Reach Roman Villa, Cambridgeshire 1999 (RVIL99): The Results of Fieldwalking.

Cambridgeshire HER Event Nº: ECB6255

Colin Coates for Cambridge Archaeology Field Group, with contributions by Alice Lyons and Bill Hughes.

Summary

Cambridge Archaeology Field Group (CAFG) carried out a fieldwalking exercise at the Reach Roman villa and Iron Age site in 1999, at the request of the Archaeology Field Unit of Cambridgeshire County Council. This was in order to aid the assessment of the deterioration of the Scheduled Monument due to the impact of agricultural activities. The fieldwalking area and scheduled site is centred on approximately TL5727565300. It is enclosed in a triangular area, with the 'Devil's Dyke', an ancient ditch and bank to the northeast, the Swaffham Prior road to the west and the remains of a disused railway to the south.

The Villa was partly excavated in 1892-3 by T. McKenney Hughes and T. D. Atkinson of the Cambridge Antiquarian Society. It was described as a corridor villa which was aligned northeast/southwest, with wings at each end, each having apsidal projections. The southeast wing had a further apse to the southeast and the remains of a hypocaust. In situ flue tiles suggested that it may have been a bathhouse. These features are probably indicative of later development of the property, which may have originated as a simpler structure, perhaps like the aisled phase of the nearby building at Exning, excavated by Ernest Greenfield in 1958 – 59.

For the fieldwalking exercise, the site was marked out with canes in a grid of 10 metre cells. The first strip started at the junction of the path and Devils Dyke, with the strips aligned at 90 degrees to the Dyke. Strips were numbered 0 to 41 and cells A to Z and then AA to AG; although the length of some strips was constrained by the field boundaries.

The finds were washed and sorted with the brick and tile being separated out from the pottery. The ceramic building material (CBM) finds were assessed by CAFG members, whilst the pottery was submitted to Alice Lyons (Lyons Archaeology) for identification, dating and cataloguing.

Although little dating evidence was found amongst the CBM, an early phase of building is hinted at by a small quantity of Iron Age/Early Roman daub, tegula fragments with relatively thicker flanges, a tegula fragment with an extremely thick bed and perhaps two thicker fragments of imbrex. The Roman CBM was found in a limited number of fabric types, with almost threequarters by weight, occurring in a single, uniformly well-fired type.

A small number of possible medieval brick fragments was observed amongst the Post Roman CBM, which was mostly plain roof tile. The location of this material across the site has the appearance of a typical manuring distribution.

Plotting the pottery finds' distribution by era was more enlightening. Early Iron Age pottery was located to the north-east of the later villa site in a slightly elevated position, near the area of the Devil's Dyke. Finds quantities increase through the Iron Age and into the Early Roman era, spreading south-westwards. Pottery finds then begin to occur around the location of the villa, increasing in intensity through the Romano-British era. By the Medieval and Post Medieval eras, the site appears to have returned to agricultural use. The finds density decreases and become much more diffuse across the site, indicative of the typical manuring of arable farmland.

Although not a grand property, together with the hypocausts and the evidence for distant trading links with the recovery of Samian ware and Spanish amphorae sherds, the inhabitants appear to have prospered somewhat, on the edge of the rich fenland zone.

Contents

List of figures

List of tables

Introduction

Cambridge Archaeology Field Group (CAFG) carried out a fieldwalking exercise at the Reach Villa site in 1999, at the request of the Archaeology Field Unit of Cambridgeshire County Council. This was in order to aid the assessment of the deterioration of the Scheduled Monument (NHLE: 1006875), due to the impact of agricultural activities.

An initial analysis by Bill Hughes (CAFG 1999) of the finds by category; Roman Tile, Roman Brick, Post Roman Tile, and Post Roman Brick classified by Number of finds, Total weight, Maximum weight, Average weight, Minimum weight, per find location showed that dispersal of material had occurred, but when this took place could not be determined. This report will concentrate on the more detailed assessment of the ceramic building materials (CBM), utilising the data, which Bill recorded in a number of spreadsheets. The pottery was identified, catalogued and dated by Alice Lyons (Lyons Archaeology).

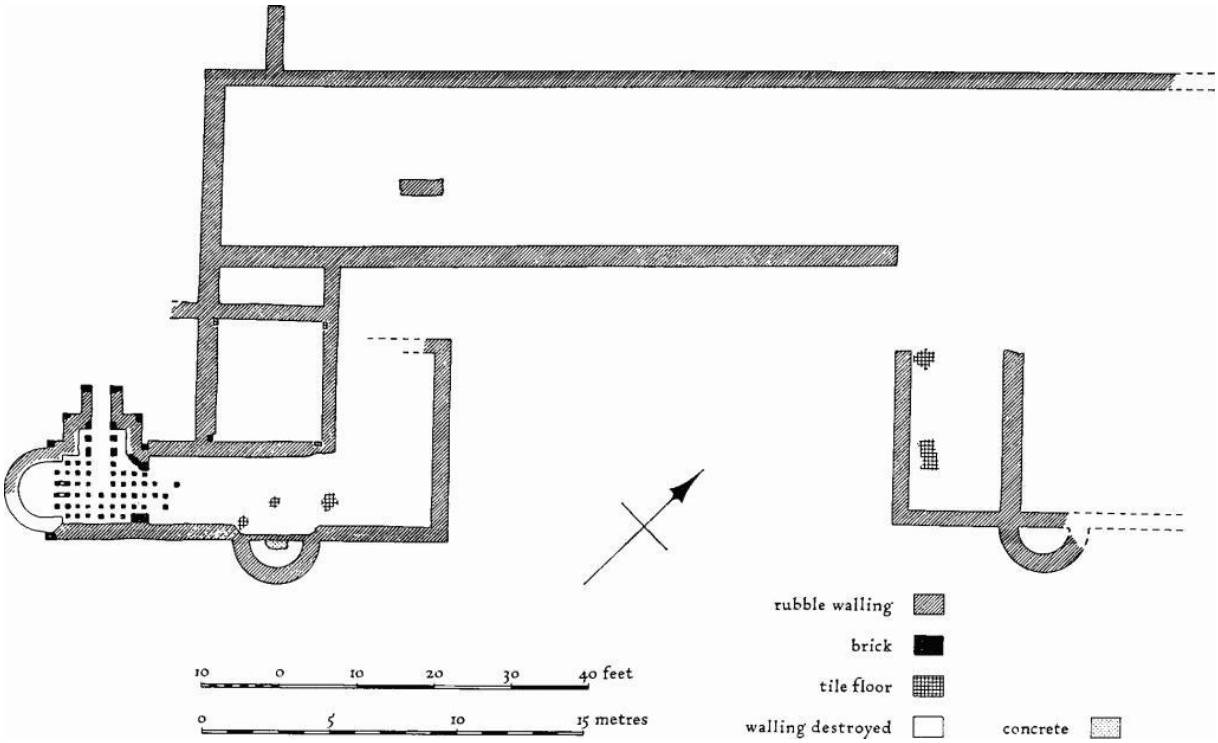


Figure 1. Reach villa excavation plan (after Atkinson, 1894).

Archaeological Background

The Villa was partly excavated in 1892-3 by T. McKenney Hughes and T. D. Atkinson of the Cambridge Antiquarian Society (1894, 229). It was described as a corridor villa, aligned northeast/southwest, with wings at each end having apsidal projections (Fig 1).The southeast wing had a further apse to the southeast and the remains of a hypocaust and in situ flue tiles suggest that it may have been a bathhouse (RCHM 1972, 85-90). The wall lines of the villa are nicely picked out on aerial photographs of 1977 (CUCAP 1977, CCJ5).

Topography and Geology

The site lies on chalk at approximately 12 metres O.D. on ground sloping gently South-West to the Fen edge. It is enclosed in a triangular area, with the '*Devil's Dyke*', an

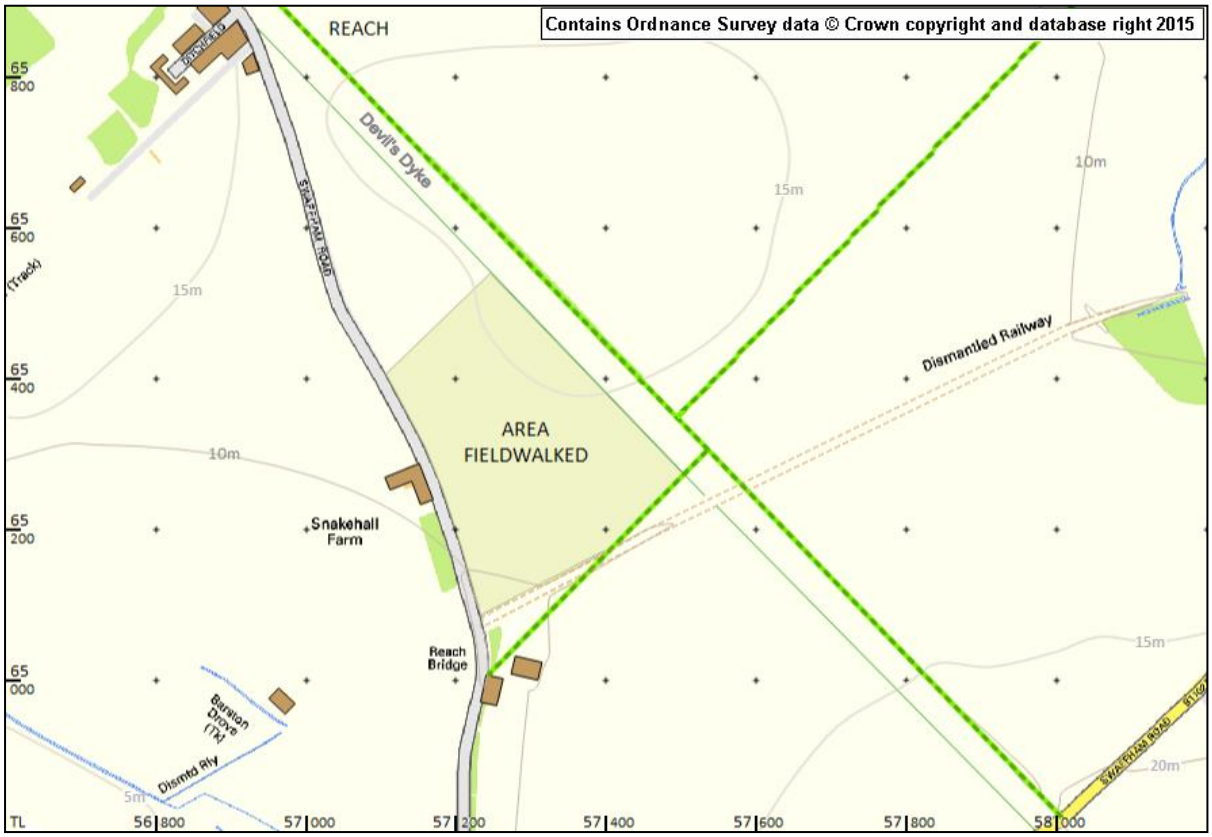


Figure 2. Fieldwalking area map.

ancient ditch and bank to the northeast, the Swaffham Prior road to the west and a disused railway to the south (Fig 2).

Fieldwalking methods

For the fieldwalking exercise, the site was marked out with canes in 10 metre wide strips subdivided into 10 metre by 10 metre cells. The first strip started at the junction of the path and Devils Dyke at National Grid reference TL 57502 65275, with the strips aligned at 90 degrees to the Dyke. Strips were numbered 0 to 41 and cells A to Z and then AA to AG: although the length of some strips was constrained by the field boundaries.

Each cell was walked by one person; all finds from each cell being picked up and placed along with a tag, having a unique finds number, in a plastic bag. Some cells however, produced more than one bag of finds. Such bags were designated with the same finds number, but were additionally marked 1 of 2, 2 of 2 etc; five squares received two finds numbers however. Following washing, the finds were sorted and the brick and tile separated out from the pottery. The CBM finds were assessed by CAFG members, whilst the pottery was submitted to Alice Lyons (Lyons Archaeology) for dating, identification and cataloguing.

CBM assessment – Roman

Introduction

Fragments of Roman ceramic building materials (CBM) were recorded by weight and firing grade, inclusions were noted and colour of fabrics was determined in accordance with the Munsell Soil Color system. The data were recorded in a Microsoft Excel spreadsheet and analysed with the aid of a Pivot Table (Table 1). Measurements were made to the nearest millimetre unless indicated otherwise. The daub, mortar and plaster, are dealt with later.

	FABRICS															
	F1/F1a		F2		F3		F4		F5		F6		F7		TOTALS	
CBM TYPE	N°	WT(g)	N°	WT(g)	N°	WT(g)	N°	WT(g)	N°	WT(g)	N°	WT(g)	N°	WT(g)	N°	WT(g)
BOX	6	569													6	569
BRICK	11	3766	2	824	2	685			3	372					18	5647
COMBED	8	315	1	91	2	186									11	592
IMBREX	36	1769	5	191			1	35							42	1995
INDET	-	-	-	-	-	-	-	-	-	-	-	-	-	-	644	9677
TEGULA	21	1594	1	166	3	888			1	462					26	3110
TESSERA	64	1601	1	30	6	138									71	1769
TILE	121	9285	9	408	24	1648	5	502			4	475	2	167	165	12467
TOTALS	267	18899	19	1710	37	3545	6	537	4	834	4	475	2	167	983	35826

Table 1. Summary of Roman CBM forms by fabric type.

The assemblage was examined by 10x magnification hand lens in order to aid the compilation of a catalogue of fabric types (Table 2). The forms of bricks and tiles were determined where possible and by reference to Brodribb (1987). Representative samples of forms and fabrics were retained, with the remainder and unidentifiable fragments being disposed of after recording. The percentage weights in Table 2 have been calculated for the identifiable fragments only.

Unusual features, where observed, such as marks made by humans, fabric colours and inclusions were recorded. The cross-sections of tegula flanges were drawn, including in particular any identifiable cutaways which were categorised according to Warry (2006a). Any evidence for how the flanges may have been formed was also recorded. A plan of the fieldwalked grid with Roman CBM find spots can be found in appendix 1.

The site codes referred to in this report, including that for the Reach Villa investigation, are internal CAFG codes.

Although most of the identifiable post Roman brick and tile was thought to have been removed from the assemblage during the original sorting process, a quantity was subsequently identified and is dealt with separately.

The Munsell Soil Color ranges referred to in this assessment are: 2.5YR (pinkish/orange), 5YR (light red/orange), 7.5YR (dark red/orange), 10R (red).

Fabrics

The most outstanding feature of the Roman CBM fabrics from Reach is that they are predominantly uniformly well fired, in fine often micaceous sandy clays. By far the most common fabric is F1. It contains various quantities and combinations of red ferruginous (haematite), calcite and/or quartzite inclusions. Fine black particles were noted in twelve examples of F1 fabric, typically in the break. These are most likely ferruginous (magnetite) inclusions in the sand. Approximately one third of the examples had no macroscopically visible inclusions and these have been assigned to a subset of the main fabric type (F1a). All CBM forms are represented in the F1/1a fabric, with box tiles only appearing in it.

There is a further smaller subset of fragments in a similar fabric (F2), which have

additional silty clay pellets, patches and streaks; all forms appear in this fabric. This fabric type has been observed at Harlton (Coates 2015), where it was the dominant fabric.

The fourth major fabric group (F3), is generally not as well fired as the preceding ones. Fragments of it typically have heavily reduced cores, while four examples have fine micaceous inclusions and one, fine black inclusions, as in fabric F1.

The remaining three groups represent much poorer fabrics. Those of F4, have streaky, red/brown cores, which may be indicative of poor mixing of the tempering sand with the clay and/or low firing temperatures. With the exception of one possible fragment of imbrex, they are all plain tiles of various thicknesses.

The remaining three small fabric groups contain examples of CBM fragments which have characteristics that do not readily fit into any of the foregoing groups. Three brick and one tegula fragment comprise the members of fabric F5. Their fabric cores are very 'lumpy' in appearance in the break, having large granular size. The four tile fragments of F6 all displayed voids in their cores. The three thicker examples (17-25mm), could have been fragments of tegulae which occasionally contain voids, where overlapping layers of clay have not been well amalgamated. Finally, the two fragments of tile in F7 were overfired and/or burnt, but it was not possible to be sure if this was post manufacture or not.

