

**Festival of British Archaeology 2013
Community Excavation at
Petworth House, Petworth, West Sussex**

NGR 497525 121904

**ASE Project No: 6157
Site Code: PHF 13**

**ASE Report No: 2013224
OASIS ID: archaeol6-159180**



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Abstract

Archaeology South-East was commissioned by the National Trust to assist in the running of a community archaeology project at Petworth House, Petworth, West Sussex. The excavation was the culmination of a year-long archaeological investigation of the House's parkscape, and was targeted on the site of the 'lost' medieval North Wing.

Eight trenches were mechanically excavated at the site, and volunteers manually excavated revealed archaeological deposits under the supervision of archaeologists from the National Trust and Archaeology South-East. Three trenches were not fully excavated and another produced evidence of quarrying, but the four remaining trenches contained significant archaeological deposits.

Surviving remains of the North Wing consisted of mortar beds holding impressions of a removed floor tile and elements of external and internal walls, some with plaster still adhering to them. Contemporary artefacts included pottery, glassware, clay pipes and domestic items. Evidence of the demolition took the form of stone rubble and artefacts such as nails, lead comes from windows and other fittings.

The replacement of the North Wing with a formal garden left evidence in the form of hard landscaping such as courtyards, paths and drains. The replacement of that garden with a more open parkscape by 'Capability Brown' resulted in the levelling of that garden and the demolition of upstanding features.

As well as material contemporary with the construction, occupation and demolition of the North Wing, residual prehistoric flintwork and pottery, and Anglo-Saxon and Saxo-Norman pottery and intrusive later material were recovered.

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1.0 INTRODUCTION

1.1 Introduction

1.1.1 Archaeology South-East (ASE), a division of the Centre for Applied Archaeology (CAA), Institute of Archaeology (IoA), University College London (UCL) was commissioned by the National Trust (NT) to assist in the delivery of a community archaeology project at Petworth House, Petworth, West Sussex (NGR 497525 121904; Figure 1).

1.1.2 As part of the Festival of British Archaeology celebrations, an excavation was planned within the park in the area of the 'lost' North Wing of Petworth House. The current project was the culmination of the *Petworth Park Restoration Scheme*, a one-year project established in September 2012 to examine the archaeology of the parkland which has previously not been subjected to systematic survey. Full details of the aims of the project were given in the National Trust Brief for Festival of British Archaeology Community Excavation at Petworth House, West Sussex (NT 2013).

1.1.3 The purpose of the project was to provide training and supervision for volunteers in an exercise to identify and characterise archaeological features relating to the 'lost' North Wing and later formal gardens, as identified during desk-based assessment, field survey and geophysical survey.

1.2 Topography and Geology

1.2.1 The area under investigation lay to the east and north-east of the current extent of Petworth House. At the time of the excavation the area was given over to grass, crossed by a number of pathways. The general area was virtually level at a height of c.62mAOD, reflecting the current usage.

1.2.2 According to current data from the British Geological Survey, the underlying bedrock is the Easebourne member sandstone. There is no recorded superficial geology (BGS 2013).

1.3 Aims and Objectives

1.3.1 The aims stated in the *Written Scheme of Investigation (ibid.)* were to:

'Identify and characterise archaeological features relating to the 14th-17th century 'lost' North Wing of Petworth House and 18th century formal gardens, identified during desk-based assessment, field survey and geophysical survey

Involve volunteers who have assisted with the Petworth Park Archaeology Project over the previous 10 months, who will have the opportunity to receive training throughout the excavation in techniques of archaeological excavation, recording and finds processing.

Answer research questions regarding the origins, development and layout of the house and the subsequent formal gardens

Engage and inform local communities and visitors to the House and Park. The excavations will provide the opportunity for visitors to the House and Park to observe the excavation and learn about archaeological techniques'

1.5 Scope of Report

- 1.5.1 The current report provides the results of the community archaeology excavation undertaken in July 2013. The excavation was staffed by ASE personnel including a senior archaeologist (Simon Stevens), an assistant archaeologist (Liz Chambers), a finds specialist (Trista Clifford) and outreach officer (Hillary Orange) all working under the overall supervision of the National Trust West Sussex & South Downs Archaeologist, Tom Dommett. The project was managed on behalf of ASE by Dan Swift.

2.0 ARCHAEOLOGICAL BACKGROUND

2.1 Introduction

2.1.1 Much of the following archaeological background was provided by the National Trust (NT 2013) and is reproduced with all due acknowledgement.

2.2 The Development of Petworth House and Gardens

2.2.1 The earliest evidence for a House within the Park comes from Henry Percy's application for a licence to crenellate the manor at Petworth (and two others in Yorkshire) in 1293. Otherwise, it is more generally acknowledged that the first substantive evidence for a manorial house at Petworth comes from the granting of a licence in 1309 (Turner 1862, 5; Aldsworth 1980, 374; Jordan 1987, 5; Jerrome 2006, 29). Whether this act of crenellation referred to the current House or an earlier separate structure it is not clear.

2.2.2 Waters (1997) proposes the sequence of development of the House from the 13th-18th century. Archaeological survey of Petworth House suggests that the ground plan of the Carved Room constitutes the earliest structural unit on the site, a simple three-bayed hall dating to the late 13th century (Waters 1997, 25) - the East Wing. This was augmented with a fortified tower, chapel and new, larger hall in the 14th century which created the North Wing (*ibid.*, 26).

2.2.3 Extensive renovations were undertaken in the late 16th century. According to the parochial registers '*Henry Percy Earl of Northumberland began in 1577 to repair the [mansion house] of Petworth... and brought the water into every office of the said house*', at a cost of nearly £7,000 over the next five years (Turner 1862, 7).

2.2.4 The North Wing was further extended in the early-mid 17th century (Waters 1997, 27) before being demolished during the late 17th century during modernisation of the house by the 6th Duke of Somerset. The East Wing was incorporated into the current house.

2.2.5 Waters (1997) plan of the North Wing, aligned to the current ground-plan of the House – principally the 13th century Chapel – extends approximately 50m West of the North end of the current building, underneath what is now the West Lawn. A range of cartographic and pictorial evidence supports the L-shaped layout of the house during the 17th century. It should be noted that the nature and layout of the western-most range of the North Wing in particular, as recorded by Waters, is conjectural, based on the 9th Earl's proposed enhancements to the House.

2.2.6 Following the demolition of the North Wing, the area was turned into a '*very formal*' garden in the early 18th century, incorporating the so-called *Iron Court* and a parterre, before a wholesale clearance of the area by Lancelot 'Capability' Brown between 1755 and 1765 (Aldsworth 1980, 375). A ha-ha was added in the 19th century (*ibid.*).

2.2 Previous Archaeological Surveys

- 2.3.1 Features which may relate to the North Wing have been identified from aerial photos as cropmarks showing internal divisions (Waters 1997, 21).
- 2.3.2 Further possible evidence for structural remains beneath the Lawn derives from a borehole undertaken in advance of the construction of the proposed Petworth By-Pass. This identified a c.600mm deep section of brick wall adjacent to the proposed footprint of the North Wing.
- 2.3.3 A c.2m long section of brickwork and masonry was noted eroding out of the face of southernmost portion of the ha-ha ditch during the field survey element of the *Petworth Park Archaeology Project*, aligned WNW-ESE. However, the aerial photographic evidence, borehole evidence and field survey evidence could potentially all relate to 18th century formal garden features which occupied this location after the demolition of the North Wing, principally the 6th Duke's 'Iron Court' and the Parterre.
- 2.3.4. The site has been the subject of a recent geophysical (resistivity) survey undertaken by *Liss Archaeological Group*. The survey identified a number of anomalies which formed target areas for the current project, including a linear arrangement of buried features lying close to the presumed position of the 'lost' North Wing, as well as a number of more curvilinear anomalies to the north and south.

3.0 ARCHAEOLOGICAL METHODOLOGY

- 3.1 Locations of six trenches were provided in the NT Brief (NT 2013, Fig 8), aimed at the physical investigation of a range of anomalies identified during the geophysical survey. In the event, a total of eight trenches were laid out by the NT and then excavated and recorded, seven aimed at geophysical anomalies and one located away from any such signals to provide a trench for visiting schoolchildren to investigate (Fig 2).
- 3.2 The methodology for each of the trenches was similar, and involved the mechanical removal of the overlying topsoil of the lawn under supervision of archaeologists from ASE and NT. The underlying deposits were then manually excavated by volunteers under close supervision again by archaeologists from ASE and NT.
- 3.3 All encountered archaeological deposits, features and finds were recorded to accepted professional standards using standard Archaeology South-East context record forms. All trenches were tried in using Global Positioning System technology. Deposit colours were recorded by visual inspection and not by reference to a Munsell Colour chart.
- 3.4 A full photographic record of the work was kept and will form part of the site archive which is currently held by Archaeology South-East at the offices in Portslade, and will be deposited at Petworth House in due course. The archive consists of the following material:

Number of Contexts	57
No. of files/paper record	1
Plan and sections sheets	6
Photographs	267 digital images
Bulk finds	12 boxes

Table 1: Quantification of Site Archive

4.0 RESULTS

4.1 Introduction

- 4.1.1 Of the eight trenches located at the site, four were positioned to investigate the potential remains of the 'lost' North Wing (T2 - T5), three to investigate curvilinear anomalies (T1, T6 and T7) and one was located in a 'blank' area (T8). Sizes and orientations of the trenches varied according to the nature of the 'target' (Fig. 2).
- 4.1.2 Owing to time constraints, it was decided that Trenches 6 and 7 would not be fully investigated. Therefore after the mechanical removal of the topsoil common to all of the trenches, no further archaeological work was undertaken apart from the location of the trenches by Global Positioning System (GPS). The spoil from the trenches was scanned both visually and with a metal detector, but no significant archaeological artefacts were recovered.
- 4.1.3 Similarly investigations in Trench 8 were limited to excavation and sieving of the topsoil by local schoolchildren. Material from this deposit (context [9/001]) included significant quantities of pottery ranging in date from the 13th to the 18th centuries.
- 4.1.4 The other trenches provided clearer evidence of past activity at the site, and provided data sufficient to address the research aims of the project and to allow participation by a significant number of volunteers.

4.2 The 'Lost' North Wing - Trenches 3, 4 and 5 (Figs 6, 7 and 8)

- 4.2.1 The geophysics results showed a linear arrangement of anomalies running at a right angle to the surviving alignment of Petworth House almost exactly where the 'lost' North Wing should have been, based on cartographic and pictorial evidence (NT 2013) and on the location of masonry visible in the side of the ha-ha ditch (T3). Two other trenches were located in the immediate area (T4 and T5).
- 4.2.2 The earliest deposits encountered at the site consisted of surviving elements of the 'lost' North Wing including the remains of floors and external and internal walls and drains. Arguably much of the overlying material was the result of demolition of the structure, moved/redeposited during later landscaping at the site.
- 4.2.3 The *in situ* evidence of floors was uncovered in Trenches 3, 4 and 5 and consisted of the mortar bed on which tiles had been lain and subsequently removed (presumably at the time of the demolition) leaving clear impressions of where the tiles had been (contexts [3/006], [3/007], [4/009], [4/010], [5/005] and [5/008]). The mortar was encountered at height of 61.40mAOD and was consistent across the site.
- 4.2.4 External walls were encountered in Trenches 3 and 4, providing the internal width of the North Wing, some 12.6m. The wall in Trench 4 had suffered considerable damage during the construction and subsequent erosion of the

edge of the ha-ha, but did survive to a height of 450mm above the level of the mortar bed for the floor tiles. Built of local sandstone bonded with an off-white chalky mortar, the masonry, Wall [4/003] had been repaired with unfrogged red brick as the outer face had eroded since the excavation of the ha-ha ditch in the late 19th century.

- 4.2.5 The inner face of the wall had been plastered, contexts ([4/006] [4/007]). The plaster seems to have been applied in two coats. Both were lime-based and the base coat contained animal hair (presumably horse hair), while the inner surface was finer with no hair, and was finished with a coat of whitewash.
- 4.2.6 The other external wall, encountered in Trench 3 was encountered at much the same level as the mortar base for the tiled floor and represents the survival of only the wall's foundation, context [3/010]. It was 1.1m wide and consisted of the same local sandstone seen in the surviving element of the north wall with a similar bonding material.
- 4.2.7 A tile-built drain associated with the wall, [3/011] ran parallel to it, but appears to have been replaced by brick and stone-built drains [3/012] and [3/013] which ran away from the wall to a stone drain [3/015], which also ran parallel to the wall. The stratigraphic relationship between drains [3/013] and earlier drain [3/011] clearly indicates more than one phase of drainage associated with the North Wing.
- 4.2.8 Tile-built drain [3/014] appears to have been located within the North Wing, perhaps under the floor. Unfortunately this feature was located partly under the western baulk of the trench, and apart from the fact that it was constructed from re-used roof tiles little can be said of it.
- 4.2.9 In Trench 4 there was a plastered dividing wall, Wall [4/008], which was 360mm wide and survived to a height of 600mm above the level of mortar bed for the tiled floor. It contained stone brick and tile and had been inserted in the mortar bed, and was butted up against the external wall, strongly suggesting that it was an insertion to sub-divide the available space into two areas (labelled *Room 1* and *Room 2* for the purposes of recording).
- 4.2.10 The North Wing was demolished in the late 18th century during a campaign of modernisation by the 6th Duke of Somerset, resulting in much of the demolition rubble encountered above the *in situ* masonry.

4.3 A 'Very Formal' Garden - Trenches 2, 3, 4 and 5 (Figs. 5, 6, 7 and 8)

- 4.3.1 Some of this rubble was used for levelling before the creation of '*gardens laid out on very formal lines, in the French style, by George London and Henry Wise between 1702 and 1710*' (Aldsworth 1980, 375). Levelling deposits were evident in Trenches 3, 4 and 5, used to backfill the remains of the North Wing and allow the construction of the elements of the formal garden, recorded as contexts [3/004], [3/005], [3/008], [4/004], [4/005] and [5/004]. A range of finds were recovered from these deposits, including residual prehistoric pottery.
- 4.3.2 Although there were no actual indications of the nature or appearance of the 'new' garden in Trenches 4 or 5, there was abundant evidence of hard

landscaping in Trenches 2 and 3. A substantial stone-built drain was encountered in Trench 3 running broadly east to west across the trench, Masonry [3/003]. It was 900mm wide, with larger stones forming a kerb on its southern edge.

