REPORT ON THE EXCAVATIONS AT ALDBOROUGH (ISURIUM BRIGANTUM): 2016 (BUILDING 4.8)



by Rose Ferraby and Martin Millett
with contributions from Richard Brickstock, Jeremy Evans, Philip Mills,
Dominic Powlesland and Vida Rajkovača
Faculty of Classics, University of Cambridge

REPORT ON THE EXCAVATIONS AT ALDBOROUGH

(ISURIUM BRIGANTUM), 2016 (BUILDING 4.8)

by Rose Ferraby and Martin Millett¹

with contributions from Richard Brickstock, Jeremy Evans, Philip Mills,

Dominic Powlesland and Vida Rajkovača

This report concerns the re-opening of part of the excavation of a Roman building first examined in the 1830s and 40s. The work established that the 19th century plans were very accurate and that the buildings remain in good condition. The structure was confirmed to form part of a domestic bath suite constructed in the second century AD at the north-west corner of the courtyard of a town house. Although no undisturbed deposits were excavated, studies of redeposited Roman finds provide some evidence for the chronology of this part of the Roman town. Finds from a 19th-century rubbish deposit are also summarized.

INTRODUCTION

This excavation was the first in a series undertaken as part of the Aldborough Roman Town Project that sought to further understanding of the Roman town through the re-examination of past excavation areas. They were initiated as a second phase of research into the Roman town following our survey of the Roman town (Ferraby and Millett 2020) and the preparation for publication of the results of field-walking in its environs in the 1980s and early 1990s (Dobinson et al. 2018; Millett et al. 2018). The overall aim of this campaign was to provide a better understanding of the chronology of the Roman town through interventions that had a limited impact on the preservation of the site. They were also designed to provide new information to enable us to assess the nature and quality of previous excavations, and to assess the current condition of the structures exposed in these past excavations. The initial targets for re-excavation were (i) the areas around the mosaics displayed in the English Heritage site, (ii) the north range of the forum in front of the church, and (iii) buildings found in the 1920s in the northern part of the town. Work in 2016 concerned the first of these.

The site falls within the area of the Aldborough Roman Town Scheduled Ancient Monument (SAM 1003133). Scheduled Monument Consent for the excavation was kindly facilitated by Historic England. The digital archive for this excavation can be found on the Cambridge University Library Apollo Archive², and the finds archived at the English Heritage Store in Helmsley, North Yorkshire.

¹ This report supersedes the interim report on the excavation (Ferraby and Millett 2017) OASIS ID: roseferr2-304515 or www.repository.cam.ac.uk/handle/1810/292637

² www.repository.cam.ac.uk/handle/1810/315919

BACKGROUND

The excavation was located in the south-west part of the walled town, just to the north of the mosaics currently displayed in the English Heritage Guardianship site (SE 4049 6613; Ferraby and Millett 2020, gazetteer nos 22 and 104; see Figs 1 and 2). Ecroyd Smith reports on the discovery of these two mosaics in 1832 and 1848, and reproduced a plan in his Relique Isurianae showing them in the context of other walls along with vignettes illustrating his excavations (1852, 17–18, 37–41, Pls III, VI, XV–XVII). His plan shows that the mosaics were positioned in the west wing of a courtyard building with adjacent rooms containing hypocausts at its corner and in the north wing (Fig. 2). The two mosaics (Neal and Cosh 2002, nos. 123.13 showing a lion, and 123.14 a geometric design with an eight-petalled flower) were subsequently displayed in specially constructed small buildings. The other excavations are presumed to have been backfilled, though it is not known how long after the excavation this took place and whether or not the structures had been left exposed to the elements for long after excavation.

The results of our magnetometer survey in this area were obscured by the presence of surface rubble in the area around the mosaics, but showed a general coherence of the wall alignments with those drawn in the Ecroyd-Smith plan. GPR survey in 2015, provided clear images and confirmed the accuracy of Ecroyd-Smith's illustrations. This suggested that the building uncovered remained wellpreserved and in situ. On the basis of the results of the gradiometer and GPR surveys we concluded that the structures exposed by Ecroyd Smith lay near the centre of the second of three terraces cut into the slope in the southern half of the Roman walled town, at the back of a large courtyard house (Building 4.8) that faced on to the Principal North–South street (under the present Front Street) (Fig. 1). It is debated whether Building 4.8 originally formed part of the structure to the south which later seems to have formed a separate house (Building 4.9) occupying the southern part of Terrace 2 (Ferraby and Millett 2020, 54). Further to the south, on the edge of Terrace 3 a further substantial house (Building 4.10) explored by Ecroyd Smith included an apsed hall with the helicon mosaic as its floor (Ferraby and Millett 2020, gazetteer no. 23). The edge of the Roman terracing between Buildings 4.9 and 4.10 was followed by a medieval toft boundary. Two other medieval boundaries are visible, one separating Buildings 4.8 and 4.9, the other along the field edge just to the north of our excavation trench.

The specific aims of the work in 2016 were:

- to gain a clearer understanding of the nature of Ecroyd Smith's excavation
- to assess the extent of surviving undisturbed deposits in the area he had examined
- to understand the terracing in the field that runs across the area he had examined

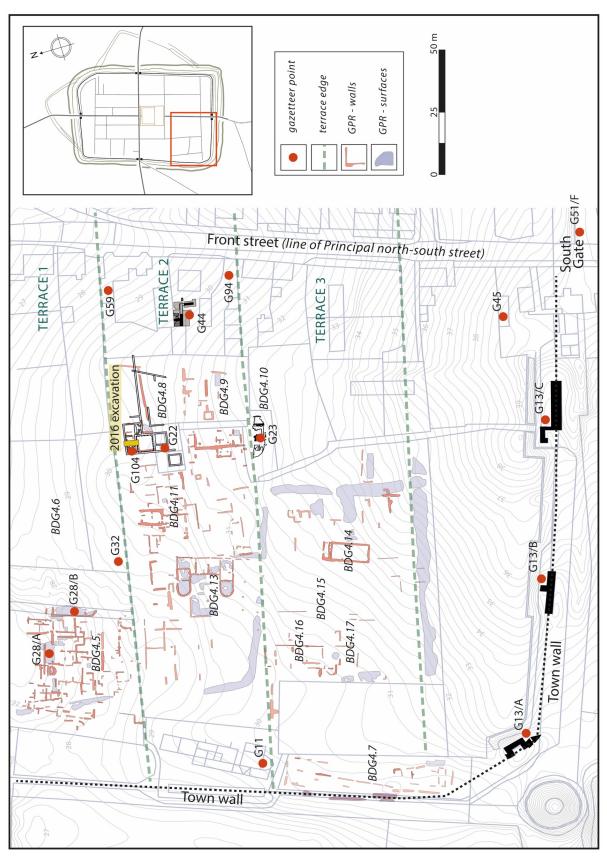


Figure 1: Map showing the location of the 2016 excavation in relation to evidence for the Roman Town. (Illustration: Rose Ferraby). Crown copyright and database rights 2018 Ordnance Survey (100025252)

