

**An Archaeological Investigation into the former East Grinstead Pottery site,  
Garland Road, East Grinstead, West Sussex**

**Planning Refs: 08/1617/FUL; APP/D3830/A/08/2070768**

**TQ 38853 38502  
NGR 538853 138502**

**Project Nos. 3970 / 4288  
Site Code: EAG 10**

**ASE Report No. 2010074  
OASIS ID: archaeol6-78543**



**Dylan Hopkinson MA  
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## **Abstract**

*Archaeological work has been carried out on land formerly occupied by Rentokil House on Garland Road, East Grinstead (NGR 538853 138502). The work was carried out in two phases. Initially an evaluation was conducted between 1<sup>st</sup> and 5<sup>th</sup> March 2010 by Archaeology South-East on behalf of CgMs Consulting, prior to the construction of residential properties fronting Garland Road and Park Road. Ten evaluation trenches were excavated. Four of these, along Park Road and the corner of Garland Road, revealed significant survival of the remains of the East Grinstead Pottery which was established in 1855 and demolished during the construction of Rentokil House in 1971.*

*These remains became the focus of the second phase of investigation which involved the machine stripping of overburden and mapping and sampling of the structures revealed within a pre-defined zone in the southwest of the site. This area was extended to the southeast and southwest where structures were proven to extend beyond the limit of excavation. This second phase of work took place between 22<sup>nd</sup> March and 1<sup>st</sup> April 2010.*

*The natural geology comprised Grinstead Clay overlying Sandstone, indicated on British Geological Survey Sheets 302 (Horsham: 1972) and 303 (Tunbridge Wells: 1971) this showed a gradual slope from the west (127.30m AOD) down to the east (125.34m AOD) over a distance of approximately 36 metres.*

*The structures identified represented the foundations of the pottery which was aligned along Park Road including the foundations of the bottle kiln which was situated within the western end of the building. The remains of the rear of a house built as an extension to the pottery were also identified. An extensive work yard area was also identified with several compacted surfaces of crushed ceramic building material and of clinker and ashes. Within this area a discrete zone of brick flooring was identified around a circular brick built clay processing feature.*

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## **1.0 INTRODUCTION**

### **1.1 Site background**

- 1.1.1 Archaeology South-East (ASE) (a division of The Centre for Applied Archaeology at the Institute of Archaeology, University College London) was commissioned by CgMs Consulting, on behalf of their client, Taylor Wimpey, to undertake an archaeological evaluation between 1<sup>st</sup> and 5<sup>th</sup> March 2010 followed by an archaeological strip, map and sample excavation on land at Garland Road, East Grinstead, West Sussex, (NGR 538855 138514) (Fig. 1). The second phase of fieldwork took place from 22<sup>nd</sup> March to the 1<sup>st</sup> April 2010 in advance of the development of the site.

### **1.2 Planning background**

- 1.2.1 A planning application for the demolition of existing commercial buildings of 'Rentokil House' and the construction of housing blocks fronting onto Garland Road and Park Road, East Grinstead, West Sussex with parking facilities in the centre of the study site has been approved by Mid Sussex District Council (Planning References 08/1617/FUL; APP/D3830/A/08/2070768). Condition 6 of the planning consent states the following:

*"Following the demolition of any existing buildings, no further building works shall take place until the applicant, or their agents or successors in title, has secured at their own expense the implementation of a programme of archaeological work in accordance with a written scheme of investigation which has been submitted by the applicant and approved in writing by the local planning authority".*

- 1.2.2 Mid Sussex District Council, advised on archaeological matters by John Mills, Senior Archaeologist with West Sussex County Council (WSSCC), required trial archaeological evaluation of the site consisting of ten trial trenches each measuring 10 metres by 1.8 metres (Fig. 2).
- 1.2.3 These trenches covered the whole of the development area. Trenches in the southwest of the site targeted the location of the East Grinstead Pottery as identified through historical mapping. Provision was made for further measures to record archaeological remains depending on the results of the evaluation in order to ensure that archaeological remains, where threatened by the proposed development, were properly recorded and reported.
- 1.2.4 A *Written Scheme of Investigation* (CgMs; WSI 2009) covering the evaluation phase of the condition was prepared by CgMs including an Archaeological Desk Based Assessment, and this was submitted to the WSSCC Senior Archaeologist for approval prior to the commencement of works.
- 1.2.5 All work was carried out in accordance with the WSI and the relevant Standards and Guidance of the Institute of Field Archaeologists (IFA).
- 1.2.6 The evaluation phase revealed significant remains relating to the East Grinstead pottery in the southwest of the site (evaluation trenches 4, 6, 7, 8) with the remaining trenches showing only made ground overlying the natural geology (Fig. 2).

- 1.2.7 A meeting was held on site between John Mills (WSCC), Richard Meager (CgMs), Neil Griffin (ASE), and Dylan Hopkinson (ASE) to discuss further works. This resulted in an area of investigation being defined which focused on the four trenches in the southwest of the site where the pottery remains were identified (Fig. 3).
- 1.2.8 A *Written Scheme of Investigation* (CgMs 2010) covering the further works was prepared by CgMs and was submitted to John Mills for approval prior to the commencement.
- 1.2.9 The zone of further works covered an area of 190 square metres which was to be recorded by a strip, map and sample excavation. The overburden of modern made ground and recent demolition material was removed by mechanical excavator to fully reveal the rear of the pottery structures and the upper levels of the external working yards.
- 1.2.10 After the exposed features were recorded, a site meeting was held between John Mills (WSCC), Richard Meager (CgMs), Neil Griffin (ASE), and Dylan Hopkinson (ASE). A strategy was agreed to carefully strip away the soft deposits of the yard surfaces down to the natural geology while being sensitive to the possibility of identifying further archaeological structures relating to the pottery. At the same time the strip map and sample area was extended by 30 square metres (to a total of 220 square metres) to encompass the remains of a bottle kiln and potter's residence that had been partially exposed (Fig. 4).

### **1.3 Scope of the report**

- 1.3.1 This report details the results of the archaeological investigations on the site, incorporating the features from the evaluation trenches where appropriate.
- 1.3.2 The evaluation was undertaken between 1<sup>st</sup> and 5<sup>th</sup> March 2010 by Dylan Hopkinson (Site Director), Vincenzo Poppiti (Assistant Archaeologist), and Rob Cole (Surveyor).
- 1.3.3 The strip, map, and sample excavation was undertaken between 22<sup>nd</sup> March and 1<sup>st</sup> April 2010 by Dylan Hopkinson (Archaeologist / Site Director), Anna Doherty (Archaeologist), Liane Peyre (Archaeologist), Tony Baxter (Assistant Archaeologist), Roddy Mattinson (Assistant Archaeologist), Ben Sharp (Assistant Archaeologist), Matt Bradley (Assistant Archaeologist), and John Cook (Surveyor).
- 1.3.4 The fieldwork was managed by Neil Griffin (Project Manager) and the post-excavation analysis was managed by Jim Stevenson (Project Manager).

## **2.0 ARCHAEOLOGICAL BACKGROUND**

### **2.1 Location and geology**

- 2.1.1 According to the British Geological Survey 1:50,000 map, sheets 302 (Horsham: 1972) and 303 (Tunbridge Wells: 1971) the natural geology of the site comprises Grinstead Clay overlying Sandstone.
- 2.1.2 The topography of the site reflected the underlying natural substrate which showed a gradual slope from the west (127.30m AOD) down to the east (125.34m AOD) over a distance of approximately 36 metres (between evaluation trenches 2 and 10).
- 2.1.3 As a whole, the site is at a lower level than its environs with a marked step of c.1.50 metres from the level of both Garland Road and Park Road. A ramp of crushed demolition material had been made from the site access on Garland Road (128.20m AOD) into the site and hard standing parking area in the centre of the site (126.70m AOD).

### **2.2 Archaeological and historical potential**

- 2.2.1 A detailed archaeological and historical background to the site is included in the Desk-based Assessment (CgMs 2008); this was based on an assessment of known archaeological finds and features within a 500m radius of the site that are held on the West Sussex Sites and Monuments Record (SMR). A Map Regression Exercise was also conducted by CgMs, plotting the development of the site from 14 cartographic sources dating from 1795 to 2006. Additionally the author of the current report made a visit to the East Grinstead Museum on 21<sup>st</sup> May 2010 to view their archives and to consult local historian Michael Leppard who had visited the site in 1970. These sources are summarised here with due acknowledgement.
- 2.2.2 No finds or features from prehistoric, Roman, Anglo-Saxon and medieval periods are known to exist within 500 metres of the site and the potential of the study area for revealing remains from these periods is defined as low.
- 2.2.3 The post-medieval and modern periods show a high potential associated with the presence of a former pottery known as the East Grinstead Pottery which operated on the southern and central parts of the site with the pottery buildings aligned along Park Road at the Junction with Garland Road.
- 2.2.4 Clay extraction for brickworks is known to have been undertaken in the area of the site for a long time. According to the East Grinstead Society Bulletin (2003-4: 4); a survey dated 1567 shows the area around the site to have been referred to as 'Claye Pitt'.
- 2.2.5 The East Grinstead Tithe Map (1840) indicates brickworks focused immediately to the west of the development site on land that formed a single plot along Park Road and London Road.
- 2.2.6 In 1852 ownership of these brickworks passed to George Lynn who built a pottery on the clay fields immediately north of Killicks Farm in 1855. The pottery and brickworks can be seen on the 1873 Ordnance Survey, including features that may represent clay extraction pits (Fig. 5). Additional Brick

workings can be seen to the northeast and southwest of the Lynn Brickworks. From 1875 only the pottery was still in use with the other Brick workings falling into disuse.

- 2.2.7 When the Lynn family died out there was nobody to continue the business and the pottery and clay pits fell into disuse. In 1884 a potter called Henry Foster from the Burgess Hill area bought up part of the site. 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.
- 2.2.8 By the time the 1899 Ordnance Survey map was produced, it is clear that the original Lynn brickworks had been extensively modified, being split by Garland Road and by the construction, in 1884, of the northeast – southwest aligned railway cutting that forms the western limit of the site (Fig. 6). The other former brickwork buildings were pulled down when the land was turned to other uses. The attached Foster residence can also be seen mapped for the first time, attached to the eastern end of the pottery. 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.
- 2.2.9 Trade at the Fosters owned East Grinstead Pottery thrived, especially under the patronage of local landowners. However the First World War brought depression in trade as it did to many industries. There was some recovery in during the 1920s; however the big houses of the local landowners were eventually closed and turned into schools, hospitals and convalescent homes; the East Grinstead Pottery had depended on these markets for much of their trade and as a result demand for their wares slowly contracted.
- 2.2.10 The pottery declined from 1937 onwards and as local clay extraction pits ran out, clay had to be imported from nearby brickyards. The blackout restrictions during World War Two 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 Reginald Foster died in December 1970. In his will Reginald Foster left the property to Sackville College, East Grinstead and they sold the site to Rentokil. The house and the pottery were eventually demolished during the construction of Rentokil House which took place in 1971.
- 2.2.11 The archaeological potential of the site was correctly thought to be exclusively concerned with the potential remains of the former pottery, attached Foster residence and earlier brickworks.

