

# ◆ Archaeological investigations at the former East Grinstead Pottery works, Garland Road, East Grinstead, West Sussex

By Dylan Hopkinson

with contributions by

Luke Barber

Sarah Porteus

*Archaeological investigations at the former site of Rentokil House, Garland Road, East Grinstead revealed surviving structural elements of the East Grinstead Pottery works which was established in 1855 and demolished in 1971. The structures identified represent the foundations of the Pottery workshop, including the foundations of the bottle kiln and an extensive yard area with discrete brick-laid flooring around a circular brick-built clay-processing feature. An associated assemblage, including red earthenware products of the Pottery, consisted of flowerpots, large jars, bowls and dishes, which evidence the utilitarian vessels produced during the second half of the 19th and early 20th centuries. The excavated assemblage was compared to the collection of vessels previously collected from the Pottery works and housed at East Grinstead Museum, which has helped to refine the product range, especially towards the end of production.*

## INTRODUCTION

Planning permission for the redevelopment of land fronting onto Garland Road and Park Road, East Grinstead, West Sussex (NGR 538855 138514; Fig. 1) was granted with a condition for archaeological evaluation of the site. Archaeology South-East (ASE), part of the Centre for Applied Archaeology, Institute of Archaeology, UCL, was commissioned by CgMs Consulting, on behalf of their client Taylor Wimpey, to undertake the work. Trenches in the southwest of the site were targeted on the location of the former East Grinstead Pottery works identified in an earlier desk-based assessment (CgMs 2008), and these trenches revealed significant remains relating to the Pottery. The other trenches exposed only made ground overlying natural geology. Following discussion with the local planning authority's archaeological adviser, further excavation was carried out over an area of c. 220m<sup>2</sup>, where the development would affect the remains of the Pottery. The work took place during March and April 2010. Further remains of the Pottery buildings probably survive *in situ* close to the southern edge of the site, adjacent to Park Road, where the redevelopment would involve only minor landscaping.

## BACKGROUND

The site lies on ground that slopes gradually to the east. The remains of the Pottery were identified c. 1.5m below current ground level at c. 126.7m OD. According to the British Geological Survey sheets 302 (Horsham: 1972) and 303 (Tunbridge Wells: 1971), the natural geology of the site is made up of Grinstead Clay overlying sandstone. In many areas of the site the clay had been completely excavated away for use in the Brickworks and Pottery, to reveal the underlying sandstone. Previous map regression, desk-based assessment (CgMS 2008) and a visit to East Grinstead Museum to view archives and to consult local historian Michael Leppard, who visited the site in 1970 before its demolition, revealed the following recent history of the site.

Clay extraction for brickworks is known to have been undertaken in the area since at least the 16th century. According to the East Grinstead Society Bulletin (2003–4, 4), a survey dated 1567 shows that the area around the site was referred to as 'Claye Pitt'. The East Grinstead Tithe Map (1840) shows brickworks to the west of the site on land that formed a single plot along Park Road and London Road. In 1852, ownership of these brickworks passed to George Lynn, who built a pottery on the clay fields, immediately north of

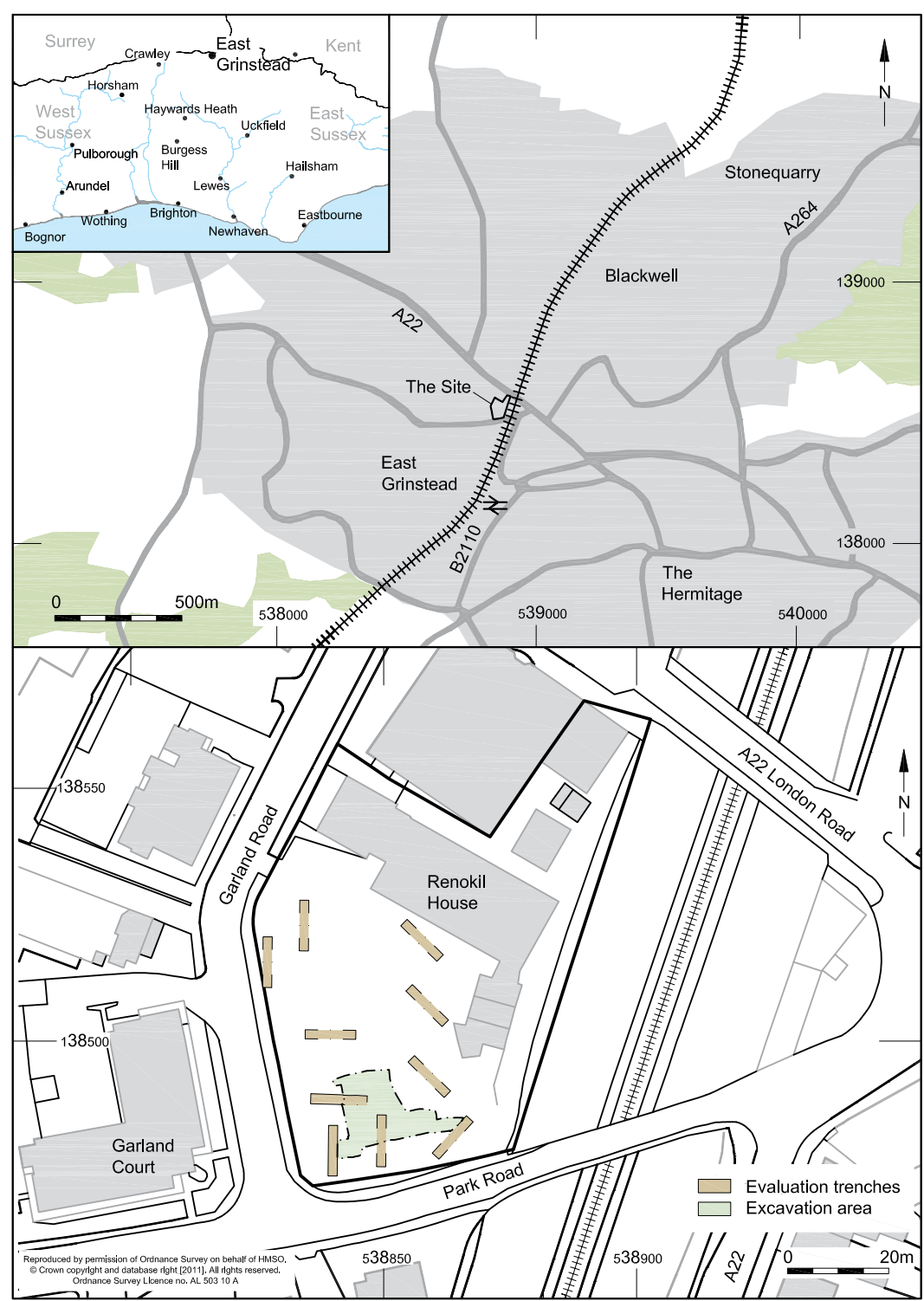


Fig. 1. Site location and location of evaluation trenches and excavation area.

