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Petworth Park Archaeology Project
Festival of British Archaeology Community Dig
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by
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Summary

A Community excavation project opened three trenches at the top of Lawn Hill, Petworth Park. Prehistoric activity was evidenced by a small worked flint assemblage, dating to the Late Neolithic to Early Bronze Age. 122 sherds of Roman pottery and 3 sherds of medieval pottery were also recovered probably relating to agricultural activity. Trench 1 contained foundations and floors from a substantial building, which from the pottery and other finds appears to have been in use for a relatively short period of time during the 16th century. There were also hints of an earlier building below the remains found. The south end of Trench 1 had been disturbed by quarrying activity, and Trenches 2 and 3 contained no evidence for any building remains. The vast majority of the finds date to the 16th century, and include pottery, a variety of metal items including a gold ring, and two silver coins. The finds are concentrated in the period 1450-1575, although the main focus of activity appears to be during the reign of Elizabeth 1st.

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1.0 Introduction

1.1 Chris Butler Archaeological Services Ltd was commissioned by The National Trust to supervise and run a Community Excavation at Petworth House and Park, Petworth, West Sussex as part of the Petworth Park Archaeology Project. Petworth Park is located in West Sussex, (central grid reference SU 968225), approximately ten kilometres east of Midhurst. The park extends northwest from the town of Petworth up to Pheasant Copse, bounded to the northeast by the A283 and to the southwest by the A272 and Upperton Road (Fig. 1). The project is examining the archaeology of the parkland, which has previously not been subjected to systematic survey.

1.2 The 280 hectare country house estate, including the Grade I listed Petworth House, informal pleasure grounds in the north-eastern portion and a designed parkland landscape of grassland, woodland copses and water features is owned and managed by The National Trust with support from Natural England and Lord and Lady Egremont's staff. The proposed brief was to investigate an area possibly associated with Henry VIII's banqueting House.

2.6 In May 2013 a small evaluation trench was excavated running perpendicular to the scarp slope[1]. This appears to have identified the remains of a substantial building which once sat upon the brow of Lawn Hill in this location. The vast majority of the 431 sherds of pottery recovered show remarkable consistency in suggesting a peak in occupation in the 16th century. The three trenches excavated in 2014 targeted features discovered in a geophysical survey undertaken during Winter 2013/ Spring 2014[2].

1.3 The purpose of the Community Excavation was defined in a brief prepared by the National Trust[3]:

a) The purpose of the survey is to identify and characterise archaeological features relating to the possible site of Henry VIII's banqueting house at Petworth.

b) An integral aspect of the excavation will be the participation of volunteers who have assisted with the Petworth Park Archaeology Project since September 2012, who will have the opportunity to receive training throughout the excavation in techniques of archaeological excavation, recording and finds processing.

c) The excavation will provide the opportunity for visitors to the House and Park to observe the excavation and learn about archaeological techniques.

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1 Anelay, G. 2013 *Report on an Archaeological Evaluation at Petworth Park, Petworth, West Sussex*. West Sussex Archaeology Ltd

2 National Trust. 2014. *Petworth House West Sussex Brief for Festival of British Archaeology Community Excavation.*

3 *ibid*

d) It will provide up-to-date archaeological and historical information in both report and digital HBSMR form that can be drawn on for interpretation and educational use[4].

1.4 The geology of the property is broadly split between the sandstone of the Lower Greensand (Easebourne and Hythe Formations) in the south and Wealden Group mudstones and siltstones (Weald Clay Formation) in the north. A narrow band of Atherfield Clay Formation mudstone runs between the two[5].

1.5 This report covers the three trenches that were excavated under the supervision of the authors, and Tom Dommett the National Trust Archaeologist, between 11th to the 20th July 2014, in accordance with a Written Scheme of Investigation[6] that had been prepared by CBAS and which was approved by The National Trust.

4 *ibid*

5 http://mapapps.bgs.ac.uk/geologyofbritain/home.html Accessed 01/08/2014

6 Butler, C. 2014 Written Scheme of Investigation for a Community Excavation at Petworth Park, Petworth, West Sussex, Petworth Park Archaeology Project. Summer 2014 Excavations. CBAS

2. Historical Background[7]

2.1 In 1102 the manor of Petworth, as part of the lordship of Arundel, was forfeited to Henry I, and after his death passed to his wife Queen Adeliza. She bestowed the Honor of Arundel, and the manor of Petworth with it, upon her brother Josceline who took the Percy family name as a condition of his marriage to Agnes de Percy. The Honor remained under the Percy family ownership from this time until the 16th century.

2.2 In 1536 the Manor of Petworth was passed to Henry VIII on the death of Henry Percy the 6th Earl of Northumberland, reverting back to the 7th Earl in 1557 under Queen Mary.

2.3 The 9th 'Wizard' Earl inherited the Estate in 1585. The grand plans for expansion drawn up while imprisoned in the Tower of London were not executed, although some extensions and additions to the house and grounds were undertaken, most notably the 9th Earl's Stables.

2.4 During the late 16th and 17th centuries a series of gardens developed around the house, shown on Treswell's map of 1610 as a square walled garden and central fountain – purchased from Delafolla and supplied by piped water from Upperton – with rose garden, bowling green, orchard and fish ponds to the west, 'rampart terraces developing to the north-west and the 'Wilderness' – precursor to the Pleasure Grounds – to the north.

2.5 Between 1682-1748 the 6th Duke of Somerset, who acquired Petworth through his marriage to Lady Elizabeth Percy, made sweeping changes to the house, stables and the style and layout of the formal gardens, as evidenced by Hutchinson's 1706 plans and the 1749 Ocular Draught, as well as expanding the park.

2.6 After the premature death of the 7th Duke in 1750, just two years after inheriting the Petworth Estate, the property passed to Charles Wyndham, 2nd Earl of Egremont, who commissioned Lancelot 'Capability' Brown to undertake extensive landscaping alterations.

2.7 Brown's involvement with Petworth formed the basis for the naturalised parkland we see today, including the major diversion of the Petworth to Tillington highway in 1763 which greatly expanded the parkland to the South and influenced its landscape relationship to the surrounding post-medieval settlement.

2.8 The 3rd Earl of Egremont, George Wyndham, inherited the estate in 1763 aged 12. It is during this period that Turner was a constant visitor to the House, producing, alongside Constable and Witherington, the pictorial record which immortalised the Park.

[7] National Trust 2013: *Petworth Park Historic Landscape Survey* (Unpublished Report)

2.9 The 3rd Earl's illegitimate son, Colonel Wyndham (created Lord Leconfield in 1859), inherited the estate in 1837. The 2nd Lord Leconfield inherited in 1869. His impact on the parkland was largely related to the employment of Anthony Salvin, who diverted the West Front carriage drive – the main entrance route being taken through the Pleasure Grounds – and altering the Pleasure Ground and private garden boundaries to their current extents.

2.10 In 1947 the property was conveyed to the National Trust by the 3rd Lord Leconfield.

3.0 Methodology

3.1 The archaeological work was undertaken in accordance with The National Trust's Brief and the CI*fA* Standards and Guidance for Archaeological Excavation (Recommended Standards).

3.2 The National Trust Archaeologist marked out the location of all the trenches. The trenches to be excavated were those indicated in the brief provided by the National Trust[8]. A CAT scan was carried out over each trench prior to the excavation commencing. The proposed brief was to excavate targeted trenches based on the geophysics results. The trench locations are shown on Figure 2.

3.3 The trenches were excavated by a tracked 360º excavator using a flat-bladed ditching bucket in shallow spits under archaeological supervision in accordance with the Recommended Standards. Machine excavation ceased when the archaeological deposits were encountered, and all subsequent excavation was carried out by hand.

3.4 Archaeological deposits and features were archaeologically excavated by hand, and recorded in accordance with the Recommended Standards. Cut features, deposits and structures that were not being preserved in-situ were excavated by hand and fully recorded prior to their removal.

3.5 A grid system was implemented in the main trench (Trench 1) in order to give a general location to artefacts being recovered and provide a basis for recording and planning. The Site Grid can be seen on the Trench location plan (Fig. 2). The grid squares are numbered 1-15, with Grid 1 to 5 running north to south on the eastern side of the site, and Grids 11 to 15 running from north to south on the western side of the site.

3.6 The spoil from the excavations was inspected by Archaeologists and Volunteers to recover any artefacts and ecofacts of archaeological interest. A metal detector survey was undertaken by two Volunteers, both members of the West Sussex Metal Detecting Society: Don Mountford and Chris Lane. They used a Whites DFX Wide Band detector to scan the spoil derived from the excavations and archaeological deposits during the excavation.

3.7 All archaeological deposits, features and finds were excavated by hand, and recorded according to accepted professional standards using standard proforma sheets. Deposit colours were recorded by visual inspection and not by reference to a Munsell Colour chart.

[8] 31/3/2014, *Brief for Petworth Park Archaeology Project Spring Evaluation Excavations*, National Trust

3.8 A full digital photographic record of the work was kept as appropriate and will form part of the site archive. The archive is presently held by Chris Butler Archaeological Services Ltd and will be passed to the National Trust on completion of the project. A site reference of BHP.14 has been allocated.

3.9 All artefacts recovered during the excavations on the site are the property of the National Trust. They are to be suitably bagged, boxed and marked in accordance with the *United Kingdom Institute for Conservation, Conservation Guidelines No 2* and on completion of the archaeological post-excavation programme the National Trust will arrange for them to be deposited in a museum or similar repository.

3.10 Although there are apparently surviving bench marks in the area, they could not be located during the project and traversed into the excavation areas. A Site Bench Mark was set up, with a level of 70.810m OD taken from a hand held GPS device; manual levels were taken for all trenches from this point.

3.11 During the excavation various specialists visited the site and provided advice and guidance to the excavation team. These included Dr Mike Allen (geoarchaeology and environmental archaeology), Chris Butler (prehistoric flintwork) and Luke Barber (pottery and ceramic building material).

4.0 Results

4.1 The results will be discussed trench by trench with a table for the contexts discovered within each trench.

4.2 The three trenches were located on the top of Lawn Hill. Trench 1 was positioned approximately north-south across the top of Lawn Hill. Trench 2 was positioned east-west along the centre of an avenue of trees and Trench 3 was located to the west of Trench 1 orientated north-west to south-east (Fig. 2).

4.3 The topsoil (Contexts **001, 003,** and **004**) across the site is a firm, dry sandy silt; creamy buff to a mid/dark brown in colour. There were approximately 5% sandstone inclusions and many roots. This topsoil has a slight variation in depth across the site ranging from 0.05mm to 0.20mm in depth. Dr Michael Allen explains that the soils are well-developed shallow rendzinas or shallow brown earths; they are long-term grazed pasture soils with little evidence of recent disturbed or cultivations[9]. The soils have not developed significant horizon or depth because:

- They are immature soils developing over only 500 years or so
- There is little organic input into the soil
- The site has no midden, and no cultural humic deposits
- The parent material (aka natural) as far as the soil is concerned, at this location is tile,
- brick and archaeological debris are preventing weathering to any depth[10]

4.4 The natural (Contexts **009, 064** and **065)** is identical across the three trenches. It is firm and dry with a crumbly texture. The sandstone is heavily degraded and appears in delaminating layers and lumps between which there is a silt sand to sand mix as you get deeper into the deposit. There is a possibility that this natural may have been redeposited or disturbed by either quarrying or the plantation of trees. It was difficult to excavate and very sterile of artefacts and was therefore taken to be natural.

[9] Allen, M, J. 2014. AEA 253: Petworth House, West Sussex (BHP.14);~ geoarchaeology report (2014). AEA: Allen Environmental Archaeology.

[10] *ibid*

4.5.0 Trench 1 (Fig. 2; Table 1)

4.5.1 Trench 1 was located at the top of Lawn Hill orientated north-south and measuring 40m N/S by 7.5m E/W at the widest point (Fig. 2). It was noted that in this trench there was a high concentration of archaeology at its north end. The southern end of the trench was sterile of artefacts, and had possibly been subjected to quarrying activity at some stage in the last 500 years; however two possible features at the extreme southern end were not excavated due to time constraints. These features were very ephemeral.

4.5.2 The natural under the archaeology was revealed in two locations. Both Context (**059** and **065**) are a firm, yellow brown sandy clay containing around 50% sandstone block inclusions. Context (**065**) is heavily disturbed either by quarrying or tree roots.

4.5.3 At the north end of the trench the archaeology is located no more than 0.20m below current ground level. The first deposits to be uncovered were contexts (**016** and **020**) which contained a large quantity of tiles in a soft, sandy silt, grey brown in colour (Fig. 3, Plate 1). These contexts contained a high volume of roots which may explain the soily deposit between the tiles. Figure 4 illustrates the widespread distribution of these deposits with (**020**) sitting within the tops of walls [**007** and **010**] and curving round to join (**016**) to the west of the trench. Therefore (**016** and **020**) are more than likely the same deposition event. The tile deposit looks mainly to be roof tiles of 16th century date. Fig. 3 depicts one area of tiles in detail where the tiles seem to have just slipped off the roof of the building, or were neatly stacked against something, such as a wall. The rest of the spread had no apparent uniformity.

Plate 1: Deposits (**016 and 020**) under excavation

4.5.4 On removing the tiles the plan of a substantial building was uncovered (Figs. 5, 9 and 10). Cutting through this building are four possible robber trenches. As can be seen on Figure 5 these trenches are evenly spaced across the site orientated east-west. Cut [**021]** remains unexcavated, however it cuts through floors [**015**, **033** and **050**], and wall [**049].** It is filled with (**022)**. Context (**022**) is of soft to medium compacted silty sand, greyish brown in colour. There are moderate to sparse small to medium sized inclusions of building material within the top of this deposit. **037** also remains unexcavated, however it cuts through the length of wall [**030**], collapsed wall [**066**] and deposits (**067** and **068**).

4.5.5 The other two robber trenches were also aligned east-west. Both were sectioned in an attempt to gain an understanding of the trenches and the features / deposits that they cut through. Trench [**006]** cuts through floor [**015**], walls [**007**, and **029**], and deposits (**041** and **061;** Fig. 6; Plate 2). This feature has been truncated by a possible tree throw in the south-west corner of the north part of Trench 1. Section F9 was dug against the east baulk of the main trench. This revealed that cut [**006**] measured 5.51m long, 0.75m wide and 0.20m deep. The cut has moderate to vertical sides with a concave base and is filled with deposit (**031**). Context (**031**) is the single fill of cut [**006**], and is of a moderate friable, mid brown sandy silt. There are moderate to common medium angular sandstone blocks and medium to small fragments of Ceramic Building Material (CBM). The fill is the disturbed mixed material left behind by the excavation and back filling of the trench.

Plate 2: Section F9, Robber Trench [**006**]

4.5.6 Section F7 (Fig. 8; Plate 3) was excavated through cut [**035**], which ran parallel to the other three robber trenches to its north and measures 4.3m long by 0.80m wide, and was excavated to a depth of 0.40m deep. It cuts through walls [**011**, **024**], and demolition (**040**, **062** and **068**). The cut is very diffuse in this section however [**035]** seem to have almost vertical sides and a concave base. The single fill (**036**) is friable, dark brown sandy silt with large sandstone inclusions.

4.5.7 Below [**006**] is context (**041**) and below [**035**] is context (**040;** Fig. 8) both deposits are similar, if not the same. They are a firm, buff to dark yellow, sandy clay with common to sparse inclusions of irregular shaped sandstone blocks and CBM fragments. This deposit seems to continue in all directions under the building which covers the rest of the site. There is a possibility that these deposits are one and the same, and that they form another demolition deposit of a possible older structure on the site. Deposit (**040**) in section F7sits on top of collapsed wall [**057**].

Plate 3: Section F7 of Robber Trench [**035**]

4.5.8 This report so far has discussed the archaeological deposits above, and cutting through the structural remains of the building which is located on the site. For ease of discussion the building will be discussed on a room by room basis. The building contains nine possible rooms, which will be discussed from north to south (Fig. 11). The division of the building into these rooms is based on observations made during excavation, surviving wall lines, possible robbed-out wall lines and changes in floor level height and flooring material. These divisions should be taken as provisional, until further excavation is undertaken to fully investigate this building, when it is likely some of them will be amended.

4.6.0 The Rooms

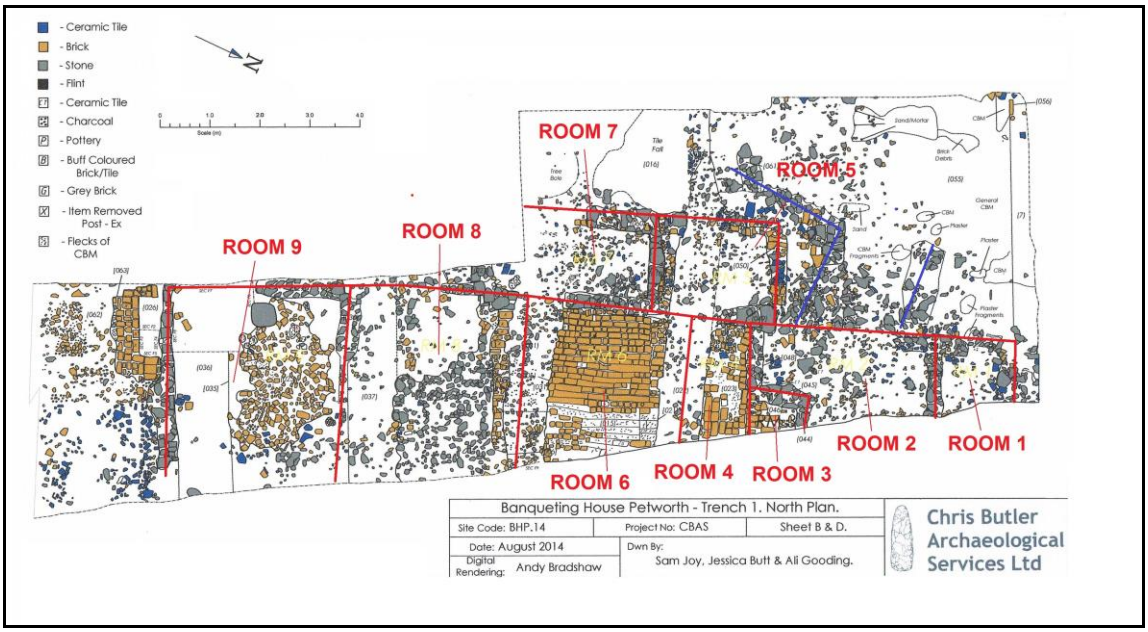

Fig. 11: Layout of suggested rooms in the excavated building

4.6.1 **Room 1.** Plate 4

4.6.2 Located at the far north end of the site in the north east corner of Trench 1. Walls [**053** and **054**] are situated to the south. These walls are considerably less well constructed than the rest of the buildings walls. There are no clear walls to the north and west, with the trench edge to the east. Context (**024**) in the centre of the room has been partially excavated revealing more demolition rubble beneath.

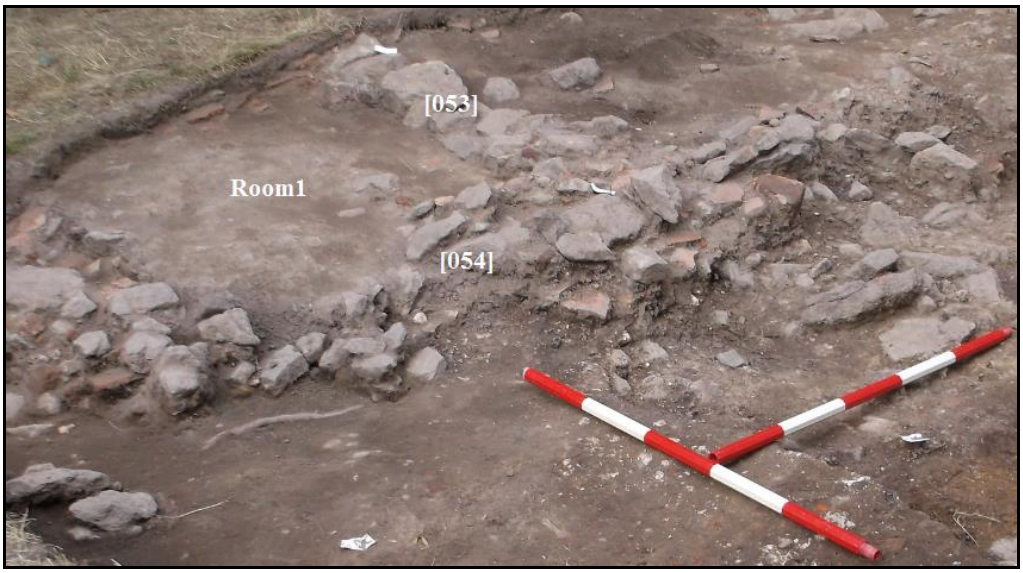

Plate 4: Room 1

4.6.3 **Room 2.** Plate 5

4.6.4 Room 2 is situated to the south of Room 1 and north of the rest of the building, on the eastern edge of the trench. Walls [**053** and **054**] are to the north of the room. Immediately to the south are walls [**044**, **047**] and rubble (**052**). The room is slightly L shaped in plan and contains deposit (**024**), which was not fully excavated. Within the top part of this deposit a broken pottery vessel and a highly corroded iron object were discovered.

