5 ROMAN BUILDING MATERIALS

5.1 Mortar and plaster

A total of thirty-seven samples of mortar were retained, comprising 227 fragments weighing 4369 g. The majority of the material occurred in stratified layers associated with buildings 1 and 2. Five different types of material were identified. One of these (type 7) appears to be a modern cement/concrete, probably deriving from activities associated with construction of the nearby water tanks. The Roman materials can be broadly divided into mortar and painted plaster.

Fabrics

Type 1: This was very pale brown–cream in colour made up of sandy chalky clay and lime mixed with a low density of medium–coarse sand (mostly quartz), fairly frequent small rounded chalk 0.5–6 mm and less common angular flint grit 0.5–14 mm in size. This basic type exhibited some variation in its mix in terms of quantities of inclusions, coherence, hardness and density. This was used both for mortar (10 samples) and plaster (14 samples). In three samples it was rendered with type 4 plaster before painting.

Type 1b: This was a concrete composed of a matrix of type 1 mortar mixed with a high density of grit and small stones, especially flint and chalk.

Type 2: This was cream-light brown in colour and made up of crushed chalk or lime mixed with clay. It contained a high density of coarse angular quartz and flint sand, up to 50% in some cases and a low density of angular flint grit up to 60 mm in size and rare rounded chalk 1–2 mm. Sub-category 2b, which was observed adhering to a clay tile, contained additionally crushed clay tile grit.

Type 4: This was white fine crushed chalk/lime mixed with rounded chalk 1–2 mm and finemedium sand, mostly quartz, but also including some dark rock grains. This was used as a thin render over type 1 mortar prior to painting in some cases.

Type 5: This was white, cream or light brown in colour consisting of c.50% crushed chalk/lime matrix and c.50% inclusions of broken angular clay tile 3–8 mm with some rounded chalk grit 1–3 mm and medium–coarse sand, predominantly composed of angular quartz and flint and rounded tile.

Types 3 and 6: No samples of these types of pink mortar containing crushed tile were present at Houghton Down. They have been identified at other environs sites of Grateley and Fullerton.

Type 7: This appears to be a modern cement/concrete. It was mid-dark grey or green in colour with c.30% lime matrix and c.70% coarse quartz sand. In two samples it was mixed with a high density of angular flint 1–24 mm to form concrete (type 7a).

Туре	Mortar	Painted plas	ster Cement/con	crete Total
Type 1	2612 g	840 g		3452 g
<i>Type 1/4</i>		38 g		38 g
Type 2		396 g		396 g
Type 2 b	on clay tile			1 sample
Type 5	16 g			16 g
Туре 7 & 7а			467 g	467 g
Total	2628 g	1274 g	467 g	4369 g

Table 1. Quantities of mortar, plaster and cement types

Mortar, plaster and concrete catalogue

F527 (1) 1920s ex tr. Sample: 2465 Frags: 22 Wt: 225 g Type 1 Plaster – painted Description: Maroon red; ochre. Broken fragments 15–60 mm in size. The surface was flat and painted maroon red; one fragment had a band of brown over the red. Some black mottles, may have derived from smoke or black paint worn off. Thickness: 25 mm. Fabric description: Very pale brown. Sandy (quartz and other) clayey mortar with chalk, rounded 0.5–6 mm.

F548 (1)QHSample: 2646Frags: 1Wt: 500 gType 1MortarDescription:Moulded surface.Thickness: 54 mm.Area: 101 x 109 mm.

F552 (1)Sample: 2453Frags: 1Wt: 52 gType 7ConcreteDescription: AmorphousFabric description: Green-grey. Very sandy cement mixed with high density of flint (ang., round) up to 18 mm.

F586 (1)HearthSample: 2649Frags: 6Wt: 10 gType 1Plaster – PaintedDescription: White. Thickness: 11 mm.

F589 (1)1920s ex.tr.Sample: 2650Frags: 2Wt: 25 gType 7Cement (modern?)Description: Flat surface.

L294Bldg 2: chalk-flint spreadSample: 2455AFrags: 36Wt: 740 gType 1MortarDescription: The discarded blocks were largely amorphous lumps of varying sizes.

Fabric description: Pale brown–cream fine sandy clay mortar mixed with a high density of rounded chalk 1–20 mm, some angular flint up to 6 mm; very hard and concreted.

L294Bldg 2: chalk-flint spreadSample: 2455BFrags: 20Wt: 900 gType 1MortarDescription: Thicker blocks with mostly one flat surface. One had a curving surface at right angles. Thickness: 22–45 mm.Fabric description: Pale brown–cream fine sandy clay mortar mixed with a high density of rounded chalk 1–20 mm, some angular flint up to 6 mm; very hard and concreted.

L294Bldg 2: chalk-flint spreadSample: 2455CFrags: 12Wt: 185 gType 1MortarDescription: Thin fragments mostly with two parallel flat, very smooth surfaces. Thickness:10–20 mm.Fabric description: Pale brown–cream fine sandy clay mortar mixed with a high density of rounded chalk 1–20 mm, some angular flint up to 6 mm; very hard and concreted.

L294Bldg 2: chalk-flint spreadSample: 2467AFrags: 31Wt: 165 gType 1Plaster – paintedDescription: Orangy red. Very smooth surface; some damage. Area: 137 sq cm.Fabric description: Pale brown–cream. Mortar with chalk; slightly sandy.

L294Bldg 2: chalk-flint spreadSample: 2467BFrags: 3Wt: 14 gType 1Plaster – paintedDescription: Red; cream stripe. Smooth even surface. Maroon red ground over which has
been painted a light yellowish-brown–cream area or line (8 mm width survives). Thickness:
15 mm. Area: 6 sq cm.

L294Bldg 2: chalk-flint spreadSample: 2467CFrags: 1Wt: 8 gType 1Plaster – paintedDescription:Cream; maroon stripe.Smooth flat surface painted light brown–cream onwhich a narrow band 10 mm wide of maroon red has been painted.Thickness: 10 mm. Area:6 sq cm.

L294Bldg 2: chalk-flint spreadSample: 2467DFrags: 1Wt: 18 gType 1Plaster – paintedDescription: Red; dark maroon stripe.Maroon red ground with dark maroon stripe 4 mmwide across it. At one side the surface of the plaster, still painted is angled back to form a
bevelled edge – moulding. Thickness: 15 mm. Area: 4.5 sq cm.

L294Bldg 2: chalk-flint spread.Sample: 2467EFrags: 1Wt: 18 gType 1Plaster – paintedDescription: Red ground; white.Very smooth flat and even surface painted red with blockor wide band of white painted over the red surface.Some of the white paint has worn off.Thickness: 17 mm.Area: 9 sq cm.

L294Bldg 2: chalk-flint spreadSample: 2467FFrags: 16Wt: 320 gType 1Plaster – paintedDescription:Maroon red.Very flat smooth surface originally, but subsequently verydamaged.The maroon paint had been applied directly to the mortar so flint and chalk gritprotruded through.Most of the paint is very worn.Thickness: 30 mm.Area: 160 sq cm.

Fabric description: Pale brown–cream. Sandy clay mortar with rounded chalk and angular flint up to 14 mm.

L294Bldg 2: chalk-flint spreadSample: 2461Frags: 1Wt: 36 gType 1MortarDescription: Worn undulating surface, unpainted. Thickness: 20 mm.Fabric description: Pale brown-cream. Chalky clay mortar with fine sand and small chalkgrit; no flint.

L300 Bldg 2 rm 6: Brown soil and bldg debris Sample: 2459
Frags: 3 Wt: 270 g Type 7 Cement
Description: Amorphous.
Fabric description: Dark grey. High density of sand – looks very modern.

L300 Bldg 2 rm 6: Brown soil and bldg debris Sample: 2468 Frags: 1 Wt: 14 g Type 1 Plaster Description: Orangy red. Flat surface painted red. Thickness: 20 mm.

L307 Bldg 2: base of ploughsoil Sample: 2456A Frags: 3 Wt: 80 g Type 7 Cement Description: Amorphous lumps. Fabric description: Greyish-green. Very sandy.

L307Bldg 2: base of ploughsoilSample: 2456BFrags: 1Wt: 40 gType 7aConcreteDescription: Amorphous lumps.Fabric description: Greyish-green. Very sandy cement mixed with a high density of angularflint 1–24 mm.

L309 Bldg 2, rm 6b: plaster/mortar spread Sample: 2469A Frags: 15 Wt: 270 g Type 2 Plaster – painted Description: White individual fragments were up to 60 mm wide. The primary surface was the light yellowish-brown of the mortar with possibly one or two coats of white paint over the top. Unlike the red paint, which appears to soak into the mortar surface, the white paint here had formed a distinct thin veneer, which chipped/flaked off in layers. Thickness: 10–17 mm. Area: 176 sq cm.

L309 Bldg 2, rm 6b: plaster/mortar spread Sample: 2469B Frags: 9 Wt: 80 g Type 2 Plaster – painted Description: Red; white. Smooth even flat surfaces painted white, with same characters as [2469A]. Over this blocks or bands/stripes of red were painted. This was mostly a light red or pinkish-red (very worn), but one area of very maroon red. Most of the areas of red paint were 10 mm or less wide. One complete band was 17 mm wide. Thickness: 10–17 mm. Area: 64 sq cm.