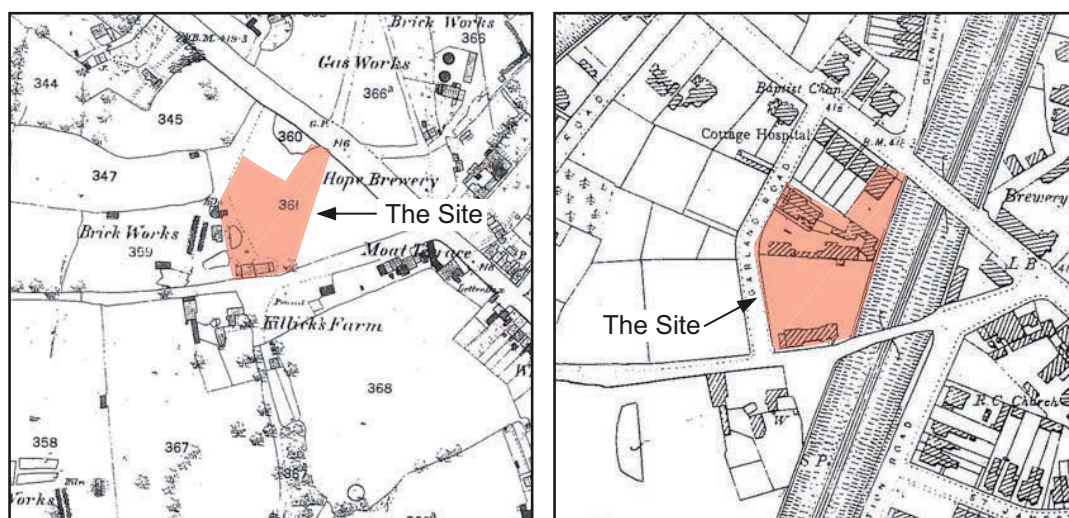


Fig. 2. a) 1873 25" to a mile OS map; b) 1899 25" to a mile OS map.

Killicks Farm, in 1855 (Manwaring Baines 1980, 151). The Pottery and Brickworks can be seen on the 1873 Ordnance Survey (Fig. 2a), including features that may represent clay extraction pits. Additional brick workings can be seen to the northeast and southwest of the Lynn Brickworks. From 1875 only the Pottery was still in use, the other brick workings falling into disuse. When the Lynn family died out, there was nobody to continue the business, and the Pottery and clay pits also fell into disuse. Around 1885, Henry Foster, from the Burgess Hill area, took over the works, although he had probably been involved as an employee or tenant potter for some years before this (Manwaring Baines 1980, 151). It is probable that at around this time the plot of land was split into two by the construction of Garland Road. One of the first acts of this new owner was to construct a house for himself and his family attached to the eastern end of the Pottery. The photograph may well be of Henry Foster himself, in front of his house and the Pottery (Fig. 3).

The railway was constructed in 1884, and by 1899 (Fig. 2b) the original Lynn brickworks had been extensively modified and bisected by Garland Road; the Foster house, attached to the eastern end of the Pottery, can clearly be made out. The remaining land to the north of the Pottery was divided into two plots, and the northern plot

became occupied by other buildings thought to be a builder's yard. The East Grinstead Pottery thrived under the patronage of local landowners until World War I, when demand and production fell sharply. There was some recovery in the 1920s, but, because many of the large houses on which the Pottery had depended for much of its trade had been sold and converted to schools, hospitals and convalescent homes, demand slowly contracted. The Pottery declined further from 1937 onwards, as local clay extraction pits ran out and clay had to be imported from nearby brickyards. Blackout restrictions during World War II caused production to cease entirely, and the works finally closed in 1943. The old Pottery works fell into disuse, while the attached house continued as the Foster residence until the death of Reginald Foster in December 1970. In his will he left the property to Sackville College in East Grinstead, which sold the site to Rentokil. In 1971 the house and Pottery were demolished during the construction of Rentokil House.

## SURVIVING REMAINS

### OPEN AREA 1: QUARRY PITS

Several large, undated quarry pits were recorded in the northern part of the site (not shown). A clay quarry pit, viewed in the western section of



Fig. 3. Photograph of the bottle kiln (left), workshop (centre) and potter's house (right) viewed looking north from Park Road (courtesy of East Grinstead Museum Collection).

evaluation trench 3, was not fully excavated, but was seen to have been cut deeply into the natural sandstone, which was probably also quarried. After this, the pit may have been left open, perhaps to collect water for use in the brickworks, since it appears to have been more than a transient feature and is probably the D-shaped feature shown on the 1873 Ordnance Survey map (Fig. 2a). Two other quarry pits were also recorded, only in section, to the north of Structure 2 (Fig. 4).

#### **OPEN AREA 2: YARD**

Before the construction in 1855 of the buildings and structures built by George Lynn, the quarries were backfilled and material was dumped over the whole site, raising and levelling the ground level. Presumably this preparation of the site was instigated by Lynn, after he had acquired the site in 1852. Infill deposits were formed from heavily crushed ceramic building material (CBM) derived from the Pottery's redware waste products, industrial clinker, imported river gravels and re-deposited natural clay. The yard (Fig. 4) was a large, open working area to the north of the Pottery

buildings, which comprised a series of rough floor surfaces that survived as interleaved lenses of crushed CBM and of compacted clinker aggregate. These were occasionally observed overlying the bedding layers of imported river gravels bonded by orange clay and layers of re-deposited natural clay containing CBM fragments. A waste water drainage system existed within these layers.

