

**POST-EXCAVATION ASSESSMENT AND
UPDATED PROJECT DESIGN**

**LAND AT THE FORMER ANGELS NURSERY,
BARNHAM, WEST SUSSEX**

**NGR: 496200 104000
(SU 96200 04000)**

Planning Reference: APP/C3810/A/10/2132014

**ASE Project No: 7068
Site Code: BAN 14**

**ASE Report No: 2014386
OASIS ID: archaeol6-199607**



by Simon Stevens BA MCIfA

With contributions by

**Lucy Allott, Luke Barber, Anna Doherty, Hayley Forsyth,
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Abstract

Archaeology South-East (ASE) was commissioned by CgMs Consulting Ltd. on behalf of their client West Sussex County Council to undertake archaeological investigations on land at the former Angels Nursery, Barnham, West Sussex (centred at NGR 496200 104000).

A thin scatter of struck flint and fire-cracked flint was recovered from later deposits suggesting a restricted level of hunter/gatherer activity on or near the site in the distant past, as well as restricted possible Neolithic/Early Bronze Age activity.

The presence of flint-tempered pottery at the site is strongly suggestive of some form of Late Iron Age/Early Romano-British occupation. Only a handful of features could be positively assigned to this period, including a gully and a spatially associated scatter of pits, but these (and the presence of residual pottery of this date in later features) are indicative of a phase of agricultural/domestic activity.

The vast majority of datable features at the site belong to the 1st and 2nd century AD, the quality and quantity of pottery suggesting some level of wealth apparently generated from agricultural surplus in the absence of clear evidence of any other activity at the site beyond the domestic/agricultural.

Most of the pottery was deposited in gullies/ditches forming a number of apparently sequential enclosures, perhaps with associated trackways/droeways. There was also a scattering of pits across the site, some rich in pottery, and a substantial, but shallow pond, which contained 1st to 2nd century pottery.

A limited quantity of later Romano-British pottery (dated post 270AD) had been deposited in short stretches of gully and a series of pits, perhaps suggesting that agricultural activity continued at the site, but that the local domestic focus (or foci) had moved elsewhere by this time.

There had been considerable truncation in some parts of the site resulting from the 20th century construction and use of some of the nursery buildings, and from their recent demolition. A small assemblage of late post-medieval material was recovered from the overburden. The only substantial post-medieval feature investigated at the site was a shallow re-cut ditch perhaps associated with a hedgeline near the street frontage.

The report is written and structured so as to conform to the standards required of post-excavation analysis work as set out in Management of Research Projects in the Historic Environment (MoRPHE), Project Planning Notes 3 (PPN3): Archaeological Excavation (English Heritage 2008). Interim analysis of the stratigraphic, finds and environmental material has indicated a provisional chronology, and assessed the potential of the site archive to address the original research agenda, as well as assessing the significance of those findings. This has highlighted what further analysis work is required in order to enable suitable dissemination of the findings in a final publication.

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1.0 INTRODUCTION

1.1 Site Location

- 1.1.1 The site, which measures around 3.5 hectares in extent, lies on the south side of Yapton Road to the south-east of the commercial centre of Barnham, on the West Sussex Coastal Plain. It is bounded to the south by a further abandoned nursery, to the east by an ongoing development and to the west by a caravan park (NGR 496200 104000) (Figure 1).

1.2 Topography and Geology

- 1.2.1 The site lies at a height of c.7m AOD to c.8m AOD. Following the demolition of the nursery structures, the site was left as open grassland/waste ground dissected by shallow ditches and hedgelines, with some mature trees.
- 1.2.2 According to current data from the British Geological Survey, the underlying bedrock is London Clay with superficial deposits of river terrace sand, silt and clay (BGS 2014).

1.3 Scope of the Project

- 1.3.1 Planning permission for a residential development at the site was initially refused by Arun District Council, but was granted after an appeal to the Planning Inspectorate by Property Services, West Sussex County Council (planning ref. APP/C3810/A/10/2132014).
- 1.3.2 Following consultation between Arun District Council and John Mills and Mark Taylor, Senior Archaeologists at West Sussex County Council (WSCC) (Arun District Council's advisers on archaeological issues) a condition (No. 12) was attached to the original application requiring that:

'No development shall take place until the applicant, or their successors in title, has secured the implementation of a programme of archaeological work in accordance with a written scheme of investigation which has been submitted by the applicant and approved by the Planning Authority'.

- 1.3.3 In accordance with this, and after discussions with WSCC, a *Written Scheme of Investigation* (WSI) was produced by CgMs Consulting Ltd. outlining the methodology to be used to archaeologically evaluate the site in advance of development, in this case by mechanically excavated trial trenches. Procedures to be used in recording, reporting and archiving of results were provided. The possibility that further archaeological work at the site might be necessary, should results merit this, was also highlighted (CgMs 2014a).
- 1.3.4 The archaeological evaluation was undertaken in August 2014. Twenty-eight trial trenches were mechanically excavated at the site, most measuring 30m by 1.8m, providing a c.5% sample of the evaluated area.
- 1.3.5 Archaeological features were identified, excavated and recorded in twelve of the trenches, the vast majority dating from the Romano-British period. Features consisting of gullies and ditches containing often sizeable assemblages of pottery suggested occupation spanning much of the

Romano-British period. Other finds included limited assemblages of flintwork and prehistoric, medieval and post-medieval pottery.

- 1.3.6 Following further consultation between CgMs and WSCC, it was agreed that given the results of the evaluation, further archaeological mitigation was necessary to fulfil the planning condition. Subsequently a further WSI was issued by CgMs, again outlining procedures to be used in recording, reporting and archiving of results, in this case of the archaeological excavation of two open areas at the site, as well as the excavation and recording of two trial trenches not completed during the original evaluation (CgMs 2014b).
- 1.3.7 In the event the larger of the two areas was divided into two separate parts owing to the presence of a wet ditch, buried culvert and line of trees protected by a *Tree Preservation Order*. Therefore the site consisted of three discrete areas, labelled A, B and C (Figure 2). Area B was centred on an evaluation trench in order to further investigate a ditch from which an assemblage of samian pottery was recovered, while Areas A and C targetted the main concentration of features identified during the evaluation.
- 1.3.8 The archaeological excavation of the site was undertaken by Archaeology South-East (ASE) between September and November 2014. The site was staffed by a team of ASE archaeologists; project managed by Darryl Palmer and supervised in the field by Simon Stevens and Dylan Hopkinson.

1.4 Circumstances and Dates of Previous ASE Work at the Site

- 1.4.1 Evaluation by mechanically excavated trial trenches (August 2014)
- 1.4.2 Open Area excavation (September to November 2014)
- 1.4.3 All archaeological works were commissioned by CgMs Consulting Ltd. and carried out by ASE.

1.5 Archaeological Methodology

- 1.5.1 The excavation areas were stripped using a tracked mechanical 360° excavator. All mechanical excavation was undertaken using a toothless ditching bucket under the direct supervision of experienced archaeologists from ASE. Machine excavation was taken down to the top of any archaeological structures or deposits or to the surface of natural geology whichever was the uppermost. Care was taken not to machine off seemingly homogenous layers that might have been the upper parts of archaeological features. The resultant surfaces were cleaned as necessary and a pre-excavation plan prepared using Global Positioning System (GPS) planning technology. This was made available to the Project Manager, the Supervisor, CgMs and the West Sussex County Council Archaeologists.
- 1.5.2 This pre-excavation plan was made available in Autocad and PDF formats and printed at a suitable scale (1:20 or 1:50) for on-site use.
- 1.5.3 All archaeological features, deposits and structures were recorded using standard ASE recording sheets. They were added to the digital site plan by

the on-site ASE Surveyor using GPS planning technology. Sections were hand-drawn at a scale of 1:10 or 1:20.

- 1.5.4 A comprehensive soil sampling programme for environmental analysis was undertaken in accordance with English Heritage (2002) guidelines. Samples of 40 litres (or 100% of smaller deposits) were taken from a representative range of deposits. Bulk soil samples were also taken if significant quantities of animal bone, iron slag, daub, carbonised or mineralised remains were present.

1.6 Organisation of the Report

- 1.6.1 This post-excavation assessment (PXA) and updated project design (UPD) has been prepared in accordance with the guidelines laid out in Management of Research Projects in the Historic Environment (MoRPHE), Project Planning Notes 3 (PPN3): Archaeological Excavation (English Heritage 2008).
- 1.6.2 The report seeks to place the results from the current site within the local archaeological and historical setting; to quantify and summarise the results; specify their significance and potential, including any capacity to address the original research aims; lists any new research criteria; and lays out what further analysis work is required to enable the final dissemination of the information and what form the latter should take.
- 1.6.3 Material from the evaluation and excavation work at the site is considered together and has been recorded under site code BAN 14.

1.7 The Site Archive

- 1.7.1 The archive from the current site (including all finds) will be offered to Littlehampton Museum in due course. The archive, which is quantified in Table 1, will continue to be held at ASE offices in Portslade during the post-excavation analysis work.

Type	Description	Quantity
Context sheets	Individual context sheets	378
Section sheets	A1 Multi-context permatrace sheets 1:10	13
Plans	Multi-context DWG plans	ALL FEATURES
Photos	Digital images	381
Environmental sample sheets	Individual sample sheets	21
Context register	Context register sheets	11
Environmental sample register	Environmental sample register sheets	2
Photographic register	Photograph register sheets	8
Drawing register	Section register sheets	10

Table 1: Site Archive Quantification

2.0 HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

- 2.1** The following archaeological background is derived from a report produced by ASE for a nearby site at Barnham Road, c.600m to the north-west of the current site (ASE 2010). This included a search of entries recorded on the West Sussex County Council Historical Environment Record (HER) within the general area of Barnham. The results of this research are summarised below with an emphasis on finds and sites pertinent to the results of the evaluation.
- 2.2** The earliest remains recorded in the area comprise Mesolithic and Neolithic/Early Bronze Age assemblages of flintwork discovered between 1920 and 1930 at Barnham Nurseries c.200m to the south-east of the current site (HER Refs: 1453 & 5532). The Mesolithic material consisted of a Thames pick, three unspecified picks, a possible bladelet core, four scrapers and seven flakes/blades, including a possible burin; the Neolithic/Early Bronze Age material consisted of a '*leaf-shaped blade*', a '*spear point*', an axe and some flint flakes. These finds seem to have been chance discoveries and their precise context is unclear. The Barnham Road site produced evidence of prehistoric and Romano-British activity (*ibid.*).
- 2.3** References to later prehistoric remains are sparse. In c.1864, during the construction of the railway, a hoard of eight Bronze Age axes, including one palstave, was discovered during the excavation of a cutting (HER Ref: 1444). The second reference relates to a small quantity of Late Iron Age pottery recovered during a metal detector survey in the area of Barnham Court (HER Ref: 5166).
- 2.4** A Roman occupation site, or perhaps villa, is thought to have existed at Eastergate (HER Ref: 1406). Many fragments of Roman pottery and tile, together with bone and shell, have been found in fields immediately to the south and north of the medieval parish church of St. George. A crop mark on an Aerial Photograph (AP) indicates the possible villa site, while Roman tile, including tegulae can be seen in the south wall of the chancel. During much of the Roman period the current site is likely to have lain in a well-organised agricultural landscape of villa estates, farmsteads and field systems.
- 2.5** No finds of Anglo-Saxon remains are recorded in the immediate vicinity of the site. The manor of Barnham existed from at least 1066, when it was held by Alnoth, a free man. Domesday records a total of twenty-four *villani* and cottars working on Barnham manor in 1086, while by 1302 the total number of tenants and cottars working on the estate had risen to thirty-six. By 1341, arable farming was the principal land use in the parish, with the cultivation of flax and hemp being recorded.
- 2.6** A map regression exercise undertaken by CgMs shows that buildings associated with the nursery were located on the site by the early twentieth century (CgMs 2014a, 5).

3.0 ORIGINAL RESEARCH AIMS

3.1 The general research aims given in the relevant WSI (CgMs 2014b) were

- To identify, excavate, record and analyse any significant archaeological remains that will be disturbed by the development proposals. The physical archaeological remains will be replaced by a detailed record and a better understanding of the past activities that have taken place on the site, thereby contributing to an increased knowledge of Sussex's past and providing a resource for future research and education.
- The objective of the proposed fieldwork is to understand the broad pattern of settlement dynamics and how key elements of the archaeological landscape (sites, activities, deposits and finds) relate to each other spatially, functionally and chronologically.