FABRIC	N°	WT(g)	%Wt	DESCRIPTION
F1	198	12814	49	UNIFORMLY WELL FIRED, SANDY CLAY WITH; FERRITIC (150 EXAMPLES), CALCITIC (56) AND/OR QUARTZITE (112) INCLUSIONS. SURFACE COLOUR RANGES: 10R (43), 2.5YR (117), 5YR (21), 7.5YR (10), UNRECORDED (7)
F1a	69	6067	23.2	UNIFORMLY WELL FIRED, SANDY CLAY WITH NO INCLUSIONS VISIBLE MACROSCOPICALLY (70 EXAMPLES). SURFACE COLOUR RANGES:10R (19), 2.5YR (38), 5YR (3), 7.5YR (2), UNRECORDED (7)
F 2	22	1710	6.5	GENERALLY UNIFORMLY WELL FIRED, SANDY CLAY WITH SILTY CLAY PELLETS, PATCHES AND/OR STREAKS (24 EXAMPLES). SURFACE COLOUR RANGES:10R (5), 2.5YR (6), 5YR (4), 7.5YR (4), UNRECORDED (3)
F3	37	3545	13.6	GENERALLY NOT UNIFORMLY WELL FIRED, WITH REDUCED BANDS IN THE CORE. SANDY CLAY WITH; FERRITIC (20 EXAMPLES), CALCITIC (8) AND/OR QUARTZITE (10) INCLUSIONS. SURFACE COLOUR RANGES: 10R (12), 2.5YR (12), 5YR (10), 7.5YR (2) , UNRECORDED (1)
F4	7	537	2.1	NOT UNIFORMLY WELL FIRED, WITH REDUCED, STREAKY RED/BROWN BANDS IN THE CORE. SANDY CLAY WITH; FERRITIC (2 EXAMPLES) AND CALCITIC (8) INCLUSIONS. SURFACE COLOUR RANGES: 10R (3), 2.5YR (1), 5YR (1), 7.5YR (1), UNRECORDED (1)
F5	4	834	3.2	A POOR, 'LUMPY' FABRIC, SANDY CLAY WITH; FERRITIC (2 EXAMPLES) AND CALCITIC (3) INCLUSIONS. SURFACE COLOUR RANGES: 10R (3), 2.5YR (1)
F6	4	475	1.8	GENERALLY NOT UNIFORMLY WELL FIRED, VOIDS IN THE CORE. SANDY CLAY WITH; FERRITIC (1 EXAMPLE) INCLUSIONS. SURFACE COLOUR RANGE: 2.5YR (4)
F7	2	167	0.6	POOR, OVERFIRED/BURNT. FERRITIC, CALCITIC AND QUARTZITE INCLUSIONS (1 EXAMPLE). SURFACE COLOUR RANGE: 10R (1), UNRECORDED (1)

Table 2. Summary of Roman CBM fabric types

As can be seen from Table 2 above, the Reach Villa CBM are dominated by one fabric; F1. When taken together with the similar F1a fabric, the two probably represent different parts of a single continuum of variability in clay source and added sand temper. They make up almost three quarters by weight of the entire Roman CBM assemblage.

This lack of variability in fabric types is not unusual for Roman sites in Cambridgeshire, which has been noted at for instance Harlton (Coates 2015) and Melbourne (AOC 2017).

Roof Tile - Tegulae

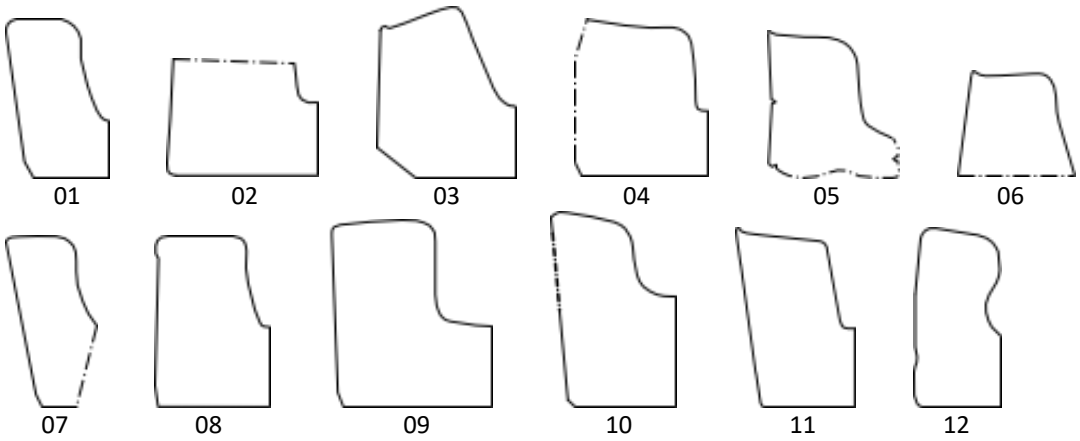


Figure 3. Reach Villa tegula flange profiles. (Scale 1:2)

All the flange profiles illustrated in Fig.3 above have been drawn as if left handed to aid comparison.

There appears to be little variety in the tegula flange types amongst the Reach Villa assemblage: a number of them sharing some common characteristics. Several for instance, have been trimmed at the outer base of the flange (Fig.3:01, 03, 04, 07, 08, 09, 10), a trait seen on tiles from other Cambridgeshire sites, for example Great Eversden (CAFG forthcoming a). None of them however, exhibit the double finger smoothing channels seen on the inner flange faces of Great Eversden or Haslingfield (CAFG forthcoming b) tiles.

A variety of moulds appear to have been used, including those with vertical sides (Fig.3:03, 08, 09, 12), inclined inwards (Fig.3:02, 06?), inclined outwards (Fig.3:01, 07, 10, 11). A mould with inclined sides may have been more easily lifted away from a still wet tile although, presumably, a mould with sides which are inclined inwards would have been used to produce an inverted tile, with an insert on the baseboard, (possibly Fig.3:01, 07). Alternatively, a mould with detachable sides could have been employed (Warry 2006a).

Another of the Reach tegula may have been produced using an inverted mould (Fig.3:08). This displays a characteristically flat top to its flange.

Several of the tegula flanges (Fig.3:03, 05, 06, 11) exhibit vertical lips on their upper outer edges, which may be indicative of them being smoothed against the inner face of the mould.

Only one of the Reach Villa tegula flanges examined (Fig.3:03), could have carried an example of a Warry (2006b) type B6 lower cutaway. However, the cut is quite shallow compared to other examples and may be no more than excessive trimming of the lower tile edge.

Where they reliably survived, up to three measurements were taken for each tegula flange; the bed thickness where it meets the flange, the overall external flange height and the flange width, measured along a horizontal

line from the outer flange face at the height of the bed, to a point where it would intersect a line projected down the inside face of the flange. Statistical analysis of such a small sample may not give very meaningful results, unless there are some very strong underlying factors. Nevertheless, some of the statistics derived from the Reach villa tegulae fragments are worth noting.

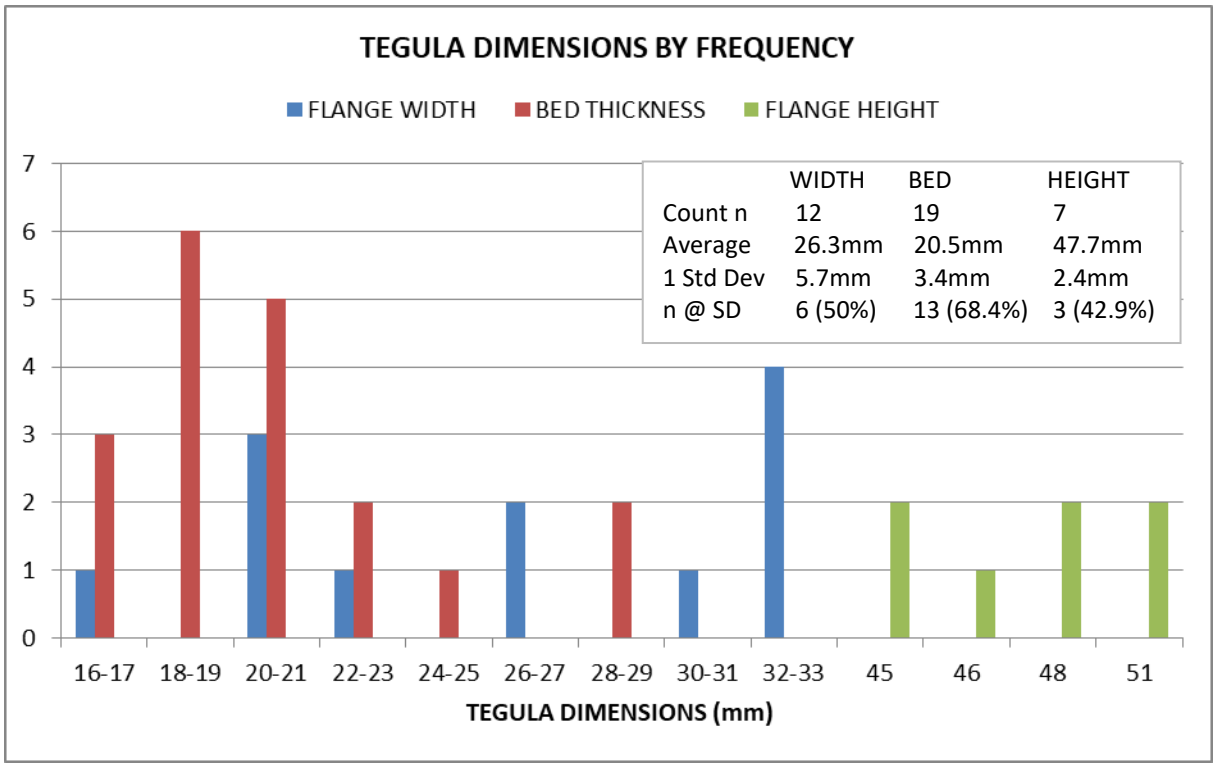


Figure 4. CBM category Tegula dimensions.

The average flange width of the 12 measurable fragments is 26.3mm, with 6 (50%), falling within one standard deviation. The distribution of widths spans the range of 16-33mm. This observation is perhaps unsurprising, as usually the widths of flanges increased, tapering from upper to lower ends. One example (Bag 127) demonstrates this, as its flange width tapers from 29-33mm over a length of 198mm.

Flange heights vary between 45-51mm with a median value of 48mm. This small variation in flange heights, +/-3mm (6.25%), might suggest that standardised box moulds were employed in the production of the tegulae. The small variation in height then, may be attributable to the differential shrinkage of the clay. The sample of measureable flanges however, is perhaps too small to draw conclusions from with confidence.

Bed thickness is strongly concentrated between 16-24mm. The average thickness being 20.5mm, with 13 (68.4%) examples falling within one Standard Deviation. There may be a second population with a thickness of 29mm, although the measurements having been made close to the flanges, may not be representative of bed thickness as a whole.

Only one example of an upper cutaway was observed, from bag 117. It came from the left hand corner of a tegula, the flange being removed with a knife or tool. Although

incomplete, the cut survived for a length of 40mm horizontally, commencing 8mm above the bed and sloping down towards the top edge of the tegula, before joing the bed, 7mm from the edge.

It can be difficult to draw conclusions from randomly broken sections of tegula flanges unless the ends of the tiles are present: few were apparent amongst the Reach assemblage. Nevertheless, the flanges of four of the tegula fragments (Fig 3:02, 03, 04, 09), at 32-33mm, are amongst the widest of those found in Cambridgeshire in a survey of Roman roofing tiles by the author (Coates 2014).

Roof Tile - Imbrices

A total of 42 imbrex fragments were identified amongst the CBM assemblage. Most were relatively small and abraded. All had been produced on a sanded former. The outer surfaces of most of the imbrex

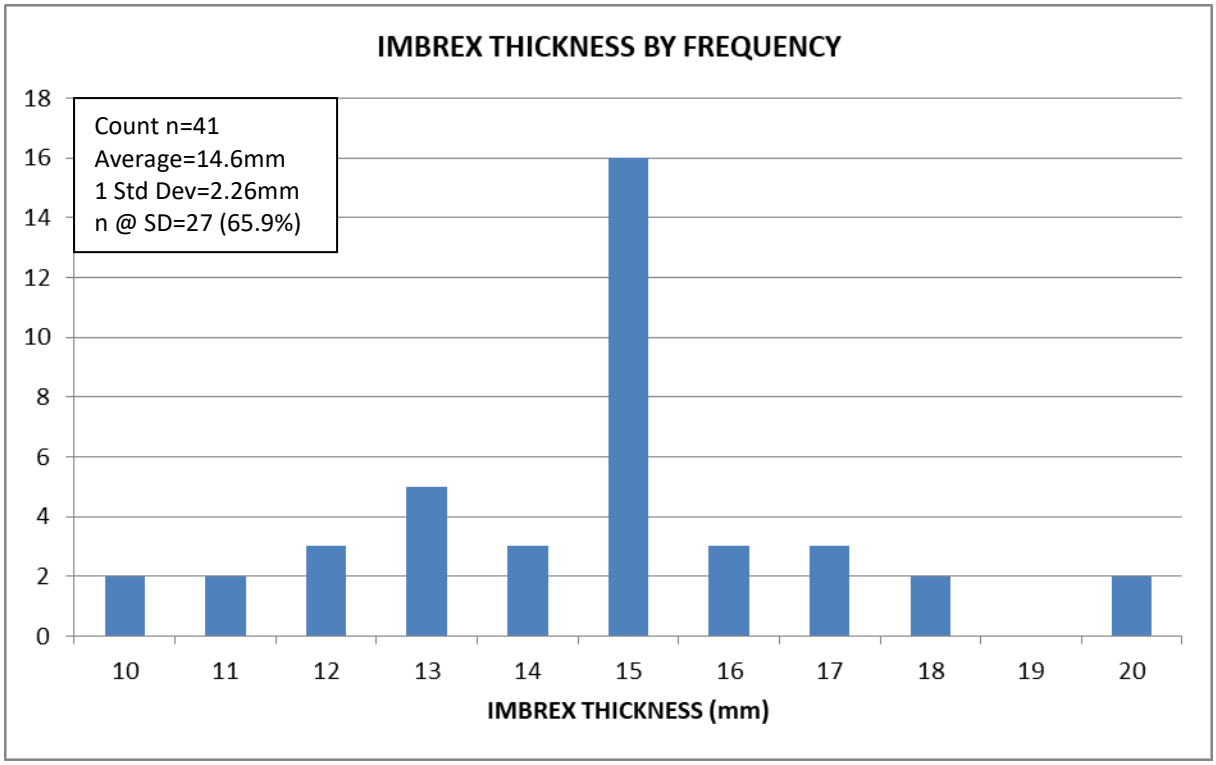


Figure 5. CBM category Imbrex, thickness by frequency.

fragments had been well smoothed longitudinally; however one was smoothed transversally whilst another displayed transverse finger marks. Surface colours were predominantly in the 2.5YR range (25 examples), with cores fired to the same colour range (25), with a smaller group (12) with surfaces in the 10R range and cores likewise (11). Other than the tile maker's finger marks, only one piece had any distinctive marks, which were noted on an example from Bag 91 (Fig. 6).

Figure 6. Imbrex fragment with 'XX' marks (Bag 91).

Imbrex thickness ranged between 10-20mm, with a strong peak at 15mm, whilst 27 of the

fragments (65.9%) fell within one standard deviation of the average of 14.6mm (Fig. 5). One fragment was not measureable and it is possible that the two examples with thickness of 20mm were actually pieces of ridge tile, as observed by Brown (1994, 83) for example at Harold.

Tesserae

Although no fine stone tesserae were recovered during the fieldwalking, 71 pieces of tile weighing 1.77kg (6.7% of the Roman CBM by weight), were found to have been used, or reused as tesserae. This was evidenced by mortar surviving on up to five faces. The majority of the tesserae had been made from plain tile. However, one was found to have been part of a combed tile, whilst a second tessera had what appeared to be part of a finger mark, indicating that it may have originally been part of a tegula.

Analysis of the aspect ratio (shorter side/longer side) of the tesserae, revealed that the group was predominately sub-square having a mean ratio of 0.85. Only 4 of the assemblage were almost exactly square. The spread of sizes appeared to be reasonably random, as might be expected from a hand-made product, although the plot of tessera aspect ratio by frequency, hints at there being two peaks in the size profile (Fig.7).

