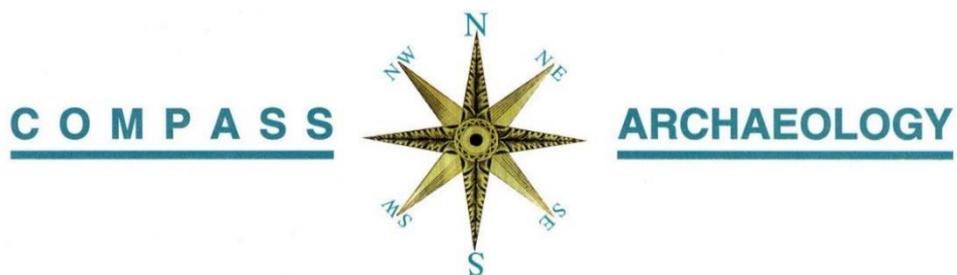


Further Archaeological Excavations at  
Grey Court School, Ham, TW10 7HN  
London Borough of Richmond upon Thames



November 2013



Further Archaeological Excavations at  
Grey Court School, Ham, TW10 7HN  
London Borough of Richmond upon Thames

NGR (centre point): TQ 17482 72369

Planning reference: 13/1268/FUL

Site Code: GCS13

COMPASS ARCHAEOLOGY LIMITED

5-7 SOUTHWARK STREET

LONDON SE1 1RQ

Telephone: 020 7403 9660

e-mail: [mail@compassarchaeology.co.uk](mailto:mail@compassarchaeology.co.uk)

Author: James Aaronson

November 2013

©Compass Archaeology Limited

## ***Abstract***

*Following on from an archaeological evaluation between 8<sup>th</sup> and 9<sup>th</sup> October 2013, Compass Archaeology conducted further archaeological investigation at Grey Court School, Ham, London Borough of Richmond upon Thames between 22<sup>nd</sup> and 25<sup>th</sup> October.*

*The easternmost trench of the initial evaluation, (Trench 3), indicated the presence of brick-firing activities on the site associated with later 17<sup>th</sup> century extensions to the nearby Ham House. There was also possible evidence for this from the preceding desk-based assessment, insofar as the area – although in fact meadow – was referred to as ‘Brick Ground’ on the 1841 Tithe Apportionment. The further work therefore involved the opening of a 13m long and 9.5m wide area immediately south of evaluation Trench 3, to test the above findings.*

*No in situ evidence of brick firing was uncovered during the excavation. However, the sheer quantity of brick debris, plus scattered clinker and other burnt material, would suggest that brickmaking was occurring in the near vicinity, and that what was observed was the by-product of this process. This activity appears to date to the later 17<sup>th</sup> century, on the evidence available through the brick, pottery and clay tobacco pipe that was recovered during the investigation (including the evaluation).*

*This date would also correspond nicely with the known building works commissioned for Ham House by the Duke and Duchess of Lauderdale in the 1670s. It is estimated that up to 1.5 million bricks were required, most of which may have been manufactured on site. Possible local master brick-makers include Thomas Turner and a Mr Glead.*

*A series of very shallow linear trough features were found cut into the natural clay/silt – apparently formed at that level and sealed by the made ground containing the brick debris. It is not clear what these features represent, although they clearly indicate substantial disturbance of the area and could be contemporary with the brickmaking process. However, there were a few potsherds of slightly later (18<sup>th</sup> century) date within the overlying made ground: it is tempting to see this as evidence of slightly later groundworking, perhaps tidying up/remediation of an area that had been left covered with brick debris.*

## *Contents*

	Page
1 Introduction	1
2 Acknowledgements	2
3 Site location, geology, and topography	2
4 Archaeological and historical background	4
5 Planning and objectives	7
6 Methodology	8
7 Results	11
8 Conclusions and assessment	23
9 Bibliography	25
Appendix I Plans and sections of excavated archaeology	26
Appendix II Pottery analysis by <i>Paul Blinkhorn</i>	29
Appendix III Ceramic building material analysis by <i>Sue Pringle</i>	31
Appendix IV Other finds	36
Appendix V OASIS Data Collection form	37
Appendix VI London Archaeologist summary	41

## ***List of Figures***

Front cover: *North-south slot dug through later 17<sup>th</sup>–18<sup>th</sup> century deposits to expose the line of linear features [10] and the underlying natural surface*

	Page
Fig 1 Site location	1
Fig 2 Development site of the new Sixth Form block and Trench 4, in relation to the modern OS plan	3
Fig 3 Extract from the 1841 Ham Tithe Map & 1851 Petersham Tithe Map... The Sixth-Form block is to be built over plots 280 & 281, which are listed with the name 'Brick Ground'	6
Fig 4 Further investigation Trench 4 in relation to evaluation Trench 3 & the new development footprint	9
Fig 5 Pottery from clearance, including Post-medieval Redware, Green and Yellow-glazed Border Ware, Staffordshire slipware, etc.	11
Fig 6 Pottery from clearance including Transfer-printed Ware, English Tin-glazed Ware, Chinese Porcelain & Creamware	12
Fig 7 Partial hone (whetstone) found in initial clearance	12
Fig 8 Fragment of wig curler found during clearance, most commonly used during the late 17 <sup>th</sup> to late 18 <sup>th</sup> century	12
Fig 9 Trench 4, facing east upon initial ground reduction & clearance	13
Fig 10 Section on the southern edge of Trench 4 facing south. Topsoil (7) overlying made ground (9) within cut [10], & natural clay silt (11)	14
Fig 11 Brick debris (8) overlain by topsoil (7) in the northern section of Trench 4, facing N	15
Fig 12 Clay tobacco pipe and clinker fragments from context (8)	15
Fig 13 Probable quernstone fragment from context (8), possibly reused as brick rubber	16
Fig 14 Linear features [10] facing E., before excavation	17
Fig 15 Pottery from context (9), including Post-medieval Redware, Kingston -type Ware, Staffordshire Slipware, Chinese porcelain, Early Surrey Ware, Stoneware & Green-glazed Border Ware	18

Fig 16	Photographs illustrating differential drying between the troughs of features comprising [10]. Facing ENE	19
Fig 17	Working shot during excavation of sample slots through deposit (9), looking approximately east	20
Fig 18	Section against the eastern side of Trench 4, facing east. Note that the spines of natural seem to rise high up in profile, but actually contain large amounts of brick, <i>etc.</i> contiguous with (9)	21
Fig 19	Representation of the above section showing the differential drying of deposit (9) over the spines of natural separating the central trough from its neighbours	21
Fig 20	Hand dug section through linear features [10], facing SE	22
Fig 21	Section through features [10], facing east. Note the higher concentration of brick debris at the northern end where deposit (8) starts to show through	23
Fig 22	Trench 4 upon initial cleaning	26
Fig 23	Trench 4 after further ground reduction and hand excavation	27
Fig 24	Section 8 through features [10] within the eastern slot dug in Trench 4	28
Fig 25	Section 9 through features [10] on the eastern edge of Trench 4	28

*Figs 1 and 2 reproduced from Ordnance Survey data with permission of the HMSO. © Crown Copyright. All rights reserved. Compass Archaeology Ltd, London SE1 1RQ; licence no. AL 100031317*

*Fig.4 reproduced and altered from original provided by the Client. Original drawing produced by ASTUDIO in Grey Court School: Design and Access Statement, (2013)*

# 1 Introduction

1.1 This report presents a summary of an archaeological excavation carried out on land at Grey Court School, Ham, London Borough of Richmond, (approximately centred at NGR TQ 17482 72369). The excavation area (Trench 4) was situated towards the northern end of the school playing fields and extending south of trial Trench 3 from the previous evaluation works<sup>1</sup>. The excavation immediately preceded the construction of a new two-storey sixth-form block, to take place alongside other smaller extensions to the existing school buildings (figs.2 and 4; LBR Planning Ref: 13/1268/FUL).

The fieldwork was undertaken between the 22<sup>nd</sup> and 25<sup>th</sup> of October 2013.