4.6.5 There have been several ideas about Rooms 1 and 2. As has previously stated, walls [**053** and **054**] are of poor construction. With this in mind it has been suggested that perhaps this was an open fronted, north-west facing, external structure to the main building. Another suggestion is that these walls could be linked to the demolition rubble which seems to run under (**024**) and possibly links to (**052**).

Plate 5: Room 2

4.6.6 **Room 3.** Plate 6

4.6.7 Room 3 is a small room enclosed by wall [**047**] to the north and west and Room 4 to the south. The trench edge is to the east. Little of this room was uncovered during the excavation and the room continues under the trench baulk. The interior of the room is covered by a floor, composed of red 16th century bricks [**046**]. The only other interesting aspect about this room is that there is a small step between it and Room 4, and the lack of a wall between the two may indicate that they were actually parts of the same room.

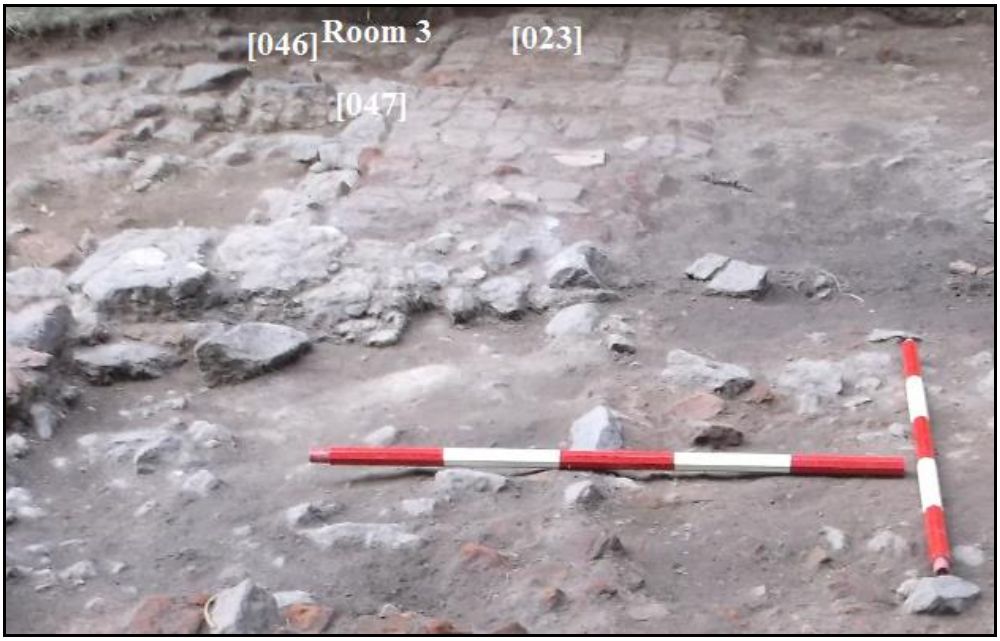

Plate 6: Room 3

4.6.8 **Room 4.** Plate 7

4.6.9 This is a long narrow room orientated east-west. The room is bounded by floor [**046**] and wall [**047**] to the north, and wall **[019**] to the west, with the assumed south wall being robbed out [**021**]. It is possible that Rooms 3, 4 and 6 are all one room, although interpretatuion was made difficult due to the presence of the robber trench. The room is paved with orange-red bricks measuring 120mm by 60mm by 30mm. Around each edge of this room the floor is edged with bricks laid on their narrow edge.

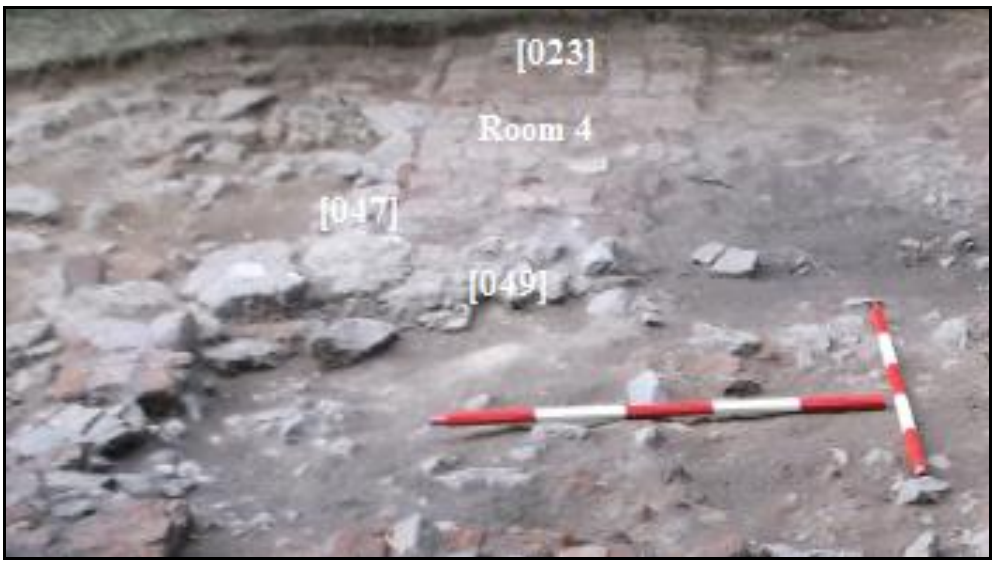

Plate 7: Room 4

4.6.10 **Room 5.** Plate 8

4.6.11 Room 5 is a small oblong room to the west of Room 4, bounded by walls [**010**, **049** and **060**]. The parts of the walls that link these three walls together now lie as demolition rubble (**052**), and (**024**). The centre of the room has been heavily disturbed with the (possible) robber trench [**021**] projecting out into the room although there is no obvious cut within the room. It is clear this room once had a brick floor like those in Rooms 3, 4 and 6 as along the north and southern edge of the room there are remnants of this floor, [**050**].

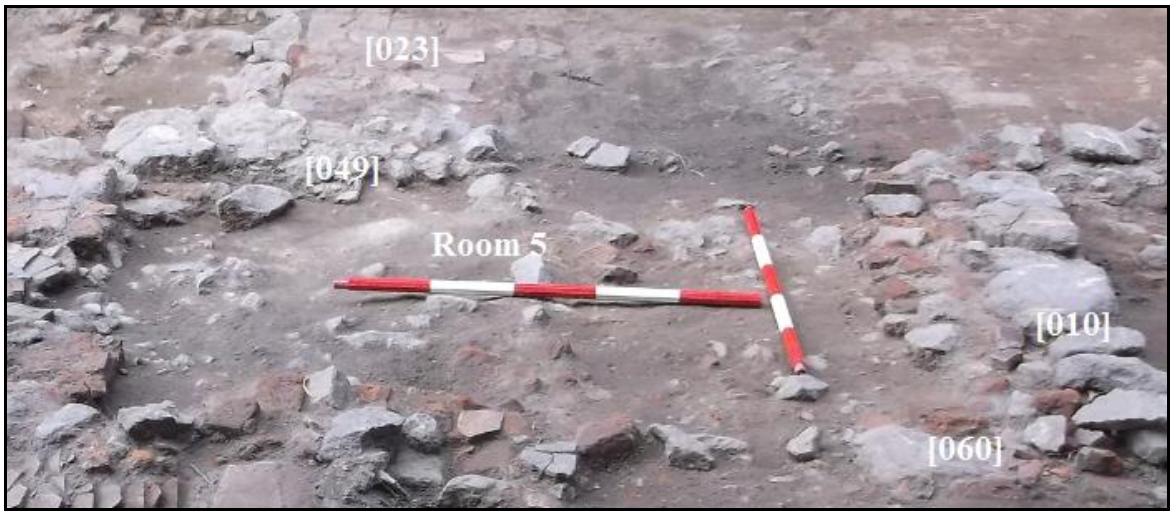

Plate 8: Room 5

4.6.12 **Room 6.** Plate 9

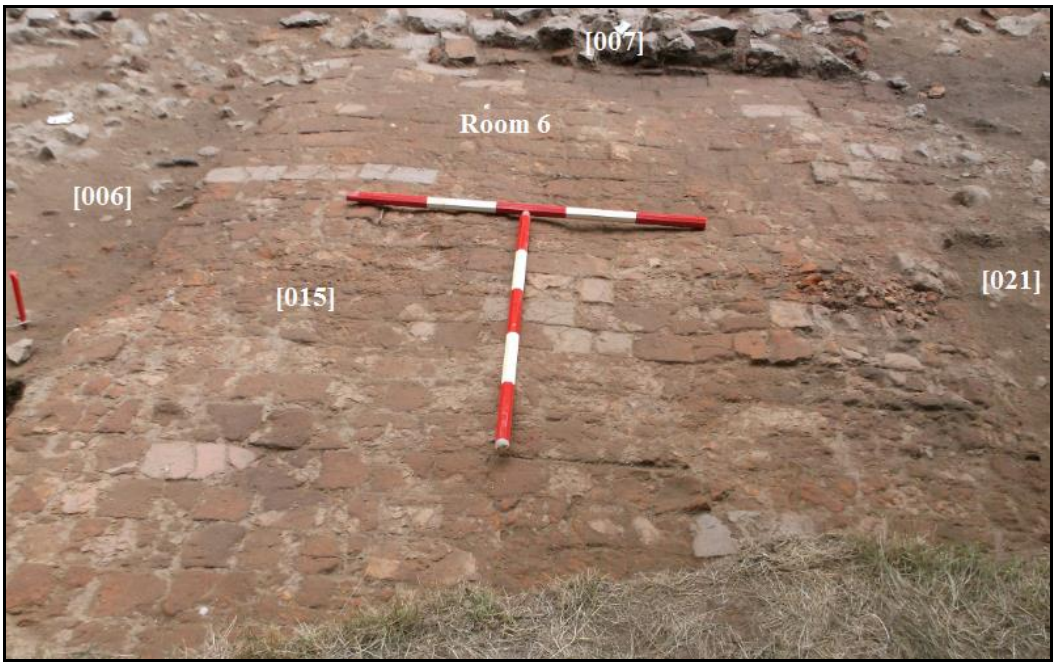

Plate 9: Room 6

4.6.13 Room 6 is located on the east edge of the trench with walls [**007** and **029**] to the west, collapsed wall (**066**) to the south and Room 4 to the north. Robber trenches [**006** and **021**] truncate the room, and may have been the locations of walls separating this room from Rooms 4 and 8. The room contains an almost complete orange-red brick floor [**015**] laid in an irregular bond with no mortar. The bricks used in this floor were different to those used elsewhere, strongly suggesting this was not laid at the same time as the other floors.

4.6.14 **Room 7.** Plate 10

4.6.15 Room 7 is located west of Room 6 and south of Room 5 with its south-west corner under the trench baulk. The room is enclosed by walls [**007**, **010**, **027**, **029** and **060**] and has been truncated by robber trench [**006]**, which may have robbed out its southern wall. The walls are constructed from medium to small irregular shaped sandstone blocks with no obvious mortar, with wall [**060**] containing the odd brick within its construction. The centre of the room, which has been uncovered, contained demolition rubble (**061**) within a mid brown sandy silt deposit. There is no surviving evidence of a brick floor.

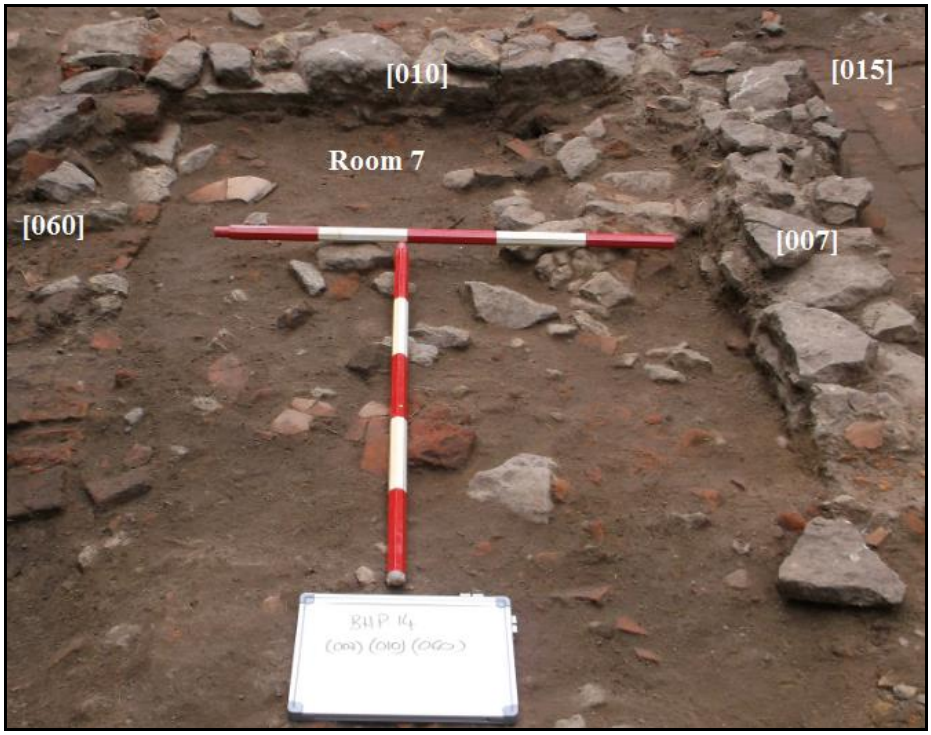

Plate 10: Room 7

4.6.16 **Room 8.** Plate 11

4.6.17 Room 8 is located south of Room 6, and north of Room 9. Few walls survive intact bounding this room. Parts of wall [**028**] survive to the west, and parts of [**030**] to the south. The centre

of the room is filled with collapsed wall (**066**) and mixed deposit (**067**). **066** is a moderate to friable mid to pale buff brown sandy silt. There are very few other inclusions other than common, medium to small, angular sandstone blocks. These are thought to represent a collapsed wall which once stood between Rooms 6 and 8. There is a small concentration of orangey red brick fragments on the southern edge of this deposit. **067** is of moderate compaction, mid to pale brown silty sand. It has a moderate distribution of inclusions throughout the excavated part of the deposit. These inclusions included flecks of charcoal, small to medium angular fragments of sandstone and sparse medium sized fragments of brick.

4.6.18 Room 8 has been truncated by robber trench [**037**], disturbing approximately half of the rooms' archaeological deposits. This could represent the robbed out wall dividing Room 8 from Room 9.

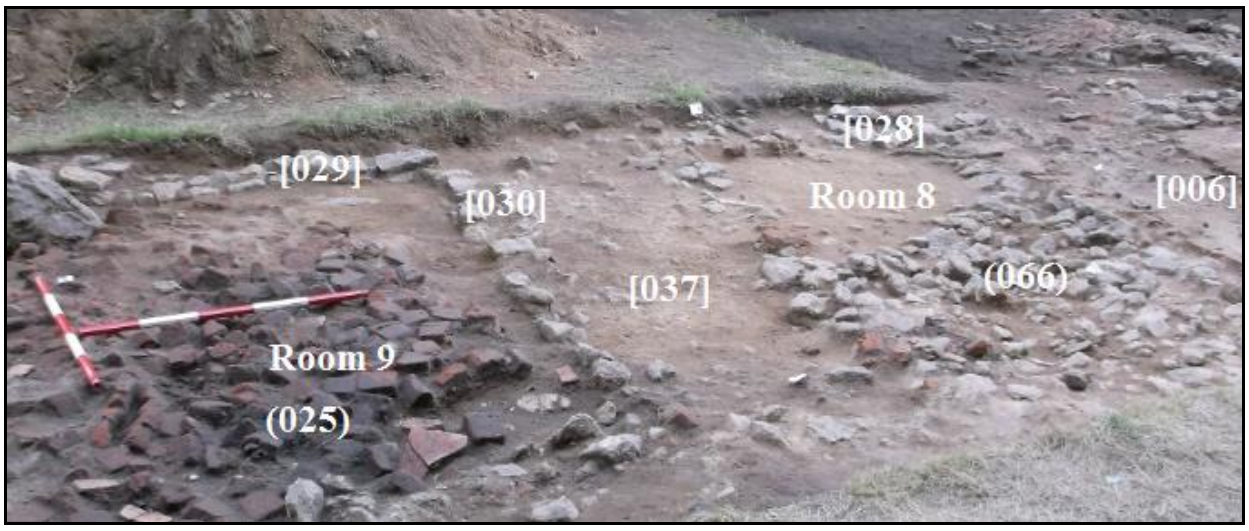

Plate 11: Rooms 8 and 9

4.6.19 **Room 9.** Plate 11

4.6.20 Room 9 is located to the south of Room 8 with the trench baulk to the east and west. Wall [**030**] is to the north, [**011**] to the south and [**069**] to the west. The room has been heavily truncated by robber trench [**035**]. The surviving deposits in this room have been disturbed by the demolition of the building. Context (**025**) is a disturbed pink red brick / thick tiled floor. The bricks are roughly square with flat surfaces and sharp corners. Around them is a soft, mid to dark brown sandy silt.

4.6.21 The last archaeological deposits to survive clearly in Trench 1 are those just to the south of wall [**011**]. Deposit (**062**) is a medium compacted, dry sandy silt, mid to pale brown in colour. Abundant inclusions of large to small angular brick fragments, mainly concentrated in Grid 14, and abundant tile fragments similar to those in Contexts (**016** and **020**), mainly located in Grid 4. There are common flecks of charcoal and sparse small irregular shaped sandstone blocks. It is possible that this deposition is the result of several different events. The bricks are possibly indicative of a now removed floor, which the roof has collapsed onto. However when

Context [**013**] is taken into consideration, it is possible that the brick deposit is the remains of an external chimney which collapsed along with the roof in a single event.

4.6.22 Context (**013**) measures externally 240mm by 110mm, with an internal opening measuring 120mm by 50mm by 50mm deep. This orange-red brick oblong structure is thought to be the base of a chimney, and although no indication of burning was found on the bricks, sandstone pieces recovered from here were notably burnt (Plate 12).

Plate 12: The external chimney [**013**]

4.6.23 **A different Phase of building**

4.6.24 To the north western side of Rooms 1 and 2, and possibly forming the north wall of Room 5, are two walls which are on a different alignment to those in the rest of the building (shown in blue in Fig 11). These walls when projected north-west, line up with the walls found in 2013, and could represent a different phase of building, although their construction and materials do not differ from the other construction and materials found elsewhere in the building.

Table 1: Trench 1 Contexts

Context Number	Context Type	Description	Context Number	Context Type	Description
(**001**)	Deposit	TR1 topsoil	[**037**]	Cut	Robber trench north of wall [**030**] in grids 3 and 13
(**002**)	Deposit	TR1 clean back	(**038**)	Fill	Fill of [**037**]
(**005**)	Deposit	Deposit above floor [**015**] in grids 2 and 12	(**039**)	Fill	poss. tree throw north of wall [**011**]
[**006**]	Cut	E/W aligned wall in grids 3 and 13	(**040**)	Deposit	Deposit below (**036**) in [**035**]
[**007**]	Wall	N/S aligned wall in grid 12	(**041**)	Deposit	Deposit below (**031**) in [**006**]
[**010**]	Wall	E/W aligned wall in grid 12	(**042**)	Deposit	Deposit below (**016**) in grid 12
[**011**]	Wall	E/W aligned wall in grid 14	(**043**)	Deposit	Deposit north of (**023**) in grid 12
(**012**)	Deposit	Deposit above floor 13 in grid 14	[**044**]	Wall	E/W aligned wall in grid 1
[**013**]	Floor	Floor below deposit 12 in grid 14	[**045**]	Wall	N/S aligned wall in grid 1
(**014**)	Deposit	Same as (**024**)	[**046**]	Floor	Tiled floor in grid 1
[**015**]	Floor	Tiled floor below deposit (**005**) in grids 2 and 12	[**047**]	Wall	E/W wall cutting (**023**) in grid 12
(**016**)	Deposit	Collapsed roof deposit in grids 11 and 12	[**048**]	Cut	Cut for wall [**047**] in grid 12
[**017**]	Wall	Wall in grid 14	[**049**]	Wall	N/ S aligned wall in grid 12
(**018**)	Deposit	burnt deposits in grid 14 <2>	[**050**]	poss. Floor	poss. floor in grids 11 and 12
(**020**)	Deposit	Floor/ roof rubble grid 12	[**051**]	Wall	Corner of room in grid 11
[**021**]	Cut	Robber trench	(**052**)	Deposit	Collapsed wall in grid 11
(**022**)	Fill	Fill of Robber trench [**021**]	[**053**]	Wall	E/W aligned wall in grid 11 near end of trench
[**023**]	Floor	Corridor north of robber trench [**021**] in grids 2 and 12	[**054**]	Wall	poss. wall to out building
(**024**)	Deposit	Demolition rubble in grids 4 and 14	(**055**)	Deposit	Earlier demolition
[**025**]	Floor	Floor in grids 3, 4, 13 and 14	[**056**]	poss. Wall	E/W aligned wall in north end of grid 11
(**026**)	Hearth	Hearth in grid 14 below deposit (**012**)	[**057**]	poss. Wall	poss. foundations of earlier wall below [**011**]
[**027**]	Wall	E/W aligned wall in grid 13	(**058**)	Deposit	poss. wall collapse into hearth [**013**]
[**028**]	Wall	Central wall poss. continuation of wall [**007**] in grid 13	(**059**)	Natural	Natural below (**057** and **040**)
[**029**]	Wall	Southern poss. continuation of wall [**007**] in grid 13	[**060**]	Wall	N/S aligned wall below (20) in grid 12
[**030**]	Wall	E/W aligned wall in grid 13	(**061**)	Deposit	Below (**20**) in walls [**007**, **010** and **060**]
(**031**)	Fill	Fill of [**006**]	(**062**)	Deposit	poss. demolition in grids 4 and 14
(**032**)	Deposit	poss. covering floor and collapsed wall in grid13	[**063**]	Cut	Cut of floor[**013**] in grid 14
(**033**)	Deposit	poss. occupation in grids 1 and 11	(**065**)	Natural	Same as TR3
(**034**)	Deposit	Demolition in grids 11, 21, 12 and 22	(**066**)	Deposit	Wall collapse in grids 3 and 13
[**035**]	Cut	Linear cut along wall [**011**] in grids 4 and 14	(**067**)	Deposit	deposit/ disturbed natural in grid 13
(**036**)	Fill	Fill of [**035**]	[**069**]	Wall	N/S aligned wall in grid 14

4.7.0 Trench 2: (Fig. 2; Table 2)

4.7.1 Trench 2 was located to the east of Trench 1 and measured 3m N/S by 18m E/W (Fig. 2). This trench was situated between two rows of trees which are the remains of an avenue which once led to the front of the house across the parkland.