L309 Bldg 2, rm 6b: plaster/mortar spread Sample: 2469C Frags: 3 Wt: 28 g Type 2 Plaster – painted Description: White; ?black. Smooth flat even surface with basic white wash covering the whole ground, but with a hint of black over the surface: it is not clear whether this is black paint worn off or possibly sooting from fires. Thickness: 10–17 mm. Area: 13 sq cm. L310 Bldg 2, rm 6b: clay soil Sample: 2470A Frags: 1 Wt: 10 g Type 2 Plaster – painted Description: Red; maroon. Very smooth flat surface painted in red-orangy ground overlain by a block of maroon red paint at least 16 mm wide. Thickness: 12 mm. Area: 7 sq cm.

L310 Bldg 2, rm 6b: clay soil Sample: 2470B Frags: 1 Wt: 8 g Type 2 Plaster – painted Description: White; red. Flat even surface, brown–yellow of the mortar, overlain by 1–2 coats of white paint, which has patches of red paint overlying it. Area: 3 sq cm.

L311 Bldg 2, rm 1: yellow silty soil Sample: 2471 Frags: 6 Wt: 20 g Type 1 Plaster – painted Description: Red. Smooth flat surface painted red; one fragment has a smear of black. Area: 14 sq cm.

Fabric description: Brown–yellowish-brown. Very hard mortar with c.25% rounded chalk 1–5 mm.

L312Bldg 1: collapsed bldg debrisSample: 2457AFrags: 4Wt: 92 gType 1MortarDescription:One fragment had two parallel flat surfaces 15 mm apart; another had twosurfaces forming a right angled internal corner (L-shaped).Thickness: 15 mm.Fabric description:Light brown-cream.Contained a low-moderate density of rounded chalk 1–3 mm.

L312 Bldg 1: collapsed bldg debris Sample: 2457B Frags: 3 Wt: 6 g Types 1 and 4 Plaster – painted Description: White/red/ochre. All surfaces very flat smooth and even. One fragment had an ochre surface; another was white with part of an ochre and/or red band over the top. The third fragment had thick white paint covering red paint, which was covering ochre paint. Fabric description: White. Mostly only white render sheared off mortar, but with a little of type 1 mortar still adhering.

L312 Bldg 1: collapsed bldg debris Sample: 2472A Frags: 6 Wt: 28 g Type 1 Plaster – painted Description: Red on brown base. Surface render generally 2–3 mm thick, rarely 5 mm. Very smooth even flat surface, painted but paint very worn in all cases. It appears there was a base of yellowish-brown (ochre) paint overlain by red. On one fragment a small patch of white paint survived over this. Thickness: 10–15 mm.

L312 Bldg 1: collapsed bldg debris Sample: 2472B Frags: 4 Wt: 16 g Types 1 and 4 Plaster – painted Description: Ochre. Surface very smooth, even and flat painted a yellowish-brown (ochre) colour. One piece has patches of red paint overlying the brown. Thickness: 5–12 mm. Fabric description: White/creamy brown. Thin white render over cream–brown mortar.

L312Bldg 1: collapsed bldg debrisSample: 2472CFrags: 1Wt: 10 gType 5MortarDescription:Flat even surface, slightly yellowish-brown, possibly painted, rather than justnatural colour of mortar. A shallow linear groove ran over the surface.Thickness: 12 mm.

L312Bldg 1: collapsed bldg debrisSample: 2622Frags: -Wt: -gType 2bMortarDescription: Discontinuous irregular spread over surface of brick.Fabric description: Light brown-cream. Inclusions of sand and grit 2–5 mm of flint (ang.), chalk and tile (round).

L318Bldg 3: base of ploughsoilSample: 2474Frags: 1Wt: 2 gType 1MortarFabric description: White.Very hard chalky mortar with sand or concretion over the surface.

L325Bldg 1: roof debris collapseSample: 2478AFrags: 1Wt: 145 gType 1MortarDescription: Even surface basically flat but curving up to one side to form concave surfaceand lower surface convex, curving down from thin edge. Thickness: 10–20 mm.Fabric description: High density of sand over surface of mortar.

L325	Bldg 1: roo	of debris collaps	e Sample:	2478B
U	1 Wt: ption: Amor	6 g Type rphous.	e 5 Mortar	

L325Bldg 1: roof debris collapseSample: 2476Frags: 5Wt: 16 gTypes 1 and 4Plaster – paintedDescription: Red maroon.Smooth flat surface with worn maroon paint.Thickness: 13 mm.Fabric description: White.Thin white render over type 1 mortar.

L327Bldg 1: mortar floor W of F594Sample: 2479Frags: 1Wt: 4 gType 1MortarDescription: Amorphous.

L331Bldg 1: ash and charcoalSample: 2477Frags: 3Wt: 8 gType 1MortarDescription: Amorphous, small frags – all discarded.

5.2 Tile and brick

Seventy samples of clay tile and brick were recovered from 30 contexts within 16 features, including ovens, quarries, ditches, a pit and post-hole and 11 layers, mostly within Building 1. This group totalled 153 fragments weighing 35 kg. The greatest quantity, approximately two barrow-loads, came from a single layer (312), but this was not fully recorded or quantified. From this a selection of 31 fragments weighing 11,691 g representing c.8% was made on site before discarding the remainder.

All major tile forms were present including *tegulae*, *imbrices*, box tiles and bricks.

Fabrics

Three tile fabrics designated B, C, and D were identified. Fabrics C and D dominated the collection. The same fabrics were found at other environs sites including Grateley and Suddern Farm (at the latter the equivalent to fabric D was designated fabric A).

Fabric B

Three samples comprising 16 fragments, weighing 2005 g were all box tile except one unidentified sample. The fabric had a yellowish-red exterior with reduced grey core and contained medium–coarse sand, mostly quartz, and grits 1–10 mm of reddish burnt ironstone or iron-rich sandstone, burnt flint, fired clay pellets and possible slag.

Fabric C

This was the most frequently occurring fabric with a total of 39 samples comprising 63 fragments weighing 19,211 g. Generally fired reddish-yellow-red, this was a laminated clay sometimes with distinct creamy brown streaks mixed with a high density of medium-coarse quartz sand plus rare chalk and flint grit 2–5 m. A sub-category (C1a) contained a greater quantity of grits up to 8 mm including additionally chert, limestone, sandstone and unwedged clay pellets.

Fabric D

There were 27 samples in fabric D, comprising 73 fragments weighing 13,424 g. The fabric was made from a finely laminated clay generally fired to a light reddish-yellow with cream streaks and mixed with variable densities of fine quartz sand. It sometimes contained angular fragments or rounded pellets of red or brown unwedged clay up to 5 mm and occasionally scattered flint grit and fragments 15–25 mm.

Fabric K

A single poorly fired sample of daub fabric K is not certainly tile and may have been some other form of baked clay.

Form	Tegula	Imbrex	Box	Half box	Brick	Unid S	Samples	Total	Percent
Samples	10	16	15	3	6	20		70	
B: frags	0	0	15	0	0	1	3	16	10.50%
B: wt g	0	0	1940	0	0	65		2005	6%
C: frags	8	18	9	3	5	20	39	63	41%
C: wt g	4931	2883	4256	2115	4430	596		19211	55%
— D: frags	5	10	40	0	3	15	27	73	48%
D: wt g	1260	2221	2785	0	5641	1517		13424	38%
K: frags	0	0	0	0	0	1	1	1	0.50%
K: wt g	0	0	0	0	0	365		365	1%
Total: frags	13	28	64	3	8	37			
Percent	8.5%	18%	42%	2%	5%	24%	70	153	100%
Total: wt g Percent	6191 18%	5104 14.6%	8981 25.6%	2115 6%	10071 29%	2543 7%		35005	100%

Table 2. Quantities of clay tile by fabric and form

Forms

Tegulae

There were ten samples, comprising 13 fragments weighing 6191 g made in fabrics C and D. Most of the *tegulae* was found in the oven F240/F258, where it had been used in the construction of the oven structure. A further piece was found in another oven and the remainder in a ditch and within Building 1. Only those found in the layers of building debris from the aisled hall suggest they were actually used as roofing, though quantities are so small it may only have been as patching or repairs of the stone roof.

Size No complete tegulae were found. The maximum surviving length was 200 mm. The thickness measured from 16–25 mm with the majority lying at the upper end of this range.

Flange Ten flanges with rectangular profile (type A) were preserved measuring 18–24 mm wide by 16–24 mm high. Two of these were of sub-type A(b) having a projecting lip along the upper inner edge of the flange. One was of type B having a sloping inner edge forming a trapezoidal cross-section widening from 15 mm at the top to a base of 30 mm.

Cutaway Five cutaways were noted, three of type A1, where the whole of the corner and flange had been cut out and two of type A2, where only the flange had been cut out to the level of the tile surface. The cutaways measured 35–40 mm long by 18–24 mm wide.

Signature marks Three *tegulae* had signature marks on the upper surface. One had a single finger groove forming a shallow arc. Another had two finger grooves 5 mm wide lying 15 mm apart. The third had two finger grooves 5 mm wide and 12 mm apart forming a

semicircle beginning and ending on one edge and which had been cut by a third groove gently curving towards the centre of the tile. All were found in the oven F240/F258.