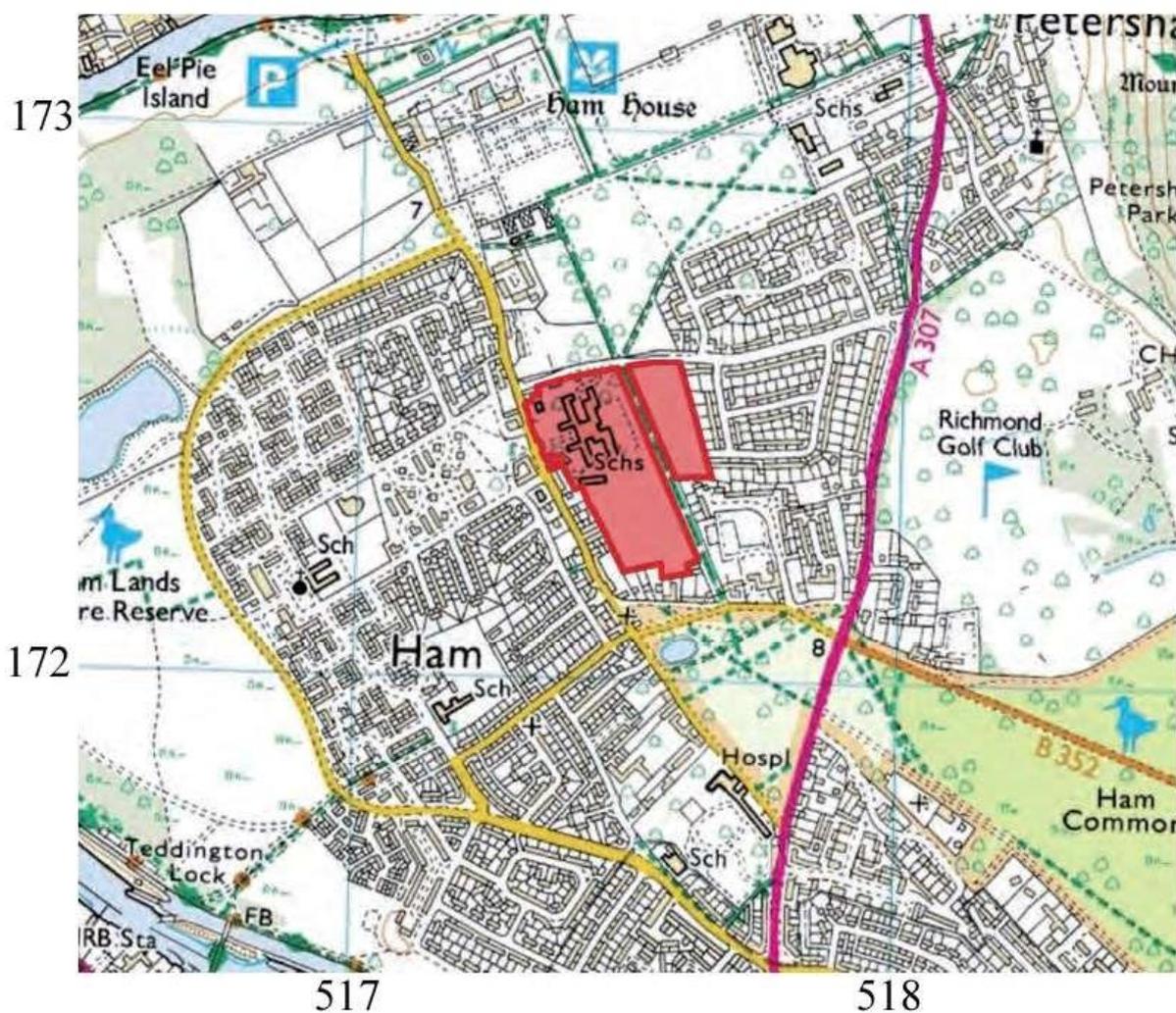


Fig.1: Site location

<sup>1</sup> An initial phase of archaeological evaluation was conducted by Compass Archaeology on 8<sup>th</sup>-9<sup>th</sup> of October 2013 comprised three trial trenches (Compass Archaeology, 2013c)

- 1.2** The fieldwork was carried out after an initial phase of evaluation had uncovered potential evidence of 17<sup>th</sup> century brickmaking in the vicinity of Trial Trench 3. This was interpreted as having a possible link to the major extension works conducted at nearby Ham House in the 1670s-1680s, as known from documentary sources, and providing an explanation for the name ‘Brick Ground’ given to the area on 19<sup>th</sup> century maps. Furthermore, the site had the potential to provide evidence for prehistoric activity, particularly Mesolithic and/or Neolithic flintwork due to the wealth of findspots associated with the area of Ham Common.
- 1.3** Further to the condition of planning consent, and a preliminary phase of archaeological evaluation, English Heritage advised that a second phase of archaeological fieldwork should be undertaken at the eastern end of the site of the new Sixth-form block. This took the form of a larger open area excavated immediately to the south of Trial Trench 3, measuring *c* 13m long, (to roughly correspond with the width of Trench 3), and 9.5m wide, (extending south from the edge of Trench 3 to the extent of the new development footprint).

A Written Scheme of Investigation detailing the further works, including the location of the trench within the redevelopment footprint, was produced in October (Compass Archaeology, 2013d).

## **2 Acknowledgements**

The further archaeological investigation was commissioned by Shirley Clifford (Project Manager, Environment Directorate) and Michael Pike (Senior Technical Officer) of Richmond Borough Council. The works were monitored on behalf of the Planning Authority by Gillian King (English Heritage Greater London Archaeology Advisory Service). Thanks also to the staff and pupils Grey Court School for their assistance during the fieldwork.

## **3 Site location, geology, and topography**

- 3.1** The site is located on the western side of Ham Street, south of the junction with Sandy Lane, and approximately 2km south of Richmond town centre, (fig.1). The site is further bounded by Ham Common to the south and modern housing estates to the east. The proposed Sixth-form development is positioned in the western part of the school, at the northern end of the existing playing-fields (fig.2).

The area of the proposed development is roughly rectangular in shape, and measures *c*65m in length, (east-west), by 20–25m in width, (north-south), covering an area of *c*1400m<sup>2</sup>.

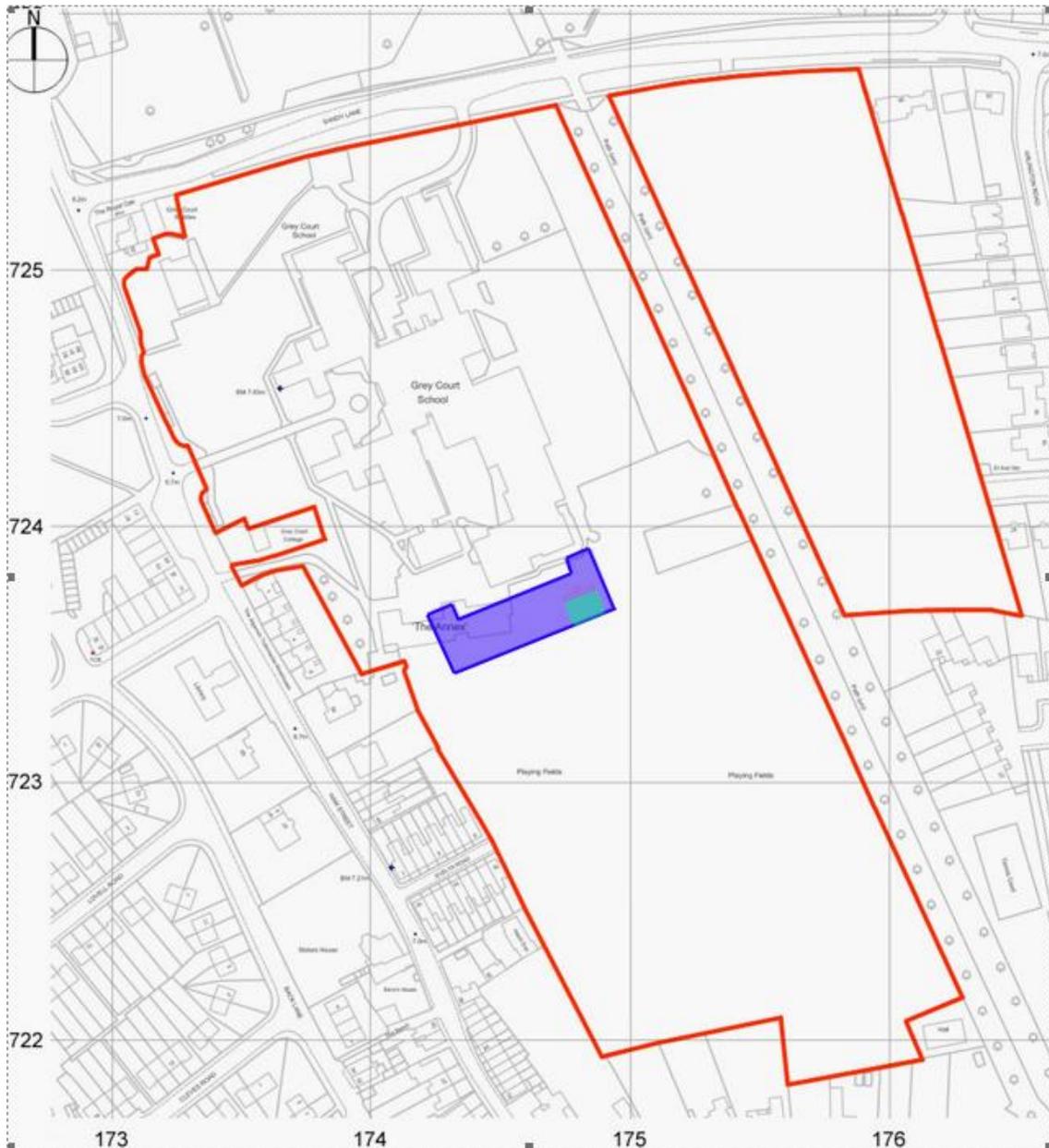


Fig.2: *Development site of the new Sixth-Form block (blue) and Trench 4 (green), in relation to the modern OS plan*

Reproduced from the OS digital data with the permission of the Ordnance Survey on behalf of The Controller of HMSO ©Crown Copyright. All rights reserved. Compass Archaeology Ltd, licence no. AL 100031317

**3.2** The British Geological Survey, (1998), Sheet 270 indicates that the site overlies superficial deposits of Kempton Park Gravel (post-diversionary River Terrace), with underlying London Clay Formation.

Geotechnical investigations were carried out on the site by Applied Geology Limited in February 2013. These uncovered 0.12-0.35m of topsoil, overlying made-ground. This in turn overlay the Kempton Park Gravel Formation, observed between 0.12 and 0.65m beneath the modern ground-surface. London Clay was observed at depths of between 3.9m and 5.6m beneath modern ground-surface.

The findings of this investigation were corroborated by Compass Archaeology during the field evaluation in early October 2013, where natural ground, (orange sandy clay/silt), was observed from between 0.30m and 0.60m below the present ground surface. This equated to *c* 6.15mOD and 6.50mOD.

- 3.3** The development site rests on broadly level ground, at approximately 6.9mOD, with the wider area rising slowly towards the northwest and towards the slopes of Richmond Hill at 8.6mOD.

## **4 Archaeological and historical background**

The archaeological and historical background to Grey Court School has been discussed at length in the desk-based assessment written by Compass Archaeology in July 2013 (Compass Archaeology 2013a). What follows is a highly condensed version taken from that report, extracting only the most relevant details.

### **4.1 Prehistoric**

Some evidence for prehistoric activity, especially from the Mesolithic and Neolithic periods, has been recorded in the vicinity of the site. Surface finds of lithic assemblages – notably microliths and arrowheads but also blades, flint cores and axes – probably indicate the existence of some kind of campsite and potentially a hunting ground rather than permanent occupation of the area. Mesolithic and Neolithic axes and adzes may also represent some level of woodworking in the area.

Early Bronze Age ceramic collared urns may suggest the existence of a burial ground from this period, although they were not associated with any other finds nor with cremated human remains. Their hypothetical origin from a settlement context cannot, however, be excluded.