4.7.2 On opening the trench a highly compacted layer was discovered. Context (**019**) has a medium to hard compaction, and is a grey brown sandy silt. Inclusions within the deposit include moderate to common fragments of CBM and a moderate to sparse distribution of flint and pottery fragments. This deposit could possibly be the compacted surface, or at least an underlay, for the driveway that once followed the avenue of trees.

4.7.3 At the far east end of the trench the hill slope drops away sharply and the trench revealed the natural (**064**) which is identical to that in Trenches 1 and 3.

4.7.4 Once it was established there was little archaeology in this trench it was decided that visiting schools could excavate out the inclusions within deposit (**019**).

Table 2: Trench 2 Contexts

Context Number	Context Type	Description
(**003**)	Deposit	TR2 topsoil
(**019**)	Deposit	poss. Quarried spread
(**064**)	Natural	Same as TR3

4.8.0 Trench 3. (Fig. 2; Plate 13)

4.8.1 Trench 3 was located to the west of Trench 1, and orientated north-west to south-east and measured 2.5m wide by 7m long (Fig. 2). Like the southern end of Trench 1, Trench 3 has been heavily disturbed either by quarrying or the planting and removal of trees forming the avenue. However a sondage, measuring 1.40m by 1m, was excavated at its north-east end to investigate this disturbance.

Plate 13: Trench 3

4.8.2 This test pit revealed a single dumping event. Context (**008**) is a firm dry sandy silt, mid brown to creamy buff in colour with 70% stone and 5% tile inclusions. This deposit overlay the Natural (**009**). Context (**008**) looks to be highly mixed with a concentration of the CBM at the top. Covering the natural it is possibly a levelling deposit or edge of possible demolition material from the building in Trench 1.

Table 3: Trench 3 Contexts

Context Number	Context Type	Description
(**004**)	Layer	Topsoil
(**008**)	Deposit	Possible demolition debris
(**009**)	Layer	Natural

5.0 The Finds

5.1.0 **The Coins and Counters** by David Rudling

5.1.1 Two hammered coins, two hammered jetons and a cast counter, all made in the 16th century, were recovered during the excavations at Petworth in 2014. All are catalogued below. Dr Richard Kelleher of the Fitzwilliam Museum (Cambridge) kindly helped with the identification of the probable Elizabethan penny.

5.1.2 *The Coins*

1. Probably Elizabeth I, 1558-1603[11]. Silver penny. 0.47g. Probably first coinage: 1558-1561. Very worn.
   Obverse: E D G ROSA SINE SPINA, portrait worn flat. The initial mark is probably a cross-crosslet.
   Reverse: CIVITAS L[ON]DON, Long cross over royal shield.
   Context: Grid 14, Context (040): Special Find 36.

2. Elizabeth I. Silver threepence[12]. 1.38g. Second coinage: 1561-1582. Dated: 1565.
   Obverse: ELIZABETH D G ANG FRA ET HIB REGINA, Crowned bust left, with a rose behind. Initial mark: ? Rose.
   Reverse: POSVI DEV ADIVTOREM MEV, Square shield on long cross fourchée dividing the legend, 1565 above shield.
   Context: Grid 4, Context (001): Special Find 7.

5.1.3 **The Brass Jetons** (casting-counters)

1. Nuremberg (Germany): anonymous issue, 'ship-orb' brass jeton. Issued circa 1525-50[13]. Diameter: 25mm. Large fragment. Extremely worn/eroded and may have been lost in the late 16th, or early 17th century.
   Obverse: Ship, with stern on the right: illegible legend (usually fictitious).
   Reverse: Imperial orb surmounted by cross patty: in tressure with three main arches: illegible legend (usually fictitious).
   Context: Grid 3, Context (001): Special Find 13.

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[11] North, J.J. 1991. *English Hammered Coinage Volume 2, Edward I to Charles II, 1272-1662*. London: Spink.

[12] North, J.J. 1991. *English Hammered Coinage Volume 2, Edward I to Charles II, 1272-1662*. London: Spink.

[13] Mitchiner, M. 1988. *Jetons, Medalets and Tokens, The Medieval Period and Nuremberg, Volume One*. London: Seaby.

2. Nuremberg: brass jeton of Damianus Krauwinckel, who is first recorded as a mint master in 1543. He died in 1581[14]. Diameter: 26 mm. Weight: 8.44g. Die axes: 180°.
Obverse: DOMIANVS rosette KRAVWINCK, 'Lion of Saint Mark' standing left, nimbate and winged, holding book of the Gospels in right fore-paw; and with the lion's halo projecting into the margin; surmounted by a Lis.
Reverse: Imperial orb surmounted by cross patty: within a normal tressure of three major arches: three pairs of annulets outside the tressure: fictitious inscription.
Context: Trench I: spoil heap (i.e. an unstratified metal detector find).

5.1.4 The Lead counter

A cast 'Crowned Rose' lead counter: circa 1590s-1603[15]. Diameter: 20mm; Weight: 3.07g.
Obverse: No legend, English crown above double-headed eagle.
Reverse: GOD SAVE THE QVENE, English crown above a double rose. .
Context: Grid 4, Context (002): Special Find 8.

Unlike their imported European counterparts (e.g. Nuremberg jetons), English Elizabethan counters were not struck in brass, instead they were cast in pewter or lead. Although most known 'Crowned Rose' counters have been found in London, such counters have also been found across a wide area of the Home Counties (Mitchiner 1998, 1652).

5.2.0 The Ceramic Building Material by Luke Barber

5.2.1 The excavations recovered a massive assemblage of brick and tile from the site: over 11,577kg. Due to the quantities involved on-site recording of the assemblage was undertaken by the volunteers, with a view to retaining a representative sample for specialist assessment/analysis. To that end it was the intention that all of the brick and tile was recorded on an on-site paper archive. The results of this are shown in Table 4. This recording was done at a basic level of count and weight by brick or tile per context, without recourse to any fabric series and with no dimensions being taken. However, the data in Table 4 does at least demonstrate the vast size of the assemblage in many contexts.

[14] Mitchiner, M. 1988. *Jetons, Medalets and Tokens, The Medieval Period and Nuremberg, Volume One*. London: Seaby.– but note that the Petworth example has a different reverse legend.

[15] Mitchiner, M. 1998. *Jetons, Medalets and Tokens, British Isles circa 1558 to 1830, Volume 3*. London: Hawkins publications.

Table 4: Total Ceramic Building Material assemblage recorded on site.
Excludes environmental residues

Context	Brick	Roof Tile	Floor tile	Totals
(001) Tr. 1	282/5875g	216/9290g	-	498/15,165g
(002) Tr. 1	1048/45,395g	1762/73,105g	-	2810/118,500g
(003) Tr. 2	9/590g	36/305g	-	45/895g
(004) Tr. 3	3/229g	20/813g	-	23/1042g
(005) Tr. 1	419/23,893g	200/10,971g	-	619/34,864g
(007) Tr. 1	56/18,215g	30/2000g	-	86/20,215g
(008) Tr. 3	-	60/1696g	-	60/1696g
(012) Tr. 1	17/1280g	35/1475g	-	52/2755g
(015)Tr. 1	58/4125g	145/8343g	-	203/12,468g
(016) Tr. 1	1538/137,956g	4518/295,374g	-	6056/433,330g
(019) Tr. 2	29/500g	34/1125g	-	63/1625g
(020) Tr. 1	131/32,104g	267/23,030g	-	398/55,134g
(021) Tr. 1	7/1050g	30/1650g	-	37/2700g
(024) Tr. 1	114/5734g	235/7991g	-	349/13,725g
(025) Tr. 1	8/250g	-	-	8/250g
(026) Tr. 1	5/450g	22/1070g	-	27/1520g
(028) Tr. 1	50/3500g	8/575g	-	58/4075g
(031) Tr. 1	30/4900g	4/712g	-	34/5612g
(032) Tr. 1	50/4060g	47/2300g		97/6360g
(033) Tr. 1	-	2/200g	-	2/200g
(034) Tr. 1	1353/148,513g	2186/171,911g	-	3539/320,424g
(036) Tr. 1	30/4475g	53/4625g	1/250g	84/9350g
(038) Tr. 1	13/2050g	16/1150g	-	29/3200g
(039) Tr. 1	1/350g	3/425g	-	4/775g
(040) Tr. 1	161/22,808g	26/1980g	-	187/24,788g
(041) Tr. 1	19/2211g	1/200g	-	20/2411g
(042) Tr. 1	20/1500g	52/27,500g	-	72/29,000g
(043) Tr. 1	5/350g	39/4150g	-	44/4500g
(046) Tr. 1	-	1/99g	-	1/99g
U/S	139/18,019g	235/13,065g	-	374/31,084g
Totals	**5595/490,382g**	**10,283/667,130g**	**1/250g**	**15,879/1,157,762g**

5.2.2 Following the basic on-site recording a selection of pieces was retained for the specialist, though the criteria for selection is not certain. These pieces were subsequently washed prior to specialist assessment. This material is summarised by context in Table 5. In total just 245 pieces (weighing 62,952g) were included in this retained sample. This equates to a 1.5% sample of the overall site assemblage though this figure varies between contexts (ranging from 0% to 5.9% sample of individual contexts – Table 5). In some instances the retained sample either includes material from contexts not recorded in the paper site archive, or more material than indicated in the site paper archive. In these instances the retained sample relates to *in situ* material from structures or cut features that were taken after the on-site paper archive had been closed. As a result the exact totals for the site are uncertain, but the figures in Table 4 combined with those in Table 5 probably give a fairly accurate total. As the on-site recording did not take into consideration fabrics and dimensions the retained sample cannot be used as a statistically representative one for the site. However, it offers a useful insight into the building fabric and types of brick and tile being used.

Table 5: Total Ceramic Building Material retained for specialist assessment/analysis. Excludes environmental residues.

Context	Brick	Roof Tile	Floor tile (& other items)	Totals (% of total context assemblage by fragment count)
(001) Tr. 1	1/108g	Peg 6/189g Ridge 2/116g	-	9/413g (1.8%)
(002) Tr. 1	2/28g	Peg 26/528g Ridge 1/88g	-	29/644g (1.0%)
(003) Tr. 2	NO	RETAINED	SAMPLE	0%
(004) Tr. 3	NO	RETAINED	SAMPLE	0%
(005) Tr. 1	2/152g	-		2/152g (0.3%)
(007) Tr. 1	NO	RETAINED	SAMPLE	0%
(008) Tr. 3	NO	RETAINED	SAMPLE	0%
(012) Tr. 1	-	Peg 1/372g	-	1/372g (1.9%)
(013) Tr. 1	10/3438g	-	-	10/3438g (100%)
(015)Tr. 1	10/6943g	Hip 2/220g	-	12/7163g (5.9%)
(016) Tr. 1	11/6540g	Peg 51/5512g; Hip 2/574g	B clay 1/4g	65/12,630g (1.1%)
(019) Tr. 2	NO	RETAINED	SAMPLE	0%
(020) Tr. 1	1/156g	Peg 5/690g	-	6/846g (1.5%)
(021) Tr. 1	NO	RETAINED	SAMPLE	0%
(023) Tr. 1)	2/2524g	-	-	2/2524g (100%)
(024) Tr. 1	1/18g	Peg 6/700g; Ridge 1/106g	Crucible 1/168g B clay/misc. 21/36g	30/1028g (8.6%)
(025) Tr. 1	4/5306g	-	-	4/5306g (50%)
(026) Tr. 1	NO	RETAINED	SAMPLE	0%
(028) Tr. 1	NO	RETAINED	SAMPLE	0%
(031) Tr. 1	-	Peg 1/16g	-	1/16g (2.9%)
(032) Tr. 1	NO	RETAINED	SAMPLE	0%
(033) Tr. 1	-	Peg 5/266g	-	5/266g (over 100%)
(034) Tr. 1	18/12,572g	Peg 31/3106g; Ridge 1/112g	-	50/15,790g (1.4%)
(036) Tr. 1	NO	RETAINED	SAMPLE	0%
(038) Tr. 1	NO	RETAINED	SAMPLE	0%
(039) Tr. 1	NO	RETAINED	SAMPLE	0%
(040) Tr. 1	2/238g	-	-	2/238g (1.1%)
(041) Tr. 1	NO	RETAINED	SAMPLE	0%
(042) Tr. 1	NO	RETAINED	SAMPLE	0%
(043) Tr. 1	NO	RETAINED	SAMPLE	0%
(046) Tr. 1	5/3046g	-	-	5/3046g (over 100%)
(050) Tr. 1	8/5334g	-	-	8/5334g (100%)
U/S	4/3746g	-	-	4/3746g (1.1)
Totals	**81/50,149g**	**Hip 4/794g Peg 132/11,379g Ridge 5/422g**	**23/208g**	**245/62,952g (1.5%)**

5.2.3 In addition to the hand-collected assemblages tabulated in Tables 4 and 5 there are 584 pieces of brick and tile, weighing just under 1.5kg, from one of seven environmental residues (Table 6). Unfortunately the vast majority of these consist of amorphous tiny granules that are not diagnostic of form or fabric (recorded as Misc. on Table 6). These pieces, which distort the quantifications by their quantities, are not considered further in this assessment.

Table 6: Ceramic Building Materials from environmental residues

Context	Sample	Brick	Tile	Misc.	Total
(**005**)	<1>	-	1/40g	45/50g	46/90g
(**018**)	<2>	-	-	70/78g	70/78g
(**026**)	<3> & <6>	6/98g	1/14g	165/136g	172/248g
(**033**)	<4> & <5>	4/64g	6/77g	213/158g	223/299g
(**041**)	<7>	9/340g	1/28g	63/386g	73/754g
Total					584/1469g

5.2.4 The current assessment aims to give an overview of the sampled ceramic building material as shown in Table 5 only. As noted above the sample size is such that the ratios of different fabrics must be treated with some caution. All of the Table 5 and 6 assemblages were recorded on ceramic building material pro form sheets for archive by form and fabric. These sheets also contain all recordable dimensions and include notes on finish, glazing and mortar etc. The information from these has been used to create an Excel database as part of the digital archive.

5.2.5.0 The Brick

5.2.5.1 The retained sample includes 81 complete or partial bricks, weighing 50,149g, from 15 individually numbered contexts. These can be divided between one of 11 different fabric groups though some of these fabrics are closely related and probably originated from the same kiln source (e.g. Fabrics B1a to B1c and B5 and B7a, B7b and B6). Brief descriptions of all the fabric types are given in Table 7. Three of these were recorded from earlier excavations at Petworth but do not appear at the current site – they are included on Table 7 for completeness of the fabric series only.

Table 7: Brick fabric codes and descriptions

Fabric Code	Type	Description	Quantification
B1a	Brick	Moderate/abundant fine 'sugary' sand with moderate iron oxides to 3mm and very occasional marl pellets to 3mm. Quite crudely formed. Red, orange red low/medium fired fabric, often self-glazing.	12/7882g
B1b	Brick	As B1a but with sparse/common iron oxides to 2mm	29/20,102g
B1c	Brick	As B1a but with common/moderate marl pellets to 5mm. Usually better fired.	3/4690g
B5	Brick	Moderate fine 'sugary' sand with common voids and only rare iron oxides to 2mm. Quite well formed orange fabric. Low/medium fired.	23/7590g
B6	Brick	Moderate fine/medium sand with rare flint to 12mm. No marl. Quite well formed hard/over-fired blue/grey fabric, possibly related to B7b.	6/2318g
B7a	Brick	Abundant fine/medium sand with occasional/sparse iron oxides and marl to 2mm. Quite well formed pale orange low/medium fired fabric.	3/2668g
B7b	Brick	As B7a but with rare flint inclusions to 15mm	4/4195g
B8a	Brick	A poorly mixed crude fabric tempered with moderate/abundant fine 'sugary' sand with common iron oxides to 3mm and marl pellets and swirls to 7mm. Crudely formed orange/grey low/medium fired fabric.	1/704g

5.2.5.2 All of the bricks are quite crudely handmade and generally low to low/medium fired. They were clearly made in both sanded and unsanded formers and there is a range of sizes represented. One particular type has grass/straw impressions on its upper face and a number have a green self-glaze on several surfaces. Despite the general crudeness, for the early period, they are quite good quality. The pottery suggests one relatively short period of occupation in the 16th century and there is nothing in the ceramic building material that would go against that. The mixed nature of many of the demolition layers means that it is impossible to isolate different phases by use of the material, particularly when the sample size is small. The samples taken from the *in situ* floors are a much more reliable indicator of the variety of different types/sizes in contemporaneous use and do have the potential for the identification of any phases of change. To that end the brick samples with measurable dimension from the different floors have been tabulated in Table 8.

Table 8: Bricks with measurable dimensions from the floors

Context	Fabric	Dimensions	Comments
Floor [**013**]	B1b	? x 109 x 51-57mm	Grass/straw-streaked upper surface
Floor [**013**]	B5	235 x 109 x 50mm	90% complete (1928g)
Floor [**015**]	B6	230 x 107-110 x 50mm	95% (2318g). Sanded base & sides, worn top face. Overfired
Floor [**015**]	B7a	242 x 112-116 x 53-54mm	100% (2650g). Sanded base & sides, slightly worn top face.
Floor [**015**]	B7b	233 x 112-115 x 44-45mm	100% (1975g). Sanded base & sides, slightly worn top face.
Floor [**023**]	B1a	? x 115 x 53mm	Under-fired, crude
Floor [**023**]	B1b	? x 125 x 56mm	Sanded base & sides, worn upper face
Floor [**025**]	B1b	? x 107 x 56mm	Friable, worn top
Floor [**025**]	B1b	? x 105 x 52-60mm	
Floor [**025**]	B1b	? x 106 x 55mm	Rough (not sanded) base & sides with smooth upper face
Floor [**025**]	B1b	225 x 105 x 57-62mm	100% (2276g). Rough (not sanded) base & sides with smooth upper face. One header shaped to create convex chamfer
Floor [**046**]	B1a	? x ? x 57mm	Rough (not sanded) base & sides with smooth upper face
Floor [**046**]	B5	? x ? x 45mm	Underfired
Floor [**046**]	B1b	? x 105 x 50mm	Crude, worn top
Floor [**046**]	B1b	? x 106 x 51mm	Crude, worn top
Floor [**050**]	B1b	? x 103-107 x 54-57mm	Sanded base & sides, smooth (unsanded) upper face. Well fired
Floor [**050**]	B5	? x ? x 54mm	Underfired
Floor [**050**]	B1c	205 x 95 x 47-50mm	100% (1704g). Very crude but well fired
Floor [**050**]	B1c	200 x 90 x 46-47mm	90% (1492g). Very crude but hard fired

5.2.5.3 Although the sample is small it does clearly demonstrate the variety of fabric and sizes within individual floors. Although most bricks tend to be between 50 and 55mm thick there are notably thinner examples and some whose thickness (as well as other dimensions) varies considerably on the same brick. When viewed as floor groups the majority appear to have similar/related fabrics. The vast majority of these consist of B1a, B1b and B5 types, which could easily derive from the same source. The presence of the notably smaller and harder fired B1c bricks in floor [**050**] may be evidence of either a different maker or the re-use of some brick in the structure. Certainly the presence of the brick with shaped convex-chamfered header in floor [**025**] suggests some re-used material is present, but whether this is an isolated example or not is uncertain without a much larger sample. Only floor [**015**] stands out as having a different source of bricks, strongly suggesting this was not laid at the same time as the other floors. Interestingly none of the bricks with glazing were recovered from the floors. This suggests that these were deliberately used in the superstructure for decorative effect but again the sample sizes are too small to be certain. The 19 fragments of bricks exhibiting glazing (3144g) were recovered from Contexts (**001**, **002**, **005**, **016**, **020**, **034** and **040**), all but one (B8a) being in fabrics B1a and B1b.