### **3.0 ARCHAEOLOGICAL METHODOLOGY**

#### **3.1 Methodology**

- 3.1.1 The archaeological work was carried out in accordance with the WSI (CgMs 2010) and the relevant Standards and Guidance of the Institute for Archaeologists (IFA).
- 3.1.2 Initially, ten evaluation trenches measuring ten metres in length were excavated using a 1.80 metre wide toothless ditching bucket. These were excavated in spits of no more than 0.25 metres in depth, down to the first significant archaeological horizon or to the natural geology if no remains were encountered. The trenches remained open while they were investigated by hand excavation and recorded over three days by an archaeologist to assess the level of archaeological survival.
- 3.1.3 The evaluation trenches revealed significant survival of remains relating to the East Grinstead Pottery in four trenches in the south and west of the site. This area then became the focus of a secondary phase of investigation that involved stripping the overburden over an area of 220 square metres and the mapping and sampling of the features revealed. This was again excavated using a 1.80 metre wide toothless ditching bucket in spits no more than 0.25 metres in depth down to the first significant archaeological horizon.
- 3.1.4 Large areas of work yard were mapped in this way and then after consultation with the WSCC Senior Archaeologist carefully excavated using a mechanical excavator to reveal the natural substrate. Standing baulks were left in situ in order to be able to record running sections across the site.
- 3.1.5 All deposits were recorded using ASE standard context sheets, with colours recorded by visual inspection. Sections were drawn at appropriate scales on plastic drafting film.
- 3.1.6 A full photographic record was made recording all features and contexts.
- 3.1.7 All features were drawn in plan at a scale of 1:20 on multi-context trench drawings and during the strip and map phase 1:50 scale site plans were maintained. Section drawings of the excavated profiles were drawn at a scale of 1:10, sample section drawings of the overlying deposits were also drawn at 1:10 scale from the trenches and larger running sections were drawn during the second phase of recording.

#### **3.2 Excavation aims and objectives**

- 3.2.1 The aim of the archaeological investigations was to record the presence or absence of any archaeological features within the site.
- 3.2.2 To assess the character, extent, preservation, significance, date and quality of all archaeological remains and deposits, with particular reference to the remains of the East Grinstead Pottery.
- 3.2.3 To assess how the archaeological remains exposed might be affected by the development of the site.



3.2.4 To assess what options, if any, should be considered for mitigation.

### **3.3 Status of site archive**

3.3.1 The site archive is currently held at the offices of ASE and will be deposited at the East Grinstead Museum in due course; arrangements have been made for the deposition of the archive and the museum's own collections have been inspected to inform and produce an agreed strategy for the retention and sampling of the finds. The contents of the archive are tabulated below (Table 1).

3.3.2 Table 1. Quantification of site archive

|                            |     |
|----------------------------|-----|
| Number of Contexts         | 203 |
| Context Register Sheets    | 7   |
| Photographic Record Sheets | 10  |
| Drawing List Record Sheets | 1   |
| Drawing Sheets             | 15  |
| No. of files/paper record  | 4   |
| Levels Record Sheets       | 8   |
| Photographs                | 203 |

## **4.0 RESULTS**

### **4.1 Introduction**

- 4.1.1 The results of all phases of the archaeological investigation are presented here as an integrated narrative. The archaeological remains associated with the East Grinstead Pottery are described in thematic groups rather than as a context by context description. A full context register is given for reference in Appendix 1.

### **4.2 Natural geology and overburden**

- 4.2.1 The natural geology across the site was a firm pale yellowish brown clay with patches and mottles of pinkish, purple, and white clay. This did not survive uniformly across the site as it had been excavated at various stages throughout the use of the site as brickworks and later as a pottery. In many areas, the clay had been completely removed to reveal the underlying sandstone which was yellowy green in colour. The sandstone was encountered at a height of 126.235m AOD in the southwest of the site and sloped gradually down to the northeast where it was observed at a height of 125.975m AOD.
- 4.2.2 Across the site there was a layer of made ground which was typically a reddish brown silty clay containing large amounts of brick and mortar rubble as well as occasional glass fragments and metalwork, this layer ranged from 0.30 metres to 0.56 metres thick. Overlying the made ground was a thin layer of crushed demolition rubble up to 0.25 metres thick that had been derived from the demolition of Rentokil House.
- 4.2.3 Overall, these layers accounted for overburden that ranged from 0.20 metres to 0.90 metres in thickness, and was thicker over the northern half of the site as seen in evaluation trenches 1, 2, 5, 9 and 10.
- 4.2.4 Across the excavation area, a number of pile pits from Rentokil House were observed that had been excavated through all deposits down to the natural sandstone.

### **4.3 Overview of the archaeological remains (Fig. 4)**

- 4.3.1 The features and structures identified during the excavations are all related to the East Grinstead Pottery. Along the southern limit of the excavation the foundations of the east – west aligned pottery buildings were identified. Full excavation of the pottery was not deemed necessary as it lay close to and parallel with Park Road in an area of the development that would not be impacted. Some internal features were identified in evaluation trenches 6, 7, and 8 and it is possible from these remains to reconstruct the full dimensions of the buildings.
- 4.3.2 At the western end, these foundations made a dogleg to the north where a room which contained a bottle kiln was situated.
- 4.3.3 To the east, the foundations and internal floor layers identified, relate to the rear of the adjoining house built for the Foster family when Henry Foster bought the pottery in 1884.

- 4.3.5 To the north of these buildings, the remaining area of the excavation uncovered an external working area that was characterised as surfaces formed from a series of lenses of heavily crushed ceramic building material. There were also occasional surfaces made from industrial clinker lain over imported river gravels set in thin layers of re-deposited natural clay.
- 4.3.6 Part of this yard area in the west of the site, towards the northwest corner, was constructed from bricks laid flat in a series of panels radiating from a central circular feature. This central feature was a brick lined pit filled with clay and is thought to have been for clay storage and processing. Directly south of this was an irregular rectangular pit that appeared to have partially robbed away structures or machinery related to the use of the circular brick feature.
- 4.3.7 The brick surface had been heavily truncated by a large pit to the north of the brick lined feature. Underneath the brick surface, a series of intercutting pits was observed in section while a fourth deeper pit was partially excavated in evaluation trench 3.

#### **4.4 The pottery buildings (Figs 4 and 7)**

- 4.4.1 Along the southern extent of the excavation area and within evaluation trenches 6, 7, and 8 the foundations of the pottery buildings which fronted onto Park Road were identified, with work yards behind. The western elements of these foundations formed a room that housed the bottle kiln, with the central area of foundations forming the workshop and storage area (Fig. 4).
- 4.4.2 The central workshop measured roughly 13.00 metres by 5.60 metres, based on extrapolated wall lines, [004], [006] and [164]. This area was largely unexcavated however some internal structures were identified including masonry elements from within evaluation trench 7 [081] and [092] and floor surfaces from the southeast corner of the room in evaluation trench 6. These floor surfaces comprised of an asphalt surface [002] overlaying a redeposited clay bedding layer [003] (Fig. 25: Section 1).
- 4.4.3 The western bottle kiln room occupied the area where the back wall, [164] can be seen to make a slight dogleg to the north and a north-south aligned wall in trench 8, [055] (Figs 7 and 10). These elements formed a room with an external east-west width of 6.98 metres. Map evidence and photographic sources suggest that the form of this room was roughly square, with a central kiln structure (Figs 11; 12; and 13). The foundations of the kiln, [156], were substantial, with a wall thickness of 0.80 metres and external extrapolated diameter of 5.00 metres (Figs 14, 15 and 16). Some elements of internal kiln furniture were also observed, [206], [207] and [227] as well as the internal brick floor [162] which survived in the north-east corner of the room. This floor had become disturbed either through use or during demolition and was in a poor condition in the north-western corner of the room [058] [155] [208] [209] (Fig. 25, Section 2).
- 4.4.4 All the masonry elements of the kiln room and workshop were constructed from unfrogged reddish orange bricks measuring 0.23 metres by 0.11 metres by 0.07 metres. The wall foundations were laid either as headers or double

rows of stretchers, making the wall thickness of 0.23 metres. A small sondage was excavated against the northern face of the kiln room and revealed the survival of three courses of brick, [164], within a construction cut [176], that had been excavated down to the natural sandstone (Fig 17 and Fig 25, Section 3). The three courses reached a total height of 0.28 metres; the first course was laid on edge as headers, while the two remaining courses were laid on bed as either headers or stretchers.

- 4.4.5 There was no indication of an internal dividing wall between the kiln room and workshop. Both rooms were disturbed by modern intrusions; the construction cuts for the concrete substructure of Rentokil House [154] and the construction cut for a later sequence of drains that pierced these concrete foundations, [151], (Fig. 7).

#### **4.5 Potter's House (Figs 4 and 8)**

- 4.5.1 To the east of the workshop building, a short section of east-west aligned wall foundation was identified within evaluation trench 6, [012] (Fig 18 and Fig. 25, Section 4). This wall abutted the south-eastern corner of the workshop at a slightly different alignment and as such was interpreted as part of the later building that Henry Foster had built as a family home when he took ownership of the pottery in 1884.

- 4.5.2 An asphalt floor surface, [014], associated with this wall was also recorded in section, however most of the remaining structures of this building within evaluation trench 6 had been removed to the east by a large zone of modern disturbance [098] (Fig. 25, Section 4). During the excavation phase, the area of investigation was extended eastwards from the southeast corner of the excavation area to expose wall foundations [186], [189] and [203]; an external drain [192], [193], [194], [247]; and brick and cement floor surfaces [195], [196], [197] and [198]. These features are thought to relate to the rear of the family home (Figs. 8; and 19) and were also heavily truncated by the modern drain, [151], and a pile cut from Rentokil house. It was also observed that these features had been built over layers of crushed CBM and re-deposited natural that are thought to represent earlier external working surfaces associated with the pottery prior to the construction of the family home (represented by a series of contexts, [010], [015], [181], [195], [214], [217], [218]) (Fig. 25, Sections 4 and 5)

#### **4.6 External Working Area (Fig. 3)**

- 4.6.1 The remaining extent of the excavation area was a large open working area comprised of a series of rough floor surfaces which survived as interleaved lenses of crushed CBM and of compacted clinker aggregate. This was occasionally observed to be overlying a bedding layer of imported river gravels bonded by orange clay, and layers of re-deposited natural clay containing CMB fragments (represented by contexts [010], [015], [088], [089], [090], [105], [109], [160], [161], [166], [169], [171], [173], [174], [177], [179], [181], [182], [184], [195], [201], [210], [211], [212], [214], [217], [218] and [244]) (Figs. 3 and 25, Sections 5 and 6; Fig 26, Sections 7, 8, 9, and 10). These deposits were truncated away by two major late intrusions along the north-eastern corner of the excavation area, [245] and [246].

- 4.6.2 The overburden of modern made ground was removed from this area of the

site by machine down to the latest of these floor layers (Fig. 3). Once these external floor surfaces had been planned and recorded they were carefully removed by machine to reveal the underlying solid geology below and any other archaeological features that may have been preserved.

- 4.6.3 A waste water drain ([183] and [184]) could be seen in the south east corner of the site where the floor layers sealing it had worn away, this drain was also observed in the sections of evaluation trench 7 (Fig. 25, Section 6) and the drain was seen to continue to the west where it joined a large irregular cut on the western edge of the excavation [188] that was interpreted as a sink-hole. A similar drain was also observed aligned northeast to southwest in the north-eastern end of evaluation trench 6 (Fig. 25, Section 4).

#### **4.7 Circular brick feature and brick floor surface (Figs 4 and 9)**

- 4.7.1 There was one area amongst the compacted floor layers that was significantly different. Towards the north-western corner of the excavation area and at the eastern end of evaluation trench 4, a circular brick feature was observed that was surrounded to the east and the south by a brick floor, (Figs 4 and 9).
- 4.7.2 The circular brick feature was 2.50 metres in external diameter, ([070], [071], [180]) constructed of bricks laid as headers (Fig 20 and Fig 26, Section 11). These bricks formed the upper surface of a brick lined pit with a brick floor, [225], and eight further courses of brick stretchers forming the wall of the pit which was 0.57 metres deep, [224] (Fig 21 and Fig 26, Section 12). The pit was filled with a single deposit of clean yellowy brown clay with mottled zones of greyish brown and purplish brown clay, [072].
- 4.7.3 Surrounding this feature to the east and south was an extensive brick surface laid in panels that radiated away from the central circular pit, [073], [167] (Fig 9). This brick floor measured 6.30 metres by 4.74 metres. Directly south of the circular pit was a gap in this otherwise well preserved surface that was filled with clay; excavation of this feature revealed it to be a robber cut measuring 1.65 metres by 0.75 metres and approximately 0.75 metres deep (Fig. 22). A submerged brick plinth, [220]; and wooden post structures [239] and [241] were exposed in the eastern end of this robber cut revealing parts of the mechanism that had been installed here [Fig. 23].
- 4.7.4 The brick plinth was undoubtedly of substantial build, measuring 0.75 metres in width and standing 0.55 metres high with two substantial wooden retaining posts, [239] and [241]. Set into the top of the plinth was a wooden base plate into which an iron socket had been fixed, [191] (Fig. 24). This structure, although only partially surviving, was may have been capable of supporting a significant weight and allowing circular movement around the iron socket.
- 4.7.5 There was evidence however that this mechanism had originally been installed into an earlier floor, [222], partially preserved directly below the one used in the final days of the pottery and that this later floor surface had been damaged and repaired during its use, ([074] and [075]). There was also evidence from beneath the truncated northern edge of this brick floor of a series of intercutting pits.