Use Though intended for roofing, it is clear that over half the recovered samples had in fact been used in oven construction.

Imbrices

There were a total of 16 samples (ten in fabric C and six in fabric D) comprising 28 fragments weighing 5104 g. Several samples derived from the oven F240/F258, but they were also present in a greater number of other features (PH, quarry, well, oven) and layers (in Buildings 2 and 3) than the *tegulae*.

Size No complete examples survived, but it was possible to obtain some complete measurements for length, width and height. One that had split in half lengthwise measured 330 mm long with a width of 110–150 mm. The width could be measured in a further nine samples and ranged from 120–210 mm, with two of sufficient size to show the increase in width: one from 125 to 160 mm and the other from 135 to 180 mm. The height could be measured in five tiles and ranged from 77 to 120 mm.

The thickness of the tile wall was 15–17 mm in the majority of examples, but a few fell outside this with a full range of 12 to 25 mm. In one case there was a distinct thickening of the wall around the end to form a bulbous rim.

Use Primarily intended for roofing it is likely that at least some were used in this manner, possibly as ridge tiles on the stone roof of Building 1, rather than in an all tile roof on one of the buildings. However it is apparent that a number were utilized in the oven structure F240/F258 and the one found in the oven F519 had been blackened and burnt around one end suggesting this had been used in the oven superstructure or as a piece of oven furniture.

Box and half box tiles

There were 11 certain examples and a further four possible samples of box tile. In addition there were three samples that were probably half box tiles. All were found in layers, most within Building 1, but a few samples coming from Buildings 2 and 3. The box tiles were made in fabrics B, C and D, totalling 64 fragments weighing 8981 g. The half box tiles were all from L312 and were exclusively made in fabric C comprising three fragments weighing 2115 g. The material from L312 is only a small proportion of tile excavated from this layer, which may all have been predominantly box tile.

Shape Most were clearly rectangular, with an even rectangular cross-section, open at both ends. Generally two main opposing faces were combed for keying in to walls with plain narrower sides, frequently with vents cut into them. However some examples indicated the sides were combed as well and it is possible that some of these did not have vents cut in the side. One sample [2609A] had a trapezoidal-shaped side with the length/height increasing from one side to the other. The half box tiles had one main rectangular face that was combed with two partial sides forming flanges, which generally had cutaways sliced in them.

They had well smoothed outer surfaces with rounded corners and rougher sand-coated inner surfaces with sharp angular internal corners. The edges at the open ends had sometimes been cut or smoothed with a blade and sometimes had been cut along the inner edge, flat or at an angle. Vents and cutaways had all been cut out with a blade.

Size No complete box tiles were recovered, though it is likely that had all the material from L312 been recorded, it would have been possible to obtain more complete measurements. No complete lengths (heights) survived with those recorded being >55->320 mm. In two cases the total length could be estimated, based on assumptions that the combed pattern was fairly symmetrical: these indicated lengths of *c*.260 mm and *c*.220 or 340 mm. One of the half box tiles measured >265 mm long with the total estimated at *c*.460 mm.

The complete breadth survived in four examples measuring 115 mm, 165 increasing to 188 mm, 210 mm and 220 mm. For one it could be estimated to be c.280 mm and for a half box tile c.190 mm. Widths were all incomplete ranging from >30 to >145 mm. In the half box tiles the side widths of the flange were 0.33, 0.4 and 0.55 mm, but depending on the shape and size of the cutaway, they are all likely to have been wider towards the ends, which did not survive in the retained pieces.

The thickness of the walls ranged from 15–20 mm, with most clustering at 18–20 mm. The half box tiles were slightly thicker on average at 18–23 mm.

Vents and cutaways Vent holes cut into the side surfaces were present in two or three samples (one having the vents in both sides surviving). These were rectangular cuts 110-124 mm long and of unknown width. They were cut *c*.35–40 mm from the corner and the pair were 160 mm from the open end directly opposite each other. The evidence of vents may be under-represented, as the selection from L312 was specifically aimed at combed faces.

Two of the half box tiles had cutaways surviving: one was formed in the arc of a circle and the other in a W. Similar forms are recorded by Brodribb (1987, 66). It is possible that what have been interpreted as vents from whole box tiles, above, were in fact in some cases cutaways in half box tiles, where insufficient of the tile survived to be certain.

Combing Combing normally occurred on the two main faces of the box tiles, but on one [2609A] from an early Roman context there was an equally complex pattern on both face and side and others from L312 (fourth century AD) a couple of samples had evidence of a band of combing down the centre of the side surface.

Combing was present on thirteen of the box and all of the half box tiles. One of the half box tiles is assigned to this category purely on the similarity of combing to the other half box tiles as neither of the sides survive.

The patterns of combing are of varying complexities. The simplest are straight bands lying parallel to and alongside the edges, a cross pattern or a diamond pattern. These may be amalgamated in various combinations. In addition two have bands of S-combing generally forming a central undulating band running down the long axis.

All the half box tiles had an element of wavy combing. On one a single sinuous central longitudinal band overlay straight bands along the edges enclosing a series of crosses. On another all the bands were undulating but followed the usual pattern of crosses or diamonds enclosed by an outer frame of bands along the edges.

The patterning was made with combs with 6 to11 teeth, which formed bands 20–45 mm wide. The teeth were 1-3 mm wide by c.1 mm deep, set 1-3 mm apart. Teeth profiles varied

from V, through wide and narrow U sections to ∂ . Some had an asymmetric V-profile, indicating the comb had been held at an angle. The variation in spacing, width and profile can depend on the angle at which the comb was held: this was most apparent in the curved bands. It was also apparent that in some cases the end teeth were worn or damaged as they did not always score, especially if the comb was angled.

Table 3. Combing: dimensions and shape [(= wide shallow U profile; | / = asymmetric V profile]

Sample	No.teeth	Band width	Teeth wdth	Teeth dpth	spacing	Profile
2609B	7	35-38 mm	2-2.5 mm	1-2 mm	3 mm	
2609A	9	35-40 mm	2-3 mm		1-1.5 mm	_ & U
2590C	7	30 mm	2 mm	1 mm	2-3.5 mm	U
2590B	6	23-26 mm	2-2.5 mm	1 mm	2-3 mm	
2615	8	35 mm				
2615	7	20 mm				
2615	10	24 mm				
2615	7	37 mm				
2590G	11	32-33 mm	2 mm	1 mm	1-3 mm	U
2590F	11	28-33 mm	1-1.5 mm		1-2 mm	/
2590D	9	35-43 mm	3 mm		2 mm	(
2590D	9	28-45 mm	3 mm	1 mm		(
2590A	7	23-30 mm				
2606	6	19 mm				
2490A	6	27 mm	2 mm	1 mm	2 mm	U & /
2492b	6	20 mm				
2668	7	28 mm				

Bricks

A total of six samples of bricks was recovered, comprising eight fragments weighing 10,071 g made in fabrics C and D. In half the cases identification was uncertain being based solely on the thickness of the fragments. They ranged in date from second to fourth century AD contexts and from a variety of features and layers.

Size and shape One near complete brick [2622] from L312 measured 350 x 290 x 36 mm and weighed 5250 g. The other incomplete samples measured >90->300 mm by >25->190 mm. The thickness of bricks ranged from 33 to 60 mm. The complete brick is the size of a *pedalis* and may have been used as a *pilae* capping. The other fragments could have derived from any of the known brick sizes though *bessalis* (commonly used for *pilae*), *pedalis* or *lydion* (used for *pilae* capping or in walls generally) are the most likely forms.

The upper surfaces were usually smooth and even, sometimes slightly concave, whilst the lower surface tended to be slightly rougher and sand-coated. The angles of the edges were sometimes sliced to form a bevel.

Signature marks The complete brick had a signature mark on its upper surface. This took the form of two finger grooves describing a semicircle starting and finishing 25 and 40 mm

from the same edge. The outer semicircle measured 170 mm wide and the inner 125 mm. The grooves measured 12 and 10 mm wide respectively. Remnants of finger grooves 7–8 mm wide possibly representing part of a signature occurred on one other fragment.

Context	Phase	Sample	Frags Wt	Fab	Form
Ph 995(1)	Ro	2581	1		<i>Imbrex</i> tile
L294	C2AD	2667	2x		Imbrex
L297	C3AD	2668			Box + Tegula
L312	300-340AD	2590			Clay tile
L312	300-340AD	2622			<i>Pilae</i> tile
L314	C2AD	2606			Clay tile
L322	LC3–C4AD	2572			Clay tile
L323	C2AD	2611			Clay ?brick
L326	Ro	2615			8 box; 6 clay tile disc.
L332	LC3–C4AD	2609			Clay tile

Tile and brick catalogue

Box tiles

L297 Sample: 2668 Phase: Late C3–C4 Form: Box Frags: 1 Weight: 160 gm Fabric: D Thickness: 20 mm

Description: Part of a box tile with a smooth outer surface, a flat straight edge and rougher inner sand-coated surface. The outer surface had a band of combing running at right angles to the edge and cut through by a second set running parallel to the edge. The bands were about 28 mm wide and made with a seven-toothed comb.