5.2.6.0 The Roof Tile

5.2.6.1 The retained sample includes 141 pieces, weighing 12,595g, from 11 individually numbered contexts (Table 5). These can be divided between one of nine different fabric groups though some of these fabrics are closely related and probably originated from the same kiln source (e.g. Fabrics 3a – 3c). Brief descriptions of all the fabric types are given in Table 9.

Table 9: Roof tile fabric codes and descriptions

Fabric Code	Type	Description	Quantification
T1a	Tile	Sparse (to common) fine/medium sand with rare iron oxides to 1mm. Quite well formed red orange fabric, medium/well fired.	34/2879g
T1b	Tile	Rare/sparse fine sand with rare iron oxides to 1mm. A quite well formed buff fabric, medium fired.	18/1925g
T2a	Tile	Sparse fine sand with common iron oxide and marl inclusions to 1mm. Pale orange well-formed fabric, medium fired.	24/2309g
T3a	Tile	Off-white/cream fabric (poorly mixed) tempered with moderate fine sand and common/moderate white marl streaks and common iron oxides to 1mm. Quite well formed and well fired.	37/2541g
T3b	Tile	As T3a but more buff in colour and notably less marl swirls	16/1894g
T3c	Tile	As T3a but without marl swirls and very pale/off-white. Sparse to common iron oxide pellets to 2mm	11/949g
T4b	Tile	Abundant medium sand with common iron oxides to 1mm and marl pellets and streaks to 2mm. Quite well formed dull orange fabric, well/hard fired	(1/28g only from environmental residue)
T5a	Tile	Mixed dull orange/grey fabric tempered with sparse/common fine sand and common/moderate iron oxides to 2mm and common marl streaks and pellets. Quite crudely formed and well/hard fired	1/98g

5.2.6.2 The vast majority of the saved sample consists of peg tiles. Although the roof tiles recorded on site by the volunteers do not differentiate between the different roof tile forms it can be safely assumed that peg tile made up the majority of the discarded assemblage. The retained material can be grouped into two main types, each with sub-divisions. The odd examples, like the overfired 19mm thick T5a fragment from layer (**034**), are probably stray pieces or minor variations. The better fired T1a and T2a form a group of distinctly dull orange tiles, while T3a to T3c form a group of well fired off-white to buff tiles, clearly from a different source. Despite this, the general finish, good firing, thickness (typically 13-15mm) and universal use of large circular peg holes (11-16mm diameter) suggests there is no significant chronological difference between the two groups and they are usually found together in the same deposits. As such, it is uncertain if the two colours of the types were used to create a patterning on the roof, two sources of tile were used contemporaneously but randomly during construction or one type represents slightly later roofing/re-roofing work on the building. Unfortunately few complete dimensions are present in the retained sample.

5.2.6.3 A notable exception to this consists of a complete but fragmented T1b peg tile from demolition layer (**034**). This measures 229 long, 185-190mm wide and 15mm thick (1435g), with the two 13-15mm diameter peg holes spaced 55mm apart (inner edge to inner edge) and 30mm down from the top edge of the tile (to the centre of the peg holes). Three further complete widths are present: T1a tiles from Contexts (**016** and **034**) measuring 175mm wide and a T2a tile from Context (**024**) measuring 180mm wide. It is a great shame that no complete widths of the T3 pale tiles were present in the retained sample. The hard firing of many tiles combined with the fine fabrics frequently causes them to break with concoidal fractures that initially look deliberately shaped. This trait has also been noted on other peg tile assemblages of a similar date (e.g. at Pococks Field, Eastbourne) and indeed one fractured in this way during analysis of the fabric during the current assessment. A single T2a peg tile from demolition (**034**) has a single partial dog paw print on its upper surface.

5.2.6.4 The retained assemblage includes five fragments from ridge tiles (422g), all of which appear to be crested, though this may have been a retention bias. Two T1a examples were recovered from topsoil (**001**), each with crests 33mm long and 7mm high and decorated with splashes of clear glaze. A further fragment in T1a was recovered from cleaning layer (**002**) but it did not have a crest remaining. Demolition (**024**) produced a T3b crested tile fragment with notably smaller but taller crest measuring 19mm long by 16mm high, decorated with green glazed patches. The final ridge tile fragment is a T2a example from demolition (**034**), but the fragment does not have part of a crest. The presence of these decorative tiles demonstrates the roof was embellished suggesting a building of some standing. The differences in crest size may suggest that the orange and red tile types could be of different phases of roofing.

5.2.6.5 Only four pieces of hip tile are present in the retained assemblage, but they do demonstrate the roof to be of hipped rather than gabled form. Most of these tiles are in T1b (11-13mm thick) with two examples having the remains of small tapering nail holes on their apices (7-9mm tapering down through the thickness of the tiles to 2mm). The examples from Floor [**015**] both have nail fixing holes: on one fragment two holes are spaced 42mm apart, while the single hole on the other has the remains of the iron nail still *in situ*. The collapsed roof (**016**) produced a further hip fragment in fabric T1a and a 14mm thick piece in fabric T2a. Although these do not have any nail holes the latter has notable knife-trimming around its underside edge.

5.2.7.0 The Floor Tile and Miscellaneous Items

5.2.7.1 A single 250g floor tile fragment was noted from context (**036**) of the volunteers' paper archive. Unfortunately this was not retained so its identification as a floor tile cannot be confirmed. The assemblage includes a few pieces of burnt clay and, from demolition (**024**), a fragment from a probable crucible with 20mm thick wall. The presence of forest glass spillage into cracks in the open textured grey fabric suggests it to be from glass-working, but in complete isolation the piece may represent a stray intrusion rather than suggesting manufacturing in the area.

5.2.8.0 Potential

5.2.8.1 The assemblage of ceramic building material is notably large, of early date, associated with a particular structure of known suspected function and status and apparently free of the danger of later contamination. As such the assemblage in theory has potential to shed light not only on the building itself but the types of brick and tile in use in this part of Sussex in the 16th century. However, the retained sub-sample is considered to be too small and not systematically taken to allow a statistically reliable analysis of the overall assemblage and thus reduces the overall assemblage's potential. The ceramic building material from the contemporary hunting lodge at Downley, Singleton is similarly compromised. Despite this the sub-sample has been large enough to demonstrate the range of brick and tile types in use at the site and given important insights into the fabric of the building. However, considering the limitations noted above the retained sample is not considered to hold any potential for further detailed analysis beyond that already undertaken for this assessment.

5.3.0 **The Clay Tobacco Pipes** by Luke Barber

5.3.1 The excavations recovered just four fragments of clay pipe from the site. Context (**002**, Grid 11) produced a relatively fresh 1g stem fragment of 18th- to 19th- century date and another stem fragment with flat spur (2g) of early/mid 18th- century type. Context (**016**, Grid 11) also produced two quite fresh fragments – both stems of probable early/mid 18th- century date (2g).

5.3.2 The clay pipe assemblage appears to belong to the 18th century and thus post-dates the building by some time. Whether they represent the loss of a grounds man or a gentleman enjoying a view of the park from this vantage point is uncertain. The assemblage does not hold any potential for further analysis.

5.4.0 **The Pottery** by Luke Barber

5.4.1 The excavations produced 1,177 sherds of pottery, weighing 12,744g, from 25 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 as part of the digital archive.

5.4.2 The assemblage is dominated by medium sized sherds (30 to 60mm across) but there are some small sherds, many of which are noticeably abraded. The size and condition of the pottery varies with period but virtually all shows some signs of abrasion, suggesting the majority to have been subjected to at least some reworking. This is very much in keeping with

the mixed chronological nature of most of the context groups and indeed the type of 'open' context most were recovered from. The majority of pottery was recovered from layers associated with demolition and general spreads of refuse – no closed pit groups were recovered during the excavation. 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 10.

5.4.3 The earliest pottery from the site is of Roman date. Some 122 sherds, weighing 718g have been ascribed to this period. As far as can be made out all are residual in their deposits, even where contexts produced solely Roman sherds (e.g. Context **005**) the layer above the floor in Trench 1). This would certainly be in keeping with the generally small size of the sherds (5.9g average) and the presence of notable abrasion on some. However, not all sherds are heavily worn, suggesting they may not have been subjected to extensive reworking. Whether the sherds were brought in from elsewhere during Tudor landscaping works or whether they relate to a site at this location is difficult to say without further excavation work away from the building. Whatever the case the Roman assemblage is totally dominated by sandy greywares from the Rowlands castle industry (RB2) and other more local sources (RB1, though some Alice Holt wares may be within this group). The greywares are totally dominated by jars with simple everted rims. Decoration on these is very rare, the only sherds of note including one with a burnished line (RB1 from 031), one with white slipped rim (RB1 from 002) and one with a 'II' batch mark incised on the shoulder of a jar (RB2 from 002). The only other form noted was a bead and flanged bowl/dish from Context (005 RB1). Other wares are very scarce and include a scatter of finewares but no samian. Taken as a whole the assemblage would suggest activity between the mid 2nd and 3rd centuries.

Table 10: Chronological breakdown of pottery assemblage by fabric/ware

Fabric code	Expansion	Suggested Date range	No. sherds	Weight
Romano-British				
RB1	Misc. grey sandywares	C1st – 3rd	69	356g
RB2	Rowland castle type ware	C1st – 3rd	45	328g
RB3	Fine sandy micaceous ware	C1st – 3rd	3	12g
RB4	Buff silty ware	C1st – 3rd	4	14g
RB5	Buff colour-coated fineware	C2nd – 3rd	1	8g
High Medieval				
MQ3	Medium quartz	c. 1200-1375	1	4g
MQ4	Fine quartz	c. 1250-1450	2	24g
Transitional				
T1a	Painted ware type fine buff sandy	c. 1450/75-1575	464	6470g
T1b	Iron oxide rich variant of T1a	c. 1475-1575	18	206g
T1c	Fine silty version of T1a	c. 1475-1575	67	1074g
T1d	Moderate/abundant sandy variant of T1a	c. 1450-1550	28	546g
T1e	Variant of T1a with notable black iron oxide sand	c. 1475-1575	2	19g
T2	Buff sandy ware (Surrey?)	c. 1450/75-1550	2	10g
T3a	Paler, generally finer version of T1a	c. 1475-1575	37	478g
T3b	Coarser variant of T3a with Fe ox	c. 1475-1575	8	78g

	& marl streaks			
T4	Tudor green-type	c. 1450-1550	31	83g
TGW1	Italian Ligurian-type tin-glazed ware	c. 1520-1650+	2	3g
TGW2	Spanish lusterware	c. 1480-1600	3	8g
TGW3	Dutch-type tin-glazed ware	c. 1510-1650+	8	16g
SW1	Martincamp Type 2 (stoneware)	c. 1500-1600	16	90g
SW2	?French/Rhenish unglazed grey stoneware	c. 1475-1550	3	10g
SW3	Martincamp Type 1 (earthenware)	c. 1480-1550	23	110g
RAER	Raeren stoneware	c. 1475-1550	34	236g
KOLN	Cologne stoneware	c. 1500-1550	4	12g
KOLN/FREC	Cologne/Frechen stoneware	c. 1500-1600	23	154g
Early Post-medieval				
GRE1	Red earthenware (abundant sand)	c. 1525-1700	31	270g
GRE2	Red earthenware (sparse sand)	c. 1550-1750	2	20g
GRE3	Fine well-fired earthenware	c. 1525-1700	1	22g
BORD	Border ware (unglazed)	c. 1550-1700	2	10g
BORDG	Border ware (green glazed)	c. 1550-1700	1	6g
BORDY	Border ware (yellow glazed)	c. 1550-1700	221	1681g
FREC	Frechen stoneware	c. 1550-1700	19	380g
Late Post-medieval				
UE	Unglazed earthenware	c. 1800-1900	1	4g
TPW2	Blue transfer-printed whiteware	c. 1830-1900	1	2g
Totals			1177	12744

5.4.4 Just three worn sherds weighing 28g represent the medieval period. All are in one of two fine/medium sandy fabrics. The sherds probably relate to some manuring activity in the 14th to early 15th centuries. A bowl with green glazing on its internal base, and a cooking pot (MQ4 and MQ3 respectively) are represented (Contexts **001** and **002**).

5.4.5 The vast majority of the assemblage is of the later Transitional period, spanning c. 1450/75 to 1550. This accounts for 773 sherds (9603g) with an average size of 12.4g. Although most of the Transitional fabrics could be as early as 1450/75 (Table 10) there is no reason that any material need be before c.1500. Similarly, at the end of the period there is a heavy chronological overlap with the Early Post-medieval period. A number of the Transitional fabrics probably extend a little way beyond c. 1550 and, as there is nothing in the Early Post-medieval assemblage that need be later than c. 1575/1600, both assemblages can be seen as representing an intense but relatively short period of occupation spanning the majority of the 16th century. This, together with the somewhat mixed nature of the deposits, means that the assemblages of these periods will be viewed together.

5.4.6 The Tudor assemblage is dominated by the local fine sandy buff earthenwares of the painted ware tradition (T1 and T3 with all their variations). These may have been produced at a number of sites, but the majority probably originated from the Graffham industry that is

known to have been making this type[16]. The range of vessels is quite limited, with the majority consisting of jars with flaring rims and bowls with out-turned rims. Most vessels are oxidised, but a few reduced examples are also present. Decoration is usually in the form of painted white slip horizontal straight or wavy lines on necks and shoulders (jars) or oblique short lines around rims (bowls). A few vessels have crosses of white slip around their rim interiors and clear or, more commonly green, glazing on vessel interiors is not uncommon. Uniquely in the assemblage a T1e jar has a triangular grouping of three circular spoked stamps on its shoulder. Most of these vessels do not show any particular signs of use but several do have external sooting confirming food preparation. Other forms include a few plain jugs, usually with unstabbed strap handles and patchy exterior green glazing, pipkins, frying pans and dripping dishes. The bulk of the local coarsewares are clearly kitchen wares for the preparation and cooking of food. The few glazed red earthenware sherds (GRE) merge with the T1 and T3 types and there was probably quite a chronological overlap between c. 1525 and 1575, but the site does not appear to have lasted long enough for the GRE fabrics to become dominant as one would expect by the last quarter of the 16th century.

Plate 14: Smashed pipkin from Context 33

5.4.7 Regional wares in the Tudor assemblage are best viewed by looking at the Transitional assemblage of 773 sherds (9603g) in isolation as the largely complete but fragmented Border ware pipkin in the early Post-medieval assemblage somewhat distorts the figures. The 33 sherds (93g) of regional wares in the Transitional assemblage form 4.3% of that assemblage by sherd count, but only 1% by weight. This is mainly the result of these regional wares being totally dominated by the fragile T4 Tudor Green cups. These and a few jugs form part of the table wares being utilised. The non-local wares in the early Post-medieval assemblage are also totally dominated by products of the Hampshire-Surrey border in that there is a scatter of early Border Wares, mainly clear/yellow glazed, from vessels of the second half of the 16th century. As noted above, these are dominated by the 211 sherds (1451g) from a single

[16] Aldsworth, F. and Down, A. 1990. The Production of Late Medieval and Post-medieval Pottery in the Graffham Area of West Sussex, Sussex Arch. Coll. 128, 117-139.

shattered pipkin in Context (**033**) (Plate 14). This is a type that can be placed in the third quarter of the 16th century[17]. Considering the *in situ* conjoining sherds from this vessel it may well have been dumped when the building went out of use.

5.4.8 Once again, taking just the 773 sherds of the Transitional assemblage a notable proportion is composed of imported wares (116/639g). These constitute 15% of the Transitional assemblage by sherd count, but only 6.7% by weight. Again, this large discrepancy between the two quantification mediums is in part due to the finer nature of these vessels making them fragment into very small/light pieces. The majority of imports consist of the German stoneware mugs and jugs, typical pieces of the time and used at all levels of society for drinking. Vessels from Raeren are well represented and there are at least two definite Cologne mugs with applied decoration (an acorn and scroll) from Context **020**). There are also a number of bottle and jug sherds in either Cologne or Frechen stoneware, distinguishing these without more diagnostic sherds is notoriously difficult[18], though a few definite Frechen bottles are amongst the Early Post-medieval assemblage. Other imports associated with drinking include the Martincamp type I and II flasks/costrels and the SW2 vessel, also probably a costrel. The Martincamp sherds are probably from single vessels whose fragments clearly demonstrate the degree of mixing in the late occupation/demolition layers (for example the SW1 and SW3 sherds were recovered from Contexts (**002**, **016**, **020**, **024** and **002**, **016**, **020**, **034**, **061** respectively). Frustratingly small, and thus slightly ambiguous, scraps represent the definite high status finewares. However, the presence of apparent tin-glazed wares from Italy, Spain and the Low Countries hint at a household that could access quality wares from a wide geographical area.

5.4.9 There is no definite evidence of occupation after c.1575, there being a subsequent long chronological gap until the two sherds of 19th century abraded pottery were deposited.

5.4.10 The assemblage of pottery has variable potential for further analysis and publication. The Roman, medieval and Late Post-medieval material consists of small sherds that are frequently quite abraded. These pieces are either residual or intrusive and of fairly standard types. As such this material does not warrant any further analysis beyond that already undertaken.

5.4.11 The Tudor material forms the overall core of the assemblage and can be directly related to a building of some status, even if the material was recovered from somewhat open contexts. The group is therefore of some interest as few such associated assemblages have been published from Sussex to date. Recent fieldwork has recovered chronologically comparable assemblages from high status sites at Singleton (Downley hunting lodge) and Parham and the current assemblage will be a very useful addition. Comparison also ought to be made to the assemblage from Nonsuch Palace[19] to see if similarities exist in the proportions of wares and

[17] Pearce, J. 1992. *Post-Medieval Pottery in London, 1500-1700, Volume 1: Border Wares London*: HMSO.

[18] Hurst, J., Neal, D., and van Beuningen, H. 1986. *Pottery Produced and Traded in North-West Europe 1350-1650,* Rotterdam Papers 6.

[19] Biddle, M. 2005. *Nonsuch Palace: The Material Culture of a Noble Restoration Household. Oxford*: Oxbow Books.

sources. The assemblage contains a number of drawable sherds that will allow the main repertoire of the local wares to be illustrated: up to 26 vessels could be drawn. There are also a few sherds that need a little further research to clarify their source/form and the local wares ought to be correlated to the Sussex fabric reference collection. As such it is recommended that the Tudor assemblage is subjected to a little further analysis and an illustrated report be produced for inclusion with the site publication.

5.5.0 **Prehistoric Flintwork** by Steffan Klemenic

5.5.1 An assemblage of 30 pieces of worked flint (180.25g) was recovered during the fieldwork (Table 11), together with 64 pieces of unworked flint, and fire-fractured flint (594.5g). The raw material comprises a typical range of Downland flint. Most pieces are an un-patinated grey/black colour, some pieces were partially patinated, with a white patination. All terminology is after Butler[20].

Table 11: The Prehistoric Flintwork

Type	Number
Hard Hammer-struck Flakes	6
Soft Hammer-struck Flakes	4
Fragments	17
Denticulates	1
End Scrapers	2
Total	30

5.5.2 The flintwork is predominantly debitage (Table 11), comprising both hard and soft hammer-struck flakes and blades, together with flake and blade fragments. There are roughly equal quantities of hard and soft hammer struck flakes, very few pieces with evidence for platform preparation. One fragmentary flake was fire-fractured. There were two tools of recognisable types, both of which are End Scrapers, one was unstratified, and one was from Trench 1, Context (**032**) in Grid 3. In addition to the two scrapers a denticulated flake was found in Context (**004**), Trench 3. All of these tools are datable to the Neolithic or Early Bronze Age.

5.5.3 There has been very little flint found at Petworth Park in the past and therefore this small assemblage provides the first real evidence of prehistoric activity. The assemblage has been recorded, and it is recommended that no further work is required on it.

[20] Butler, C. 2005 *Prehistoric Flintwork*, Tempus Publishing Ltd.

5.6.0 **The Palaeo-Environmental Assessment** by Dr Mike Allen

5.6.1 A series of bulk samples were taken during the excavations (Table 12). Samples of 3.5 to 18 litres were processed by standard flotation methods by CBAS with the flots retained on 300µm mesh and the residues on 500µm mesh.