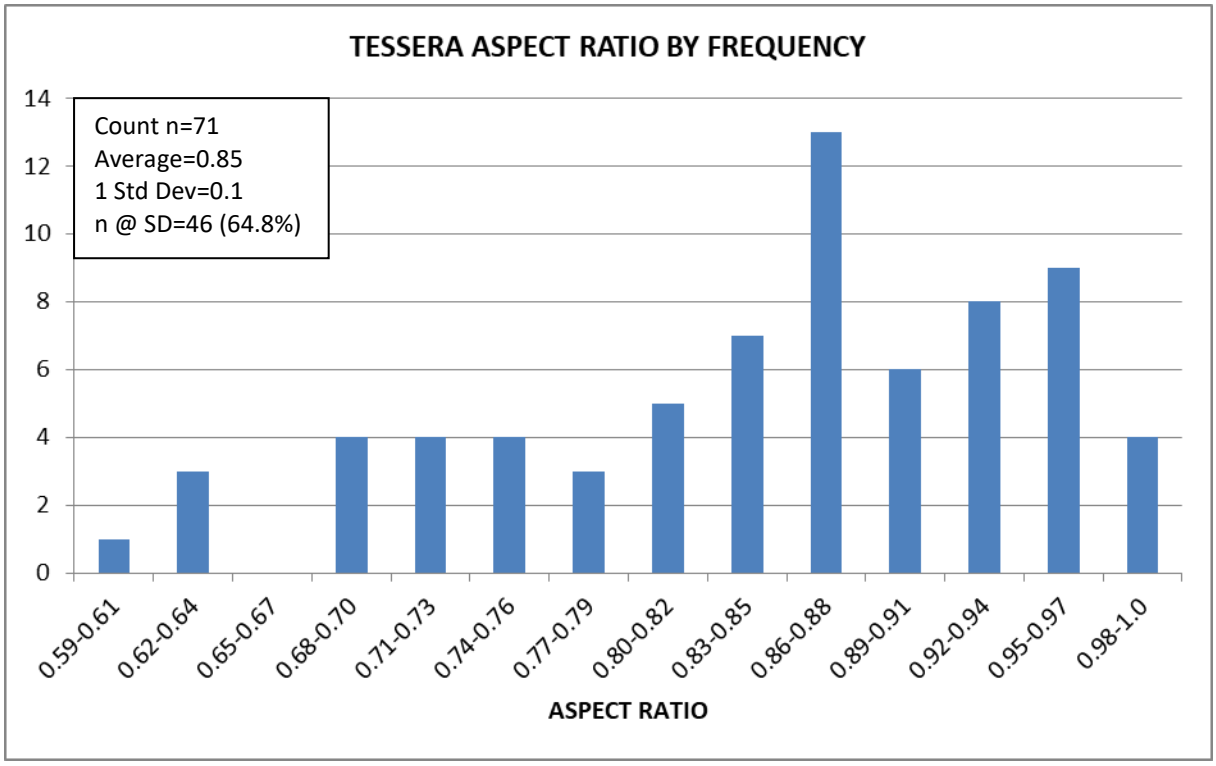


Figure 7. Tesserae Aspect Ratio by frequency.

Plotting tessera aspect ratio by surface colour (Fig.8) shows a little more detail. Amongst the 71 tesserae whose colour attributes were recorded, 3 distinct surface colour groups were noted. By far the greatest number of tesserae exhibited a surface colour in the 2.5YR range. Although the aspect ratio distribution of the 2.5YR group spans the full range of values, there may be two distinct subgroups; one in the range 0.59-0.81, the other 0.83-1.0.

The second most populous tessera surface colour group (10R), with the exception of two

outliers, have values of aspect ratio between 0.74-0.93. Thirdly, tesserae with surface colours in the 5YR group, with the exception of one outlier, are more tightly grouped than the other two groups in the range 0.84-0.97.

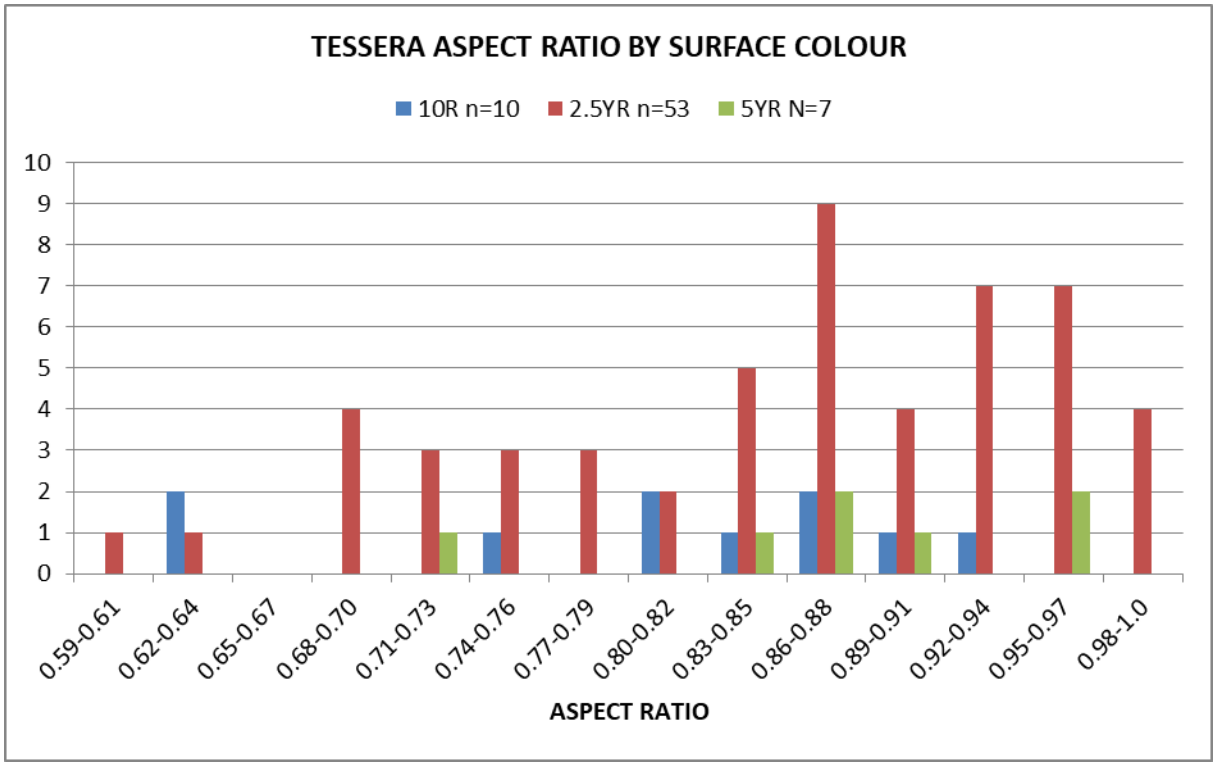


Figure 8. Tessera Aspect Ratio by surface colour.

Box and Combed Tile

Only six pieces of CBM were identified as being parts of box tiles. This was largely due to the partial survival of their corners. They were all uniformly well fired, with traces of fine moulding sand on their inner faces.

Figure 9. Combed tile Bag 110

There were a further eleven fragments of combed tile in the assemblage. They were predominantly of the uniformly well fired, sandy F1 fabric, with surface colour ranges; 2.5YR (5 examples), 5YR (3), 7.5YR (1), 10R (2). Most of the combings were apparently executed by the use of a worn wooden comb, with up to six linear marks being visible (Fig 9). One example (Fig.10) however, had two

Figure 10. Combed Tile Bag 117.

sets of fine combings at right angles. One piece of combed tile had been reused as a tessera.

Plain Tile

Fragments of CBM were assigned as tile, based on their having at least two intact surfaces, reliably measureable thickness, but no other characteristics which could allow them to be placed in any other CBM category. In total 164 examples weighing 12.47kg (47.68% of the Roman CBM by weight), were recorded. Three fragments from bag 111 were able to be refitted. The thickness of two fragments could not be reliably measured.

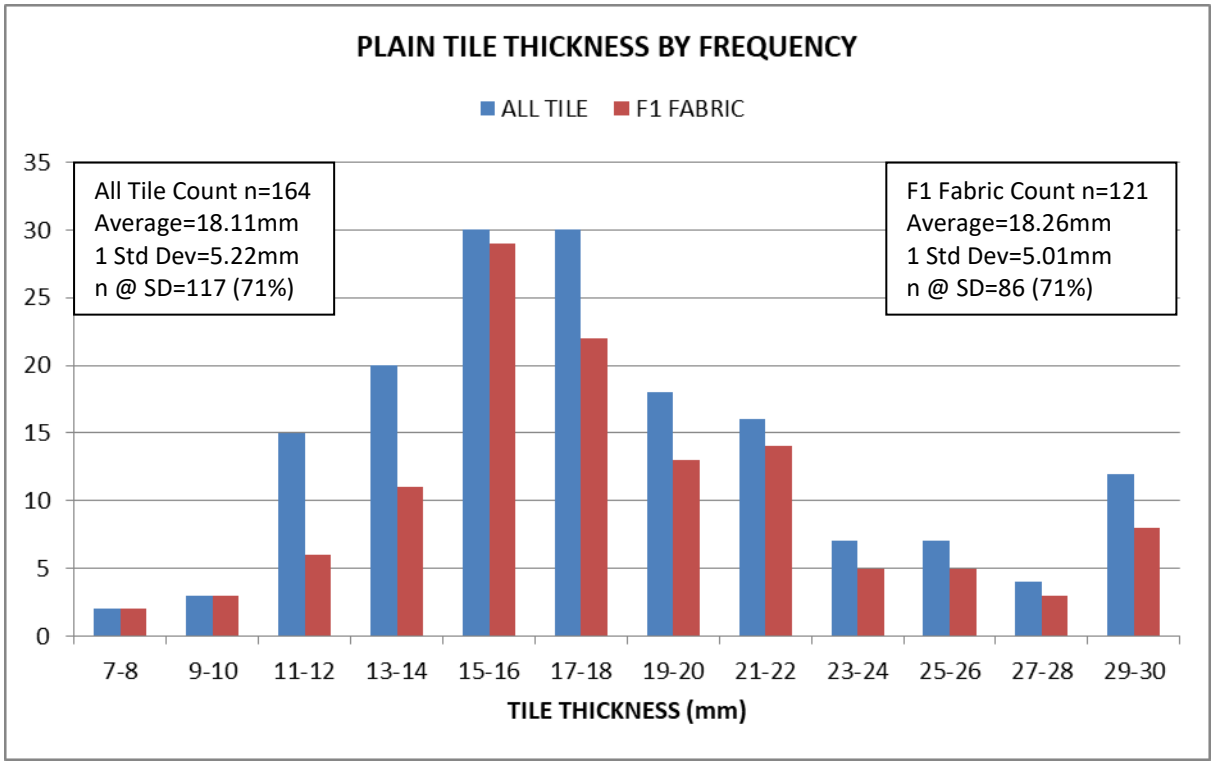


Figure 11. CBM category Tile thickness by frequency.

The histogram of tile thickness by frequency (Fig 11), shows a strong grouping of tile fragments with thickness between 11mm–22mm, with a possible second peak at 29mm–30mm. Although the thinner examples could be parts of box or flue tiles, 99 examples fall within the range of tegula bed thickness (16-29mm). The corners of 8 plain tiles had survived.

Almost threequarters of the plain tile (73.2% numerically), was produced in the F1/F1a fabric. The mean thickness of the F1 fabric tile was 18.26mm, with 86 examples, falling within 1 Standard Deviation, between 13-23mm. Of the remaining fabrics, 23 examples (20.1%), came from F2 and F3.

Brick

Fragments of CBM with thickness greater than 30mm were designated as brick. There was a total of 18 such fragments, weighing 5.65kg (21.6% of the Roman CBM by weight). The average weight was 313.7g, with thickness in the range 31mm–47mm.

The majority of brick fragments (16), had thickness in the range 31-37mm, the remaining two were 46 and 47mm thick respectively. Several of the fragments with thickness in the

range 31mm–33mm however, could be examples of tegulae of extreme bed thickness.

Examples in the F1/F1a fabric were most common (11examples), with fabrics F2 (2), F3 (2) and F5 (3), also being represented. Surface colour ranges of the 17 examples recorded were; 2.5YR (8), 10R (6), 5YR (2), 7.5YR (1). Mortar was found adhering to the broken edges of 4 examples; F1a (3), F3 (1).

Mortar

Besides that adhering to a number of pieces of CBM, 5 pieces of mortar were collected during the fieldwalking exercise weighing a total of 84g. They can be categorised as two distinct types as in Table 3 below.

FABRIC	N°	TOTAL WT(g)	DESCRIPTION
M1	3	16	OCCASIONAL (1.5mm) TO ABUNDANT (1.0mm) QUARTZ SAND. RARE FERROUS (1.0mm) AND CHALK (3mm) INCLUSIONS (1 EXAMPLE). 2.5Y COLOUR RANGE
M2	2	68	CREAMY WHITE, COARSE MORTAR, ABUNDANT QUARTZ SAND (<3mm), OCCASIONAL BLACK INCLUSIONS (<2mm), FLINT FLAKE (4*5mm), (1 EXAMPLE). 5Y COLOUR RANGE

Table 3. Summary of Roman mortar fabrics.

Plaster

One fragment of plaster came from the main CBM assemblage, while a further 17 were included in the pottery assemblage assessed by Alice Lyons. For comparison purposes, they have been divided into four fabric types as shown in table 4.

One face of each of two P1 fragments was painted dark red/brown (5YR/5/6). Abundant, very fine quartz or mica grains could be seen glinting through the slightly abraded painted surface.

The painted layer of a third P1 example was very similar to that of the others in the P1 fabric, with patches of dark red/brown (5YR/5/6) over a light pink (5YR/8/4) undercoat. The surface layer of fine plaster sat on a much coarser substrate containing sub-rounded stones <5mm. Twelve examples of P2 fabric were very coarse containing stones <5mm. They all probably represent substrate layers similar to that of the P1 example, with which they were collected from the same gridsquare.

Two examples in P2 had a pink-stained surface, one of which carried the negative impression of fine combing and they had presumably been applied to brick or tile surfaces. One example of P2 displayed impressions of fragments of wood or organic material in the break.

The single example of P3 was a very fine, sandy, light beige fabric. It had a light red/brown (5Y/7/3) painted surface and organic impressions were noted in the break.

FABRIC	N°	TOTAL WT(g)	DESCRIPTION
P1	3	25	CREAMY WHITE (2.5Y/8/3), COMMON TO ABUNDANT DARK FERROUS INCLUSIONS <0.25mm, ABUNDANT VERY FINE < 2mm QUARTZ SAND GRAINS, RARE CALCITE <2mm. BASE LAYER COARSE, STONES <5mm.
P2	13	173	PALE CREAMY WHITE (5Y/8/2), OCCASIONAL <0.25mm TO COMMON <1.0mm FERROUS INCLUSIONS, ABUNDANT QUARTZ AND STONES 1-5mm
P3	1	14	LIGHT BEIGE (2.5Y/8/4), OCCASIONAL FERROUS INCLUSIONS <0.25mm

Table 4. Summary of Roman plaster fabrics.

Daub

One fragment of daub was observed in the main Roman CBM assemblage, while a further five were identified amongst the pottery; all being very abraded. Only three examples could be dated with confidence and were assigned to the Late Iron Age/Early Roman (LIA/ER) era. Their fabrics are as summarised in table 5 below.

FABRIC	N°	TOTAL WT(g)	DESCRIPTION
D1	1	16	UNIFORM, 5YR/7/4
D2	3	6	COMMON CALCITIC INCLUSIONS <0.5mm, ONE FRAGMENT HAS OCCASIONAL QUARTZ <3mm, 10YR/7/4

Table 5. Summary of daub fabrics.

Indeterminate

A large number of CBM fragments were too abraded or damaged to adequately determine their form, although their eras of origin were noted. They were recorded as indeterminate **(**INDET) before being discarded. This needs to be born in mind when considering the analysis. There were 644 fragments (65.34% numerically), weighing 9.67kg (27% of the total Roman CBM by weight), with an average weight per sherd of 15.02g.

Markings

As noted above, one fragment of imbrex had been marked with a double 'X'. These marks may have been a tile maker's tally marks or used for some other accounting, or identification purpose. Similar examples have been noted from York (McComish 2012 177, 209).