### **4.2 Iron Age and Roman**

The GLHER records only one Iron Age find spot, late Iron Age pottery from Ham Fields, and no Roman finds. It is suggested by Field, (1982, pg.182), that there are two groups of pottery and a quernstone in the Edwards' Collection of Roman date from Ham Fields, although these lack a precise provenance. There is also a possible Roman altar recorded beyond the 750m search radius of the study area (GLHER: 021065/00/00), although its origin is uncertain and many authorities consider it to be modern.

### **4.3 Saxon and Medieval**

There does not appear to be any significant or substantial activity in the vicinity of the site during the Anglo-Saxon or medieval periods. However, approximately

1km to the south-east of the site, an Anglo-Saxon hut was excavated, probably part of an Anglo-Saxon village (Morris, 1959, 143). There is a documentary reference to a settlement of some form at Ham by the mid-12<sup>th</sup> century (VCH 1911, v3).

#### **4.4 Post-medieval**

It was during 17<sup>th</sup> and 18<sup>th</sup> century that Ham developed more rapidly. The GLHER reflects this, with several entries for the post-medieval and modern periods, including Ham House and Ham Common.

The site area itself remained largely open ground throughout the recorded post-medieval period, with the exception of buildings along the western edge of the site, specifically ‘Newman House’, (formerly ‘Grove House’), in the north-western corner, which was constructed in the mid-18<sup>th</sup> century and survives today.

The site is also referred to on the mid-19<sup>th</sup> century tithe maps by the field-name ‘Brick Ground’, (see fig.3). In the 1840s the area was meadow but this may indicate that there was previously some form of brick-working, (either quarrying or firing), on the site. Recent soil investigations appear to suggest that no quarrying was taking place, such that it seems more likely that, if there was anything industrial taking place, this was in the form of a clamp or kiln, possibly even producing bricks for Ham House. The first phase of archaeological evaluation undertaken by Compass Archaeology in October 2013<sup>2</sup> produced evidence of brick production in this area, represented by a layer of brick rubble plus some ash and clinker, as seen in the western end of the southern section of Trench 3.

The present school buildings were mainly constructed in the 1950s, and are concentrated in the northern part of the site. This meant that much of the site had remained undeveloped, so any earlier buried remains might survive intact or at least relatively undisturbed.

The potential for the site to reveal post-medieval remains was considered medium to high, and in the light of the evaluation it was considered that there could be significant finds, in relation to brick production, on the site.

---

<sup>2</sup> See Compass Archaeology, (2013c)

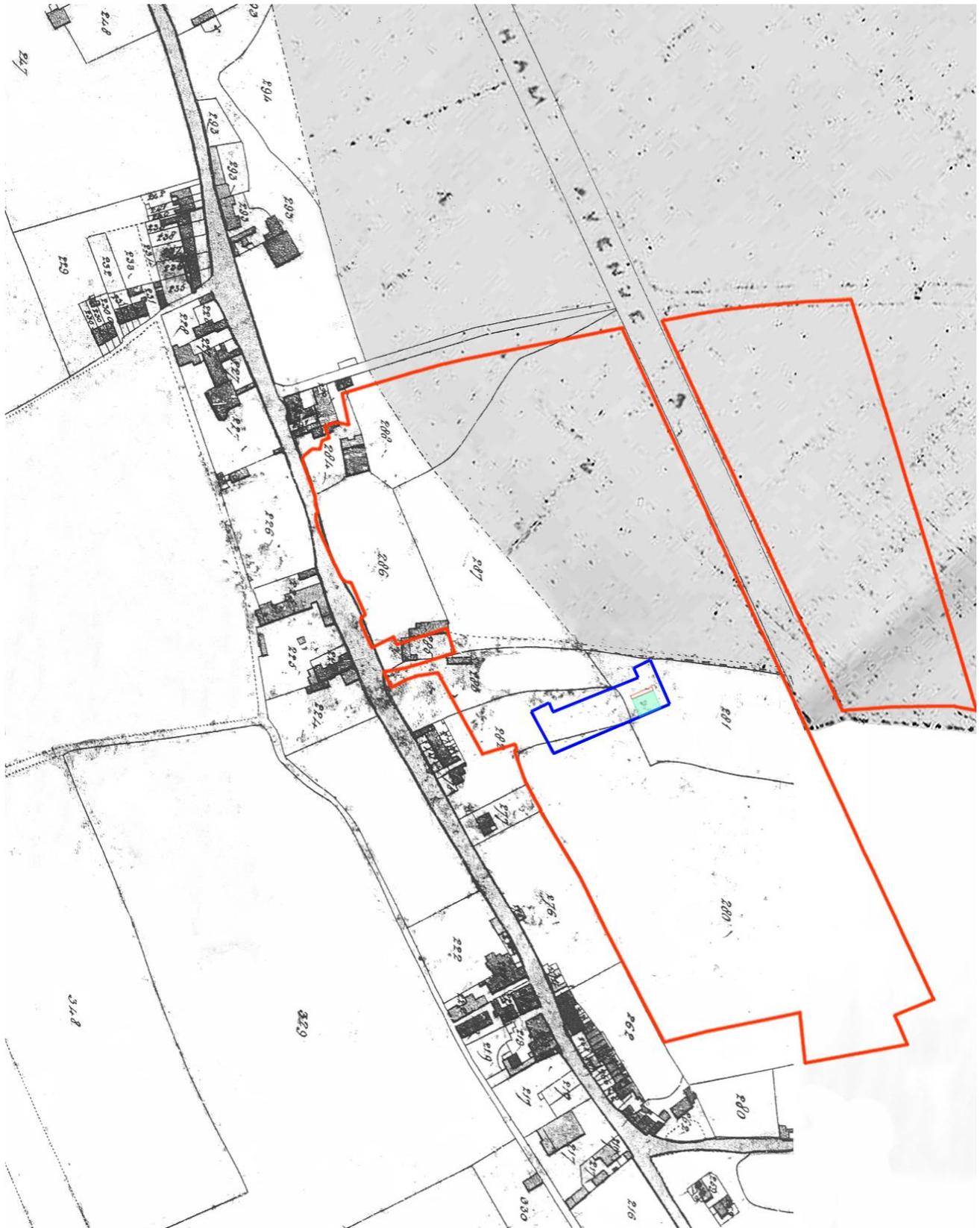


Fig.3: Extract from the 1841 Ham Tithe Map, (left), and 1851 Petersham Tithe Map, (right), with site outline in red and area of new development in blue. The Sixth-Form block is to be built over plots 280 and 281, which are listed with the name 'Brick Ground'. Trench 4, comprising the most recent episode of excavation, is in green

## **5 Planning and objectives**

**5.1** Further archaeological works were recommended by English Heritage as part of the Local Authority planning process, to form a condition of planning consent.

**5.2** The protection of archaeological sites is a material planning consideration. An initial evaluation should be designed to provide all parties, particularly the Local Planning Authority, with sufficient material information upon which to base informed decisions, incorporating adequate heritage safeguards. Where an evaluation produces positive results safeguards will be applied; these would normally consist of either design modifications to preserve archaeological remains *in situ* or, where this is not achievable, archaeological rescue excavation in advance of development. The latter is most pertinent in the case of this excavation.

**5.3** The London Borough of Richmond upon Thames includes policies with regards to archaeology and archaeological sites within its current Development Management Plan, (adopted November 2011). This can be accessed via the council website at:

[http://www.richmond.gov.uk/home/environment/planning/planningpolicy/local\\_development\\_framework/development\\_management\\_dmp.htm](http://www.richmond.gov.uk/home/environment/planning/planningpolicy/local_development_framework/development_management_dmp.htm).

**5.4** The site lies within an Archaeological Priority Area as designated by the London Borough of Richmond upon Thames, and has potential for a range of archaeological remains including those of prehistoric date, although late medieval and earlier post-medieval evidence was considered to be of particular significance. The site is not a Scheduled Ancient Monument, and although no listed buildings will be affected by the proposals, Newman House, in the north-west corner of the application area, is a Grade II listed building.

## **5.5 Archaeological research questions**

The excavation presented the opportunity to answer the following specific research questions with a special focus on point three:

- Is there any evidence for prehistoric activity or settlement within the immediate area?
- Is there any evidence of former field boundaries or agricultural activity associated with the open field systems of the medieval and post-medieval period?
- Is there any additional evidence of industrial activity on the site in the form of quarrying or brick clamps / areas of burning suggesting the *in situ* firing of bricks?

## **6 Methodology**

### **6.1 Standards**

**6.1.1** The fieldwork and off-site assessment was carried out in accordance with English Heritage guidelines (in particular, *Standards for Archaeological Work*, July 2009). Works conformed to the standards of the Institute for Archaeologists, and overall management of the project was undertaken by a full Member of the Institute.

**6.1.2** The objective of the excavation was to define the character, extent and significance of remains, and to recover dating and environmental evidence prior to development of the site.

**6.1.3** Fieldwork was carried out in accordance with the Construction (Health, Safety & Welfare) Regulations. All members of the fieldwork team had valid CSCS Cards, (Construction Skills Certificate Scheme), and wore hi-visibility vests or jackets, hardhats, and steel-toe-capped boots during excavation.

### **6.2 Fieldwork**

**6.2.1** The archaeological works involved the excavation of a single open area, (hereafter called Trench 4), and the subsequent investigation and recording of all archaeological deposits and features. Sufficient work was undertaken to establish the nature of deposits and features, with adequate recovery of finds dating and other evidence.

**6.2.2** Initial clearance of the trench was undertaken using a 360° mechanical excavator working under archaeological supervision. Deposits were removed in this way to the latest significant archaeological horizon, or in the absence of remains (in the extreme SW corner of the trench) to a clean natural subsoil. The site was

cleaned for photography and planned, and then a further stage of ground reduction was conducted by machine along the northern side of the site and in the western half to natural ground. Three hand excavated sections were dug through the southeastern corner of the site where archaeological features were observed.

**6.2.3** A total area of 13.2m by 9.6m was be opened for investigation. The trench lay immediately south of Trial Trench 3 from the first phase of evaluation. It followed the southern edge of the trench for 13.2m, and then extended south into the current playing field for 9.6m, (see fig.4). This reflected the fact that the possible brick clamp debris was confined to the southern section of Trial Trench 3 and so provided the most effective coverage of the potential archaeology. It also represented the area directly within the new development footprint.