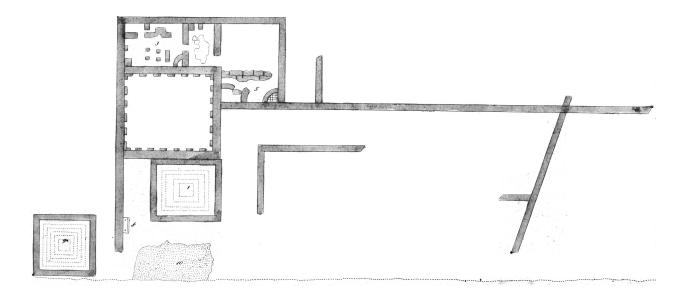


Figure 2: Plan from Ecroyd Smith 1952 Pl. XV showing the buildings revealed in the excavations of 1832 and 1848

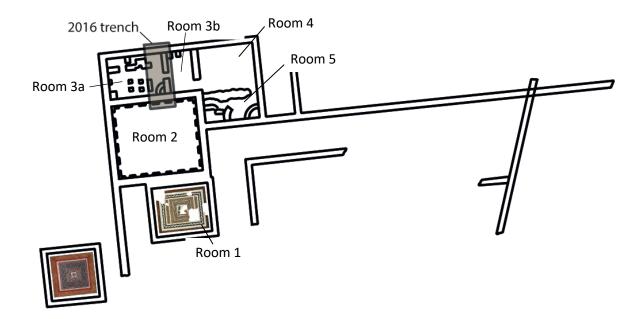


Figure 3: Plan showing the location of the 2016 excavation in relation to the buildings and mosaics found in the nineteenth-century (true orientation). (Illustration: Rose Ferraby)

METHODS

The location of the nineteenth-century excavations having been confirmed by the GPR survey, we were able to locate the trench with precision in order to examine the rooms in the north-western part of the structure recorded on Ecroyd Smith's plan (1852, Pl. XV). The trench was 5 x 2m and oriented just off north-south following the orientation of the mosaics and known archaeology (Fig. 3). The turf was cut and removed by hand, and stacked to be reinstated after the excavation. Excavation was carried out by hand, using pick axes, shovels and trowels.

The excavation was recorded using a single context recording system with planning was carried out with a combination of the total station and photogrammetric recording. The detailed 3D models produced have been used to create the published plans and sections of the trench. Bulk finds were collected by context, and have been recorded by weight and count. Spoil heaps for each context were kept separate and were metal detected on site, so that finds could be allocated to their excavated context. Excavation was limited to the removal of backfill from the nineteenth-century trench, limiting the amount of information recovered. On completion of the work, the trench was backfilled using a mini-digger, and the turf replaced.

THE EXCAVATED SEQUENCE

A photogrammetric survey was carried out by Dominic Powlesland (Landscape Research Centre) to record the trench, and the 3-D model is available at https://sketchfab.com/3d-models/aldborough-2016-final-view-aaacdc9c882848949aef7b345d3d99da A photographic plan can be seen in Figure 4.



Figure 4: Photographic plan of the 2016 trench, oriented north (Image: Dominic Powlesland)

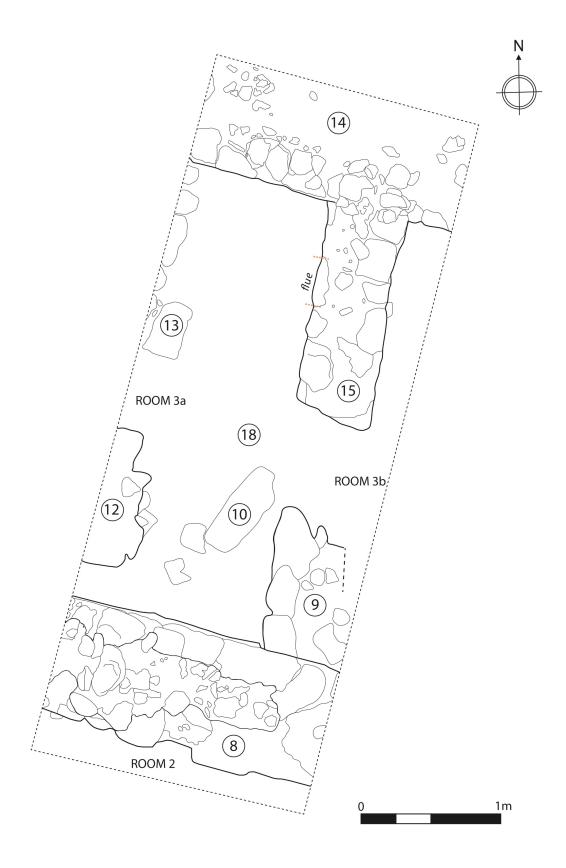


Figure 5: Plan of the 2016 excavation showing the context and room numbers used in the text. (Illustration: Rose Ferraby)