#### **BUILDING 1: KILN HOUSE**

The base of the northern part of the kiln house walls and floors survived, suggesting that the building had a single room with an internal width of 6.98m (Fig. 4). Map evidence confirms that this room was roughly square, with the circular kiln structure in the centre (Figs 2 and 3). All the masonry elements of the kiln house were constructed of unfrosted reddish orange bricks measuring 230mm by 110mm by 70mm. The wall foundations were laid on natural sandstone, as either headers or double rows of stretchers, forming a single-skin wall 230mm thick. No indication of a dividing wall between the kiln house and the workshop was found, although one might have existed but not

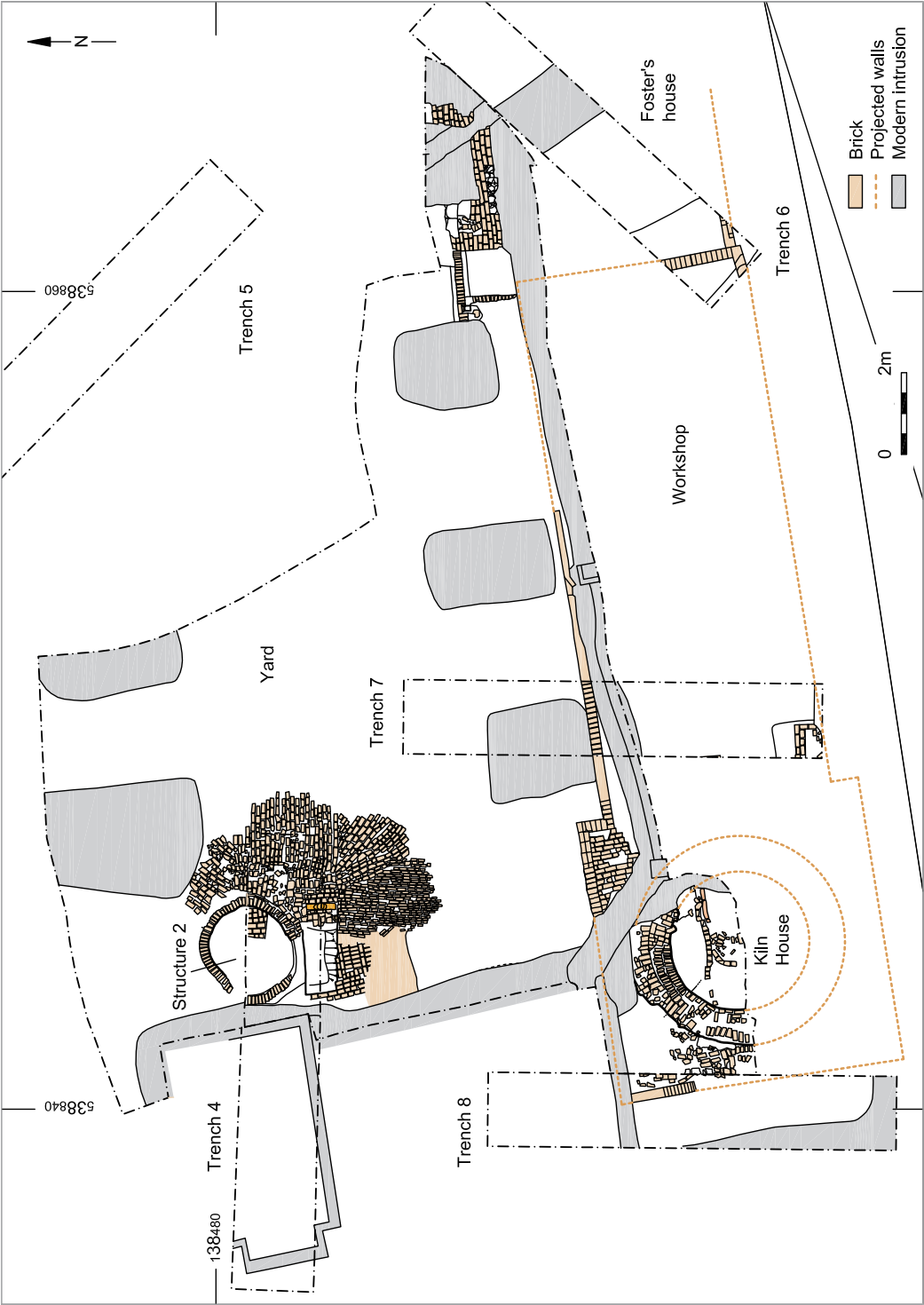


Fig. 4. Plan of excavated features.





Fig. 5. Photograph of the bottle kiln during demolition in 1971 viewed from the east (courtesy of East Grinstead Museum Collection).

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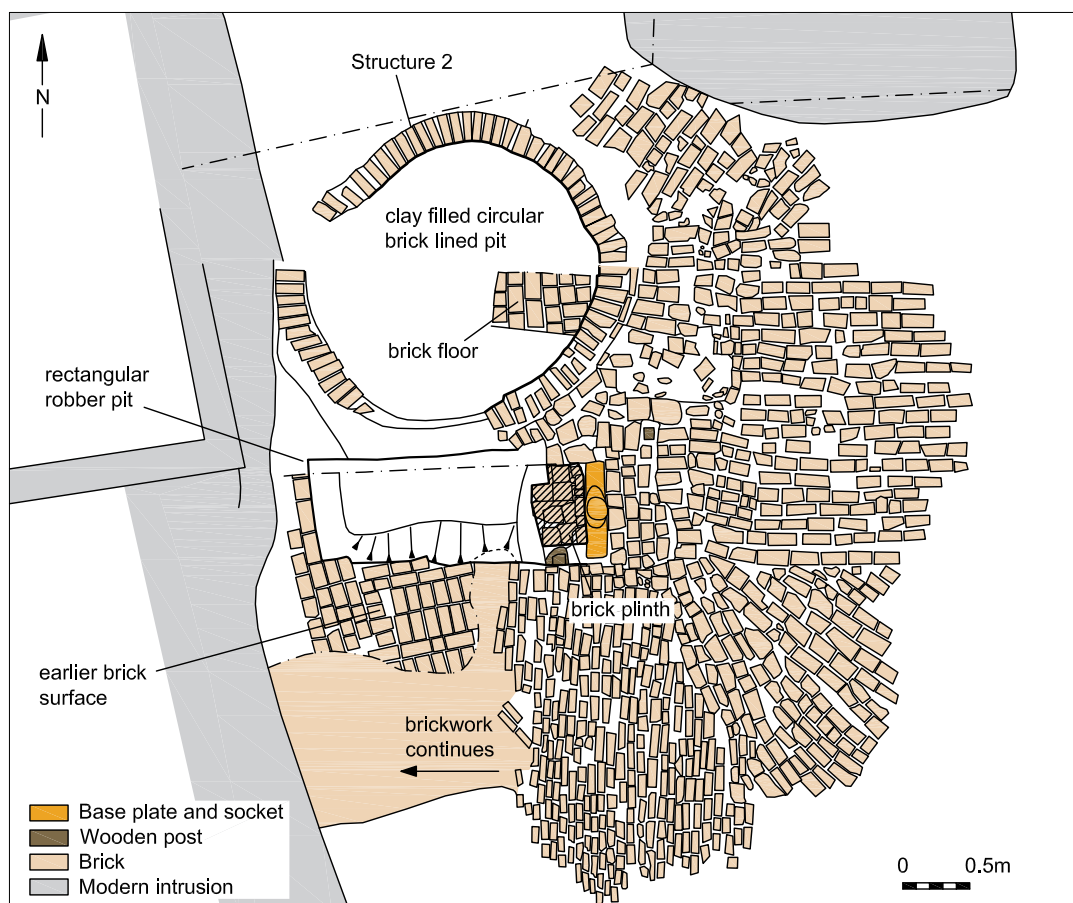


Fig. 6. Detailed plan of Structure 2 and adjacent mechanism.

survived, as the remains of both rooms had been heavily truncated during demolition before the construction of Rentokil House.