## **4.8 Intercutting pits**

- 4.8.1 A sequence of pit cuts was identified in the north-western corner of the excavation after the site had been re-machined to the natural sandstone [242], [243] and [199] (Fig 20 and Fig 26, Sections 8, 9, and 10), and in trench 3, [116].
- 4.8.2 Pit [116] was identified in section after the excavation of evaluation trench 3 had been halted for health and safety reasons due to the depth of the trench. The pit was at least 2.50 metres wide, extending beyond the western extent of the trench and was at least 0.60 metres deep when excavation was halted at 125.34m AOD. The closest recorded solid geology was in the north-western corner of the excavation area at 125.80 m AOD, so it is possible that this cut extended beyond the sandstone/clay interface and as such could potentially be interpreted as a well to provide the water that would be needed for clay processing. Alternatively it may have been excavated no further than the sandstone and been a clay extraction pit. In either case this feature is located in a part of the site close to where a semi-circular feature is identified on the 1873 Ordnance Survey map (Fig. 5), and it may therefore be this large pit that is depicted.
- 4.8.3 Cut [116] was filled with a single fill of re-deposited natural clay which also sealed a crushed CBM floor surface [049] into which the pit had been cut. This suggests that the pit was purposefully backfilled in a single episode as the yard went out of use.
- 4.8.4 The first of the intercutting pits identified in the excavation area, [243], was cut into a sequence of re-deposited clay layers and crushed CBM floor surfaces, [201], [210], [211], [212] and [244]. The cut itself was irregular and was seen in section over a distance of at least 3 metres; it is therefore thought likely to represent more than one pit despite being recorded as a single entity (Fig. 26: Section 9). Two further pits, [172] and [199] intercut this feature and together suggest a mixture of clay extraction and waste disposal (Fig. 26, Section 10). The fills of these pits were a mix of crushed CBM in a silt matrix.



## 5.0 THE FINDS

**5.1** The archaeological work produced an assemblage mainly consisting of ceramic building material (CBM) and pottery. A summary can be found in Table 2.

| Context      | Pottery    | Wt (g)      | CBM        | Wt (g)       | CTP      | Wt (g)    |
|--------------|------------|-------------|------------|--------------|----------|-----------|
| us           | 3          | 476         | 7          | 11620        |          |           |
| 3            | 4          | 344         |            |              |          |           |
| 10           | 10         | 934         | 9          | 290          |          |           |
| 11           |            |             | 5          | 394          |          |           |
| 20           | 33         | 430         | 5          | 20           |          |           |
| 24           |            |             | 1          | 1660         |          |           |
| 26           | 6          | 74          |            |              |          |           |
| 29           | 9          | 348         | 4          | 472          |          |           |
| 38           |            |             | 33         | 2076         |          |           |
| 42           |            |             | 13         | 918          |          |           |
| 44           |            |             | 5          | 6532         |          |           |
| 49           |            |             | 5          | 370          |          |           |
| 55           |            |             | 2          | 4082         |          |           |
| 57           | 11         | 184         | 9          | 236          |          |           |
| 66           | 7          | 734         | 3          | 2458         |          |           |
| 77           |            |             | 6          | 290          |          |           |
| 80           |            |             | 5          | 248          |          |           |
| 89           | 10         | 114         | 6          | 596          |          |           |
| 100          | 3          | 42          | 6          | 880          |          |           |
| 105          | 11         | 320         | 1          | 166          |          |           |
| 109          |            |             | 8          | 452          |          |           |
| 164          |            |             | 1          | 3194         |          |           |
| 167          |            |             | 1          | 2502         |          |           |
| 169          | 2          | 152         |            |              |          |           |
| 174          |            |             |            |              | 1        | 16        |
| 180          |            |             | 1          | 2378         |          |           |
| 181          | 2          | 190         | 1          | 252          |          |           |
| 186          |            |             | 1          | 3064         |          |           |
| 196          |            |             | 3          | 2876         |          |           |
| 212          | 3          | 180         | 1          | 270          |          |           |
| 225          |            |             | 1          | 1572         |          |           |
| 231          |            |             | 1          | 376          |          |           |
| <b>Total</b> | <b>114</b> | <b>4522</b> | <b>144</b> | <b>50244</b> | <b>1</b> | <b>16</b> |

Table 2: Quantification of the Finds.

## **5.2 The Pottery** by Luke Barber

### **5.2.1 Introduction**

5.2.1.1 The archaeological work at the site recovered a small sample assemblage of pottery: 112 sherds, weighing 4,675g, from 16 individually numbered contexts. The assemblage is characterised by small, sometimes slightly abraded, sherds suggesting most has been subjected to some 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 the current report is to outline the range of fabrics and forms produced at the site as far as possible using the assemblage collected during the fieldwork with reference to material already collected from the site and currently housed in East Grinstead museum. Due to the small nature of the sample context groups (the largest consisting of a mere 29 sherds from a minimum of two vessels from ceramic dump [20]), the obvious reworking of material and mixed nature of fabric/forms in each context, the assemblage is considered as a whole.

### **5.2.2 Fabrics**

5.2.2.1 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 finer ware though sherds at the extreme ranges within these groups are close in texture and it is clear from Table 3 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 as the museum's collection essentially consists 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 from [212].
- English stoneware – one of only two wares not made on the site. A single sherd was recovered from [212].

### **5.2.3 Forms**

5.2.3.1 The excavated assemblage contains a fairly limited range of forms. This reflects the niche market the traditional redwares had been squeezed into by cheap industrialized wares. By far the most common types in the excavated assemblage are flower pots and very large jars and bowls (Table 3).

- Flower pots

The most complete flower pots from the site are all small with simple rims. A complete, slightly overfired example (178g) in Fabric 2 from context [3] is 70mm tall, with base diameter of 48mm and rim diameter of 75mm (Fig. 27, No. 1). A similar example, measuring 75mm tall was uncovered from unstratified deposits. Larger examples are present with rim diameters of 160mm and 280mm being recorded from [29] and 200mm from [57]. These larger vessels typically have thickened rims - either with a slightly flattened or convex outer profile (Fig. 27, Nos 2 – 5 from contexts [26], [57], [105] and [26] respectively and Fig. 28, photographs). Although the 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 though 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 (eg in context [10]). Vessels with all over glaze are exclusively in the finer F2 fabric. Rims typically consist of heavy bulbous club types of slightly triangular or square (Fig. 27, Nos 6 and 7 from U/S and [20] respectively). The all over glazed jar from [169] has a squared club rim similar to those found on the large bowls though the body angle shows this to be a jar (Fig. 27, No. 8). At least some vessels appear to have had horizontal handles to aid lifting (eg, context [20]). Decoration is rare but when apparent usually consists of one, two or three incised horizontal lines on the vessel exterior. An example from [20] 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 low numbers due to the market being flooded with industrialised wares of this form.

- Large bowls

These vessels are not as common as the large jars, however, this may in part be due 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 with convex-profile thickened type, similar to the flower pots, from an internally glazed vessel was recovered from [49] (Fig. 27, No. 10). The more typical rim form has a slight internal thickening such as the example from [10] (Fig. 27, No. 11). Though the rim profile of this internally glazed vessel is similar

to some of the large jars (see Fig. 27 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. 27 No. 11) and occasionally rouletting (Fig. 27 No. 10), is the same as noted for the large jars.

- Dishes

A single internally glazed F2 dish with thickened 'hammer-head' type rim was recovered from context [181]. The lack of such vessels may again be due to the industrialised wares flooding the market for this vessel type by this time. (Fig. 27 No. 12).

- Handles

The single unglazed F2 handle from [10] 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.

| Form/Fabric    | Fabric 1  | Fabric 2  | Refined white earthenware | English stoneware |
|----------------|-----------|-----------|---------------------------|-------------------|
| Flower pot     | 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         | 54/2,797g | 56/1,755g | 1/55g                     | 1/68g             |

Table 3: Summary of forms and fabrics

## 5.2.4 Discussion

5.2.4.1 Local redwares, produced at a number of sites, were the most common form of pottery in Sussex homes from at least the mid 16<sup>th</sup> to mid 18<sup>th</sup> centuries where they were used for a wide range of purposes, from garden and kitchen wares to table and sanitary wares. During the 18<sup>th</sup> 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 18<sup>th</sup> century. By the early 19<sup>th</sup> century these industrialised wares were dominant in homes of 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 18<sup>th</sup> and early 19<sup>th</sup> centuries as people

opted for the finer lighter, and increasingly cheaper, industrialised whitewares.

5.2.4.2 Despite losing a significant part of the market the local potteries continued to thrive and vessels are frequently represented in ceramic assemblages right into the 20<sup>th</sup> century. This survival was at least in part due to specialisation. Gaps in the market appear to have become the focus for the local potteries. There is a decline in the proportion of redware plates and medium-sized bowls/jars and a notable increase in very large dishes, bowls and jars – forms not well/cheaply catered for by the industrialised wares. These vessels, often with rim diameters of over 300mm, were used primarily for kitchen storage and the mixing of food. As such the East Grinstead pottery fits well within this late pattern of redware production. Flower pots, 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 these humble vessels were the mainstay of the East Grinstead pottery toward the end of its life (Manwaring Baines 1980, 153).

5.2.4.3 Although the excavated assemblage is too small to reliably comment on the full range of fabric and forms made by the pottery it does give an insight to the more common utilitarian vessels produced during the second half of the 19<sup>th</sup> and early 20<sup>th</sup> 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 19<sup>th</sup>- 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), seen most frequently in the archaeological record suggesting these formed the majority of the output, at least during the 19<sup>th</sup> century. As such the current assemblage is 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 and now housed in the town's museum. Although there was some overlap between the museum collection and the excavated sample, most notably with flower pots, 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 flower pots, with rim forms similar to those illustrated here, include examples of 96 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 111 to 135mm in diameter), shallow strainers (to 320mm diameter) and dog dishes (with inward sloping walls with a typical diameter of 195 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 suggesting 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 a useful insight into this aspect of the pottery's products.

### 5.3 The 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.

#### 5.3.1 Methodology

5.3.1.1 The material has been quantified and recorded on pro-forma recording sheets and transferred to an Excel database. Fabric types were identified with the aid of a X10 binocular microscope and compared with the reference collection of the East Grinstead museum. Only the complete maker stamped bricks should be retained for the museum collection.

| Form           | Count | % count | Weight | % weight |
|----------------|-------|---------|--------|----------|
| Peg tile       | 51    | 35      | 3410   | 7        |
| Brick          | 52    | 36      | 40720  | 82       |
| Brick Flooring | 1     | <1      | 1522   | 3        |
| Floor tile     | 1     | <1      | 226    | <1       |
| Pipe           | 39    | 27      | 3950   | 8        |
| Total          | 144   |         | 49828  |          |

Table 4: Breakdown of CBM by form, weight and count.