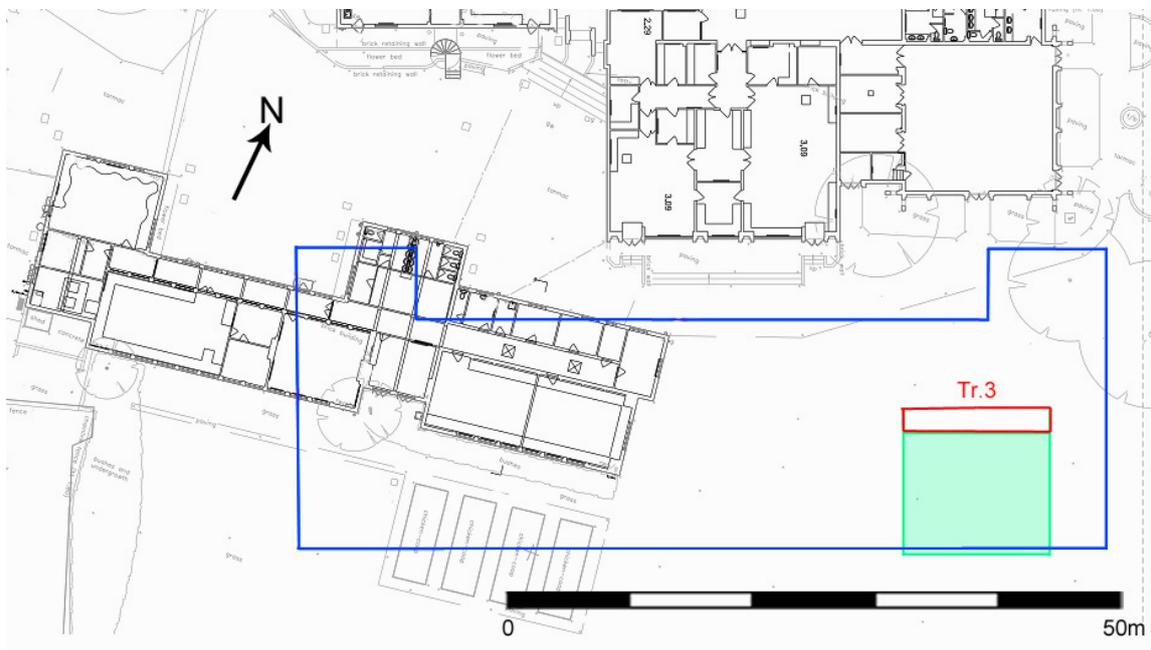


Fig.4: Further investigation Trench 4, (green), in relation to evaluation Trench 3 and the new development footprint, (blue)

**6.2.4** Following initial clearance archaeological deposits and features were excavated and recorded in stratigraphic sequence. Archaeological contexts were recorded on *pro-forma* sheets by written and measured description and drawn in plan and section. Areas of investigation, discrete deposits and features were recorded on a general site plan, at a scale of 1:20, and this in turn related to the Ordnance Survey grid. Sections were drawn at 1:10 or 1:20 as deemed appropriate.

Levels were taken on the top and bottom of archaeological features and deposits and on drawn sections, transferred from an OSBM located on the western front of the main school block. The value of the original OSBM was 7.83m OD.

The fieldwork record was supplemented as appropriate by digital photography.

**6.2.5** All finds and samples were treated on-site in accordance with the appropriate guidelines, including the Museum of London's *'Standards for the Preparation of Finds'*. All identified finds and artefacts were retained and bagged with unique numbers related to the context record, although certain classes of building material will be discarded once an appropriate record has been made. Where necessary, any sensitive artefacts will be properly treated in line with the appropriate Standards.

### **6.3 Post-excavation work & report procedure**

The fieldwork was followed by a programme of off-site processing and assessment; by compilation of a post-excavation report; and this will be completed by ordering and deposition of the site archive.

**6.3.1** Assessment of finds and samples was undertaken by appropriately qualified staff.

**6.3.2** This report provides details of methodology and of archaeological remains and finds, plus an interpretation of the deposits investigated, and also includes a series of scale drawings, photographs and context descriptions. A short summary of the fieldwork has been appended using the OASIS Report Form, and in paragraph form suitable for publication within the 'excavation round-up' of the *London Archaeologist*. Copies of the report will be supplied to the Client, English Heritage GLAAS, the local planning authority and local studies library.

### **6.4 Archive**

Following the issue of the report an ordered, indexed, and internally consistent site archive will be compiled in line with MoL *Guidelines for the Preparation of Archaeological Archives*.

It is proposed that the archive will be deposited in the Museum of London Archaeological Archive under the site code GCS13. The integrity of the site archive should also be maintained, and the landowner will be urged to donate any archaeological finds to the Museum.

## 7 Results

7.1 The fieldwork took place between the 22<sup>nd</sup> and 25<sup>th</sup> of October 2013 in two stages. The first stage included the reduction of the whole area to the highest level of archaeological deposits. This took the form of a wide spread of made ground with variable amounts of brick debris (contexts 8/9) across the entire excavation area, apart from the far south-western corner where the natural ground (context 11) was visible within 360mm of the present ground surface.

The area was cleaned and photographed and an initial, pre-hand excavation, plan produced with the addition of appropriate levels. Clearance at and immediately above the level of contexts (8 & 9) uncovered quantities of clay tobacco pipe, pottery of mid-16<sup>th</sup> century to 19<sup>th</sup> century date, a partial hone (whetstone), an iron 'butcher's hook', and a fragment of a pipe clay wig curler (see Appendices II & IV). This detritus can be found in the upper layers of many archaeological sites, although the quantity and level of preservation exceeds that commonly found on land that has been utilised purely for agriculture.



Fig.5: Pottery from clearance, including Post-medieval Redware, Green-glazed Border Ware, Yellow-glazed Border Ware, Staffordshire slipware and London Stoneware  
10cm scale



Fig.6: Pottery from clearance including Blue Transfer-printed Ware, English Tin-glazed Ware, Chinese Porcelain and Creamware, 10cm scale



Fig.7: Partial hone (whetstone) found in initial clearance, 10cm scale



Fig.8: Fragment of wig curler found during clearance. These items were most commonly used during the late 17<sup>th</sup> to late 18<sup>th</sup> century, 10cm scale

The trench was then further reduced along the northern edge and in the western half by machine to remove most of the underlying stratigraphy (made ground & rubble deposits (8 & 9)). This was very shallow (typically 0.1m–0.2m) and in turn exposed the natural yellow-brown clayey-silt, (11). Three hand excavated sections were hand dug across the south-eastern part and at the eastern end of the site, aligned north to south. These sampled the made ground deposit (context 9), and also investigated a series of parallel cut features, so similar and shallow in nature to be given a single context, [10].

The following, more detailed discussion should be read in conjunction with figs.9-21 below and 22-25 in Appendix I.

- 7.2 The exposed stratigraphy was as follows; highly compacted natural clay-silt, (11), was present from as little as 360mm below the present ground surface in the southwest corner of the trench and from no deeper than 440mm elsewhere. This was overlain by brick debris deposits (8) and (9), the former a more concentrated area of brick rubble with some clinker and ash in the northern section close to Trial Trench 3, and the latter a more extensive spread of less frequent crushed/fragmented brick, clinker and ash material within a dark-brown silty-clay matrix. This extended across the rest of the trench with the exception of the extreme southwest corner.



Fig.9: Trench 4, facing east upon initial ground reduction and clearance, 1m scale

These deposits were sealed with a clear interface below the existing topsoil, (7), which was between 150 and 200mm thick, and consisted of a friable, grey-brown

loam with frequent rooty matter. This last does not therefore form part of a natural soil profile, but must have originated as an imported deposit spread over the surface of contexts (8/9).



Fig.10: Section on the southern edge of Trench 4 facing south. Topsoil (7) overlying made ground (9) within cut [10], and natural clay silt (11) at base. 0.5m scale

- 7.3** Deposit (8), as mentioned, was observed solely in the northern part of the trench, extending to the south for up to *c* 2m in a thin band no thicker than 150mm. At its northern extent it formed a direct continuation of the deposit observed in Trial Trench 3, (context 6), and is believed to represent a more concentrated dump of brick debris, *etc.*, produced from a nearby brick clamp.

Context (8) contained several clay tobacco pipe stem fragments and one complete bowl with a sloping, slightly bulbous shape, dated to the late 17<sup>th</sup> century, (1660-1680). Pottery from this context included Late Medieval Sandy Transitional Redware, Staffordshire Slipware and Yellow-Glazed Border Ware, also broadly dating to the mid 17<sup>th</sup> century (Appendix II). The brick samples from context (8) are not closely dated, but most likely to be 17<sup>th</sup> century, and in all cases certainly pre-1700, (Appendix III).

All these elements of dating would therefore fit nicely with the bricks having been produced in the 1670s, during the extensive works being carried out on Ham House at the time. It has been estimated that some 1.5 million bricks would have been required for these works, and that suggested that most of them may have been manufactured on site (Adshead, D, in Rowell 2013, 105).



Fig.11: *Brick debris (8) overlain by topsoil (7) in the northern section of Trench 4, facing N. 1m scale*



Fig.12: *Clay tobacco pipe and clinker fragments from context (8). 10cm scale*

One other find which may represent additional evidence for brick manufacture was a probable quernstone fragment, measuring some 94mm by 73mm by 30-37mm (fig.13). One side of this item was very smooth, and may have been reused as brick rubber, for final preparation of bricks to be used in gauged or moulded work.



Fig.13: *Probable quernstone fragment from context (8), possibly reused as brick rubber. 10cm scale*

7.4 The other notable discovery was a series of at least 7 shallow linear features, aligned approximately east-west across the trench and extending for some 4.5m to 8m from the eastern section (figs.22 & 23). They took the form of shallow cut troughs no more than 100mm deep and were aligned parallel, with relatively similar widths of between *c* 0.9m to 1.3m. The troughs were separated by thin spines of natural clay-silt little more than 80mm wide. The troughs were filled, (and the separating spines sealed below), the made ground with brick debris (9), which was similar to context (8) but had a lower content of brick and more of a silty matrix. This was in turn sealed below the existing topsoil.