4.3.3 However, the most spectacular evidence of hard landscaping was encountered in Trench 2. It consisted of a large area of sandstone courtyard surface, contexts [2/003] and [2/010]. The surface had an integrated pathway demarked by stones laid on a different orientation, context [2/012], and an associated drain, [2/009], as well as the possible remains of a flower bed, cut [2/008], filled with a silty clay topsoil, context [2/007].

4.4 Quarry Pits - Trench 1 (Fig. 4)

4.4.1 Trench 1 was located to the north of the 'lost' Wing in an area of irregular curvilinear geophysical anomalies. The topsoil contained a similar date range of finds to that seen in Trench 8, but manual excavation of the surface of the 'underlying 'natural' sandstone, context [1/006] revealed the location of two quarry pits. There was no evidence of a layer of rubble given the distance of the trench from the location of known buildings.

4.4.2 Both quarry pits [1/003] and [1/005] had been backfilled with silty clay containing material again dating from the 13th to the 18th centuries, the later date providing a *terminus post quem* (earliest date) for the backfilling of the features with silty clays [1/002] and [1/004] respectively. Therefore it appears highly likely that the quarry pits post-date the construction (and demolition) of the North Wing and represent opportunist quarrying of building material, presumably for small-scale repairs to the house or other associated buildings, or hard landscaping in the parkland, perhaps during creation of the formal garden.

4.5 'Capability' Brown Creates a Parkscape (Fig. 5)

4.5.1 All of the trenches in the area of the North Wing contained a layer of building rubble immediately below the topsoil (contexts [2/002], [3/002], [4/002] and [5/002] [5/003]) which overlay all of the other deposits found in the trenches. The rubble contained a mixture of material mostly predating Lancelot 'Capability' Brown's landscaping carried out between 1755 and 1765 (*ibid.*) but with some later material suggesting some landscaping modifications (as suggested by Aldsworth 1980). Noteworthy finds from the rubble layers included residual prehistoric flintwork, Anglo-Saxon pottery and melted lead, presumably from the North Wing's roof. However, the most noteworthy and photogenic find from the rubble (context [3/002]) was an applied bottle seal with the Percy family crest (Fig 9). The piece dates from the period c.1650-1682.

4.5.2 Arguably the most obvious remnant of Brown's work was encountered in Trench 2, where it appears that a wall had been removed by a trench, cut [2/006] and [2/011], leaving a stub of Wall [2/004] *in situ*. 'Natural' sandstone was exposed in the base of the robber trench, context [2/013].

4.6 Later Works (Fig. 8)

- 4.6.1 Brick-lined drain [5/006] was encountered in Trench 5, cut into the 'parkscape' rubble and on an orientation suggesting no relationship with the Lost Wing or subsequent formal garden. A second possible drain, [5/007] was not investigated.

- 4.6.2 The silty clay topsoils (contexts [1/001], [2/001], [3/001], [4/001] and 5/001) from the investigated trenches contained a range of artefacts resulting from the regular reworking/landscaping of the area, including residual prehistoric flintwork.

5.0 THE FINDS

5.1 Introduction by Trista Clifford

5.1.1 A large assemblage of finds was recovered during the excavations at Petworth House. All bulk finds were washed and dried by context. Materials were bagged by type and pottery marked with site code and context. The bulk assemblage is quantified by count and weight (Appendix 1).

5.2 The Pottery by Luke Barber

5.2.1 The excavations produced 227 sherds of pottery, weighing 2060g, from 16 individually numbered contexts. Following spot dating the material was fully recorded for archive on pro forma. The pottery from each context has been quantified by sherd count, weight and estimated number of vessels per fabric. This data, along with details about form and decoration, have also been input into an excel database.

Fabric code	Expansion	Suggested Date range	No. sherds	Weight
PREHIST	Prehistoric flint tempered	C1st millennium BC	1	2g
AS1	Sand & flint tempered	?C8th-10 th	1	3g
High Medieval				
MQ1	Coarse quartz tempered	c. 1100-1250	1	10g
MQ2	Medium/coarse quartz with sparse larger quartz to 2mm	c. 1175-1300	1	3g
MQ3	Medium quartz	c. 1200-1375	5	53g
MQ4	Fine quartz	c. 1250-1450	8	53g
MQ5	Very fine quartz	c. 1250-1400	2	30g
MQ6	Kingston-type Ware	c. 1240-1400	1	3g
Transitional				
T1	Painted ware type fine buff sandy	c. 1450-1575	52	481g
T2	Buff sandy ware (Surrey?)	c. 1450-1550	2	10g
T3	Paler version of T1	c. 1450-1575	4	21g
T4	Tudor green-type	c. 1450-1550	1	3g
Early Post-medieval				
GRE1	Red earthenware (abundant sand)	c. 1550-1700	33	313g
GRE2	Red earthenware (sparse sand)	c. 1575-1750	39	267g
GRE3	Fine well-fired earthenware	c. 1525-1700	8	216g
GRE4	Red earthenware (fe oxide type)	c. 1525-1700	8	143g
BORDB	Border ware (brown glazed)	c. 1550-1700	1	1g
BORDG	Border ware (green glazed)	c. 1550-1700	5	31g
BORDY	Border ware (yellow glazed)	c. 1550-1700	16	87g
TGW	Tin-glazed earthenware	c. 1600-1750	4	7g
LONS	London stoneware	c. 1670-1800	4	17g
DERBY	Derby-type stoneware	c. 1700-1800	1	8g
SWSG	Staffordshire white salt-glazed stoneware	c. 1725-1780	4	6g
FREC	Frechen stoneware	c. 1550-1700	10	237g
WERA	Werra slipware	c. 1580-1650	1	1g
WEST	Westerwald stoneware	c. 1590-1750	3	20g
CHPO	Chinese Porcelain	c. 1700-1800	2	2g
Late Post-medieval				
CREA	Creamware	c. 1760-1820	7	12g
UE	Unglazed earthenware	c. 1800-1900	1	9g
TPW2	Blue transfer-printed whiteware	c. 1830-1900	1	11g
Totals			227	2060g

Table 2: Chronological breakdown of whole assemblage by fabric/ware

- 5.2.2 The assemblage is totally dominated by relatively small sherds (to 40mm across) with an overall average sherd weight of just 9.1g. Most have clear signs of moderate/heavy abrasion. This, combined with the marked chronological mixing in most deposits, strongly suggests the material has been subjected to repeated reworking. As such the current report combines the assemblage in order to gain a more reliable chronological overview of activity at the site. A wide chronological range of pottery is present, with each period producing a number of distinct fabrics/wares. The overall assemblage is shown in Table 2.
- 5.2.3 The earliest sherd from the site consists of a 2g scrap of heavily abraded flint tempered pottery, residual in [3/004]. Although a Saxon date cannot be ruled out it is considered more likely to be a 1st millennium BC piece. The single sand and flint tempered reduced bodysherd from [3/002] is more typically Saxon but without a larger assemblage can only generally be placed between the 8th to 10th centuries. Although of interest, these early sherds can be seen as no more than a sparse background scatter from manuring. However, this may change if larger quantities are recovered from future excavations.
- 5.2.4 The medieval period is far better represented, with 18 sherds (152g) from 18 different vessels. Despite this increase in quantities the material consists of abraded small sherds, mainly from undecorated cooking pots. Very few poorly glazed jugs are present. Most are in one of five local fine/medium sandy fabrics that span the later 12th to mid/late 14th centuries though there is noting in the assemblage that need be before c.1225. The only non-local fabric consists of a single Kingston-type ware sherd from a jug in [2/002]. A more intense manuring scatter is suggested, however, the notable increase in quantities from Trench 1 (14/84g, representing 77.8% of the medieval assemblage by sherd count) suggest occupation may have been quite close.
- 5.2.5 There is a notable rise again in the Transitional period (c.1375-1550: 59 sherds weighing 515g from 57 ENV). However, most of this appears to relate to the latter part of this range, perhaps after 1450/75. Whether there was a period of abandonment between 1350 and 1450/75 is difficult to say both as a result of the indistinct nature of the local ceramics at this time and the small size of the current assemblage. The majority of this assemblage is composed of the fine buff sandy wares, a fabric typically associated with the painted wares very common in West Sussex between the mid 15th and mid 16th centuries. However, the current assemblages has only one sherd with white slip decoration and the presence of internal green glazing on a number of the vessels may suggest the bulk of the assemblage is better placed in the 16th century, perhaps with some sherds running beyond c.1550.
- 5.2.6 The lack of typical imports one may expect for the late 15th to mid 16th centuries (notably Raeren stoneware) would be in keeping with this suggestion. However, a more securely stratified sequence will be needed from the site to establish beyond doubt just how late these buff earthenwares were produced. A range of jars, bowls, dishes and pitchers are represented, all of local manufacture (possibly Grafham), together with a single Surrey Tudor Green sherd. Pottery of this period was located in all trenches with the exception of Trench 4.

- 5.2.7 The Early Post-medieval period produced the largest chronological group from the excavations (139/1356g, 119 ENV), with sherds of this date being recovered from all trenches. This is obviously the most intense period of activity, predominantly spanning the later 16th to 17th centuries. The assemblage is dominated by one of a number of local earthenware fabrics, some of which probably start early in the 16th century (Table 2). A typical range of domestic forms is represented, including jars, bowls, jugs, mugs and a single chaffing dish (context [3/005]). The assemblage contains a good proportion of regional wares from other parts of the country.
- 5.2.8 Unsurprisingly the Surrey-Hampshire Border ware industry is well represented but there are tin-glazed earthenwares and stonewares (tankards) from London. At 11.5% of the assemblage imports are well represented in the Early Post-medieval period, though these are of fairly standard sources: principally the German stoneware industry at Frechen, with notable quantities of Westerwald cobalt blue decorated tankards too. There is also a tiny sherd, probably from a Werra slipware plate/dish (context [2/001]), and two small sherds from early 18th- century Chinese porcelain vessels (contexts [3/001] and [3/002]). The few sherds of London and Derby stonewares together with the Staffordshire white salt-glazed stonewares are contemporary with this early/mid 18th- century activity.
- 5.2.9 The Late Post-medieval period is not well represented in the assemblage (9/32g from 7 ENV). The seven sherds of creamware from Trenches 1, 2, 3 and 8 all appear to be from plates and probably represent the continuation of the early/mid 18th- century activity, perhaps to around 1780. There is then a notable gap in the ceramic series with the single sherds of unglazed earthenware (a flower pot) and blue transfer-printed whiteware (both from [3/001]) post-dating c. 1830. The lack of 19th- century pottery is quite marked.

5.3 The Ceramic Building Material Sue Pringle

5.3.1 Introduction

A total of 817 fragments of late medieval and early post-medieval ceramic building materials, plaster/mortar and stone weighing 151.412 kg was examined from 23 contexts. Of these, eight contexts: 1/001, 3/001, 3/002, 4/001, 4/004, 5/001, 5/002 and 8/001, were very large (more than 50 fragments) and three were large (25-50 fragments); the remainder each contained fewer than 25 fragments. The total weight and number of fragments from each functional category is set out in Table 1. The assemblage was generally in good condition and unabraded, although a number of bricks and tiles showed signs of having been burnt. The decorative plaster from the site is discussed in a separate report.

5.3.2 Methodology

All the ceramic building material was recorded on a standard recording form. The tile was quantified by fabric, form, weight and fragment count with the exception of that from unstratified context 8/001 which was scanned and quantified by form, weight and count only. Fabric descriptions were compiled with the aid of a microscope. The information on the recording sheets was

entered onto an Excel database. The floor tiles, shaped bricks, glazed and decorated roof tiles, together with examples of the bricks and tiles and samples of the fabric types were retained; the remainder of the material was discarded.

5.3.3 Dating

The broad date range of the material in each context is summarised in Table 4. The dates for peg tiles and bricks are approximate; peg tiles in particular are hard to date precisely as the form changed very little between the 14th and 18th centuries.

5.3.4 Summary of fabrics and forms

Stone

One fragment of glauconitic sandstone, oxidised by exposure to heat, came from context 4/005. No working was visible and it was recorded as rubble stone.

Bricks by Trista Clifford

A total of 327 brick fragments weighing just over 81.5kg were recovered during the excavations. Most of the brick comes from either the topsoil or demolition layers overlying or within the exterior walls of the house within trenches 3 and 4.

Fabrics

Six fabrics were identified. The assemblage is dominated by sandy fabrics B1, B2 and B3 which together make up 59% of the brick by count. These fabrics differ predominantly in the amount of quartz inclusions present; B3 has the most abundant quartz. Fabrics B4, B5 and B6 are distinctive in their dissimilarity to the sandy fabrics and each other. Fabric B4 in particular is very close to roofing tile fabric T4. Full fabric descriptions are included as Appendix 1. A significant proportion of the assemblage (18% by count) was vitrified or reduced indicating a possible episode of burning, some bricks having been reused post- vitrification.

Forms

Complete bricks were retained during the excavations as samples, although it is interesting to note that complete bricks in fabrics B1, B4, B5 and B6 are absent from the assemblage. All are unfrosted, many with fairly sharp arrises and coarse moulding sand. Some show creasing and/or grass impressions on the base or sides.

Table 5 shows the range of dimensions present for each fabric. A standardisation in size across all fabrics is apparent with mean dimensions of 220 x 110 x 47mm. Two thicker, wider bricks from [4/004] and [5/003] are likely to be of slightly later date than the rest of the assemblage. Indented margins are present in approximately half of the bricks from which meaningful dimensions could be taken.