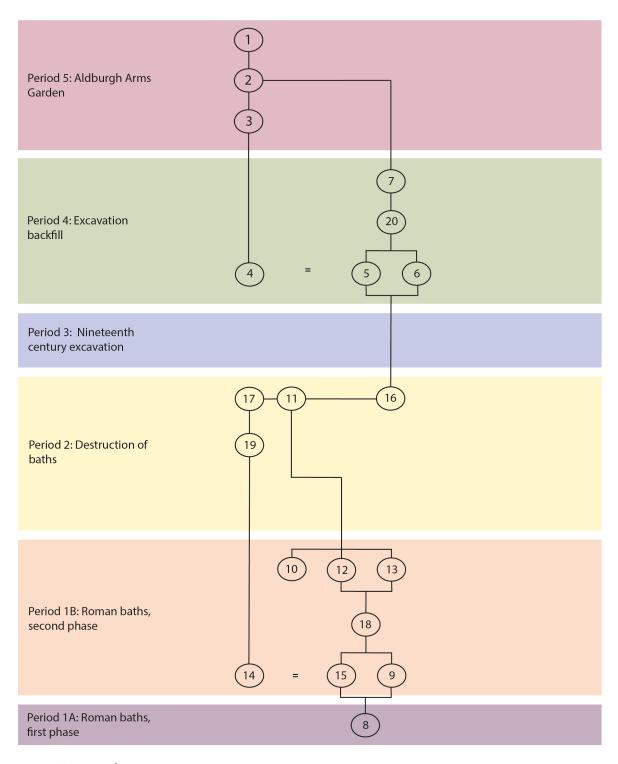


Figure 6: Stratigraphic Matrix

The excavated sequence is shown in the stratigraphic matrix (Fig. 6) and may be summarized as follows.

Period 1 Roman Building

The trench exposed several of the Roman walls recorded on Ecroyd-Smith's plan. This confirmed both the accuracy of the published plan (Fig. 5) and that the remains had been covered up soon after the nineteenth-century excavation, leaving them in a good state of preservation. The rooms have been numbered using Ecroyd-Smith's sequence.

Examination of these walls revealed that they form part of a baths complex with at least two structural phases. The walls are constructed from Sherwood Sandstone blocks that were quarried from around the town, and are seen in the Town Wall and other domestic buildings on the site. The first phase was represented by Wall 1 (context 8) at the southern end of the trench (Fig. 7).



Figure 7: Photograph showing detail of the north face of Wall 1 with the offset at the top. (Photograph: Rose Ferraby).

This ran east—west across the trench and was 0.83 m wide, faced with thin (c.150mm) Sherwood Sandstone blocks that were well coursed, with a mortared rubble core. Four courses of foundation were exposed on its northern side above which there was a 0.03-0.04m wide offset and the damaged

remains of one upper course. This offset appears to represent the height of the floor of Room 3 which lay this side, and which was occupied by a hypocaust in the second phase. On the south side of Wall 1, Room 2 was not excavated, but the face of Wall 1 revealed evidence for a series of vertical recesses (260 by 8 mm) which clearly represent vertical flues designed to carry hot air up the inner face of the walls. This matches the detail shown on Ecroyd-Smith's plan (Fig. 2), and confirms that this room also had a hypocaust.

To the north, Wall 2 (context 14) and Wall 3 (contexts 9 and 15) can be dated to a later structural phase. Wall 3 (context 9) abutted Wall 1 with a straight joint, whilst Walls 2 and 3 (context 15) were bonded and of one build that was distinct from Wall 1. It uses smaller Sherwood Sandstone stone blocks within a mortar matrix and has foundations that used larger, squarer blocks than seen in Wall 1. Wall 2 forms the northern side of room 3, lying parallel with Wall 1, 2.96 m to the north. Its northern side was not exposed in the excavation. Room 3 is subdivided (into 3A and 3B) by Wall 3 which runs at a slight angle to the main structure, and was perhaps only present below the floor level as the room was occupied by a hypocaust. The gap in Wall 3 is probably a result of the collapse of a flue passing through it, as an intact flue was recorded passing through the wall c. 0.4m from its junction with Wall 2 (Fig. 8).



Figure 8: Photograph showing the west face of Wall 3 with the surviving flue opening. (Photograph: Rose Ferraby).

The hypocaust in room 3A was of the channelled type, with blocks of masonry founded on a mortar spread supporting the floor of the room. The remains of three such floor-supports survived (contexts 10, 12 and 13) each built of red sandstone set in mortar. That in the angle between walls 1 and 3 was largely eroded when compared with Ecroyd-Smith's plan, but the other broadly match his record. His plan also shows that further to the west room 3 the hypocaust has individual pilae rather than masonry blocks. The part of room 3 (= Room 3B) to the east of Wall 3 was not excavated. It seems most likely that the floor of Room 3, the level of which is indicated by the offset on Wall 1, was made of ceramic flooring tiles as 30–35mm thick fragments were found (see CBM report below).

There is little direct evidence for the dating of this building as we did not excavate any undisturbed deposits. Amongst the ceramic building material fragment of flue tile with broad comb keying is noted by Mills as being "most common in the second century" (see below). This would be consistent with the date of the mosaics suggested by Neal and Cosh (2002, 314).

The excavated rooms can be directly related to the plan produced by Ecroyd-Smith which we have shown to be accurate. They form a bath suite in the north-west corner of a courtyard house (Figs 2 and 9).

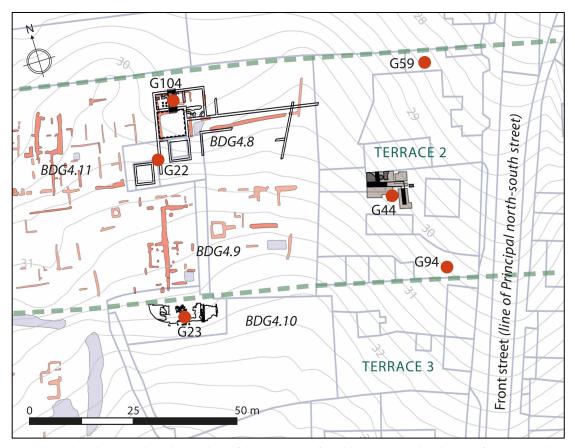


Figure 9: Plan showing the relationship of the remains of Building 4.8 to other known features in this part of the Roman town. (Illustration: Rose Ferraby)

We can tentatively reconstruct the functions of the rooms as follows. Room 1, with the lion mosaic on its floor, would have been accessed from the corridor so that the lion was correctly seen from the door on entry. This room was probably the frigidarium (cold room) although it may have doubled as an apodyterium (changing room) which is otherwise apparently absent. The gap to the west of the lion mosaic may have been occupied by a cold plunge bath. From Room 1 access would have been via a door in the north wall to Room 2 which has evidence for flues in the walls, and must therefore have been the tepidarium (warm room). This room was large (measuring 5.35 by 6.15m), and presumably gave access through a door in its northern wall to the caldarium (hot room) which occupied Room 3. The details of the rooms shown to the east on Ecroyd-Smith's plan is less certain, but it seems most likely that the furnace was in Rooms 4 and 5, perhaps with a hot plunge bath adjacent to the caldarium in Room 4.