#### 5.3.2 Pipe

5.3.2.1 A number of fragments of drain pipe were recovered from contexts [10] [29] [38] [49] [57] [77] [80] [89] [100] [105] [109] [181] [212] [231] [U/S]. These included an unstratified fragment of pale cream ridged pipe with the remainder being unglazed orange pipe fragments some of which would have interlocked. All the pipe is of later post-medieval date.

| Fabric | Description  | Contexts  | Form notes  |
|--------|--|---|---|
| P1     | orange sandy fabric with fine medium sized black iron rich inclusions and fine voids.                              | [181] [212]                                     | Interlocking drain                                  |
| P2     | fine pale cream silt fabric with sparse orange iron rich silt inclusions   | [231]   | Ridged drain  |
| P3     | Orange sandy fabric with sparse fine black sand inclusions with occasional cream silt streaks                      | [10] [29] [38] [49] [57] [77] [100] [105] [109] | Some interlocking drain                             |
| T1     | Orange sandy fabric with fine linear voids and fine black iron rich speckles and fine white calcareous inclusions. | [80] [89] [U/S]                                 | Wide curved pipe with wide shallow grooved interior |

Table 5: Pipe type and fabric with contexts.

#### 5.3.3 Floor tile

5.3.3.1 A single floor tile with vitrified surface in fabric T1 was recovered from context [29].



### 5.3.4 Peg tile

5.3.4.1 Peg tile was present in contexts: [10] [20] [29] [38] [42] [49] [57] [66] [80] [89] [100] [109] [110]. All peg tile recovered from 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 the roof tile is of 19<sup>th</sup> or 20<sup>th</sup> century date, some fragments from [10] [29] [42] and [89] are warped and over fired.

### 5.3.5 Brick

5.3.5.1 The majority of brick recovered from site was in fabric B1 or B1i, a more iron rich variant of fabric B1. It is likely this represents a local brick, most likely made on site, and relates to the earlier construction on site with a 19<sup>th</sup> century date. Other brick occurring in lesser quantities probably relate to different functions, the engineering brick would most likely have been used where heavy industrial flooring was required.

| Fabric type       | Description  | Contexts  | count | Weight | % by weight |
|-------------------|--|---|-------|--------|-------------|
| B1                | Orange sandy fabric with moderate coarse red iron rich inclusions and very occasional fine cream silt streaking.                         | [20] [38] [44] [49] [55] [57] [80] [89] [110] [164] [167] [180] [186] [U/S] | 24    | 17872  | 42          |
| B1i               | iron rich version of B1  | [42] [109] [255]  | 9     | 2126   | 5           |
| B2                | Pale creamy yellow fabric with cream and orange marbling and moderate coarse red iron rich inclusions                                    | [38] [110] [196]  | 6     | 3228   | 7           |
| B3                | near MoL3035, yellow sandy brick with coarse black and red iron rich inclusions and fine calcareous speckles                             | [66]  | 1     | 2184   | 5           |
| B4                | Coarse chunky silt fabric with moderate black iron rich inclusions   | [80] [U/S]  | 4     | 2904   | 7           |
| B5                | Overfired reddish purple silt fabric   | [U/S]   | 1     | 2466   | 6           |
| B6                | Chunky pinkish silt fabric with cream and red silt marbling and inclusions with moderate large coarse black iron rich inclusions. (nrB3) | [24]  | 1     | 1632   | 4           |
| Engineering brick | Hard fired dark purple fabric  | [U/S]   | 1     | 3244   | 7           |
| Nr MoL3032        | Reddish purple sandy fabric with bone and ash inclusions and coarse black iron rich inclusions.  | [42] [44]   | 6     | 6676   | 17          |

| Fabric type | Description | Contexts | count | Weight | % by weight |
|-------------|-------------|----------|-------|--------|-------------|
|             |             | total    | 53    | 42332  |             |

Table 6: Relative quantities of brick fabrics by context.

### 5.3.6 Brick recovered from structures

5.3.6.1 Structures [164] [167] [180] and [186] were all made from fabric B1. Brick from [167] and [180] both had vitrified headers. Structure [196] 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 unfrogged. Brick from [196] and [186] both had a sooted header.

### 5.3.7 Makers' Marks

5.3.7.1 A number of complete and partial makers marks were identified on some bricks. Bricks from context [024] and [044] and an additional unstratified brick all originated from the Rowfant works, based in Worth, although the makers mark was made with the misspelling 'ROWNFANT'. The Rowfant works is known to have been in existence since 1875 when the associated clay pit was registered (Beswick, 1993). Two of the bricks are in fabric B6, with the unstratified brick being of very hard fired dark purple engineering brick standard. The engineering brick is possibly intended for use as flooring as 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' who acquired the works in 1899 (*ibid.*). A further makers 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. Though the production dates are known for these bricks the date of use may be some time later due to the ease of storage of bricks it is also likely that a delivery of bricks from a single factory may contain earlier stock clearance of a previous trade name.

### 5.3.8 Vitrified Headers

5.3.8.1 A number of unfrogged bricks of standard modern size and fabric B1 were found to have vitrified headers (contexts [10] [20] [29] [42] [55] [80] [89] [100] [109] [167] [180] [255]). The vitrification may have occurred from exposure of the brick to high temperatures in the kiln. The presence of these bricks indicates they may have been wasters from the brick works or reused from the firing kiln structure.

### 5.3.9 Comparison with Pottery Fabrics

5.3.9.1 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 amongst the CBM forms made on site. These four fabric types dominate the CBM assemblage representing 85% 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, though 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 to Sussex and that ceramic building materials in the same fabric may have originated from other kilns within the area. Distinction between Sussex fabrics is often impossible even with the aid of thin section where no distinctive inclusions are present as all the brick and tile producers use the same geological resource (Barber *pers. Comm.*)

#### 5.3.10 Summary

5.3.10.1 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 different brick yards, Rowfant and Warnham, and likely transported via the rail network. The majority 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 within Sussex.

### 5.4 The Clay Tobacco Pipe by Elke Raemen

5.4.1 A near complete clay tobacco pipe (CTP) bowl was recovered from context [174]. The pipe is undecorated and unmarked with an AO15 bowl (London typology; Atkinson and Oswald 1969), which dates between c. 1660 and 1680. No other pipe fragments were recovered. The context was recorded as made ground into which the pottery foundations had been excavated, and as such it predates the establishment of the pottery which is first observed on the 1873 Ordnance Survey, and dates to a time when the area was used for clay extraction for use in potteries and brickworks in the local area (see 2.2.4).

## **6.0 DISCUSSION**

### **6.1 Overview**

- 6.1.1 The archaeological investigations at Garland Road have been successful in characterising the nature and condition of the archaeological remains. The evaluation trenches showed that survival of features and deposits was restricted to the southern half of the site with large scale truncation of deposits down to the bedrock in the north and the subsequent deposition of layers of made ground.
- 6.1.2 In the southern part of the site, survival of features relating to the East Grinstead Pottery and its work yards is generally good with foundations providing a good understanding of the position and dimensions of all the main buildings and structures.
- 6.1.3 An almost complete clay tobacco pipe from between c. 1660 and 1680 was recovered from the deposits into which the workshop and kiln building had been built, this neatly fits into the known chronology of the site. A survey from 1567 shows the area to have been used for clay extraction, while the pottery itself was not built until 1855.
- 6.1.4 Further chronological evidence from the excavation shows that there were external working surfaces associated with the pottery that underlie the features identified as relating to the potter's residence. Again this reflects the known development of the structures on the site; the potter's house being built soon after 1884 when Henry Foster took over the business. Unfortunately the finds from these underlying surfaces could not be dated to a narrow enough period to add to our understanding of the sequence.
- 6.1.5 On the whole the finds recovered from the site were fragmentary coarsewares of the type that produce broad typologies; however this is to be expected from a pottery, that in its later periods, became specialised in a niche of 'brown glazed ware' and redware production such as flower pots and drainage pipes.
- 6.1.6 The excavation assemblage and the assessment of the East Grinstead Museum collection has helped refine our understanding of the most common types of product produced at the East Grinstead Pottery especially towards the end of its use, including forms not previously held in the museum collection.
- 6.1.7 For the most part, the remains of the pottery buildings lie close against the margin of the site adjacent to Park Road where the development involves soft landscaping. A grassed earthen bank with stairs down from the street will be created. It is thought that any further damage to the pottery buildings shown to survive will be minimal.
- 6.1.8 There was no evidence of activities on site from any other periods.

### **6.2 The workyards and machinery**

- 6.2.1 The main focus of the excavation was over the area that formed the workyards where clay was processed, and materials and produce were stored. The East Grinstead Museum photographic collection includes images of two structures known to have existed in these workyards. These are a pug-mill and a horse gin (Figs. 29 and 30).
- 6.2.2 Neither of these structures were directly identified on the site. The pug-mill is known to have been salvaged and is now held at the The Weald and Downland Open Air Museum at Singleton. Further investigation of this exhibit would be worthwhile, as a study of it and its use should be informative when trying to understand the layout of the workyards.
- 6.2.3 The horse gin 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 was identified on site and the photograph from the East Grinstead Museum (Fig. 30) gives little insight into its location or scale. However, based on the size of bricks it appears to be in the order of 5.00 metres in diameter.
- 6.2.4 The only structure identified during the excavations that relates to clay processing is the brick lined pit measuring 2.50 metres in diameter and the adjacent robber trench which is thought to have housed a significant piece of machinery. The difference in size and form shows that this is evidently a different structure to the horse gin.
- 6.2.5 It is tempting to suggest that the pug-mill may have been housed next to the brick lined pit where the robber trench is now sited, and that the pit is simply a storage pit for processed clay ready to be put through the pug-mill, used or further processed. However this does not clearly explain what the metal socket, [context 191] on the brick plinth, [context 220], was for if it is assumed that it was the pivot of rotary motion and weight bearing. The pug mill itself had a pivot on top so this would make the metal socket redundant for circular motion; however it cannot be definitively proved that the socket was the centre of rotational motion and it may simply have been one of the fastenings that held the pug-mill in place.
- 6.2.6 An alternate interpretation of the brick lined pit is that it was a 'blunger' a machine commonly used in the pottery industry for mixing clay and water or 'puddling', and is possibly 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)
- 6.2.7 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 the 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).

- 6.2.8 Understanding the function of this feature is problematic, yet interesting. The absence of a central pivot in the floor of the tank makes it difficult to envisage how it might be used for stirring and mixing by horse drawn machinery. The robber trench to the south did reveal a substantial plinth with a socket which would have been suitable for rotational movement as well as weight bearing; however this would present further problems in the transference of power into the brick pit. So perhaps the simplest and least contentious interpretation is as for clay storage as suggested above (6.2.5).
- 6.2.9 It is clear then that the clay processing made intensive use of the horse at the pottery. The sources consulted suggest that the horse was used to break up the clay in the edge runner mill; then possibly mix it with water in the blunger prior to mixing to a smooth consistency and removing air bubbles in the pug mill.
- 6.2.10 All these processes required the horse to walk along a circular track around the machine but it is unclear if three separate tracks would have been required. The exact configuration of these machines and operating spaces is not clear from the excavation evidence, historical sources, or written narratives where they exist. Future research into understanding the use of space in the yards would benefit from the study the original pug-mill at the The Weald and Downland Open Air Museum.
- 6.2.11 It is clear, then, that the excavations have increased our understanding of the physical layout of the pottery buildings and its workyards and that it has further refined our knowledge of the products typically produced during the later phases of the business.



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## **ACKNOWLEDGEMENTS**

Archaeology South-East would like to thank Richard Meager of CgMs, John Mills of WSCC and both Sarah Corn and Michael Leppard of East Grinstead Museum for their help and advice during the investigations. The help and assistance of Taylor Wimpey is also greatly appreciated.