BAG N°	CBM TYPE	DESCRIPTION
110	TEGULA	FINGER IMPRESSION ON THE BOTTOM, LOWER EDGE OF THE FLANGE, INDICATING THAT IT HAD BEEN HANDLED WHILE STILL WET.
117a	TILE	A LIGHT, APPROXIMATELY 4MM WIDE LINEAR MARK, APPARENTLY MADE WITH A NOTCHED/WORN WOODEN TOOL OR STICK. VERY ABRADED.
117b	TILE	2 DIVERGING 5mm WIDE MARKS, APPARENTLY MADE WITH A NOTCHED/WORN WOODEN TOOL OR STICK.
126	TILE	TWO DIVERGING, SINGLE CURVING FINGER MARKS, WORN/ABRADED, APPROXIMATELY 7MM WIDE.
128a	TILE	A LIGHT, 4MM WIDE LINEAR MARK, APPARENTLY MADE WITH A NOTCHED/WORN WOODEN TOOL OR STICK, POSSIBLY THE SAME AS 117.
128b	TILE	A LIGHT, 4MM WIDE LINEAR MARK, APPARENTLY MADE WITH A NOTCHED/WORN WOODEN TOOL OR STICK, POSSIBLY THE SAME AS 117.
130a	TILE	A LINEAR, DOUBLE FINGER MARK NEAR BROKEN EDGE OF TILE, APPROXIMATELY 5MM AND 9MM WIDE RESPECTIVELY. CONSISTENT WITH BEING MADE BY A MIDDLE AND ADJACENT FINGER.
130b	TILE	A DOUBLE CURVING FINGER MARK NEAR BROKEN EDGE OF TILE, APPROXIMATELY 7MM AND 9MM WIDE RESPECTIVELY. CONSISTENT WITH BEING MADE BY A MIDDLE AND ADJACENT FINGER.
150	TILE	A LIGHT, 4MM WIDE LINEAR MARK, APPARENTLY MADE WITH A NOTCHED/WORN WOODEN TOOL OR STICK, POSSIBLY THE SAME AS 117. THE MARK IS ALIGNED AT APPROXIMATELY 33 DEGREES TO THE SURVIVING EDGE OF THE TILE.
181	TILE	A LINEAR, DOUBLE FINGER MARK, WHICH APPEARED TO BE CONVERGING WITH A SINGLE, LINEAR, NOTCHED/WORN WOODEN TOOL MARK, POSSIBLY THE SAME AS 117.
232	TILE	SEVERAL SEMI-CIRCULAR MARKS, 4-4.5MM DIAMETER, WHICH MIGHT HAVE BEEN MADE BY FINGERNAILS OR A TOOL.
388	TILE	A LIGHTLY DRAWN, LINEAR FINGER MARK OF 5MM WIDTH, ALTHOUGH IT TAPERS OUT A LITTLE.

Table 6. Summary of Roman CBM markings.

One piece of combed tile had been reused as a tessera, whilst a second tessera had what appeared to be part of a finger mark, indicating that it may have originally been part of a tegula. A list of other CBM fragments which had distinctive markings, is given in table 6.

Discussion.

Excluding the daub, plaster and mortar, a total of 983 Roman CBM fragments, weighing 35.83kg were collected during the fieldwalking exercise, many being highly abraded. Roman CBM was recovered from 157 of the 10m grid squares, at an average density of 2.28g/m^2 for the productive squares.

The ratio of tegula fragments to imbrices by weight, amongst those which were definitely identifiable in the assemblage, is a little low at 1.56, even discounting those fragments with mortar on broken edges, this only rises to 1.62. If the weight of plain tile fragments in the range of tegula bed thickness (16mm-29mm) is added to that of the identified tegula fragments, a ratio of 6.26 is produced, which is unfeasibly high. However, following Warry (2010, 1), if both imbrices and tegulae were subject to the same history of destruction, then the ratio of the average weight of the resulting fragments, might then be close to the ratio of their original weights. For the Reach CBM we arrive at a ratio of 3.65. This figure is a little on the high side for the suggested range for a standard Roman roof (Brodribb 1987, 11-12; Ramos Sáinz 2003), but not excessively so. This might suggest that the tegulae and imbrices recovered represent part of a fallen roof, although the excavators did not mention any evidence for the same.

As noted above, a small number of CBM fragments had mortar adhering to broken edges. This suggests that they were reused from an earlier phase of building on the site, or imported for general building purposes (Table 7).

BOX	BRICK	COMBED	IMBREX	TEGULA	TILE
1	2	1	6	3	13

Table 7. Roman CBM with mortar on broken edges.

There was little dating evidence to be found amongst the Reach CBM. However, an early phase of building is hinted at by the tegula fragments with relatively thicker flanges and there was also a tegula fragment with an extremely thick bed and perhaps two thicker fragments of imbrex. Warry (2006a) for instance, has proposed that early Roman roofing tiles began much larger and more robust, before shrinking in all dimensions. Additionally, although perhaps of low statistical significance, the five fragments of daub, most of which were assigned to the LIA/ER era, could also be indicative of an earlier episode of building on the site.

Mckenney Hughes and Atkinson's excavation drawing, along with the aerial photographs, show the Reach building to have been a symmetrical, winged villa, with hypocausts under the apsidal room floors. These features are probably indicative of later development of the property, which may have originated as a simpler structure; perhaps like the aisled phase of the nearby building at Exning, excavated by Ernest Greenfield in 1958 – 59 (Webster 1988, 41 - 66).

As the CBM collected from the Reach fieldwalking exercise were not from stratified deposits and we do not know what happened to the material from the original excavation, it is not possible to declare with confidence whether they represent part of a single, or later phases of construction.

Post Roman CBM

Introduction.

Although it was believed that the Post Roman CBM was removed at the initial sorting stage, a small number of fragments were later identified amongst the Roman CBM. This may have been due to misidentification, or uncertainty. Three fragments could not be clearly dated. A small number of CBM fragments were identified by Alice Lyons, amongst the pottery assemblage submitted for assessment. Of these, six were categorised as Medieval. All were very abraded and fragmentary; their fabrics are summarised in table 8. Only one fragment of F10, from bag 375, had a recognisable form; a roof tile, while another from bag 321 in F8, had a small patch of light grey/brown glaze. A plan of the fieldwalked grid with Post Roman CBM find spots can be found in appendix 2.

FABRIC	N°	TOTAL WT(g)	AVG WT(g)	DESCRIPTION
F8	3	17	5.7	UNIFORMLY WELL FIRED, COMMON TO ABUNDANT DARK FERROUS INCLUSIONS <0.25mm, ABUNDANT VERY FINE QUARTZ SAND GRAINS
F9	1	6	6	UNIFORMLY WELL FIRED, RARE FERROUS INCLUSIONS <0.5mm, VERY FINE QUARTZ SAND GRAINS
F10	2	14	7	UNIFORMLY WELL FIRED, COMMON FERROUS INCLUSIONS <1.0mm, ABUND VERY FINE QUARTZ SAND GRAINS, REDUCED CORE

Table 8. Medieval CBM fabric summary (after Lyons).

Eight CBM fragments were identified as being Post Medieval. These were also mostly uniformly well fired. Only one fragment, from bag 41 in F12, had a recognisable form; the curved end of a pantile. The single example of the F13, fabric could be a variant of the F12 fabric. These fabrics are summarised in table 9.

FABRIC	N°	TOTAL WT(g)	AVG WT(g)	DESCRIPTION
F11	2	12	6	UNIFORMLY WELL FIRED, ABUNDANT VERY FINE QUARTZ SAND GRAINS, COMMON CALCITE INCLUSIONS <0.5mm
F12	5	29	5.8	UNIFORMLY WELL FIRED, RARE TO COMMON FERROUS INCLUSIONS, COMMON TO ABUNDANT VERY FINE QUARTZ SAND GRAINS
F13	1	11	11	WELL FIRED, COMMON FERROUS INCLUSIONS <0.5mm, RARE VERY FINE QUARTZ SAND GRAINS, LIGHT GREY REDUCED CORE

Table 9. Post Medieval CBM fabric summary (after Lyons).

Brick.

Three CBM fragments (Table. 10), were identified as possibly being the corners of Late Medieval bricks (Rob Atkins pers. Comm.), in two fabric types:

F14 - the fabric tends to appear ‘lumpy’ in the break, having a structure with the appearance of large granules; one fragment having a large piece of grog exposed. One fragment (bag 218) had a light creamy slip on one face.

F15 – this is a much more uniformly, well-fired fabric. The single example of this type came from bag 155. This fragment represented the corner of a brick, whose two adjoining top edges had sunken margins.

Ian Betts has given the simplest and most reasonable explanation for such features (Betts 1996, 7). The bricks were formed in simple rectangular moulds. When the mould was lifted up away from the block of clay, material was dragged up with it and left standing proud of the top surface. The brick maker then might have used the mould to press the excess material back down. This technique would

need to have been applied twice, once each from diagonally opposite corners, if all four edges were to be tidied.

Betts (1996, 7) noted that a large number of red bricks with sunken margins have been found in London, dating from between the mid-late 15th century to the 17th century. In eastern England, bricks were being traded through Ely in the 14th century for instance, notably from kilns at Wisbech, where they may have arisen due to excess production from the castle construction works (Sherlock 1999).

The inland port, sitting at the head of Reach lode, rose to some importance. Although it was very much in decline by the early 18th century, goods including bricks were still being imported there (BHO).

FABRIC	N°	TOTAL WT(g)	DESCRIPTION
F14	2	382	POORLY FIRED, 'LUMPY' FABRIC. OCCASIONAL FERROUS <2mm, 2.5YR/6/6 – 10R/6/4 OR RARE CALCITE <2mm, WELL OXIDISED 5YR/7/6 – 5YR/6/6
F15	1	96	UNIFORMLY WELL FIRED, OCCASIONAL FERROUS INCLUSIONS <5mm, SUNKEN MARGINS ON TWO ADJACENT EDGES. FULLY OXIDISED, 5YR/6/6

Table 10. Post Roman Brick fabrics .

Tile.

With the exception of two possible fragments of ridge tile, most of the rest of the Post Roman tile fragments are all plain roof forms, in two similar sandy fabrics. The cores of the tiles occasionally have reduced bands and yellow, red or brown streaks are occasionally observed in the core. This colouration may be due to excessive or poorly mixed sand being added to the clay, or poor firing temperature control.

With the exception of one example in each fabric at 22mm thick, their thickness range spans 9mm - 17mm (Fig 13). Their lower faces show that they were made on a sanded bed, whilst their upper faces had a thin, wash or (self?)slip wiped over them (Carole Fletcher pers. comm.). The upper faces are pitted (<1.5mm), which was probably caused by either the burnout of calcite fragments when fired, or by leaching out in acidic soil.

FABRIC	N°	TOTAL WT(g)	DESCRIPTION
F16	10	281	FABRIC APPEARS POROUS. RARE FERROUS <3 - 6mm (2 EXAMPLES), 2.5Y/7/4 – 8/4, OCCASIONAL/COMMON CALCITE <3mm (3). 2.5Y/7 – 2.5Y/8(5); 5Y/7 – 8 (5).
F17	59	1015	FABRIC APPEARS POROUS. RARE FERROUS <0.5 -3mm (20 EXAMPLES), RARE TO OCCASIONAL/COMMON CALCITE <0.5 - 4mm (6). 10R/5/4 – 7/4 (16), 2.5YR/6/2 – 7/8 (24), 5YR/6/3 – 7/8 (12), 7.5YR/7/3 – 8/4 (7)

Table 11. Post Roman Tile fabrics.

Examples of F16 fabric type were generally well fired, with common, fine calcite inclusions being observed in their cores. Some are almost entirely fired to a yellow colour throughout and occasionally pinkish/red patches may be observed in their cores. The colour of their wiped surfaces tends to be yellow or pale greeny/yellow. One example from bag 258 (Fig 12), had a partial, angled square peg hole, 12mm across at the top surface. Slip had flowed into the hole, which was probably made after the tile was wiped. The forms of three examples of F16 fabric could not be determined.

Figure 12. Post Roman peg tile (Bag 258).

Common, fine calcite inclusions occur in their cores, which can appear porous where the calcite has been leached or burnt out.

CBM fragments in F17 fabric appeared to be a little more brittle than F16 examples; showing a tendency for lamina separation. Their wiped surface colour tends to be a pale pink. One example from bag 41 has a partial peg hole where the slip had flowed into the hole; probably before the hole had been formed.

Although the post Roman plain roof tile fragments from Reach can apparently be divided into two fabric types, in reality, they may all be members of the same single fabric.

This observation is based on the similarities between the two fabrics; namely their surface treatment, the quantities of calcite inclusions in both and their broadly matching thickness distributions (Fig 13).

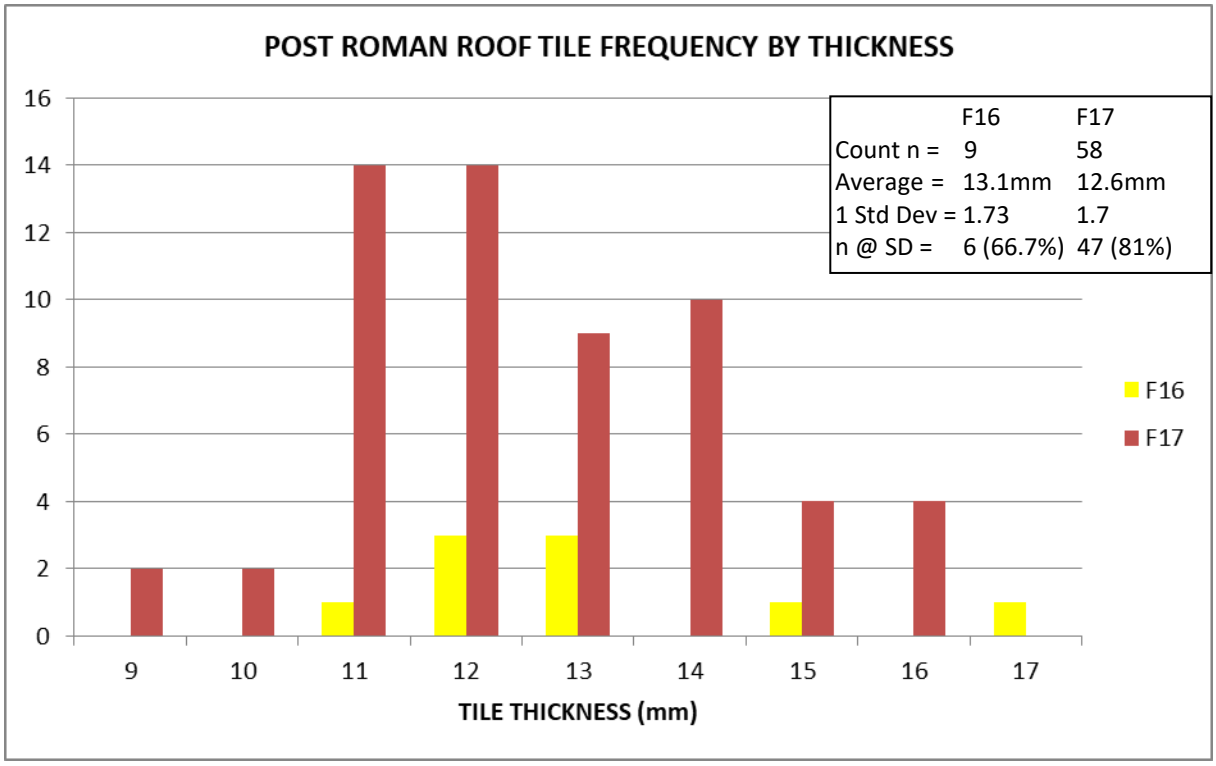


Figure 13. Post Roman Plain Roof Tile, frequency by thickness.

Discussion

The variations in colour may be accounted for by the differences in temperatures found in clamp firing for example. As Smith (2001, 35) has described, products undergoing the full firing temperature would have attained the desired yellow colour, whereas those in the cooler parts, nearer the top of a clamp, would have fallen further along the colour spectrum, giving a pinky/red appearance.

Brick and tile was being imported into eastern England from Holland from at least the 14th century, with the distinctive 'small yellow bricks' or 'klinkers', from at least the 15th century. The clays used tended to be dredged from fine, silty riverine deposits, which produced dense, strong products (Smith 2001, 32-34).