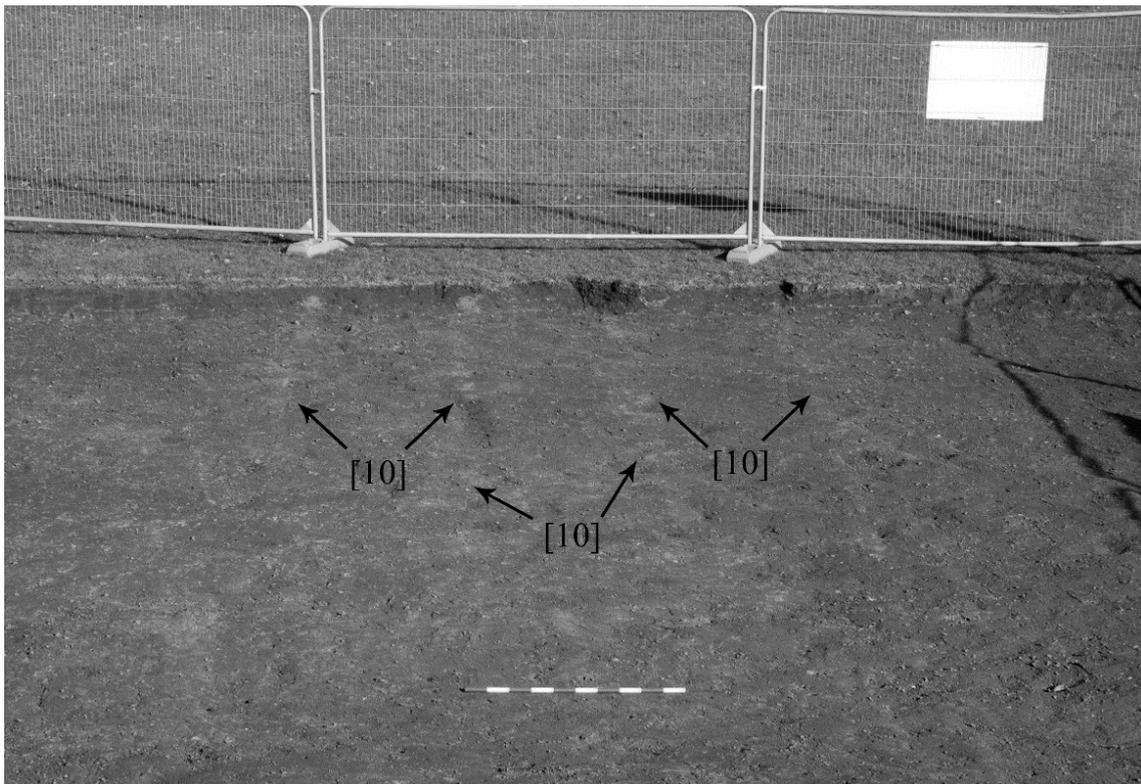


Fig.14: *Linear features [10] facing E, before excavation (1m scale)*

7.5 Context (9) produced a mixture of crushed or finely fragmented ceramic building material, plus occasional burnt flint, fragments of clay tobacco pipe, pottery, and a few larger pieces of brick. The pottery was from a range of dates including 11<sup>th</sup> / 12<sup>th</sup> century Early Surrey Ware, 13<sup>th</sup> / 15<sup>th</sup> Kingston-type ware through 16<sup>th</sup> / 17<sup>th</sup> century Green-Glazed Border Ware and Frechen Stoneware, up to Chinese porcelain, London stoneware and Post-medieval Redware which was produced anywhere between the 1600s and 1900. This wide range and mix would appear to represent a significant disturbance of the underlying stratigraphy, but it is believed that overall the context is potentially early 18<sup>th</sup> century in date<sup>3</sup>. There were also a few fragments of peg and pantile that could be as late as 1800.

---

<sup>3</sup> See Appendix II for discussion



Fig.15: Pottery from context (9), including clockwise from bottom left Post-medieval Redware, Kingston-type Ware, Staffordshire Slipware, Chinese porcelain, Early Surrey Ware (in top right), Frechen Stoneware, (decorated), London Stoneware (mottled brown glaze) and Green-glazed Border Ware. 10cm scale

- 7.6 The linear features [10] were visible, on first exposure, by a lighter colouration of the ground roughly corresponding to the buried spines of natural separating them. This colouration appeared to continue high up into the trench sections, into topsoil (7) and immediately below the turf line, giving the impression that they were cut from very high up in the soil profile.

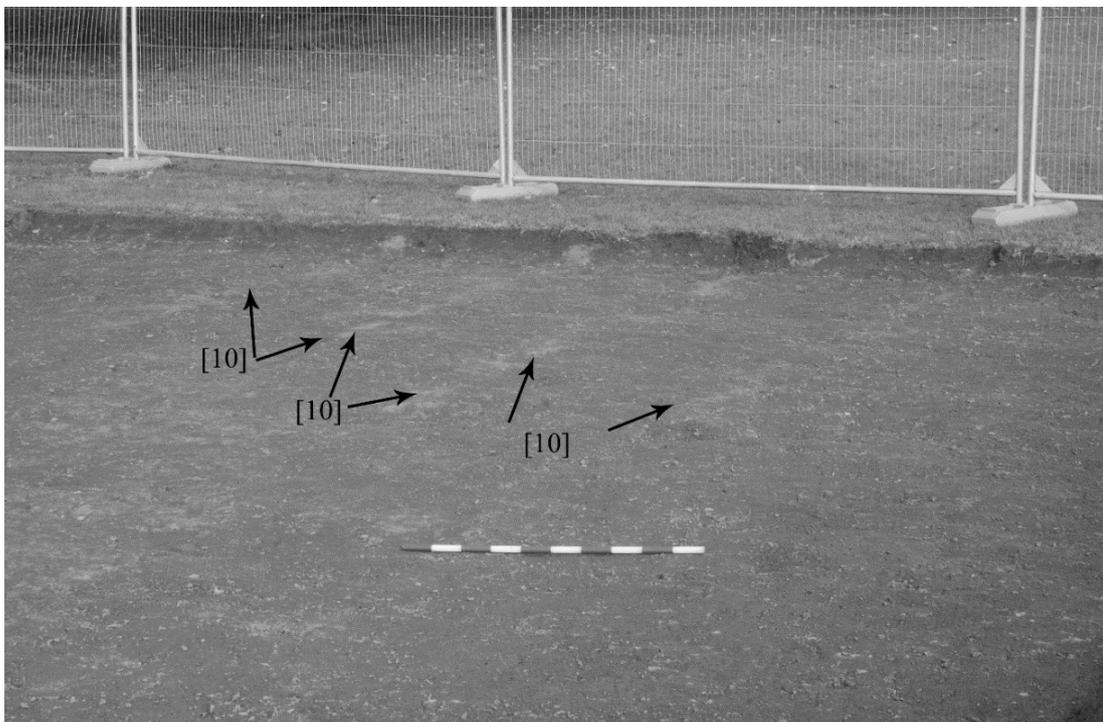


Fig.16: Photographs illustrating the differential drying between the troughs of features [10], with peaks of lighter-coloured material visible at very high level in section. Facing ENE, (1m scale)



Fig.17: Working shot during excavation of sample slots through deposit (9), looking approximately east

However, having been exposed to weathering and heavy rain overnight the differential colouration almost completely vanished, and despite further cleaning little evidence of this originally stark outlining was recovered in future photography. Only upon cutting back the eastern section of the trench, (Section 9; figs.18 & 19), was the original colouration once again visible. Upon closer inspection the lower portion of the lighter deposit was seen to be actually the same consistency and form as context (9), simply a lighter hue. It seems clear that this differentiation was the result of the underlying, higher, spines of natural causing drying out the overlying deposits, (both 9 and 7), rather than the creation of a cut [10] from higher up in section.



Fig.18: Section against the eastern side of Trench 4, facing east. Note that the spines of natural in the base of the section seem to rise high up in profile, but actually contain large amounts of brick rubble contiguous with (9). (0.5m scale)

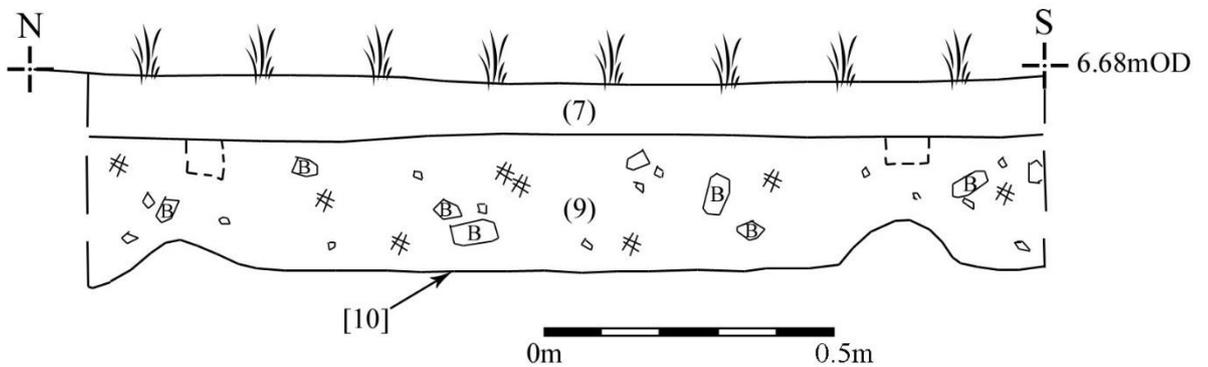


Fig.19: Representation of the above section showing the differential drying of deposit (9) over the spines of natural separating the central trough from its neighbours, [10]. The lighter, drier, patches are within the dashed boxes

7.7 In regards to the function of features [10] there is no immediate answer. It has been suggested that they may have horticultural associations such as bedding trenches, due to their shallow and uniform characteristics, and the dominant land use of the site prior to the construction of the school. However, one would expect such features to contain a more mixed and well turned-over, or at least looser, backfill material, and also to be separated by a more substantial spine of natural, if only for ease of access.