#### STRUCTURE 1: BOTTLE KILN

The basal course of the foundation of the circular bottle kiln was recorded (Fig. 4). The term 'bottle' refers to the shape of the structure (Figs 3 and 5). The substantial kiln walls were constructed of unfrosted reddish-orange bricks and were 0.8m thick. The kiln has an extrapolated external diameter of c. 5m (approx. 16ft 4ins). Some elements of internal kiln structure were also observed. Bottle kilns were constructed in Britain until the mid-20th century, after which they were replaced in the pottery industry by other types. A surviving photograph shows two firemouths at

the base of the kiln, the doorway for loading and unloading, and the iron bands that ran around the kiln to strengthen it during contraction and expansion (Fig. 5).

#### BUILDING 2: WORKSHOP

The central workshop (Fig. 4) measured c. 13m by 5.6m, based on extrapolated wall lines. The workshop was constructed in the same bricks as the kiln house and the bottle kiln. The workshop was largely unexcavated, although the back wall was partly recorded and some internal structures were identified, including masonry elements (in evaluation trench 7) and floor surfaces from the southeast corner of the room (in trench 6). These floor surfaces comprised an asphalt surface overlaying a re-deposited clay bedding layer.



Fig. 7. Mechanism adjacent to circular brick-built structure showing weight-bearing plinth and one of the retaining wooden posts, viewed from the west.

#### **STRUCTURE 2: BRICK-LINED PIT AND MECHANISM**

A circular brick-lined pit (Figs 4 and 6) was recorded in the northern part of the yard. This was c. 2.5m (approx. 8ft 2½ ins) in diameter externally and constructed of unfroged bricks. These bricks were laid as headers eight courses deep, and the structure had a brick floor at the base and was filled with soft clean clay with few inclusions. The pit was surrounded to the east and the south by a brick working floor, laid in rough panels that radiated away from the pit and were evidently contemporary with its use. The floor measured c. 6.30m × 4.74m. An earlier brick floor surface was also partly exposed below this during the excavation of an adjacent mechanism (Fig. 6).

Directly south of Structure 2, a clay-filled gap in the brick floor was visible. Excavation of this revealed a rectangular robber cut, measuring 1.65m × 0.75m × c. 0.75m deep (Fig. 7). At the eastern end of the robber cut, parts of a mechanism could

be seen that had been installed within a separate construction cut that underlay the brick surface; these were a brick plinth with two wooden posts. The plinth was quite substantial, 0.75m wide and 0.55m high. The two wooden retaining posts identified appeared to be quite substantial. One was identified to the southwest of the plinth visible in the side of the robber cut. Set into the top of the plinth was a wooden base plate into which an iron socket had been fixed. The brick surface that surrounded Structure 2 was laid overlying the plinth, leaving the baseplate and iron socket visible. The second wooden post was identified to the northeast of the plinth and socket, seen to be poking up through the brick surface. This structure was clearly designed for, and capable of, supporting a significant weight and allowing circular movement around the iron socket. The rectangular pit to the east of the plinth appears to be a robber cut excavated through the brick surface,





Fig. 8. Photograph of the horse-driven pug-mill, showing the horse harnessing at the end of the wooden arm; taken at the East Grinstead Pottery works (courtesy of East Grinstead Museum Collection).

presumably for removal of further elements of the brick plinth and socket mechanism.

### **BUILDING 3: FOSTER'S HOUSE**

To the east of the workshop building, a short section of east–west aligned wall foundation was identified within evaluation trench 6. This wall abutted the south-eastern corner of the workshop at a slightly different alignment and is interpreted as part of the later house (Figs 3 and 4) built by Henry Foster when he took ownership of the Pottery in 1884. An asphalt floor surface associated with this wall was recorded in section, but most of the building had been removed. During the excavation phase, the area of investigation was extended eastwards to meet up with evaluation trench 6, and this exposed some heavily truncated wall foundations, a drain, and brick and cement floor surfaces. These features all pertain to the rear of the house, and were built over the earlier external working surfaces associated with the Pottery, before construction of the house.

### **DISCUSSION**

The excavation area was centred on the yard where clay had been processed and where materials and produce had been stored. The East Grinstead Museum's collection includes photographs of two structures from the yard. These are a horse-driven pug-mill that has been removed from its working location and stored by the Pottery buildings, and a 'horse gin' or horse-driven engine that is shown *in situ*, although its location is uncertain (Figs 8 and 9). Neither of these structures corresponds with those identified in the excavations. The pug-mill was salvaged and removed to The Weald and Downland Open Air Museum, Singleton, where it has been re-situated in a 19th-century pug-mill house from Redford and is still visible (Sussex Archaeological Society 1972). The 'horse gin' in the photograph is thought to have been an 'edge runner mill' where a heavy circular 'wheel' was pulled round a circular trough that contained the unprocessed clay to be broken up. No trace of this



Fig. 9. Photograph of the 'horse gin' from the East Grinstead Pottery showing the inner and outer brick structures around a trough that held unprocessed clay (courtesy of East Grinstead Museum Collection).

was identified on the site, and the photograph gives little insight into its location. The size of the bricks in the photograph suggest that it was in the order of 5.00m in diameter.