L301 Sample: 2490A Phase: C3–C4 Form: Box Frags: 2 Weight: 80 g Fabric: D2 Thickness: 15–18 mm

Remnants of straight flat edge; smooth flat underside with sand-coating. Upper surface covered by combing consisting of bands 27 mm wide with six teeth (minimum). The teeth marks were 2 mm wide by 1 mm deep and lay 2 mm apart. Some have a rounded U-profile, but in the second leg of the V the tooth marks had an asymmetric V-profile suggesting that the comb had been held at an angle. Three bands of combing survived: two formed a V-shape fanning out from the edge; this was cut through by a straight band running parallel alongside the edge.

L312Sample: 2492CPhase: C4 ADForm: BoxFrags: 2Weight: 56 gFabric: C1Thickness: 16–20 mmLength: >55 mmWidth: 40 mmFragment from the corner edge of a box tile. The outer angle of the corner was well roundedwith the side extending to form a flange 40 mm wide. Unclear whether this was the edge of a vent of a full box tile or the cutaway of a half box tile.

L312 Sample: 2590A Phase: C4 AD Form: Box Weight: 1970 g Frags: 2 Fabric: C1a Thickness: 19–20 mm Length: >280 mm Width: >55 mm Breadth: 210 mm This fragment formed about half of one face of a box tile. It had smooth flat surfaces, the outer very even, the inner rougher and sand-coated. No sooting/blackening was present on the inner surface. The inner surface alongside the edge had been sliced flat to form a smooth margin 10–17 mm wide. Only part of both side surfaces survives, but both were pierced by a rectangular vent cut directly opposite each other 160 mm from the open end and 38 and 40 mm in from the corner angle. The vents were at least 110 mm wide. The overall length/height of the tile is uncertain, but if the combed pattern was symmetrical it would indicate an overall length of c.450–560 mm. Combing over the main face covered a considerable amount of the surface. There was a total of seven straight linear bands made with a comb with seven teeth (though not all the teeth scored in every band). Most bands were 30 mm wide, but some were as little as 23 mm, when the comb was held at an angle. The pattern of combing consists of two diagonal bands running from each corner (and probably aiming for the opposed corner). These were followed by two bands running parallel alongside each edge followed by two bands at right angles, one alongside the end rim. Finally a band ran centrally down the longitudinal axis. On the side surface which survives best there was a very small remnant of combing implying a band of combing ran lengthwise down the centre (cf. [2590C]) and had been cut through by the vent opening.

L312 Sample: 2590B Phase: C4 AD Form: Box

Frags: 1 Weight: 350 g Fabric: C1

Thickness: 18 mm Length: >100 mm Width: >33 mm Breadth: 115 mm Large end fragment from the side of a box tile. Surfaces were smooth and the interior sand-coated and more uneven than the outer. There was a hint of blackening/sooting on the inner surface. The corners were fairly sharp but with rounded angles. A single central band of combing ran lengthwise along the side. It was 28 mm wide with seven teeth marks, the comb apparently held at an angle as the teeth marks were deeper on one side than the other. There was also combing on the small areas of main faces surviving: these ran in straight bands parallel to the edges set 6, 8 and 20 mm in from the edges. The bands each had six teeth marks and were 23–26 mm wide. The individual teeth marks measured 2–2.5 mm wide, about 1 mm deep with a U-shaped profile and were set 2–3 mm apart.

L312 Sample: 2590C Phase: C4 AD Form: Box Frags: 1 Weight: 630 g Fabric: C1

Thickness: 20 mm Length: >110 mm Breadth: c.220 mm

Large fragment from the central area of a main face. The surviving breadth was 200 mm, full breadth estimated at 220 mm. The surfaces were very flat, smooth and even, the inner one sand-coated and sooted/blackened. A finger had smeared through some of the combing. The pattern of combing on the surface was very similar to [2590A] and though not part of the same tile, probably both come from the same batch made by the same workman. A band was scored parallel to each side followed by one at right angles across the middle from side to side, which cut through two diagonals made first presumably running from corner to opposed corner. Where the bands survive complete they had seven teeth marks and measured 30 mm wide, or slightly less, when the comb was held at an angle. The teeth marks were 2 mm wide, 1 mm deep, set 2–3.5 mm apart and had a U-shaped profile.

L312Sample: 2590DPhase: C4 ADForm: BoxFrags: 3Weight: 1250 gFabric: C1Thickness: 20 mmLength: >320 mmWidth: >145 mm

Description: These three joining fragments were predominantly from the main face of a box tile with part of one of the side surfaces at right angles joined by a rounded curving corner. The surfaces were flat and even with evidence of smoothing or slicing with a blade. The inner angle at the end had been sliced at a low angle and there is a flat blade mark on the outer surface, partly obscured by combing. The inner surface was sand-coated. The side had a vent cut through 35 mm from the corner: the flat cut edge is 124 mm long. It is possible that this was the cutaway of a half box tile. The outer surface of the main face had been almost totally covered by combing. The bands of combing range from 28–45 mm wide depending on the angle of the comb and appeared to have a maximum of nine teeth, though not all the teeth scored in every band. The teeth marks were 3 mm wide by 1 mm deep and 3 mm apart; they had a wide rounded U-shaped profile creating a corrugated profile across the band. The pattern was formed of initially two diagonal bands from either corner (probably heading for the opposed corners) followed by linear bands parallel with the edges of the tile. The final one of these along the end turned forming a continuous band with a wide wavy S band extending lengthwise along the middle of the tile.

L312 Sample: 2492A Phase: C4 AD Form: Box Frags: 4 Weight: 10 g Fabric: D1 Fragment sheared off from tile with burnt surface – it is typical in character of inner burnt surfaces of other box tiles.

L312Sample: 2492BPhase: C4 ADForm: BoxFrags: 3Weight: 6 gFabric: D1Sheared fragments with combed surface. Straight bands of combing, one with a V pattern.The bands were at least 20 mm wide with a minimum of six teeth.

L312Sample: 2492EPhase: C4 ADForm: BoxFrags: 6Weight: 42 gFabric: C1Thickness: 8–3 mmLength: >125 mmWidth: >20 mmJoining fragments probably from the corner angle of a box tile, BUT these are unusually thinfor box tile. The outer surface was smooth and even with a hint of combing ending on oneside.

L314 Sample: 2606 Phase: C2 AD Form: Box Frags: 6 Weight: 35 gm Fabric: D Description: Band of combing on surface 19 mm wide with six teeth marks.

L314Sample: 2473Phase: C2 ADForm: BoxFrags: 1Weight: 2 gFabric: C2Straight rounded corner edge with two parallel impressed/incised lines running alongside 15mm from the edge: probably teeth marks from the edge of a band of combing.

L326Sample: 2615Phase: -Form: BoxFrags:17Weight: 2450 gmFabric: D

Thickness: 15–20 mm

Description: Combing present on the surface of most of the fragments. The combing occurs in curved bands forming an S pattern and straight bands at right angles to each other, acute angles and obtuse. The bands of combing include 35 mm wide with eight teeth, 20 mm wide with seven teeth, 24 mm wide with ten teeth and 37 mm wide with seven teeth.

L332 Sample: 2609A Phase: E Ro Form: Box

Frags: 9 Weight: 1030 gm Fabric: B2

Thickness: 17-19 mmLength: >170 mm (total estimated at c.260 mm)Width: >56 mmHeight: 165-188 mm

Description: The fragments joined to make up one side of a box tile together with one corner and part of the surface at right angles. The main surviving surface is trapezoidal in shape narrowing from one corner to the other. The interior surface was flat, rough and sand coated. The surface of the edges was flat and sand-coated, but along the inner angle of one edge the surface had been cut or smoothed with a blade. Both surfaces were densely covered with combing. On the largest surviving side the first bands of combing to be made were two running diagonally from the corners to form a central X; this had then been bisected by a band running vertically across the middle from edge to edge. Finally bands running parallel to each of the surviving edges cut across the others and formed an enclosing frame. It is assumed the overall pattern would have been symmetrical suggesting an overall length of 250-260 mm. The pattern on the adjacent side was similar but not identical. The first elements were two bands running together from the corners to form a shallow V, which was all but obscured by subsequent combing. Next a central band ran horizontally from side to side (in contrast to top to bottom edge of the other surface) and finally bands parallel to all the outer edges framed the others. The bands of combing were 35-40 mm wide and a comb with nine teeth had been used though frequently only eight had made any impressions, apparently depending on the angle at which the comb was held. The teeth were 1-1.5 mm apart and 3 mm wide with a rectangular profile, though the outer ones were more rounded and only 2 mm wide suggesting more wear on these.

L332Sample: 2609BPhase: E RoForm: BoxFrags: 6Weight: 910 gmFabric: BThickness: 17–18 mmLength: >180 mm (total possibly c.220 mm or 340 mm)Width: >30 mmHeight: >200 mm (total possibly c.280 mm)

Description: All fragments joined to form one side of a box tile together with part of one corner and the adjacent surface at right angles. The remnant of side surface was smooth and flat with no combed pattern on it. The internal surface was rough and flat with coarse striations from moulding alongside the inner angle. The exterior of the corner was sharp and angular, but rounded internally. The main surviving surface had a complex pattern with a central diamond shape formed first with a subsequent band cutting through this parallel to one edge. Insufficient survived to see whether the whole diamond was enclosed by a frame of combing around all four edges or whether there might have been two diamond patterns side by side which may have been enclosed by combing on two or four of the sides. (Total length estimates depend on whether the pattern was repeated.) The same seven-toothed comb had been used for all bands of combing which were 35–38 mm wide. The outer tooth was either worn or broken as it formed only a thin intermittent line. The individual teeth were 2–2.5 mm wide (except the seventh which was 1 mm), 3–4 mm apart and incised to a depth of 1–2 mm. The combing had been squashed by two thumb/finger depressions.