Period 2 Roman Building destruction

A rubble deposit (context 11) within the south part of the fill of Room 3 is tentatively identified as relating to the destruction of the baths complex, although we cannot be certain when this happened or how. It represents small islands of stratigraphy that were left apparently untouched by the nineteenth-century excavation. The other deposit (context 17) of attributed to this phase is the fill of a robber trench (context 19) that removed the north face of Wall 2. The Roman pottery from the excavation includes a substantial proportion that continues down to the late fourth century (Evans below), but none of this can be linked with these specific deposits.

Period 3 Nineteenth-century excavation

No deposits were recorded that can be directly related to the excavations in 1832 and 1848, but the truncation of deposits at the level reached by our excavation can be equated with this work.

Period 4 Nineteenth-century excavation backfill

A series of deposits (contexts 4, 5, 6, 20) relate to the backfilling of the Victorian excavations, which appears to have taken place not long after the dig judging by the unweathered state of the walls.

Period 5 Garden of the Aldburgh Alms

After the backfilling of the excavation, a sinkage hollows seems to have developed over the building within which a stretch of brick walling probably represents a revetment or edging for a garden path, which can be seen on the 1890 Ordnance Survey map (Fig.10). Infilling the hollow was a substantial deposit of Victorian rubbish, including beer glasses, which seems likely to derive from the Aldeburgh Alms public house which lay on Front Street and which provided access to the mosaics on our site for a long period.

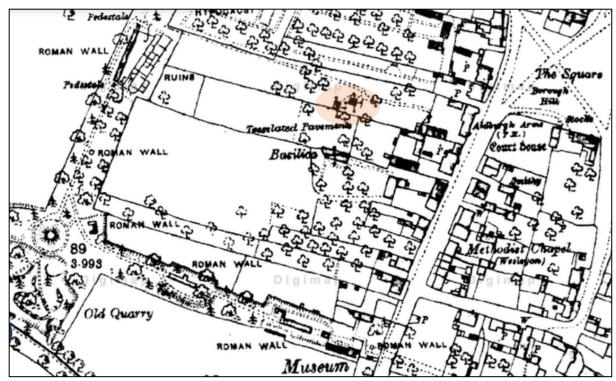


Figure 10: The 1890 Ordnance Survey map shows the path from the Aldburgh Arms past the area of excavations and displayed mosaics. Crown copyright and database rights 2020 Ordnance Survey (100025252).

THE FINDS

The excavation produced a large volume of finds from contexts dated to Periods 4 and 5. This material included a proportion of redeposited Roman material which provides some information about the Roman town. This material has been examined by the relevant specialists whose reports are summarized below. The nineteenth-century finds provide some evidence of interest which is also discussed below.

THE ROMAN COINS by Richard Brickstock

Four coins were recovered, all from the metal-detecting of excavated spoil. These coins are included in the paper summarizing the coins from Aldborough (Brickstock 2019, list 9).

```
1. Context 1 (Period 5)
```

Radiate copy. Copy as Tetricus 100

'ANT' 12mm, 0.6g, DA 5

Obv. Rad. head r.

Rev. Pax or similar Standing left

AD '260-73' w/w

2. Context 1 (Period 5)

'Constantine I' copy as RIC 7 TR 522, HK 51

Urbs Roma copy

11.5mm, 1.0g, DA12

AD '330-35', w/w

Obv. VRBS [ROMA]

Rev. Wolf and twins

3. Context 4 (Period 4)

Probably Radiate copy

Obv. ?(Radiate) head right

Rev. –

8mm, 0.5g, ?w/c

'ANT': 'AD 260-73' copy as RIC -

4. Context 4 (Period 4)

Tetricus I RIC 121 AD 270-73

18mm, 2.6g, DA1, sw/w

Obv. [IMP C TETRIC] VS PF AVG

Rev. [SAL]S AVG

THE ROMAN POTTERY by Jeremy Evans

The pottery sherds are summarized in Table 1 with date ranges given for all sherds where possible. All contexts are nineteenth century and all contain late fourth century Roman material. The date range of the small collection appears to be from the Hadrianic period to late fourth century. There is nothing which need be Flavian-Trajanic in date.

Context	Fabric	No. of	Weight	Functional	Date range
		sherds	(g)	type	
1	B01 (BB1 SE Dorset fabric)	1	17		120-200
1	B01 (BB1 SE Dorset fabric)	1	11		200-350
1	B10 (Black Burnished ware 2)	1	4		140-250
1	G01 (Calcite Gritted ware)	1	15		355-400
1	G01 (Calcite Gritted ware)	1	18	Jar	355-400
1	G24 (Hard, hand-made fabric)	1	16		200-350
1	M192 (Crambeck Parchment ware)	1	17		355-400
1	R07 (Holme-on-Spalding Moor, hard grey ware)	2	19		270-400
1	R07 (Holme-on-Spalding Moor, hard grey ware)	1	18		270-400
1	R09 (Crambeck grey ware)	2	12		285-400
1	R09 (Crambeck grey ware)	1	4		285-400
1	R10 (Hard grey fabric)	1	11		120-200
1	R11 (Hard grey ware)	1	8		
1	R19 (Hard reduced fabric)	1	18		
1	R35 (wheel-made reduced fabric)	1	12	Bowl	120-200
1	S20 (Central Gaulish samian ware)	1	1		120-200
1	S20 (Central Gaulish samian ware)	1	2	Bowl	120-200
	Context Sub-total	18	203		
2	A02 (Baetican Dressel 20 amphora)	1	193		70-250
2	B01 (BB1 SE Dorset fabric)	1	7		120-350
2	F70 (Crambeck Parchment ware)	1	6		355-400
2	F70 (Crambeck Parchment ware)	2	10		355-400
2	G01 (Calcite Gritted ware)	2	21		
2	G01 (Calcite Gritted ware)	1	19		
2	G05 (Chalk tempered ware)	1	63	Jar	355-400
2	G10 (Hand-made Dales ware)	1	3		270-400
2	G10 (Hand-made Dales ware)	1	12		270-400
2	R11 (Hard grey ware)	2	53		
2	R11 (Hard grey ware)	1	3		
	Context Sub-total	14	390		
	Period 5 Total	32	593		