Table 12: List of samples for assessment

Sample	Period	Context	Feature/ deposit	CBAS Flot	2nd Flot	Coarse charcoal*	>4mm charcoal (2nd flot)	>4mm flot charcoal (2nd flot)	Other (seed/ shell)
1	? Tudor	005	Above tiled floor	×	✓	×	1	-	×
2	? Tudor	018	Burnt deposit	×	✓	✓	160	35	-
3	? Tudor	026	Hearth	✓	✓	✓	2	-	✓
4	? Tudor	033	Occupation layer	×	✓	✓	4	2	-
5	? Tudor	033	Around pot	✓	✓	✓	1	-	-
6	? Tudor	026	?Hearth	×	✓	✓	-	-	✓
7	? Tudor	041	Cut 006	×	✓	✓	-	2	✓
-	? Tudor	024	Next to Fe object	-	✓	-	5	12	✓

* Size and flot or residue not known

5.6.3 Each sample flot samples <3 and 5> and coarse charcoal supplied was assessed for charcoal and charred plant remains (Table 13). The aims of assessment were to determine the presence, quantity, quality and diversity of palaeo-environmental remains to aid in the understanding and interpreting the features, the activity and economy of the site, and to determine samples suitable for analysis of charred plant remains and charcoal analysis. The overall assessment aids in indicating the nature and significance of the data, and of the sites' importance in its local, regional and national setting.

5.6.4 All flots and samples of charcoal were sieved through 4mm sieves and then examined under a stereo-binocular microscope at magnifications of ×0.7 to ×45 and recorded in Table 13. Notes were made of the presence and nature of charred remains and charcoal.

Table 13: Assessment of charred plant and charcoal remains from the processed bulk samples

Context Type	Context	Sample	Sample vol	Flot vol (ml) Charred / roots+ snails	Charcoal >4mm	Charcoal <4mm	Notes	Analysis
Above Floor	005	1	20				NO FLOT OR CHARRED REMAINS SUPPLIED	
Burnt Deposit	018	2	5	-/-	75 >10mm 150 >4mm	>1ml	Roundwood inc large twigs – some parts are uncharred – possibly modern	C
Demolition Rubble	024 grid 1	-	-	-/-	21	5ml	Fine comminuted charcoal	
Hearth 026	026	3	18	6 / 95	34	1ml	Mainly large wood, 3 x small mammal bones and 1 x ?fish bone, *Discus rotundatus* (1) + other snails	C
?Hearth	026	6	3.5	0.5 / 2.5	-	1ml	Fine comminuted charcoal, 1 modern seed case, 1 small flint	
Occupation Layer	033	4	8	-/-	100+	8ml	Large wood fragments	C
Around Pot	033	5	2	7 / 20	30+	5ml	Large wood and fine comminuted charcoal	
Feature 006	041	7	32	-	-	-	NO FLOT OR CHARRED REMAINS SUPPLIED	

5.6.5 Charcoal fragments >4mm were common in all sampled contexts; those from the burnt deposit Context (**018**) were very large and many seemed uncharred suggesting that these may be modern. Charcoal from other Contexts (**024**, **026** and **033**); samples <3, 4 and 6> were mainly large wood fragments with few obvious roundwood elements. These may indicate fires with large fuel elements, or the burning of structural elements of the building, which in part is dependent upon the nature of the sampled context.

5.6.6 A large series of hand-picked charcoal was recovered (Table 14); the majority were from recent contexts; such as clean back (**002**), just below the turf. However charcoal stratified within the deposits such as those within the collapsed roof deposit (**016**) in roof rubble (**020**) and within demolition material (**024** and **034**), as well as in earlier demolition material (**040**) were present. Charcoal was well preserved and largely large wood fragments, though some clear round wood was present, probably coppiced wood, but possibly wooden pegs.

Table 14: Assessment of hand-picked charcoal samples

Context	Grid	Pieces	Context Description	Analysis
U/S TR 2	-	1 lw	TR2	
001	3	1 rw	TR1 deposit topsoil	
001	4+1	5 inc rw	TR1 deposit topsoil	
002	-	1	TR1 deposit clean back	
002	2	2	TR1 deposit clean back	
002	3	1	TR1 deposit clean back	
002	4	3	TR1 deposit clean back	
002	4	4	TR1 deposit clean back	
002	4	3	TR1 deposit clean back	
002	11	1	TR1 deposit clean back	
002	11	2	TR1 deposit clean back	
002	11	4	TR1 deposit clean back	
002	12	2	TR1 deposit clean back	
002	12	6	TR1 deposit clean back	
002	12	1	TR1 deposit clean back	
002	13	7	TR1 deposit clean back	
002	14	5	TR1 deposit clean back	
002	21	1	TR1 deposit clean back	
002	22	2	TR1 deposit clean back	
002	22	5	TR1 deposit clean back	
012	14	4 lw	TR1 deposit above floor	C
016	11	8 lw	TR1 collapsed roof deposit	C - selection
016	11	1 lw	TR1 collapsed roof deposit	
016	12	*c*. 10 lw	TR1 collapsed roof deposit	
016	12	1 lw	TR1 collapsed roof deposit	
016	21	8 lw	TR1 collapsed roof deposit	
016	22	12 lw	TR1 collapsed roof deposit	
019 TR 2	-	1	TR2 quarried spread?	
020	12	2 lw	TR1 floor/roof rubble	C (1 of)
020	12	8 lw	TR1 floor/roof rubble	
024	4	2 lw	TR1 demolition rubble grids 4 & 14	C - selection
024	4	2 lw	TR1 demolition rubble grids 4 & 14	

024	4	2 lw	TR1 demolition rubble grids 4 & 14	
024	4	4 inc ?rw	TR1 demolition rubble grids 4 & 14	
028	13	1 rw	TR1 wall: central	
034	-	1 lw	TR1 deposit demolition: grids 11, 21, 12 & 22	C
032	3	7 lw		
034	11	5 lw	TR1 deposit demolition: grids 11, 21, 12 & 22	C - select
034	11	2 lw	TR1 deposit demolition: grids 11, 21, 12 & 22	
034	11	3 inc rw	TR1 deposit demolition: grids 11, 21, 12 & 22	
034	11	1 lw	TR1 deposit demolition: grids 11, 21, 12 & 22	
034	11	1	TR1 deposit demolition: grids 11, 21, 12 & 22	
034	12	5	TR1 deposit demolition: grids 11, 21, 12 & 22	
034	22	1 ?rw	TR1 deposit demolition: grids 11, 21, 12 & 22	
038	13	1 lw	TR 1 fill of cut 37	
039	14	1 rw		
040	14	8 lw	TR1 older demolition layer pre later building	C
042	12	5 inc rw	TR1 deposit below collapsed roof (**016**), grid 12	C

5.6.7 Perhaps one of the most significant finds was from Context (**026**), the fill of a possible hearth; sample <3> which produced a few small animal bones, one of which may be fish. If so this is may well be food waste relating to occupation of the building. Three other small mammal bones were present, probably rodents or amphibian.

5.6.8 Although no samples were taken specifically for land snails as they do not generally survive as subfossils on the soils at Petworth[21], a number were present in Context (**041**). The shells had been sorted from the flot or residue so there is strong likelihood of further identifiable fragments surviving to increase the assemblage size. Eleven shells were identified (Table 15), and these included intermediate and shade-loving species sensu[22] and the small assemblage is typical of gardens, hedgerows and anthropogenic habitats.

[21] Allen, M.J. 2014. AEA 253: *Petworth House, West Sussex (BHP 14); geoarchaeology report (2014), v1.1*, Unpubl. report for The National Trust, dated 24 July 2014

[22] Evans, J.G. 1972. *Land Snails in Archaeology.* London: Seminar Press

Table 15: Assessment of molluscs from context (041)

Context Type	Context	Sample	Sample Vol.	Approx Number	Molluscs	Interpretation	Analysis
Feature 006	041	7	26	11	*Trochulus hispidus* (6), *Cochlicopa lubrica* (2), *Aegopinella nitidula* (1), *Cepaea* spp. (1), *Cornu aspersum* (1)	Mixed	If residues available

5.6.9 The relatively large size of the charcoal fragments from all contexts makes them potentially identifiable to taxa if not species, as well as confirming the nature of the wood. This will help to determine if roundwood and branchwood is present and if the assemblages may represent domestic fires. Larger timbers may be structural elements from the building or specifically selected high-temperature burning species which might relate to ovens, furnaces or kilns. The potential for examining the specific selection of species for specific uses (burning, construction, artefacts) is possible, as is defining the typical location of the exploited woodland. The possibility, however, of examining woodland management (coppicing and pollarding) from these larger fragments is low. If charcoal assemblages from processed samples are present then this might be a possibility. The potential for radiocarbon dating seems low as no obvious roundwood elements are present, though specialist analysis would identify and confirm this, and dating is better obtained from the artefacts at this period. Charcoal assemblages recovered from the processing of bulk samples (flot and residue recovered material), however, may contain a wider spectrum of species and woody fragments. Overall the charcoal as just large pieces, have limited potential except for consideration for species identification. That selection needs to be tempered by both context of recovery and balanced by more representative assemblages from processing of bulk samples. It can potentially provide information about the nature of the local woodlands (hearths; species composition and woodland management), and of constructional components of the building (demolition rubble, and collapsed roof).

5.6.10 The possible fishbone may well be food remnants from the banqueting hall, and may be possible to identify this to possible river vs marine fish. Other fish bones may survive in the finer (1mm) sample residues which should be scanned ad sorted under appropriate illuminated magnifications. The remains small animal bones may be intrusive, and have less potential, but may indicate animals living in the vicinity.

5.6.11 The assemblage is too small for detailed palaeo-environmental interpretation[23] but this may well be significantly increased by microscope sorting and extraction of the residues and flots. Preservation here seems to have been afforded by the small trench [**006**] being infilled with demolition rubble creating a local mirco-environment conducive to shell preservation. The palaeo-ecological value of this is in providing information about the nature of the local lived-in environment. This, however, may be considered moderate to relatively low in relation to other project data. The assemblage, however, does not indicate an open short-turved grassland in which one might expect the building to have existed, but an anthropogenic environment with some shade, synanthropic elements (garden-type habitats), and one with perhaps wall and rubble; perhaps suggesting that this relates to the demolition environment. This may then provide information about the nature of the demolished site, and the some indication of the longevity of the rubble strewn habitats.

[23] Evans, J.G. 1972. *Land Snails in Archaeology.* London: Seminar Press

5.7.0 **The Geological Material** by Luke Barber

5.7.1 Excavations at the site recovered 268 pieces of stone, weighing 6819g, from 18 individually numbered contexts. 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 database as part of the digital archive. Just six different stone types were identified in the assemblage, though some of these could represent different strata within the same quarry. Although no stone samples were taken from any of the walls it is assumed they were of the local Lower Greensand.

5.7.2 The most common stone consists of well weathered/rounded lumps of soft chalk (128/3591g). These were found both in wall cuts [**006**] and [**035**], with the majority coming from spreads of demolition rubble. This chalk may well represent material brought to the site for crushing and incorporation in mortar/render (most mortar types had some chalk) with surplus material just being left on site or used for indoor surfaces (though none showed signs of flattening from wear).

5.7.3 The local Lower Greensand accounts for the next largest portion of the assemblage. Some 93 pieces of glauconitic Lower Greensand (1526g) were recovered, those from hearth (**026**) being notably burnt. The other fragments may represent chips and small fragments of the main walling blocks. The only exception to this is a 940g corner fragment from a small trough or grinding mortar from layer (**020**). The piece would originally have been square in plan with chamfered corners (no complete dimensions survive) and a circular interior. Part of the surviving exterior face shows it to have had a very crudely cut recessed panel. The crudity of the piece suggests it may predate the building and simply been used as part of the walling. The three pieces (85g) of Lower greensand chert are very weathered and almost certainly natural to the site.

5.7.4 There are 17 pieces (300g) of non-calcareous ferruginous bedded sandstone that although initially superficial to Horsham stone appears to be from a different source. Similar non-calcareous types were used as roofing slabs in the Roman period at Bignor and the medieval period at Crawley so it is highly likely that these could have been used in the same way. This is rather confirmed by the presence of a single 11mm thick piece with 10mm diameter peg hole from layer (**002**). It is suspected that this type represents a local Lower Greensand substitute for the better quality Horsham stone slabs and it is quite possible some pieces represent a natural background scatter. However, there are also 11 definite pieces (1288g) of definite calcareous Horsham stone varying in thickness between 11 and 20mm and in colour from light grey to brown (demolition Contexts **002**, **016**, **024** and **034**). The four pieces from (**034**) include one with a peg hole demonstrating these were originally from roofing slabs and one with notable wear on one face that may have been used as a floor repair. The low quantities of stone roofing slate suggest that if this material was used on the roof it was only used in small areas, probably during patching repairs. Alternatively it may all have been imported as a consignment of building materials for re-used from elsewhere.

5.7.5 The only other stone consists of 13 very small fragments (29g) of 19th- early 20th- century Welsh roofing slate spread between layers (**002**, **005**, **016** and **043**) all of which is intrusive.

5.7.6 The stone assemblage from the site is relatively small and predominantly consists of wastage from the building, some of which may be re-used material from elsewhere. All of this material is of local origin with the exception of the intrusive slate. The assemblage is not considered to hold any potential for further analysis.

5.8.0 The Gold Ring by Steffan Klemenic

5.8.1 The gold ring (Plate 14) is currently being analysed by the British Museum, and has had some metallurgical analysis carried out by the Assay Office. Information on the ring contained in this report is therefore preliminary, pending the findings of the BM, and draws from comments by Rachel Church and Joanna Whalley from the V&A museum.

Plate 15: The Gold Ring

5.8.2 The gold ring has been identified as a posy ring, comparable with other known gold rings dated to the 15th century, for example DEV-742F63, from the portable antiquities database, and a ring held at the V&A (accession number 7125-1860). The inscriptions on posy rings "tend to be quite general romantic or religious mottoes rather than personalised ones"[24]. "The inscription… on the Petworth ring… could possibly be French"[25], although a translation will not be forthcoming until the BM has finished its analysis. The metallurgical analysis gives a gold content of 81.15% for the ring, with additional trace elements of copper (6.11%) and silver (12.74%).

5.9.0 The Metalwork by David Atkin

5.9.1 The archaeological excavation recovered a large assemblage of metalwork from the site in the form of ironwork, copper alloy and lead.

Iron

5.9.2 Most of the ironwork shows signs of severe corrosion with the rest of the assemblage ranging from fair to good condition.

5.9.3 ***Iron Keys:***

Special Find 2; a heavily corroded iron key, 51mm in length by 25mm wide and 6mm thick. Due to the corrosion, it is undateable (17g).

Special Find 6; is a heavily corroded iron key. Due to the corrosion it was not possible to date the key. It was 81.5mm by 31mm by 11mm thick (39g).

5.9.4 ***Other iron finds:***

Special Find 33; is two corroded lengths of iron. One is 150mm in length by 36mm wide narrowing to 16mm and is 16mm thick. The other is 28mm in length and narrows to a point and is 19mm wide and 18mm thick. Dating and function is problematic due to the corrosion (145g).

Special Find 4; is an iron weight from the spoil heap. It is rectangular in shape with a loop for hanging. Its overall length is 90mm by 50mm width and 10.5mm thick. There is little corrosion and an early to mid 20th century date is likely (277g).

[24] Rachel Church, Pers. Comm. 2014
[25] Joanna Whalley, Pers Comm. 2014

Special Find 25 is a corroded iron ox shoe. It is 36.5mm in width tapering to 19.5mm and is 6mm thick. It weighs 63g.

Special Find 35 is a small unstratified iron horseshoe of an uncertain date. It weighs 268g and its overall size is 108mm in width and 114mm in length. The shoe is 34mm at its widest point.

Special Find 39 is a small iron horse shoe for a pony or donkey. It is not heavily corroded and therefore a possible early 20th century date is suggested. It weighs 85g and is 67mm in width and 96mm in length. The shoe is 15mm at its widest point.

5.9.5 Due to the large quantity of nails, they were summarised for quantification purposes by context in Table 16. A cursory examination was carried out, which showed that they covered a broad date range from the Post-medieval period through to the modern period. Although many cannot be dated with certainty, it is likely, given the other dateable material from the building in the same contexts that the majority probably date to the 16th century.

Table 16: Summary Iron Nails by context.

Context	Quantity	Mass (g)
(**001**)	4	49
(**002**)	58	477
(**003**)	3	32
(**008**)	1	7
(**012**)	4	31
(**013**)	1	11
(**016**)	33	300
(**019**)	1	1
(**020**)	8	65
(**024**)	8	58
(**026**)	1	5
(**031**)	4	46
(**032**)	2	1
(**033**)	2	12
(**034**)	30	304
(**038**)	1	20
(**041**)	5	35
(**042**)	13	86
(**043**)	2	17
Total	181	1557

Copper alloy

5.9.6 ***Buckles***

Special Find 3 is a copper alloy double buckle frame (Plate 16). The loops are oval in plan and roughly D-shaped in section. A corroded iron pin was still attached to the centre pin. It is 24mm in length, 19mm in height and 7mm thick (4g). A late medieval to early post-medieval date is likely.

Plate 16: SF3; Copper Alloy Buckle

Special Find 32 is a copper alloy double looped 'D' section shoe or knee buckle of an early post-medieval date, c.1550 to 1650 (Plate 17). It is of a double looped design with lobed knops at two symmetrical points on each loop and at either end of the strap bar and is finished with a black coating, although it is possible that this may be the result of later corrosion processes and, as noted elsewhere in this report with other buckles, it may have been tinned to give it a silver appearance (6g).

Plate 17: SF32; Copper Alloy Buckle

Special Find 16 is an undecorated copper alloy double buckle frame from Context (**031**). The loops are oval in plan and roughly D-shaped in section. It is 25mm in length, 12mm in height and 3.5mm thick (5g). A late medieval to early post-medieval date is likely.

Special Find 9 from Context (**020**) is an annular buckle (Plate 18). It is decorated with alternating panels on its surface forming a castellated pattern. Its integral central strap bar is missing its iron fixing pin, with only the ghost of an iron stain to suggest its presence and is finished with a black coating, although it is possible that this may be the result of later corrosion processes, suggesting that it may have been tinned to give it a silvered appearance. A late medieval to early post-medieval date (1400-1600AD) is likely. It weighs 14g.

Special Find 18 Context (**020)** is an annular buckle (Plate 18). It is decorated with slashed oblique lines on its outward surface. Its integral central strap bar is missing its iron fixing pin and is finished with a black coating, although it is possible that this may be the result of later corrosion processes due to the buckle being tinned to give it a silvered appearance. A late medieval to early post-medieval date (1400-1600AD) is likely. It weighs 16g.

Plate 18: Special Finds 9 and 18; Copper Alloy Buckles

Context (**023**) contained a fairly simple double loop buckle, copper alloy, 25mm in length by 18mm wide by 3mm thick with triangular knops at either end of the central strap bar and triangular pin rests are in evidence on the inside of each outer loop and probably dates to the early post-medieval period, 16th to 17th century (2g).

Special Find 21 is a copper alloy double looped 'D' section shoe or knee buckle of an early post-medieval date, c.1550 to 1650. It is of a double looped design with lobed knops at two symmetrical points on each loop and at either end of the strap bar. It is 37mm by 22.5mm by 3mm thick (4g).

5.9.7 *Other Copper alloy objects*

Special Find 23 is a complete copper alloy thimble (Plate 19). It has a clear zone around the crown, which rises to a rounded point with neat rows of spiral indentations or pits starting at the base of the crown which stop short of the base creating a clear band around the base of the thimble. The sizes of the indentations vary slightly and it is 18mm high by 16.5mm in diameter. An early post-medieval date c.1500-1600 AD is suggested.

Plate 19: SF23; The Copper Alloy Thimble

A 19mm copper alloy pin from Context (**024**) partly encased in an iron concretion around one end was also recovered (<1g) and a looped copper wire twisted together at the ends and 11mm in diameter (<1g).

Context (**041**) produced part of a copper alloy pin (<1g) 4g.

Special Find 24 from Context (**033**) is a complete copper alloy pin with a bent shank. It has an oval shaped head, 9mm in diameter, 5mm in height with an overall length of 52mm. The shank is 1.5mm in diameter tapering to a point. A late medieval to early post-medieval date is suggested (1g).

Two other copper alloy pins were also recovered from Context (**033**) with round, globular pin-heads and were 22mm in length and may be of an early post-medieval date (<1g).

Special Find 30 (Plate 20) is a partially complete copper alloy spherical 'rumbler bell' from Context (**038**). It is comprised of two hemispheres with only the top hemisphere surviving fully intact. The hanging loop has not survived and there is no evidence of any decoration or sound holes, however, a lump of corroded iron was recovered from inside the bell and it is assumed that this is the remains of the 'clapper'. A post-medieval date is assumed for this artefact.