3.2 In addition, the following site specific research aims were also identified:

- OR1 The archaeological investigation will seek to understand the context of the findings in relationship to the wider settlement pattern, landscape, economy and environment.
- OR2 The interpretation of locally distinctive or regionally/nationally significant archaeological features, including funerary monuments, evidence of settlement including industrial processes.
- OR3 How the site's topography has influence past activity and settlement.
- OR4 To contribute to existing knowledge relating to the material culture, form and evolution of Roman activity and settlement in the region.
- OR5 To advance understanding of Roman agricultural usage within the site, and to define the boundaries between occupation and agricultural use
- OR6 To advance our knowledge of the archaeology of the region through the application of appropriate scientific dating techniques. Nationally, discrepancies have arisen in recent years between "comparative" dating of pottery assemblages, and the absolute dating from C-14, particularly in the Mid Iron Age. The obtaining of charcoal from newly excavated features for this purpose, where there are good pottery assemblages, will be a key objective.'

4.0 ARCHAEOLOGICAL RESULTS

4.1 Introduction

- 4.1.1 Individual contexts, referred to thus [***], have been sub-grouped and/or grouped together during post-excavation analysis. Ditches/gullies are generally referred to by their group label (D **, or E** in the case of a ditch with a definite turn suggesting enclosure of an area), and pits or post-holes as (GP **) below. In this way, linear features, such as ditches which may have numerous individual interventions and context numbers and groups of discrete features which are clearly contemporary and functionally associated can be discussed as single entities. However, contexts have been referred to where it is necessary to distinguish individual elements of a group. Environmental samples are listed within triangular brackets <*>.

4.2 Summary (Figure 2)

- 4.2.1 The archaeology is discussed under provisional date-phased headings determined primarily through assessment of the datable artefacts, predominantly the pottery with partial reliance on limited stratigraphic or spatial relationships. Issues with the close dating of the Romano-British pottery proved problematic in some cases, and it should be borne in mind that the phasing of main period of Romano-British activity at the site may be subject to revision during the course of subsequent analysis.
- 4.2.2 A thin scatter of struck flint and fire-cracked flint was recovered from later deposits suggesting a restricted level of hunter/gatherer activity on or near the site in the distant past, as well as restricted possible Neolithic/Early Bronze Age activity.
- 4.2.3 The presence of flint-tempered pottery at the site is strongly suggestive of some form of Late Iron Age/Early Romano-British occupation. Only a handful of features could be positively assigned to this period, including a gully and a spatially associated scatter of pits, but these (and the presence of residual pottery of this date in later features) are indicative of a phase of agricultural/domestic activity.
- 4.2.4 The vast majority of datable features at the site belong to the 1st and 2nd century AD, the quality and quantity of pottery suggesting some level of wealth apparently generated from agricultural surplus in the absence of clear evidence of any other activity at the site beyond the domestic/agricultural.
- 4.2.5 Most of the pottery was deposited in gullies/ditches forming a number of apparently sequential enclosures, perhaps with associated trackways/droeways. There were numerous localised recuts in these features undoubtedly resulting from flooding/silting, a continuing phenomenon encountered during the excavation of the site. There was also a scattering of pits across the site, some rich in pottery, and a substantial, but shallow pond, which contained 1st to 2nd century pottery.
- 4.2.6 A very limited quantity of later Romano-British pottery (dated post 270AD) had been deposited in the enclosure ditches and a series of pits, perhaps

suggesting that agricultural activity continued at the site, but that the local domestic focus (or foci) had moved elsewhere by this time.

- 4.2.7 A very small quantity of medieval material was recovered from the site, either intrusive in early features or residual in later deposits. This suggests virtual abandonment of the area for domestic occupation at this time, perhaps owing to seasonal flooding of the low-lying site, (as clearly seen during the excavation of the site, which regularly flooded). However, this is pure supposition, and it may be that the site continued in archaeologically-invisible agricultural use throughout the medieval period.
- 4.2.8 There had been considerable truncation in some parts of the site resulting from the 20th century construction and use of some of the nursery buildings, and from their recent demolition. A small assemblage of late post-medieval material was recovered from the overburden. The only substantial post-medieval feature investigated at the site was a shallow re-cut ditch perhaps associated with a hedgeline near the street frontage.

4.3 Natural Deposits

- 4.3.1 The 'natural' at the site consisted of a brownish orange sand encountered at heights varying between c.7m and c.8mAOD across the site.

4.4 Prehistoric

- 4.4.1 The evaluation and subsequent excavation work at the site produced a small assemblage of worked flints and a moderate quantity of unworked burnt flint, all of which occurred as a residual component in later deposits. The majority of the material was not closely datable, but a scraper with fine retouch could be Late Neolithic or Early Bronze Age in date. Overall the assemblage does not allow particularly confident dating, and only a very broad Neolithic/Bronze Age date can be proposed for the majority of the flintwork. However, a very small Mesolithic component may also be present.

4.5 Period 1 - Late Iron Age to Early Romano-British (Figure 3)

D4: Gully (Contexts [1/004], [129] and [204])

D15: Gully (Contexts [323], [325], [330] and [346])

GP9: Pits (Contexts [259], [273], [275], [317], [319], [321], [349], [402] and [411])

- 4.5.1 Evidence of Late Iron Age and very early Romano-British activity at the site was limited to two gullies, perhaps forming the north-west corner of an enclosure, and a thin scatter of pits all in excavation Area C, based on the presence of pottery arguably mostly predating the conquest. Pit [275] contained a substantial element of an imported North Gaulish white ware flagon. The gullies appear to be the first attempt at land division at the site.

4.6 Period 2 - 1st to 2nd Century AD

Introduction

- 4.6.1 The vast majority of features encountered at the site were assigned to this period, which has been subdivided into four separate phases. Romano-British activity at the site was represented by a number of gullies and a small group of pits dated from the presence of 1st and 2nd century pottery. Subdivision of the period was based on stratigraphic grounds where close dating of pottery proved challenging, or on orientation where no datable material was recovered.

Period 2 Phase 1 (Figure 4)

D2: Gully (Contexts [106] and [108])
D6: Gully (Contexts [169], [175], [177] and probably [22/010])
D8: Gully (Contexts [229] and [232])
D14: Gully (Contexts [4/008], [311] and [313])
D19: Gully (Contexts [335], [341], [406], [408], [413], [415] and [426])
D21: Gully (Context [459])
D22: Gully (Contexts [463] and [467])
D23: Gully (Contexts [426], [469] and [476])
GP5: Pits (Contexts [201], [208] and [211])

- 4.6.2 The earliest phase of provably post-conquest activity at the site was represented by a number of gullies and a small group of pits, with pottery dating no later than 100AD or assigned to this phase on stratigraphic grounds. The gullies were encountered in all of the investigated open areas, while the pits were limited to Area A. Interpretation of the most northern group of gullies was hampered by the *Tree Preservation Order* but it is possible that some or all of these features, including D22, D23 and D8, represent the corner of an enclosure of some kind. The other gullies, such as D2, D6, D14 and D19) do not form a particularly coherent pattern, although it is conceivable that, together, they form elements of a field system.

Period 2 Phase 2 (Figure 5)

D3: Gully (Contexts [123] and [127])
D7: Gully (Contexts [218] and [222])
D9: Gully (Contexts [231] and [234])
D11: Ditch (Contexts [3/006], [278], [299], [301], [331], [337], [339], [343], [441], [443] and [448])
D16: Gully (Contexts [347] and [383])
D17: Gully (Contexts [351] and [380])
D18: Gully (Contexts [1/008], [404], [405] and [461])
GP6: Pit/Well (Context [194] and [196])
GP13: Pond (Context [465])

- 4.6.3 Archaeological remains from this phase consisted of a group of gullies which may represent one or more enclosures. These putative enclosures appeared to contain features for holding water, such as the GP13 pond or GP6 pit/well.

Such features may suggest that the enclosure areas functioned primarily as pasture fields for animal grazing, although the substantial size of the associated assemblages of domestic pottery is clearly indicative of the presence of buildings in the immediate vicinity.

Period 2 Phase 3 (Figure 6)

D13: Gully (Contexts [310], [358], [360], [362], [365], [376], [378], [428] and [457])

E1: Gully (Contexts [22/006], [22/008], [199], [206], [221], [236], [238], [240], [242], [245], [247], [249], [251], [253], [262], [266], [472] and [474])

- 4.6.4 The features assigned to this phase appear to constitute the south-east corner of an enclosure (E1, continuing to the west as ditch D13), with the fills containing large quantities of pottery dating from the first and second centuries AD. Again the quantity of domestic pottery deposited in the fills suggested domestic occupation in the vicinity, or perhaps in the part of the enclosure that lies outside the current excavation areas.

Period 2 Phase 4 (Figure 7)

E2: Gully (Contexts [19/004], [135], [141], [146], [160], [164], [166], [180] and [182])

E3: Gully (Contexts [21/004], [153], [155], [170], [178] and [226])

E4: Gully (Contexts [4/004], [4/012], [280], [287], [289], [293], [295], [297], [307], [374], [385], [430], [432] and [450])

GP1: Pits (Contexts [131], [133], [137] and [144])

GP2: Pits (Context [157] and [214])

GP3: Pit (Context [216])

GP4: Pits (Contexts [255] and [257])

GP8: Pits [Contexts [270], [282] and [455])

- 4.6.5 Archaeological remains from this phase consist of a series of enclosure ditches straddling Areas A and C (enclosure ditches E2, E3 and E4), defining at least two broadly rectangular enclosures. Features associated with these enclosures include scatters of pits, including GP1 and GP2, with further pits recorded in the wider vicinity outside the enclosures (e.g. GP3, GP4 and GP8). These features contained varying quantities of pottery dating from the first and second centuries.
- 4.6.6 Again the ditches appear to form part of an agricultural field system, probably for the holding of livestock, but the number of pits in use during this phase hints at domestic occupation in the vicinity. There is no obvious focus (or foci) for the thin scatter of pits, which lie both inside and outside of the enclosures.

4.7 Period 3 - Late Romano-British (c.270AD to c.410AD) (Figure 8)

D1: Gully (Contexts [24/004], [110], [111])
D5: Gully (Context [142])
D10 Gully (Contexts [224] and [420])
D12: Gully (Contexts [291] and [303])
D20: Gully [Contexts [2/004], [437] and [446])
GP7 Pits (Contexts [158], [172], [184], [187], [189] and [191])
GP10 Pits (Contexts [327], [355], [368], [370], [372], [387], [391], [393], [396], [398], [400], [424] and [435])
GP11 Pits (Contexts [264] and [272])

4.7.1 The features assigned to this period consisted of the somewhat fragmentary remains of a number of gullies, probably the remains of field boundaries/trackways, and a number of pits, with a noticeable concentrations in Areas A and C (GP7 and GP10 respectively). These two clusters of pits showed some intercutting, suggesting longevity of use of assigned areas for disposal of domestic detritus.

4.7.2 Late Romano-British pottery was recovered from a number of features although never in as great a quantity or variety as the earlier Romano-British material, despite the presence of larger pits. Arguably the location of the pits of GP10 suggest a focus of domestic occupation immediately to the north of the current site, supported by the presence of the best assemblage of charcoal at the site, presumably derived from domestic fuel.

4.8 Medieval

4.8.1 Residual and intrusive medieval pottery was recovered during the archaeological work but no features of this date could be undisputedly assigned to this period suggesting that the site was either abandoned entirely, or given over to agricultural with no domestic occupation at this time.

4.9 Period 4 - Post-Medieval (Figure 9)

D24: Gullies (Contexts [115], [117], [119], [121] and [125])
GP12: Pit [22/004]

4.9.1 Although post-medieval material was recovered from the overburden, and there was evidence of considerable recent truncation in various parts of the site, only a sequence of periodically re-established ditches/gullies close to the street frontage (D24) could be positively dated to this period from finds, as well as a single post-medieval pit encountered in evaluation Trench 22 (GP12).

4.10 Overburden

4.10.1 There were two layers of overburden at the site, a mid-brown humic topsoil and yellowish brown silty clay subsoil which overlay the brownish yellow clay 'natural'. (recorded as context [100], [101] and [102] respectively in Area A, [103], [104] and [105] in Area B, and [284], [285] and [286] in Area C). Depths

of the overburden varied considerably across the site, especially in areas of localised truncation, where the overburden could be in excess of 1m in depth.

5.0 FINDS ASSESSMENT

5.1 Introduction by Elke Raemen

- 5.1.1 A relatively small assemblage of finds was recovered from the site (Appendix 1). Finds were all washed and dried or air dried as appropriate. They were subsequently quantified by count and weight and bagged by material and context. Finds were all packed and stored according to CifA guidelines (CifA 2014). In addition, three finds were accessioned and allocated a unique number (RF <00>). A Romano-British nail-cleaner (RF <1>) is in poor condition and requires stabilizing. No further conservation is required.

5.2 The Worked Flint by Karine Le Hégarat

Introduction

- 5.2.1 In total, 122 pieces of struck flint weighing 1894g and two flint hammerstones (336g and 137g) were recovered through hand collection and from sample residues during the course of the evaluation and excavation at the site. This amount includes 42 chips (less than 10mm²) which represent 33.87% of the total assemblage of struck flint. A further 775 fragments of burnt unworked flints weighing 35.808kg were retrieved from 102 numbered contexts. The flint assemblage consists principally of unmodified pieces or retouched material, which are not closely datable. Nonetheless, it is fairly consistent, and based on technological and morphological grounds a Neolithic to Bronze Age date seems likely. A very small Mesolithic component may also be present. A large proportion of the assemblage originates from unstratified deposits, mainly from topsoil horizons. The remaining material originates from Late Iron Age and Early Romano-British or later features (Periods 1 to 4); it almost certainly represents re-deposited material.