L312 Sample: 2590E Phase: C4 AD Form: Half box Frags: 1 Weight: 1090 g Fabric: C1 Thickness: 20–23 mm Length: >265 mm (total est: 460 mm) Width: 55 mm + Breadth: >155 mm (total est: 190 mm) Fragment from central part of the main face with part of one of the sides surviving. What little uncombed surface remained was very smooth and flat. The inner surface was even and sand-coated with faint grooves from smoothing lengthwise. The side flange had an unusual

cut away in a W shape 92 mm wide, leaving a triangular apex of tile upstanding 38 mm high.

The face was covered in combing: a series of at least three overlapping crosses 90 mm wide formed of straight diagonal bands were bounded by bands running alongside each edge (and probably the ends, which do not survive). Finally an asymmetric sinuous S line ran longitudinally down the centre. The bands were 35–43 mm wide with nine teeth marks, though in some bands the outer tooth at either end had not scored or only very faintly. Where the full band width is well preserved the outer grooves appear narrower (1 mm), suggesting the tines may have been very worn. The teeth marks are 3 mm wide and 2 mm apart with a shallow curved U profile, creating an even corrugated cross-section.

L312Sample: 2590FPhase: C4 ADForm: Half boxFrags: 1Weight: 450 gFabric: C1Thickness: 18–20 mmLength: >140 mmWidth: 33 mm +Breadth: >100 mm

Fragment from centre of main face with part of side. Surfaces flat, even and very smooth, where not combed. Inner surface sand-coated and blackened/sooted. The side flange was smooth and part of a cutaway took the form of a gently curving arc over 40 mm long, cut 30–35 mm from the corner. The main face was covered with combing, mostly in the form of curving S bands. Four bands were present: one roughly parallel to the side edge, one at right angles running across the breadth, a third snaking at a diagonal and the very end of a fourth band could be discerned. The bands of combing measured 28–33 mm wide and had 11 teeth, though the end groove was narrower and shallower than the others. All the teeth were narrower than usual at 1–1.5 mm and set 1–2 mm apart. The profile was mostly an asymmetric V suggesting it was held at an angle, as is likely with curved combing.

L312Sample: 2590GPhase: C4 ADForm: Half boxFrags: 1Weight: 575 gFabric: C1

Thickness: 20 mm Length: >165 mm Breadth: >170 mm

Fragment from the centre of main face of a box tile, with no ends or corners to sides surviving. The surfaces were flat and even, the outer very smooth, where not combed and the inner sand-coated. No evidence of sooting was present. The outer surface had possibly been smoothed over with a blade. Five bands of combing were present one straight and the other curving S patterns. Two diagonal bands crossing were made first followed by another cutting across their junction roughly at right angles. Another band cutting one of the diagonals may have been running along an edge and the straight band ended in the angle formed by the two diagonals. The bands measured 32–33 mm wide and had 11 teeth marks. The teeth marks were 2 mm wide by 1 mm deep with a U-shaped profile and were set 1, 2 and 3 mm apart. One of the end teeth was apparently worn being narrower and shallower than the others. One band had been smeared and squashed by two finger prints.

Bricks

F240 (1)Sample: 2618DPhase: E RoForm: Brick?Frags: 2Weight: 340 gmFabric: CThickness: 33 mmLength: >110 mmWidth: >65 mmDescription:One surface even and flat, the other rougher. No diagnostic features, butthickness would indicate this to be a brick.

F519 (2)Sample: 2666Phase: C1/C2 ADForm: BrickFrags: 2Weight: 3850 gmFabric: CThickness: 55–60 mmLength: >300 mmWidth: >190 mmDescription:Rectangular brick with straight sides and flat surfaces. The upper surface was

smooth and even and very slightly concave, the underside was rougher and slightly convex. The side edges were straight but rough and the upper angle of one had been sliced at a 45 degree angle starting 40 mm from the corner.

F546 (1)Sample: 2641Phase: C3–C4 ADForm: Brick?Frags: 1Weight: 345 gmFabric: DThickness: 40 mmLength: >90 mmWidth: >25 mmDescription:Smooth upper surface, rougher sand-coated lower surface and side surface. The
brick has been burnt, subsequent to firing, possibly being used in a hearth or oven.

L285Sample: 2488Phase: E RoForm: BrickFrags: 1Weight: 46 gFabric: D2Thickness: >25 mmOne smooth flat surface. Very worn. Possibly brick from thickness.

L312 Sample: 2622 Phase: C4 AD Form: Brick Frags: 1 Weight: 5250 g Fabric: D1a Thickness: 36 mm Length: 350 mm Width: 290 mm Near complete brick with slight damage to two corners. The surfaces were flat and roughly smoothed, the base sand-coated. Margins 15-55 mm wide around the edges were smoother with a slight hollowing in the middle of the top surface. A signature mark consisted of two finger grooves describing a semicircle starting and finishing c.25-40 mm from the same edge. The outer finger mark formed a semicircle 170 mm wide and the inner c.125 mm. The width of the grooves was 10 mm (inner) and 12 mm (outer). A semicircular hole appears to have been deliberately chipped out of one edge of the brick (as if to allow access for a pipe or similar object).

L323Sample: 2611Phase: E RoForm: Brick?Frags: 1Weight: 240 gmFabric: CThickness: 53 mmDescription: Some finger grooves were present on the upper surface, which may representsmoothing or signature marks. The lower surface was irregular.

Imbrices

F240 (1)Sample: 2618BPhase: E RoForm: ImbrexFrags: 5Weight: 1225 gmFabric: C1aThickness: 15–17 mmLength: >215 mmWidth: 125–160 mmHeight: 77 mmDescription:The outer surface was smooth with marks from wiping resulting in smearswhich varied in the firing of the surface.The inner surface was rougher with more

which varied in the firing of the surface. The inner surface was rougher with more irregularities and the remnants of mortar adhering. The end and side edges were flat with the angles pressed towards each other to form a groove along the edge surfaces. Four of the fragments join and the fifth was identical in character and size.

F240 (1)Sample: 2618GPhase: E RoForm: ImbrexFrags: 1Weight: 385 gmFabric: CThickness: 19 mm (rim); 15–17 mm (body)Length: >135 mmWidth: 140 mmHeight: 88 mmDescription: Outer surface slightly irregular – lumpy, but with fine striations from smoothing some running parallel to long axis cut across by ones sweeping around the circumference.

The side edge was flat but with thickened clay ridge running down its inner angle and alongside on the lower surface.

F240 (1)Sample: 2618HPhase: E RoForm: ImbrexFrags: 1Weight: 175 gmFabric: DThis 1150With 120

Thickness: 15 mm Length: >150 mm Width: 120 mm Height: 85 mm Description: Fragment from one end with corner surviving. The outer surface was smooth and even with faint ridging. The inner surface was rougher with a slightly thickened wide (30 mm) flat raised margin alongside the edge near the corner. The end and side edges are similar with flat surfaces and both angles pushed up to form ridges along the edges.

F258 (1)Sample: 2617APhase: E RoForm: ImbrexFrags: 1Weight: 380 gmFabric: C

Thickness: 17 mm Length: >125 mm Width: 120 mm Height: 100 mm Description: Central fragment of *imbrex* from apex to edge. The outer surface was smooth and even, the inner surface rougher and sand-coated. The side edge was flat, but with both angles pushed in and over to form ridges along both angles.

F258 (1)Sample: 2617BPhase: E RoForm: ImbrexFrags: 1Weight: 255 gmFabric: DThickness: 15 mmDescription: Part of [2618]

F519 (2)Sample: 2665Phase: C1/C2 ADForm: ImbrexFrags: 4Weight: 1000 gmFabric: D

Thickness: 15 mm Length: 330 mm Width: 110–150 mm Description: Approximately half of an *imbrex* survived split down the middle of its long axis. Smooth outer surface; rough sand-coated lower surface. The edges of both ends and side had initially been cut flat and then the angles deformed being pressed up to form raised ridges. The tile thickened around one end rim. It was blackened and burnt around one end possibly from reuse in an oven or corn drier.

F527 (1)Sample: 2483APhase: Modern cp: Mid C3 ADForm: ImbrexFrags: 1Weight: 135 gFabric: C2aThickness: 17–19 mmLength: >85 mmBreadth: >75 mmSmooth even outer surface, rough sand-coated inner surface and rough irregular side edge;slight curve to tile in evidence.

F546 (2)Sample: 2485Phase: LC3–C4 ADForm: ImbrexFrags: 1Weight: 76 gFabric: D2Thickness: 15 mmLength: >65 mmBreadth: >55 mmVery smooth outer surface curving in at edge to form a ridge. Cut flat edge with remnants ofridge on inner angle. Smooth even sand-coated inner surface.

F549 (2)Sample: 2569Phase: Late C3–C4 ADForm: ImbrexFrags: 1Weight: 120 gmFabric: CThickness: 17 mmLength: >90 mmWidth: 170 mmDescription:Smooth outer surface, rough sand-coated underside.