Shaped bricks were recovered from several contexts in all fabrics except B6. Most appear to have been moulded, for example two with pointed headers in fabric B2, and two moulded with a 45 degree diagonal header in B2 and B3. A brick cut to a trapezoid came from the fill of Room 2 [4/005]. A single example in fabric B5 was cut at 45 degrees across the corners at one end, presumably to produce a point. Smaller fragments show evidence of shaping although the form is not discernible.

Several bricks show evidence of abrasion along the stretcher or upper surface. This is indicative of use in flooring rather than walling and occurs in examples from [1/001], [2/002], [3/004], [4/004], [5/001] and [5/003]. No specifically made 'floor bricks' were identified within the assemblage.

Dating

Whilst the size and form of the majority of brick is indicative of an early post medieval date, aspects of the assemblage displays some evidence of later re-use: Table 4 shows approximate spot dates by context. It appears that no brick samples were taken from the masonry walls and only one from brick lined drain [3/003]. Therefore, although at least two phases of building appear to be evident it is not possible to compare these features for dating/phasing.

Re-used bricks came from levelling deposit [3/004], demolition layer [3/008] and Room 1 demolition deposit [4/004]. These display two different types of mortar: a white sandy lime based mortar overlain by a later pale brown one. In some cases, un-vitrified mortar is found over vitrified or reduced surfaces indicating the brick was probably reused following an episode of burning; another example exhibits mortar over a broken face, again indicating reuse.

Historical records indicate that the North Wing was built in c.15th century and demolished in 1692. It is proposed that the brick assemblage is largely contemporary with the latter part of the life of the building and that re-use of materials took place either during the life of the building or subsequent remodelling of the garden landscape after demolition.

Roofing tiles

Fabrics

The roof tile fabrics consisted of orange clays streaked with varying amounts of cream-coloured Gault clay, quartz sand and red iron-rich material, all of which appeared to reflect a similar geology. The fabric subdivisions were based on the texture of the matrix and the size and frequency of the inclusions. Two sherds from Trench 3 had distinctly different fabrics; a light orange fabric containing abundant fine to medium quartz, dark red iron-rich material and coarse to very coarse white flint flakes [3/000] and a pale brown fabric with rose quartz (fabric T6) [3/004]. The flint-tempered tile was glazed, possibly accidentally, and both of these may be residual medieval material. Detailed fabric descriptions are set out in Appendix 2.

The most abundant tile fragments were in orange sandy fabric T3, which were concentrated mainly in trenches 1 and 3. However, those tiles were quite abraded and accounted for only 13% of the assemblage by weight, which suggests that they may have been used relatively early in the building sequence. Tiles in fabric T4 were fewer in number, but they were relatively large and accounted for 31% of the tile by weight; their occurrence in Trench 4 suggests that they were deposited later in the sequence. The average weights of tile fragments in fabrics T2, and T3 were less than half the average sherd weight for all the (unburnt) tiles, 89 grams, whereas fragments in T4 and T5 were considerably heavier. This suggests that the tiles in fabrics T2 and T3 were from earlier building phases than those in T4 and T5, described below. Vitrified and reduced peg tiles were most abundant in trenches 3 and 4; where there appear likely to have been fire-damaged tiles in fabrics FT3 and FT4 respectively.

Forms

A number of complete or near complete peg tiles were recovered. The largest, with average dimensions of 276.5 mm x 160.5 x 13 mm, were in fabric T5. These tiles conform with the standard size laid down by statute in 1477 (Salzman, 1952, pp 230-231); most came from [3/014], and [4/001]. The only complete tile in fabric T1 had dimensions of 258 x 158 x 16 mm; two tiles averaged 251.5 x 150.5 x 14 mm (fabric T4), and the smallest tile, in fabric T7, was 240 x 145 x 13 mm. All the tile in other fabrics was fragmentary.

Glazed 'fish scale' tiles

Trench 3 produced eleven fragments of an unusual tile type in fabric T3. The tiles, which were a similar thickness to peg tiles, were moulded with a semicircular end and were glazed dark green on the top surface, edges and on the perimeter of the underside. No complete dimensions were present, and the upper parts were missing which suggests that only the lower part of the tile was glazed. No parallel has been found for these, but they may have been roof tiles, in which case they may have been contemporary with the other roof tile in Fabric T3, possibly dating from the later 15th or 16th century, or they may be a particularly elaborate version of the wall-tiles which came into fashion in the south-east of England in the later 17th century (Clifton-Taylor 1987, 279).

Ridge tiles

Seventeen fragments of ridge tile were identified in fabrics 1, 2 and 3, although this may be an under-representation of their presence because of the difficulty of differentiating between small pieces of ridge and flat tiles. Most were residual in topsoil or rubble deposits in trenches 1, 2 and 3. Two examples were noted from trench 3 with simple low-profile crenellated decoration (fabrics T1 and T2); these were unglazed, and no glaze was present on any of the ridge tiles.

Floor tiles

The floor tile assemblage includes both glazed and unglazed tiles. Six fabrics were identified, all orange in colour but with varying amounts of cream silty inclusions and quartz and slight textural differences.

Glazed tiles were noted in four sizes in fabrics FT1, FT3, FT4 and FT6. The best represented was the group of eleven tiles with light green and yellow glazes over a thin white slip which had been re-used to cover the drain in [3/011]. These tiles had average dimensions of 170 mm square by 31mm thick, knife-cut moulded bevels and were unkeyed. They were in a distinctive fabric which had sparse to moderate inclusions of coarse polycrystalline quartz (fabric FT6). A second group of larger dark green-glazed tiles with sides more than 210 mm long and c. 37 mm thick also came from Trench 3. These appeared to have moulded rather than knife-cut bevels and were in fabric FT3, the finest of the sandy fabrics. A single rectangular green-glazed tile, 154 mm x 71.5 mm and 25 mm thick (fabric FT1), came from demolition deposits in Room 21 [4/004], and a glazed fragment 32 mm thick came from trench 5 (fabric FT4).

Unglazed floor tiles were noted in fabrics FT1, FT2, FT4 and FT5. The most numerous averaged 146 mm square by 31 mm thick and occurred in fabrics FT1 and FT5; some of the former appeared to have been exposed to burning. A larger unglazed tile in fabric FT2, measuring 210 mm x 205 mm x 30 mm, had been re-used to cover the drain in Trench 3. A fragmentary tile in the same fabric was only 80mm long; this small tile was 33mm thick [3/004]. A single unglazed floor tile fragment in FT4 was 34mm thick. All the unglazed tiles were unkeyed with knife-cut bevelled sides.

No definite nail-holes of the type present on most imported Flemish tiles were noted in any of the floor tiles; this and the similarity of their fabrics to each other and to the bricks and roof tiles suggests that they were made fairly locally.

All the glazed tiles are likely to be no later than c. 1550-1600. The earliest tiles are probably those covering the drain; their dimensions suggest a date in the second half of the 15th century. The unglazed tiles are probably slightly later, probably c. 1600 to 1700.

Stabbed tile

An unusual stabbed tile with a thin uneven green glaze on the upper surface was incorporated into the drain cover [3/011]. The tile was approximately square, measuring 205mm x 198mm and 26mm thick and the base stabbed with 25 pointed holes each c. 8-9 mm square. The bevelled sides still retained moulding sand, although a ridge of clay along one side of the base appeared to have been smoothed. The tile had a micaceous light orange brown fabric with lenses of paler silty clay, fine to medium quartz and red iron-rich inclusions. The stabbed holes and the ridged base suggest that it may originally have had an industrial use, possibly as kiln furniture.

Mortar

Three fragments of abraded lime mortar came from topsoil in trench 4.

5.3.5 Summary

The building materials from the site ranged in date from c. 1200 AD to the 18th century. The very small amount of identifiable medieval tile was residual; the majority of the material was of early post-medieval date. Variations in the fabrics were textural rather than geological, and it is likely that most of the material was from local sources.

The variations in brick fabrics and tile dimensions suggests that several structural phases were represented in the assemblage. However, in the absence of samples from standing walls, it was not possible to suggest a dated sequence for the bricks. There was evidence from the existence of different mortars that many of the bricks had been re-used before their final deposition as landfill or terracing material.

The floor tiles also reflect at least two phases of floor construction, the glazed tiles probably dating from the later 15th and 16th centuries and the unglazed tiles probably coming from 17th century floors. The roofing tiles, too, are in a range of sizes which must represent several phases; the decorated ridge tiles are likely to have been used on an early post-medieval roof and may be contemporary with the glazed floor tiles re-used to cover drain 3/011.

The green-glazed 'fish scale' tiles are very unusual and thus hard to date. If used on a roof, they may have be of a similar date to the other roof tile in fabric T3, i.e. probably 16th century. If wall-hung, they are likely to be somewhat later, possible of the later 17th century.

Burning is evident on all types of tile in the assemblage, which suggests that some parts of the structure may have been fire-damaged.

Tile type	No. of items	% of total count	Weight kg.	% of total weight
Post-medieval brick	327	40%	81420	54%
Peg tile	318	39%	30488	20%
Floor tile	82	10%	34554	23%
Ridge tile	17	2%	1822	1%
Glazed roof tile	12	1%	648	<1%
Roman tile	1	<1%	28	<1%
Unidentified tile	56	7%	1726	1%
Mortar/plaster	3	<1%	96	<1%
Stone	1	<1%	630	<1%
Total	817	100%	151412	100%

Table 3: Summary of building materials

Context	Context date, approximate	Material
1/001	1500-1700	Wear-abraded and vitrified bricks, peg and ridge tiles
1/004	1450-1700	Early post-medieval brick, medieval to early post-medieval peg tile
2/001	1600-1700, resid ?16th c brick?	Unglazed floor tiles, moulded shaped brick, peg and ridge tiles
2/002	1600-1700	Unglazed floor tile, late 15th/16th c brick, late med/early post-med peg and ridge tile?
3/000	12th/13th c? residual	Flint tempered tile, glazed/vitrified
3/001	1600-1750	Unglazed floor tiles, glazed 'fish scale' tiles, early post-medieval brick, including possibly residual moulded shaped bricks, peg and ridge tile
3/002	Mixed; 1600-1750; resid ?Roman, medieval, 16th c	Unglazed floor tile, glazed 'fish scale' tiles, early post-med brick, including shaped bricks, residual decorated ridge, peg tile
3/003	1500-1750	Shaped brick; glazed 'fish scale' tile
3/004	1450-1750	Glazed and unglazed floor tile, early post-med brick including some re-used, peg and ridge tiles
3/005	1300-1750	Peg tile
3/008	1450-1750	Bricks, including 1 cut to shape
3/009	1600-1750, resid med/early post-med	Unglazed floor tiles; residual med decorated ridge tile, early post-med brick
3/011	?1600-1700, resid 1450-1550	Plain floor tile, late 15th/16th c yellow and green-glazed floor tiles; re-used ?kiln tile
3/014	1250-1700	Peg tiles
4/001	1450-1750	Early post-medieval bricks, peg tiles
4/002	1600-1725	unglazed floor tile, early post-medieval brick, peg tile
4/004	1600-1750, resid med/early post-med	Floor tiles, green glazed and unglazed; early post-medieval brick, some re-used, fresh peg tile
4/005	1600-1750	Unglazed floor tiles, early post-medieval bricks, peg tile
5/001	1450-1750	Abraded early post-medieval brick and peg tile
5/002	1450-1750	Green-glazed floor tile, abraded early post-medieval brick, peg and abraded roof tile
5/003	1450-1725	Early post-medieval brick including shaped moulded brick, ?unglazed floor tile, peg tile
5/008	1600-1800	Unglazed floor tiles
8/001	1600-1800	Unglazed floor tile, early post-medieval brick, peg tile

Table 4: Broad context dates with material present

Fabric	Length mm	Breadth mm	Thickness mm
B1	155+	102-131	50-64
B2	215-225	101-119	43-57
B3	220	104-115	46-52
B4	-	-	-
B5	-	110-120	40-58
B6	-	110	50

Table 5: Brick dimensions by fabric (mm)

Fabric code	Fragment count	Fragment count as % of total	Weight grams	Weight as % of total	Trenches in which they occur
T1	56	19%	4120	14%	1, 3, 4; very little in 2
T2	26	9%	1012	3%	Most from 1
T3	102	35%	3976	13%	most from 1 and 3, very little from 2, 4, 5
T4	46	16%	9178	31%	most from 4/004 Room 1
T5	22	8%	3390	11%	most from 3/014, and 4/001
T6	1	<0%	36	<0%	3/004
T7	17	6%	2278	8%	most from 4/001
Vitrified	20	7%	5816	20%	Most from 4, 3
Total	290	100%	29806	100%	

Table 6: Relative quantities of tile fabrics by fragment count and weight

Material for illustration or display

The following items should be considered for illustration if the site is published.