Methodology

- 5.2.2 The pieces of struck flint were individually examined and classified using standard set of codes and morphological descriptions (Butler 2005, Ford 1987 and Inizan *et al.* 1999). Technological details were noted in order to aid characterisation the material and further information was recorded regarding the condition of the artefacts (evidence of burning or breakage, degree of cortication and degree of edge-damage). Dating was attempted when possible. Burnt unworked flints were quantified by piece and by weight. The assemblage was directly catalogued onto a Microsoft Excel spreadsheet. A breakdown of the composition of the assemblage by provisional period is provided in Table 2.

Provenance

- 5.2.3 The 124 pieces of struck flint were spread over 55 individually numbered contexts. With the exception of ditch fill [363] which produced 10 pieces of flints (including five chips), no archaeological contexts contained more than eight flints. Almost a quarter of the lithics recovered during the field work (24.19% of the total assemblage, n=30) are from topsoil deposits. The

remaining material comes from later ditches and pits (Periods 1 to 4) (66.94% of the total assemblage, n=83) or from archaeological features that are currently undated (8.87% of the total assemblage, n=11). Given the absence of large, well-stratified groups and the mixed nature of the assemblages, the flintwork will be discussed together.

Provisional periods	Flakes	Blades, Blade-like flakes, Bladelets	Chips	Irregular waste	Cores, Core fragments	Retouched forms	Hammer stone	Total
0	22	2	9	-	1	6	1	41
1	2	2	2	-	-	-	1	7
2	27	8	31	1	2	3		72
3	2	-	-	-	-	-	-	2
4	1	-	-	-	1	-	-	2
Total	54	12	42	1	4	9	2	124
%	43.55%	9.68%	33.87%	0.81%	3.23%	7.26%	1.61%	100.00%

Table 2: summary of the struck flint by provisional period. Fragments of burnt unworked flint are not included.

Condition and Raw Material

5.2.4 The condition of the lithics is variable. A large percentage of the material from topsoil deposits displays moderate to pronounced signs of weathering clearly suggesting that the flints endured successive re-depositions. Slightly less pronounced edge damage was noticed on the pieces retrieved from archaeological features, and a few contexts produced flints with fresh unabraded edges. Thirty seven pieces were broken and three pieces of struck flint were burnt.

5.2.5 The main raw material used for the production of the lithics is characterised by light brown and light to dark grey flint with frequent inclusions. Where present, the cortex is principally abraded to a thin off white to brown smooth surface. This material which appears to be of moderate flaking quality is characteristic of chalk-derived flint. It would have been available locally from surface deposits. Occasional pieces were manufactured from grey flint with a pitted grey outer surface. This material could have been acquired from local gravel source or from the beach.

Technology and Dating

5.2.6 A large proportion of the assemblage consists of unretouched pieces of flint débitage. Flakes predominate (see Table 2). These pieces are mostly small. They exhibit mixed hammer removals with mostly plain and narrow butts. Incipient cones of percussion were present, but platform edge abrasion and linear platform were also occasionally noticed. Twelve blades, blade-like flakes and bladelets were also recovered. However, only a few were the results of blade-based industry, and they were more frequently the results from accidental knapping. Overall the dominance of flakes suggests a mid-

late Neolithic or Bronze Age date for the assemblage (Ford 1987). In total, four cores and two flint hammerstones were recovered. The first hammerstone consists of a re-used core, and the second one of a re-used tested nodule. The four cores have been aimed at the production of flakes. They are principally non-intensively worked and exhibit no platform preparation. Occasional incipient cones of percussion were noted. This suggests miss-hits and loss of control over the raw material. This indicates that the material possibly belong to mid-late Neolithic or Bronze Age flintworking tradition.

- 5.2.7 A few retouched tools were found, representing 7.26% of the total flint assemblage (n=9). The small assemblage of modified artefacts consists of four scrapers and four minimally retouched pieces. While the side scraper from ditch fill [222], the end scraper from ditch fill [167] and the end-and-side scraper from topsoil deposit in Trench 30 cannot be closely dated, the end scraper from pit fill context [436] displays fine retouches. This tool could be Late Neolithic or Early Bronze Age in date. The three retouched flakes from topsoil deposits in Trenches 8, 9 and 10 also cannot be closely dated, but the retouched blade from ditch fill context [26/004] is likely to be Mesolithic or Early Neolithic.

5.3 The Late Iron Age and Romano-British Pottery by Anna Doherty

- 5.3.1 A large assemblage of Iron Age and Roman pottery was recovered during evaluation and excavation of the site (Table 3). The pottery appears to represent continuous activity spanning the later Iron Age to mid/late 2nd century AD (stratigraphic Periods 1 and 2) and a discrete later Roman phase (Period 3).

Provisional period	Sherds	Weight (g)	ENV	EVE
1	222	1601	59	1.4
2	2217	29022	1599	20.57
3	249	3550	217	2.45
4 (residual)	16	120	13	0.06
Unstratified	143	1628	98	1.22
Total	2847	35921	1986	25.7

Table 3: Quantification of prehistoric and Roman pottery by provisional stratigraphic period

- 5.3.2 The pottery was examined using a x20 binocular microscope and quantified by sherd count, weight, Estimated Vessel Equivalent (EVE) and Estimated Vessel Number (ENV) on pro-forma record sheets; the data was entered into an Excel spreadsheet.
- 5.3.3 Prehistoric tempered wares were recorded according to site-specific fabric codes, formulated in accordance with the guidelines of the Prehistoric Ceramics Research Group (PCRG 2010). In the absence of a regional pottery types-series for Sussex, Roman fabrics were recorded using an adapted version of the Southwark/London typology (with some additional codes for local types) which will be published in a forthcoming summary of Roman

pottery from the West Sussex coastal plain (Doherty in prep). Reference is also made to other relevant type series including the Camulodunum series (Hawkes & Hull 1947) and Thompson (1982) for Late Iron Age/early Roman forms and Dicks (2009) for Rowland's Castle wares.

Site-specific fabric codes

- CALC1 Moderate rounded iron-stained soft yellowish/orange calcareous inclusions of c.1-2.5mm which are often leached by acidic soil conditions
- FLIN1 Common, moderately to well-sorted flint, mostly of 0.5-1mm with examples up to 2mm, set within a silty matrix
- FLIN2 Common to abundant moderately-sorted flint of 0.2-2mm – or very rarely up to 3mm – set within a silty matrix
- FLIN3 Moderately- to ill-sorted flint of 0.5-3.5mm set within a silty matrix
- FLQU1 Very similar to SAND1 but containing sparse very coarse flint 1-4mm
- GLAU1 Common glauconite of c. 0.2mm; rare larger quartz to 0.5mm
- QUAR1 Low fired silty matrix containing rare brown iron-rich inclusions in an otherwise inclusionless fabric
- ROCK1 Sparse coarse unidentified hard, pale, quartz-rich rock fragments 2-4mm set within a dense matrix
- SAND1 A dark surfaced or unevenly but relatively hard-fired coarse sandy ware; includes both hand-made and wheel-thrown vessels (probably a c. conquest period precursor to Rowland's Castle grey ware). Contains common coarse quartz, generally of c.0.3-0.5mm. Some examples contain rare flint of up to 2mm in size. Rare/sparse black iron rich inclusions of up to 1mm also occur.

Period 1 (Later Iron Age/Early Roman period)

- 5.3.4 Overall, quite a small proportion of the assemblage was assigned to stratigraphic Period 1 (see Table 3). This material comes from just eight individual features, none which produced very large assemblages of pottery. The groups appear to be of slightly differing character, including a few small contexts made up entirely by flint-tempered wares FLIN1 and FLIN2, such as ditch [330] and pits [319] and [321].
- 5.3.5 Other features assigned to this period, such as ditch [346] and pit [259], produced mainly flint-tempered wares with a few examples of Arun Valley or Rowland's Castle sandy Romanised fabrics, either indicating that they were sealed slightly later than the purely flint-tempered groups or that they include some intrusive material. Of some interest is a fragmented but partially-complete imported north Gaulish white ware collared flagon found in pit [275]. This vessel probably would have represented a prestigious item associated with the early adoption of Gallo-Roman practices of serving wine at table and its deposition in this manner could imply a special deposit of some kind.

- 5.3.6 Despite the rather limited nature of the stratified Period 1 assemblage, well over 10% of the pottery regardless of period is made up by tempered wares which are unlikely to post-date the Roman conquest very significantly, suggesting some material from this period may have been redeposited in later features. Although the well-stratified material is not particularly diagnostic there are also some hints in the wider assemblage of activity beginning in the Middle to Late Iron Age rather than in the 1st century AD. The most solid evidence for this are bodysherds from two vessels of probable Dressel 1 amphora, produced in central and southern Italy between c. 120-10BC.
- 5.3.7 At the western edge of the coastal plain there are no dramatic shifts in fabric choices at the beginning of the Late Iron Age, as seen in other regions at this time, so it can be difficult to distinguish pottery of these periods; however one beaded rim from a probable saucepan-related form in a leached calcareous rock-tempered fabric, found in Period 2 ditch, [380], is probably of mid 1st century BC or earlier date. This ware type is strongly associated with Middle Iron Age assemblages in the Weald but is known in Middle/Late Iron Age assemblages from the coastal plain like those from Titnore Lane, Goring and Roundstone Lane, Angmering (Doherty 2010; Seager Thomas in prep). Another shouldered jar with a simple slightly necked profile, from ditch [469], features a burnished diagonal/curvilinear line motif which also appears to owe something to the Middle Iron Age decorated saucepan tradition.

Period 2 (c.AD40-150/175)

- 5.3.8 The vast majority of the pottery comes from deposits assigned to Period 2 (see Table 3), which spans the early post-conquest period to the 2nd century AD. This period, which probably represents a continuation of the Period 1 settlement activity, has been sub-divided into four stratigraphic sub-phases. At present, no detailed break-down of the assemblage has been attempted at this sub-phase level, in part because there appears to be some issues of intrusiveness/residuality; however, brief consideration is given below to changes in assemblage composition over time.
- 5.3.9 Although Period 2 is believed to be made up by deposits laid down in the post-conquest period, Table 4 shows that Iron Age style tempered wares of various types still make up a significant proportion of the assemblage and it is likely that they survived in use for at least a decade or two after the Roman conquest. There are quite a significant number of examples of flint-tempered wares (mainly the finer FLIN1 with only a few examples of coarser FLIN2 and FLIN3). Grog-tempered wares are also present but these are much less prevalent on the coastal plain than in other nearby regions like the Weald. In addition, there are single examples of a number of other Middle/Late Iron Age fabric types including, a glauconitic ware (GLAU1), a low-fired hand-made sandy ware (QUAR1), the above mentioned calcareous rock-tempered ware (CALC1) and a fabric tempered with a quartz-rich rock (ROCK1). Several examples of Late Iron Age/early Roman imported Gallo-Belgic wares, including Terra Nigra and north Gaulish white wares also appear in groups assigned to Period 2.

Fabric grouping	Sherds	Weight (g)	ENV	EVE
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Fabric grouping	Sherds	Weight (g)	ENV	EVE
Flint-tempered wares	142	1520	81	0.6
Grog-tempered wares	22	220	15	0.08
Other M/LIA tempered wares	4	32	3	
Arun Valley black surfaced sandy wares	203	2069	88	1.49
Early ?Rowlands Castle sandy wares	518	6788	452	3.89
Arun Valley coarse grey/oxidised wares	402	4820	266	4.8
Arun Valley fine wares	38	160	29	0.18
Rowlands Castle grey/oxidised wares	778	11714	587	8.14
Regionally-traded coarse wares	7	115	5	0.18
Regionally-traded fine wares	5	26	1	0.22
Unsourced coarse wares	49	743	40	0.18
Amphorae	9	494	6	0.27
Imported samian ware	26	211	16	0.46
Imported Gallo-Belgic wares	7	82	7	0.08
Imported colour-coated wares	5	2	1	
Imported coarse wares	2	26	2	
Total	2217	29022	1599	20.57

Table 4: Quantification of the Period 2 assemblage by broad fabric grouping

5.3.10 Another characteristic which tends to suggest significant activity in the very early Roman period is the prevalence of dark surfaced or unevenly fired sandy wares. The majority of these wares, including fabrics SAND1 and FLQU1 include very coarse and common quartz inclusions; these appear to be precursors of the Rowland's Castle grey wares which dominate the more 'Romanised' groups from the site. Significantly, these fabrics compare very well with Late Iron Age/early Roman sandy wares from a recently excavated site in Horndean, in the immediate vicinity of the later Rowland's Castle industry. Other examples of dark-surfaced wares appear more similar to those produced in the Arun Valley, particularly in the Pulborough area (AVBW) although these make up a smaller proportion of the assemblage.