4	A11 (Pelichet 47 amphora fabric)	1	2		70-200
4	B01 (BB1 SE Dorset fabric)	1	18	Dish	150-350
4	F112 (Nene Valley colour coated ware)	1	1		160-400
4	G01 (Calcite Gritted ware)	2	10		
4	G081 (Hand-made reduced ware)	1	10		
4	G24 (Hard, hand-made fabric)	1	3		
4	G71 (Hard, reduced fabric, brown core	3	97	Wide	100-300
	and grey margins)			Mouthed	
				Jar	
4	R06 (Grey fabric with soapy feel)	1	9		
4	R07 (Holme-on-Spalding Moor, hard	1	52	Jar	270-400
	grey ware)				
4	R09 (Crambeck grey ware)	1	11		285-400
4	R09 (Crambeck grey ware)	1	9		285-400
4	R09 (Crambeck grey ware)	1	4	Jar	285-400
4	R09 (Crambeck grey ware)	1	14	Bowl	285-400
4	R11 (Hard grey ware)	4	23		
4	R11 (Hard grey ware)	1	11		
4	R11 (Hard grey ware)	1	13	Dish	70-400
4	R112 (Cantley grey ware)	2	8		
4	R112 (Cantley grey ware)	1	11		
4	R112 (Cantley grey ware)	1	14	Jar	200-350
4	R133 (Hard, reduced fabric)	1	8	Jar	120-200
	Context Sub-total	27	328		
5	A02 (Baetican Dressel 20 amphora)	1	1		70-250
5	B01 (BB1 SE Dorset fabric)	1	4		120-350
5	B01 (BB1 SE Dorset fabric)	2	17		120-200
5	F111 (Nene Valley colour-coated ware)	1	3		160-400
5	F30 (Parisian ware)	1	19		70-200
5	G01 (Calcite Gritted ware)	1	8	Jar	300-400
5	G05 (Chalk tempered ware)	1	3		355-400
5	G05 (Chalk tempered ware)	1	8		355-400
5	G081 (Hand-made reduced ware)	3	24		
5	G10 (Hand-made Dales ware)	1	25	Jar	270-350
5	G24 (Hard, hand-made fabric)	2	13		
5	O13 (Wheel-made Oxidized ware)	1	1		
5	R07 (Holme-on-Spalding Moor, hard	1	7	Jar	270-400
	grey ware)				
5	R07 (Holme-on-Spalding Moor, hard	1	4		270-400
	grey ware)				
5	R09 (Crambeck grey ware)	1	5		285-400
5	R09 (Crambeck grey ware)	1	4		285-400
5	R09 (Crambeck grey ware)	1	3		285-400

5	R09 (Crambeck grey ware)	2	11		285-400
5	R11 (Hard grey ware)	5	40		
5	R11 (Hard grey ware)	1	11	Jar	70-400
5	R112 (Cantley grey ware)	1	14		
5	R13 (Hard grey ware)	1	37		120-200
5	R13 (Hard grey ware)	1	12		
	Context Sub-total	32	274		
	Period 4 Total	59	602		

Table 1: The Roman pottery

THE CERAMIC BUILDING MATERIAL by Philip Mills

There were 30 fragments of Roman ceramic building material (CBM) weighing 2980g presented for assessment. The Roman CBM all comes from nineteenth century contexts and is summarized in Table 2. It comprises brick, flue tile, tegula and imbrex, in relatively large sizes. This range of material largely derives from the hypocaust structure found on the site. There is no datable material as such, although there is some evidence that broad combed keying is most common in the second century.

The 30 fragments were recorded as sherd families, based on fabric and form by context. The material was recorded by number of fragments and weight in grams. The three fabrics distinguished were as follows:

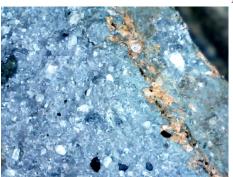
T11: a yellowish red tile fabric, which is hard with a sandy feel and irregular fracture. It has inclusions of some rounded quartz and occasional organic voids.



T12: a reddish yellow fabric which is hard with an irregular fracture and harsh feel. It has common angular flint and quartz inclusions.



T13: a fabric with red surfaces and margins and a grey core. It is hard, with a sandy feel and irregular fracture. It has inclusions of common quartz, some flint and occasional black iron stone.



Period/Context	Fabric	Description	No of	Weight (g)
			fragments	
Period 5,	T11	Tegula	1	121
Context 1	T13	Brick, 30mm thick	1	112
	T13	Brick or tile	4	74
Period 5,	T11	Tegula with flange	1	105
Context 2	T11	Tegula ?	2	215
	T11	Imbrex	1	59
Period 4,	T11	Tegula	3	295
Context 4	T11	Imbrex	1	61
	T11	Brick or tile	1	14
Period 4,	T11	Flue tile with broad tooth comb keying	4	419
Context 5	T11	Flue tile, plain	2	245
	T11	Brick or tile	3	109
	T12	Tegula ?	4	272
	T12	Brick, 35mm thick; one with 2 corners.	2	879

Table 2: Ceramic Building Material

THE FAUNAL REMAINS by Vida Rajkovača

The material summarized here was all recovered from nineteenth-century contexts which probably include residual Roman material.

Methods

Identification, quantification and ageing

The zooarchaeological investigation followed the system implemented by Bournemouth University with all identifiable elements recorded (NISP: Number of Identifiable Specimens) and diagnostic zoning (amended from Dobney and Reilly 1988) used to calculate MNE (Minimum Number of Elements) from which MNI (Minimum Number of Individuals) was derived. Identification of the assemblage was undertaken with the aid of Schmid (1972), and reference material from the Cambridge Archaeological Unit. Most, but not all, caprine bones are difficult to identify to species however, it was possible to identify a selective set of elements as sheep or goat from the assemblage, using the criteria of Boessneck (1969) and Halstead (Halstead et al. 2002).