Context	Form	Comments
3/001, 3/003	Glazed fish-scale tiles	
3/011	Glazed floor tiles	Early tiles re-used to cover drain
4/004	Floor tile	Rectangular green-glazed tile
3/011	Stabbed tile	Kiln tile?
3/004	Floor tile	Small unglazed tile
3/014	Peg tile	Fabric T5
4/001	Peg tile	Fabric T7
4/004	Peg tile	Fabrics T1, T4
3/001	Shaped brick	Brick in fabric B3
3/003	Shaped brick	Brick in fabric B2
4/005	Shaped brick	Brick in fabric B1

Table 7: CBM recommended for illustration

5.4 The Plasterwork by Trista Clifford

- 5.4.1 A fairly large assemblage of plaster weighing a total of 25.3kg was recovered from twelve separate contexts. The assemblage includes undecorated, painted and moulded plaster as well as render. The condition of the pieces is variable; some are very abraded or had been damaged by cleaning whilst other fragments are reasonably robust and retain a lot of detail.
- 5.4.2 The assemblage was scanned rapidly by eye and recorded on the basis of decorative elements such as moulding and painted finish by context. Measurements were taken and the profiles drawn of the largest and/ or most diagnostic pieces. The angle of lathe impressions was noted where appropriate.
- 5.4.3 The basic material of both flatwork and decorative motifs is lime based plaster with various aggregates added, such as animal hair, fine sand and in some instances on very thick pieces larger pebbles. Generally speaking the technique of application involved a coarser, sandy lime plaster sometimes with animal hair present as a base, overlain by a finer plaster and finished with a coat of white distemper/ whitewash. None of the decorative elements appear to contain animal hair in the plaster.
- 5.4.4 In some cases the plaster was applied directly onto brickwork although the majority of decorative plasterwork shows lathe impressions of between c.20-40mm in width on the reverse, suggesting the walls were of wooden lathe construction above the brick foundations at some point during the life of the building. At least one piece of flat wall plaster shows a probable wattle impression as opposed to the flat lathe, suggesting both techniques were employed during the life of the building.
- 5.4.5 A large quantity of plaster from Trench 4 appears to be of different consistency to the interior plasterwork. The sand is coarser and there are large lime/chalky inclusions. In some examples the plaster has a pinkish hue due to the inclusion of brick dust/ aggregate. These pieces frequently have a black coating on one side- either 'blacking' (a black coating painted on the interior of buildings of inferior status) or sooting caused by proximity to fire. Without chemical analysis it is not clear whether either or indeed both are present. The difference in texture alone however indicates that this type of plaster has a different use to the finer one used for interior decoration.
- 5.4.6 Decorative Elements

Runs

Decorative runs in the form of narrow ribs, which would have formed a patterned lattice over the wall or ceiling enclosing further decorative elements, make up the majority of the plaster recovered and were present in trench 3. Two decorative styles were apparent. The first comprises a prominent central pointed motif flanked by ovolo mouldings, the second comprises a central torus flanked by rounded right angled mouldings and ovolo mouldings. Both styles occur in both straight and curved pieces and a corner piece is also present; together they possibly indicate an arrangement

similar to the native medieval traditions seen at Enfield Manor House and Goodmans Yard, Minorities (Gapper 2013 Fig. 70 and 72)

Interestingly, some fragments from [3/009] indicate two phases of moulding, the more elaborate earlier ribs having been remodelled with an overlaying plain cyma moulding.

Further fragments from [3/004] show a central ovolo with two pointed fillets on one side and a wide angled, flat fillet on the other. Other smaller pieces which may also be rib fragments or cornice have decorative motifs such as cyma, chamfered edge, fillet and double ovolo.

Cornices

Two fragments of cornice from a wall/ceiling junction or possibly a window casement came from [3/003]. The profile shows a triple ovolo with a small cavetto and fillet. Context [4/005] contained a series of painted fragments (see below) the largest of which shows an ovolo moulding with large right angled moulding above with an astragal beading. It is most probable that these fragments constitute a wall/ceiling junction cornice.

A further large cornice, possibly a chimney piece corner with cyma and reeded moulding came from [4/002].

Press mouldings

Press moulding involved the pressing of near dry plaster into reverse carved timber moulds and produced flat backed decorative tiles of motifs which could be set into flatwork. Trench 3 produced two different leaf shaped (foliate) designs manufactured in this manner, as well as a very abraded heraldic rose, similar to those found at Moselle Place (Smith 2008) which were of 16-17th century date. The heraldic or 'Tudor' rose is a common motif of the 16-17th century present in the surviving decorative plasterwork at Hampton Court and Knole House, amongst others. Two further abraded pieces, one with beading and the other depicting a leaf and bud design similar to a larger version surviving at Lanhydrock Cornwall (Beard 2011, pl17) may have been produced in this way although also could have been produced in the same way as a run moulding. Another enigmatic piece is possibly part of a large fleur de lys motif.

Freehand mouldings

Only one fragment could be identified as being free moulded. Context [3/004] contained a probable ?acanthus moulding which may be part of a column finial, decorative frieze or pendant decoration.

Painted finish

The basic painted finish present on most pieces either moulded or flatwork is a creamy white distemper/ lime wash coating which on several pieces is flaking off. Possible black and red paint was present in small quantities on a flat piece from [3/003]. A number of pieces of ?cornicing exhibited a dull red painted stripe, a colour typical of medieval- post medieval plaster and wall

painting (Gapper 2011). As described above, the coarser non decorative plaster from trench 4 exhibits a black covering which may be sooting or 'blacking'.

- 5.4.7 The excavations produced a large amount of plasterwork including some decorative elements which hint at the interior design of the North Wing during the 17th century. This report gives a very brief overview however further analysis by an architectural historian would almost certainly shed more light on the plasterwork and perhaps even enable some limited reconstruction to be attempted. Study of the household accounts of the period may also enable tighter dating of the decorative plasterwork.

5.5 The Geological Material by Luke Barber

- 5.5.1 Excavations at the site recovered 317 pieces of stone, weighing 67,234g, from 21 individually numbered contexts. Most deposits produced at least some stone and all trenches are represented in the assemblage. The material has been fully recorded on *pro forma* for the archive. The stone from each context has been quantified by number of fragments and weight by stone type. This data has also been entered into an excel archive. Some 24 different stone types were identified in the assemblage, though a number of these probably represent different strata within the same quarry.

- 5.5.2 Much of the stone is notably weathered and the vast majority is from deposits where the ceramics clearly show there has been extensive reworking and chronological mixing. Added to this the clear evidence that many of the roof slabs (see below) have been re-used the assemblage does not hold any chronological integrity. Having said that, considering the quantities of different dated pottery involved and the stone types in use, it is probable that the majority of the stone assemblage can be placed between the mid 15th to 17th centuries. The assemblage can be summarised under four functional categories: building material, tools, fuel and miscellaneous.

- 5.5.3 By far the largest element of the stone assemblage is associated with building. Some 75 pieces (25,034g) can be seen to come from walling. Nearly all of this, unsurprisingly, is in one of six variants of the Lower Greensand. There is part of an ashlar block from [3/002] with white plaster adhering in a yellow-grey type while two further ashlar block fragments (85 to 100mm tall) are in a light grey type with dark grey stringers/streaks (context [3/004]). Several of the pieces are notably hard cherty types and an example from [5/001] is notably rich in glauconite. The only other stone type probably associated with walling consists of fine and coarse examples of hard grey fossiliferous limestone, almost certainly from the Purbeck Beds of Dorset (Trenches 2, 3 and 8 producing 33 weathered pieces weighing 6554g). In addition to the walling material there are nine pieces (4878g) that appear to be from carved architectural elements. These consist of three pieces of window mullion in the yellow Lower greensand (contexts [2/002] and [3/004]) and two fragments from a moulded and highly polished slab top in Sussex Marble (context T3 u/s and [3/004]), possibly from a fireplace.

- 5.5.4 Context [3/001] and [3/002] produced three fragments from 46mm thick moulded slabs of white oolitic limestone. These may well be from window cills but more would be needed to confirm this. Although a Dorset/Portland source

is the most obvious, the stone does not have the voided matrix so typical of Portland stone and other sources are possible. The only other architectural fragment consists of a piece of finely carved tracery in Caen stone (context [3/004]). This probably predates the mid 16th century and could be of the later medieval period.

- 5.5.5 The other notable assemblage of building material consists of roof coverings. There are 159 pieces (33,443g) of stone roofing slab (Trenches 1 to 5 only) in one of four stone types. Two of these consist of the typical calcareous Horsham stone (a light/mid grey type and a more diverse group of brown to purple colour) while the other two are of much more porous decalcified type (usually browns or yellow/brown striped). Both types have been noted amongst Roman roofing slabs at Bignor where initially it was thought that the calcareous type were Horsham stone from the Weald Clay, while the non-calcareous type may have been a local Lower Greensand equivalent. However, the current assemblage contains a few pieces with grey calcareous 'cores' surrounded by brown non-calcareous rinds. This suggests that all may well be from the Horsham Stone beds after all.
- 5.5.6 The current roofing slabs vary greatly in thickness (9mm to 30mm thick) and frequently have mortar adhering to their broken edges indicating re-use after removal from the roof. Complete dimensions are extremely rare, but 225mm and 330mm wide examples were recovered from [3/004] and an example with single 10mm diameter peg hole was found in [3/002]. The other type of stone roof covering was slate (39/1144g). The most common type (32/942g) is quite finely laminated and although similar to medieval West Country slate is not typical of it (being consistently greyer with a slightly coarser lamination). As such this would either appear to be slate from a different West Country source exploited in the early post-medieval period or indeed from a different source altogether. There are a few pieces of notably coarse granular slate, similar to Cumbrian types (4/184g: all Trench 3), and a small scatter (3/53g) of typical 19th- century Welsh slate (contexts [3/001] and [4/001]). The only other stone used in building appears to be part of a 40mm thick floor slab in Horsham stone from [3/003].
- 5.5.7 The four pieces of coal (3g) from the site are likely to be the remnants of 17th- to 19th- century fuel brought down the east coast (contexts [1/001] and [5/002]). The only tool is represented by part of a tapering circular-sectioned whetstone in an iron-flecked medium-grained sandstone (context [5/001]). Although the exact source of this stone is uncertain, a Tertiary source in Hampshire is possible.
- 5.5.8 The remaining stone consists of a mixture of small pieces with no signs of human working. Indeed, most show signs of having been water-worn or weathered by natural processes. The presence of chert (18/370g) and ferruginous carstone (2/23g) pieces derived from the Lower Greensand Beds is to be expected as a natural occurrence on the site. The weathered chalk (3/86g) is also not far from its natural outcrop on the Downs and may have been brought in to change the soil ph or to burnt in the creation of lime mortar. The three pieces of weathered carboniferous limestone (86g) from [2/002] and [3/002] are a little harder to explain, however, similar types have been noted on other Sussex sites where they were considered to represent ballast brought in for a variety of tasks. Whatever the case, the stone

assemblage clearly indicates that although local stone resources were heavily utilised in construction the site had easy access to geological resources from a much wider catchment area when required.

- 5.5.9 The vast majority of the stone assemblage is not considered to hold any further potential for analysis and is recommended for discard. The few pieces of worked material considered worth long-term curation are indicated on the archive sheets.

5.6 The Clay Tobacco Pipe by Elke Raemen

- 5.6.1 A small-sized assemblage consisting of 75 fragments (wt 203g) was recovered from 14 individually numbered contexts. Fragments were all hand-collected and include 13 bowls and bowl pieces, 59 stem fragments and three mouthpieces. Both abraded and unabraded pieces are present, suggesting a mixed level of reworking.
- 5.6.2 The assemblage has been recorded in detail on pro forma sheets for archive and data was entered onto digital spreadsheets. Recording guidelines followed are those set out by Higgins and Davey (2004). Bowls have been classified according to the London 'Chronology of Bowl Types' by Atkinson and Oswald (1969, 177-180), with prefix AO to the type numbers. This was complimented by Adrian Oswald's Simplified General Typology (1975, 37), in order to refine the dating of 18th-century clay pipes (prefix OS). None of the bowls retain maker's marks or decoration and none of the pipes required individual registered finds numbers.
- 5.6.3 The majority of stem fragments are of 17th- to early 18th-century date, although stems dating to c. 1750-1910 were also represented. Contexts are often mixed, which is reflected in other materials as well. Furthermore, given their specific morphological nature, stem fragments often appear residual or intrusive in contexts. Only three mouthpieces were recovered, all three of which were plain cut examples. Included is a 17th-century example in [3/002], a mouthpiece dating to the late 17th to early 18th century from [5/002] and a mouthpiece from [2/001] of mid 18th- to 19th- century date.
- 5.6.4 Few bowls survive, and most are incomplete. The earliest bowl, a type AO9 (c.1640-60), was recovered from [8/001]. Bowls of late 17th- to early 18th-century date were most commonly encountered and total eight. Four of these were undiagnostic of exact type, but four type AO19 examples were also recovered, including two complete examples from [3/005] (with fine burnish) and [3/009].
- 5.6.5 The only 18th-century bowl consists of two conjoining fragments from a type OS12 bowl from [1/004] (c.1700-1770). Finally, [3/002] contained a probable type AO29 (c.1840-80) with fine burnish.

5.7 The Glass by Elke Raemen

- 5.7.1 A total of 477 glass fragments weighing 1508g was recovered from 19 different contexts. All glass was hand-collected and consists mainly of window fragments. Pieces are in mixed condition with a reasonably high amount of early post-medieval glass surviving in good, nearly uncorroded condition, including potash shaft and globe bottles. Late medieval and early post-medieval window glass is mostly in poor condition, including devitrified fragments.
- 5.7.2 The earliest fragments consist of late medieval window glass. Most glass is of early post-medieval date. Later glass, of 19th- up to early 20th- century date, was found in very small quantities, usually in the topsoil. The assemblage was recorded in full on pro forma sheets for archive and data was transferred onto digital spreadsheet.
- 5.7.3 The majority of vessel glass consists of wine bottles, mostly shaft and globe bottle fragments of mid 17th- to mid 18th-century date. Fragments are usually small and no complete profiles survive. Also included is an applied seal with remains of gilt and stamped with the Percy family crest (Fig 10) consisting of a crescent beneath an Earl's coronet (RF<1>). This particular crest was no longer used at Petworth from 1682, following the marriage of the heiress Elizabeth Percy, dating the seal to ca. 1650-1682. A scatter of later wine bottles, dating up to the 19th century, was also found.
- 5.7.4 Other vessel glass consists mainly of beaker/goblet and jar fragments. Included are colourless and green tinged fragments from the folding of the foot (i.e. [1/002], [3/005]), as well as a rim fragment with applied rib ([5/002]). Drinking vessel fragments of slightly later date (18th and 19th centuries) include a colourless ribbed rim ([8/001]). Of interest are twelve high quality turquoise fragments ([3/001], [3/002], [5/002]), probably all from the same beaker or goblet. Fragments consist mostly of body fragments with optic blown depressed diamonds. A folded rim fragment is included as well. The vessel is of 17th- or 18th-century date and derives from northern Europe, probably from England or the Lowlands. It is likely to be from an *albarello* type jar (John Shepherd email 15/08/13). A cobalt blue beaker or goblet body fragment with mesh decoration was recovered from [5/002]. The piece dates to the 18th to early 19th century, although again an earlier date cannot be ruled out. Further research on these vessels would confirm their date and potentially their origin. A fine cylindrical bottle neck in green tinged glass was recovered from [3/002] and dates to the 18th to mid 19th century.
- 5.7.5 The earliest window glass is of 15th- to 16th-century date and, where the colour can be distinguished, includes pale green and colourless fragments ([3/002], [3/004], [5/003]). This late medieval glass is all in poor, often laminated and/or devitrified condition. The vast majority of the glass is of 16th- to 17th-century date and consists of colourless and pale green fragments. Later glass, dating up to the 19th century was recovered as well.
- 5.7.6 The glass consists largely of small, featureless fragments. The topsoil in Trench 3 (unstratified) includes a piece of cut glass from a diamond-shaped quarry (18th- to 19th- century date). A crown glass edge (late 17th to mid-19th century) was recovered from [3/004].