5.3.11 These early sandy wares tend to lack the even grey or oxidised firing of fully 'Romanised' sandy fabrics and, in the case of the probable Rowland's Castle products, they include hand-made vessels. Although this suggests the possibility that some of these wares could originate in the pre-conquest period, the fact that they appear to be from outside the immediate area of the site probably argues in favour of an early post-conquest date, since expansion in the distribution of pottery would clearly have been facilitated by the expansion of transport and trade networks.

5.3.12 Looking at how the Period 2 assemblage changed over time, Table 5 shows that there is a broad trend for the tempered wares to diminish in frequency over the course of sub-phases 1-4, suggesting that these represent some chronological progression. However, the proportions of the early Rowland's Castle and Arun Valley wares do not necessarily seem to follow this pattern. It is possible that this is the result of residuality. For example some individual groups with rather high proportions of both early sandy wares and tempered

wares have been assigned on stratigraphic grounds to later sub-phases phases. In particular, ditch group D13 produced an extremely large group of pottery (>500 sherds) which looks typologically amongst the earliest in Period 2 but appears in stratigraphic sub-phase 3. Similarly most of the imported Gallo-Belgic sherds (which certainly pre-date AD80) were found in deposits of sub-phases 3 and 4). Given that most of the assemblage derives from ditch contexts it is probably to be expected that many groups contain midden material of slightly mixed date rather than representing primary closed deposits.

Fabric grouping	Phase				
	1	2	3	4	Total
Flint-tempered wares	16.8 %	6.4%	6.0%	3.9%	6.3%
Grog-tempered wares	1.2%	0.0%	1.2%	0.7%	0.9%
Other M/LIA tempered wares	0.0%	0.9%	0.0%	0.0%	0.2%
Early Arun Valley black surfaced sandy wares	10.8 %	3.7%	7.0%	17.1 %	9.2%
Early Rowlands Castle black surfaced sandy wares	29.9 %	8.3%	34.4 %	12.3 %	23.3 %
Arun Valley coarse grey/oxidised wares	6.0%	20.5 %	18.3 %	19.9 %	18.2 %
Arun Valley fine wares	1.2%	2.1%	1.3%	2.3%	1.7%
Rowlands Castle grey/oxidised wares	28.7 %	50.8 %	29.7 %	35.3 %	35.2 %
Regionally traded coarse wares	0.0%	0.9%	0.0%	0.5%	0.3%
Regionally traded fine wares	0.0%	0.0%	0.5%	0.0%	0.2%
Un sourced coarse wares	3.6%	1.4%	0.4%	5.9%	2.2%
Amphorae	0.0%	1.4%	0.0%	0.5%	0.4%
Imported samian ware	1.2%	3.2%	0.4%	1.1%	1.2%
Imported Gallo-Belgic wares	0.6%	0.2%	0.3%	0.4%	0.3%
Imported colour-coated wares	0.0%	0.0%	0.5%	0.0%	0.2%
Imported coarse wares	0.0%	0.2%	0.0%	0.2%	0.1%
Total	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %

Table 5: Percentage made up by fabric grouping in each sub-phase within Period 2 (based on quantification by sherd count)

5.3.13 In typologically later groups within Period 2, there is a trend for gradually increasing quantities of better fired grey and oxidised coarse wares although the broad pattern of supply from different industries appears to be maintained, with the Rowland's Castle and Arun Valley industries supplying the vast majority of the pottery, with only a small proportion of the assemblage being considered unsourced. In groups of this type other regionally traded wares are uncommon, though occasional examples of Verulamium region white ware and Alice Holt grey ware were recorded.

5.3.14 Interestingly, wares from Rowland's Castle quite consistently outnumber those from the Arun Valley, despite this industry being located further from the site. Generally speaking, it has been suggested that the Rowland's Castle

industry supplied quite a limited market in the Chichester area during the earlier Roman period, very rarely being found towards the eastern part of the coastal plain. Barnham is towards the edge of this early distribution area so the fact that Rowland's Castle wares are so prevalent probably demonstrates a considerable economic connection with Chichester.

- 5.3.15 In addition to supplying a significant proportion of the coarse wares, the Arun Valley industry also appears to be the origin of many of the fine wares from the site including platters, bowls and beakers in fine micaceous black-surfaced, grey and oxidised wares. In one 2nd century group there is also an example of a regionally-traded rough-cast colour-coated beaker from the Colchester industry.
- 5.3.16 The assemblage also contains a reasonable diversity of imported wares. Samian ware makes up about 1% of the assemblage, with examples of La Grafesenque, Les Martres-de-Veyre, Lezoux and east Gaulish fabrics, reflecting a broad spread of 1st to mid 2nd century activity. However, much of the diagnostic 2nd century central and east Gaulish samian was found in stratigraphically early sub-phases within Period 2, again demonstrating possible problems of residuality/intrusiveness. Rather unusually for a rural site there are some small sherds from a central Gaulish colour-coated ware vessel. In terms of imported coarse wares there are also Baetican and Gaulish amphorae, including an example of a Dressel 2-4 form, which is again less characteristic of rural assemblages. There are also a few unsourced bodysherds in north French-south-east English ware.
- 5.3.17 As typical in rural assemblages, jars are by far the most common forms, accounting for about three quarters of the assemblage (Table 6). Amongst the very early flint-tempered wares, these include some plain profile forms, similar to Thompson (1982) C3 or Hawkes and Hull (1947) Cam. 254/255, as well as hand-made bead rim and simple slighted everted to necked profile jars. The Rowland's Castle wares are particularly associated with simple necked to everted profiles representing precursors of Dicks (2009) D2 jars. Two examples of D2 jars from Period 2 feature 'batch mark' numerals on their shoulders. There is also an example of a Dicks B3 jar/bowl with a slightly lid-seated rim. Arun Valley wares tend to be associated with both bead rim and necked profile jars. In later groups there are some examples of black-burnished style everted rim jars although these are much less common than other types, suggesting that activity probably tailed off in the mid 2nd century. The only element which appears possibly of later 2nd century date are a few examples of Dicks D4 storage jars with internal finger marks, though it is possible that these are intrusive elements belonging to Period 3.
- 5.3.18 Although jar-dominated, the assemblage appears to have rather an unusual diversity of other forms including fine wares and table wares. These include flagons predominantly in collared forms imitating Gallo-Belgic imported wares and beakers, including Gallo-Belgic style forms like butt-beakers and carinated beakers, but also globular and bag-shaped forms. Bowls are mainly coarse ware forms including black-burnished style flat or rounded rim forms (4F, 4H) and Rowlands Castle, shallow carinated forms (Dicks B1). The upper fill [151] of ditch [146] contained a near-complete example of a mid 3rd to 4th century bead-and-flange bowl which clearly post-dates the rest of Period 2

pottery, although the feature is currently phased to Period 2, suggesting localised truncation.

5.3.19 However, there are also samian and samian-style bowls including Dragendorff 37 and Curle 11 forms. Platters are evenly split between Gallo-Belgic style forms (mostly in coarse unoxidised wares but including one example of a Terra Nigra Cam. 5) and samian Dragendorff 18 and 18/31 style forms. Samian cups Dragendorff 27 and 33 are also fairly well represented and there is an example of a Drag 24/25 style form in an Arun Valley ware. Perhaps the most common non jar form is the lid, accounting for about 7% of ENV.

Form class	ENV	ENV%	EVE	EVE %
Flagons	3	1%	0.36	2%
Jars	171	75%	15.3	75%
Beakers	7	3%	0.65	3%
Bowls	10	4%	2.08	10%
Dishes/ platters	11	5%	0.47	2%
Cups	6	3%	0.26	1%
Amphorae	2	1%	0.27	1%
Lids	17	7%	1.01	5%
Other	1	0%		0%
Total	228	100%	20.4	100%
Form class	ENV	ENV%	EVE	EVE %

Table 6: Quantification of pottery forms in Period 2

5.3.20 It is also worth noting that two examples of graffiti on samian were identified. It has been noted that graffiti tends to be found more often on sites at the top of settlement hierarchy and this has been linked to greater levels of basic literacy (Evans 1987).

Period 3 (c.AD250-350)

5.3.21 The later Roman pottery assemblage is comparatively small (see Table 1) and was spread quite sparsely across a number of features, most producing fewer than 10 sherds; unlike in the earlier phase it predominantly comes from pits. In addition, it is clear that the pottery from this period contains quite a high proportion of obviously residual tempered and early Roman sandy wares (11% of sherds), with one large rim from a Late Iron Age/early Roman north Gaulish white ware flagon found in ditch [24/004]. It is also notable that about 16% of this assemblage is made up by Arun Valley type wares and, in the few cases where these were associated with diagnostic forms, they were 1st and 2nd century types such as globular everted rim beakers (3F) and flat rim bowls (4A). It has been suggested that this industry had complete declined by the early 3rd century (Lyne 2003, 145) although recent work on other sites on the coastal plain may suggest that some smaller scale production continued (Thompson & Doherty in prep). It is notable, for example, that the near complete bead-and-flange (4M) bowl form currently phased to Period 2 but certainly dating to after AD250 is in a typical Arun Valley grey ware fabric so it

is possible that some of the other undiagnostic bodysherds in this fabric are of contemporary 3rd-4th century date.

- 5.3.22 Samian ware of central Gaulish origin continues to make up a similar proportion of the assemblage as in the previous period. Although these wares were not still being produced in the 3rd century, they were very frequently curated in use after imported samian ceased to be available so these wares are not necessarily considered residual.
- 5.3.23 Rowland's Castle wares became much more common in this period, making up nearly two-thirds of this assemblage (excluding obviously residual early Roman examples). As in earlier periods, the predominant forms are everted rim jars, although the rims tend to be more strongly everted (as Dicks (2009) form D2.3). Internally finger-marked storage jars of Dicks form D4 also appear.
- 5.3.24 Very few entirely new fabric types appear in this phase but these include a few sherds of black burnished ware (BB1, BB2 and other black-burnished style wares), including another example of a bead and flange (4M) bowl. A single base from a New Forest colour-coated beaker was also recovered.
- 5.3.25 The absence of diagnostically very late Roman wares such as Portchester D ware probably indicates that the site was abandoned well before the end of the Roman period, a pattern which appears to be repeated on most sites on the coastal plain.

5.4 The Post-Roman Pottery by Luke Barber

- 5.4.1 The evaluation and subsequent excavation at the site recovered just 21 sherds of post-Roman pottery, weighing 432g, from nine individually numbered contexts. On the whole the earlier sherds have a smaller average size and exhibit notable signs of abrasion and adverse effects from acidic ground conditions. The later sherds are much larger and fresher suggesting they have not seen significant reworking. The assemblage has been fully quantified for archive by fabric and form, together with observations on rim type and decoration where appropriate. This information has been used to create an Excel database as part of the digital archive.
- 5.4.2 The earliest material consists of three worn sherds of late 13th- to early 15th-century date. The two recovered from the evaluation consist of buff fine sandy wares, typical of the Coastal Plain at this time. Although similar to some wares from Graffham a closer source cannot be ruled out. That from [9/005] is from a green glazed jug, while that from [22/011] is from a bowl with green glaze on its interior base. Both parent ditches (contexts [9/004] D31 and [22/011] D6) are dated to Period 2 suggesting the medieval pottery in them is intrusive. The other sherd consists of part of a reduced fine sandy West Sussex Ware jug with incised wavy line decoration below a green glaze (topsoil [100]). Although the medieval assemblage does not relate to actual features it does suggest limited manuring of arable land at this time.
- 5.4.3 There are a few Early Post-medieval sherds present. All four consist of local glazed earthenwares of probable 17th- to mid 18th- century date recovered from one of three topsoil contexts. No feature sherds are present.

- 5.4.4 The majority of the assemblage (14/371g) consists of Late Post-medieval pottery, much of which is of mid 19th- to early 20th- century date. All was recovered from topsoil deposits. The glazed red earthenware sherd from [1/001] is well formed and comes from the clubbed rim of a mid 18th- to early 19th- century dish. The black-glazed redware bowl from topsoil [284] is probably of a similar period. This context also produced contemporary glazed red earthenware and Nottingham stoneware. The latest post-medieval sherds include the more unusual vessel recovered from [8/001]. It consists of a large fresh fragment (207g) from an English stoneware hot water bottle/bed warmer with good Bristol glaze. The piece has the partial name of the retailer in black transfer-printing: Burke's general hardware stores, but the town's name is incomplete (...GSTOWN). Context [100] produced six English stoneware sherds (112g) from three bottles and a preserve jar, all with Bristol glazes. One of the bottles appears to have held mineral water and has part of a maker's black transfer-printed trademark (an upturned horn with 'E' to right, 'Y' below and illegible letter to left, all within a circle). These stonewares from [100] are almost certainly of the early 20th century.