Age at death was estimated for the main species using epiphyseal fusion (Silver 1969) and mandibular tooth wear (Grant 1982; Payne 1973). Where possible, the measurements have been taken (Von den Driesch 1976). Sexing was only undertaken for pig canines, based on the bases of their size, shape and root morphology (Schmid 1972, 80). Withers height calculations follow the conversion factors published by Von den Driesch and Boessneck 1974.

Preservation was assessed on a scale of 1 to 5, with reference to Behrensmeyer (1978), where '1' denotes a bone surface with no cracking or flaking and '5' indicates that the fragment is disintegrating into splinters. Refitting fragments were counted as one specimen. Taphonomic criteria including indications of butchery, pathology, gnawing activity and surface modifications as a result of weathering were also recorded when evident. Butchery marks were located by zone, position of the cut and direction of the mark, multiple occurrence, depth and the implement type, and the function of the mark was assessed. Undiagnostic fragments were assigned to a size category.

Preservation, fragmentation and taphonomy

Preservation ranged from moderate to good, with a minimal number of specimens recorded with any signs of weathering or surface erosion.

Results

The excavation produced a relatively small assemblage (Table 3). Of 151 assessable specimens, 56 were identified to species or family level (37%). Livestock species dominated the material, with a

number of other domestic species. Closely related members of the chicken family are difficult to distinguish, and a proportion of bird elements were only assigned to family level. A fragment of a probable duck specimen was also only identified as belonging to a duck family, and same goes for the corvid specimen from context 2.

Heavy reliance of domestic sources of food is typical, especially given the Victorian date of the material. Faunal material from two contexts [1] and [2] was heavily fragmented and dominated by the more dense elements such as teeth, whilst contexts [4] and [5] contained a range of meat-bearing elements as well as teeth, suggesting an on-site slaughter and disposal of meat. The recent material was easily recognised by animal size, the 'greasy' appearance as well as by the use of saw as a multipurpose tool. Similarly, a small proportion of the material was conforming to the expected animal size for the Roman period, with butchery actions and implements clearly more reflective of Romano-British practices, less crude than the Victorian butchery. Butchery was recognised on 13 specimens, or 8.7% of the sub-set, a relatively high figure, especially for such a small assemblage.

	Perio	d 5					Perio	d 4				
	Cont	ext 1		Cont	ext 2		Cont	ext 4		Cont	ext 5	
Taxon	NISP	%NISP	MNI	NISP	%NISP	MNI	NISP	%NISP	MNI	NISP	%NISP	MNI
Cow	1	10	1	4	36.3	1	8	47.1	1	3	16.6	1
Sheep/ goat				2	18.2	1	4	23.5	1	5	27.7	1
Sheep							1	5.9	1			
Pig	2	20	1	2	18.2	1	3	17.6	1	6	33.3	1
Horse	1	10	1									
Dog										1	5.6	1
Rabbit	1	10	1	•		•	•					
Chicken	5	50	1	1	9.1	1	1	5.9	1	1	5.6	1
Galliformes	•		•	1	9.1	1	•			1	5.6	1
Anseriformes	•		•	•	•	•	•			1	5.6	1
Corvid?	•		•	1	9.1	1	•			•		
Sub-total to species/ family	10	100		11	100		17	100		18	100	
Cattle-sized				9			12			11		
Sheep-sized	1			12			11			28		
Mammal												
n.f.i.	1		•	4		•						
Bird n.f.i.				4						2		
Total	12			40	•		40			59		

Table 3: Number of Identified Specimens and the Minimum Number of Individuals for all species from all contexts recovered during the excavation. The abbreviation n.f.i. denotes that the specimen could not be further identified.

SUMMARY OF THE VICTORIAN FINDS

METAL SMALL FINDS

A substantial number of metal items were recovered through metal-detecting the excavated spoil. The majority of these represent unidentifiable nineteenth-century material which is undiagnostic. These items are summarized in Table 4. The only notable items are the belt plate from context 2 which presumably relates to a local cricket club, and the copper alloy cross from context 5, presumably a brooch.



Figure 11: A belt plate relating to a local cricket club. (Photograph: Rose Ferraby)

Period/context	Copper alloy	Iron	Iron nails	Other
Period 5, Context 1	1 flower-shaped fitting 1 ring with attachment	5 (293g)	58 (275g)	1 Silver threepence 1883. Worn and slightly bent.
	1 ring handle 1 stud			

	1 wire fragment			1 Lead sealing with impressed
				'finger print' pattern on both
				sides
				1 spherical Pb object
Period 5,	17 objects including 1 belt	14	43	1 Tin belt plate with crossed
Context 2	buckle, 1 escutcheon cover	(960g)	(242g)	cricket bats in front of stumps
	and 1 button core.			2 Pb objects
				1 tinned buckle
Period 4,	3 objects including 1 belt	1	-	-
Context 4	buckle and 1 button core.	(73g)		
Period 4,	4 including 1 cross-shaped	13	13	1 Pb fragment
Context 5	fitting with three square-	(2656g)	(132g)	
	ended decorated terminals			
	surviving.			
Period 4,	1	-	-	-
Context 7				

Table 4: Summary of the metal finds

THE CLAY PIPES

The assemblage (summarized in Table 5) is characteristic of mid-late nineteenth or early twentieth century material with the possible exception of the smaller bowl from context 5 which may be slightly earlier in date.

Period/context	No. of	No of bowl fragment	Comments
	stem	(Min. no. of bowls	
	fragments	represented)	
Period 5,	66	7 (3)	9 stem fragments with orange-brown
context 1			glaze.
			1 heal with star-shaped stamp on
			underside.
			2 bowls with very pronounced mould
			seam.
Period 5,	44	3 (2)	4 stem fragments with orange-brown
context 2			glaze.
			1 stem fragment with yellow glaze.
			1 stem fragment with half a circular
			maker's stamp '[]P O N[]' around
			a central star (Fig.12)

			1 bowl with relief-moulded vegetation around the front at base.
Period 5,	15	2 (1)	1 stem fragment with orange-brown
context 4			glaze.
			1 bowl with chevron mounded
			decoration marking front seam.
Period 5,	14	1 (1)	1 plain spur bowl.
context 5			
Period 5,	2		
context 6			

Table 5: Summary of the clay pipes



Figure 12: Photograph of clay pipe stamp from context 2. (Photograph: Joanna Story)

THE GLASS

A large amount of glass was recovered as summarized in Table 6, with much window glass as well as a range of bottles and a few other vessels. Of note are the fragments of beer tankards, which are predominantly from Period 5 contexts.