5.8 The Nails and Bulk Metalwork by Trista Clifford

- 5.8.1 A total of 302 nails weighing 528g were recovered from the excavations. The nails were recorded in detail for the archive on pro forma sheets and digitally on excel spreadsheet. Overall condition is fair with some degree of corrosion present. A series of type groups were devised: 'General purpose' nails and horseshoe nails comprise 45% and 46% of the assemblage respectively; the remaining nails are 'heavy duty' nails which probably had a structural purpose. A small number of early handmade, domed 'rose headed' nails are present however the majority are square or circular headed and all have a rectangular sectioned stem.
- 5.8.2 Horseshoe nails of two types were present. Type A, comprising 57% of the horseshoe nails, has an inverted triangular head; type B has expanded head and ears (Clark 1995, 87). It is probable that at least some of those attributed to type A are worn down versions of either type B nails or the later rectangular headed type (Clark 1995, 89). Type B nails are broadly dateable to 1200 to 1400 in London, although it is extremely likely that the type continued in use for much longer outside the capital.
- 5.8.3 Bulk metalwork includes two iron strip fragments from [2/001] and [3/002] and two heavy strap fragments with curved ends from [3/002] and [3/004]. X-radiography may aid the identification of these objects which may be possible bridle fittings. Also recovered was a possible shell splinter from a WW2 shell [3/002].
- 5.8.4 Bulk lead came from the topsoil of trenches 2 to 5 in the form of molten fragments. Fine offcuts, probably from the manufacture or repair of window leading came from [3/004] together with a large sheet offcut weighing 358g. Two further waste pieces came from Trench 3.

5.9 The Metallurgical Remains by Luke Barber

- 5.9.1 The excavations recovered 74 pieces of slag, weighing 925g, from five individually numbered contexts. The whole assemblage has been listed on pro forma for archive with only a brief overview being given here. The entire assemblage of slag was recovered from Trench 3. Judging by the associated ceramics most contexts clearly contain a wide chronological mix of material. As such the three pieces (352g) of definite smithing slag, five pieces (152g) of iron slag undiagnostic of process and 16 pieces (272g) of fuel ash slag from [3/unstrat], [3/001] and [3/002] combined could either be of medieval or early post-medieval date, though the latter is considered more likely.
- 5.9.2 Context [4/004], dated to the 17th to early 18th- century produced a single piece of fuel ash slag, a type that can be the result of a number of different high temperature processes, including domestic hearths. The majority of the slag was recovered from [3/008], which produced 49 (122g) uniformly crushed 'gravel' pieces composed of olive green blast furnace slag. It is likely this early post-medieval smelting waste was imported for use as hard-core/aggregate but the exact date of this is uncertain as slag heaps were frequently quarried for this material long after the associated iron-works had gone out of use.

5.10 Flintwork by Karine Le Hégarat

- 5.10.1 A total of seven pieces of struck flint weighing 18g were recovered from four contexts during the course of the archaeological work at Petworth House. In addition four pieces of burnt unworked flint were also collected. The small assemblage consists entirely of pieces of flint débitage including four flakes, two blade-like-flakes and a blade. They were manufactured from a light to dark grey flint and exhibit moderate post-depositional edge damage. Although no diagnostic tools were recovered, technological aspects can provide some limited dating evidence.
- 5.10.2 The blade-like-flake from (3/002) displays parallel ridges on the dorsal surface which are a product of blade-based industry, and the artefact may therefore be of Mesolithic or Early Neolithic date. The blade from (1/004) displays parallel lateral margins which are also characteristic of this period. The assemblage of flints from Petworth House is very small; nonetheless, it provides limited evidence for early prehistoric activities.

5.11 The Animal Bone by Gemma Ayton

- 5.11.1 The excavations produced a small assemblage of animal bone containing 82 fragments weighing 2599g. The bone was recovered from 11 context though the largest quantity of material derived from contexts [3/004] and [3/002]. The assemblage is in a moderate condition with some large but no complete bones remaining. A limited array of domestic taxa are represented including cattle, sheep/goat, pig and canine gnaw marks on the end of long bones suggests that dogs were also present. None of the specimens derive from wild animals indicating that wild taxa were rarely exploited. A small number of specimens display evidence of butchery including a cattle femur which has had the proximal articulation sliced off and chop and cut marks have also been noted on several long-bones.
- 5.11.2 The evidence from the animal bone assemblage indicates that the bones derive from domestic waste.

5.12 The Shell by Trista Clifford

- 5.12.1 Seventy nine fragments of shell were recovered weighing 820g, predominantly from trenches 3 and 4. The assemblage consists almost totally of Common Oyster (*Ostrea edulis*) with only a single fragment from a Common Cockle (*Cerastoderma edule*) valve representing other species. Both species are edible and this small assemblage probably results from utilisation of oyster beds as a food resource. Oyster shells from [4/004] and [4/005] exhibit mortar on both faces indicating secondary use as a building material which is generally thought a post medieval practise.

5.13 The Registered Finds by Trista Clifford

5.13.1 A total of 26 Registered Finds were recovered during the excavations at Petworth House. Registered finds are washed and/or air dried as appropriate to their material. Objects have been packed appropriately in line with IFA guidelines (2001). All objects are assigned a unique registered find number (RF<00>) and recorded on the basis of material, object type and date (shown in Table *).

5.13.2 All finds were assessed for conservation requirements. Unless indicated in the relevant section no further conservation for stabilisation or analytical purposes is required. Metal work is boxed in airtight Stewart tubs with silica gel. The registered finds assemblage is summarised in Table 8 below.

RF no	Cxt	Object	Material	Period	Wt (g)
1	3/002	VESS	GLAS	PMED	20
2	3/002	BUTT	COPP	PMED	4
3	4/001	MOUN	LEAD	PMED	82
10	3/002	PIN	COPP	PMED	<2
11	3/004	PIN	COPP	PMED	<2
12	3/002	TOKEN	LEAD	MED/PMED	4
13	3/002	TACK	COPP	PMED	2
14	3/002	WAST	LEAD	PMED	32
15	3/001	?BULL	UNK	UNK	8
16	3/001	?BULL	UNK	UNK	4
17	3/002	BULL	LEAD	PMED	6
18	3/002	?MOUN	LEAD	PMED	120
19	3/002	WEIG	LEAD	PMED	50
20	3/002	OXSH	IRON	PMED	100
21	3/002	STFT	IRON	PMED	26
22	2/002	STFT	IRON	PMED	34
23	3/002	STFT	IRON	PMED	34
24	3/002	STFT	IRON	PMED	40
25	5/003	STFT	IRON	PMED	32
26	3/001	STFT	IRON	PMED	36
27	3/001	STFT	IRON	PMED	24
28	3/001	STFT	IRON	PMED	48
29	3/001	STFT	IRON	PMED	10
30	3/004	STFT	IRON	PMED	50
31	1/004	?HOSH	IRON	PMED	12
32	3/004	CAME	LEAD	PMED	52

Table 8: Overview of the Registered Finds assemblage

5.13.3 The assemblage covers a number of functional categories. Finds are discussed within their functional category in chronological order.

Dress Accessories – Pins and Buttons

Nine dress pins were recovered from two contexts within Trench 3, RFs<10> and <11>. The pins are similar to the predominantly 17th century examples recovered at nearby Midhurst (Clifford 2013), being made from drawn copper alloy with wound wire heads and traces of white metal coating. The basic form dates from 14th to 19th century with these Type C examples probably dating to the latter part of this range (Caple 1991).

A 19th century copper alloy button with integral loop, RF<2>, came from [3/002]. The button is undecorated, with a yellow metal coating and has a diameter of 16mm.

Domestic items

A fragment from a wine bottle bearing the crest of the Percy family, RF<1>, is reported on within 'The Glass' (Fig 10).

Trade

A uniface lead token, RF<12>, came from [3/002] (Diameter 17.6mm). The obverse depicts a long cross with pellet in each quarter (Powell type 14), probably imitating the reverse of a medieval penny. Lead tokens had many uses and due to a lack of examples from securely dated contexts can be assigned to a wide date range of c.1250-1800.

Weights and measures

A conical lead weight with iron suspension loop, RF<19> came from [3/002]. The weight weighs 50g and could have had a number of uses.

Agriculture/animal husbandry

A single branch from a comma shaped iron ox shoe with two nail holes, RF<20> was recovered from [3/002]. Shoes were made in two separate branches in order to fit the cloven hoof of the ox. The form of ox shoes changes very little over time therefore dating is problematic; a date anywhere between 11th- and 17th century is possible. Draught oxen continued to be used for agricultural labour at Petworth into the 19th century therefore a date towards the latter end of this range or later is most likely.

Two small conjoining fragments of iron from [1/004], RF<31>, could be the tip of the branch from a horseshoe. The object is very corroded and x-radiography is required to confirm this identification.

Fixtures and fittings

The majority of objects fall within this category and are likely to derive from the North Wing building. The largest group are a number of structural fittings including masonry nails with various head shapes including headless (RF<21>, <25> and <26>), L shaped (RF<22> and <23>) and T shaped (RF<24>). A ring headed pin (RF<28>) and wall hook (RF<27>) were also recovered. A possible strap hinge terminal, RF<29>, came from the topsoil.

A large number of lead window came fragments, RF<32>, and associated lead waste came from [3/004]. The fragments' forms suggest that two types of manufacturing process are evident; both cast and milled comes are present. Casting predates milling, which was introduced towards the end of the 16th century. The came and lead fragments, together with the lead waste from a possible crucible described below, may represent repair or alteration to the windows over the life of the demolished building, or indeed the present one. It is more probable that these remains indicate the removal and melting down of lead building components during the demolition of the North Wing in the late 17th century. The presence of a cross shaped piece of came is suggestive of a diamond pattern to the leaded lights however it is too incomplete to be certain.

Other fittings include a decorative lead ?mount in the shape of a flower (RF<3>) from [4/001]. The ?mount has no obvious method of attachment therefore may have been soldered onto a larger object, possibly one of the garden features installed following the North Wings demolition. A small copper alloy dome headed upholstery tack was also recovered from [3/002]. A post medieval date is likely.

Arms and armour

A 17th century or later lead pistol/ musket ball, RF<17>, came from [3/002]. Two further possible musket balls from [3/001], RFs<15> and <16> are considered now to be spherical iron pyrites nodules due to their weight and patina.

Industrial debris

Evidence of lead casting/ working in the form of a lump of lead bearing the impression of the inner base of a vessel or crucible came from [3/002]. The piece may be evidence of either repair undertaken to the exterior leading of the existing house, or to the demolished north wing. Equally, it may indicate the melting down of lead retrieved during the demolition of the building. Several other molten fragments and lead off cuts were recovered during the excavations although few derive from a securely dated context.

Objects of uncertain function

A biconvex lead object with iron attachment spike came from [3/002]. No function could be assigned to this object with certainty; it is possibly a mount of some kind.

6.0 DISCUSSION

6.1 Introduction

6.1.1 The community excavation at Petworth House produced evidence of long-term activity at the site, and not only provided plentiful data for addressing the research aims but also highlighting hitherto untargeted phases of activity.

6.2 Prehistoric

6.2.1 Although all of the prehistoric material was residual in later deposits, the presence of Mesolithic/Early Neolithic flintwork is highly significant. The evidence for Hunter-Gatherer activity at the site pushes the earliest indications of human activity at the site back to c.10,000BC (Mithen 1999, 35).

6.2.2 The topographical situation of the site corresponds to a long-recognised pattern of Mesolithic activity in the Weald, comprising flint scatters that are thought to be the surviving remnants of hunting activity closely related to the system of river valleys in the area (Tebbutt 1974): the concentration of Mesolithic material at the site is located on high ground overlooking a stream or river, a situation seen at other recently investigated sites in the Weald (e.g. Stevens 2009).

6.2.3 Recent fieldwork has highlighted the fact that such scatters can be associated with buried archaeological features (Butler 1997), and this may be the case at Petworth. It has been recognised since the 1930s that Mesolithic hunter-gatherers operating in the Weald were capable of building shelters (Clark and Rankine 1939), and work in the Horsham area (at Rock Common near Washington) has also shown evidence of hearths of this date (Harding 2000).

6.2.4 Although no evidence of prehistoric structures or hearths were identified owing to building and landscaping in the vicinity of the 'lost' North Wing and the surviving house, it is possible that such features survive in the general area.

6.2.5 The recovery of a sherd of later prehistoric pottery hints at activity in the general area, rare evidence for the Weald. To quote Sue Hamilton (1992, 52), *'the lack of pre-Roman Iron Age material from the Sussex Weald makes any material of this date from the Weald a valuable contribution to our limited understanding'*.

6.3 Anglo-Saxon

6.3.1 Again, although the evidence of Anglo-Saxon activity was limited to a single sherd of pottery, documentary evidence shows that the site lay within the *parochia* of Petworth, i.e. an area containing a minster church, a rarity in the undeveloped Weald of the period (Gardiner 1999, 30).

6.4 Medieval

- 6.4.1 This period is the first in which significant quantities of material were deposited at the site including pottery and decorated floor tiles. The first accepted evidence for a house at the site is the license to crenellate granted in 1309 (Aldsworth 1980, 373), and elements of the medieval structure survive within the later house (*ibid.* and Walters 1997).
- 6.4.2 Little can be said concerning the nature of the building at that time from the limited evidence available, but the presence of decorated floor tiles is clearly indicative of a building of some status, as befitted the powerful Percy family. Walters (1997, 26) suggests the North Wing was initially created in the 14th century.

