																					
73	1	Natural gravel below 72																					
74	7	Segment of ditch 18 at S baulk																					
75	7	Upper fill of 74 above 76		15				3									18						
76	7	Lower fill of 74 below 75		15			1	2															
77	10	Postpit at SE corner of Building G Filled by 78																					
78	10	Fill of postpit 77		6			1	1									10						

Context	Phase	Description	Ag Alloy	Animal bone	CBM	Clay pipe	Cu alloy	Fe	Fired clay	Flint	Glass	Human bone	Ind Waste	Lava stone	Pb	Pipe clay	Pottery	Sample	Shale	Shell	Wood	Worked bone	Worked stone
79	10	Fill of pit 80		3				1	1								3						
80	10	Pit cutting surface 27 Filled by 79																					
81	9	Soil and cobble dump over Building C		526	4		3	21	16		3		8				192						1
82	9	Cleaning over 81		204	29			23	7		3		3				247						
83	9	Soil layer over surface 84 Same as 46 Below 43		258	1		2	28	12		2		2				195			54			
84	6	Side road surface Above 189 Cut by many pits																					
85	5	Buried soil layer Contiguous with 176/181/187																					
86	7	Fill of pit 87 Sealed by 83		11	2			2									8						
87	7	Pit Cut pit fill 88 Filled by 86																					
88	7	Fill of pit 89 Cut by pit 87		71	1			6					2				35						
89	7	Pit Cut surface 84 Filled by 88																					
90	9	Soil layer above surface 51 Below 66		291	5		3	23	4		2		4		1		165						
91	2	Fill of pit 92 Sealed by buried soil 21								1													
92	2	Prehistoric pit Cut gravel 23 Filled by 91																					
93	9	Upper fill of pit 96 Above 94 Below cleaning 98		208	9			11	6		3						149	2					1
94	9	Fill of pit 96 Above 95 Below 93		252	3		3	16	9				2	21			216	4					
95	9	Fill of pit 96 Above 104 Below 94		159	1			6	7					5	1		155	4		5			
96	9	Large pit Cut 192 Filled by 104 95 94 93																					
97	9	Finds No Mixed finds from fills 94 95 in pit 96		119				4	3		2		2				120						
98	9	Cleaning over pit fill 93					6	1															
99	9	Soil layer over surface 100 Below 66		574	4		3	31			3		3				246	2				2	
100	7	Pebble surface in Building B																					
101	7	Upper fill of pit 102 above 103 Sealed by surface 24		264			1	27			1		4				124					1	1
102	7	Pit Cut surface 84 Filled by 103 101																					
103	8	Pit Cut surface 84 Filled by 103 102																					
104	9	Primary fill of pit 96 Below fill 95		74	1		1	3	4		2						64					1	

Context	Phase	Description	Ag Alloy	Animal bone	CBM	Clay pipe	Cu alloy	Fe	Fired clay	Flint	Glass	Human bone	Ind Waste	Lava stone	Pb	Pipe clay	Pottery	Sample	Shale	Shell	Wood	Worked bone	Worked stone
105	7	Hollow above ditch 183 Cut 12 Filled by 11																					
106	10	Fill of postpit 107 ?Sealed by layer 28		13													2						
107	10	Postpit Cut surface 27 Filled by 106																					
108	10	Fill of slot 109 ?Sealed by layer 28		14			1	4									22						
109	10	Slot Cut surface 27 Filled by 108																					
110	2	Large prehistoric cut Cut gravel 23 Filled by 22																					
111	7	Floor Building E Same as 185 Butted 31 32 Below 192																					
112	10	Fill of slot 113 ?Sealed by layer 28		34					1		1						14						
113	10	Slot delineating Building H Cut surface 27 Filled by 112																					
114	7	Fill of western roadside ditch 115 Cut by modern track		9				1			1						30			109			
115	7	Western roadside ditch Cut surface 140 Filled by 114																					
116	10	Fill of slot 117 Cut by postpits S0 159		10				7					4				12						1
117	10	Slot hnking postpits 80 159 Cut 27 Fdled by 116		39	1		1	1	2	1							17						
118	9	Cleaning layer in area of trial trench 32E 45E		209	4			15	1				1				71						
119	9	Fill of grave 121 Above skeleton 120 ?Below topsoil 1		52			1	1	1								15						
120	9	Skeleton in grave 121 Below fill 119										1											
121	9	Grave ?Cut 47 Filled by skeleton 120 and fill 119																					
122	8	Cleaning layer to S of 45/20 50/20		138	1			10	3		1		1				41						
123	9	Construction cut Cut layer 45/46 Filled by footing 39																					
124	8	Cleaning over surface 55 SE of 54/19 Below 1		59	5		1	5									132						
125	7	Construction cut for corn drier 126 Cut surface 84		133				4	2		1		1	2			113						
126	7	Corn drier In cut 125 backfill 127 Fills 130 129 128					1										3						1