Period/context	Window glass	Clear vessel glass	Brown/green	Beer tankard
			bottle glass	glass
Period 5, context	26	23	12	3
1		One bottle	One bottle	
		inscribed	inscribed	
		'ERED	'X S'	
			on side	
		OS'		
		on side		
Period 5,	89	5	13	43
context 2		One bottle		
		inscribed		
		'ATEN'		
		on side just		
		above base.		
Period 4,	12	3	3	5
context 5				
Period 4,	8	-	1	-
context 6			Bottle inscribed	
			'ROYAL	
			GERMAN	
			SPA.'	
			vertically down	
			side.	
Period 4,	1	-	-	-
context 7				

Table 6: Summary numbers of glass sherds

THE MEDIEVAL AND POST-MEDIEVAL POTTERY

The pottery is summarized in Table 7. There was a scatter of small sherds of medieval pottery although no identifiable vessel forms were present. The assemblage was dominated by nineteenth–early twentieth century white wares with a high proportion of decorated vessels (mostly represented by transfer wares). These were predominantly plates but included teapots, tea cups and a smaller

range of closed forms. There were also a number glazed earthenwares, including a couple of deep basins.

The assemblage appears largely to comprise ordinary domestic refuse, with little to suggest any obvious connection with the Aldburgh Alms. Of particular note were two vessels, each represented by several sherds. The first is a plate decorated with transfer decoration with a scroll of vegetation (including thistles and roses) on its edge. The centre of the plate shows a portrait of a man with a square frame with scalloped corners, edged with another vegetation scroll (Fig. 13A). On the underside of the plate is a printed maker's stamp (Fig. 13B).

R.B.& Co.

L.

The List of Stoke on Trent Potters http://www.thepotteries.org/mark/r/index.html attributes this mark to R. Britton of Leeds in the period 1850–53, with the L indicating Leeds. No definitive identification of the portrait has been obtained, but it perhaps represents the Arthur Wellesley, 1st Duke of Wellington who died in September 1852 and who was widely commemorated at the time. Alternatively, it may be Henry Pelham-Clinton, 4th Duke of Newcastle-under-Lyme who died in January 1851 and had been the owner of the Aldborough estate. The image certainly resembles his portrait although we know of no record of the manufacture of commemorative plates. Sherds of this plate came from Contexts 2 and 5, providing a helpful terminus post quem for the dump infilling the excavation.



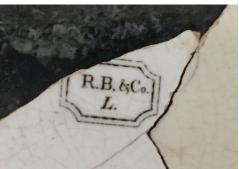


Figure 13: Photographs showing the plate with a portrait (A) and the makers stamp on its underside (B). (Photographs: Joanna Story)

-

³ We are very grateful to members of the Northern Ceramics Society through the good offices of Clare & Alan Walker for this suggestion and for information about these ceramics.

⁴ We are grateful to Sir Andrew Lawson Tancred for this suggestion. For a portrait of the 4th Duke see National Portrait Gallery D38723.

The second is a closed vessel probably a sugar box, of which there were sherds from Contexts 2, 5 and 6 (Fig. 14). This vessel is covered with transfer decoration which includes a Greek vase showing the muses, as well as birds. Highlights of the transfer decoration have been hand-painted with enamels in bright blue, green and yellow, before being re-fired, suggesting a rather higher status vessel. A jug in a private collection which has identical decoration bears the factory stamp D&S on its base. This can be identified as the factory mark for Deakin & Son, Waterloo Works, Longton, Stoke 1832-62.5



Figure 14: Photograph showing fragments of the probable sugar box with hand-coloured figure decoration. Largest fragment 68mm wide. (Photograph: Rose Ferraby)

.

⁵ We are very grateful to Julia Poole of the Fitzwilliam Museum and Brian Allaker of the Northern Ceramics Society for their comments on this vessel.

Period/ context	Medieval unglazed earthenwares	Medieval glazed earthenwares	Post-medieval unglazed earthenwares	Post-medieval glazed earthenwares	Post-medieval plain white wares	Post-medieval decorated white wares	Comments
Period 5 context 1	2 (10g)	3 (25g)	11 (106g)	10 (56g)	16 (98g)	17 (82g)	Post Medieval mostly plates. See discussion of portrait plate and handpainted vessel
Period 5,	2 (13g)	5 (98g)	-	30	17	110	
Period 4, context 4	2 (16g)	3 (18g)	-	(1075g) 1 (9g)	(152g) 1 (1g)	(915g) 3 (9g)	
Period 4, context 5	2 (20g)	-	-	7 (286g)	8 (56g)	49 (515g)	Post Medieval has a wide variety of forms
Period 4, context 6	-	1 (25g)	-	-	-	1 (17g)	

Table 7: Summary of the Medieval and Post-Medieval pottery

OYSTER AND MUSSEL SHELLS

Table 8 lists the occurrence of marine shells from the site.

Period/context	Oyster shells	Mussel shells
Period 5, context 2	1	-
Period 4, context 4	3	3
Period 4, context 5	6	-

Table 8: Oyster and mussel shells

DISCUSSION

The excavation, although limited in scale, has been helpful in answering a series of questions. The results may be summarized as follows. First we may note that although undisturbed Roman deposits were not explored, the residual find from the excavation provide some information about the chronology of this area of the town. In particular, there is no evidence for activity in this part of the site before the second century AD, supporting the suggestion that the original settlement was located on the flat ground in the northern part of the walled town, with the town's planned layout probably dating to Hadrianic period (Ferraby and Millett 2020, 94–106). The limited evidence for the dating of the bath suite comes from the stylistic assessment of the mosaics and the use of broad combed keying on flue tiles which both suggest that it was constructed in the late second century AD. Although it is clear that the walls excavated represented two structural phases, it seems certain that the Period 1A building included a hypocaust as the wall flues were integral with its structure. It seems most likely that the secondary walls of Period 1B represent a later rebuilding or extension. As the style of walling is different from that of Period 1A it seems unlikely that this simply represents a stage in the construction of a single-phase building.