## HER Summary Form

|   |   |   |                            |                               |                   |                  |
|---|---|---|----------------------------|-------------------------------|-------------------|------------------|
| Site Code   | EAG 10  |   |                            |                               |                   |                  |
| Identification Name and Address   | Land at Garland Road,<br>East Grinstead,<br>West Sussex |   |                            |                               |                   |                  |
| County, District &/or Borough   |   |   |                            |                               |                   |                  |
| OS Grid Refs.   | NGR 538853 138502                                       |   |                            |                               |                   |                  |
| Geology   | Grinstead Clay and Sandstone                            |   |                            |                               |                   |                  |
| Arch. South-East Project Number   | 3970 / 4288   |   |                            |                               |                   |                  |
| Type of Fieldwork   | <b>Eval.</b> ✓  | <b>Excav.</b> ✓                             | <del>Watching brief.</del> | <del>Standing Structure</del> | <del>Survey</del> | <del>Other</del> |
| Type of Site  | <del>Green Field</del>                                  | <del>Shallow Urban</del>                    | <del>Deep Urban</del>      | <del>Other</del>              |                   |                  |
| Dates of Fieldwork  | <b>Eval.</b><br>01-03-10<br>to<br>05-03-10              | <b>Excav.</b><br>22-03-10<br>to<br>01-04-10 | <del>W.B.</del>            | <del>Other</del>              |                   |                  |
| Sponsor/Client  | CgMs Consultants  |   |                            |                               |                   |                  |
| Project Manager   | Neil Griffin  |   |                            |                               |                   |                  |
| Project Supervisor  | Dylan Hopkinson   |   |                            |                               |                   |                  |
| Period Summary  | <del>Palaeo.</del>                                      | <del>Meso.</del>                            | <del>Neo.</del>            | <del>BA</del>                 | <del>IA</del>     | <del>RB</del>    |
|   | <del>AS</del>   | <del>MED</del>                              | <b>PM</b> ✓                | <del>Other Modern</del>       |                   |                  |
| <p>Summary.</p> <p><i>An archaeological evaluation was conducted on land formerly occupied by Rentokil House on Garland Road, East Grinstead (NGR 538853 138502). The work was carried out in two phases. Initially an evaluation was conducted between 1<sup>st</sup> and 5<sup>th</sup> March 2010 by Archaeology South-East on behalf of CgMs Consulting, prior to the construction of residential properties fronting Garland Road and Park Road. Ten evaluation trenches were excavated. Four of these, along Park Road and the corner of Garland Road, revealed significant survival of the remains of the East Grinstead pottery which was established in 1855 and demolished during the construction of Rentokil House in 1971.</i></p> <p><i>These remains became the focus of the second phase of investigation which involved the machine stripping of overburden and mapping and sampling of the structures revealed within a pre-defined zone in the southwest of the site. This area was extended to the southeast and southwest where structures were proven to extend beyond the limit of excavation. This second phase of work took place between 22<sup>nd</sup> March and 1<sup>st</sup> April 2010.</i></p> <p><i>The natural geology comprised Grinstead Clay overlying Sandstone, indicated on British Geological Survey Sheets 302 (Horsham: 1972) and 303 (Tunbridge Wells: 1971) this showed a gradual slope from the west (127.30m AOD) down to the east (125.34m AOD) over a distance of approximately 36 metres.</i></p> <p><i>The structures identified represented the foundations of the pottery which was aligned along Park Road including the foundations of the bottle kiln which was situated within the western end of the building. The remains of the rear of a house built as an extension to the pottery were also identified. An extensive work yard area was also identified with several compacted surfaces of crushed ceramic building material and of clinker and ashes. Within this area a discrete zone of brick flooring was identified around a circular brick build clay processing feature.</i></p> |   |   |                            |                               |                   |                  |

**OASIS ID: archaeol6-78543**

### Project details

Project name                      East Grinstead Pottery, Garland Road, East Grinstead, West Sussex

Short description of the project      *An archaeological evaluation was conducted on land formerly occupied by Rentokil House on Garland Road, East Grinstead (NGR 538853 138502). The work was carried out in two phases. Initially an evaluation was conducted between 1<sup>st</sup> and 5<sup>th</sup> March 2010 by Archaeology South-East on behalf of CgMs Consulting, prior to the construction of residential properties fronting Garland Road and Park Road. Ten evaluation trenches were excavated. Four of these, along Park Road and the corner of Garland Road, revealed significant survival of the remains of the East Grinstead pottery which was established in 1855 and demolished during the construction of Rentokil House in 1971.*

*These remains became the focus of the second phase of investigation which involved the machine stripping of overburden and mapping and sampling of the structures revealed within a pre-defined zone in the southwest of the site. This area was extended to the southeast and southwest where structures were proven to extend beyond the limit of excavation. This second phase of work took place between 22<sup>nd</sup> March and 1<sup>st</sup> April 2010.*

*The natural geology comprised Grinstead Clay overlying Sandstone, indicated on British Geological Survey Sheets 302 (Horsham: 1972) and 303 (Tunbridge Wells: 1971) this showed a gradual slope from the west (127.30m AOD) down to the east (125.34m AOD) over a distance of approximately 36 metres.*

*The structures identified represented the foundations of the pottery which was aligned along Park Road including the foundations of the bottle kiln which was situated within the western end of the building. The remains of the rear of a house built as an extension to the pottery were also identified. An extensive work yard area was also identified with several compacted surfaces of crushed ceramic building material and of clinker and ashes. Within this area a discrete zone of brick flooring was identified around a circular brick built clay processing feature.*

Project dates                      Start: 01-03-2010 End: 01-04-2010

Previous/future work              No / No

Any associated project reference      EAG 10 - Sitecode

codes

|                                  |   |
|----------------------------------|---|
| Type of project                  | Field evaluation  |
| Site status                      | None  |
| Current Land use                 | Industry and Commerce 2 - Offices                       |
| Monument type                    | POTTERY Post Medieval                                   |
| Monument type                    | HOUSE Post Medieval                                     |
| Significant Finds                | BRICK Post Medieval                                     |
| Methods & techniques             | 'Measured Survey','Sample Trenches','Targeted Trenches' |
| Development type                 | Urban residential (e.g. flats, houses, etc.)            |
| Prompt                           | Planning condition                                      |
| Position in the planning process | After full determination (eg. As a condition)           |

#### Project location

|                   |  |
|-------------------|--|
| Country           | England  |
| Site location     | WEST SUSSEX MID SUSSEX EAST GRINSTEAD Rentokil House, Garland Road, East Grinstead |
| Postcode          | RH19 1NJ   |
| Study area        | 265.00 Square metres   |
| Site coordinates  | 538853 138502 538853 00 00 N 138502 00 00 E Point                                  |
| Lat/Long Datum    | Unknown  |
| Height OD / Depth | Min: 125.34m Max: 127.30m  |

#### Project creators

|                           |                        |
|---------------------------|------------------------|
| Name of Organisation      | Archaeology South-East |
| Project brief originator  | CgMs Consulting        |
| Project design originator | CgMs Consulting        |

|                              |                 |
|------------------------------|-----------------|
| Project director/manager     | Neil Griffin    |
| Project supervisor           | Dylan Hopkinson |
| Type of sponsor/funding body | CgMs Consulting |
| Name of sponsor/funding body | CgMs Consulting |

### **Project archives**

|                            |   |
|----------------------------|---|
| Physical Archive recipient | East Grinstead Museum                         |
| Physical Contents          | 'Ceramics'                                    |
| Digital Archive recipient  | East Grinstead Museum                         |
| Digital Contents           | 'Stratigraphic','Survey'                      |
| Digital Media available    | 'Images raster / digital photography'         |
| Paper Archive recipient    | East Grinstead Museum                         |
| Paper Contents             | 'Stratigraphic'                               |
| Paper Media available      | 'Context sheet','Drawing','Photograph','Plan' |

### **Project bibliography 1**

|                               |  |
|-------------------------------|--|
| Publication type              | Grey literature (unpublished document/manuscript)  |
| Title                         | An Archaeological Investigation into the former East Grinstead Pottery site, Garland Road, East Grinstead, West Sussex |
| Author(s)/Editor(s)           | Hopkinson, D.  |
| Date                          | 2010   |
| Issuer or publisher           | Archaeology South-East   |
| Place of issue or publication | Portslade, Brighton  |

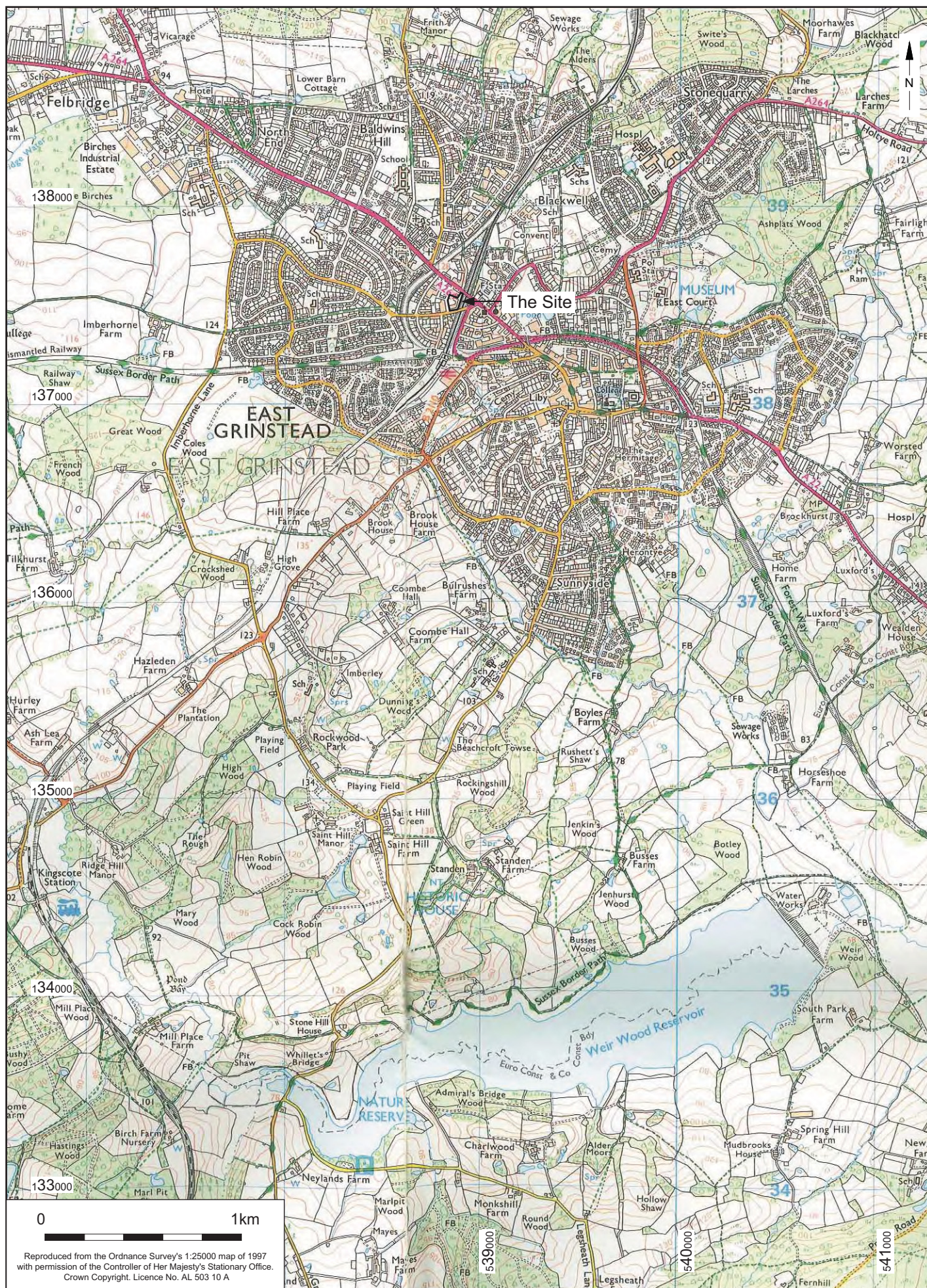
Description            A4 Bound - 24 pages text and 27 figures