The only structures found in the excavation that relate to clay processing are the brick-lined circular pit, Structure 2, and the partly robbed-out mechanism adjacent to it. It is difficult fully to understand the functioning of these two features and how they might relate to each other. The brick surface appears to have been laid to respect the pit, with the bricks neatly and closely butting against the brick lining of the circular pit. This was also apparent with the plinth and socket mechanism, where the brick surface was seen to overlie the construction cut of the brick plinth with its wooden supports. The brick surface was not constructed around the rectangular pit, which appears to have been excavated through the brickwork at a later date, presumably during the dismantling of the mechanism. It is likely, therefore, that the circular pit and the mechanism

are contemporaneous and functioned together, as their proximity to each other and relationship to the brick floor might suggest. If this is correct, how they functioned is uncertain, because the circular pit would obstruct the turning circle of the horse as represented by the brick surface. Only if the full extent of the brick surface was larger than identified here would the two structures work together. The brick surface, as exposed, has a potential turning circle of up to 2.80m, centred on the iron socket and brick plinth. A turning circle of between 3.00 and 3.50m from the same point would provide enough clearance for the circular brick lined pit also to be in use. The brick surface does not extend this far, but it is possible that this is due to damage caused during its use.

An interpretation of Structure 2 is that it was a 'blunger', a machine commonly used in the pottery industry for mixing clay and water or 'puddling', and could be what Reginald Foster referred to in his newspaper interview. '... when the clay was brought to the works it was placed in a pit, mixed

with water, and stirred by a horse which, attached to a spindle, went round and round in circles ...' (unreferenced newspaper cutting, East Grinstead Museum).

John Manwaring Baines also discusses this process as it was conducted at the East Grinstead Pottery, and his description shows clearly how this was a separate process from pug-milling. '[the clay] was tipped into a circular brick-lined tank where it was softened by being 'puddled' with water and stirred by a scarifier pulled around by a pony. It was then taken by wheelbarrow to be loaded into the top of the pug-mill' (Manwaring Baines 1980, 156).

It is tempting to suggest that the pug-mill shown in the photograph (Fig. 8) is related to the robbed-out mechanism with the iron socket. The socket could have been used to lock the pug-mill barrel to the ground. The proximity of these two features does not fit well with the description of puddled clay being moved 'by wheelbarrow' from one structure to another.

The excavation of the brick-lined structure did not fully expose the floor of the feature, so it is not known whether the floor of this structure housed a central socket that might have articulated with further mechanical structures of a 'blunger'. If this were the case, it might explain the function of the circular pit, and it is conceivable that there was a mechanism for transference of power from one structure to the next, presumably from the plinth and socket to the circular pit.

It is clear that clay processing at the site made intensive use of horses. The sources consulted suggest that a horse was used to break up the clay in the edge runner mill, and then possibly to mix it with water in the blunger before mixing to a smooth consistency and removing air bubbles in the pug-mill. The exact configuration of these machines and operating spaces is not clear from the excavation evidence, historical sources, or written narratives where they exist.

The ceramic assemblage recovered from the excavations (*see below*) has further advanced our knowledge of the range of products produced by the Pottery, namely the more common plain redwares that were produced in the latter stages of the Pottery's working life. This information augments the known distinctive products and higher-status pieces shown in the archives of the East Grinstead Museum. It is useful to have been able to document this archaeologically. However,

it may be of limited use for interpreting other excavations where similar earthenware forms are identified, since it is hard positively to identify the produce of a specific pottery from such standardised forms and fabrics.

#### **THE POTTERY** by Luke Barber

A small sample assemblage of 112 sherds, weighing 4675g, from 16 individually numbered contexts was recovered. The assemblage is characterised by small, sometimes slightly abraded, sherds, suggesting that most of it has been subjected to reworking. Although the average small sherd size often hinders the measurement of vessel diameters, particularly for the larger types, a range of rim forms is present. The main aim of this report is to outline the range of fabrics and forms produced at the site, as far as possible with reference to material housed in the East Grinstead Museum. Because the sample context groups are so small (the largest consisting of a mere 29 sherds from a minimum of 2 vessels), and the obvious reworking of material and mixed nature of fabric/forms in each context, the assemblage is considered as a whole.

#### **Fabrics**

The red earthenware sherds are assumed to represent products of the Pottery. They appear to be in one of two fabrics. Essentially these equate to a coarser ware and a finer ware, though sherds at the extreme ranges within these groups are close in texture, and it is clear from Table 1 that both fabrics were used across the range of forms produced. Whether there is a chronological reason for the two fabrics is uncertain, but, as they appear together in the same context, this seems unlikely. Detailed comparison with vessels already held by East Grinstead Museum was not possible because the museum's collection consists essentially of complete vessels, many of which have not been fired.

- Fabric 1 – A fine red earthenware with sparse/moderate sand/iron oxide grits to 1mm
- Fabric 2 – A fine red earthenware with no/rare sand/iron oxide grits to 1mm
- Refined white earthenware ('china') – one of only two wares not made on the site. A single sherd was recovered
- English stoneware – one of only two wares not made on the site. A single sherd was recovered

#### **Forms**

The assemblage contains a fairly limited range of forms. This reflects the niche market the traditional redwares had been squeezed into by cheap industrialised wares. By far the most common types in the excavated assemblage are flowerpots and very large jars and bowls (Table 1).

#### *Flowerpots*

The most complete flowerpots from the site are all small with simple rims. A complete, slightly overfired example (178g) in Fabric 2 is 70mm tall, with base diameter of 48mm and rim diameter of 75mm (Fig. 10, no. 1). A similar example, measuring 75mm tall was uncovered from unstratified deposits. Larger examples are present with rim diameters of 160mm, 200mm and 280mm. These larger vessels typically have thickened rims with either a slightly flattened or convex outer profile (Fig. 10, nos 2–5 and Fig. 11). Although the

Table 1. Summary of forms and fabrics.

Form/Fabric	Fabric 1	Fabric 2	Refined white earthenware	English stoneware
Flowerpot	33/812g	17/234g		
Jar	3/24g	4/119g		
Large jar	11/1109g	33/1314g		
Bowl			1/55g	
Large bowl	7/852g			
Dish		1/70g		
Handle (bowl?)		1/18g		
Bottle				1/68g
Totals	54/797g	56/1755g	1/55g	1/68g