F554 (2)Sample: 2486Phase: RoForm: ImbrexFrags: 1Weight: 12 gFabric: C1aThickness: 15 mmLength: -Width: -Fragment of edge probably from end of imbrex.Smooth even surfaces one sand-coated.

F584 (1)Sample: 2487APhase: RoForm: ImbrexFrags: 1Weight: 106 gFabric: C1Thickness: 17 mmLength: >60 mmWidth: 160 mm diamRounded curving rim fragment of imbrex.Very smooth outer surface curving to mouldedrim. Rougher sand-coated inner surface with some organic impressions.

Ph 995 (1)Sample: 2581Phase: -Form: Imbrex?Frags: 1Weight: 70 gmFabric: CThickness: 13 mmDescription: Smooth outer surface; rough inner surface.

L294 Sample: 2489 Phase: Ro Form: *Imbrex* Frags: 1 Weight: 145 g Fabric: D2 Thickness: 15 mm Length: >85 mm Width: c.180 mm diam Breadth: >90 mm Smooth even outer surface with some blackening/sooting; slightly rougher finely sand - coated inner surface. Straight side edge with angular raised ridge along each angle.

L294 Sample: 2667 Phase: Ro Form: *Imbrex* Frags: 2 Weight: 570 gm Fabric: D Thickness: 14 mm Length: >165 mm Width: 135–180 mm Description: One end of an *imbrex* split down the apex. It had a smooth outer surface and rough lightly sand-coated under surface. The straight edges had the angles pushed over to form ridges. At the end the wall thickened to form a bulbous rim.

L306 Sample: 2491 Phase: Late C3–C4 AD Form: *Imbrex* Frags: 1 Weight: 250 g Fabric: C1a Thickness: 17–20 mm Length: >100 mm Width: c.210 mm (diam) Breadth: c.120 mm Fragment from body of *imbrex* with part of one straight flat side edge. Smooth even surfaces, inner sand-coated.

L322 Sample: 2572 Phase: Late C3–C4 AD Form: *Imbrex* Frags: 5 Weight: 200 gm Fabric: C Thickness: 12, 25 mm Description: –

Tegulae

F240 (1)Sample: 2618APhase: E RoForm: TegulaFrags: 1Weight: 985 gmFabric: C1Thickness: 24 mmLength: >200 mmWidth: >130 mmDescription:The upper surface was flat, smooth and even, but the underside was moreirregular.Two finger grooves ran alongside the basal internal angle of the flange. It had asimple rectangular type A flange measuring 20 mm wide and 16–20 mm high (40 mm at theouter edge).At one end the flange appeared to be broken and worn with a rounded profile.

Along most of its length was a slightly raised ridge running along the inner edge on the top surface of the flange.

F240(1) Sample: 2618A Phase: E Ro Form: *Tegula*

Weight: 705 gm Frags: 1 Fabric: C1

Thickness: 22 mm Length: >175 mm Width: >130 mm

Description: The upper surface was flat, smooth and even, but the underside was more irregular. Two finger grooves ran alongside the basal internal angle of the flange. It had a rectangular flange with a slight thickening along the upper edge of the inner side to form a slightly projecting lip (type A(b)). The flange measured 22-24 mm wide at the base thickening to 27 mm at the top and 16 mm high (42 mm down the outer edge). The flange had been cut away level with the tile surface for a length of 38 mm from the corner (type A2). A finger print was visible on the inner side surface of the flange near the corner.

F240(1) Sample: 2618C Phase: E Ro Form: *Tegula* Weight: 525 gm Frags: 1 Fabric: C Thickness: 20-22 mm Length: >110 mm Width: >130 mm Description: The fragment comes from the corner of a *tegula*. The upper surface was smooth and even. On this was the start of two finger grooves 5 mm wide and 15 mm apart curving to form an arc - one of the more common signature forms. The underside was rougher and pitted with small holes 2–6 mm possibly where grits had fallen out. The flange was a simple rectangular type A form with a finger groove 13 mm wide running along the basal internal angle. The flange measured 22 mm wide at the base narrowing slightly to 20 mm at the top and 21 mm high (40 mm outer edge). The corner of the flange and tile has been completely cut away (Type A1) for a length of 35 mm by 22 mm wide.

F258(1) Sample: 2617C Phase: E Ro Form: *Tegula*

Frags: 2 Weight: 930 gm Fabric: C1

Thickness: 23–25 mm Length: >170 mm Width: >135 mm

Description: Smooth flat even surfaces on top, base and side edges. The upper surface has been smoothed flat on one of the fragments with a knife or bladed implement resulting in a series of flat parallel bands. On this fragment the cutaway (type A2) at the corner has removed the flange level with the tile surface for 40 mm from the corner; beyond this the flange had broken off, but the base was 20-21 mm wide. On the second fragment, which was very similar in character and may have been part of the same tile, the flange was rectangular (type A) in cross-section measuring 20 mm wide, 18 mm high (41 mm high at the outer edge). The angles were all very sharp apart from the top inner edge of the flange, which was slightly rounded. A patch of yellow gritty mortar (containing crushed tile grit) adhered to the flange.

F258 (1)	Sample: 2617D	Phase: E Ro	Form: Tegula
Frags: 1	Weight: 490 gm	Fabric: C1a	
Thickness	24 mm		

Thickness: 24 mm

Description: Sub-samples D and E are very similar in general character, though the flanges differ in shape. The surfaces were even and flat with fine striations on the base from smoothing and dragging grits across the surface. On the upper surface was a single finger groove, part of a signature mark. The flange was basically rectangular (Type A), but it had a slightly protruding rim along its inner upper edge and designated type A(b). It measured 21 mm wide at the base, 24 mm wide at the top and was 24 mm high (46 mm down the outer edge). A shallow finger groove ran along the basal angle of the flange. At the corner was a type A1 cutaway removing the whole thickness of flange and tile for a distance of 38 mm x 18 mm.

F258 (1)	Sample: 2617E	Phase: E Ro
Frags: 1	Weight: 1200 gm	Fabric: C1a

Thickness: 24 mm Length: >180 mm Width: >205 mm

Description: Sub-samples D and E are very similar in general character, though the flanges differ in shape. The surfaces were even and flat with fine striations on the base from smoothing and dragging grits across the surface. On the upper surface were two parallel finger grooves 5 mm wide and 12 mm apart running in a semicircle from the tile corner curving back towards the tile edge. These were cut across by a third finger groove which ran from the tile edge starting about 120 mm from the corner and running in a gentle arc towards the middle of the tile. The flange was a simple rectangular type A form 22 mm wide and 20 mm high (45 mm at the outer edge). A shallow finger groove ran along the basal angle. The corner cutaway was type A1 removing the full thickness of tile and flange for a length of 40 mm x 23 mm.

Form: *Tegula*

F513/2 (1)Sample: 2481Phase: Late C2ADForm: TegulaFrags: 1Weight: 96 gFabric: C1

Thickness: 23 mm Length: >70 mm Width: >30 mm

Fragment of flange from *tegula*. Smooth flat even surfaces with sharp angles, some sliced. Flange type A, 20 mm wide, 20–23 mm high (41 mm at outer edge); finger groove along basal angle of flange.

F543A (1)Sample: 2584Phase: Mid C3 AD +Form: TegulaFrags: 3Weight: 560 gmFabric: DThickness: 24 and 25 mmLength: >110 mmWidth: >110 mmDescription: Two different tiles present, both with type A flanges. One had a smooth uppersurface, slightly rougher lower surface and a simple rectangular flange 18 mm wide and 17mm high. The other fragment had quite a rough underside, but smooth surfaces for the flangeand sharp angles. The type A flange measaured 20 mm at the top, which was slightly widerthan the base and 20 mm high.

L297Sample: 2668Phase: Late C3–C4 ADForm: TegulaFrags: 1Weight: 125 gmFabric: DThickness: 16 mm

Description: Smooth upper surface, side edge slightly convex surface. Underside flat and rough. The flange is type B with a sloping inner surface and rounded finger groove running along its basal angle. It measured 15 mm wide at the top increasing to 30 mm wide at the base. It measured 20 mm high (38 mm down outer edge).

L326 Sample: 2615 Phase: – Form: *Tegula* Frags: 1 Weight: 575 gm Fabric: D Thickness: 24 mm

Description: Smooth flat surfaces on all sides. Flange type A with very rectangular profile with slight thickening of inside top edge. It measured 20 mm wide and 21 mm high at its inner edge (50 mm at outer edge).