Plate 20: SF30; Copper Alloy Rumbler Bell

Special Find 26 is a small moulded strip of copper alloy decoration, broken from a larger piece, 15mm in length and weighing <1g.

Special Find 14 is a possible copper alloy button with no decoration, and retains the remains of its fixing loop on the rear. It is 22.5mm in diameter and less than 1mm thick (5.5mm including loop) it weighs 2g.

Special Find 5 is a small length of copper alloy wire 15mm in length and 2.5mm in diameter (<1g). No diagnostic features were present to allow further identification or dating.

Context (**033**) also contained a small copper alloy 'tag' or 'nib'. It was a rolled piece of copper plate, 26mm long and 3mm wide tapering to a 1mm point (<1g) and although its function is unclear at the moment, it has being suggested that may be associated with some form of early post-medieval costume or dress. A partial 'tag' or 'nib' was also recovered and was represented by a thin strip of copper alloy 24mm in length and 1mm wide.

Special Find 28 is an unstratified copper alloy cap, possibly a percussion cap for a 19th century pistol. It is a small cylindrical object 14.5mm in length, and 6.5mm in width (<1g).

From Context (**001**); part of a copper alloy lid of a bed warming pan (177g: 180mm in diameter by 130mm), with the remains of a hinge fastened by 6 rivets. part of an iron bar (42g, 14mm by 84mm by 10mm) and an unidentifiable lump of lead (4g).

Special Find 17 is a thick small copper alloy ring or washer. It is 20mm in diameter, 2.6mm thick with an internal diameter of 11.5mm. It has an oval profile in section and shows signs of possible wear on one side (4g).

5.9.8 *Brass cartridge cases*

A brass rifle cartridge .243 in calibre manufactured by the Winchester company and marked 'WIN' on its base, was also present Context (**020)** and dated from 1955 onwards (11g).

Context (**013**) contained a single .303 cartridge that had been fired but had no manufacturing marks (10g).

An undated and unfired .303 case from Context (**001**) missing its projectile (10g) marked with a 'W' although this is unclear due to light corrosion,

5.9.9 *Lead*

Special Find 10 is a sub-spherical piece of lead 9.5mm high by 13mm in diameter It is a mid brown/light grey in colour with a pitted surface. Its size and mass suggests that it is a pistol shot, it has a weight of 8g.

Special Find 15 is an oval/sub-spherical pistol or small musket ball, probably post-medieval in date (1600-1800AD), from Floor [**015**]. It is light buff/grey in colour with a pitted surface, 15mm in diameter, 12mm in height and weighs 16g.

Special Find 20 is a complete musket ball, probably post-medieval in date (1600-1800AD), from the topsoil. It is light buff/grey in colour with a pitted surface, 17mm in diameter and weighs 29g.

Special Find 27 is a complete musket ball, probably post-medieval in date (1600-1800AD). It is light buff/grey in colour with a pitted surface, 14mm in diameter and weighs 16g.

Special Finds 37 and 38 are two complete musket balls, post-medieval in date (1600-1800AD). SF 37 is dark brownish-grey in colour with a pitted surface, 16mm in diameter and weights 23g. SF 38 is light buff/grey in colour with a slightly pitted surface, 14mm in diameter and weighs 15g and has the remains of the casting sprue still in situ along with the witness mark from its casting, around its circumference.

Special Find 40 is a complete lead pistol ball, post-medieval in date (1600-1800AD). It is oval in shape and it is light buff/grey in colour with a slightly pitted surface, 7.5mm by 9mm and weighs 15g and has the very slight witness mark of the casting sprue around its circumference.

Special Find 29 is a lead projectile from a rifle cartridge, from the later part of the 20th century. It is 5.5mm in length and 5.5mm in width (2g).

Context (**061**) contained a single piece of lead 28mm in length by 4mm wide by 2mm thick (1g).

Although in poor condition a 16th century cloth seal (for cloth rolls weighting 26lbs), made of lead and embossed with a portcullis was recovered from the spoil heap.

Context (**003**) contained a single flat disc of lead (41g, 44m by 38mm by 5mm).

Context (**034**) contained a piece of lead, possibly window lead, 55mm in length and 7mm (2g). It also contained two iron concretions (297g).

Special Find 34 is a small circular cast lead weight. It is flat in overall shape, with vertical sides and a rounded appearance on the top with the bottom slightly concave, with a perforation in the middle. It is 24.5mm in overall diameter, 7mm in height and has an internal diameter of 8mm. Similar objects are recorded elsewhere in the archaeological record from medieval contexts and are interpreted as weights for spinning wool. It is therefore probable that this weight fulfilled the same function and dates from the late medieval to the early post-medieval, c.1450-1600AD (26g).

5.10.0 **The Marine Molluscs** by Jessica Butt

5.10.1 The majority of shell was Common Oyster (*Ostrea edulis*), with 1 complete example; there was also a single Common Cockle (*Cerastoderma edule*) and a garden snail (*Helix aspersa/Cornu aspersa*). A summary of mollusc shells found by context can be found in Table 17.

Table 17: Summary of Mollusc shells by context.

Context	Common Oyster	Cockle	Land Mollusc	Mass (g)
Un-stratified	22			98
001	3			28
002	14			81
012	2			14
016	87			1119
019	8			60
024	3			8
026	12			251
033	6			15
034	33	1	1	434
039	6			55

040	6			36
050	1			27
Total	203	1	1	2226

5.10.2 Analysis of grid location showed the biggest concentration of Oyster shell was found in Grid 21, with 87 fragments weighing 1039g (See Table 18).

Table 18: Mollusc distribution

Grid	No.	Mass(g)
	39	187
4	2	18
11	16	242
12	15	111
14	27	385
21	87	1039
22	24	239

5.10.3 The distribution and quantity of shell demonstrates that oysters were being eaten and disposed of as domestic waste, on or very near the site. No further analysis is recommended.

5.11.0 The Mortar by Luke Barber

5.11.1 The excavations recovered 329 pieces of mortar and plaster, weighing 3618g, from 15 individually numbered contexts. The assemblage has been fully quantified by type on pro forma for the archive with the resultant information being used to create an Excel database. The mortar was divided with the aid on a hand-lens. This resulted in five different types being recognised, though two are very close in nature (T1a and T1b). The different mortars are summarised in Table 19.

5.11.2 Type 1a mortar consists mainly of amorphous pieces, but at least nine fragments are present with deliberately flattened faces. Most of these were recovered from wall trench [**035**] (filled by Context **036**) where some were in excess of 38mm thick. The presence of this material suggests at least part of the building was rendered though the nature of the 1a mortar suggests it could have been used inside or out. The majority of this type was recovered from mixed demolition layers.

Table 19: Summary of mortar types

Code	Description	Quantification
M1a	Buff/pale dull yellow. Abundant fine sand with common chalk to 4mm	97/1438g
M1b	Off-white/cream. Abundant fine (to medium) sand with sparse/common chalk to 4mm	165/1148g
M2a	Off-white/white. Rare to common fine (to medium) sand with some rare hair/organic streaks or chalk	53/810g
M3a	Dull pale orange. Abundant medium sand and common/moderate chalk to 3mm	1/16g
M4a	Pale grey/yellow grey. Abundant fine sand including black iron oxide/glauconitic grains and sparse chalk to 6mm	10/164g

5.11.3 Type 1b mortar was by far the most common on the site (Table 19) but is virtually identical to type 1a except for the slight colour difference. Typically, most pieces again consist of amorphous lumps but three pieces have deliberately smoothed faces (including a 22g piece from wall trench [**035**] (filled by Context **036**) and a couple appear to be from brick bedding 14 to 16mm thick. There is also a corner fragment from layer (**032**) that appears to have traces of red paint on one of its faces.

5.11.4 Type 2a is the finest mortar present and is perhaps more likely to represent internal plastering. This is certainly suggested by the presence of a 40g piece from tree throw fill (**039**) which has a backing of M1a render behind a 4mm thick surface skim of whitewashed M2a mortar. Although amorphous pieces are again common, there are many with flat faces, a couple of which show signs of having been pressed against wooden planking on their reverses (e.g. wall trench [**006**], filled by Context **041**).

5.11.5 The remaining mortar types are very poorly represented in the assemblage. Type 3a was only recovered from demolition layers (**024** and **034**). The 10 pieces of type 4a all consist of amorphous pieces, though all were recovered from wall trench [**006**], filled by Context **041**).

5.11.6 The assemblage of mortar is relatively small but suggests the building had rendered areas, perhaps over brick infill between a timber-frame. There also appears to have been some finer internally plastered areas, some of which were whitewashed. However, the contexts the mortar assemblage was recovered from are mostly somewhat open mixed demolition layers and there is no potential to establish a chronology of mortar types, if there ever was one. Even the wall trenches produced somewhat mixed groupings, including faced pieces – the latter strongly suggesting demolition material was being incorporated into these deposits. As such the mortar from the site is not considered to hold any potential for further analysis beyond the work undertaken for this assessment.

5.12.0 The Animal Bone by Jan Oldham

5.12.1 A small quantity of degraded animal bone was recovered from 15 contexts across the site (Contexts **002**, **005**, [**011**], **012**, **016**, **020**, **022**, **024**, **026**, [**028**], **032**, **034**, **039**, **040**, and **042**), All bone pieces were of negligible weight and in such a fragmented state that definite identification could not be suggested. The total weight of bone from these fifteen contexts was 20g.

5.12.2 An additional 149 small bones and fragments were recovered by the process of wet sieving soil sample <3>, Context (**026**). This contained fragments of probable rabbit bones (*Oryctolagus Cuniciculus L.*), including two identifiable rabbit phalanges and two claws, all of these weighing 2g in total. Seventeen small rodent bones were also identified, probably the remains of a mouse or vole, weight less than 1g.

5.12.3 Of particular interest is the presence of twenty three small fish bones, total weight less than 1g. These are likely to have been discarded as food waste and further analysis could indicate whether the remains are from a freshwater or marine fish - these bones have been retained should further investigation be required.

5.12.4 In summary, the fragmentary mammal and fish bones recovered from the site are considered to be mostly domestic food debris, disposed of as kitchen or table refuse.

5.13.0 The Glass by Jessica Butt (Table 20)

5.13.1 The glass was predominantly fragments of flat window glass, this making up 282 fragments of the total count of 342; this was in a range of pale colours consistent with relatively plain panes with the occasional decorative section.

5.13.2 The curved fragments were consistent with either vessels or bottles/flasks. There was also a single complete clear glass bead found in Context (**042**).

5.13.3 Barring a very small quantity of modern fragments, the majority of the glass appeared to be of 16th century date.

Table 20: Glass by context

Context	No.	Weight (g)	Detail
U/S	2	<1	1 fragment blue, curved, heavily delaminated and iridescent, probable vessel; 1 fragment green, flat, delaminating with a brown surface.
TR 1 U/S	9	20	1 fragment green glass solid cylindrical with circular knop, iridescent degraded surface, probable goblet stem. 1 fragment of flat green glass, uneven surface. 1 fragment clear, flat glass with green tinge; 1 fragment blue-green, flat, both uneven surfaces. 4 fragments pale green, flat glass; 2 fragments pitted and bubbly, all uneven surfaces. 1 pale green, curved fragment from base or rim.
TR 2 U/S	2	<1	1 fragment clear, flat glass with a slight blue-green tinge; 1 fragment pale green, flat, both uneven surfaces.
001	1	1	Fragment pale green, flat and uneven surfaces.
002	129	115	1 curved green fragment pitted and uneven surface. 1 flat fragment of opaque green glass, abraded. 2 flat, pale blue-green fragments with slightly uneven surfaces. 2 clear, flat fragments with a few bubbles and slightly uneven surfaces. 10 pale green, flat fragments, 9 bubbly and all uneven surfaces. 5 pale green, flat fragments, 4 slightly opaque and all uneven surfaces. 1 modern fragment, very pale blue-green, slightly curved. 2 curved, abraded green glass fragment, probable bottle or flask. 3 curved, brown-green glass fragments with external striations, probable bottle or flask. 7 curved, brown-green glass fragments with external striations, probable bottle or flask. 3 curved, pale green fragment with bubbles. 1 curved, pale blue-green rim section, profile with a slight flare out to the body, no collar, probable bottle or flask. 1 clear curved glass fragment. 1 clear curved glass fragment, with variable thickness, slightly opaque and abraded with a few bubbles. 15 pale green, flat fragments, 1 very bubbly and 2 bubbly. 6 turquoise-green, flat fragments, several conjoining, uneven surfaces. 25 turquoise-green, flat fragments, 8 showing signs of engraved grooves. 6 clear, flat fragments, 2 showing engraved grooves, all uneven surfaces. 12 pale green, flat fragments, very bubbly. 7 pale green, curved fragments of vessel glass with some small bubbles. 3 pale turquoise-green, possibly curved fragments. 1 clear fragment, flat on one side with wavy profile. 1 clear, curved fragment, probable vessel. 1 flat, pale green, worn fragment. 2 pale turquoise, flat fragment with some bubbles. 1 heavily delaminated and iridescent or possibly gilded fragment of pale green, flat glass with many bubbles. 1 clear fragment, flat on one side with wavy profile, unknown object. 3 pale green, curved fragments, with some small bubbles. 3 clear, curved fragments, slightly opaque. 2 pale green, flat fragments, bubbly.
005	17	9	1 blue, slightly curved fragment. 1 clear, flat fragment with some bubbles. 8 pale turquoise, flat fragments with some bubbles, 2 showing signs of engraved grooves. 3 pale green, flat fragments, 2 showing signs of engraved grooves. 1 clear, flat fragment, modern. 2 turquoise-blue, flat fragments one showing an engraved groove. 1 heavily delaminated and iridescent or possibly gilded fragment of clear, flat glass with many bubbles.
011	49	19	26 pale green, flat fragments, very bubbly. 4 pale green, flat fragments, 1 heavily grooved. 8 pale green, flat fragment, very bubbly. 10 pale turquoise, flat fragments, 5 showing signs of engraved grooves. 1 turquoise, flat fragment, very bubbly.
012	3	2	2 pale green, flat fragments, 1 very bubbly, 1 pale turquoise flat fragment.
013	5	1	3 pale green, flat fragments, very bubbly. 2 pale turquoise, flat fragments.
016	15	21	1 curved, green fragment, probable flask or bottle neck. 6 pale green, flat, slightly opaque fragments. 1 green, curved fragment, bubbly. 1 heavily

			delaminated and iridescent or possibly gilded fragment of curved blue glass. 2 pale green, flat fragments, very bubbly. 1 clear, flat fragment with engraved grooves. 2 curved, clear fragment of vessel glass. 1 curved, pale green fragment, uneven surface.
020	67	45.5	1 curved, clear fragment of vessel glass. 1 curved, clear fragment of neck. 13 pale green, flat fragments, very bubbly. 7 pale green, flat fragments with engraved grooves. 10 clear, flat fragments with engraved grooves. 15 pale turquoise, flat fragments, 6 with engraved grooves. 19 pale turquoise, flat fragments, 2 with engraved grooves. 1 heavily delaminated and iridescent, flat fragment.
023	2	<1	Clear, flat fragments with uneven surface, one very bubbly.
024	9	5	2 pale turquoise, flat fragments. 2 clear, flat fragments, one with engraved grooves. 2 pale green, flat fragments, very bubbly, possibly with engraved grooves. 1 curved, pale green fragment possible flask or bottle. 1 clear, curved fragment, degraded. 1 heavily delaminated and iridescent, curved fragment.
026	1	8	Brown, curved bottle base section.
028	4	5	Pale turquoise, flat fragments, one with engraved groove.
032	10	8	5 pale turquoise, flat fragment. 1 heavily delaminated and iridescent, curved fragment, very bubbly. 2 pale turquoise, flat fragments. 2 pale green, flat fragments, very bubbly.
033	1	<1	Clear, curved fragment.
034	6	16	4 heavily delaminated and iridescent, curved fragments with many bubbles. 2 delaminated and iridescent flat fragments.
039	2	5	1 flat, brown fragment, partially delaminated. 1 pale green, flat fragment, very bubbly.
040	1	<1	Delaminated and iridescent flat fragment, possibly green.
042	1	1	Clear glass, elliptical bead, hollow throughout with lips turned in at the ends. Possible deliberate grooved pattern.
061	6	2	2 pale green, flat fragments, very bubbly, 1 delaminating and iridescent. 1 clear, flat fragment. 1 pale turquoise, flat fragment. 1 turquoise, flat fragment.

5.12.4 Analysis of grid location (Table 21) showed the majority of the material came from Grids 11 and 12, with 203 fragments weighing 188g from just those grids, the majority being in Grid 12. Only 72 fragments were recovered from the other grids and 67 with no allocated grid.

Table 21: Glass distribution

Grid	Flat (g)	Flat No.	Other (g)	Other No.
No grid	37	64	9	3
Grid 1	1	1	21	2
Grid 2	1	1	1	1
Grid 3	5	5	2	1
Grid 4	15	20	3	3
Grid 5	1	2	0	0
Grid 11	8	13	38	12
Grid 12	123	149	19	29
Grid 13	7	8	0	0

Grid 13 + Grid 11	0	0	1	1
Grid 14	11	12	8	1
Grid 21	2	3	1	1
Grid 22	3	4	2	6
Total	214	282	105	60

5.13.0 **The Jet Ring** by Jan Oldham

5.13.1 A partial ring was recovered from Context (**005** special find 11), west of room 8, by wall [**028**]. This has been identified as a 'posy' ring, the name being derived from the word 'poesy', meaning a short rhyme. Such rings were popular from the 15th century onwards and were love tokens, usually gold (See section 5.8.3). A typical example of a posy ring might bear the words 'love never dies where vertue *(sic)* lies'. On later incarnations of posy rings the rhymes were engraved on the inside face of the ring, the outer surface usually remaining plain.

5.13.2 The ring is made from solid polished jet, is broken and has a plain exterior, with the remains of lettering visible on the inside face: 'ertue', a five pointed star motif (a decorative indicator of a space between words) and the partial probable letter 'l' just before the break point. The measurements of the curvature suggest that the complete ring was approximately 12mm across the interior. At the thickest point the ring is 2.67mm and the weight is less than 1g, the dimensions indicating that this was probably a woman's piece of jewellery.

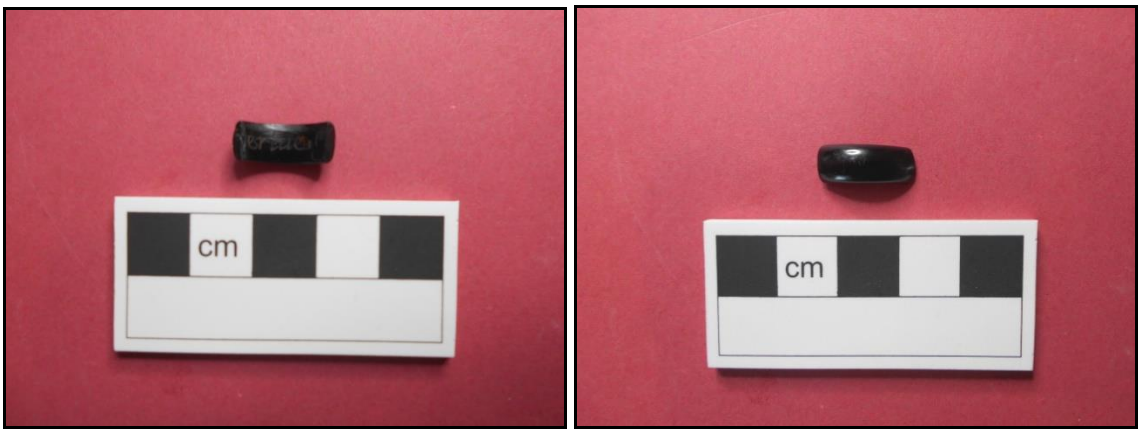

Plate 21: Jet ring

6.0 Discussion

6.1 The focus of the summer excavation was an attempt to find the banqueting house of Henry VIII, rumoured to be somewhere in the grounds. The previous evaluation excavation and the results of some geophysics had suggested this location to be a likely location for this important site. The excavation managed by CBAS was carried out both to try and discover what this building was, and to provide training for the National Trust volunteers who were taking part. The project was successful in that the substantial remains of a building were found, and although it is unlikely to date to Henry VIII it can comfortably be dated to his daughter Elizabeth I. The excavation project was also successful in that many of the volunteers who took part were able to enhance their existing skills, and in many cases learnt new skills such as recording and surveying.

6.2 From the artefactual evidence recovered, by far the earliest material is the prehistoric flintwork which predominantly dates to the Neolithic or early Bronze Age. The excavations found the first evidence of prehistoric activity in Petworth Park, on the high ground overlooking lowland springs[26], which may have been the focus for their activity here.