The manufacture of yellow bricks and tiles commenced indigenously in eastern England in the mid-18th century and it is most likely that the examples in the F16 and F17 fabrics found at Reach date from this period, or a little later. Bricks and tiles with a pinkish/red or yellow surface slip or wash and pitted surfaces, have been found on other Cambridgeshire sites: the author having seen examples in similar fabrics from Haslingfield (CAFG b), Childerley (CAFG c), Ickleton and Yaxley.

Conclusions

An elevation profile transect, taken across the Reach landscape from north-east, to south-west (Fig 14), gives some clues to the reasons for the pottery concentrations and the villa being located where they were.

Iron Age and early Roman activity was largely occuring on and around a slighly elevated plateau, at approximately 15m O.D. and may well have extended further to the east, beyond the Devils Dyke. The later Roman villa was built on gently sloping land to the south-west of the higher ground, at

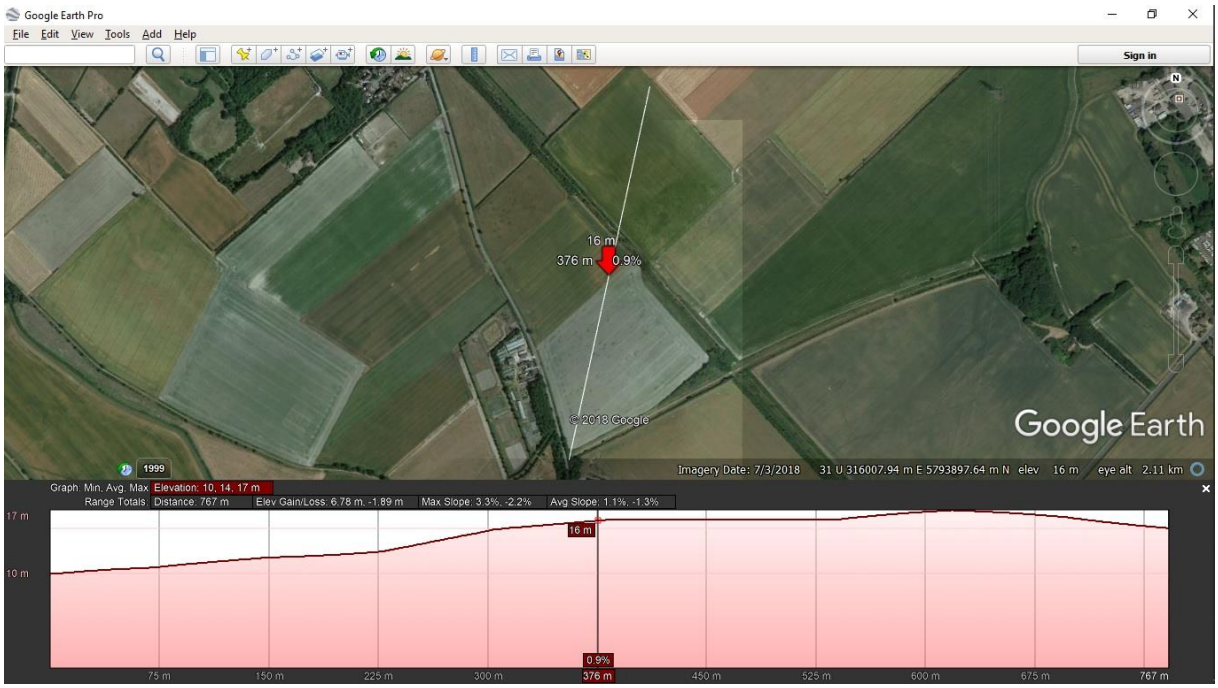


Figure 14. Reach landscape elevation profile.

approximately 12m O.D. Here it had views out across the fertile fenland landscape, to the west and north. There has been some conjecture as to the dating of the Dyke. However, when a trench was excavated through its earth bank, in 1924 (Fox 1925), Roman era pottery was discovered on the original land surface below it. The dyke then, may well have been constructed in the late Roman, or post-Roman eras.

Although it appears that it was not a vastly sophisticated property, it did nevertheless have some distant trading links. There were the remains of Spanish oil amphorae and a small amount of Samian pottery.

The nearest major road to Reach during the Roman era was probably the one some nine kilometres to the west. It ran from Cambridge (Duroliponte), northeast towards Thetford and became known as Akeman Street. However, reaching this road would have entailed crossing the river Cam.

A more convenient method for transporting heavy goods over long distances may have been the utilisation of one of the other fenland waterways.

The present village of Reach is connected to the river Cam by a lode. Lodes are canalised watercourses, synonymous with the fens. Although the Fenland waterways have been much reengineered, particularly during the Post Medieval era of drainage and reclamation, the Reach lode was almost certainly in use during the Roman era.

Pottery

Introduction.

At the initial sorting stage of the fieldwalked assemblage, all of the recognisable potsherds were removed by CAFG members and rebagged separately from the CBM. During the later detailed assessment of the CBM, a further quantity of potsherds was identified, which no doubt due to the highly abraded nature of the assemblage had been misidentified.

The collection of potsherds itself was submitted to Alice Lyons (Lyons Archaeology) for more detailed assessment of forms, fabrics and dating to major periods (ERA). From this, a number of sherds were identified as CBM fragments. These were then assessed with the main CBM assemblage.

Results.

The results of the pottery assessment were returned in the form of a Microsoft Excel spreadsheet, with analysis of the main features by finds quantities per era, being performed by the use of a Pivot Table (Table 12).

ERA	N°	Wt (g)	AVG Wt(g)
PRE	2	9	4.5
IA	13	126	9.7
IA/ESAX	2	31	15.5
LIA	49	431	8.8
LIA/ER	151	1315	8.7
ER	154	800	5.2
RB	164	967	5.9
SAX	1	4	4
LSAX/EMED	1	13	13
MED	63	596	9.5
PMED	26	166	6.4
Totals	**626**	**4458**	**7.1**

Table 12. Quantities by era. (Adapted from Lyons 2019)

Plotting of the finds distributions by era on the fieldwalking grid was a valuable exercise (Appendix 4). This showed that activity in the Iron Age (IA) and Late Iron Age (LIA), took place to the northeast of the later Roman Villa, near to the landscape feature known as The Devil's Dyke. Two sherds were identified as Prehistoric (PRE), which were also found in this area, in grid square K22.

Two sherds fell into a fabric type which is difficult to identify, especially in view of their fragmentary and eroded nature; they were classified as Iron Age/Early Saxon (IA/ESAX). Only one sherd was definitely identified as being from the Saxon (SAX) era, whilst one more, was deemed to span the Late Saxon/Early Medieval (LSAX/EMED) eras.

Unfortunately, it was not possible to assign grid square locations for 17 of the pot sherds. This was due to the incomplete survival of the original paper records. However, it is not considered that the results are materially affected, although some of the percentage era weights appear high, due to the size of the sherds (Table 13).

ERA	N°	Wt(g)	% ERA N°	% ERA Wt(g)	%TOTAL Wt(g)
LIA	2	28	4.08	6.50	0.63
LIA/ER	3	14	1.99	1.06	0.31
ER	3	19	1.95	2.38	0.43
RB	5	39	3.05	4.03	0.87
MED	3	25	4.76	4.19	0.56
PMED	1	11	3.85	6.63	0.25
Totals	**17**	**136**			**3.05**

Table 13. Sherds without grid square locations.

Summaries of fabrics and forms.

A copy of the full pottery spreadsheet has not been included in this report. The quantities by form for each era were extracted (Appendix 3), with abbreviations explained in the text. A summary of fabrics and forms follows below.

Prehistoric (PRE).

The single fragment of prehistoric pot, came from a hand made (HM) bowl, in a reduced fabric tempered with flint (RW(FLINT)).

Iron Age (IA).

All of the Iron Age pottery, spanning the C4th BC, to C1st AD was hand made. The forms were jars and bowls, largely produced in flint tempered, reduced (RW(FLINT)) and grey wares (GW(FLINT)). There were also some jars, in a reduced, shell tempered fabric (RW(SHELL)) and three fragments of bowl in a sand tempered ware (STW).

Late Iron Age (LIA).

The Late Iron Age forms (C2nd BC – mid C2nd AD), were mainly hand made jars or bowls, although two examples may have been made on a slow wheel (SW).

FABRIC FAMILY	QUANTITY	WEIGHT (g)
GW	3	60
GW(CALC)	1	3
GW(FLINT)	2	16
RW(FLINT)	9	94
RW(GROG)	3	27
RW(Q)	3	19
RW(SHELL)	18	110
SGW	8	66
STW	2	36

Table 14. Late Iron Age fabric summary.

Table 14 above, lists the fabric types and quantities of the Late Iron Age pottery. These comprise grey wares (GW), reduced wares (RW), sandy grey wares (SGW) and sand tempered wares (STW).

Late Iron Age/Early Roman (LIA/ER).

This era covers the period spanning C1st BC – C2nd AD. Although they are still largely hand made, more slow wheel and now fast wheel (WM) examples begin to appear (Table 15). Bowls and jars are dominant, but four sherds of Spanish olive oil amphora (BAT AM) are evident.

TYPE	FABRIC FAMILY	QUANTITY	WEIGHT (g)
HM	BAT AM	4	258
HM	GW(CALC)	71	597
HM	GW(GROG)	6	26
HM	OW	1	3
HM	OW(SHELL)	1	2
HM	RW(Q)	9	72
HM	RW(SHELL)	4	19
HM	SCW	1	11
HM	SGW	20	123
HM	SOW	1	48
HM	SREDW	2	6
HM	STW	8	32
HM/SW	GW	1	4
HM/SW	RW(Q)	3	34
HM/SW	SGW	2	24
SW	SGW	9	37
WM	GW	1	1
WM	SGW	6	13
WM	SOW	1	5

Table 15. Late Iron Age/Early Roman fabric summary.

Flint tempering no longer appears amongst these fabrics; however, there are calcite, grog and shell tempered fabrics, along with many more sandy (Q) and sand tempered examples.

Early Roman (ER).

The Early Roman era, spanning the period C1st AD to C2nd AD, witnesses a much greater decline in hand made forms, with a corresponding increase in slow and fast wheel made products.

Extending the utilitarian range of jar, bowl and dish forms found in earlier eras, in the Early Roman era, there are beakers, urns and

platters. The jars and bowls themselves become more flamboyant, with cordons of burnishing, cross-hatched decoration and everted rims.

TYPE	FABRIC FAMILY	QUANTITY	WEIGHT (g)
HM	GW(GROG)	2	14
HM	RW(SHELL)	2	12
HM	SGW	3	27
HM	SOW	1	3
HM	STW	1	3
HM/SW	SGW	5	18
HM/SW	SOW	1	2
SW	GW(GROG)	2	34
SW	OW(SHELL)	1	16
SW	SGW	34	187
SW	SOW	5	11
SW/WM	SGW	12	59
WM	GW(CALC)	4	8
WM	GW(FINE)	2	5
WM	GW(GROG)	3	10
WM	SGW	39	207

Table 16. Early Roman fabric summary.

Romano-British (RB).

Although the range of this era has a wide definition, (from C1st AD to early C5th AD), it is typified by the appearance of late Roman (C3rd AD to C4th AD) forms and fabrics.

Hand made and slow wheel made products are extremely rare in this era; by far the majority of pottery is being produced on fast wheels.

Besides the dominant locally made Sandy Grey Ware (SGW) and Sandy Orange Ware (SOW), regional products are evident, including the readily recognisable fabrics from Horningsea; (HORNCW) and (SGW(HORN)), although only as single sherds and the ubiquitous late era fabrics from the Nene Valley industry; (NV WH), (NVCC) and (NVVV).

Evidence for trade with more distant markets is shown by the identification of sherds from Oxfordshire products in Sandy Grey Ware (SGW) and Red Slipped (OX RS), oxidised wares from Hadham in Hertfordshire (HAD OX) and New Forest Colour Coated (NFCC). There were also four sherds of Samian, with examples from Central (SAM CG) and Southern (SAM SG) Gaul, dating to the C2nd AD to C3rd AD.

TYPE	FABRIC FAMILY	QUANTITY	WEIGHT (g)
HM	GW(GROG)	1	3
HM	HORN CW	1	13
HM	SGW	1	9
SW	SGW	4	37
SW	SGW(HORN)	1	7
SW	SOW	2	14
WM	HAD OX	7	25
WM	NFCC	1	1
WM	NV WH	1	34
WM	NVCC	4	20
WM	NVVV	1	2
WM	OW	1	2
WM	OX RS	2	8
WM	REDW	1	2
WM	SAM	2	4
WM	SAM CG	1	1
WM	SAM EG	1	3
WM	SGW	1	6
WM	SGW	95	613
WM	SOW	23	114
WM	SREDW	9	35
WM	STW	1	6

Table 17. Romano-British fabric summary.

Medieval (MED).

By the Medieval era, defined broadly as C10th – C16th, hand made and slow wheel made products return to prominence. Almost all are sand tempered fabrics, with grey wares making up the most numerous finds.

There was only one clearly identifiable early Saxon sherd in an orange (OW) fabric

with organic (ORG) tempering, dating to C5th – C7th. However, as noted above, two sherds occurring in Grey Ware fabrics could have originated in the early part of this era, but due to their fragmentary nature, could not be readily distinguished from Iron Age fabrics.

TYPE	FABRIC FAMILY	QUANTITY	WEIGHT (g)
HM	OW	1	6
HM	SGW	7	97
HM	SREDW	3	140
HM/SW	SGW	2	35
HM/SW	SOW	1	7
SW	SGW	9	67
SW	SREDW	3	7
SW/WM	SREDW	1	4
WM	SGW	30	222
WM	SREDW	6	20

Table 18. Medieval fabric summary.

One possible example of Ipswich Ware (IPS) was identified dated C10th – C14th. Glazed wares, mainly Green Glazed, make up one third of the sherds from this era. 13 of the 63 sherds are recorded as Grimston–Type, Sandy Glazed Ware (SGW); 5 in hand made (HM) and 8 fast wheel made (WM) forms.

Jars and bowls are the dominant forms, but there are also examples of jugs, dishes and pitchers.

Post Medieval (PMED).

The range of fabrics and numbers of sherds recorded for the Post Medieval era, are much reduced. This may have been due to the discard of clearly modern wares, such as Transfer Prints, Porcelains and Stone Ware, at the washing and sorting stages of finds processing.

The period represented ranges from C15th – C18th and forms are more utilitarian comprising; jugs, bowls and dishes.

Slow wheel made products, from the earlier part of the era, are still represented by around one quarter of the sherds. These are mainly Green Glazed Red (GRE) and Sandy Red wares (SREDW).

A small number of late era, fast wheel made jar sherds, in Sandy Red Ware fabrics, were slipped. These included one which was slipped and glazed and one jar sherd which was red slipped.

TYPE	FABRIC FAMILY	QUANTITY	WEIGHT (g)
SW	SREDW	9	43
WM	SGW	3	39
WM	SREDW	14	84

Table 19. Post Medieval fabric summary.

Conclusions.

As with the CBM, much of the pottery assemblage recovered during the fieldwalking exercise at Reach was very degraded. It had a low average sherd weight of 7.1g (Table 12) with, predictably, the more friable Prehistoric and Saxon sherds having the lowest average weights, albeit on low counts. Some of the individual eras have somewhat higher average weights, but are represented by low sherd counts.

The pottery assemblage demonstrates how activity at, and around the site, was largely continuous from the prehistoric, right up to the modern era, on the rich, fen-edge farmland.

Archiving

A copy of this report will be lodged with the Cambridgeshire Historic Environment Team, for inclusion in the Historic Environment Record. It will also be made available to download from the CAFG website. The full recording spreadsheets for the CBM and pottery may also be available from the CAFG website, or by application to the group.

A representative selection of CBM forms and fabrics and also of the pottery will be retained. In the short term, it will be held in boxes in the general storage area of Oxford Archaeology East's premises at Trafalgar Way, Bar Hill, Cambridgeshire and may ultimately be deposited in Cambridgeshire County Council's 'Deepstore' facility in Cheshire.

Acknowledgements

We would like to thank Alice Lyons, who carried out the assessment, cataloguing and dating of the pottery, which did much to bring out the story of human activity at the Reach villa. Thanks also are due to Carole Fletcher (OAE) and Rob Atkins (now MOLA), whose comments and suggestions have aided the interpretation of the assemblage.