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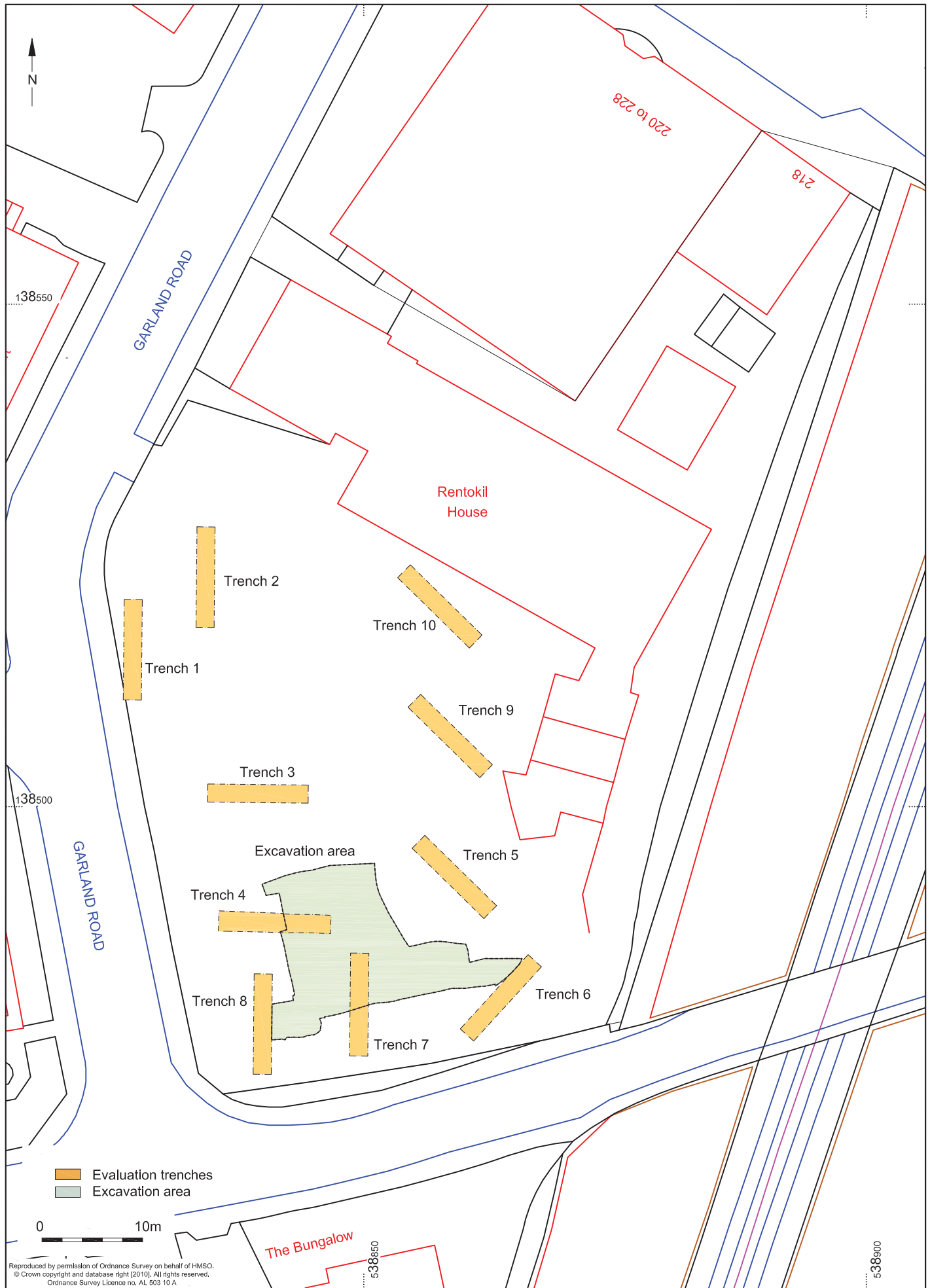
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| © Archaeology South-East |               | Garland Road  | Fig. 1 |
| Project Ref: 4288        | June 2010     | Site location |        |
| Report Ref: 2010074      | Drawn by: HLF |               |        |





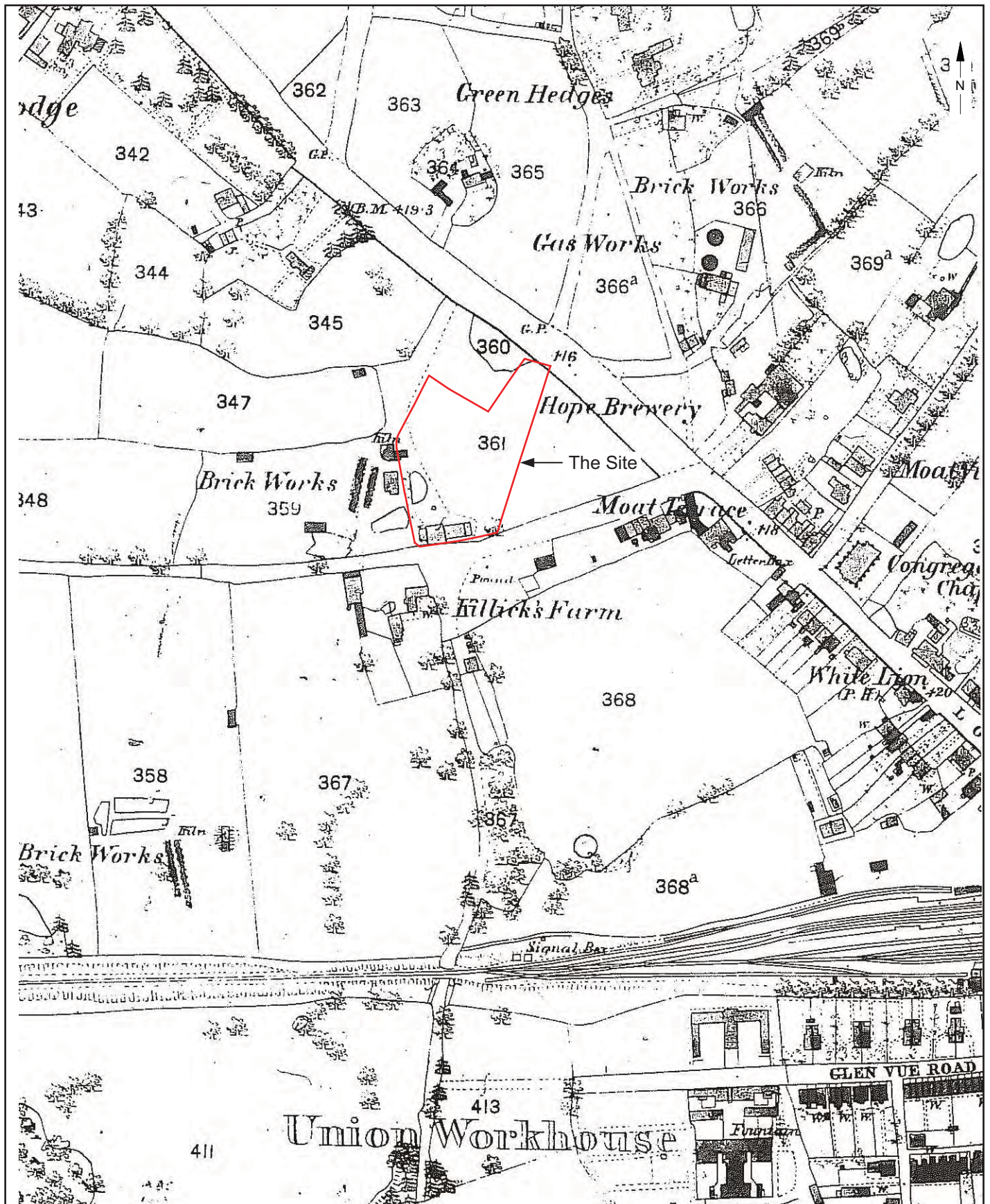
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| © Archaeology South-East |               | Garland Road    | Fig. 2 |
| Project Ref: 4288        | April 2010    | Trench location |        |
| Report Ref: 2010074      | Drawn by: JLR |                 |        |