A further point is that the deposit (9) appears to both fill the shallow trenches **and** to seal the dividing spines, as a single layer. This would indicate that the cutting of the trenches predates (9), rather than that the upper levels of both cut and fill have been disturbed/truncated. It would seem therefore that the features were cut directly into natural, on land denuded of any overlying soil profile.

Some of the pottery recovered from the fill (9) would suggest an early to mid-18<sup>th</sup> century date. Maybe the troughs represent some form of landscaping works carried out after the brick firing had stopped. Could this be remedial works to clear the site of as much debris as possible to make it cultivatable once more? Brick clamps typically produce quite a high percentage of wasters, and firing of an estimated 1.5 million bricks in the 1670s would undoubtedly have produced a great deal of debris.



Fig.20: *Hand dug slot through linear features [10], facing SE, 1m scale*



Fig.21: Section through features [10], facing east. Note the higher concentration of brick debris at the far northern end where deposit (8) starts to show through, (1m scale)

## 8 Conclusions & assessment

No *in situ* evidence of brick firing was uncovered during the excavation. However, the sheer quantity of brick debris, plus scattered clinker and other burnt material, would suggest that brickmaking was occurring in the near vicinity, and what we uncovered in deposits (8) and (9) was the by-product of this process. This activity can probably be dated to the later 17<sup>th</sup> century, partially on the dating evidence available through the recovered brick, pottery and clay pipe. This date would correspond nicely with the major building works commissioned for Ham House by the Duke and Duchess of Lauderdale in the 1670s. It is estimated that up to 1.5 million bricks were required, most of which may have been manufactured on site: possible local master brick-makers include Thomas Turner and a Mr Glead<sup>4</sup>.

A series of shallow trough features were cut into the natural clay/silt and sealed by made ground containing brick debris. It is not clear what these features represent, although they indicate substantial disturbance and could be contemporary with brickmaking. However, there were a few potsherds of 18<sup>th</sup> century date within the overlying made ground: it is tempting to see both the features and finds as evidence of later groundworks, perhaps later tidying up/remediation of an area that had been left covered with brick debris.

It was not considered that further fieldwork was necessary on the site. The findings are significant, representing the first physical evidence for brick

---

<sup>4</sup> Adshead, D, p105, in Rowell, C (ed.), (2013), *Ham House. 400 years of Collecting & Patronage*

manufacture here – and by date and location likely to be associated with the later 17<sup>th</sup> century extension of Ham House. Unfortunately there was no *in situ* evidence for brick firing – possibly due to later (18<sup>th</sup> century) ground disturbance, though perhaps also because this area formed part of the debris field outside the main area of activity.

It may well be that the focus of brickmaking lay to the south / southeast of the present investigation (and indeed may still survive below the open playing fields). At the same time, no evidence at all for such activity was found during evaluation of the western and central parts of the current redevelopment footprint. This accords with the 19<sup>th</sup> century Tithe reference to the ‘Brick Ground’ (*cf.* fig 3): the recorded area of rubble lies near the northern edge of the Ground, whilst the other evaluation trenches were in a garden plot just outside its boundary.

The off-site archaeological work is also completed with this assessment, save for archiving of the site record and summary publication of the results in the annual *London Archaeologist* round-up. Copies of the report have been sent to London Borough of Richmond and Grey Court School, and will also be offered to the Richmond Local Studies Collection and to the National Trust (as guardians of Ham House).

## 9 Bibliography

Applied Geology Ltd, (2013), *Report on Ground Investigation at Grey Court School, Ham Street, Richmond*

ASTUDIO, (2013), *Grey Court School: Design and Access Statement*

British Geological Survey, (1998), *England & Wales, Sheet 270: South London. Solid and Drift Geology 1:50000*

Compass Archaeology, (2013a), *Grey Court School, TW10 7HN, London Borough of Richmond upon Thames: An Archaeological Desk-based Assessment*

Compass Archaeology, (2013b), *A Written Scheme of Investigation for an Archaeological Evaluation at Grey Court School, Ham, Richmond upon Thames, TW10 7HN*

Compass Archaeology, (2013c), *Grey Court School, Ham, London Borough of Richmond, TW10 7HN: An Archaeological Evaluation*

Compass Archaeology, (2013d), *A Written Scheme of Investigation for further Archaeological Works at Grey Court School, Ham, Richmond upon Thames, TW10 7HN*

Field, D, (1983), 'Ham: The Edwards Collection', in *Surrey Archaeological Collections*, Vol.74, pp.169-84.

Local Government, (2012), *PPS 5 Planning for the Historic Environment*

London Borough of Richmond upon Thames, (2011), *Development Management Plan*

Morris, J, 1959, 'Gazetteer of Anglo-Saxon Surrey', in *Surrey Archaeological Collections*, 56, pp.132-158

Ordnance Survey Maps, various dates and scales.

Rowell, C (ed.), (2013), *Ham House. 400 years of Collecting & Patronage*

VCH, 1911, *Victoria County History. A History of the County of Surrey*, Vol 3, pp.501-16.