We are especially appreciative of the continued support and access to facilities at Bar Hill, by Oxford Archaeology East. Finally, thanks go to those CAFG colleagues, who read and commented on early drafts of this report and all the other past and present members of CAFG, without whose efforts and enthusiasm the Reach project may never have been completed.

Bibliography

AOC 2017. *Cambridge Road, Melbourne, Cambridgeshire: An Archaeological Evaluation Report*. AOC Archaeology Group Twickenham. p102.

Atkinson, T.D. 1894. On a Roman House at Swaffham Prior, Cambridgeshire. *Proceedings of the Cambridge Antiquarian Society*, 31st October 1892 – 17th May 1893. N° XXXV. Vol. 8.2 (1894). pp.209 - 234

Betts, I.M. (1996). New Thoughts on Bricks With Sunken Margins. *Information 68, July 1996*. pp.6 - 10. The British Brick Society. http://britishbricksoc.co.uk/wp-content/uploads/2013/07/BBS_68_1996_July.pdf Accessed: 07/06/2020

BHO https://www.british-history.ac.uk/vch/cambs/vol10/pp225-227#fnn14:07/06/2020

Brodribb, G. 1987. *Roman Brick and Tile: An Analytical Survey and Corpus of Surviving Examples.* Gloucester: Alan Sutton.

Coates, C. B. 2014. *The Consumption and Distribution of Romano-British Ceramic Roofing Materials in Cambridgeshire.* Unpublished BA dissertation, University of Leicester.

Coates, C. B. 2015. Whole Way Cottage, Harlton, Cambridgeshire. 1994 (HAR003): *Assessment of the Roman Ceramic Building Material*. Cambridge Archaeology Field Group.

CAFG (Forthcoming a). Manor Farm, Great Eversden, Cambridgeshire (GTE002): *Assessment of the Roman Ceramic Building Material*. Cambridge Archaeology Field Group.

CAFG (Forthcoming b). Cantelupe Farm, Haslingfield, Cambridgeshire (HAS06): *Assessment of the Roman Ceramic Building Material*. Cambridge Archaeology Field Group.

CAFG (Forthcoming c). Childerley, Cambridgeshire (CHLxxx): *Assessment of the Roman Ceramic Building Material*. Cambridge Archaeology Field Group.

CUCAP 1977. Cambridge University Collection of Aerial Photography. http://www.cambridgeairphotos.com/location/ccj5/ Accessed: 19/09/2016

Fox, C. 1925. Excavations in the Cambridgeshire Dykes IV. The Devil's Dyke: Excavations in 1923 and 1924. *Proceedings of the Cambridge Antiquarian Society*, October 1923 – May 1924. Vol. XXVI. pp 90 – 127.

Lyons, A. 2019. Reach, Cambridgeshire: Pottery and CBM assessment, Microsoft Excel spreadsheet. Lyons Archaeology for Cambridge Archaeology Field Group.

McComish, J. M. 2015. *A Guide to Ceramic Building Materials*. York Archaeological Trust. http://www.yorkarchaeology.co.uk/wp-content/uploads/2015/08/A-guide-to-ceramic-building-material.pdf Accessed: 22/02/2016

NHLE. National Heritage List for England. http://www.historicengland.org.uk/listing/the-list/

Sherlock, D. (1999). Brickmaking Accounts for Wisbech, 133 – 1356. *Proceedings of the Cambridge Antiquarian Society*, Vol. LXXXVII for 1998. pp.59-70

Smith P.T. 2001. On Small Yellow bricks….from Holland. *Construction History*, Vol. 17. pp.31-42

Ramos Sáinz, M.L. 2003. Tejas romanas procedentes de San Juan de Maliaño (Cantabria): Estudio analítico y experimental, en *C.A.E.A.P. 25 años de investigaciones sobre patrimonio cultural de Cantabria*. ed. Ayto Camargo. pp.173-191. http://personales.unican.es/ramosml/tegulas1.html

RCHM 1972. *'Reach', in An Inventory of the Historical Monuments in the County of Cambridgeshire, Volume 2, North-East Cambridgeshire*. (1972). London. pp. 85-90 http://www.british-history.ac.uk/rchme/cambs/vol2/pp85-90. Accessed: 18/05/2015.

Webster, C.J. 1988. Ernest Greenfield's Excavations at Exning Roman Villa. *Proceedings of the Cambridge Antiquarian Society*, Vol. LXXVI for 1987. pp.41-66

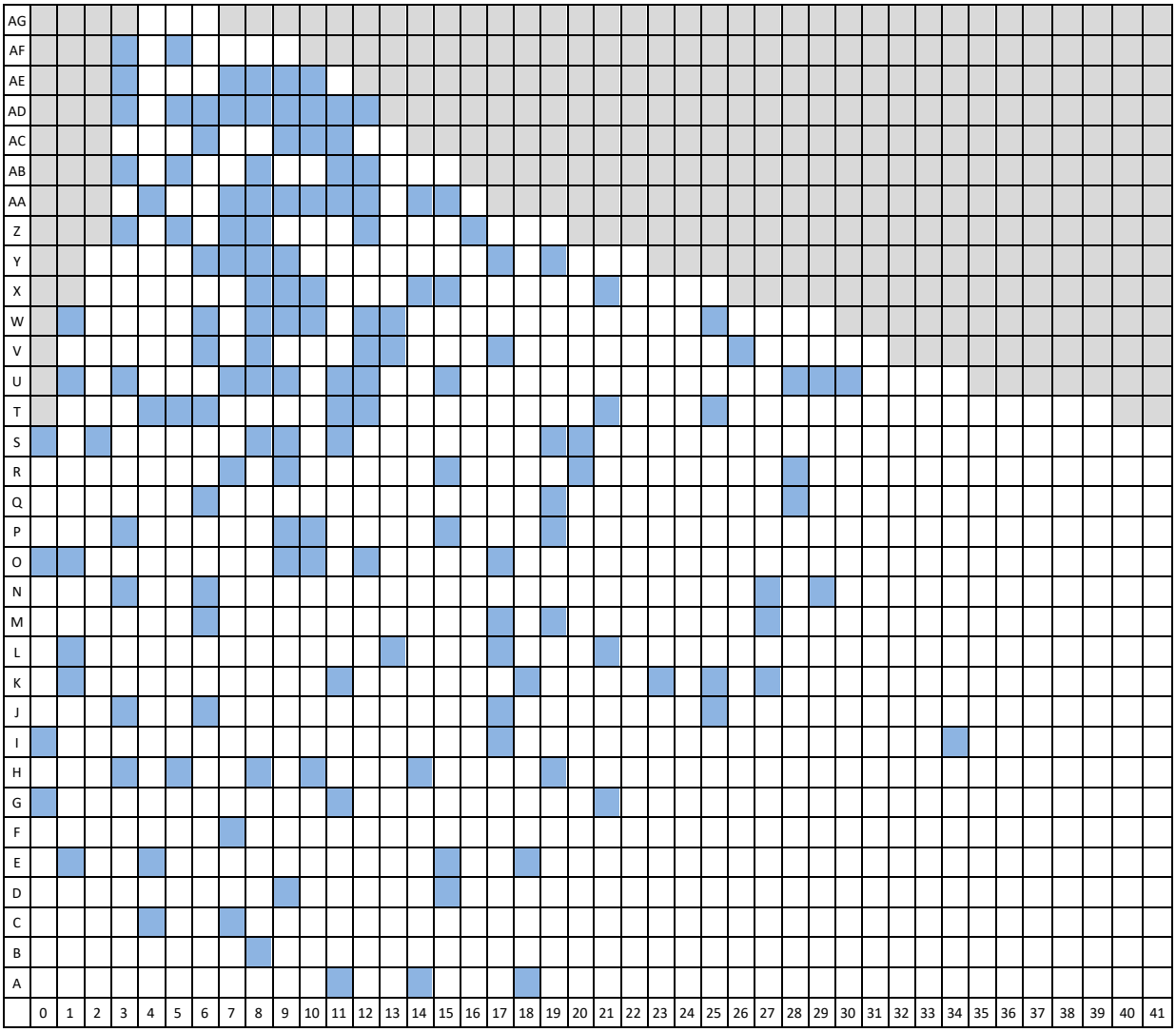
Wessex 2011. *Castor, Peterborough, Cambridgeshire: Archaeological Evaluation and Assessment of Results.* Wessex Archaeology, Salisbury, Wiltshire. Report reference: 74155.01

Warry, P. 2006a. *Tegulae: Manufacture, Typology and Use in Roman Britain.* British Archaeological Reports, British Series. N°417.

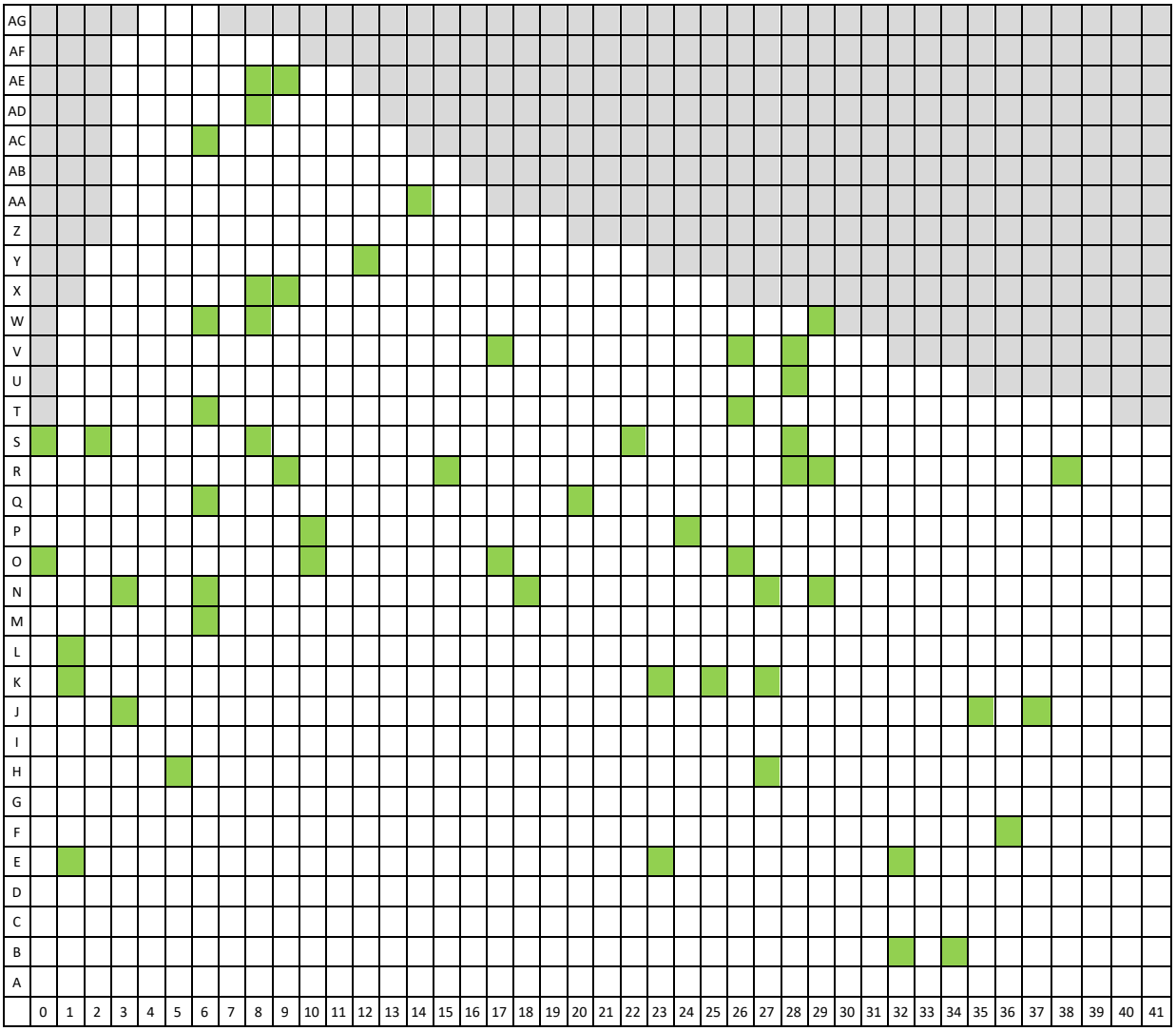
Warry, P. 2006b. A Dated Typology for Roman Roof Tiles (Tegulae). *Journal of Roman Archaeology.* Vol. 19, part 1, pp. 246-265.

Warry, P. 2010. *Dinnington Ceramic Building Material and Stone Tile.* https://www.academia.edu/38762204/Dinnington_Ceramic_Building_Material_and_Stone_Tile_Overview Accessed: 05/06/2020.

Appendix 1. Extent of fieldwalking grid (white squares), showing Roman CBM find spots.



Appendix 2. Extent of fieldwalking grid (white squares), showing Post Roman CBM find spots.



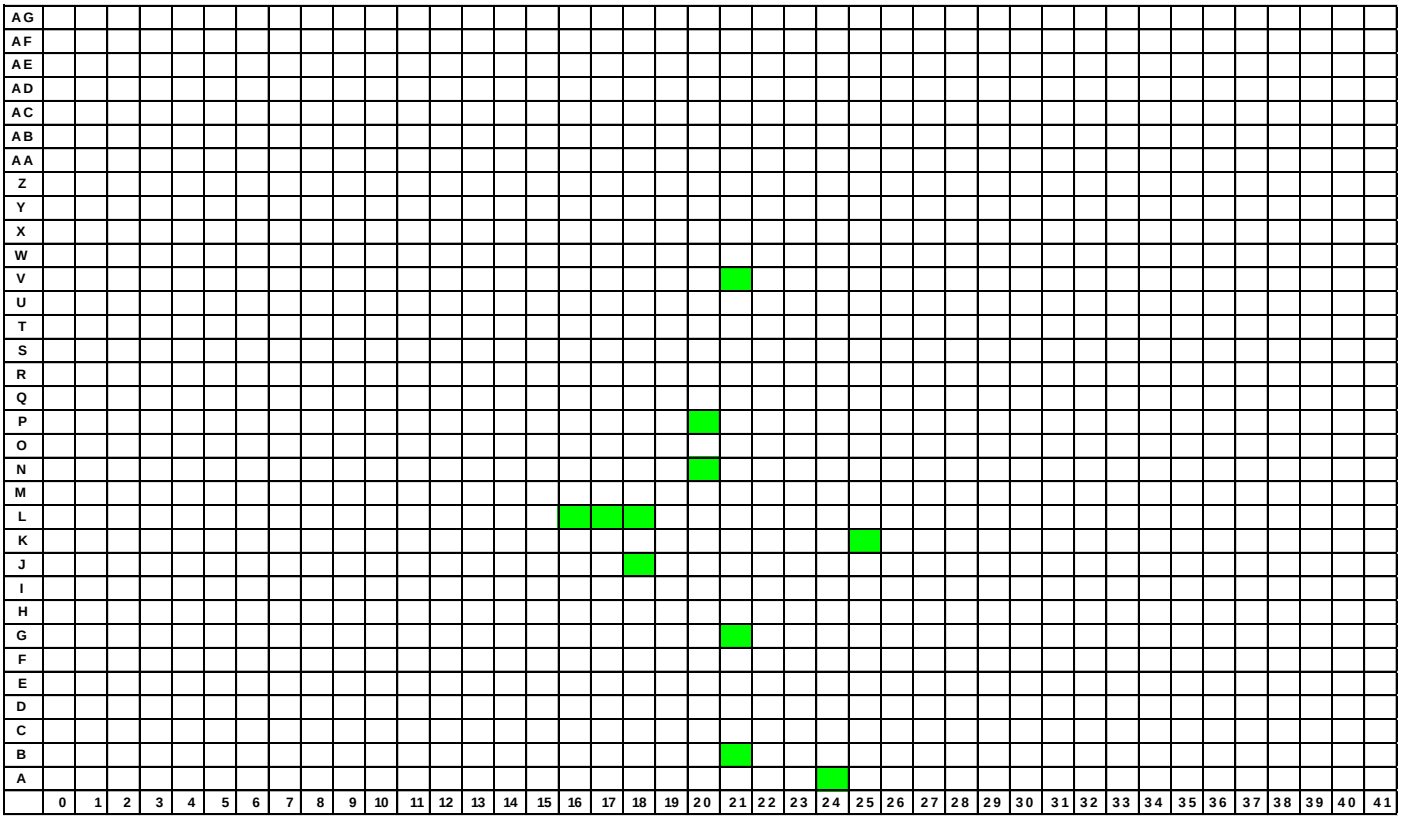
APPENDIX 3. Pottery forms by era.