Unidentified

P396 (1) Frags: 1 Thickness: > Smooth flat u angle (a featur	Weight: 12 mm ndulating	20 g surface. Stra	Fabric:		Form: y slight		ridge running along
	Weight: 1 mm L	150 gm Length: >70 i	Fabric: nm	Width: >65 m			ther. No diagnostic
F240 (1) Frags: 2 Thickness: 16 Description: diagnostic fea	Weight: 5 mm Flat smo	32 gm oth surfaces.	Fabric:	C	Form: like the		an <i>imbrex</i> , but no
F513/4 (1) Frags: 1 Thickness: >2 Description: 1	Weight: 26 mm L	35 gm Length: >65 i	Fabric: nm	Width: >55 m		Form:	Unid
F513 (+) Frags: 1 Thickness: >2 Description:	Weight: 20 mm	65 gm	Phase: Fabric:	Late C2 AD B		Form:	Unid
F517/2 (1) Frags: 1 Thickness: >3 Flat surface w	Weight: 15 mm	28 g	Fabric:	mid C3 AD C1 y curving narro		Form: ve.	Unid
F517/2 (1) Frags: 1 Thickness: >2 Flat surface w	Weight: 20 mm	52 g	Fabric:			Form:	Unid
F527 (1) Frags: 5 No diagnostic	Sample: Weight: features.		Phase: Fabric:	Modern C1	cp: Cl	AD	Form: Unid
F546 (1) Frags: 1 Thickness: 19 Small area of shallow linear	f smooth	18 g	Fabric:			Form: er surfa	Unid ace with faint very

shallow linear grooves.

F546 (1) Sample: 2641 Phase: LC3–C4 AD Form: Unid Frags: 1 Weight: 365 g Fabric: K No diagnostic features. Sample: 2602 Phase: LC3–C4 AD Form: Unid F556 (3) Weight: 175 gm Frags: 1 Fabric: D Thickness: 23 mm Length: >70 mmWidth: >70 mm Description: Smooth flat upper surface, rougher pitted lower surface. Straight slightly rounded/worn edge. F569 (1) Sample: 2621 Phase: C2 AD +Form: Unid Weight: 360 gm Frags: 1 Fabric: D Length: >200 mm Thickness: 25 mm Width: >70 mm Smooth upper surface; very rough lower surface with large irregular Description: depressions and lumps of clay squashed onto the surface. F584 (1) Sample: 2487B Phase: Ro Form: Unid Frags: 1 Weight: 16 g Fabric: C1 No diagnostic features. F677 (1) Sample: 2731 Form: Unid Phase: – Weight: 4 gm Frags: 6 Fabric: D Description: Small chips of tile with smooth surfaces, one curved and one sand-coated. **L301** Sample: 2490B Phase: Ro Form: Unid Frags: 1 Weight: 16 g Fabric: D3 Thickness: >21 mm Smooth flat surface; possibly a brick fragment. Form: Unid **L312** Sample: 2492D Phase: C4 AD Weight: 12 g Frags: 5 Fabric: C1 Amorphous broken fragments, probably from box tile. **L322** Sample: 2493 Phase: LC3–C4 AD Form: Unid Frags: 1 Weight: 8 g Fabric: C1 Thickness: 15 mm Rim edge of tile with straight edge roughly flattened. Surfaces fairly smooth, inner sandcoated. Possibly a fragment of box tile. Phase: LC3–C4 AD Form: Unid **L322** Sample: 2572 Weight: 265 gm Frags: 1 Fabric: C Thickness: 23 mm Description: -**L322** Sample: 2572 Phase: LC3–C4 AD Form: Unid Frags: 2 Weight: 10 gm Fabric: D Description: -Form: Unid **L326** Sample: 2615 Phase: – Weight: 900 gm Frags: 3 Fabric: D Thickness: 23, 30, 35 mm

Description: From thickness probably brick or *tegula*, but no distinguishing features.

5.3 Fired clay and daub

Forty-three samples were recovered from the 1997 excavations comprising 254 fragments weighing 16.381 g, equivalent to c.10% of that found in 1994. The material was found in a variety of layers and features, mostly ovens, but also pits, post-holes, ditches and quarries.

Fabrics

No new fabrics were identified to those already described for Danebury and Danebury Environs sites (Cunliffe and Poole 1991 and 2001). Over half the samples (27) were unidentified with regards to use and of the remainder most derived from oven structures, probably the base lining or lower walls. A few samples appeared to be fragments of oven cover or plate and two discs, one straw-impressed, were identified. Quantification of the forms and fabrics is shown in Table 4.

Form	Oven	OP/OC	Disc	Bead	Unid	Total	Percent
Fabric A:wt		35 g			5 g	40 g	0.24%
:frags		5			1	6	2.40%
Fabric C:wt	11590 g				1213 g	12803	78%
:frags	50				45	95	37.40%
Fabric D:wt					15 g	15 g	0.10%
:frags					1	1	0.40%
Fabric E:wt	2615 g		30 g		460 g	3105 g	19%
:frags	78		3		33	114	45%
Fabric F:wt			20 g	4 g	20 g	44 g	0.30%
:frags			1	1	9	11	4%
Fabric G:wt					38 g	38 g	+
:frags					11	11	4%
Fabric K:wt		22 g			318 g	340 g	2%
:frags		1			16	17	6.30%
Total: wt	14205 g	57 g	50 g	4 g	2064 g	16385 g	
Total : frags	128	6	4	1	116	255	
%: wt	87%	0.30%	0.30%	+	12.60%		
%: frags	50%	2.50%	1.60%	0.40%	45%		

A higher proportion of the material derived from Roman contexts, reflecting the emphasis placed on the Roman settlement in the 1997 excavation. Virtually all the oven wall and base material was found in Roman ovens and hearths and in general any shaping reflecting the simple design of these structures. Only one oven (P393) was assigned to a cp in the EIA, but

this date is more properly applied to the pit over which the oven was constructed and it is most probably Roman in date too. It contained a large curving block of daub 370 mm long by 180 mm narrowing to a rounded end, shaped like a horn with burning along its inner edge and the back roughly flattened with a possible timber impression. This may have derived from the stokehole area, possibly being part of the arch or a projection at the foot of the arch.

The Roman oven material contrasts with the Iron Age in its simplicity and lack of variety. Most of the identifiable fragments were dated to the Roman contexts and no new information emerged from the Iron Age material.

Fired clay and daub catalogue

Oven cover/plate

P393 (1) (Oven)Sample: 2652Phase: EEIA/EIAFunction: OC?Frags: 2Wt: 10 gFabric: ADescription: Two smooth curving surfaces forming a convex plate 12 mm thick possiblywith a moulded curving edge joining them. Fired.

F511 (+) (Ditch) Sample: 2450 Phase: LC3–4 Function: OC? Frags: 1 Wt: 22 g Fabric: K Description: Smooth flat even surface, possibly with rough straight edge, but it could just be a broken edge. The fragment could be part of an OC collar/flue repair.

F549 (4) (QH)Sample: 2647Phase: LC3-4Function: OP/OC?Frags: 3Wt: 25 gFabric: A?/K?

Description: Two flat smooth, parallel surfaces with curving edge forming slab 16 mm thick. One surface appears to be starting to curve into a straight side edge. Possibly the edge of flue hole of oven cover. Baked.

Oven wall/base

P393 (1) (Oven)Sample: 2653APhase: EEIA/EIAFunction: Oven base?Frags: 41Wt: 470 gFabric: C/EDescription: Amorphous.

P393 (2) (Oven) Sample: 2654 Phase: EEIA/EIA Function: Oven wall/base?
Frags: 7 Wt: 815 g Fabric: E
Description: Some roughly moulded surfaces with some organic stem/straw impressions c.5 mm wide and possibly some split wattle impressions. Baked/fired.

P393 (2) (Oven) Sample: 2589 Phase: EEIA/EIA Function: Oven wall/StH Frags: 3 Wt: 5000 g Fabric: C Description: A single block broken into three pieces. It has a roughly triangular cross-section and forms a slightly curving lunate block with a redder more intensely baked surface along its inner concave edge. It measures 370 mm long, by 180 mm wide narrowing to 120 mm at the top at the widest end decreasing to 120 mm wide thinning to 80 mm at its round moulded end. The underside for the narrower part of its length is very flat as though placed on/against a flat plank. The upper surface is moulded and smooth. The thicker end is flat and rough: it is unclear whether it is broken or was formed on the soil or chalk surface. It is unclear whether the block stood upright or lay flat: it may have formed part of the stokehole arch and could have stood vertically forming part of the arch itself or where the oven wall extended out in front of the oven in front of the stokehole. Lightly baked.

F531 (1) (Oven) Sample: 2451 Phase: C2 Function: Oven (plug in pot neck) Frags: 19 Wt: 600 g Fabric: E Description: Thick disc with quite flat straight base and more undulating domed top, slightly irregular and only roughly flattened. The sides follow the imprint of the pot neck in which the daub had been packed, forming a circular concave smooth surface around the edges. Diameter: 80 mm (min.) 93 mm (max.), thickness: 37–47 mm. There are also a couple of fragments, more soil than daub, that were packed against the outside of the pot rim from their moulded shape. 10 frags (84 g) discarded.

F531 (4) (Oven) Sample: 2636 Phase: C2 Function: Oven base (plug in pot) Frags: 6 Wt: 525 g Fabric: E Description: Mix of raw reddish-brown clay, chalk and dirt.

F542 (1) (Hearth)Sample: 2452Phase: LC3-4Function: Oven wallFrags: 11Wt: 1140 gFabric: C

Description: Most fragments have some sort of flat surface varying from moderately smooth to quite rough and irregular. Most pieces were c.40 mm thick. One block has two wattle marks 10 and 13 mm wide. One piece appears to be half of a circular block with wedge-shaped profile measuring 13–35 mm thick and 113 mm in diameter. Another piece appears to be a roughly spherical circular irregular ball, measuring 47 x 50 x 50 mm.