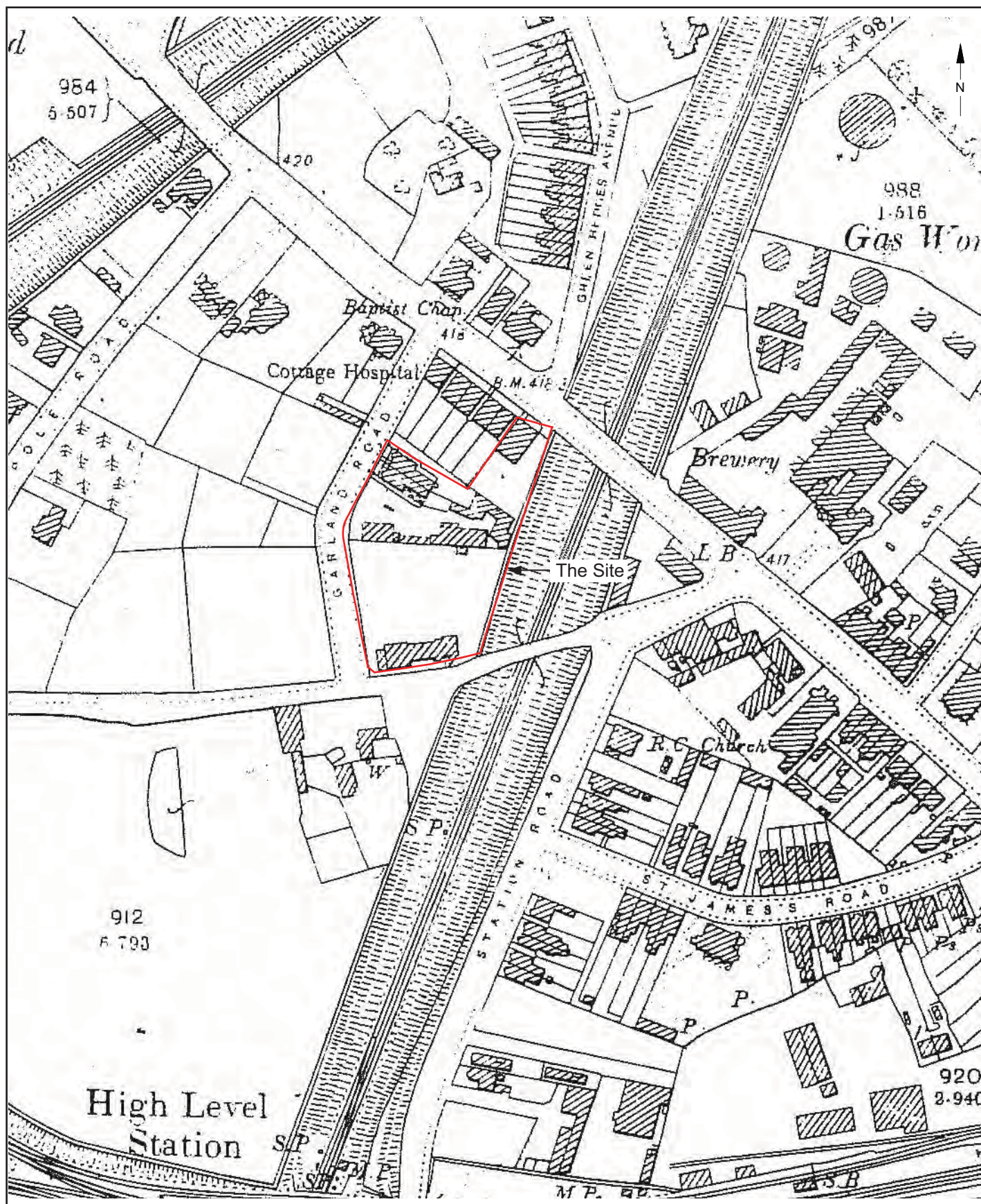






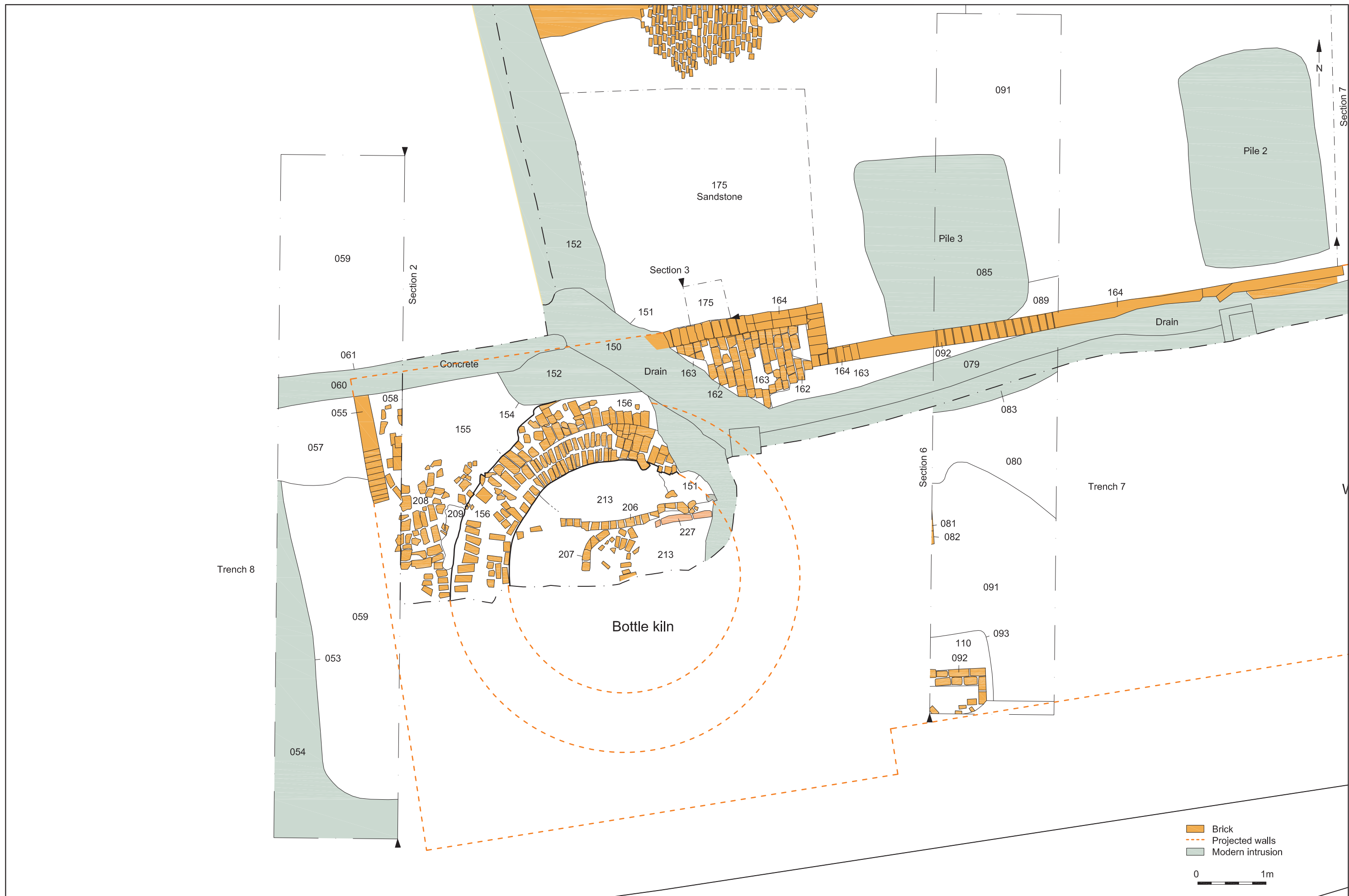
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| © Archaeology South-East |               | Garland Road | Fig. 5 |
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| Report Ref: 2010074      | Drawn by: JLR |              |        |

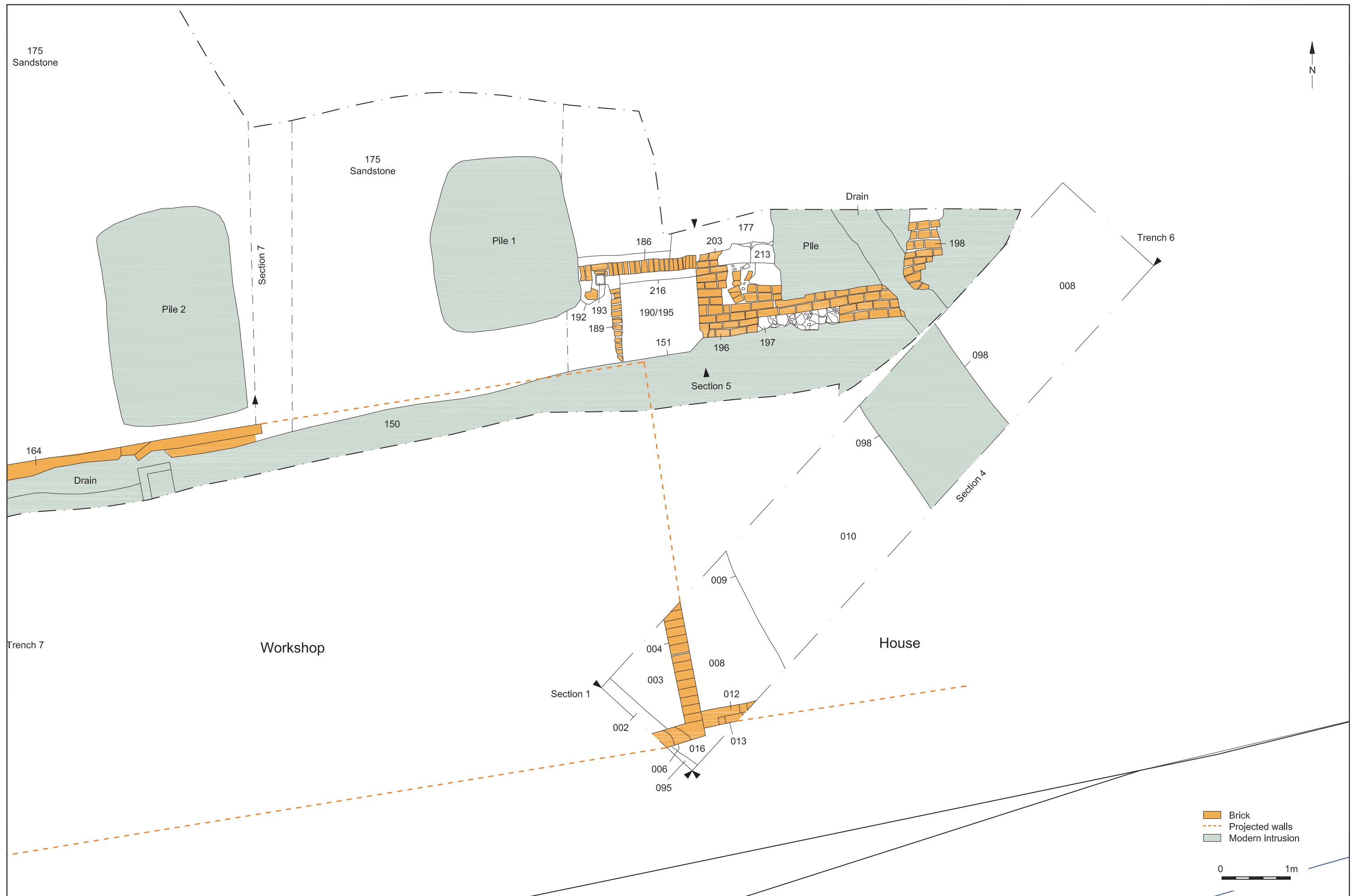




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|--------------------------|---------------|--------------|--------|
| © Archaeology South-East |               | Garland Road | Fig. 6 |
| Project Ref: 4288        | June 2010     | OS 25" 1899  |        |
| Report Ref: 2010074      | Drawn by: JLR |              |        |













Wall [164] of pottery workshop (top) and bottle kiln (bottom), showing internal kiln floor [162] (central right).  
Viewed from the west

| © Archaeology South-East |               | Garland Road | Fig. 10 |
|--------------------------|---------------|--------------|---------|
| Project Ref: 4288        | June 2010     |              |         |
| Report Ref: 2010074      | Drawn by: DJH |              |         |



The bottle kiln (left); workshop (centre); and potters house (right); viewed looking north from Park Road (East Grinstead Museum Collection)

|  |                            |              |         |
|--|----------------------------|--------------|---------|
| © Archaeology South-East                 |                            | Garland Road | Fig. 11 |
| Project Ref: 4288<br>Report Ref: 2010074 | June 2010<br>Drawn by: DJH |              |         |





The rear of the pottery buiildings looking west with the bottle kiln (right) and workshop (left) (East Grinstead Museum Collection)





The rear of the pottery buildings looking west with the potter's house in the foreground  
(East Grinstead Museum Collection)

|                          |               |              |         |
|--------------------------|---------------|--------------|---------|
| © Archaeology South-East |               | Garland Road | Fig. 13 |
| Project Ref: 4288        | June 2010     |              |         |
| Report Ref: 2010074      | Drawn by: DJH |              |         |



Bottle kiln foundations [156] and kiln furniture [206; 207; 213] with damaged brick floor [155; 208; 209] (top right) viewed from south





Bottle kiln foundations [156] and kiln furniture [206; 207; 213] viewed from north



The bottle kiln during demolition in 1971, viewed from the east (East Grinstead Museum Collection)

|                          |               |              |         |
|--------------------------|---------------|--------------|---------|
| © Archaeology South-East |               | Garland Road | Fig. 16 |
| Project Ref: 4288        | June 2010     |              |         |
| Report Ref: 2010074      | Drawn by: DJH |              |         |





Elevation of wall [164] on north side of bottle kiln after the excavation of small sondage, and bricks of internal floor [162] (top left)





Walls [004; 006] forming the south east corner of the workshop, with wall of house [012] butting against them (right).  
Viewed from north in evaluation trench 6

|                          |               |              |         |
|--------------------------|---------------|--------------|---------|
| © Archaeology South-East |               | Garland Road | Fig. 18 |
| Project Ref: 4288        | June 2010     |              |         |
| Report Ref: 2010074      | Drawn by: DJH |              |         |





Remains of the rear of the potter's house viewed from the west. Walls [189 - bottom; 186; 203 - left] and floors [195; 196; 197; 198]

|                          |               |              |         |
|--------------------------|---------------|--------------|---------|
| © Archaeology South-East |               | Garland Road | Fig. 19 |
| Project Ref: 4288        | June 2010     |              |         |
| Report Ref: 2010074      | Drawn by: DJH |              |         |



View of excavation after re-machining of yard surfaces, showing the east-west aligned wall of the pottery [164 - top], brick surface [167 - centre], and brick lined pit [180 - right]; with the robber cut [240] under excavation





A slot excavated through the stored clay [072] in the brick lined pit, showing walls [224] and brick floor [225]. View looking east.

|                          |               |              |         |
|--------------------------|---------------|--------------|---------|
| © Archaeology South-East |               | Garland Road | Fig. 21 |
| Project Ref: 4288        | June 2010     |              |         |
| Report Ref: 2010074      | Drawn by: DJH |              |         |





Excavated robber cut [240] viewed from the north, showing brick floors [222 - right; 167 - top left]; and the iron socket and wooden baseplate [191] of clay processing machinery