5.5 The Ceramic Building Material by Elke Raemen

Introduction and Methodology

- 5.5.1 A relatively small assemblage comprising 50 fragments of ceramic building material (CBM) weighing 3280g was recovered from 26 individually numbered contexts. Pieces are mostly of Roman date however they lack diagnostic features and material is fairly abraded.
- 5.5.2 The CBM was recorded in full on pro forma sheets for archive and quantified by fabric, form, weight and fragment count. Fabrics (Table 7) were identified with the aid of a x20 binocular microscope. In the fabric descriptions the following conventions are used: the frequency of inclusions is described as being sparse, moderate, common or abundant; the size categories for inclusions are very fine (less than 0.125 mm), fine (between 0.125 and 0.25 mm), medium (between 0.25 and 0.5 mm), coarse (between 0.5 and 1 mm), and very coarse (greater than 1 mm). Data from the pro forma recording sheets was entered onto a digital database. Samples of the fabrics and those items of interest were retained; the remainder of the material was discarded.

Fabric	Description
R1	Orange fabric with streaks of calcareous cream clay, common fine quartz, sparse very coarse red iron oxides to 1.5mm, sparse very coarse calcareous cream pellets to 2mm and sparse medium to coarse red iron oxides
R2	As R1 but less fine, with moderate fine to medium quartz and rare coarse quartz to 1mm; rare/moderate iron oxides
R3	Orange fabric with common medium quartz and rare red iron oxides to 2mm; some with calcareous streaks
R4	Orange fabric with common medium quartz, moderate medium to coarse iron oxides, sparse chalk to 2mm, rare cream patches/swirls to 3mm and rare clay pellets to 3mm
R5	Orange fabric with common fine quartz, moderate fine to very coarse iron oxides to 4mm, rare ?chalk to 3mm, rare coarse quartz, rare medium to coarse black iron oxides and rare cream swirls
R6	Orange fabric with calcareous cream swirls, sparse very coarse red iron oxides to 2mm, sparse medium red iron oxides, sparse fine to medium black iron oxides and sparse fine quartz
R7	Orange fabric with moderate coarse quartz, sparse very coarse quartz to 2mm and sparse coarse red and black iron oxide inclusions
T1	Orange fabric with common coarse quartz
T2	Orange fabric with sparse fine quartz
T3	Orange fabric with common fine to medium quartz, moderate iron oxides to 2mm, rare calcinated flint to 5mm and rare calcareous streaks and pellets to 1mm

Table 7: Overview of the CBM fabrics

Romano-British

- 5.5.3 A total of 43 fragments from 20 different contexts are of Roman date. The majority comprises tegula fragments, including four with surviving flange profile. Fragments measure between 14 and 32 mm thick, including some particularly chunky examples with flange (e.g. [5/005], [444]). Most *tegulae* are in fabric R2. Other roof furniture consists of four imbrex fragments.
- 5.5.4 Bricks are represented by six fragments ([1/007], [342] and [344]) and measure between 28 and 35mm. Most are again in fabric R2.
- 5.5.5 Interestingly, three flue tile fragments were recovered ([4/002], [5/005] and [151]), suggesting a hypocaust heating system and therefore a building of reasonable status. All three retain traces of combed keying, with combs ranging in total width between 39 and 45mm. Tiles themselves measure 20mm thick, however, too little survives of them to establish their exact form.
- 5.5.6 The remainder of Roman material is undiagnostic of form. The Roman material is all very fragmentary and the majority is abraded, suggesting extensive reworking.

Post-Roman

- 5.5.7 A single tile in sandy fabric T1 was recovered from ditch [307] (fill [308]). The fragment is small and abraded rendering it fairly undiagnostic, however, the fabric suggests a medieval date rendering the piece intrusive.
- 5.5.8 The remainder of later material was recovered during the evaluation, comprising roof tiles, including a pan tile ([22/005]), peg tile and one fragment with a combination of nibs and peg holes ([22/005]). Diagnostic fragments are of post-medieval date and include both early ([19/001]) and later post-medieval examples. The only stratified post-medieval material comprises the pan and nib tile from pit [22/004] (fill [22/005]), dating to the 18th century.

5.6 The Geological Material by Luke Barber

- 5.6.1 The evaluation and subsequent excavations recovered 24 pieces of stone, weighing 11,492g, from 19 individually numbered contexts. The assemblage has been fully quantified by stone type and context for archive on pro forma sheets. This information has been used to create an Excel database as part of the digital archive.
- 5.6.2 The assemblage can be split easily into two groups. The largest of these consists of definite or possible fragments from quernstones. The other group consists of a range of water-worn material from the beach with no definite signs of working.
- 5.6.3 Nine diagnostic fragments of quern (8360g) were recovered, all but one coming from Period 2 deposits. Seven of these (7238g) are in typical Lodsworth Lower Greensand (Peacock 1987). This group is summarised in Table 8.

Context	No/weight	Stone	Approx diameter	Thickness (outside edge)	Comments
Ditch [231], fill [230]	1/440g	Upper	380mm	39mm	Thickness tapers down to 29mm for possible handle socket. Pecked upper face, worn grinding face.
Ditch [253], Fill [254]	1/1270g	?	?	?	The stone is 85mm+ thick. Although part of the grinding face survives the outer edge is missing. The thickness suggests this could be part of a millstone
Ditch [299], Fill [300]	1/1734	Upper	?	76mm	Worn grinding face
Ditch [299], Fill [300]	1/1678g	Upper	340mm	51mm	Diameter very approximate as stone is not truly circular. Different stone from above. Pecked upper

Context	No/weight	Stone	Approx diameter	Thickness (outside edge)	Comments
					face, worn grinding face
Ditch [351], Fill [352]	1/518g	Upper	400mm	55mm	Worn grinding face
Ditch [362], Fill [363]	1/94g	?	?	?	Part of grinding face only
Pond [465], Fill [466]	1/1504g	Lower	?	47mm	In excess of 76mm thick toward centre. Oblique tooling on exterior edge

Table 8: Period 2 Lodsworth-type querns

- 5.6.4 The Lodsworth querns all consist of fairly thick examples more typical of the first half of the Roman period and thus very much in keeping with their Period 2 contexts. As can be seen from Table 8, there is a dominance of upper stones in the group, though a much larger sample would be needed to see if this represented differential breakage patterns. The presence of a single piece of possible millstone is interesting as the re-use of fragmented millstones by rural farmsteads close to mill sites on the Coastal Plain has been noted before (Barber forthcoming).
- 5.6.5 The two definite quern fragments not included in Table 8 are also in Lower Greensand, but they are not of the typical Lodsworth type. As such they may well be from a different West Sussex source. One is from Period 2 and consists of an upper stone fragment, measuring 65mm thick at its edge, but with little wear on its grinding face (ditch [443], fill [444]. 1/1074g). The other piece is from Period 3 pit [391], fill [392] and consists of a 48g fragment from a thin (30mm) stone of Later Roman type.
- 5.6.6 The assemblage includes a further five fragments of stone that may have derived from querns but which do not have any diagnostic elements surviving. Two were recovered from Period 1 contexts: an irregular 34g fragment of Lodsworth Lower Greensand and a 428g fragment of hard grey Greensand chert. There is also a burnt irregular piece of Lower Greensand (27g) from a Period 2 deposit and two further pieces (48g) of Greensand chert from a Period 3 deposit.
- 5.6.7 The second group of material consists of a range of pebbles and cobble fragments of different types. These include a 114g flint cobble from Period 2 ditch [22/006], a brown fine-grained non-calcareous flat pebble from Period 1 pit [275], a quartzite cobble fragment from Period 2 ditch [426] and a scattering of fine and coarse-grained igneous cobble fragments from both Period 1 and 2 deposits. Although most of the stone types represented in this group have non-local distant geological origins they would have been available on the local beach through longshore drift or as erratics from other geological processes. As such they can be considered as a locally available source. With one exception, none of the stones in the group exhibit signs of having been modified at the hand of man in any way. The one possible exception was recovered from Period 2 ditch [461] and consists of a coarse-grained igneous cobble fragment that has slightly more wear/polish on one of its faces suggesting it may have been utilised as a rubbing stone.

5.7 The Metalwork by Elke Raemen

- 5.7.1 A small assemblage comprising 16 iron fragments (wt 289g) was recovered from five different contexts. Included are five heavy duty nails and ten general purpose nails as well as a thin sheet fragment, the latter recovered from [22/005]. None are intrinsically dateable. Most nails comprise shank fragments only and types cannot therefore be established.
- 5.7.2 The majority was recovered from 18th-century pit fill [22/005]. Roman material includes two heavy duty nail shanks from [22/007] and [167], and two general purpose shank fragments from [309] and [435].

5.8 The Metallurgical Remains by Luke Barber

- 5.8.1 The excavations recovered a very small assemblage of slag: nine pieces, weighing 436g, from five individually numbered contexts. All contexts are from Period 2. The majority of pieces consist of fragments of silty clay hearth lining with adhering glassy fuel ash slag. A 2g dull orange fragment was recovered from ditch [295] while ditch [457] produced four pieces (42g) in a reduced pale grey silt clay, though with similar adhering glassy fuel ash slag. Two pieces of lightweight (22g) fuel ash slag were recovered from ditch [462].
- 5.8.2 All of this material could have been generated by any high temperature activity, including domestic hearths. The only definite metalworking slag consists of a notably weathered 48g fragment of quite dense grey slag, with some bubbling on its upper surface, from ditch [337] and a 322g heavily concreted plano-convex forge bottom from ditch [365]. The former, although having similarities with smelting slag is probably best classified as undiagnostic of process, however, the latter piece is quite typical of iron smithing. The forge bottom is distinctly rusty brown in colour with some aeration and is slightly oval in plan (73 by 63mm) and some 40mm thick.

5.9 The Fired Clay by Elke Raemen

- 5.9.1 A medium-sized assemblage of 485 pieces weighing 8849g was recovered from 64 individually numbered contexts. The majority was recovered from pits and ditches dated to period 2.4 and 3. Fired clay was overall very abraded, due to the silty nature of the clay. As such, few pieces retained diagnostic features.
- 5.9.2 Fabrics were identified with the aid of a x10 binocular microscope. Samples of each fabric were retained, as were pieces of interest. The assemblage has been recorded in detail on *pro forma* sheets for archive and data has been entered onto digital spreadsheet.

Fabrics

5.9.3 Five different fabrics were identified. Raw material is likely to have been sourced from the locality. The majority was in fabric F3 (311 fragments), followed by fabric F1 (137 pieces).

- F1 - Silty orange fabric with rare organic temper and rare iron oxides.
- F2 - Orange fabric with moderate medium quartz, sparse fine quartz and sparse red iron oxides.
- F3 - Pale to mid orange silty fabric with moderate medium to very coarse red/brown iron oxides to 2mm, sparse fine to medium quartz and rare organic temper. Rare flint pebbles to 4mm.
- F4 - Orange fabric with abundant fine quartz.
- F5 - Silty pale orange with moderate to common vegetable temper.

The Assemblage

Period 1

5.9.4 Four features contained fired clay, totalling 37 fragments representing daub. Wattle impressions were noted on four fragments (diam 7 to 15mm). Fragments are all in fabrics F1 or F3. A possible slab edge (25 to 31mm thick) was recovered from ditch [346] (fill [345]; SG236); however the fragment is too small to be diagnostic.

Period 2 Phase 1

5.9.5 Two amorphous fragments were recovered from contexts dated to this period ([228] and [478]). They are in fabrics F1 and F4, the latter one of only two examples in this fabric.

Period 2 Phase 2

5.9.6 A total of 61 fragments were found. The vast majority is again amorphous. Only three fragments display a flat surface, and just one piece with wattle impressions was recovered. The latter displays three parallel wattle impressions (7 to 15mm in diameter), found in ditch fill [382]. It is likely the remainder also represent daub. Most pieces are in fabric F1.

Period 2 Phase 3

5.9.7 Of the 83 pieces, 75 are amorphous. Four pieces retain a flat surface, and wattle impressions were noted on two pieces ([458] and [366]). Two kiln/oven bar or loom weight fragments were also recovered ([254] and [458]), both in fabric F3. One is a corner, the other piece measures 43mm thick. Unfortunately features are insufficiently diagnostic to establish their identification. A definite triangular loom weight is discussed with the registered finds below.

Period 2 Phase 4

- 5.9.8 A total of 145 fragments were found, mostly amorphous. Three pieces with a flat surface were also found, as well as two thick fragments with two flat surfaces (35-36mm thick). They are all likely to represent daub.

Period 3

- 5.9.9 The assemblage from period 3 comprises 141 fragments, again mostly amorphous, although three pieces retain a flat surface. The fragments, mostly in fabric F3, are likely to represent daub.