6.5 Transitional and Early Post-Medieval – The North Wing

- 6.5.1 The majority of the evidence uncovered at the site relates to the construction, use and subsequent demolition of the North Wing of Petworth House. Substantial structural elements were found to survive at the site, including *in situ* floors and external and internal walls, along with evidence of the rubble resulting from their demolition. The width of the wing has been established, but the exact length remains unknown (Fig 3). The outer walls were encountered in Trenches 3 and 4, but excavation in Trench 2 did not reveal the outer wall or end wall of the wing, possibly because the trench was not excavated to a sufficient depth to expose it due to time constraints. This should certainly form part of the agenda for any proposed future fieldwork.
- 6.5.2 The survival of plasterwork, both adhered to the walls and as pieces in the demolition rubble offered insights into the décor of the North Wing. It appears that much of the wall plaster was painted in strong colours, and that there were a variety of intricate mouldings mostly of floral designs. Interestingly, one example had been remoulded, perhaps as an attempt to follow a changing fashion.
- 6.5.3 Other structural evidence survived including tile, stone and lead from the roof, and significant numbers of large nails to hold the roof timbers in place. Lead window comes show hint at expensive patterned windows. It was unfortunate that the tile floor was so systematically robbed at the time of demolition – it was probably also highly decorative.
- 6.5.3 Household items were found in abundance, providing proof of a vibrant domestic life in the North Wing, with evidence from imported fashionable pottery, expensive glassware and clay pipes supplemented by more ‘personal’ adornments such as dress pins. The virtual absence of industrial residues highlights the high status of this building – this was no place for the village blacksmith.
- 6.5.4 Clearly the demolition of the above-ground elements of the structure was thorough to say the least. There was clear evidence of the recycling of materials such as lead, and although the site did produce much in the way of building rubble, cut ashlar blocks and other well-worked stone was rare, suggesting wholesale dismantling of the North Wing to provide building stone

for renovations to the House itself, and presumably for use elsewhere.

6.6 An Eighteenth Century Garden

- 6.6.1 Evidence of the formal garden was widespread, consisting mostly of hard landscaping of courtyards, paths and drains set on ground thoroughly levelled after the demolition of the North Wing in the late 17th century. The pattern of trenches did not allow a reconstruction of the layout of the gardens, arguably only possible by open area excavation.
- 6.6.2 In keeping with this, the deposition of domestic refuse at the time was strictly limited, and little from the adjacent house found its way into the associated deposits, except perhaps in the backfill of opportunist quarrying for stone for the hard landscaping.

6.7 ‘Capability’ Brown’s Parkscape and beyond

- 6.7.1 The work undertaken by Lancelot ‘Capability’ Brown between 1755 and 1765, with subsequent alterations (Aldsworth 1980, 375) left the site much as it appears today - a flat area of lawn. Archaeological evidence of the landscaping consisted of the presence of levelling deposits across the site, and the results of the removal of upstanding elements of the formal garden. Again, there has been little deposition of material in the last 250 years, and only limited groundworks for drainage.

7.0 CONCLUSIONS

- 7.1 Clearly the results of the project have gone some way to address the academic aims of the project, but arguably equally important was the success of the community element of the scheme, a more difficult component to assess.
- 7.2 Perhaps the large number of volunteers who attended the site, and the often overwhelming number of visitors to Petworth House who took the time to be shown around the excavations can be taken as an indication of success. Certainly the contagious enthusiasm of the volunteers, and their willingness to add to their often already highly developed archaeological skills was an obvious indicator that the excavation of the 'lost' North Wing was a worthwhile exercise.
- 7.3 Similarly, the enthusiasm shown on social media for the project hints at the inclusion of a wider audience than those actively involved in the 'digging' on site. Numerous contributors to *Facebook* and *Twitter* commented on the project favourably, and allowed the presentation of the developing results to a wider audience.

BIBLIOGRAPHY

Aldsworth, F. 1980. Petworth House and the Formal Gardens, *Sussex Archaeological Collections* (hereafter SAC) **118**, 373-377

ASE 2013. *Petworth House, West Sussex Written Scheme of Investigation for the Festival of British Archaeology Community Excavation*. Unpub. ASE document

Atkinson D. R. and Oswald A. 1969. London clay tobacco pipes, *Journal of the British Archaeological Association* **32**, 171–227.

Beard, G. 2011. *Decorative Plasterwork in Great Britain*. Routledge

BGS 2013. British Geological Survey, Geology of Britain Viewer, accessed 16.09.2013 <http://www.bgs.ac.uk/discoveringGeology/geologyOfBritain/viewer.html>

Butler, C. 1997. A Mesolithic site at Streat Lane, Streat, East Sussex, SAC **145**, 7-31

Clark, J & Rankine, W. 1939. Excavations at Farnham, Surrey (1937-38): the Horsham Culture and the Question of Mesolithic Dwellings, *Proceedings of the Prehistoric Society* **5(1)**, 61-118

Caple, C. 1991. The detection and definition of an industry: the English medieval and post- medieval pin industry, *The Archaeological Journal* **148**, 241- 255

Clark, J. 1995. *Horseshoes*, in J. Clark (ed.) *The Medieval Horse and its Equipment* HMSO London, 75-123

Clifford, T. 2013. The Registered Finds, in *An Archaeological Watching Brief at the Market Square, Midhurst, West Sussex*. Unpub. ASE client report No. 2013134

Clifton-Taylor, 1987, *A The Pattern of English Building* (fourth and definitive edition), 279

Gapper, C. 2013. British Renaissance Plasterwork accessed 17/09/13 www.clairegapper.info

Gardiner, M. 1999. Late Saxon Sussex c.650 - 1066, in K. Leslie and B. Short (eds.), *An Historical Atlas of Sussex*. Chichester, Phillimore, 30-31

Hamilton, S. 1992. Late Iron Age Pottery from Goffs Park, Crawley, in C. Cartwright, *The Excavation of a Romano-British Iron Working Site at Broadfield, Crawley, West Sussex*, SAC **130**, 50-2

Harding, P. 2000. A Mesolithic site at Rock Common, Washington, West Sussex, SAC **138**, 49-48

Higgins D. A. and Davey P. J. 2004. Appendix 4: Draft guidelines for using the clay tobacco pipe record sheets in S. D. White, *The Dynamics of Regionalisation and Trade: Yorkshire Clay Tobacco Pipes c.1600-1800*, BAR Brit Ser **374**, Oxford, 487-490.

Jerrome, P. 2006. *Petworth from 1660 to the Present Day*. Dorchester : The Window Press.

Jordan, H. 1987. *Petworth Park and Pleasure Grounds: Historical Survey 1987*.

Mithen, S. 1999. Hunter-gatherers of the Mesolithic, in J. Hunter and I. Ralston (eds.), *The Archaeology of Britain, An Introduction from the Upper Palaeolithic to the Industrial Revolution*

National Trust. 2013. *Petworth House, West Sussex Brief For Festival Of British Archaeology Community Excavation*. Unpub. NT document

Oswald A. 1975. *Clay Pipes for the Archaeologist*, BAR 14, Oxford.

Pringle, S. 2013. The Ceramic Building Materials, in *An Archaeological Watching Brief at the Market Square, Midhurst, West Sussex*. Unpub. ASE client report No. 2013134

Salzman, L F, 1952 *Building in England down to 1540*, Oxford

Smith T. 2008. The Decorative Plaster in Moselle Place: From a high status medieval farmhouse to a Georgian house, *LAMAS Transactions* **57**

Stevens, S. 2009. A Mesolithic Site at Bourne Hill House, Kerves Lane, Horsham, West Sussex, *Horsham Heritage* **18**, 3-10

Tebbutt, C. 1974. The Prehistoric Occupation of the Ashdown Forest Area of the Weald, *SAC* **112**, 34-43

Turner, R. 1862. Petworth, *SAC* **14**, 1-24

Waters, A.. 1997. *Petworth House, West Sussex: An Archaeological Survey July 1995 - June 1996*.

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Appendix 1 - Finds Quantification

Context	Pottery	wt (g)	CBM	wt (g)	Bone	wt (g)	Shell	wt (g)	Flint	wt (g)	FCF	wt (g)	Stone	wt (g)	Iron	wt (g)	CTP	wt (g)	Glass	wt (g)	Lead	wt (g)	Plaster	wt (g)	Slag	wt (g)	Charcoal	wt (g)	Mortar	wt (g)	Glass cutter	Wt (g)		
1/001	52	321	166	4389					1	3	1	16	21		14	83	8	22	5	9														
1/002	2	24													2	4			4	100														
1/004	9	33							2	3					6	49	4	10	6	18														
2/001	10	47	12	1118											25	82	7	14	4	14	1	6												
2/002	19	136	26	3801	2	13	2	18					14	2624	39	194	6	22	10	19			1	1860			9	20						
2/002 slot2			5	1048									8	378	1	4	1	10	1	<2														
3/001	39	975	141	6370	1	19	2	5					48	3009	20	159	6	16	11	52	1	119			15	293								
3/002	42	404	119	15226	17	211	16	147	3	11	2	38	39	5650	141	897	16	48	71	1400	3	30	40	3293	10	503	12	16						
3/003	4	50	4	4123	5	58	1	11					13	1019	11	80	3	2	4	57	1	49	34	5143										
3/004	5	68	40	17721	24	1874	26	326					42	14043	28	278	4	21	25	115	12	378	46	7438	1	27	6	16						
3/008			2	1518					1	1					2	4			2	<2					1	8					35	112		
3/009	2	142	6	1310	1	2							34	4737	1	2	1	16	10	37	4	18	8	680			10	7						
3/011			50	26710																														
4/001			63	10041			2	15			1	1	14	1767	2	21					2	24	1	18										
4/002	2	13	14	6766			12	146					3	2795	7	69	4	10	1	1			164	3668					1	896				
4/004			51	34140			7	100					3	998									8	1432										
4/005			11	2992			1	6					8	2128	15	72	1	1	3	4			84	1180					7	780				
5/001	2	2	64	2439	5	14	3	6					8	861	2	5			2	10	1	9												
5/002	8	59	187	2191	11	59	7	40					38	911	21	74	2	1	18	520	4	434	8	88					9	217				
5/003			20	5742	10	88							5	1772	2	41			4	2			19	358										
5/004			1	32									2	276	1	2			1	7			1	4										
8/001	56	371	64	4970	3	15							13	1431	18	60	5	19	4	7			4	117										
T3 u/s	15	293	4	336	3	246							2	1812	18	105	3	20	8	22														
Total	267	2938	1050	152983	82	2599	79	820	7	18	4	55	315	46211	376	2285	71	232	194	2394	29	1067	418	25279	27	831	37	59	17	1893	35	112		

APPENDIX 2: Petworth House - roof tile, floor tile and brick fabric descriptions

Roof tile fabrics

Fabric code	Description	Sample from context	Comment
T1	Orange matrix streaked with cream clay; moderate inclusions of fine to coarse iron-rich material and sparse fine quartz	3/001	Round, polygonal and square nail holes
T2	'Clean' orange matrix with cream streaking; sparse medium grade iron-rich inclusions and coarse calcium carbonate; some examples with sparse quartz	2/001	Round nail holes
T3	Orange matrix with abundant fine quartz and lenses of sparse medium quartz and red iron-rich material	2/001	Similar to T5 but matrix more granular; round and polygonal nail holes
T4	Orange matrix, poorly mixed with coarse cream silty clay; moderate to common fine to medium iron-rich material and moderate fine to medium quartz	1/001	
T5	Orange matrix containing abundant very fine quartz; sparse medium quartz and iron-rich inclusions		Similar to fabric T3 but finer texture
T6	Cream to pale orange matrix with inclusions of abundant medium to coarse quartz including rose and red quartz and sparse coarse iron-rich material	3/004	Residual medieval tile fabric?
T7	Orange matrix with sparse fine cream streaks and abundant fine quartz; sparse to moderate red iron-rich clay inclusions < 2mm; sparse fine white (?calcium carbonate) inclusions.	3/005	Similar to fabric T3 but slightly more granular matrix

Brick fabrics

Fabric code	Description	Sample from context	Comment
B1	Orange matrix with silt-sized/very fine background quartz and cream streaks and rounded inclusions; common poorly sorted quartz and dark red iron-rich material < c. 3 mm	2/001	
B2	Orange matrix with abundant medium quartz and lenses of sparse coarse quartz and dark red iron-rich material	2/001	
B3	Orange with cream streaks; moderate medium quartz with sparse very coarse rounded rose quartz; sparse poorly sorted iron-rich pellets <2 mm	2/001	
B4	Pale orange with cream rounded inclusions and streaking; moderate poorly sorted iron-rich inclusions, mode is fine; sparse fine quartz	1/001	Distinctive fabric, near roof tile fabric T4
B5	Soft orange-brown fabric with abundant well-sorted fine quartz and inclusions of red iron-rich material	1/001, 2/002	
B6	Orange matrix, slightly granular and micaceous with sparse paler streaking; moderate poorly sorted quartz, mode is fine but sparse medium to coarse quartz; sparse to moderate red iron-rich material, to very coarse.		