## Appendix I: Plans and sections of excavated archaeology

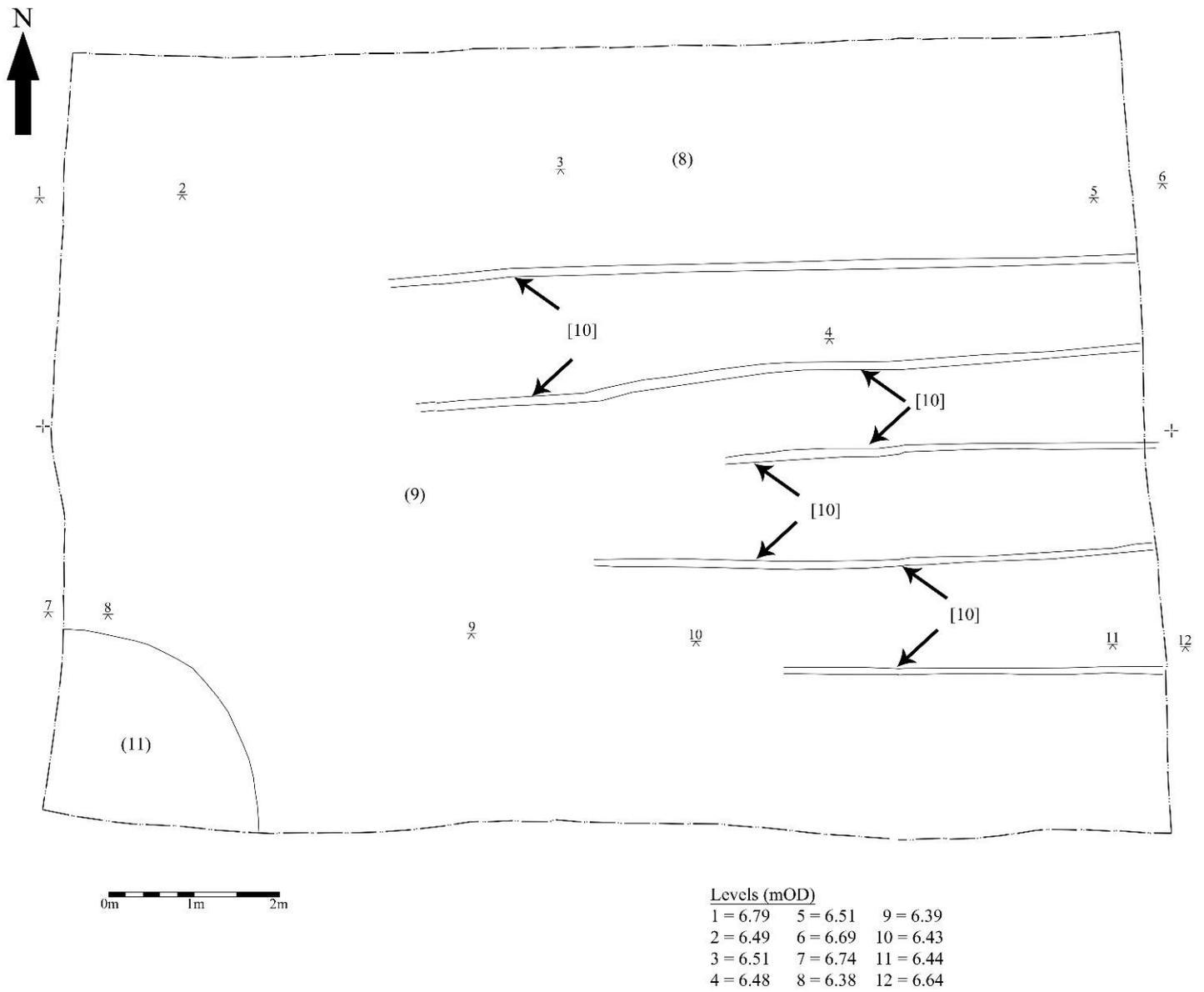


Fig.22: Trench 4 upon initial cleaning

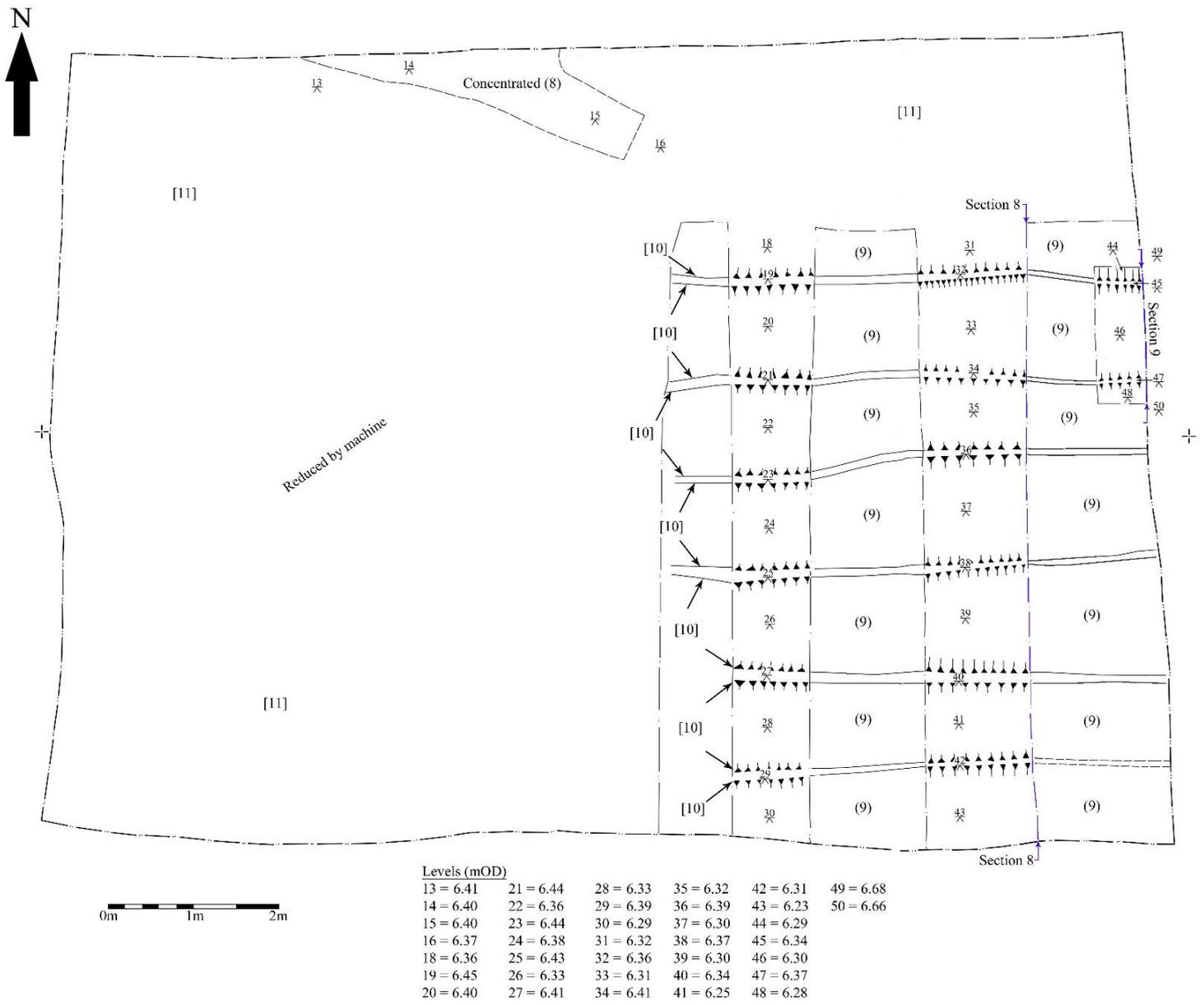


Fig.23: Trench 4 after further ground reduction and hand excavation

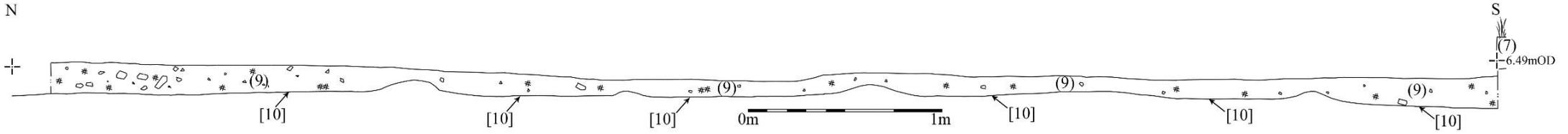


Fig.24: Section 8 through features [10] within the eastern slot dug in Trench 4

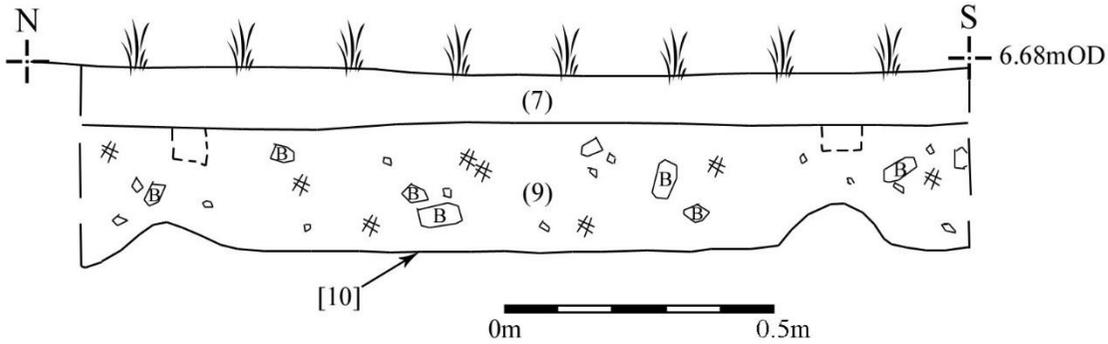


Fig.25: Section 9 through features [10] on the eastern edge of Trench 4

## Appendix II: Pottery analysis by Paul Blinkhorn

The pottery assemblage comprised 54 sherds with a total weight of 486g. It was quantified using the chronology and coding system of the Museum of London Type-Series (eg. Vince 1985), as follows:

<b>BORDY:</b>	<b>Yellow-glazed Border Ware</b> , 1550-1700. 3 sherds, 23g.
<b>BORDG:</b>	<b>Green-Glazed Border Ware</b> , 1550-1700. 2 sherds, 14g.
<b>CHPO:</b>	<b>Chinese Porcelain</b> , 1580-1900. 4 sherds, 36g.
<b>CREA:</b>	<b>Creamware</b> , 1740-1830. 1 sherd, 8g.
<b>ESUR:</b>	<b>Early Surrey Ware</b> , 1050-1150. 2 sherds, 13g.
<b>FREC:</b>	<b>Frechen Stoneware</b> , 1550-1700. 2 sherds, 23 g.
<b>KING:</b>	<b>Kingston-type ware</b> , 1230-1400. 2 sherds, 20g.
<b>LMSR:</b>	<b>Late Medieval Sandy Transitional Redware</b> , 1480-1600. 1 sherd, 18g.
<b>LONS:</b>	<b>London Stoneware</b> , 1670-1900. 4 sherds, 30g.
<b>PMR:</b>	<b>Post-medieval redware</b> , 1580-1900. 16 sherds, 185g.
<b>STSL:</b>	<b>Staffordshire slipware</b> , 1650-1800. 3 sherds, 39g.
<b>SWSG:</b>	<b>Staffordshire white salt-glazed stoneware</b> , 1720-1780. 5 sherds, 20g.
<b>TGW:</b>	<b>English Tin-glazed ware</b> , 1600-1800. 1 sherd, 2g.
<b>TPW:</b>	<b>Blue Transfer-printed Ware</b> , 1830-1900. 8 sherds, 55g.

The pottery occurrence by number and weight of sherds per context by fabric type is shown in Table 1. Each date should be regarded as a *terminus post quem*. The range of fabric types is fairly typical of sites in the region, and suggests that there has been more or less unbroken activity at the site since the early medieval period. There has also been considerable disturbance of earlier strata, as all the medieval and earlier post-medieval pottery is redeposited.

The pottery from context 8 appears to be broadly contemporary with the extension of Ham House in the later 17<sup>th</sup> century. Certainly, given the range of fabric types present, it appears to date to the period 1640 – 1680, and is highly unlikely to date to after 1700. The material from context 9 may be of the same date, and the small sherds of SWSG and CHPO could be intrusive, although the presence of these with both medieval and post-medieval sherds suggests there has been considerable disturbance of underlying deposits, and possibly context 9 itself.

## Bibliography

Vince, AG, (1985), 'The Saxon and Medieval Pottery of London: A review' in *Medieval Archaeology* 29, pp25-93

Table 1: Pottery occurrence by number and weight, (in g), of sherds per context by fabric type

Context	ESUR		KING		LMSR		BORDG		BORDY		PMR		FREC		TGW		STSL		LONS		CHPO		SWSG		CREA		TPW		Date
	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	
U/S							1	2	2	19	9	99			1	2	1	25	3	21	3	35	4	16	1	8	8	55	U/S
(8)					1	18			1	4							1	8											M17thC
(9)	2	13	2	20			1	12			7	86	2	23			1	6	1	9	1	1	1	4					E18thC
<b>Totals</b>	2	13	2	20	1	18	2	14	3	23	16	185	2	23	1	2	3	39	4	30	4	36	5	20	1	8	8	55	

### **Appendix III: Ceramic building material analysis** by *Sue Pringle*

A number of samples of ceramic building material, (in particular brick from the made ground and rubble layer, context 8), were taken during the fieldwork. The brick samples were all potential wasters/debris from the brick-making process; some showed definite evidence of over- or underfiring, (particularly the latter), and none appeared to be from a building source – for example, there was no sign of any mortar/plaster on exposed faces.

The result of subsequent assessment and dating of this material is given overleaf, including the initial material from evaluation Trench 3 (context 6). As can be seen the brick samples are not closely dated, but they are most likely to be of 17<sup>th</sup> century date, and in all cases are certainly pre-1700. In conjunction with pot and clay tobacco pipe dates this does therefore provide a probable date for manufacture in the mid-later 17<sup>th</sup> century.