Period 4

- 5.9.10 Ten fragments were recovered, including a piece with wattle impression (13mm) from ditch [125] (fill [126]).

5.10 The Glass by Elke Raemen

- 5.10.1 The glass assemblage comprises six fragments (weight 134g) from three different contexts. The earliest fragment comprises a blue/green body fragment (RF <3>) from a rectangular or prismatic bottle of Roman date, recovered from pond fill [466]. This type of bottle is very common and dates to the mid 1st to 2nd century. It occurs on low and high status sites alike.
- 5.10.2 A single amber bottle, probably of late 19th to early 20th-century date, was recovered from the topsoil (Trench 8). It measures 99mm high and is embossed "NOT TO BE TAKEN INTERNALLY" above a relief lattice pattern.
- 5.10.3 Finally, four green-tinged window pane fragments were found in ditch [341] (fill [342]). They represent two different window panes, both dating to the mid 19th to mid 20th century.

5.11 The Clay Tobacco Pipe by Elke Raemen

- 5.11.1 Two conjoining, 'fresh' clay tobacco pipe (CTP) stem fragments were found in [126]. They date to c 1750-1910.

5.12 The Registered Finds by Elke Raemen

- 5.12.1 Three finds were accessioned. A fragment of Roman glass is discussed with the other glass above. The remaining finds include an incomplete copper-alloy nail-cleaner fragment with most of the blade and suspension loop missing (RF <1>). The nail-cleaner is incised with zig-zag decoration and is of Baldock type (Crummy 2001, 3, Fig 2a) which has been dated to the 1st to 2nd century. The fragment was recovered from ditch [22/006] (fill [22/007]) which also contained pottery dating to AD50-80.
- 5.12.2 A fired clay triangular loom weight fragment (RF <2>) was also found, comprising just an abraded apex with partial perforation. The piece is in fabric F3, and measures 52mm thick. It was recovered from pit [417] (fill [418]), pottery from which dates to AD70-200. This type of loom weights is

traditionally dated to the Late Iron Age, although they are known from sites from the Middle Iron Age onwards and occur on (mostly early) Roman sites as well.

5.13 The Animal Bone by Hayley Forsyth

Introduction

- 5.13.1 The excavation produced a small assemblage of animal bone containing 455 fragments. Provisional dating indicates that the majority of the assemblage derives from 1st to 2nd Century deposits from ditch and pit fills. Small quantities of faunal remains were also recovered from the late Romano-British and Late Iron Age—early Romano-British deposits and undated contexts.

Methodology

- 5.13.2 The assemblage has been recorded onto an Excel spread sheet in accordance with the zoning system outlined by Serjeantson (1996). Wherever possible the fragments have been identified to species and the skeletal element represented. Elements that could not be confidently identified to species, such as long-bone and vertebrae fragments, have been recorded according to their size and identified as large, medium or small mammal.
- 5.13.3 In order to distinguish between the bones and teeth of sheep and goats a number of criteria were used including those outlined by Boessneck (1969), Boessneck et al (1964), Halstead et al (2002), Hillson (1995), Kratochvil (1969), Payne (1969, 1985), Prummel and Frisch (1986) and Schmid (1972). No tooth eruption and wear has been recorded (Grant 1982) and no metrical data has been taken (von den Driesch 1976). The state of fusion has been noted and each fragment has then been studied for signs of butchery, burning, gnawing and pathology.

The Assemblage

- 5.13.4 The assemblage contains 455 fragments weighing 482g of which 148 fragments have been identified to taxa (Table 9). The assemblage has been hand-collected and retrieved from bulk samples. Bones retrieved from the bulk sampling make up over half of the assemblage with 255 fragments weighing 52g, twelve of which have been identified to taxa. The majority of the specimens are highly fragmented and in poor condition; severe surface erosion is evident.

Period	No. Fragments	NISP	Preservation		
			Good	Moderate	Poor
Period 1	58	1		100%	
Period 2	360	129			100%
Period 3	37	18	5.5%	5.5%	88.9%
Total	455	148			

Table 9: The total number of fragments, NISP (Number of Identifiable Specimens) count and percentage preservation based on the NISP.

- 5.13.5 A limited variety of mammalian and avian taxa have been identified (Table 10) including cattle, sheep/goat, horse and domestic goose, as well as small mammals. The majority of the bone derives from the large and medium mammal groups due to the high proportion of fragmented bones from this assemblage.

Taxa	Period 1	Period 2				Period 3
		Phase	Phase	Phase	Phase	
Cattle		6				
Sheep/goat	1					1
Horse						1
Large Mammal		39	12	45	4	
Medium Mammal				1	20	15
Small Mammal			1	1		
Domestic Goose						1
Total	1	45	12	47	23	18

Table 10: NISP (Number of Identified Specimens) by Period

Late Iron Age–early Romano-British (Period 1)

- 5.13.6 The Late Iron Age–early Romano-British assemblage contained one identifiable animal bone fragment; a sheep/goat ulna was recovered from pit fill [274]. Butchery was observed in the sheep/goat ulna fragment; this bone had been chopped across the proximal aspect.
- 5.13.7 A small amount of burnt bone; calcined and charred unidentifiable fragments were recovered from pit fill [274] and bulk sample <1013>, <1009> from pit and ditch fills respectively. The sheep/goat ulna from pit fill [274] had also been burnt, calcined white-blue in colour.
- 5.13.8 No ageable mandibles or measureable bones were recorded, no fusion data was observable. No gnawing or pathology was recorded.

1st to 2nd Century (Period 2)

- 5.13.9 The 1st to 2nd Century assemblage contained one hundred and twenty-nine identifiable animal bones recovered from ditch fill contexts [152], [309], [352], [375], [379], [386], [414], [416], [418], [422],[427] and [458] as well as bulk sample <1014> from context [363].
- 5.13.10 Context [152] and [309] produced a single large mammal long bone fragment, as well as a small mammal long bone fragment from [309]. Context [352] contained twelve large mammal long bone fragments. Context [375] included eighteen medium mammal long bone fragments, a radius fragment and two large mammal rib fragments. Context [379] produced eleven large mammal molar fragments and one medium mammal long bone fragment. A single loose large mammal molar fragment was retrieved from context [386], with thirteen fragments present in context [414] six loose cattle molar fragments recovered from context [416]. Context [418], bulk sample <1016> produced a medium mammal molar fragment and context [422], bulk sample <1017> produced a fragment of caudal vertebrae from a small mammal. Burning was observed in the caudal vertebrae fragment from bulk sample <1017> which had been charred black in colour.
- 5.13.11 Thirteen large mammal molar fragments retrieved from context [458]. Context [427] included twenty-five large mammal long bone fragments and a fragment of pelvic bone from a large mammal. The bulk sample <1014>, from context [363] produced ten large mammal molar fragments. Butchery was observed in a single medium mammal radius fragment recovered from context [375] the bone had been chopped, split lengthways.
- 5.13.12 One hundred and sixty-two fragments of burnt bone, charred and calcined, were recovered from ditch fill contexts [300], [375] and [379]. Context [375] produced eighteen calcined large mammal long bone fragments, two calcined large mammal rib fragments and a calcined medium mammal radius fragment. Context [379] produced a single calcined medium mammal long bone fragment. Charred and calcined unidentifiable fragments were also recovered from bulk samples <1003>, <1004>, <1005>, <1011>, <1012>, <1014> and <1018>.
- 5.13.13 No ageable mandibles or measureable bones were recorded, no fusion data was observable. No butchery, gnawing or pathology was recorded.

Late Romano-British (Period 3)

- 5.13.14 The late Romano-British assemblage contained eighteen identifiable animal bones recovered from two ditch fill contexts.
- 5.13.15 No ageable mandibles or measureable bones were recorded. Limited fusion data was observable; one medium mammal long bone fragment showed evidence of fusion, the goose tibio-tarsus was also recorded as adult. No butchery, burning, gnawing or pathology was recorded.

6.0 ENVIRONMENTAL ASSESSMENT - Plant Macrofossils and Wood Charcoal

by Angela Vitolo and Lucy Allott

6.1 Introduction

- 6.1.1 During excavation work at the site, 21 bulk soil samples were taken to recover environmental material such as charred plant macrofossils, wood charcoal, fauna and mollusca as well as to assist finds recovery. The samples were taken from pits, ditches and a pond. The majority of samples are dated to the Period 2, phase 1-4 (1st-2nd Century AD) occupation, with samples <1013> and <1009> dated to Period 1 - Late Iron Age/Early Romano British (AD 50-200) and sample <1012> from a Later Romano-British pit feature (Period 3). The following report assesses the contents of these samples and the potential of the environmental remains to provide information regarding the local vegetation environment, agricultural economy, diet and plant use.

6.2 Methodology

- 6.2.1 Samples were processed by flotation in their entirety, the flots and residues were captured on 250µm and 500µm meshes respectively and were air dried. The dried residues were passed through graded sieves of 8, 4 and 2mm and each fraction sorted for environmental and artefactual remains (Appendix 3, Table 1). Artefacts recovered from the samples were distributed to specialists, and are incorporated in the finds reports where they add further information to the existing assemblages. The flots were scanned under a stereozoom microscope at 7-45x magnifications and their contents recorded (Appendix 3, Table 2). Identifications of macrobotanical remains have been made through comparison with published reference atlases (Cappers *et al.* 2006, Jacomet 2006, NIAB 2004), nomenclature used follows Stace (1997) and latin names are given when a taxon is first mentioned in the text.
- 6.2.2 Charcoal fragments recovered from the heavy residue of the samples were fractured along three planes (transverse, radial and tangential) according to standardised procedures (Gale & Cutler 2000). Specimens were viewed under a stereozoom microscope for initial grouping, and an incident light microscope at magnifications up to 400x to facilitate identification of the woody taxa present. Taxonomic identifications were assigned by comparing suites of anatomical characteristics visible with those documented in reference atlases (Hather 2000, Schoch *et al.* 2004). Identifications have been given to species where possible, however genera, family or group names have been given where anatomical differences between taxa are not significant enough to permit satisfactory identification. Taxonomic identifications of charcoal are recorded in Appendix 3 Table 1, and nomenclature used follows Stace (1997).

6.3 Results

Period 1 (Late Iron Age/ Early Romano British) - Samples: <1009> [276] and <1013> [345]

6.3.1 Two samples were taken from earlier features. The flot from sample <1009> was charcoal dominated and quite rich in charred botanicals, including wheat (*Triticum* sp.) and barley (*Hordeum* sp.) caryopses and some wild seeds, such as common knotgrass (*Polygonum aviculare*), docks (*Rumex* sp.), legumes (*Vicia/Lathyrus* sp.) and large indeterminate grasses (Poaceae). Many items did not float and remained in the residues. Sample <1013> on the other hand was root dominated but also contained many <2mm charcoal fragments. A number of uncharred seeds, including goosefoots (*Chenopodium* sp.) and elder (*Sambucus nigra*) were seen, but no charred botanical remains were present in the flots, although a small number of cereals did not float and remained in the heavy residues, including some indeterminate cereal grains and some wheat grains.

6.3.2 Small assemblages of wood charcoal were present in samples <1009> and <1013>. They consist primarily of small flecks and fragments measuring <2mm in size and no identifications were obtained for this limited assemblage.

Period 2 Phase 1 (1st to 2nd century) - Samples: <1004> [212] and <1020> [470]

6.3.3 The flot from sample <1004> produced a large number of uncharred, modern seeds and a small amount of other uncharred plant remains. It was, nevertheless, very rich in charred plant remains, including broad bean (*Vicia faba*) and caryopses of wheat and barley. Hundreds of wild plant seeds were also seen, including docks, wild radish (*Raphanus raphanistrum*) and large grasses. Some of the grass seeds are indeterminate, while others are consistent in form with brome (*Bromus* sp.). A large number of charred plant remains were also present in the residues. Woody taxa recorded in the moderate charcoal assemblage in sample <1004> include oak (*Quercus* sp.) and cherry/blackthorn (*Prunus* sp.).

6.3.4 Sample <1020> was dominated by uncharred material, including roots and some seeds, with abundant small flecks of charcoal. Charred plant macrofossils were present in low numbers, both in the flot and residue, and included a couple of cereal caryopses (indeterminate and barley) and a few unidentified weed seeds. Some grasses were present in the residues, but the corroded surface and the lack of embryo ends hindered identification.