Floor tile fabrics

Fabric code	Description	Sample from context	Comment
FT1	Orange matrix with very fine background quartz with sparse paler silty streaks and rounded or blocky siltstone inclusions; lenses of medium to coarse quartz; sparse very coarse quartz		
FT2	Orange with more cream silty streaks than FT1, quartz tends to occur in lenses poorly sorted, fine to coarse, sparse very coarse < c. 3 mm, and sparse red iron-rich clay/siltstone, med to v coarse.	3/001	
FT3	Orange-brown matrix with abundant fine to medium quartz, mode is fine; sparse coarse quartz and fine to coarse dark red iron-rich inclusions	3/004	The type sample is slightly reduced. Finest of the sandy fabrics
FT4	Orange matrix with very fine background quartz, sparse paler silty streaks and rounded or blocky siltstone inclusions; lenses of medium to coarse quartz and calcium carbonate; sparse very coarse quartz	5/002	Near fabric FT1 but with calcium carbonate inclusions in the sandy lenses
FT5	Orange brown matrix with abundant medium to coarse quartz, <c. 1 mm	3/004	The coarsest of the sandy fabrics
FT6	Orange matrix with very fine background quartz and sparse cream streaks; sparse to moderate inclusions of coarse to very coarse polycrystalline quartz, < c. 4.5 mm, and red iron-rich inclusions < c. 5 mm; sparse to moderate coarse calcium carbonate		Distinctive orange fabric with very coarse polycrystalline quartz

HER Summary Form

Site Code	PHF 13					
Identification Name and Address	Petworth House					
County, District &/or Borough	Chichester District, West Sussex					
OS Grid Refs.	497525 121904					
Geology	Easebourne Sandstone					
ASE Project Number	6157					
Type of Fieldwork	Eval.	Excav.	Watching Brief ✓	Standing Structure	Survey	Other
Type of Site	Green Field ✓	Shallow Urban	Deep Urban	Other		
Dates of Fieldwork	Eval.	Excav. 11.07.2013 – 22.07.2013	WB.	Other		
Sponsor/Client	National Trust					
Project Manager	Dan Swift					
Project Supervisor	Simon Stevens					
Period Summary	Palaeo.	Meso. ✓	Neo. ✓	BA	IA ✓	RB
	AS ✓	MED ✓	PM ✓	Other		
<p>Summary</p> <p>Archaeology South-East was commissioned by the National Trust to assist in the running of a community archaeology project at Petworth House, Petworth, West Sussex. The excavation was the culmination of a year-long archaeological investigation of the House's parkscape, and was targeted on the site of the 'lost' medieval North Wing.</p> <p>Eight trenches were mechanically excavated at the site, and volunteers manually excavated revealed archaeological deposits under the supervision of archaeologists from the National Trust and Archaeology South-East. Three trenches were not fully excavated and another produced evidence of quarrying, but the four remaining trenches contained significant archaeological deposits.</p> <p>Surviving remains of the North Wing consisted of mortar beds holding impressions of a removed floor tile and elements of external and internal walls, some with plaster still adhering to them. Contemporary artefacts included pottery, glassware, clay pipes and domestic items. Evidence of the demolition took the form of stone rubble and artefacts such as nails, lead comes from windows and other fittings.</p> <p>The replacement of the North Wing with a formal garden left evidence in the form of hard landscaping such as courtyards, paths and drains. The replacement of that garden with a more open parkscape by 'Capability Brown' resulted in the levelling of that garden and the demolition of upstanding features.</p> <p>As well as material contemporary with the construction, occupation and demolition of the North Wing, residual prehistoric flintwork and pottery, and Anglo-Saxon and Saxo-Norman pottery and intrusive later material were recovered.</p>						

OASIS Form

OASIS ID: archaeol6-159180

Project details

Project name	Community Excavation at Petworth House
Short description of the project	Archaeology South-East was commissioned by the National Trust to assist in the running of a community archaeology project at Petworth House, Petworth, West Sussex. The excavation was the culmination of a year-long archaeological investigation of the House's parkscape, and was targeted on the site of the 'lost' medieval North Wing. Eight trenches were mechanically excavated at the site, and volunteers manually excavated revealed archaeological deposits under the supervision of archaeologists from the National Trust and Archaeology South-East. Three trenches were not fully excavated and another produced evidence of quarrying, but the four remaining trenches contained significant archaeological deposits. Surviving remains of the North Wing consisted of mortar beds holding impressions of a removed floor tile and elements of external and internal walls, some with plaster still adhering to them. Contemporary artefacts included pottery, glassware, clay pipes and domestic items. Evidence of the demolition took the form of stone rubble and artefacts such as nails, lead comes from windows and other fittings. The replacement of the North Wing with a formal garden left evidence in the form of hard landscaping such as courtyards, paths and drains. The replacement of that garden with a more open parkscape by 'Capability Brown' resulted in the levelling of that garden and the demolition of upstanding features. As well as material contemporary with the construction, occupation and demolition of the North Wing, residual prehistoric flintwork and pottery, and Anglo-Saxon and Saxo-Norman pottery and intrusive later material were recovered.
Project dates	Start: 11-07-2013 End: 22-07-2013
Previous/future work	Yes / Not known
Any associated project reference codes	6157 - Contracting Unit No.
Any associated project reference codes	PHF 13 - Sitecode
Type of project	Research project
Site status	National Trust land
Current Land use	Other 5 - Garden
Monument type	BUILDING Post Medieval

Monument type	GARDEN Post Medieval
Significant Finds	FLINTWORK Late Prehistoric
Significant Finds	POTTERY Iron Age
Significant Finds	POTTERY Early Medieval
Significant Finds	POTTERY Medieval
Significant Finds	POTTERY Post Medieval
Significant Finds	GLASSWARE Post Medieval
Significant Finds	CLAY PIPE Post Medieval
Significant Finds	PLASTERWORK Post Medieval
Investigation type	""Part Excavation""
Prompt	Research

Project location

Country	England
Site location	WEST SUSSEX CHICHESTER PETWORTH Petworth House
Postcode	GU28 0AE
Study area	100.00 Square metres
Site coordinates	SU 97525 21904 50 0 50 59 15 N 000 36 37 W Point

Project creators

Name of Organisation	Archaeology South-East
Project brief originator	National Trust
Project design originator	Archaeology South-East
Project director/manager	Dan Swift
Project supervisor	Simon Stevens
Type of sponsor/funding body	Client
Name of sponsor/funding body	National Trust

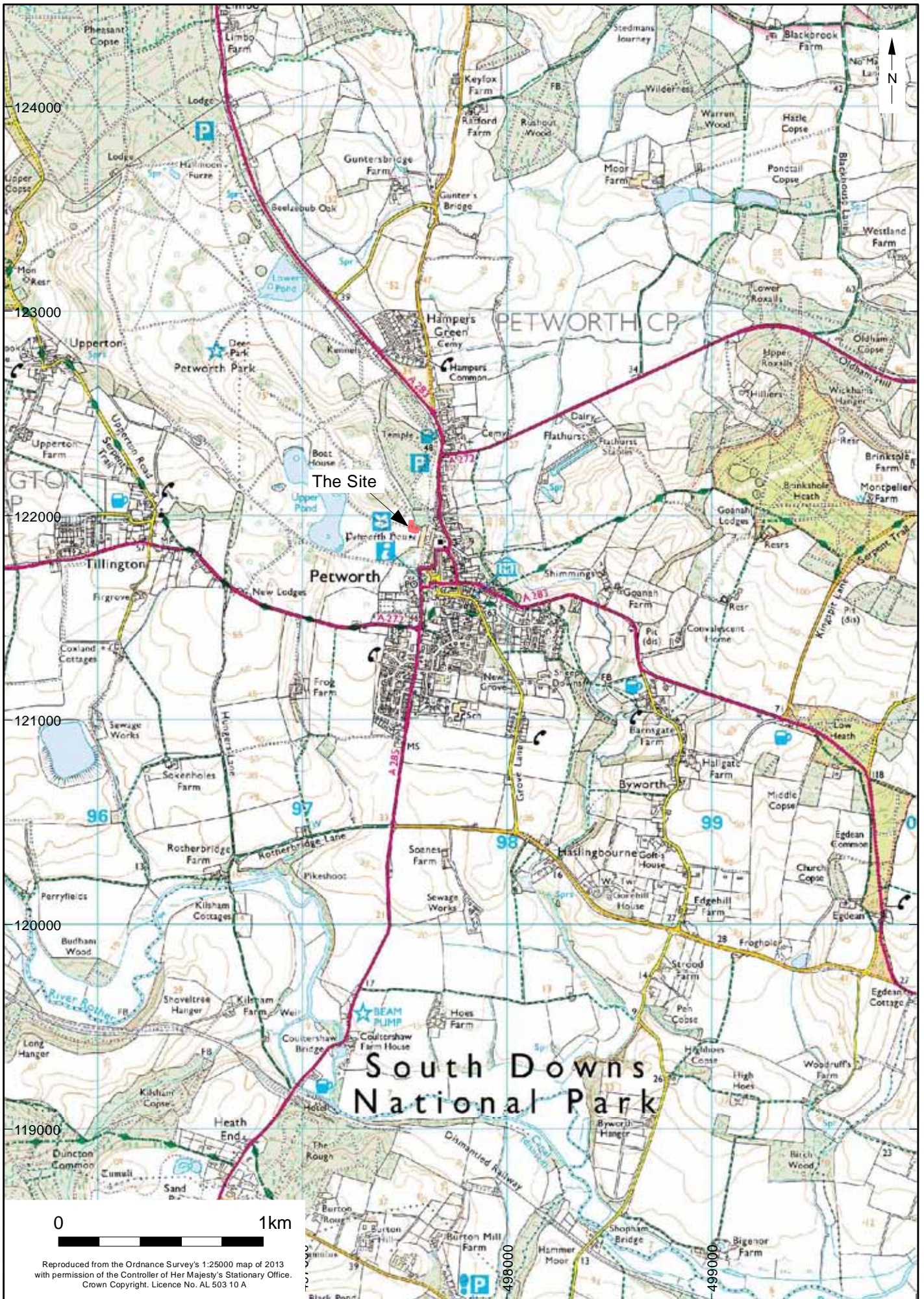
Project archives

Physical Archive recipient	National Trust
Physical Contents	"Animal Bones","Ceramics","Glass","Industrial","Metal","Worked stone/lithics","other"
Digital Archive recipient	National Trust
Digital Contents	"other"
Digital Media available	"Images raster / digital photography","Spreadsheets","Survey","Text"
Paper Archive recipient	National Trust
Paper Contents	"other"
Paper Media available	"Aerial Photograph","Context sheet","Correspondence","Map","Miscellaneous Material","Notebook - Excavation"," Research"," General Notes","Plan","Report","Section","Survey ","Unpublished Text"

Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	Festival of British Archaeology 2013 Community Excavation at Petworth House, Petworth, West Sussex
Author(s)/Editor(s)	Stevens, S.
Other bibliographic details	ASE Report No. 2013224
Date	2013
Issuer or publisher	Archaeology South-East
Place of issue or publication	Portslade, East Sussex
Description	ASE client report. A4-sized with cover logos

Entered by	Dan Swift (d.swift@ucl.ac.uk)
Entered on	19 September 2013

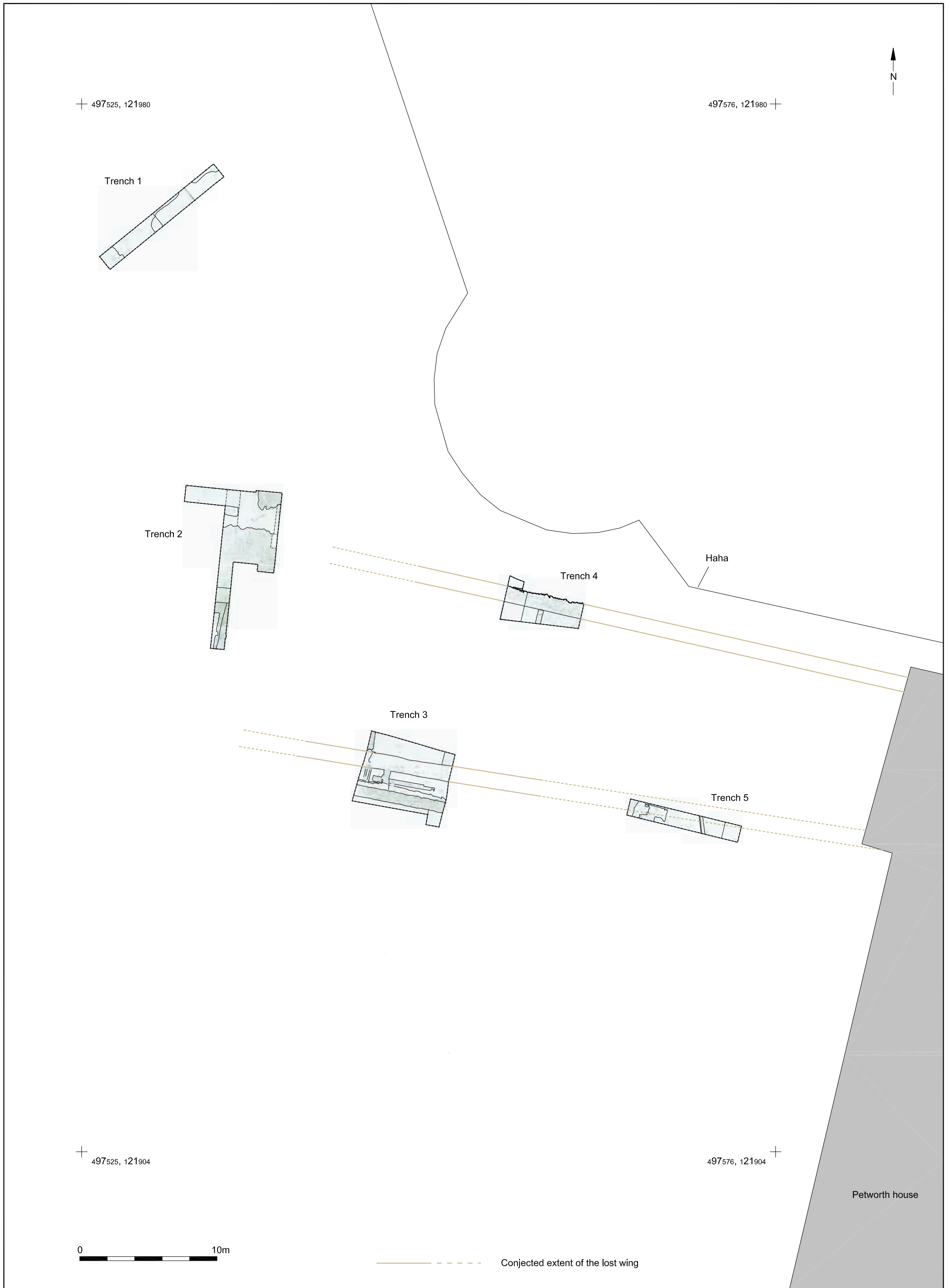


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© Archaeology South-East		Petworth House Community Excavation		Fig. 1
Project Ref: 6157	Sept 2013	Site location		
Report Ref: 2013224	Drawn by: FEG			