F543 (Oven)Sample: 2643Phase: LC3-4Function: Oven base/wallsFrags: 5Wt: 1775 gFabric: CDescription:Lightly baked; very coarse fabric. Surface reddened only to 10–20 mm depth.

F543 (Oven)Sample: 2644Phase: LC3-4Function: Oven base/wallsFrags: 16Wt: 1300 gFabric: C/EDescription:Coarse fabric includes flint 75 mm. Some red, some brown; more fired thanback of oven bowl. (1125 g retained; 175 g discarded.)

F543 (Oven)Sample: 2645Phase: LC3-4Function: Oven base/wallsFrags: 15Wt: 2375 gFabric: C/EDescription:Fired red in interior, but pale brown/yellow on parts of surface. Same coarsefabric; redder fragments similar to [2642]. (1850 g retained, 525 g discarded.)

F543 (1) (Oven) Sample: 2466 Phase: LC3–4 Function: Oven? Frags: 5 Wt: 205 g Fabric: E Description: Smooth flat or curving surfaces. One piece was blackened on the surface. One had a possibly deliberate rough straight edge. Fragments 30–45 mm thick. L323 Bldg 3: flints and mortar Sample: 2475 Phase: LC3–4 Function: Oven? Frags: 1 Wt: 4 g Fabric: K

Description: Flat fairly even surface with blackening from burning or sooting on the surface; > 9 mm thick.

Oven furniture

P395 (2) (Pit)Sample: 2446Phase: EEIAFunction: StDFrags: 1Wt: 20 gFabric: FDescription: Thin flat disc covered with organic/straw impressions on both sides. Incompleteas broken on one edge, but probably originally subcircular. One surface was flat, the othervery gently domed/convex. Length: 56 mm, width: >40 mm, thickness: 10 mm.

P397 (2) (Pit) Sample: 2464 Phase: EIA Function: Disc/wedge Frags: 3 Wt: 30 g Fabric: E Description: One flat fairly smooth surface with the other side rougher and convex curving from sharp angled edge to form wedge-shaped profile. Possible circular perforation or wattle *c*.30 mm vertically at edge.

Small object

Ph 1000 (1) (Oven/hearth) Sample: 2580 Phase: ?IA Function: Bead Frags: 1 Wt: 4 g Fabric: F? Description: Almost half of bead, broken vertically through the perforation. Biconical profile sharply angled with straight or very slightly curving surfaces. Hint of perforation in broken face, but most missing. Diameter: 21 mm; height: 20 mm; total weight estimated: 10 g; perforation *c*.2 mm.

Function unspecified

Phase: EEIA **P391** (1) (Oven?) Sample: 2651A Function: Unid Frags: 3 Wt: 10 g Fabric: E Description: Amorphous; baked. **P391** (1) (Oven?) Sample: 2651B Phase: EEIA Function: Unid Wt: 5 g Frags: 1 Fabric: A Description: Two flat parallel surfaces forming slab 6 mm thick. Fired. **P393** (1) (Oven) Sample: 2653B Phase: EEIA/EIA Function: Unid Frags: 1 Wt: 5 g Fabric: K Description: Amorphous. Phase: EEIA Function: Unid **P395** (1) (Pit) Sample: 2655 Frags: 2 Wt: 5 g Fabric: G/F Description: Amorphous; some straw impressions. Same as [2656–7]. Function: Unid **P395** (2) (Pit) Sample: 2656 Phase: EEIA Frags: 6 Wt: 10 g Fabric: G/F

Description: Amorphous; some straw impressions. Same as [2655–7].

P395 (4) (Pit) Sample: 2657 Phase: EEIA Function: Unid Wt: 3 g Fabric: G/F Frags: 2 Description: Amorphous; some straw impressions. Same as [2655-6]. Sample: 2447 Phase: LC3–4 Function: Unid **F511/2** (1) (Ditch) Frags: 1 Wt: 4 g Fabric: E Description: Amorphous, worn fragments. **F511/6** (1) (Ditch) Sample: 2448 Phase: LC3–4 Function: Unid Frags: 2 Wt: 10 g Fabric: E Description: Fairly smooth flat, worn surface; >12 mm thick. **F511/8** (1) (Ditch) Sample: 2449 Phase: LC3–4 Function: Unid Wt: 14 g Frags: 13 Fabric: K Description: Small fragments mostly having one very smooth flat surface. General character is similar to OC and these may be flakes off such a surface. Sample: 2444 **F516** (1) (Ditch) Phase: LIA Function: Unid Frags: 3 Wt: 4 g Fabric: F Description: Flat surface. Fired. Phase: C20 **F527** (1) (1920s tr.) Sample: 2637 Function: Unid Frags: 30 Wt: 900 g Fabric: C Description: Flat smooth surface; chaff/organic temper impressions. **F533** (1) (QH) Sample: 2638 Phase: C4 Function: Unid Frags: 3 Fabric: C Wt: 80 g Description: Flat surface. Sample: 2639 Phase: C4 Function: Unid **F533** (4) (OH) Frags: 1 Wt: 10 g Fabric: C Description: Amorphous. Sample: 2642 **F543** (1) (Oven) Phase: LC3–4 Function: Unid Frags: 10 Wt: 320 g Fabric: E Description: Most fragments amorphous, but one fragment had three surfaces at right angles to each other -48 mm thick. **F546** (1) (QH) Sample: 2640 Phase: LC3–4 Function: Unid Fabric: G Frags: 1 Wt: 20 g Description: Amorphous; baked. **F562** (1) (1920s tr.) Sample: 2648 Phase: C20 Function: Unid Frags: 1 Wt: 5 g Fabric: C/E Description: Amorphous. **F603/1** (2) (Ditch) Sample: 2443 Phase: EIA Function: Unid Frags: 1 Wt: 6 g Fabric: E Description: Broken angular amorphous fragment: it may have a plano-concave moulded

surface forming a straight groove, but no other shaping. Fired.

F603/3 (2) (Ditch) Sample: 2603 Phase: EIA Function: Unid Frags: 12 Fabric: E Wt: 70 g Description: -**L291** Sample: 2454 Phase: LC3–4 Function: Unid Frags: 6 Wt: 16 g Fabric: F Description: Most fragments amorphous. The larger fragment has a flat surface; >12 mm thick. **L294** (Bldg 2: chalk and flint spread) Sample: 2467 Phase: C2 Function: Unid Frags: 1 Wt: 295 g Fabric: K Description: Smooth flat even surface, with high density of quartz sand at the surface; 40 mm thick. It is unclear whether this is part of an oven e.g. OC or was a very poorly fired clay brick. L302 (Soil over QHs) Sample: 2659 Phase: LC3–4 Function: Unid Fabric: C Frags: 1 Wt: 15 g Description: Flat surface. L308 (Bldg 2: soil and mortar) Sample: 2660 Phase: LC3-4 Function: Unid Frags: 1 Wt: 30 g Fabric: E Description: Amorphous. Possible straw impressions, but may be root-holes. **L314** (Bldg 1: occupation debris) Sample: 2445 Phase: C2 Function: Unid Frags: 1 Fabric: C?/Mtr 1? Wt: 8 g Description: Amorphous. **L318** (Bldg 3: base of ploughsoil) Sample: 2661 Phase: LC3–4 Function: Unid Frags: 3 Wt: 10 g Fabric: E? Description: Amorphous. L322 (Bldg 3: flint spread) Sample: 2573 Phase: LC3-4 Function: Unid Frags: 1 Wt: 15 g Fabric: D Description: Flat surface. L325 (Bldg 1: roof collapse) Sample: 2662 Phase: LC3–4 Function: Unid Frags: 2 Wt: 100 g Fabric: C Description: Amorphous; baked. **Ph 955** (1) (PH) Sample: 2581 Phase: ? Function: Unid Wt: 95 g Frags: 6 Fabric: C Description: Amorphous.

5.4 **Building stone**

Publ. No.	SF/ID	Context	Layer	Description	Weight	Dimensions (mm)
		295		Roof tile fragment with 1 nail hole. Shelly limestone.	3959 g	Max th: 30
	А	324		Roughly lozenge (slightly rounded) shaped roof tile broken along one edge. Single nail hole 45 mm from top and 50 mm from edge. Shelly limestone.	3084 g	L: 332, W: 210, max th: 28
	В	324		Lozenge shaped roof tile. Single nail hole 80 mm from top and 23 mm from edge. Nail in place. Shelly limestone.	3040 g	L: 360, W: 225, max th: 29
	С	324		Roughly lozenge shaped roof tile with slightly rounded edges, broken at one end. Single nail hole 101 mm from top and 54 mm from side. Nail in place. Shelly limestone.	5000 g	L: 410, W: 310, max th: 26
	D	324		Largely complete pentagonal roof tile. Single nail hole 76 mm from top. Shelly limestone.	4834 g	L: 425, W: 315, max th: 25
	1960	F556	1	Greensand fragment with 1 right angle, 2 flat surfaces and 1 straight edge. Building stone.	1481 g	147 x 136 x 63
6.2	2016	unstrat		Ridge stone. Rectangular block with well shaped outer surfaces. One end is straight, the other has a short, central rectangular projection 34 mm long. The sides are flat, the top slightly rougher. The underside has been very roughly pecked into a hemispherical channel along the length of the stone. Oolitic limestone.	7500 g	L: 364, W: 170, H: 102