6.3 There was a small assemblage of Roman pottery, dating between the mid 2nd and 3rd centuries AD. All of the Roman ceramic material is fragmentary and likely to be residual, and probably results from agricultural activity and manuring, although the presence of the springs below could hint at potential for ritual activity. There appears to have been very little activity in the Saxon and medieval periods, with only three sherds dating from the 14th to early 15th centuries. The vast majority of the ceramic assemblage dates from between 1450/75 to 1550, with enough later material to extend the date into the third quarter of the 16th century.

6.4 It is clear that only part of the total building has been uncovered during the excavation. In total seven possible rooms were identified during the excavation (Fig. 11), although as floors [**015** and **023**] extend into the eastern baulk of the trench it seems likely that more rooms are there to be excavated in the future. Given the lack of decorative floor tiles, all of the floors comprising bricks, it is unlikely that this is a high status part of the building, given the wealth of the Percys. This, in addition to the small size of many of the rooms, was more indicative of storage or service rooms than anything else, and could infer that this part of the building was a domestic area. However Room 3 (Fig 11) with the brick floor forms a large, possibly central room, around which the other rooms may have been arranged.

6.5 Fig. 12 shows the building excavated in 2014 alongside the trench excavated in 2013, to provide a complete picture of the walls and other features found. The interesting thing that this shows is that the walls in the 2013 trench appear to be on a slightly different alignment to those found relating to the rooms of the building found in 2014, although there are two

[26] Allen, M. 2014 *Petworth House, West Sussex (BHP 14); geoarchaeology report (2014)*, AEA253

possible projecting features found in 2014 (shown in blue on Fig 12) that appear to be aligned with them. There were hints of an earlier phase of building preserved below the building excavated in 2014, and this different alignment may provide further evidence for an earlier building on the site. The pottery from the two season's excavations was very similar and overlapping so does not provide an answer to this dilemma.

6.6 It is impossible to determine the function of the different rooms found, and although there was a lot of pottery, other 'domestic' artefacts such as food waste were surprisingly lacking. This was in contrast to the 2013 excavation where there were significant quantities of animal bone and shellfish remains found[27]. Perhaps this suggests that any kitchen, and therefore any waste disposal, was in that north-west part of the site.

6.7 Several suggestions as to the function of the building have been suggested. The idea that the building could be Henry VIII's banqueting house, now seems unlikely, as several coins and a significant proportion of the pottery dated to the reign of Elizabeth I, after Henry's Banqueting house had gone out of use[28]. Three other theories do fit the Elizabethan date however; The first is that the building may be the remains of a 'castle', evidenced by documentary sources relating to the fees paid to officers of the Crown (during the time that the Percy Estates were held by the Crown during the reign of Elizabeth I)[29]. These officers include a 'Keeper of the House' paid £2, and a 'Constable of the Castle' paid the £22 16s and 6d. Another two suggested theories on this building are that it may be either a late Tudor / early Elizabethan Hunting lodge, or even an alternate, short-lived location for the main house.

6.8 Given the relatively narrow walls, and the small size of materials used, it seems unlikely that this structure is the 'castle', for which the Constable was paid so handsomely. The building remains are, however from a large building, with a good view over the un-landscaped lowland portion of the park, and therefore could be a Hunting Lodge. If this building had an open-ended structure at the northern end of the building (Rooms 1 and 2), it is conceivable that this portion of the building provided a viewing platform from which to observe the hunt in the parkland below. However, it should be noted however that the northern walls of the building were very ephemeral, and difficult to distinguish from demolition rubble. The idea of a hunting lodge fits well with the known historical records and archaeological evidence from other medieval and Post medieval parks[30,31]. However the 7th Earl had thrown down the Pale in the reign of Edward VI (1547-54), and was then required to apply for permission to re-enclose in 1558, which was subsequently granted. Whether hunting was undertaken during Elizabeth's reign at Petworth, is not known, and it seems possible that if it is a hunting lodge, then its origin may predate 1547-54, although it may have been used for other purposes after that date.

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[27] Anelay, G. 2013 *Report on an Archaeological Evaluation at Petworth Park, Petworth, West Sussex*. West Sussex Archaeology Ltd

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

[29] Turner, R. 1862: 'Petworth', *Sussex Archaeological Collections* 14, pp. 1-24

[30] Liddiard, R (Ed) 2007 *The Medieval Park: New Perspectives*, Windgather Press Ltd

[31] Mileson, S.A. 2009 *Parks in Medieval England*, Cambridge University Press

6.9 An alternate theory is that this building represents the main dwelling of the Percys at Petworth, prior to the rising of the North, as it appears that after this time the Percys were confined to the village of Petworth where a closer eye could be kept on them[32]. If that is so, and the building excavated in Trench 1 does represent the Tudor / Elizabethan dwelling then the demolition of that house would likely coincide with the eighth earl of Northumberland's expansion of the (current) house between 1576 and 1582[33]. This theory would tie in nicely with the dates of the pottery assemblage, which suggest an end of occupation of the building as 1575.

6.10 Allen[34] suggests that the almost complete of lack of debris suggests that the building was not left to rack and ruin and to fall into long-term decay and collapse, but rather was dismantled, and removed; eradicating it from the landscape. Most of the building material seems to have been taken away and the building levels razed to the ground. Large timber and planking, and any building stone may have been removed and re-used, if not in the construction of the current house, perhaps elsewhere on the estate.

6.11 The archaeological evidence has provided much evidence for the methodical demolition of the building, although the parallel presumed robber-trenches do not make total sense as following wall lines as they appear to truncate through rooms where a wall line would not be expected. Alternatively they may have been robbing out more substantial foundations from an earlier building preserved below the floor of the later building. It is always possible, given the regular spacing between these robber trenches, that they were completely unrelated to the robbing out of the building. Unfortunately no evidence was found during the excavation to resolve this.

6.12 The 2014 excavation has probably thrown up more questions than answers, and only full excavation of the surviving building, including excavation below the existing floor levels to investigate any earlier phases will answer those questions now raised about the buildings function and whether it is of a single or multiple phases.

[32] Dommett, T. Pers. Comm. 2014
[33] http://list.historicengland.org.uk Accessed 13/04/2015
[34] Allen, M. 2014 *Petworth House, West Sussex (BHP 14); geoarchaeology report (2014)*, AEA253

7.0 Conclusion

7.1 The Summer Excavation of 2014 successfully confirmed the geophysics, in that the main portion of the targeted area (Trench 1) contained substantial building remains. Trenches 2 and 3, and the south end of Trench 1 were less successful, as they were heavily disturbed, and contained no evidence of building remains. It is however possible that much of this disturbance was caused by building remains being quarried out at a later date.

7.2 While a definitive answer as to the exact purpose of the building remains unanswered, the date of the building is more certain; the pottery indicates that the building was in use between 1450/75 to 1550, and had almost certainly gone out of use by 1575. This date range means that the building went out of use at the time that the main house was being expanded by the eighth earl, meaning that there is a lot of potential for future research in this area of Petworth Park.

7.3 The Petworth Park Summer Excavation was a hugely successful event, attracting large numbers of visitors and volunteers of all ages and experience levels. Volunteers were able to practice and enhance their skills, whilst visiting specialists were able to provide input on the spot. Numerous visitors from school children to retired visitors were able to visit the site and gain an insight into archaeological practice, and in some cases to take part.

8.0 Acknowledgements

8.1 We would like to thank the National Trust Archaeologist Tom Dommett for commissioning the work, and all the volunteers who took part in the excavation. The author would also like to thank Andrew Bradshaw for his survey work on site and digital rendering of drawings. The excavations were supervised by Rachel Cruse assisted by Steffan Klemenic, with assistance from Jon Kaines and Maria Gardiner. The project was managed by Chris Butler

8.2 Jan Oldham managed the post excavation finds processing, and we would like to thank David Atkin, Luke Barber, Jessica Butt, Rachel Church, David Rudling, and Joanna Whalley who reported on the finds. We would also like to thank Mike Allen and Luke Barber for their specialist input.

Plate 21: Volunteers excavating the building

Plate 22: Volunteers processing finds

Plate 23: General view of central part of building

Plate 24: View from south end of building

Plate 25: General view of north end of building

Plate 26: Central part of building looking east

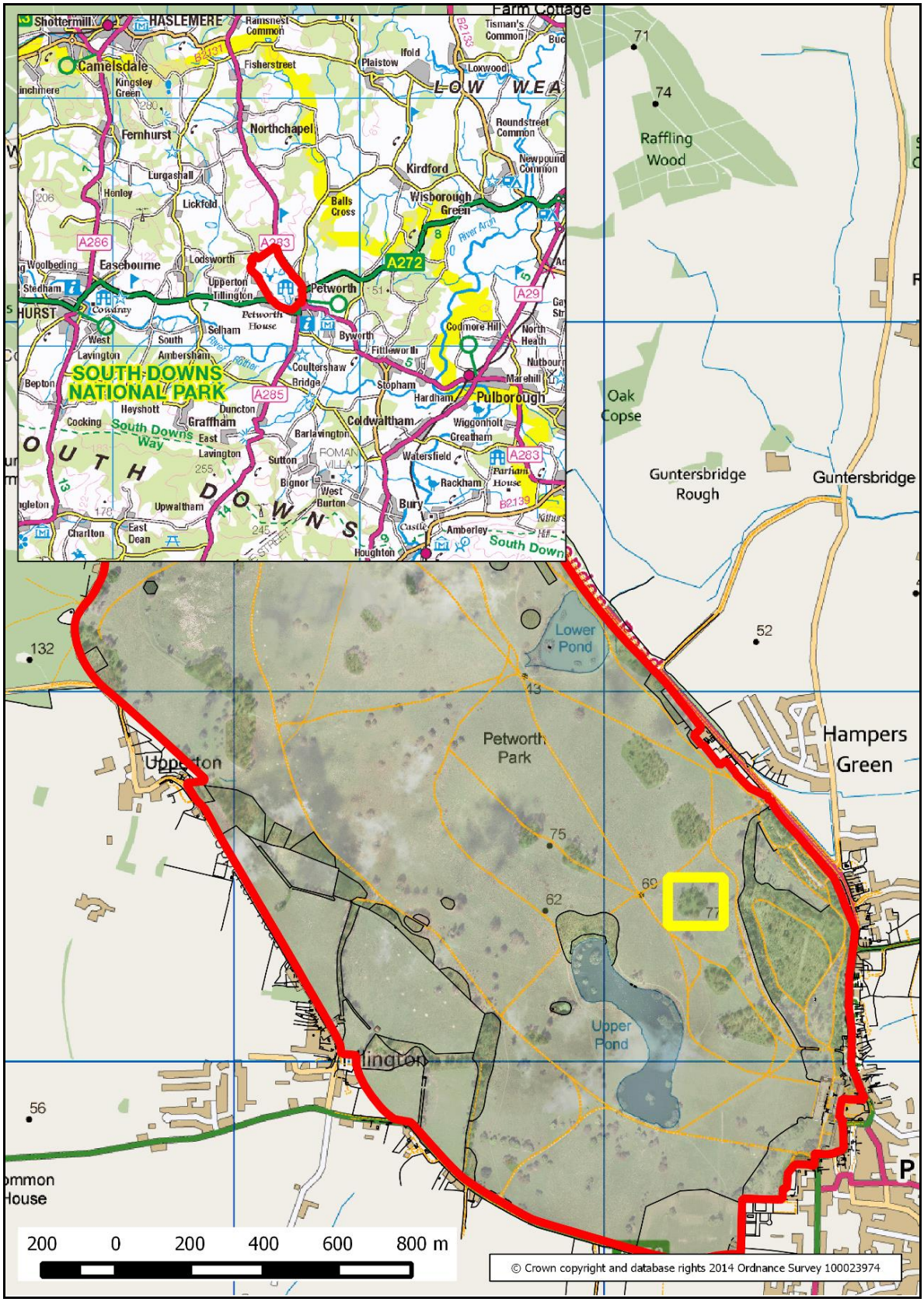

Fig. 1: Petworth Park: Site location Map
(Adapted from map provided by the National Trust)
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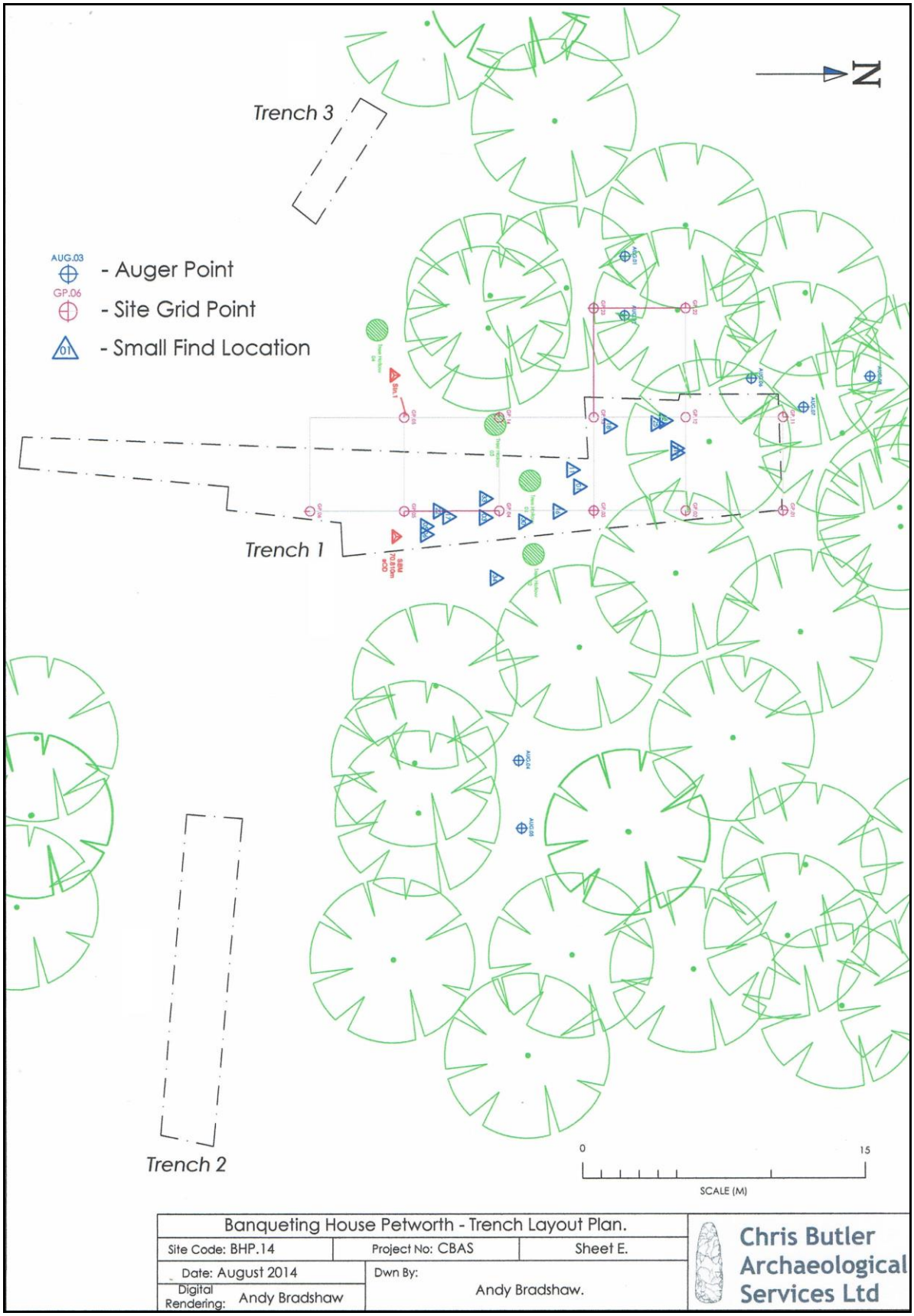

Fig. 2: Petworth Park: Site map showing the location of the Trenches

Fig. 3: Contexts (**016** and **020**)

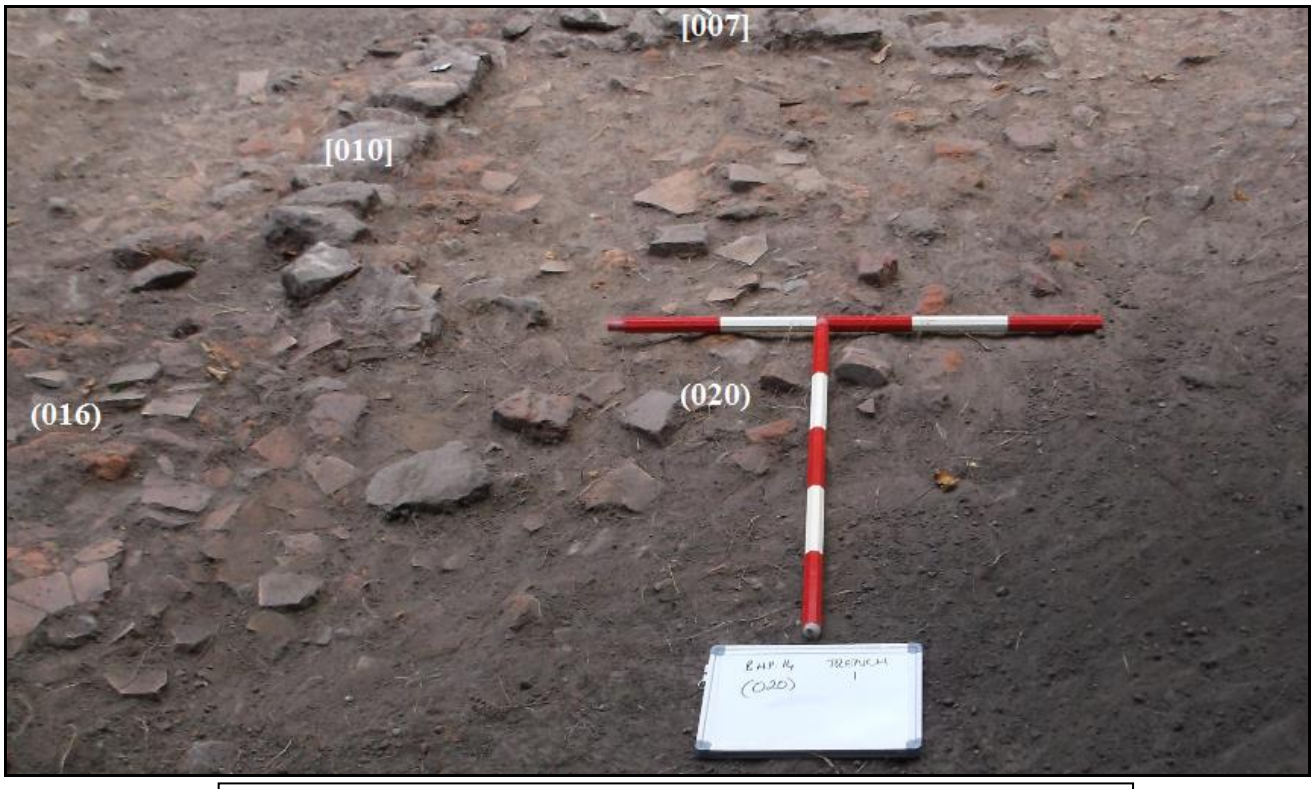

Fig. 4: Context (**020**) in relation to Context (**016**)