Context number	Trench No.	cbm date	Fabric	Form	Count	Weight grams	L	B	T	Condition	Comments	Fabric notes
6	3	1450-1700	B1	Brick	1	367	0	100	60			orange-red fabric, sandy texture with sparse organic imprints (grass, straw, twigs?) abundant fine to medium quartz, sparse to moderate coarse quartz and dark red/ black iron-rich material; sparse medium to coarse white calcareous inclusions and very coarse flint flakes/ pebbles.
6	3	1450-1700	B1	brick	1	457	0	100	64		Indented margin	
6	3	1450-1700	B1	brick	2	259	0	0	60		Indented margin; 2 conjoin	
6	3	1450-1700	B1	brick	1	302	0	0	59			
6	3	1450-1700	B1	brick	1	122	0	0	60	V	overfired	
6	3	1450-1700	B1	brick	3	313	0	0	0		lighter colour, may be underfired	
6	3	1450-1700	B1	brick	2	303	0	0	0		indented margin x 1	
6	3	1450-1700	B1	brick	3	283	0	0	0		2 conjoin	

Context number	Trench No.	cbm date	Fabric	Form	Count	Weight grams	L	B	T	Condition	Comments	Fabric notes
6	3	1450-1700	B1	brick	2	140	0	0	0	Rd, V	vitriified cores; yellowish speckled	
6	3	1450-1700	B1	brick	1	265	0	0	c.70	Rd, V	surfaces vitriified, may be distorted	
6	3	1450-1700	?	brick?	8	92	0	0	0	Rd, V	black, highly vitriified material – may be very overfired brick fragments	
6	3	1450-1700	shale?	slab	2	67	0	0	c.18	Rd	Flakes of laminated stone - shale or slate? Both have 1 worked edge, flat & bevelled, probably sawn. Floor tiles?	
unstrat.	4	1650-1800	2275	pantile	2	200	0	0	0			
unstrat.	4	1650-1800	?	wall tile	2	43	0	0	9	A	conjoin. Plain white tin-glazed wall tile	off-white Delft type fabric
8	4	1450-1700	B1	brick	1	1477	203+	108	58	Rd, A	Indented margin; reduced areas on surface	
8	4	1450-1700	B1	brick	2	1241	152+	112	61		conjoin. Indented margins; creased	

Context number	Trench No.	cbm date	Fabric	Form	Count	Weight grams	L	B	T	Condition	Comments	Fabric notes
8	4	1450-1700	B1	brick	1	700	80+	113	60			
8	4	1450-1700	B1	brick	1	472	0	107	61	A		
8	4	1450-1700	B1	brick	2	1382	0	109	0	A		
8	4	1450-1700	B1	brick	0	0	0	105	0	A, Rd		
8	4	1450-1700	B1	brick	4	1610	0	0	60			
8	4	1450-1700	B1	brick	0	0	0	0	59			
8	4	1450-1700	B1	brick	0	0	0	0	61			
8	4	1450-1700	B1	brick	0	0	0	0	60			
8	4	1450-1700	B1	brick	5	1870	0	0	60			
8	4	1450-1700	B1	brick	0	0	0	0	62	Rd		
8	4	1450-1700	B1	brick	0	0	0	0	60	Rd		
8	4	1450-1700	B1	brick	0	0	0	0	65	Rd, V		
8	4	1450-1700	B1	brick	0	0	0	0	67	Rd		
8	4	1450-1700	B1	brick	3	1412	0	0	59			

Context number	Trench No.	cbm date	Fabric	Form	Count	Weight grams	L	B	T	Condition	Comments	Fabric notes
8	4	1450-1700	B1	brick	0	0	0	0	62	Rd		
8	4	1450-1700	B1	brick	0	0	0	0	61	Rd		
8	4	1450-1700	B1	brick	4	495	0	0	0	H, Rd, V	4 overfired fragments, conjoin	
8	4	1450-1700	B1	brick	5	1573	0	0	0	Rd x 3, V x 1	Includes indented margin. 1 brick contains large flint pebble c. 30mm long	
8	4	1450-1700	stone	rubber?	1	300	94	71	35	A	Niedermendig-type lava? With flat surface, re-used quern fragment?	
9	4	1630-1800	B1	brick	2	467	0	0	59	Rd x 2		
9	4	1630-1801	Vitrified	brick?	1	132	0	0	0	V		
9	4	1630-1802	2276	peg tile	3	133	0	0	0			
9	4	1630-1803	2275	pantile	1	20	0	0	0			

## **Appendix IV: Other Finds** *by Emma Jeffery*

### **1. Clay Pipe**

Clearance – 8 pieces of clay pipe stem, *c* 32mm to 46mm in length

Context 8 – 6 pieces of clay pipe stem, *c* 26mm to 74mm in length, one with spur attached  
– 1 fragment of clay-pipe bowl  
– 1 complete plain clay-pipe bowl (fig.12). Type 18. Dated 1660-80 (Oswald, 1975, *Clay Pipes for the Archaeologist*)

Context 9 – 11 pieces of clay pipe stem

### **2. Burnt Flint**

Clearance – 1 piece. 14g

Context 8 – 8 pieces. 84g

Context 9 – 7 pieces. 134g

### **3. Clinker**

Context 8 – 5 pieces. 370g

Context 9 – 2 pieces. 10g

### **4. Glass**

Clearance – 1 small fragment of post-medieval green bottle glass

### **5. Other Finds**

Clearance – 1 hone (whetstone), incomplete & broken into 2 pieces (fig.7). 132g. 92mm in length, more or less square cross-section, *c* 29mm to 32mm in thickness.

– 1 clay-pipe wig curler (fig.8). 36mm in length – approx. half of original – & 12mm in width (max). No maker's stamp

– 1 iron S-shaped butcher's hook, 110mm in length, *c* 42mm in width

## Appendix IV: OASIS data collection form

OASIS ID: [compassa1-164451](#)

### Project details

Project name	Grey Court School, Ham, LB of Richmond TW10 7HN
Short description of the project	Evaluation consisting of three trial trenches was undertaken as a condition of planning for construction of a new Sixth-form block. Over most of the site a simple profile of topsoil and weathered subsoil over natural was exposed, some 0.3 to 0.6m deep. However, the easternmost trench revealed a deposit of brick fragments, plus some clinker/charcoal and later 17th century finds. This was possible detritus from a brick clamp, and potentially associated with a major extension of Ham House in the 1670s. It may be significant that the area (though meadow) is referred to as 'Brick Ground' on the 1841 Tithe. A further trench c 13m x 9.5m was opened up south of initial findings. Although no in situ evidence of brick firing was found the sheer quantity of brick debris, plus clinker and other burnt material, clearly indicates that brickmaking was taking place nearby. The later 17th century date was confirmed through examination of brick, pottery and clay pipe. A series of shallow linear features were cut into the natural clay/silt - apparently formed at that level and sealed by made ground and brick debris. Although it is not clear what these represent there was some evidence for a mid 18th century date, and it is conceivable that they are associated with remediation of ground that had been left covered with brick debris.
Project dates	Start: 08-10-2013 End: 25-10-2013
Previous/future work	Yes / No
Any associated project reference codes	GCS13 - Sitecode
Any associated project reference codes	13/1268/FUL - Planning Application No.
Type of project	Recording project
Site status	Local Authority Designated Archaeological Area

Current Land use Community Service 1 - Community Buildings

Monument type BRICKYARD Post Medieval

Significant Finds POT Post Medieval

Significant Finds BRICK Post Medieval

Significant Finds CLAY PIPE (SMOKING) Post Medieval

Significant Finds WHETSTONE Uncertain

Significant Finds RUBBER Uncertain

Investigation type "Part Excavation"

Prompt Planning condition

### Project location

Country England

Site location GREATER LONDON RICHMOND UPON THAMES  
RICHMOND UPON THAMES Grey Court School, Ham Street,  
Ham,

Postcode TW10 7HN

Study area 123.50 Square metres

Site coordinates TQ 17482 72369 51 0 51 26 15 N 000 18 34 W Point

Height OD /  
Depth Min: 6.25m Max: 6.45m

### Project creators

Name of  
Organisation Compass Archaeology

Project brief  
originator English Heritage/Department of Environment

Project design  
originator Compass Archaeology

Project director/manager	Geoff Potter
Project supervisor	Geoff Potter
Type of sponsor/funding body	Borough Council
Name of sponsor/funding body	London Borough of Richmond Upon Thames

### **Project archives**

Physical Archive recipient	Museum of London Archive
Physical Contents	"Ceramics","other"
Physical Archive notes	Some brick samples and quernstone fragment
Digital Archive recipient	Museum of London archive
Digital Contents	"other"
Digital Media available	"Images raster / digital photography","Spreadsheets","Survey","Text"
Paper Archive recipient	Museum of London Archive
Paper Contents	"other"
Paper Media available	"Context sheet","Drawing","Map","Notebook - Excavation',' Research',' General Notes","Plan","Section","Survey","Unpublished Text"

**Project  
bibliography 1**

Publication type	Grey literature (unpublished document/manuscript)
Title	Further Archaeological Excavations at Grey Court School, Ham, TW10 7HN London Borough of Richmond upon Thames
Author(s)/Editor(s)	Aaronson, J
Date	2013
Issuer or publisher	Compass Archaeology
Place of issue or publication	5-7 Southwark Street, SE1 1RQ
Description	A brief report of the results of an archaeological evaluation undertaken at Grey Court School. This includes a discussion of all of the areas excavated; photos; plans and sections where relevant; brick and pot analysis; a plan showing the location of the trench; and any conclusions reached.

## **Appendix V: London Archaeologist summary**

Site Address:	Grey Court School, Ham Street, Ham TW10 7HN
Project type:	Evaluation & further excavation
Dates of fieldwork:	8 <sup>th</sup> /9 <sup>th</sup> & 22 <sup>nd</sup> – 25 <sup>th</sup> October 2013
Site code:	GCS13
Site Supervisor:	Geoff Potter
NGR:	TQ 17465 72365
Funding Body:	London Borough of Richmond upon Thames

Evaluation consisting of three trial trenches was undertaken as a condition of planning before the construction of a new Sixth-form block. Over most of the site a simple profile of topsoil and weathered subsoil over natural was exposed, some 0.3 to 0.6m deep (natural at *c* 6.15-6.5mOD). However, the easternmost trench revealed a deposit of brick fragments, some clinker and charcoal, and later 17<sup>th</sup> century pottery and clay pipe. This was potentially detritus from a nearby clamp, possibly producing bricks for a major extension of Ham House in the 1670s. It may also be significant that the area (though meadow) is referred to as 'Brick Ground' on the 1841 Tithe.

Following on from this a larger (*c* 13m x 9.5m) area was opened up south of initial findings. Although no *in situ* evidence of brick firing was uncovered the sheer quantity of brick debris, plus clinker and other burnt material, suggests that brickmaking was taking place nearby. The later 17<sup>th</sup> century date was reaffirmed through examination of brick, pottery and clay pipe.

A series of shallow linear features were cut into the natural clay/silt – apparently formed at that level and sealed by made ground and brick debris. Although it is not clear what these represent there was some pottery evidence for a mid-18<sup>th</sup> century date, and it is conceivable that they are associated with tidying up/remediation of ground that had been left covered with brick debris.