Context	Phase	Description	Ag Alloy	Animal bone	CBM	Clay pipe	Cu alloy	Fe	Fired clay	Flint	Glass	Human bone	Ind Waste	Lava stone	Pb	Pipe clay	Pottery	Sample	Shale	Shell	Wood	Worked bone	Worked stone
127	7	Backfill of cut 125 around corn drier 126 Below 149																					
128	7	Upper fill of corn drier 126 above 139 Sealed by 45						11															
129	7	Collapsed structure within 126 Above 130 Below 128		7				1	9								5						1
130	7	Primary ashy fill of 126 Below 129		2													12	2					
131	7	Fill of pit 132 Sealed by soil layer 83		16													8						
132	7	Pit Cut pit fill 133 Filled by 131																					
133	7	Fill of pit 134 Cut by pit 132		23				4	1								10			1			
134	7	Pit Cut surface 84 Filled by 133																					
135	7	Fill of pit 136 Sealed by soil layer 83																					
136	7	Pit Cut surface 84 Filled by 135																					
137	7	Scatter of burnt clay over surface 84 Sealed by soil 83		7				5									3			1			
138	7	Surface in Building A Butted wall 65 Below layer 139																					
139	7	Soil layer in Building A Above surface 138 Truncated		20													5						
140	4	?Early Dere St surface Above ?21 Cut by ditch 115																					
141	7	?North wall Building C																					
142	7	Surface to W of Building B Below 66																					
143	7	Surface between Buildings A and B Below 99																					
144	7	Surface below Building B surface 51 Butted wall 65																					
145	9	Fill of grave 147 above skeleton 146 ?Below topsoil 1		85	2			2	1		1		1				18						
146	9	Skeleton in grave 147 below fill 145										1											
147	9	Grave ?Cut 81 Filled by skeleton 146 and fill 145																					
148	6	Cleaning after removal of surfaces 51 100		67			3	18			2						66						
149	8	Surface Contig with 24 55 Above fill 167 Below 150													1								

Context	Phase	Description	Ag Alloy	Animal bone	CBM	Clay pipe	Cu alloy	Fe	Fired clay	Flint	Glass	Human bone	Ind Waste	Lava stone	Pb	Pipe clay	Pottery	Sample	Shale	Shell	Wood	Worked bone	Worked stone
150	8	Cleaning over surface 149 Base of layer 45/46		127				23	7		1		2				123		1				
151	9	Fill of grave 153 above skeleton 152 ?Below topsoil 1		39	3			1									17						
152	9	Skeleton in grave 153 Below fill 151										1											
153	9	Grave ?Cut 81 Filled by skeleton 152 and fdl 151																					
154	7	Fill of pit 155 Sealed by soil layer 83																					
155	7	Pit Cut surface 84 Filled by 154		5				3									3						
156	7	Fill of pit 157 Sealed by soil layer 83		5			1	3	5				1				6						
157	7	Pit Cut surface 84 Filled by 156																					
158	10	Fill of postpit 159 ?Sealed by layer 28		1													2						
159	10	Postpit Cut slot fill 116 Filled by 158																					
160	10	Fill of postpit 161 ?Sealed by layer 28																					
161	10	Postpit Cut slot fill 108 Filled by 160																					
162		Number not used																					
163		Number not used																					
164		Number not used		9			1										1						
165		Number not used																					
166	10	Cleaning over structures at NW corner of site		230	4		4	15	8		3		2				150						
167	6	Fill of ditch 168 Below 24/55/149																					
168	6	Ditch to N of side road Cut 189 Filled by 167																					
169	9	Fill of grave 171 above skeleton 170		7				3									24	1					
170	9	Skeleton in grave 171 Below 169										1											
171	9	Grave cut Filled by 170 and 169																					
172	11	Slot Cut 5 Filled by 173		3																			
173	11	Fill of slot 172 Sealed by 1																					
174	8	Fill of pit 175 Below cobbled surface 24		37				8	7								19						
175	8	Pit Cut surface 84 Filled by 174																					
176	5	Buried soil at E end of site		1			1	3									26	2					