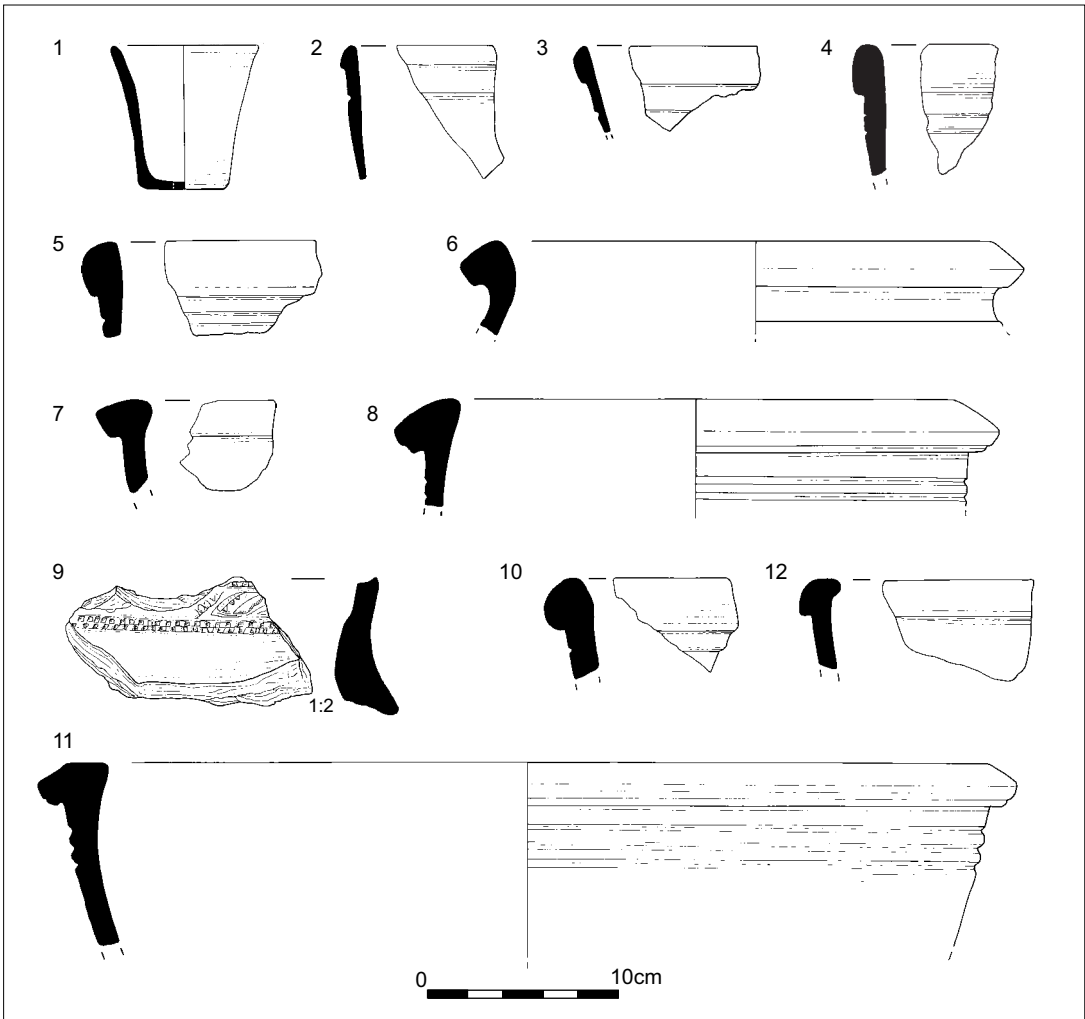


Fig. 10. Selected pottery drawings.



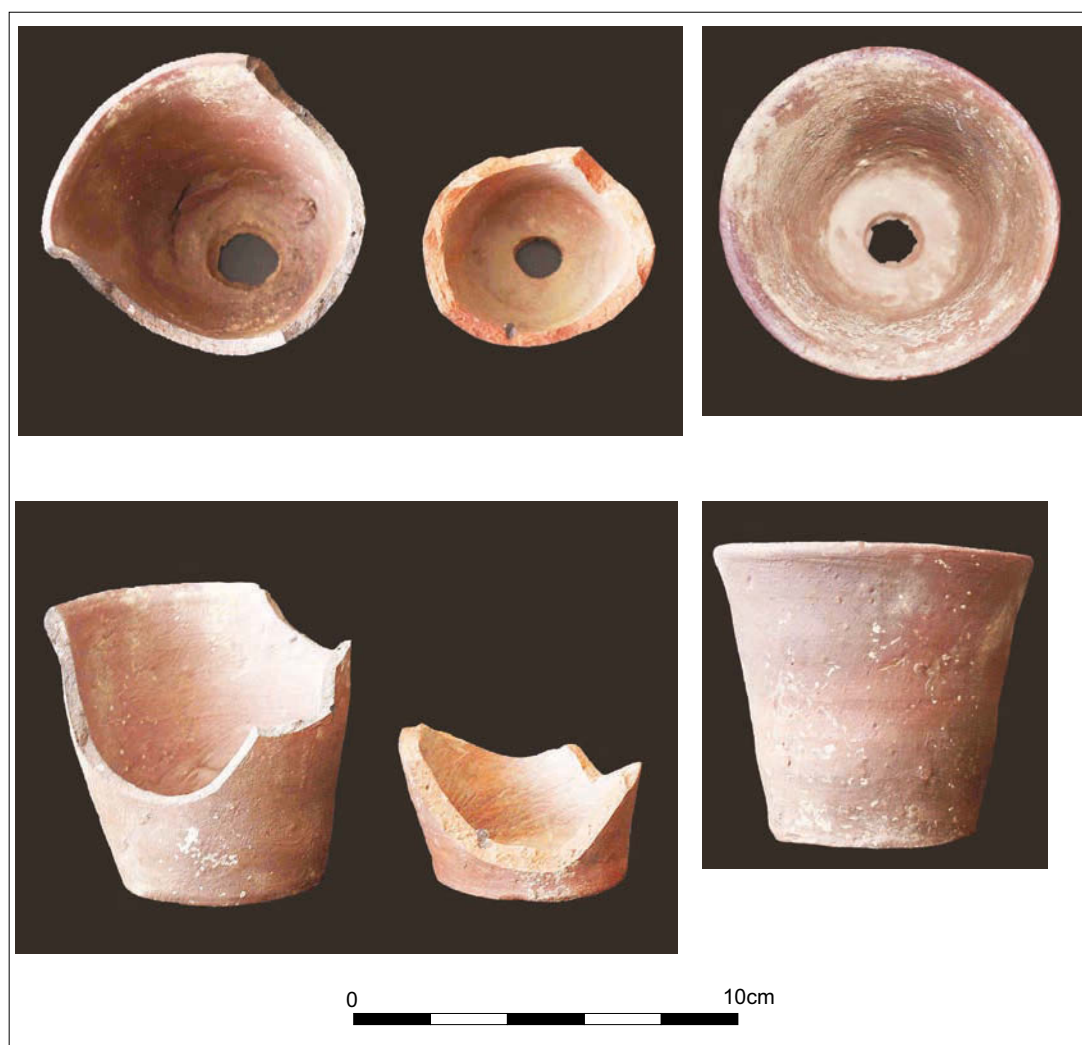


Fig. 11. Selected pottery photographs.

majority of vessels are in the coarser F1 fabric, examples in F2 are well represented. The vast majority of vessels are undecorated though a few have one or two horizontal incised lines on their exteriors.