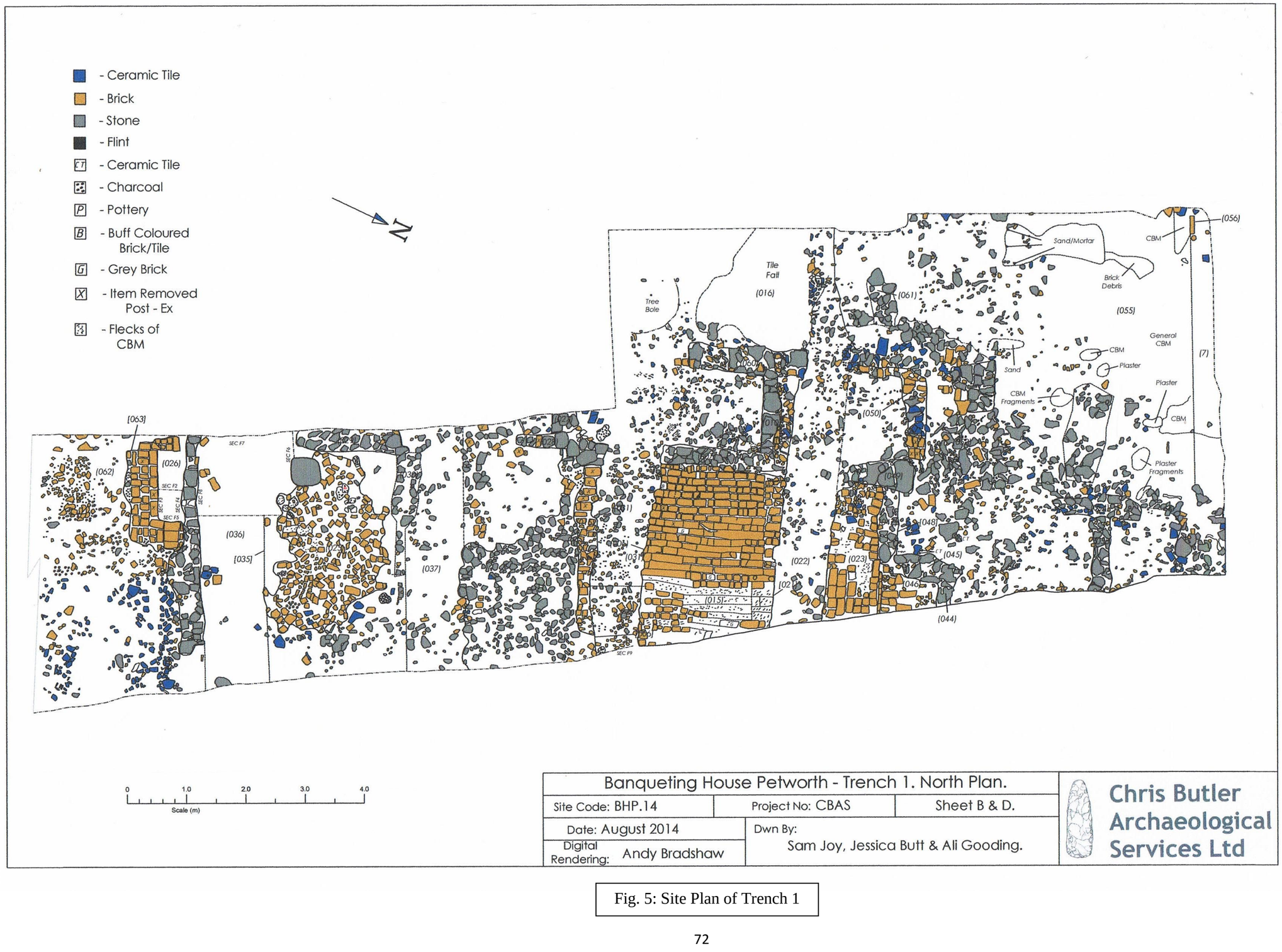

Fig. 5: Site Plan of Trench 1

Fig. 6: Robber Trench [**006**] in relation to Floor [**015**] and Wall [**007**]

Fig. 7: Robber Trench [**035**]

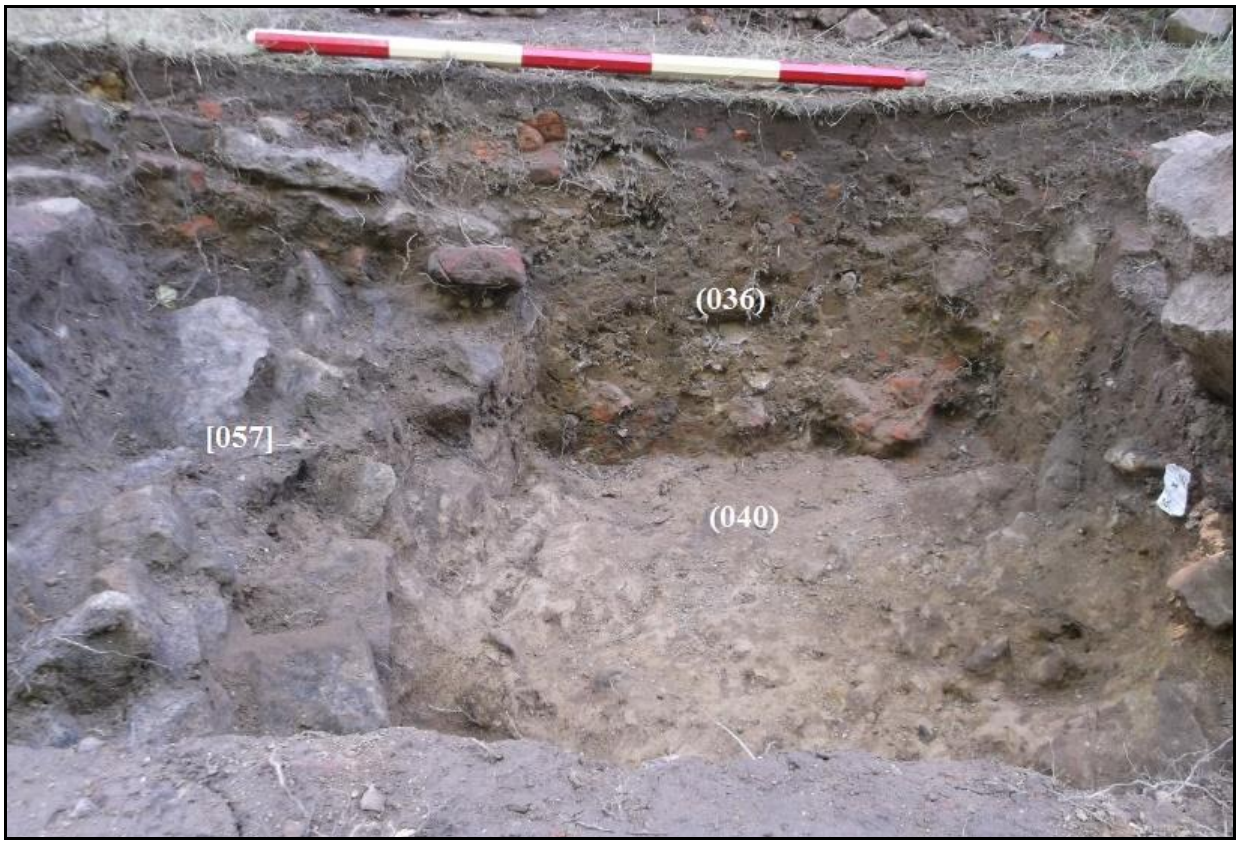

Fig. 8: Section F7 through Robber Trench [**035**]

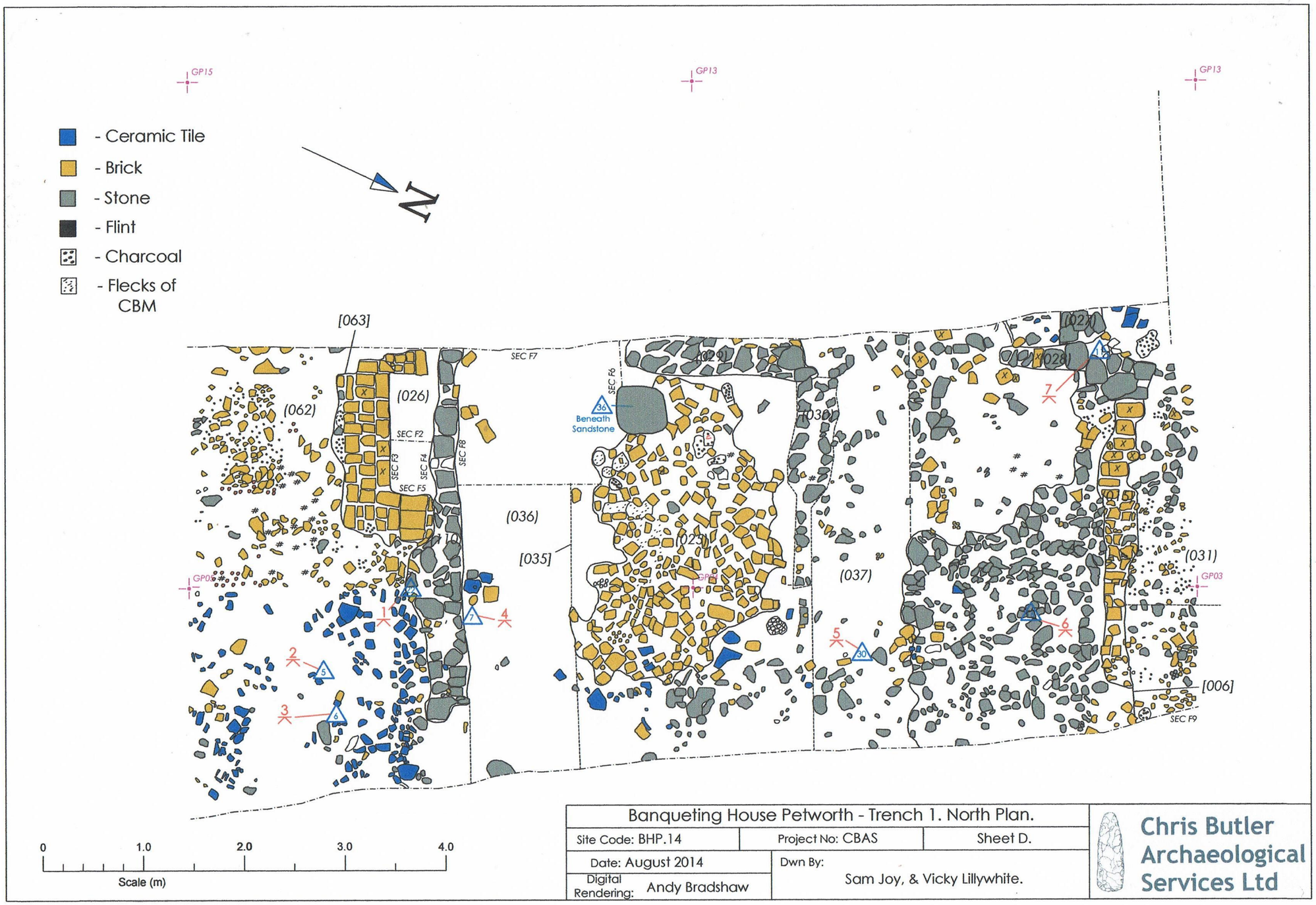

Fig. 9: Plan of Trench 1 (detail of north part of the excavated building)

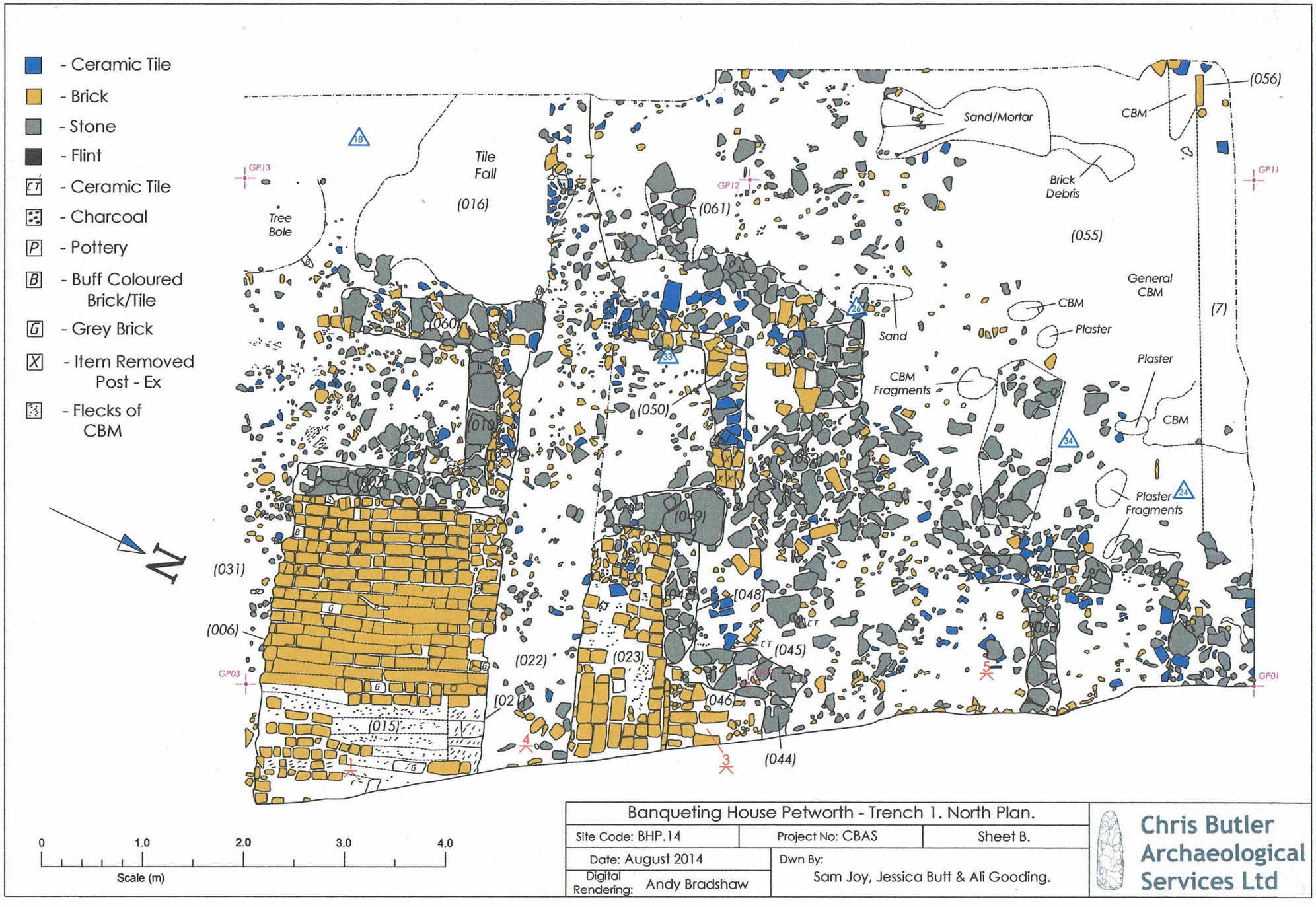

Fig. 10: Plan of Trench 1 (detail of south part of the excavated building)

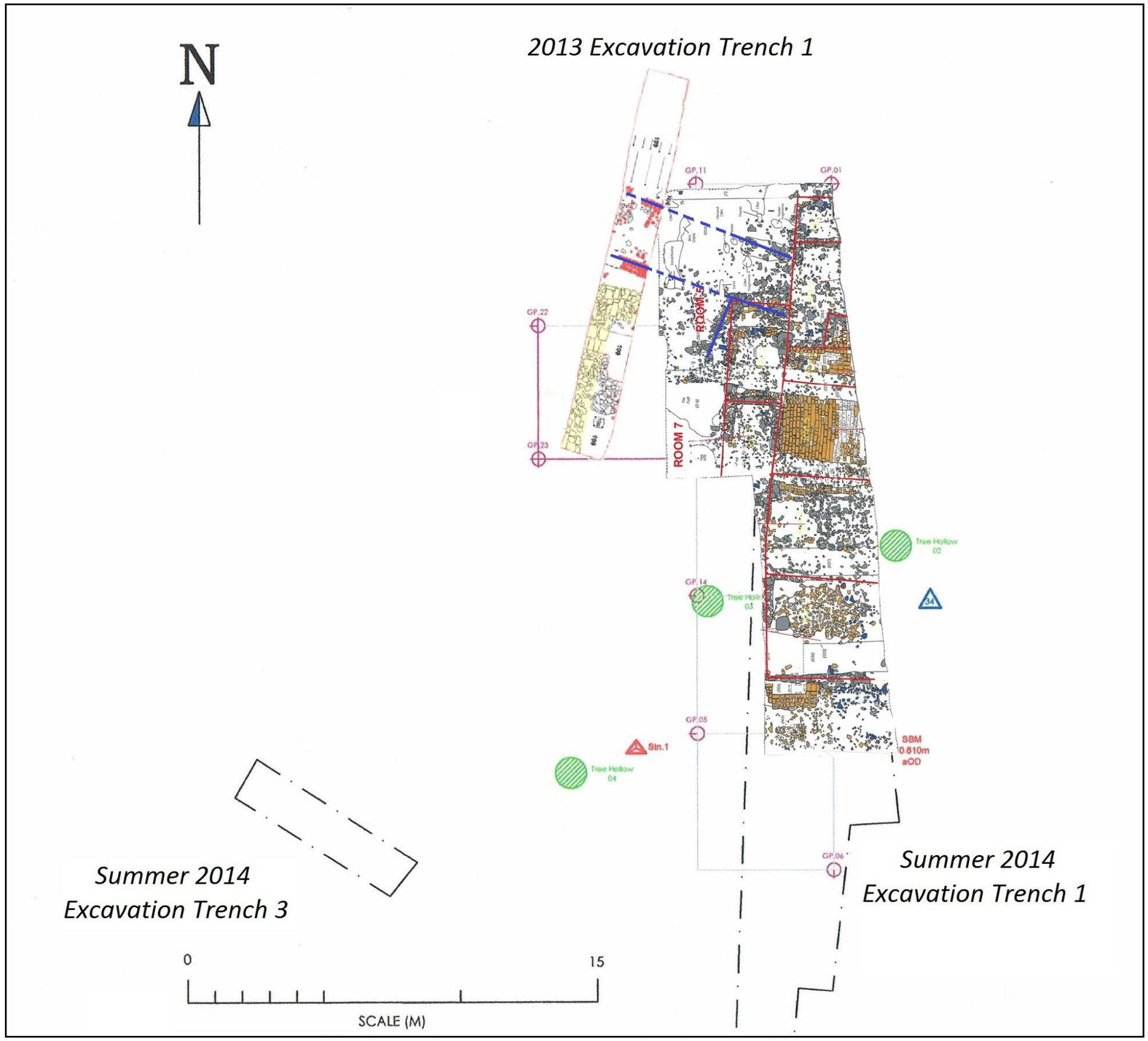

Fig. 12: 2014 Excavation results with the 2013 Evaluation Trench

Appendix 1: Levels Register

Point	Easting	Northing	Level (aOD)
SF01	1003.782	989.600	70.770
SF03	1005.401	984.589	70.794
SF05	1005.861	981.473	70.861
SF06	1006.300	981.471	70.877
SF11	1002.888	989.232	70.822
SF16	1005.083	988.517	70.765
SF17	1005.364	982.653	70.919
SF18	1000.580	991.214	70.753
SF19	1001.994	994.771	70.756
SF21	1000.294	994.159	70.765
SF22	1005.054	982.156	70.900
SF25	1000.449	993.708	70.669
SF30	1005.628	986.686	70.758
SF31	1001.767	994.765	70.770
SF33	1004.403	984.604	70.754
SF34	1008.609	985.163	70.291

Appendix 2: HER Summary Form

Site Code	BHP.14					
Identification Name and Address	Petworth Park Summer Community Excavation					
County, District &/or Borough	Chichester District Council					
OS Grid Refs.	Various (see text)					
Geology	Lower Greensand (Easebourne and Hythe Formations) in the south and Wealden Group mudstones and siltstones (Weald Clay Formation) in the north					
Type of Fieldwork	Eval.	Excav. **X**	Watching Brief	Standing Structure	Survey	Other
Type of Site	Green Field **X**	Shallow Urban	Deep Urban	Other: Urban		
Dates of Fieldwork	Eval.	Excav. 11-20th July 2014	WB.	Other:		
Sponsor/Client	National Trust					
Project Manager	Chris Butler MIfA					
Project Supervisor	Rachel Cruse					
Period Summary	Palaeo.	Meso.	Neo. **X**	BA **X**	IA	RB
	AS	MED **X**	PM	Other		

100 Word Summary.

A Community excavation project opened three trenches at the top of Lawn Hill, Petworth Park. Prehistoric activity was evidenced by a small worked flint assemblage, dating to the Late Neolithic to Early Bronze Age. 122 sherds of Roman pottery and 3 sherds of medieval pottery were also recovered probably relating to agricultural activity. Trench 1 contained foundations and floors from a substantial building, which from the pottery and other finds appears to have been in use for a relatively short period of time during the 16th century. There were also hints of an earlier building below the remains found. The south end of Trench 1 had been disturbed by quarrying activity, and Trenches 2 and 3 contained no evidence for any building remains. The vast majority of the finds date to the 16th century, and include pottery, a variety of metal items including a gold ring, and two silver coins. The finds are concentrated in the period 1450-1575, although the main focus of activity appears to be during the reign of Elizabeth 1st.

Chris Butler Archaeological Services Ltd

Chris Butler has been an archaeologist since 1985, and formed the Mid Sussex Field Archaeological Team in 1987, since when it has carried out numerous fieldwork projects, and was runner up in the Pitt-Rivers Award at the British Archaeological Awards in 1996. Having previously worked as a Pensions Technical Manager and Administration Director in the financial services industry, Chris formed **Chris Butler Archaeological Services** at the beginning of 2002.

Chris is a Member of the Institute of Field Archaeologists, and a Fellow of the Society of Antiquaries of London. He was a part time lecturer in Archaeology at the University of Sussex, and taught A-Level Archaeology at Bexhill 6th Form College having qualified (Cert. Ed.) as a teacher in 2006. He recently set up the Sussex School of Archaeology.

Chris specialises in prehistoric flintwork analysis, but has directed excavations, landscape surveys and watching briefs, including the excavation of a Beaker Bowl Barrow, a Saxon cemetery and settlement, Roman pottery kilns, and a Mesolithic hunting camp. He has recently undertaken large landscape surveys of Ashdown Forest and Broadwater Warren and is Co-Director of the Barcombe Roman Villa excavation project.

His publications include *Prehistoric Flintwork*, *East Sussex Under Attack* and *West Sussex Under Attack*, all of which are published by Tempus Publishing Ltd.

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