	FORM BY ERA																					
	PRE		IA		IA/ESAX		LIA		LIA/ER		ER		RB		SAX		LSAX/EMED		MED		PMED		TOTALS	
FORM	N°	Wt (g)	N°	Wt (g)	N°	Wt (g)	N°	Wt (g)	N°	Wt (g)	N°	Wt (g)	N°	Wt (g)	N°	Wt (g)	N°	Wt (g)	N°	Wt (g)	N°	Wt (g)	N°	Wt (g)
AMPH									4	258													4	258
BEAK											1	5	3	5									4	10
BOWL	1	9	2	28	1	21	1	3	1	4	1	1	3	6					1	7			11	79
CORDONNED BOWL											1	5											1	5
CORDONNED JAR									1	4	6	58											7	62
DISH											4	39	6	45	1	4			2	36	4	53	17	177
DISH(REEDED RIM)													1	8									1	8
DISH(SINGLE GROOVE UNDER RIM)													1	7									1	7
DISH/LID																			1	11			1	11
DISH/PLATTER											1	35											1	35
EVERTED RIM JAR											1	8											1	8
FDISH													2	13									2	13
FLAG											2	4	12	44									14	48
FLAG/BOWL											1	3											1	3
FLAGON											1	3	1	10									2	13
FLANGED BOWL													1	35									1	35
FLANGED DISH													1	18									1	18
FRAG													2	2									2	2
HIGH-SHOULDERED JAR							1	11															1	11
JAR			1	23					9	56	26	208	40	254			1	13	29	121	14	62	120	737
JAR WITH EVERTED RIM)													1	7									1	7
JAR(RILLED)													1	31									1	31
JAR(WITH LARGE EVERTED RIM)													1	30									1	30
JAR/BEAK									1	1	3	15	7	21									11	37
JAR/BOWL			6	49	1	10	24	223	30	157	50	380	36	216					15	126	2	12	164	1173

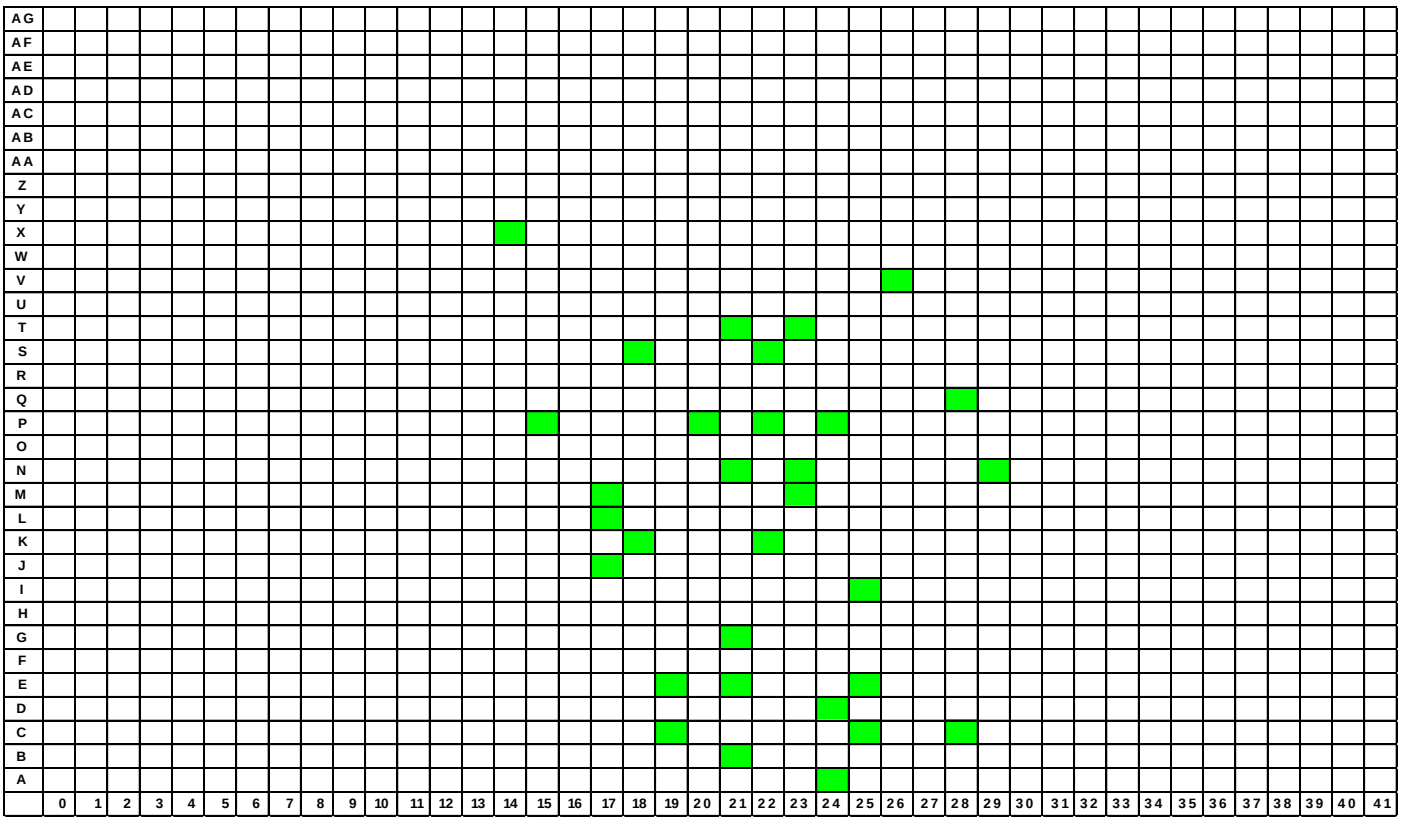
APPENDIX 3. Pottery forms by era (cont.).

	FORM BY ERA																					
	PRE		IA		IA/ESAX		LIA		LIA/ER		ER		RB		SAX		LSAX/EMED		MED		PMED		TOTALS	
FORM	N°	Wt (g)	N°	Wt (g)	N°	Wt (g)	N°	Wt (g)	N°	Wt (g)	N°	Wt (g)	N°	Wt (g)	N°	Wt (g)	N°	Wt (g)	N°	Wt (g)	N°	Wt (g)	N°	Wt (g)
JAR/SJAR			2	26			10	109	10	123			1	9					1	35	2	11	26	313
JUG																			4	211			4	211
LID																			1	7	1	3	2	10
MORT													1	8									1	8
MORT (REEDED RIM)													1	34									1	34
NECKLESS JAR WITH A FLAT RIM													1	10									1	10
PITCHER																			1	24			1	24
PLATE/CUP (WALTERS 79 OR 80)													1	3									1	3
POT/CBM									1	3			1	9									2	12
POT/DAUB									2	7													2	7
PURN											1	31											1	31
SJAR							5	85	35	702	1	5	3	27					2	18	2	25	48	862
SJAR; LARGE EVERTED RIM													1	40									1	40
SJAR; WITH LARGE EVERTED RIM													1	53									1	53
WJAR													1	22									1	22
TOTALS	**1**	**9**	**11**	**126**	**2**	**31**	**41**	**431**	**94**	**1315**	**100**	**800**	**131**	**967**	**1**	**4**	**1**	**13**	**57**	**596**	**25**	**166**	**464**	**4458**

APPENDIX 4. Pottery finds distributions by era, per 10m grid square.

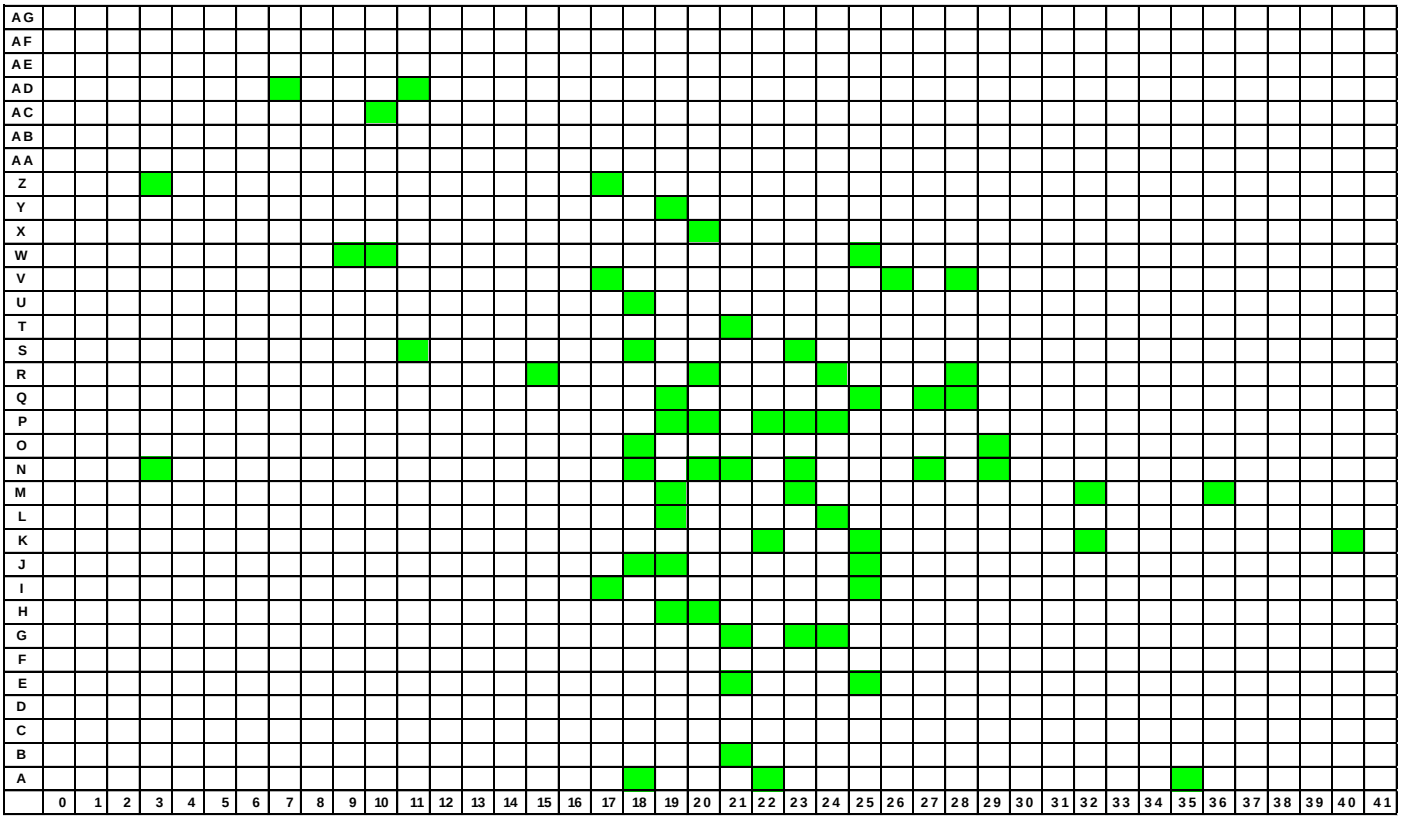


IRON AGE

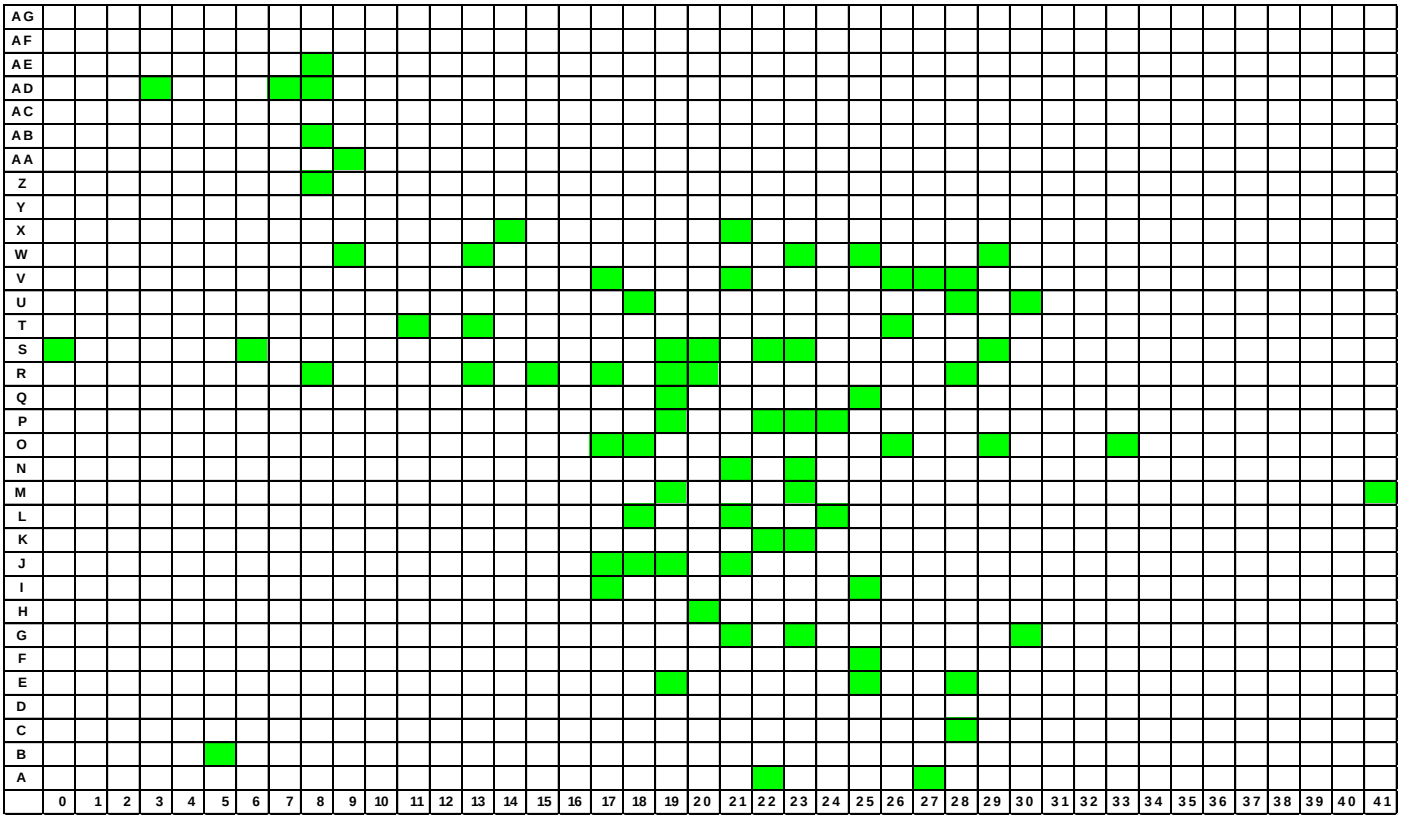


LATE IRON AGE

APPENDIX 4. Pottery finds distributions by era, per 10m grid square (cont.).