This scale of bath house is seen in a number of private town houses in Britain, but nonetheless implies a high level of wealth. Comparable courtyard houses with baths occur for instance at Silchester in the following houses, I/1, XIV/1, XIX/2, XXIII/1, XXIII/2, XXIV/2, and XXXIV/1 (Creighton with Fry 2016, figs 5.6, 5.15, 5.25, 5.32, 5.38 and 5.50) – in other words, in a comparatively high proportion of the largest town houses in that town. There is no apparent regularity in the positioning of the baths within the houses, although in the case of Building 4 examined at Aldborough, it may be noted that the bath suite occupies an area at the rear of the property, furthest from the street. Given the distance from the frontage, it is possible that the courtyard exposed in Ecroyd Smith's excavation itself lay behind a main range at the street frontage, perhaps represented by the structures revealed in earlier excavations (Ferraby and Millett 2020, gazetteer nos 44 and 59). We remain no clearer about whether Buildings 4.8 and 4.9 were originally a single property, later divided. Equally, the excavation provided no new information on the terracing of the hillslope, although it may be observed that the Roman hypocaust structure was comparatively deeply buried, suggesting that soil has accumulated on the slope since the Roman period, arguably as a result of the laying out and use of the medieval tofts.

Finally, we should note again that the nineteenth-century excavation plans were drawn to a very high standard of accuracy, and the lack of weathering implies that the trenches were backfilled soon after they had been recorded. This is certainly a tribute to the work of these excavators.

ACKNOWLEDGEMENTS

Many thanks to Andrew Lawson-Tancred for allowing us to work on his land, and for his continued enthusiasm and support of the project. We are grateful to Historic England for granting Scheduled Monument for the excavation provided through the good offices of Keith Emerick. Liam Cooke (Site Manager) for the English Heritage guardianship site provided invaluable help on site. Our thanks, as always, to the villagers of Aldborough and especially members of the Friends of Roman Aldborough who volunteered as pot-washers and provided much other support.

On site, Jason Lucas volunteered a week of his time to help with the excavation and to organise the surveying, for which we are most grateful. Once again, we have been hugely assisted by Dominic Powlesland (Landscape Research Centre), who has given us the benefit of his experience and expertise and for carrying out the photogrammetric survey. We were lucky enough to be joined by Dave Haldenby, Roy Doughty and Chris Hannard, with their skills of metal detecting with archaeological excavations.

Finally we would like to offer special thanks to the late Chris Martins who generously funded the work.

REFERENCES

Abbreviations:

R.I.C. = Roman Imperial Coinage

Works cited:

- Boessneck, J. 1969 Osteological difference between Sheep (Ovis aries Linné) and Goat (Capra hircus Linné). In D.R. Brothwell and E.S. Higgs (eds) Science in Archaeology: a survey of progress and research (2nd edition): 331–58. London, Thames and Hudson.
- Brickstock, R.J. 2019 Roman Coins from Aldborough: a re-assessment and overview, Yorkshire Archaeological Journal 91:49–70.
- Creighton, J with Fry, R 2016 Silchester: changing visions of a Roman town, London: Britannia Monograph 28
- Dobney, K., and Reilly, K., 1988 A method for recording archaeological animal bones: the use of diagnostic zones, Circaea 5 (2): 79–96.
- Dobinson, C., Ferraby, R., Lucas, J., Millett, M. and Wallace, L. 2018 Archaeological field-survey in the environs of Aldborough (Isurium Brigantum), Yorkshire Archaeological Journal 90: 29–58.
- Ecroyd Smith, H. 1852 Reliquiae Isurianae: the remains of Roman Isurium, now Aldborough, near Boroughbridge, Yorkshire. London, I. Russell Smith.
- Ferraby, R. and Millett, M. 2017 Aldborough Roman Town Project 2016 Excavation: interim report. https://doi.org/10.17863/CAM.39571
- Ferraby, R. and Millett, M. 2020 Isurium Brigantum: an archaeological survey of Roman Aldborough, London, Society of Antiquaries Research Report no. 81.
- Grant, A. 1982 The use of tooth wear as a guide to the age of domestic animals. In B. Wilson, C. Grigson and S. Payne (eds) Ageing and sexing animal bones from archaeological sites: 91–108. Oxford, British Archaeological Reports, British Series 109.
- Halstead, P. Collins, P and Issakidou, V. 2002 Sorting the sheep from the goats: morphological distinctions between the mandibles and mandibular teeth of adult Ovis and Capra, Journal of Archaeological Science 29: 545–53.
- Millett, M. J., Dobinson, C., Ferraby, R., Wallace, L., and Lucas, J. 2018 Research data supporting the publication of "Archaeological field-survey in the environs of Aldborough (Isurium Brigantum)" [Dataset]. https://doi.org/10.17863/CAM.21743
- Payne, S. 1973 Kill off patterns in sheep and goats: the mandibles from the Asvan Kale, Anatolian Studies 23: 281–303.
- Neal, D.S. and Cosh, S.R. 2002 Roman mosaics in Britain: Vol. 1 Northern Britain, London, Society of Antiquaries.

- Schmid, E. 1972 Atlas of animal bones. Amsterdam: Elsevier.
- Silver, I. A., 1969 The ageing of domestic animals. In D.R. Brothwell and E.S. Higgs (eds) Science in archaeology: a survey of progress and research (2nd edition): 283–301. London, Thames and Hudson.
- Von den Driesch, A. 1976 A guide to the measurement of animal bones from archaeological sites, Peabody Museum Bulletin 1. Cambridge Mass., Harvard University.
- Von den Driesch, A., and Boessneck, J., 1974 Kritische Anmerkungen zur Widerristhöhenberechnung aus Langenmassen vor- und frühgeschichtlicher Tierknochen, Saugetierkundliche Mitteilungen 22 (4): 325–348.