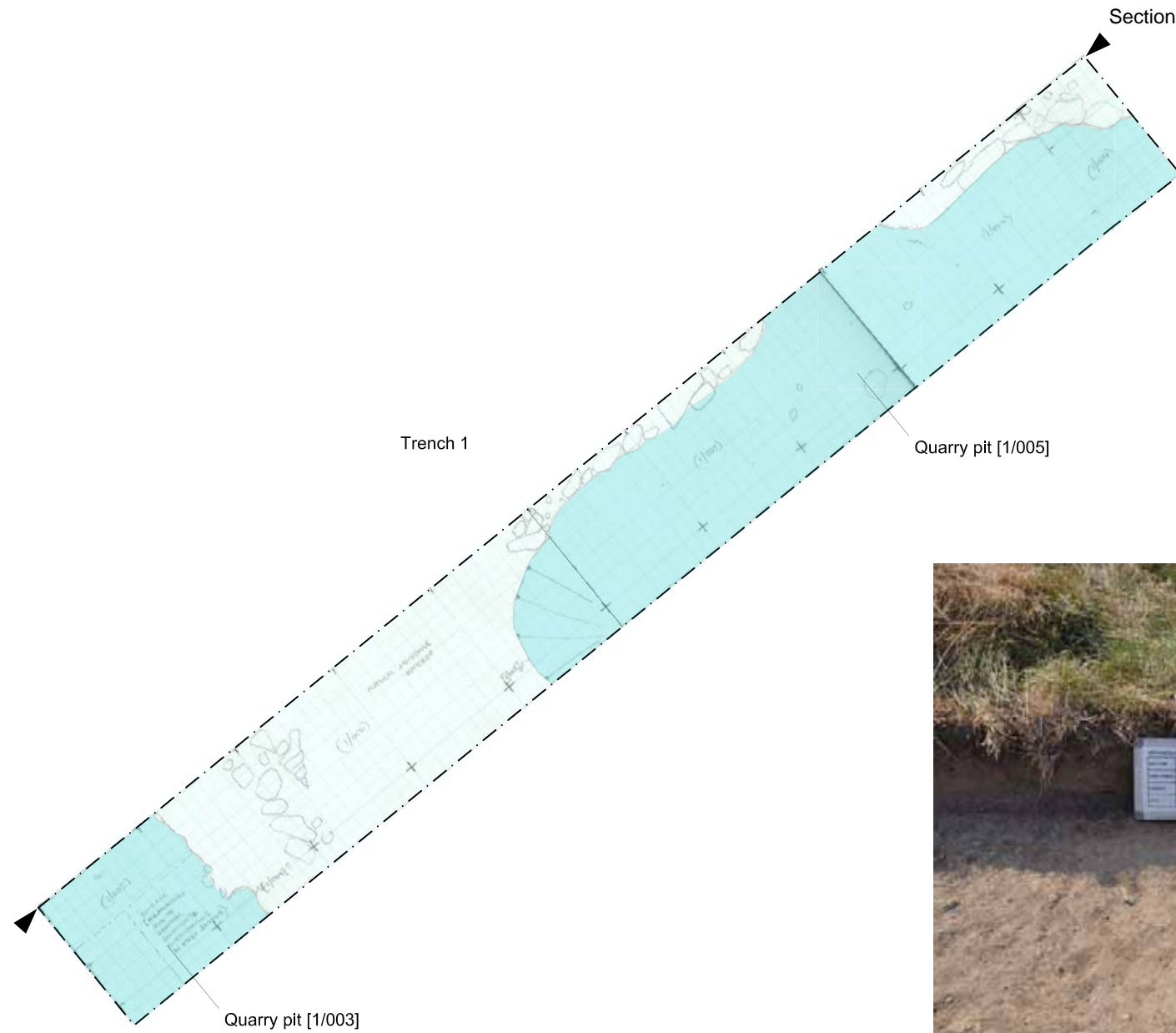
© Archaeology South-East		Petworth House Community Excavation	Fig. 2
Project Ref: 6157	Sept 2013	Proposed and real trench locations	
Report Ref: 2013224	Drawn by:VT		



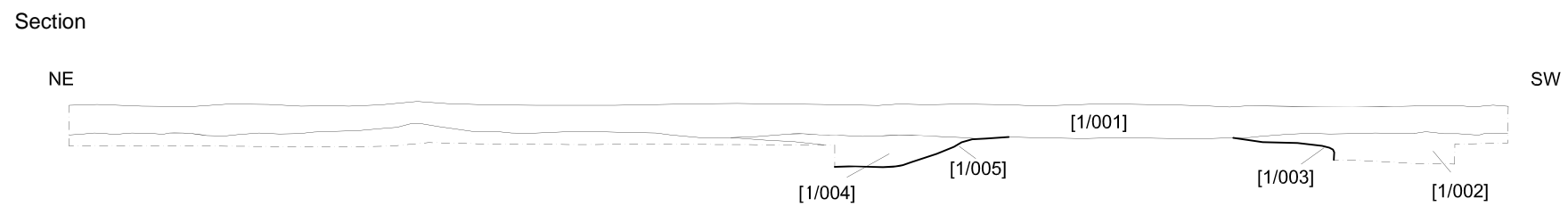
© Archaeology South-East		Petworth House Community Excavation	Fig. 3
Project Ref: 6157	Sept 2013	Trenches with features	
Report Ref: 2013224	Drawn by: FEG		



Trench 1 looking south west



[1/005] looking south east



Quarry

0 2m





Path [2/012]



Drain [2/009] and ?Flower bed [2/008]



Cleaning the Courtyard [2/003]



Trench 2 looking south showing courtyard [2/003]

- Wall
- Courtyard
- Path
- Drain
- Flower bed?

0 10m



Cleaning Trench 3 (looking east)



Trench 3 during excavation (looking east)



Trench 3 during excavation (looking north east)



- Wall foundation
- Mortar
- Masonry
- Drain



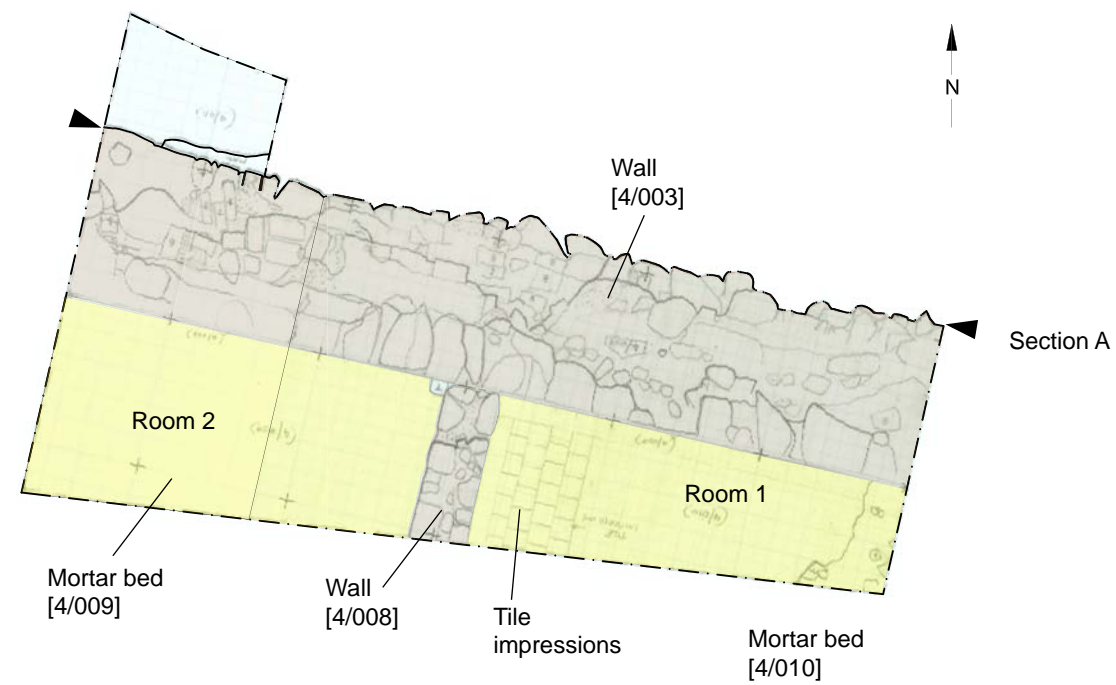
Trench 3 looking west



Wall [3/003] and associated drains looking south



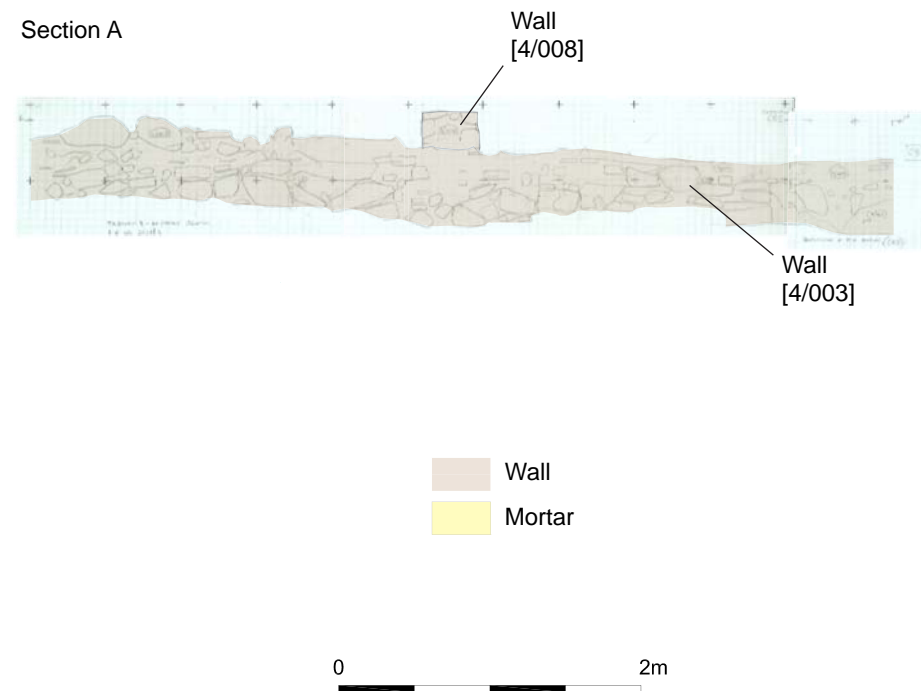
Trench 4 Room 1 mortar bed floor [4/010] looking west



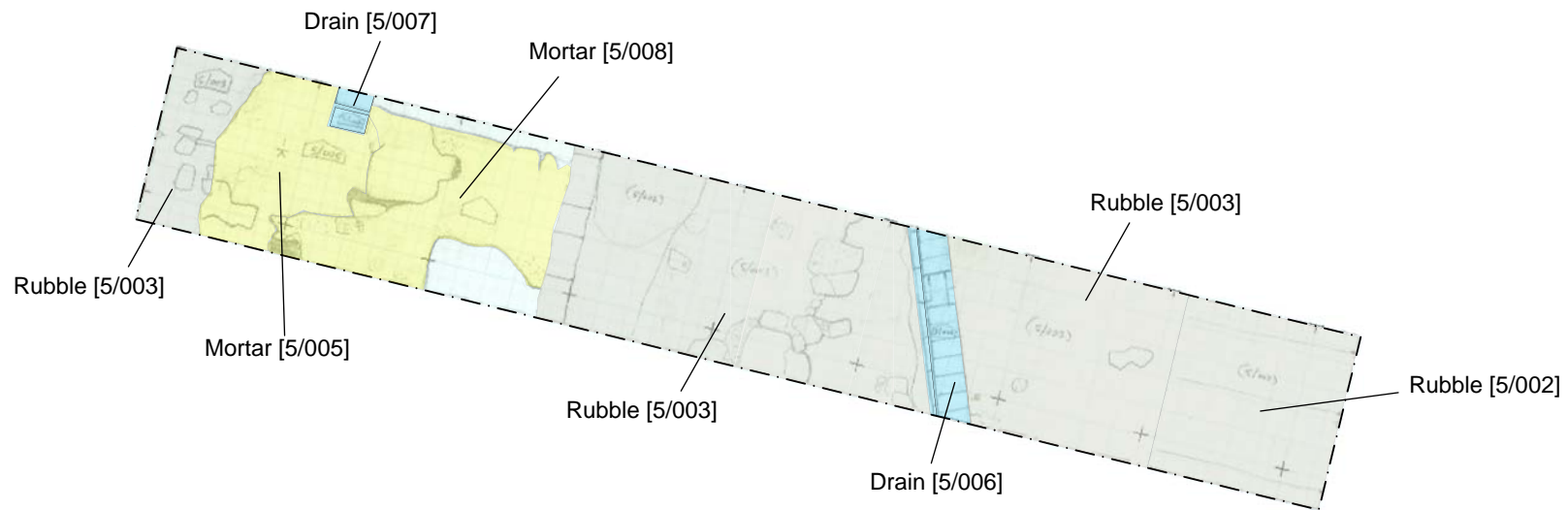
Trench 4 surveying and excavation looking east



Trench 4 Room 2 plaster on wall [4/003] looking north



Trench 4 excavation underway and a school party visit looking east



Trench 5 looking west



Trench 5 looking west



Trench 5 mortar [5/005] looking east

- Rubble
- Mortar
- Drain

0 2m

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Project Ref: 6157 Sept 2013
 Report Ref: 2013224 Drawn by: FEG

Petworth House Community Excavation

Trench 5 plan and photograph

Fig. 8





© Archaeology South-East		Petworth House Community Excavation	Fig. 10
Project Ref: 6157	Sept 2013	Reconstruction drawing of a wine bottle with the Percy family seal	
Report Ref: 2013224	Drawn by: FEG		

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