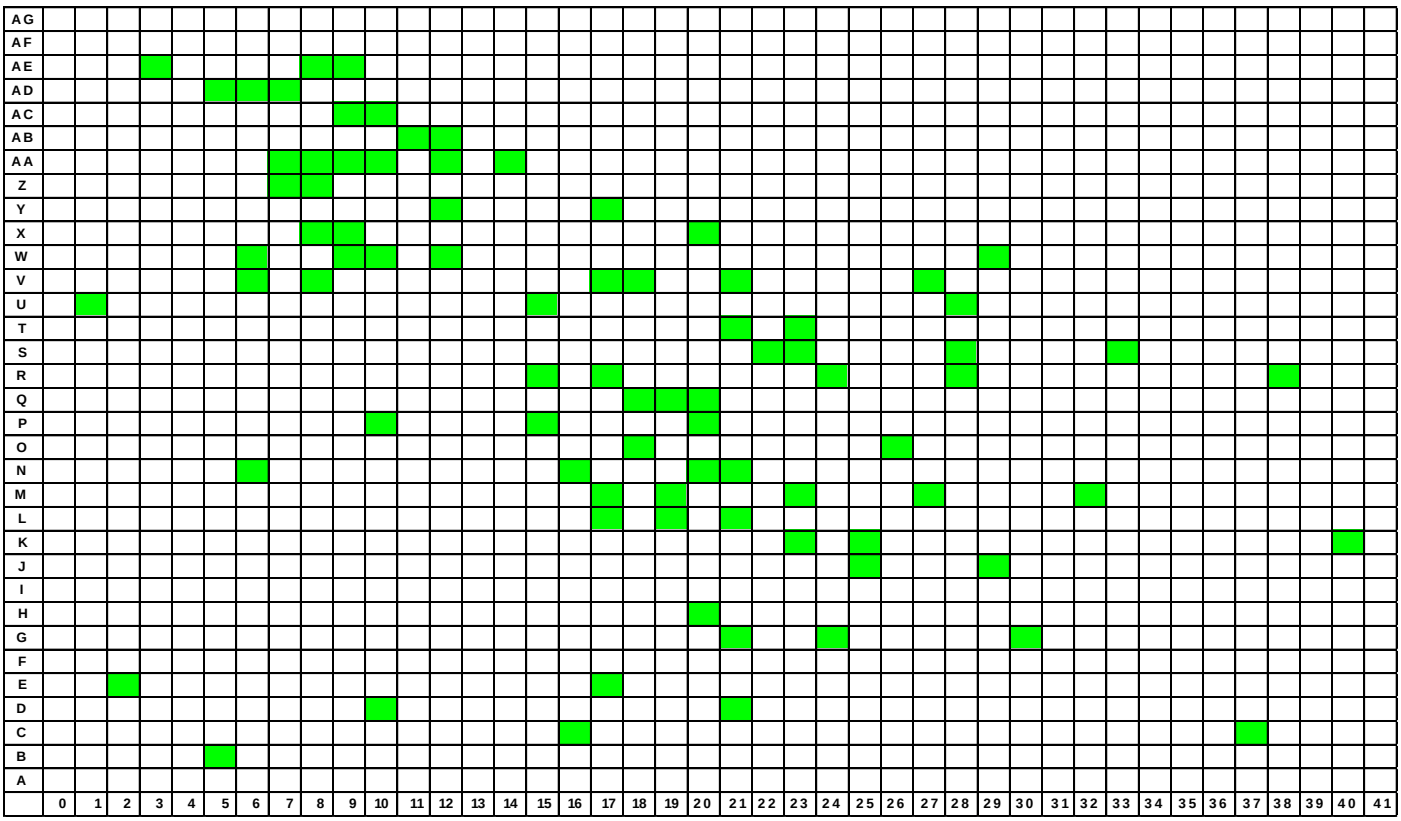


LATE IRON AGE/EARLY ROMAN

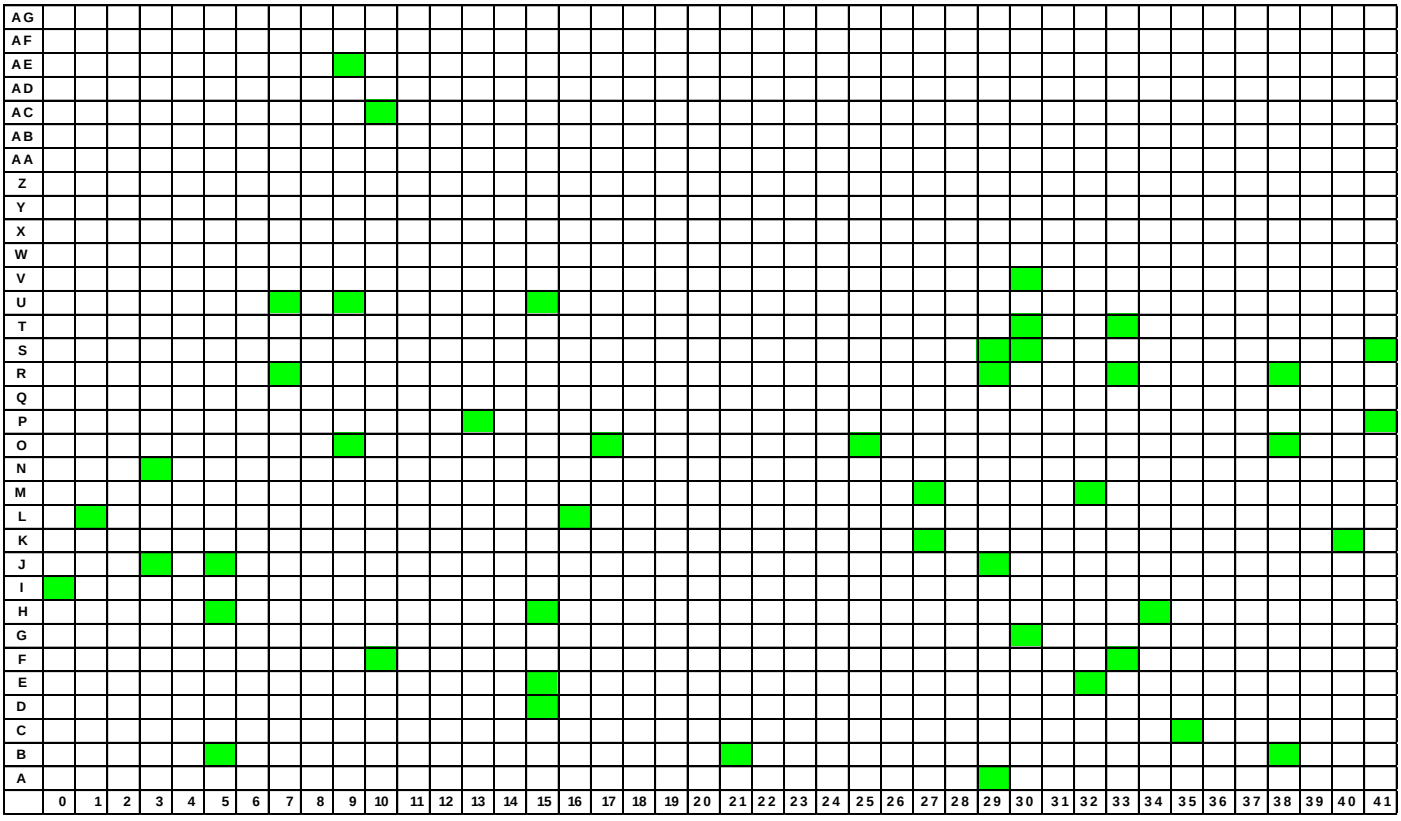


EARLY ROMAN

APPENDIX 4. Pottery finds distributions by era, per 10m grid square (cont.).

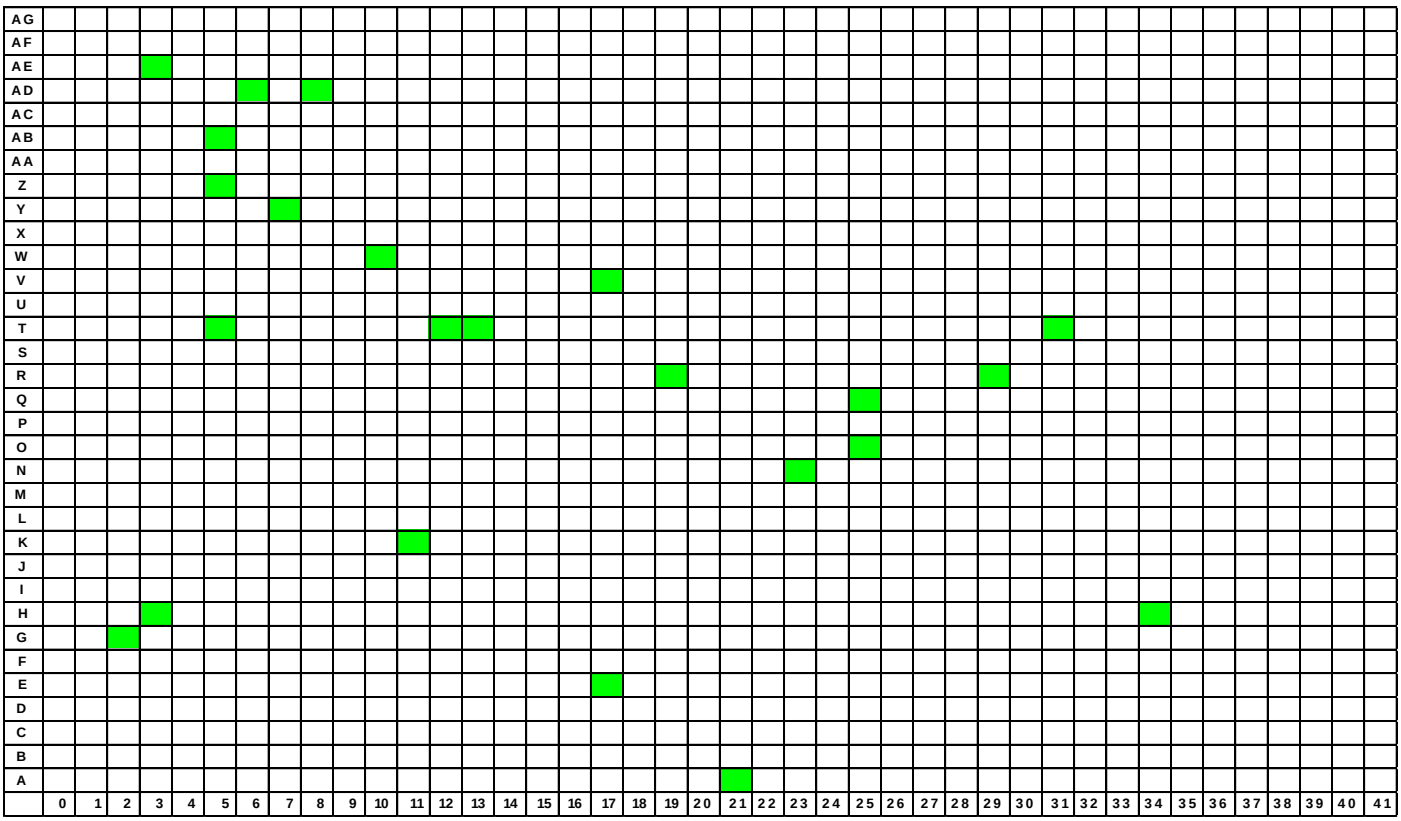


ROMANO – BRITISH



MEDIEVAL

APPENDIX 4. Pottery finds distributions by era, per 10m grid square (cont.).



POST MEDIEVAL

APPENDIX 5. Gridsquares by finds bags table.

BAG	LETTER	No	BAG	LETTER	No	BAG	LETTER	No	BAG	LETTER	No	BAG	LETTER	No
1	AF	3	49	O	1	100	P	9	146	R	17	195	A	21
2	AF	5	50	N	6	101	L	7	147	R	14	201	A	22
3	AD	6	51	N	3	102	K	8	148	S	18	202	A	27
4	AE	8	52	O	0	103	H	8	149	Q	18	204	A	24
5	AE	8	53	M	6	104	I	6	150	U	12	205	B	21
6	AD	6	55	N	5	105	F	7	151	P	10	206	C	19
7	AD	5	56	L	2	106	F	5	152	P	15	207	D	21
8	AE	3	57	L	1	107	C	7	153	P	13	208	E	19
9	AE	9	58	K	1	108	B	8	154	O	12	209	E	21
10	AD	5	59	J	5	109	D	9	155	O	10	210	D	24
11	AD	3	60	H	7	110	AE	10	156	O	9	211	E	25
12	AD	7	61	H	5	111	AD	11	157	O	18	212	C	25
13	AC	6	62	H	4	112	AC	10	158	O	17	213	C	26
14	AB	5	63	H	3	113	AA	10	159	N	16	214	C	28
15	AB	3	64	G	2	114	X	9	160	N	13	215	E	28
16	AA	4	65	I	0	115	AC	11	161	M	10	216	F	26
17	AB	8	66	G	0	116	AB	12	162	M	17	217	F	25
18	AA	8	67	J	3	117	AB	11	163	L	17	218	E	23
19	Z	8	68	E	4	118	AA	11	164	L	16	219	H	29
20	AA	7	69	E	2	119	AA	12	166	J	17	220	H	27
21	Z	5	71	E	1	120	AB	14	167	L	13	221	H	25
22	Z	3	72	E	0	121	AA	14	168	K	11	222	G	24
23	Y	6	74	C	0	122	AA	14	169	J	12	223	G	23
24	Y	7	75	B	2	123	AA	15	170	H	10	224	G	21
25	V	8	76	A	6	124	Z	16	171	G	11	225	H	20
27	Y	8	77	B	3	125	Y	17	172	I	14	226	H	19
28	X	8	78	C	4	126	Z	12	173	H	14	227	I	17
29	W	8	79	B	5	127	Y	12	174	I	12	228	J	19
30	W	6	80	AE	9	128	W	12	175	H	12	229	J	18
31	V	4	81	AE	7	129	X	10	176	H	15	230	J	21
32	W	1	82	AD	8	130	W	10	178	D	10	231	K	22
33	V	6	83	AC	9	131	W	13	179	D	11	232	K	18
34	T	6	84	AA	9	132	X	14	180	A	11	233	L	18
36	U	8	85	Z	7	133	X	15	182	E	15	234	L	19
37	U	1	86	Z	8	134	U	11	183	D	16	235	L	21
38	U	3	87	Y	9	135	V	12	184	D	13	236	M	19
39	T	5	88	X	9	136	V	13	185	D	15	237	I	23
40	T	4	90	W	9	137	V	17	186	C	17	238	I	25
41	S	2	91	V	6	138	W	15	187	C	16	239	I	27
42	S	0	93	V	9	139	U	15	188	F	10	241	K	23
43	T	6	94	U	9	140	T	11	189	B	14	242	J	25
44	S	8	95	U	7	141	S	11	190	A	17	243	K	27
45	S	6	96	S	9	142	T	12	191	B	13	245	K	26
46	R	8	97	R	7	143	T	13	192	A	14	246	K	25
47	Q	6	98	R	9	144	R	13	193	E	17	247	L	24
48	P	3	99	P	7	145	R	15	194	A	18	248	N	20

APPENDIX 4. Finds bags and gridsquares table (cont.).

BAG	LETTER	No	BAG	LETTER	No	BAG	LETTER	No	BAG	LETTER	No
249	N	18	295	V	21	349	F	40	398	U	32
250	O	18	296	V	30	352	F	36	399	S	30
251	P	19	297	U	30	353	F	37	400	S	29
252	Q	19	298	W	29	354	G	40	401	T	30
253	R	19	299	V	28	355	H	37	402	U	29
254	S	19	302	W	27	356	H	36	403	T	31
255	U	18	303	W	25	357	J	37	404	T	30
256	V	18	304	X	25	358	F	39	405	U	31
257	P	20	305	W	23	359	J	41	406	V	31
258	Q	20	306	X	22	360	J	40	407	U	30
259	R	20	307	X	21	361	J	35	408	V	30
260	S	20	308	X	20	362	K	37			
261	N	21	309	Y	19	363	M	34			
262	M	23	310	Z	17	364	M	35			
263	N	23	316	A	29	365	M	36			
264	O	25	317	A	30	366	K	40			
265	M	27	318	A	35	367	L	41			
266	N	27	319	B	32	368	M	41			
267	N	29	320	B	34	369	N	34			
268	Q	28	321	C	29	370	O	33			
269	Q	27	322	C	30	371	O	31			
270	Q	25	323	F	31	372	P	30			
271	P	24	324	C	32	373	N	38			
272	P	23	325	C	33	374	O	40			
273	P	22	326	E	32	376	P	36			
274	O	26	327	F	34	377	P	41			
275	R	29	328	F	33	378	O	38			
276	R	28	329	G	30	379	R	36			
277	S	28	330	F	29	380	R	37			
278	S	26	331	I	32	381	R	38			
279	S	25	332	H	34	382	S	39			
280	R	24	333	J	29	383	S	41			
281	S	23	334	K	29	384	R	41			
282	S	23	335	L	28	385	R	41			
283	S	22	336	O	29	386	S	37			
284	T	21	337	O	28	387	U	37			
285	T	23	338	K	31	388	S	36			
286	T	25	339	K	32	389	U	36			
287	T	26	340	M	33	390	Q	33			
288	U	29	341	M	32	391	R	31			
289	T	29	343	C	35	392	R	33			
290	U	28	344	C	37	393	S	35			
291	V	27	345	D	39	394	T	33			
292	V	26	346	D	40	395	S	33			
293	V	24	347	B	38	396	S	31			
294	V	22	348	A	36	397	T	31			