#### *Jars*

Small/medium-sized jars appear to be far less common than the larger examples and no rim forms were recovered, although a number of internally glazed thinner-walled body sherds are present.

#### *Large jars*

The majority of large jars are in Fabric 2 and most have a good internal glaze, though a few are glazed both internally and externally. Vessels with all-over glaze are exclusively in the finer F2 fabric. Rims are typically heavy bulbous club

types, slightly triangular or square (Fig. 10, nos 6 and 7). The all-over glazed jar has a squared club rim similar to those found on the large bowls, though the body angle shows it to be a jar (Fig. 10, no. 8). At least some vessels appear to have had horizontal handles to aid lifting. Decoration is rare, but where apparent usually consists of one, two or three incised horizontal lines on the vessel exterior. One example has a rouletted band around the unglazed exterior.

#### *Bowls*

The only small/medium bowl sherd recovered was from a refined white earthenware vessel of non-local manufacture. Although it is likely that at least some small/medium bowls would have been produced at the site, they were probably made in small numbers because the market was being flooded with industrialised wares of this form.

### *Large bowls*

These are not as common as large jars, although this may be due in part to the difficulty of distinguishing between the two forms, a task virtually impossible for body sherds and often difficult from small-rim sherds. The rim forms are similar to those of the large jars in being typically squared club types, though one was recovered with a convex-profile thickened type, similar to the flower pots, from an internally glazed vessel (Fig. 10, no. 10). The more typical rim form has a slight internal thickening (Fig. 10, no. 11). Although the rim profile of this internally glazed vessel is similar to that of some of the large jars (Fig. 10, no. 8), the angle of the body differentiates them. As with the large jars, some of these bowls appear to have had horizontal handles, and most are internally glazed. Decoration, consisting of incised lines (Fig. 10, no. 11) and occasionally rouletting (Fig. 10, no. 9), is the same as noted for the large jars.

### *Dishes*

A single internally glazed F2 dish with thickened 'hammer-head' type rim was recovered (Fig. 10, no. 12). The lack of such vessels may again be because industrialised wares were flooding the market for this vessel type by this time.

### *Handles*

The single unglazed F2 handle may be a horizontal example from a bowl or large jar, but too little is present to be certain.

### *Bottles*

The only bottle sherd recovered was from an English stoneware vessel of non-local manufacture.

## **Discussion**

Local redwares, produced at a number of sites, were the most common form of pottery in Sussex homes from at least the mid 16th to the mid 18th century, when they were used for a wide range of purposes, from garden and kitchen wares to table and sanitary wares. During the 18th century finer tablewares became more affordable and thus widespread. This was particularly the case after the introduction of mass-produced industrialised wares from the Staffordshire Potteries, increasingly during the second half of the 18th century. By the early 19th century these industrialised wares were dominant in homes at all levels of society for a wide range of vessel types. Although some forms, such as teawares, were never made by the local redware potteries in any significant quantities, others, such as small/medium-sized bowls, plates and chamber pots, were. Certainly it would appear that the redware pottery's share of this part of the market was seriously declining through the later 18th and early 19th centuries as people opted for the finer, lighter and increasingly cheaper industrialised whitewares.

Despite losing a significant part of the market, the local potteries continued to thrive, and vessels are frequently represented in ceramic assemblages into the 20th century. This survival was due at least in part to specialisation. Gaps in the market appear to have become the focus of the local potteries. There is a decline in the proportion of redware plates and medium-sized bowls and jars, and a notable increase in very large dishes, bowls and jars – forms not well or cheaply catered for by the industrialised wares. These vessels, often with rim diameters of over 300mm, were used primarily for kitchen storage and mixing of food. The East Grinstead Pottery

thus fits well within this late pattern of redware production. Flowerpots, for which high breakage would create a constant demand, also became a niche of these local industries. Indeed, an account book from 1920–3 shows that these humble vessels were the mainstay of the East Grinstead Pottery towards the end of its life (Manwaring Baines 1980, 153).

Although the excavated assemblage is too small to support reliable comment on the full range of fabric and forms made by the Pottery, it does give an insight into the more common utilitarian vessels produced during the second half of the 19th and early 20th centuries. In the past, most work has concentrated on the more unusual and/or highly decorated forms which the local redware potteries also produced for a small part of the market (Manwaring Baines 1980). Certainly, the East Grinstead Pottery made such vessels, as the inlaid barrel-shaped flask dated 1865 in the Victoria and Albert Museum attests and later 19th-century trade directories advertise (Manwaring Baines 1980, 151–2). Yet it is the utilitarian vessels, termed 'brown glazed ware' in the 1872 Hayward's Almanack (Manwaring Baines 1980, 151), that are seen most frequently in the archaeological record, suggesting that they made up most of the output, at least during the 19th century. The current assemblage is therefore interesting in representing perhaps the most common types produced at East Grinstead.

The opportunity was also taken to examine the collection of largely complete pots recovered from the site when it closed, now housed in the town's museum. Although there was some overlap between the museum collection and the excavated sample, most notably with flowerpots, there were a number of forms in the museum collection not represented in the excavated sample and, to a lesser extent, *vice versa*. The museum collection flowerpots, with rim forms similar to those illustrated here, include examples of 96mm and 98mm diameter (both 97mm tall) and 133mm and 143mm diameter (126mm and 140mm tall respectively). However, the museum collection includes a number of chicken feeders (with one ring and central hole and typically 111mm to 135mm in diameter), shallow strainers (to 320mm diameter) and dog dishes (with inward-sloping walls with a typical diameter of 195mm to 204mm), as well as a few vases and a cooler. Many of these vessels have not been fired, and, interestingly, there is a 133mm diameter, 255mm tall unfired handled bottle and a jar with rolled rim closely copying typical stoneware forms, which suggests some experimentation. The author has not come across such forms in local redware to date. Interestingly, the large bowls and jars are not as well represented in the museum collection, so the excavated rim types offer useful insight into this aspect of the Pottery's products.

## **CERAMIC BUILDING MATERIAL** by Sarah Porteus

A total of 114 fragments of ceramic building material (CBM) with a total weight of 49,828g were recovered from the excavations. The material is entirely of post-medieval date. Fabric types were compared with the reference collection of the East Grinstead Museum (Tables 2–4).