Period 2 Phase 2 (1st to 2nd century) - Samples: <1003> [196], <1008> [223], <1011> [302], <1017> [422], <1018> [444], <1019> [423], <1021> [466]

- 6.3.5 The assemblages of charred plant remains within this group of samples were highly variable in their richness and composition. Many of the samples contained moderate amounts of uncharred roots and seeds and it is assumed that these are relatively modern intrusive elements. These remains are not considered further here unless the mode of preservation (charred or not) is unclear.
- 6.3.6 Sample <1003> from pit [194] contained some charred wild plant seeds, such as legume (*Vicia/Lathyrus* sp.), stitchwort (*Stellaria* sp.) and large grasses, some indeterminate and some brome grass. Sample <1017>, [422] from pit [404] contained charred seeds of wild plants, including docks, large grass seeds which were very corroded, and goosefoots (which were not obviously uncharred and could therefore be ancient). This sample produced a large quantity of wood charcoal and taxa identified include ash (*Fraxinus excelsior*), Maloideae group taxa (such as hawthorn, whitebeam, rowan, apple and pear), cherry/blackthorn and hazel/alder (*Corylus/Avellana* sp.).
- 6.3.7 Ditch sample <1008> contained small quantities of charred plant remains, mainly wild plants, such as docks and indeterminate grasses. A small number of caryopses of wheat were also present in the residues. Despite the flots from sample <1011>, ditch fill [302] being dominated by uncharred modern roots, it also contained a large number of charred botanical remains with further examples recovered from the residues. These included crop remains, such as caryopses of wheat and barley as well as emmer/spelt (*Triticum dicoccum/spelta*) glume bases, and wild plants, mostly grasses (such as brome). Sample <1018> from ditch fill [444] contained a small amount of badly preserved charred plant remains, including cereal caryopses of barley, barley/wheat and some wild plants, including wild radish.
- 6.3.8 Wood charcoal was a little more abundant with oak, ash, Maloideae group taxa and cherry/blackthorn noted. Sample <1019>, [423] from ditch [405] produced very few charred plant macrofossils. The assemblage comprised fewer than 10 fragments of cereal grains and fewer than 30 wild plant seeds, which were mainly large and small indeterminate grasses.
- 6.3.9 Sample <1021> was taken from a pond. The deposit was not waterlogged at the time of excavation and the uncharred roots and seeds are therefore considered intrusive. It produced a small amount of charred wild seeds, within which docks were prevalent. Goosefoot seeds were also present and while some of these may be charred others are definitely uncharred. A wheat caryopsis (in the residue) provides the only indication of crop remains.

Period 2 Phase 3 (1st to 2nd century) - Samples <1005> [210], <1006> [254], <1007> [220], <1010> [309], <1014> [363]

- 6.3.10 Uncharred roots and in some instances uncharred seeds were common in samples from this phase. Samples <1005> and <1007> produced moderate amounts of charred plant remains, including wheat and barley caryopses, as

seeds of wild plants, such as large grasses and docks. Charred plant remains were comparatively scarce in samples <1010> and <1014> <2mm charcoal fragments and not much else in the flots, and <10 charred cereal caryopses in the residues. Wood charcoal fragments were infrequent in each of these samples.

Period 2 Phase 4 (1st to 2nd century) – Samples <1001> [151], <1002> [167], <1015> [419], <1016> [418]

- 6.3.11 Samples dated to this occupation produced variable plant macrofossil assemblages and preservation was generally poor. Samples <1015> and <1016> from pit [417] were moderately rich, while ditch samples <1001> and <1002> contained <10 wild seed items in the flots and a small amount of wheat grains in the residues only. The charred crop seeds in pit [417] consisted mostly of wheat and barley cereal caryopses, although sample <1015> also contained an emmer/spelt glume base and a broad bean was noted in <1016>. Seeds of wild plants were also present and included the same taxa as samples from other phases; specifically large and small grasses, docks, legumes (*Vicia/Lathyrus* sp.) and wild radish (*Raphanus raphanistrum*). Wood charcoal fragments were moderately abundant in samples <1016> and <1002> and include oak and cherry/blackthorn. Only small quantities of charcoal were recovered from samples <1001> and <1015> and no identifications were obtained.

Period 3 Late Romano-British – Sample <1012> [356]

- 6.3.12 A single sample, <1012> [356] from pit [355] was dated to the Late Romano-British occupation. Charred plant macrofossils were moderately well preserved. The assemblage comprised wheat and barley caryopses, a possible fairly flax (cf. *Linum catharticum*) seed, docks, wild radish and large and small grass seeds. The sample also produced a moderate assemblage of wood charcoal in which oak and cherry/blackthorn were identified.

7.0 POTENTIAL & SIGNIFICANCE OF RESULTS

7.1 Realisation of the original research aims

OR1 The archaeological investigation will seek to understand the context of the findings in relationship to the wider settlement pattern, landscape, economy and environment.

7.1.1 Examination of the site in its wider context is arguably hampered by the paucity of comparable sites in the immediate area. However taking the Coastal Plain as a whole, the results from the current site can be considered in relation to a range of Late Iron Age and Romano-British remains.

OR2 The interpretation of locally distinctive or regionally/nationally significant archaeological features, including funerary monuments, evidence of settlement including industrial processes.

7.1.2 Although arguably the site could hardly be described as ‘distinctive’ in a wider regional or national context, the features at the site clearly demonstrate the character of Late Iron Age/Romano-British settlement in the Barnham area.

OR3 How the site’s topography has influenced past activity and settlement.

7.1.3 The clear concentration of features in the northern part of the site demonstrates the role of the area’s topography during the Late Iron Age/Romano-British period. Arguably the paucity of activity in the medieval period may be a result of the low-lying topography, and associated problems with flooding.

OR4 To contribute to existing knowledge relating to the material culture, form and evolution of Roman activity and settlement in the region.

7.1.4 Given the quantity (and quality) of the recovered pottery assemblage, the material from the current site adds significantly to the corpus of pottery known from sites of the 1st and 2nd century AD in the region.

OR5 To advance understanding of Roman agricultural usage within the site, and to define the boundaries between occupation and agricultural use.

7.1.5 The artefactual and environmental evidence from the current site does advance the understanding of Late Iron Age and Romano-British agricultural practices, especially given the dearth of previously examined sites in the locale. The boundaries between occupation and agriculture are perhaps blurred by the nature of the deposition of the majority of the pottery (i.e. in ditches rather than pits clearly associated with structures).

OR6 To advance our knowledge of the archaeology of the region through the application of appropriate scientific dating techniques. Nationally, discrepancies have arisen in recent years between “comparative” dating of pottery assemblages, and the absolute dating from C-14, particularly in the Mid Iron Age. The obtaining of charcoal from newly excavated features for

this purpose, where there are good pottery assemblages, will be a key objective.'

- 7.1.6 Given the close dating possible from physical examination of the pottery assemblage, and the absence of a broad range of dates of the pottery from the current site (with no features identified from the Middle Iron Age), the site offers no potential for meeting this research aim.

7.2 Significance and Potential of the individual datasets

The Stratigraphic Sequence

Prehistoric

- 7.2.1 A thin 'background scatter' of this material was evident at the site. There were no obvious features of this date or evident concentrations of flintwork. The material from this period holds little potential to do more than add to the existing corpus of recorded prehistoric flintwork from the Coastal Plain.

Period 1 - Late Iron Age/Early Romano-British

- 7.2.2 The features assigned to this period form the first traceable human alterations to the landscape of the site. Clearly the remains offer an opportunity to study the immediate pre- and post-conquest utilisation of the area both in terms of agricultural exploitation, and more limited evidence of domestic activity.

Period 2 - First to Second Century AD

- 7.2.3 This is undoubtedly the most archaeologically significant period of the site's use. The potential lies in further understanding the nature of Romano-British activity and the changes in land-use patterns, represented by the enclosures encountered and recorded at the site. Division of this period into four phases will provide potential for the examination of changes in agricultural practises and domestic activity through time.

Period 3 - Late Romano-British (post 270AD)

- 7.2.4 This period is marked by the excavation and backfilling of numerous pits of varying size at the site, the contents of which offer potential insight into the use of the site for disposal of domestic residues. Apparently domestic refuse was also being deposited in a limited number of gullies at this time, and although they perhaps do not represent clear enclosures as in the previous period, they do have the potential to shed light on continued land division at the site and its environs at this time.

Medieval

- 7.2.5 Although there was scant evidence of medieval activity during this period, arguably this fact is significant in itself given the level of previous utilisation and requires some explanation.

Period 4 - Post-Medieval

- 7.2.6 The remains from this period have little significance for the wider understanding of the site's history and have minimal further potential.

The Finds

The Worked Flint by Karine Le Hégarat

- 7.2.7 No archaeological features pre-date the Late Iron Age, and the flint assemblage provides limited evidence for an earlier presence at the site. The assemblage of struck flints is largely composed of unmodified pieces of flint débitage. It comprises mainly flakes, although a few blade-like flakes and true blades were also noticed. A small amount of retouched pieces were also present, represented mostly by scrapers. The majority are not closely datable, but a finely worked scraper could be Late Neolithic or Early Bronze Age. Overall the assemblage is mostly characteristic of a flake-based industry, but its small size doesn't allow particularly confident dating, and only a very broad mid-late Neolithic/Bronze Age date can be proposed. A very small earlier Mesolithic/Early Neolithic element was also evident.
- 7.2.8 Flint artefacts dating from the Mesolithic and Neolithic/Early Bronze Age have previously been recorded in the vicinity of the site (SMR Refs: 1453 & 5532). Diagnostic tools and artefacts including a Thames pick, three unspecified picks, a possible bladelet core, a possible burin, a 'leaf-shaped blade', a 'spear point' as well as an axe were found. The current assemblage adds to this picture of early prehistoric activity. However, considering the quantity of chips recovered from the sample residues, the assemblage from the site is actually quite limited in size and represents mostly isolated finds which are from superficial deposits or residual in later deposits. As such no further analytical work is proposed.

The Late Iron Age and Romano-British Pottery by Anna Doherty

- 7.2.9 The Iron Age and Roman pottery represents one of the larger assemblages from the region. Although the stratified Period 1 assemblage is fairly limited, the overall prevalence of tempered wares, together with some hints of activity in the 1st century BC has the potential to add our understanding of how settlements developed over the Late Iron Age and early Roman period on the western edge of the coastal plain.
- 7.2.10 Period 2 produced a much more substantial assemblage including a number of very large stratified groups, albeit mostly from ditches such as D11, D13, E1, E3 and E4. Although stratigraphic phasing may imply some element of residuality in these groups they appear to be internally quite closely-dated

suggesting, that if they are redeposited, they all come directly from a single source and therefore still represent useful closed groups which may help to inform us about patterns of trade and supply. For example, it is interesting to note that, even from a very early period, the Barnham area appears derive more of its pottery from the Rowland's Castle industry to the north-west than the Arun Valley industry to the north-east, something which is not the case on coastal plain sites east of the Arun. Further detailed quantified comparison with other assemblages from the coastal plain may help to draw out patterns of supply and draw conclusions about the economic influence of Chichester over rural sites in its hinterland.

- 7.2.11 In the absence of clear structural evidence, the pottery assemblage provides the best evidence that the site was almost certainly a settlement rather than purely agricultural in nature. Further analysis of the distribution of pottery on the site may help to define intra-site settlement patterns.
- 7.2.12 Another interesting element of the assemblage is the impression that, for a rural site, it includes relatively high proportion of imported and table wares with evidence for some basic literacy in the form of graffiti. Again more detailed quantification and comparison with other sites in the vicinity may help to draw out these patterns. Further research may help explain why this site might have more access to or greater cultural preference for Roman table wares in terms of proximity to transport networks, to the regional *civitas* capital at Chichester or to a possible Roman villa at Eastergate.
- 7.2.13 The Period 3 assemblage is of less significance as it is very small in size and contains a lot of residual material; however it should be briefly summarised in the report.

The Post-Roman Pottery by Luke Barber

- 7.2.14 The Post-Roman pottery from the site consists of a small assemblage of unstratified or intrusive material. The types are well-known for the area. As such the assemblage is not considered to hold any potential for further analysis beyond that undertaken for the current assessment.

The Ceramic Building Material by Elke Raemen

- 7.2.15 The Roman assemblage is fairly small, and none of the features contain more than three or four pieces. This, combined with their fragmentary and abraded condition, suggests that the assemblage has been extensively reworked. It does indicate however, a building of some status in the vicinity, as evidenced by the fragments of flue tile.
- 7.2.16 The assemblage has been recorded in full on pro forma sheets for archive and data has been entered onto Excel spreadsheet. The assemblage is considered too small to warrant a stand-alone publication report; however, where necessary, text from the above statement can be integrated into the site narrative.

The Geological Material by Luke Barber

- 7.2.17 The stone assemblage from the site is small but does contain a relatively large proportion of quern fragments. These shed light on the site's economy and need to be integrated into the final publication report. However, the stone types used are typical for the area and period and there is nothing remarkable about the assemblage to make it of countywide importance. As such no further analysis beyond that undertaken for this assessment is proposed and no separate report is needed for publication.

The Metalwork by Elke Raemen

- 7.2.18 The assemblage is considered to be too small to be of potential for further analysis.

The Metallurgical Remains by Luke Barber

- 7.2.19 The slag from the site is present in very low quantities and although it suggests some limited smithing in the area, this was clearly not occurring in the vicinity of the excavation. Low-level smithing is quite common on rural sites of the period and its presence here is not unexpected. As such the slag is not considered to hold any potential for further analysis.