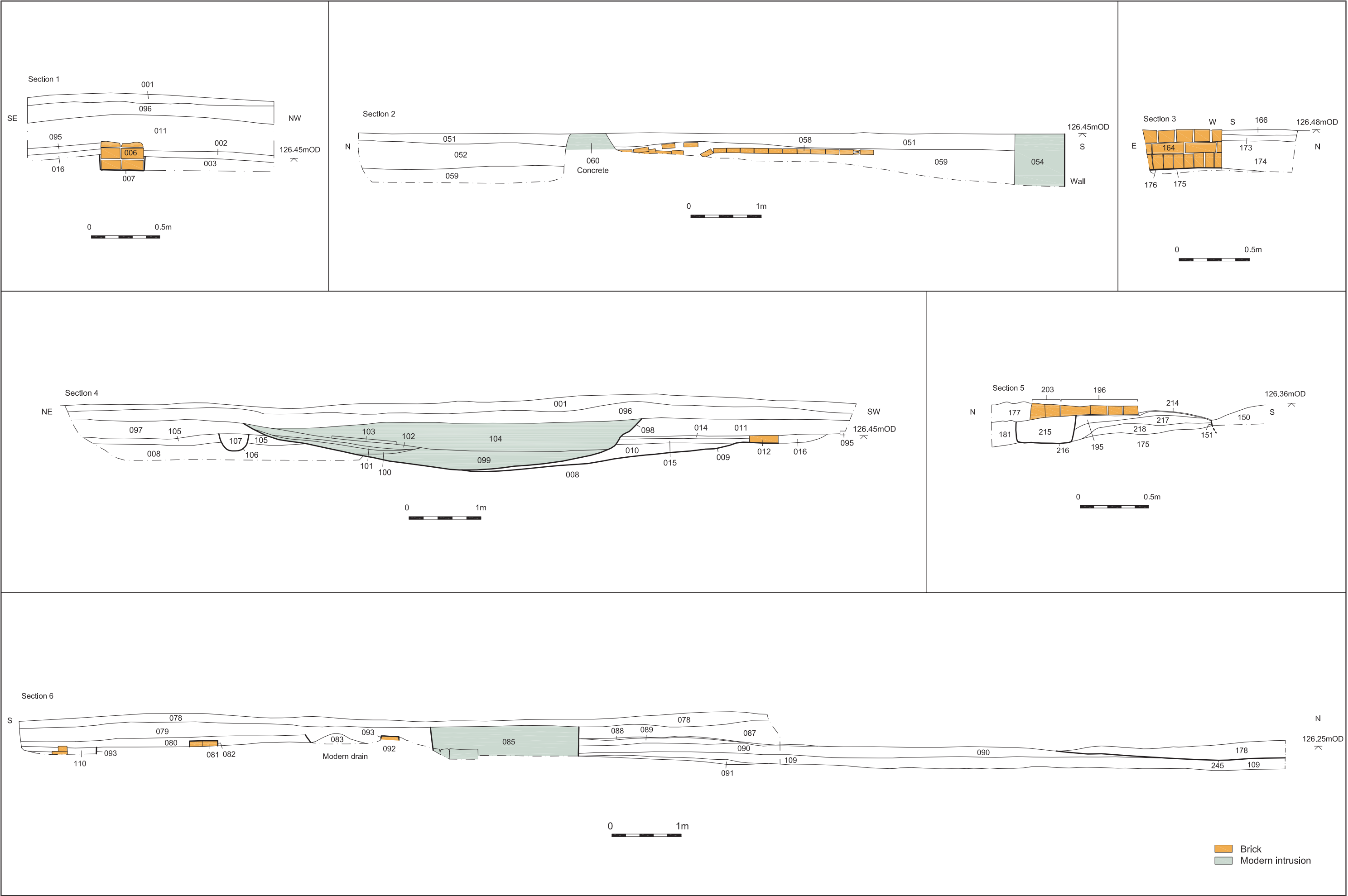


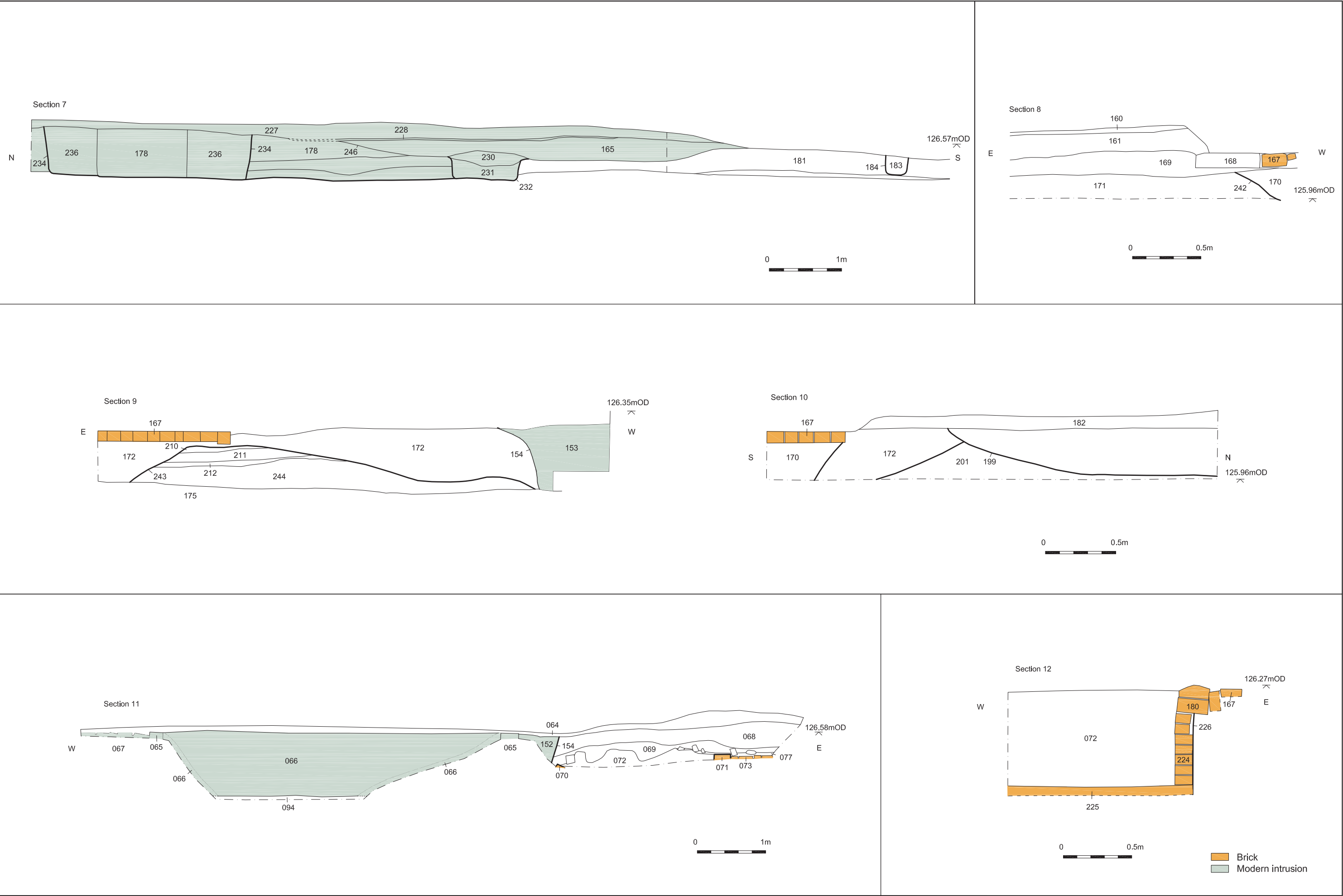
Robber cut [240] showing the weight bearing plinth [220] and one of the retaining wooden posts [241]. Brick floors [222 - bottom right] and [167 - top right] are also shown. Viewed from the west.



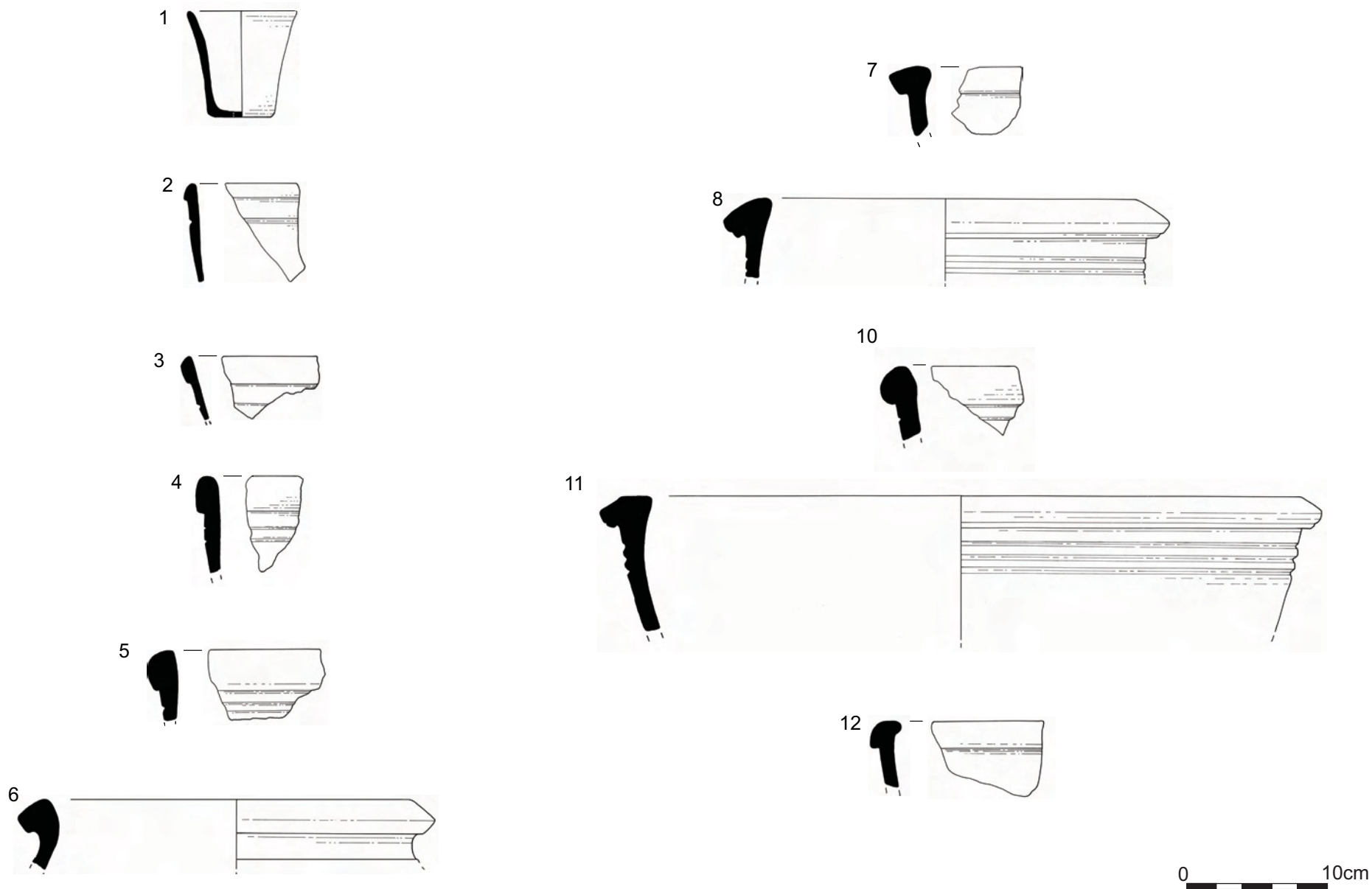


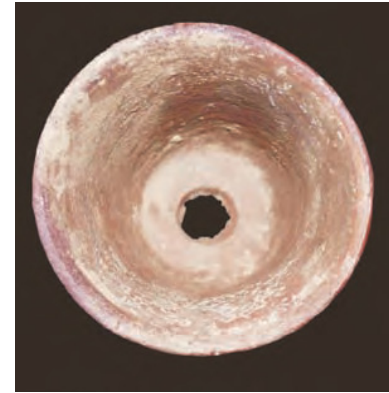
Wooden baseplate and iron socket [191] of the partially robbed away clay processing machinery.











Context 003



Cat. no. 3

0 10cm

|                          |               |                              |         |
|--------------------------|---------------|------------------------------|---------|
| © Archaeology South-East |               | Garland Road                 | Fig. 28 |
| Project Ref: 4288        | 2010          | Selected pottery photographs |         |
| Report Ref: 2010074      | Drawn by: HLF |                              |         |



The horse driven 'pug-mill' from the East Grinstead Pottery showing the horse harnessing at the end of the wooden arm. This image was taken at the East Grinstead pottery site but it is thought unlikely that the pug-mill is in situ. Image by C.W.Goolden from the East Grinstead Museum collections.





The horse gin from the East Grinstead Pottery showing the inner and outer brick structures that created a trough that held unprocessed clay. Image by S.F Knowles from the East Grinstead Museum collections.

|  |                            |              |         |
|--|----------------------------|--------------|---------|
| © Archaeology South-East                 |                            | Garland Road | Fig. 30 |
| Project Ref: 4288<br>Report Ref: 2010074 | June 2010<br>Drawn by: DJH |              |         |



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