### **Pipe**

A number of fragments of drain pipe were recovered. They included an unstratified fragment of pale cream ridged pipe, the remainder being unglazed orange pipe fragments, some of which would have interlocked.

Table 2. Breakdown of CBM by form, weight and count.

Form	Count	% count	Weight	% weight
Peg tile	51	35	3410	7
Brick	52	36	40,720	82
Brick flooring	1	<1	1522	3
Floor tile	1	<1	226	<1
Pipe	39	27	3950	8
Total	144		49,828	

Table 3. Pipe type and fabric descriptions.

Fabric	Description	Form notes
P1	Orange sandy fabric with fine medium-sized black iron-rich inclusions and fine voids	Interlocking drain
P2	Fine pale cream silt fabric with sparse orange iron-rich silt inclusions	Ridged drain
P3	Orange sandy fabric with sparse fine black sand inclusions with occasional cream silt streaks	Some interlocking drain
T1	Orange sandy fabric with fine linear voids and fine black iron rich speckles and fine white calcareous inclusions.	Wide curved pipe with wide shallow grooved interior

Table 4. Relative quantities of brick fabrics.

Fabric type	Description	Count	Weight	% by weight
B1	Orange sandy fabric with moderate coarse red iron-rich inclusions and very occasional fine cream silt streaking	24	17,872	42
B1i	Iron-rich version of B1	9	2126	5
B2	Pale creamy yellow fabric with cream and orange marbling and moderate coarse red iron rich inclusions	6	3228	7
B3	Near MoL3035, yellow sandy brick with coarse black and red iron-rich inclusions and fine calcareous speckles	1	2184	5
B4	Coarse chunky silt fabric with moderate black iron-rich inclusions	4	2904	7
B5	Overfired reddish purple silt fabric	1	2466	6
B6	Pinkish silt fabric with cream and red silt marbling and inclusions with moderate large coarse black iron-rich inclusions (nrB3)	1	1632	4
Engineering brick	Hard-fired dark purple fabric	1	3244	7
Nr MoL3032	Reddish purple sandy fabric with bone and ash inclusions and coarse black iron-rich inclusions.	6	6676	17
		53	42,332	

### Floor tile

A single floor tile with vitrified surface in fabric T1 was recovered.

### Peg tile

All peg tile recovered from the site was in the same T1 (orange sandy fabric with fine linear voids and fine black iron-rich speckles and fine white calcareous inclusions) fabric and of uniform 12mm thickness. Some square peg holes were observed, and it is likely that the roof tile is of 19th- or 20th-century date. Some fragments are warped and over-fired.

### Brick

Most of the brick recovered from the site was in fabric B1 or B1i, a more iron-rich variant of fabric B1. It is likely that this is a local brick, most probably made on site, and relates to the earlier construction on site with a 19th-century date. Other brick occurring in lesser quantities probably relates to different functions. It is most likely that the engineering brick was used where heavy industrial flooring was required.

### Brick recovered from structures

The kiln house (Building 1), the yard brick surface, the circular pit (Structure 2) and the brick floor to the rear of the house (Building 3) were all made from fabric B1. Brick from the yard surface and the circular pit both had vitrified headers. The brick floor to the rear of Building 3 was constructed using brick in fabric B2, a pale creamy yellow fabric with cream and orange marbling and moderate coarse red iron-rich inclusions. All the structural bricks are unfroged.

### Maker's marks

A number of complete and partial maker's marks were identified on some bricks. Bricks from the levelling layers and an unstratified example all originated from the Rowfant works, based in Worth, although the maker's mark was made with the misspelling 'ROWNFANT'. The Rowfant works is known to have been in existence since at least 1875, when the associated clay pit was registered (Beswick 1993). Two of the bricks are in fabric B6, the unstratified brick being of very hard-fired dark purple engineering brick standard. The engineering brick may

have been intended for use as flooring, because the top of the brick is divided into two imitation cobbles. The remainder of the marked bricks are unstratified and originate from the 'WARNHAM SBC' factory. The brickworks at Warnham, near Horsham, were based alongside a railway for ease of transport. The 'SBC' portion of the mark refers to the 'Sussex Brick Company', which acquired the works in 1899 (Beswick 1993). A further maker's mark, 'SUSSEX & ESTATES', refers to the same Warnham works, though these bricks post-date 1903 when the trading name was first used. It is likely that most of the bricks with the Warnham or SBC marks pre-date a merger which took place in 1935 and would have resulted in a name change. Although the production dates are known for these bricks, the date of use may be some time later because of the ease with which bricks can be stored. It is also likely that a delivery of bricks from a single factory might contain earlier stock clearance of a previous trade name.

### Vitrified headers

A number of unfrosted bricks of standard modern size and fabric B1 were found to have vitrified headers. The vitrification may have occurred from exposure of the brick to high temperatures in the kiln. The presence of these bricks indicates that they may have been wasters from the brick works or reused from the firing kiln structure.

### Comparison with pottery fabrics

Fabric types P1, P3, B1 and T1 are all similar to red earthenware pottery fabric 1. It is possible that drain pipe and peg tile were also among the CBM forms made on site. These four fabric types dominate the CBM assemblage, representing 85% of the assemblage by count and 55% of the assemblage by weight. The presence of vitrified examples of peg tile (17% of the assemblage by weight) could represent wasters and suggest that such forms were made at the Pottery. However, although similarities exist between the red earthenware

fabric 1 and the ceramic building material fabrics, it must be stressed that the CBM fabric type is common in Sussex and that ceramic building materials in the same fabric may have originated from other kilns in the area. Distinction between Sussex fabrics is often impossible, even with the aid of thin section, where no distinctive inclusions are present, because most of the brick and tile producers use the same geological resource (Barber, pers. comm.)

### Summary

The ceramic building material assemblage reflects the movement of bricks within the East Grinstead area during the later post-medieval period, with bricks being derived from at least two brick yards, Rowfant and Warnham, and probably transported via the rail network. Most of the brick, fabrics B1 and B1i, and peg tile and drain pipe in fabrics P1, P3 and T1 recovered from the site may have been made on site, though this cannot be conclusively proven due to the similarity of CBM fabric types in Sussex.

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**Correspondence:** Louise Rayner, ASE, Units 1 & 2, 2 Chapel Place, Portslade, East Sussex, BN41 1DR; [louise.rayner@ucl.ac.uk](mailto:louise.rayner@ucl.ac.uk)

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