Context	Phase	Description	Ag Alloy	Animal bone	CBM	Clay pipe	Cu alloy	Fe	Fired clay	Flint	Glass	Human bone	Ind Waste	Lava stone	Pb	Pipe clay	Pottery	Sample	Shale	Shell	Wood	Worked bone	Worked stone
177	5	Burnt deposit in hollow 178 above 186 Below 141						3										1					
178	5	Hollow in soil 176 Filled by 186 and 177																					
179	6	Ashy fill of slot 180 Sealed by floor 51/100		19													6	3					
180	6	Slot Cut soil 181 Filled by 179																					
181	5	Buried soil Contig with 176 Cut by 180						1									1						
182	5	Cleaning over soil 176/181		32				5			1						44				2		
183	4	E side ditch earlier Dere St Cut 21 Filled by 184																					
184	4	Primary fill of ditch 183 Below 12		18			1										20			1			
185	7	Floor Building E Same as 111 Butted 31 Below 192																					
186	5	Lower fill of hollow 178 below 177											35					1		1			
187	5	Part of buried soil 176/181 Above 188															7						
188	1	Natural cobbles/gravel at E end of site																					
189	5	Burnt patches over soil 176 Sealed by 84 Cut by 168		12				1									10	2					
190	8	Same as 201																					
191	7	Sand layer Above layer 192 Below wall 190/201		10													5						
192	7	Ash layer Above floor 111/185 Below layer 191		6				3			1						49						
193	7	Part of soil layer 29/45/46etc Above 194 Below wall 31		22				5									62			5			
194	7	Poss metalled surface Above natural 23 Below 193																					
195	5	??Hearth/kiln/burnt patch Only salvage recorded																					
196	6	Fill of slot 197 Below wall 141																					
197	6	Slot ?Cut soil 176 Filled by 196																					
198	4	Earlier road metalling Above 21 Below 5 Cut by 18																					
199	2	Fill of ?pit 200 Sealed by soil 21																					
200	2	?Pit Cut 23 Filled by 199																					

Context	Phase	Description	Ag Alloy	Animal bone	CBM	Clay pipe	Cu alloy	Fe	Fired clay	Flint	Glass	Human bone	Ind Waste	Lava stone	Pb	Pipe clay	Pottery	Sample	Shale	Shell	Wood	Worked bone	Worked stone
201	8	W wall Building F = 190 Over 191 Butted by 207																					
202	10	E wall Building G Cut wall 34 Below cleaning 166																					
203	10	Dividing wall Building G Cut 29 Below cleaning 166																					1
204	10	S wall Building G Cut 29 Below cleaning 166																					
205	10	W wall Building G Cut 29 Below cleaning 166																					
206	10	N wall Building G Cut 12 Below cleaning 166																					
207	8	Cobbled surface butting W side wall 190/201 Below 1																					
500		u/s finds from N edge of development area															4						
		Total	1	9455	700	4	89	762	158	12	61	5	186	83	9	5	6631	28	1	287	15	10	16

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