The Glass by Elke Raemen

- 7.2.20 The assemblage is too small to be of significance and lacks inherently interesting pieces. Its significance solely lies in providing some dating evidence and it is not considered to be of further potential.

The Clay Tobacco Pipes by Elke Raemen

- 7.2.21 The assemblage is too small to be of significance beyond contributing broad dating evidence. It is not considered to be of potential for further analysis.

The Fired Clay by Elke Raemen

- 7.2.22 The assemblage is small and largely undiagnostic. It is not considered to be of potential for further analysis.

The Registered Finds by Elke Raemen

- 7.2.23 Despite its small size, the assemblage does give an indication of the site occupants. The nail cleaner suggests at least some status, whereas the loom weight indicates (domestic) textile production in the vicinity. Loom weights are ubiquitous finds, predominantly on low status rural sites, and therefore suggest a settlement in the locality. The assemblage has been recorded in full. Given its small size, it is recommended that the above finds are integrated into the site narrative. No further work is required, however, the nail cleaner fragment is proposed for illustration.

The Animal Bone by Hayley Forsyth

- 7.2.24 The assemblage is of local significance. The amount of identifiable remains is relatively small with the majority identified as large and medium mammal fragments, the remains are highly fragmented and in poor condition. Twenty-six fragments of large mammal, medium mammal and juvenile pig, the bones of which had been charred, were all poorly preserved with severe surface weathering, were recovered during the evaluation (ASE 2014). The animal bones been recorded for the archive. And no specialist report is required for publication. No further work is required

The Environmental Material by Angela Vitolo and Lucy Allott

- 6.2.23 Sampling at the site has confirmed the presence of small quantities of charred plant macrofossils, wood charcoal and other environmental remains. The strong presence of uncharred vegetation (mostly roots and seeds of elder and goosefoot) in most of the samples suggests low level disturbances across the site and the possible intrusion of modern material. Nevertheless eight samples produced considerably larger and better preserved assemblages of charred macrofossils with moderate wood charcoal assemblages also recorded in six samples.
- 6.2.24 The cereal remains consist primarily of caryopses with a few glume bases recovered (which have not been securely assigned to either emmer or spelt wheat at this stage). Preservation varied from poor to moderate and in some samples sediment concretions were present on the surfaces of the cereal grains and legumes and/or they had deformed during charring, which has hindered more precise identifications. However, given the variety of the preservation conditions across the samples, further identifications could be obtained for remains within the largest assemblages and fully sorting these samples is likely to yield additional crops and weed taxa. Identifications of wheat to species are more secure if they are based on chaff remains; however identifications based on the grains, although difficult, are possible and it may be possible to refine some of the identifications.
- 6.2.25 Broad beans were found in a few samples together with other legumes which, if identified, could tell us more about crop legume use at the site. Charred weed seeds were present in most of the samples and they were generally better preservation than the crops. These remains are likely to provide information regarding the environment that surrounded the site as well as the soil conditions the crops were grown in.
- 6.2.26 Preservation of wood charcoal fragments was also variable with the majority of samples producing small assemblages. In each of the charcoal assemblages there was some evidence of sediment infiltration and concretion which may be a result of fluctuations in ground water. This has caused some damage to anatomical features used for identification although on the whole sufficient features are evident. Where larger quantities of charcoal were present, particularly from assemblages dated to the 1st-2nd century (Period 2) occupations, identifications provide evidence for woody taxa such as oak, ash and hazel from deciduous woodland. Cherry/blackthorn and trees within the

Maloideae group are more likely to have grown at the woodland margins, in hedgerows or scrub.

- 6.2.27 All of the samples were taken from features containing secondary deposits as no evidence of *in situ* burning was present at the site. As such, they are likely to contain amalgams of fuel and wood used for several purposes and can therefore provide a broad indication of the range of taxa used for fuel and the vegetation habitats from which they derived rather than specific activity related fuel selection. Very few wood charcoal assemblages have been studied in detail from this area of Sussex and the current assemblage, together with the charred plant macrofossils, therefore has potential to help characterise the local vegetation. Analysis will aim to establish evidence for discernible changes in the composition of this vegetation that may help explain the subsequent abandonment of the site.
- 6.2.28 Although the preliminary assessment data provides little evidence for any variation through the occupation phases, analysis will help confirm or refute this by refining and adding to the identifications of charred plant macrofossils and wood charcoal. Both the charred plant macrofossils and the wood charcoal have potential to provide information on several different aspects of the environment, such as the nature of the arable land being cultivated and the composition of local woodland as well as providing information on fuel use and selection, the evolution of the agricultural economy and crop use in the vicinity during the different phases.

8.0 PUBLICATION PROJECT

8.1 Revised Research Agenda: Aims and Objectives

8.1.1 This section combines those original research aims that the site archive has the potential to address with any new research aims identified in the assessment process by stratigraphic, finds and environmental specialists to produce a set of revised research aims that will form the basis of any future research agenda. Original research aims (OR's) are referred to where there is any synthesis of subject matter to form a new set of revised research aims (RRA's) posed as questions below.

8.2 The Revised Research Agenda

RRA1 (OR1; OR2; OR3) Does the quantity (and quality) of the flintwork justify the inclusion of a 'prehistoric' period despite the absence of features? How does the flint assemblage compare to others known from the Coastal Plain? Does the recovery of Mesolithic material add significance?

RRA2 (OR1; OR2) Similarly does the presence of probable Middle Iron Age material warrant the inclusion of another prehistoric period, despite the absence of features?

RRA3 (OR1; OR2) Does the quantity of Late Iron Age/Early Romano-British material (both artefactual and environmental) allow detailed interpretation of site activities? Can the chronology be further refined? Is there any evidence of a pre- or post-conquest hiatus or is there continuity?

RRA4 (OR1; OR2) Can the 1st and 2nd century pottery dating be tightened? If so, does this chronology agree with that shown by the stratigraphic relationships of the main enclosures/ditches? If not, why not?

RRA4 (OR4) Can further analysis of the pottery assemblage contribute to our understanding of how trade and distribution goods was influenced by proximity to Chichester? How can the apparently relatively high-status nature of the pottery be explained? Is there some element of 'special' deposition evident at the site from the recovery of almost complete vessels?

RRA5 (OR5) Is it possible to recognise any change in land-use between the phases of Period 2. Does the function as well as location of the enclosures change over time – is there a shift from arable to pasture or visa versa? Can this be seen in levels of deposition, or in environmental evidence? Or is the shift from agricultural to domestic or visa versa? Could this be recognised in the surviving archaeological record? Can finds distribution analysis help identify settlement foci within the site?

RRA6 Is there genuinely a hiatus between Phase 2 and Phase 3? Or is there actually some level of continuity obscured by changing methods in the deposition of rubbish?

RRA7 (OR3) Why was the site abandoned? Despite the favourable topography, why is there little or no evidence of any post-Romano-British activity until the establishment of the nursery in the early 20th century? Was flooding an issue? Is there any other local evidence of problems with inundation in the medieval period?

8.3 Preliminary Publication Synopsis

8.3.1 It is suggested that the results of the excavation should be published as a short article in the local annual archaeological journal, *Sussex Archaeological Collections*, with a submission date tbc. This will comprise of an integrated text detailing the key elements of the ASE work at the quarry, incorporating both the current site and previous investigations. The text will include supporting specialist information, figures, photographs and artefact illustrations as necessary and will consider the site in its local and regional context. The article will also address the research questions identified in this post-excavation assessment.

8.3.2 The article will be in the region 5000 words and take the following proposed format:

Introduction

Circumstances of fieldwork
Archaeological background

Results

To include selected plans, photographs, sections and artefact drawings and photographs as well as period-based site narrative

Specialist Reports

Where small assemblages of limited significance have been recorded, supporting specialist information will be integrated into the site narrative. Detailed data and thematic discussions will be presented in standalone specialist reports for the following two categories of material:

Late Iron Age/Romano-British Pottery
Environmental material

Discussion

Suggested topics to include:

Significance of prehistoric evidence
A wealthy late Iron Age/early Romano-British farmstead
Importance of location in Chichester hinterland
Continuity or hiatus?
Abandonment

8.4 Publication Project

Stratigraphic Method Statement

- 8.4.1 Once the subgrouping is finalised, groups leading onto the definition of a basic land use model will be established for the site. This may lead to some refinement of the current periods/phases. This will provide a definitive land-use led chronological framework for the analysis and reporting of the site.
- 8.4.2 After completion of the specialist analysis, reporting and documentary research, an integrated period-driven narrative of the site sequence will be prepared. This will draw on specialist information in order to fully address the revised research aims. The narrative will include relevant selection of period/phase plans, sections, photographs and finds illustrations.

The Late Iron Age and Romano-British Pottery by Anna Doherty

- 8.4.3 It is recommended that a full specialist report should be prepared involving the following tasks:

Resources

Review of dating/phasing at the group/landuse level with stratigraphic author	1 day
Analysis of supply patterns including quantified comparison with other local sites	1 day
Analysis of vessel choice including quantified comparison with other local sites	1 day
Analysis of pottery distribution	0.5 days
Preparation of publication text	2 days
Illustration related tasks	1 day
Total	6.5 days

The Environmental Samples by Angela Vitolo and Lucy Allott

Charred Plant Macrofossils

- 8.4.4 Further work is recommended for the following eight samples: <1009> (Period 1), <1004> (Period 2.1) <1011> (Period 2.2), <1005> and <1007> (Period 2.3), <1015> and <1016> (Period 2.4) and <1012> (Period 3). Analysis will involve sorting 100% of the flots, identification of the weeds and legumes from the flots and residues through comparison with modern reference material and reference atlases. Where possible, further identification of the cereal remains will also be undertaken. A report suitable for publication will be

produced and the assemblage placed within its local context through comparison with data from comparable sites on the coastal plain.

Wood Charcoal

- 8.4.5 Further work is recommended for wood charcoal from five samples: <1004> (Period 2.1), <1017> and <1018> (Period 2.2), <1016> (Period 2.4) and <1012> (Period 3) to establish the range of taxa being collected and used for fuel and to help characterise the local vegetation environment.

Scientific Dating

- 8.4.6 Several of the samples also contain taxa suitable for radiocarbon dating if considered of value for refining the dating of the site. It should be noted, however, that given the presence of moderate quantities of uncharred vegetation it is possible that some of the archeobotanical remains have been moved from their original contexts. It is also notable that none of the wood charcoal or charred plant macrofossils are from *in situ* burning deposits and may therefore contain material deriving from several different unknown sources. In line with best practice and to establish internal consistency, where material is selected for dating two suitable specimens should be sought from individual contexts.

Resources

Plant macrofossils

Analysis of plant macrofossils from 8 samples:

Identifications and data entry	3.75 days
Literature consultation & report production	1 day
Total	4.75 days

Charcoal

Analysis of charred wood fragments from 5 samples:

Identifications and data entry	2 days
Literature consultation & report production	1 day
Total	3 days

Scientific Dating

Selection, identification and submission of material suitable for dating	1 day
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Illustration

- 8.4.7 It is recommended that the report should be accompanied by around 10 stratigraphic figures, as well as around 30 pottery illustrations, to be selected during the analysis programme, and the illustration of the Roman nail cleaner fragment.

Resources

Stratigraphic Tasks	Days
Finalise subgrouping and grouping of stratigraphic sequence	2
Define landuses. It is estimated that the stratigraphic sequence can be arranged into around 15 separate landuses.	2
Describe landuse. Interpretative text will be written about each landuse element.	2
Finalise and describe periods. A textual summary, built from the landuse and group texts where appropriate, will be formed for each period. Plots of each period will be produced using Auto-Cad, GIS and/or hand-annotated plans, these will include feature conjecture	2
Documentary research will be conducted prior to commencement of the authorship of the period-driven narrative by the principal author. This should include relevant study of archaeological features, sites and published themes of the surrounding area, region	2
Prepare period-driven narrative of the site sequence. This task comprises the combination of the stratigraphic period descriptions and the relevant portions of completed finds, environmental, documentary and integrated analytical reports. Suitable photographic and drawn images such as sections and plans will also be selected from the archive at this point.	5
Total	15
Specialist Analysis	
Iron Age and Romano-British Pottery	6.5
Environmental Material (including selection and submission of C14 samples if required)	8.75
Illustration	
Pottery and Registered finds illustration	5
Stratigraphic figures	3
Production	
Editing (pre-submission & post-ref)	2
Post-edit author amendments	2
Project Management	1
Journal publication fee	fee

Table 15: Resource for analysis and publication

8.5 Artefacts and Archive Deposition

- 8.5.1 The site archive is currently held at the offices of ASE. Following completion of all post-excavation work, including any publication work, the site archive will be deposited in a suitable museum or archive centre in accordance with their deposition policy and procedures. It will be offered to Littlehampton Museum in due course (See 1.7).

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Appendix 1: Context Register

Area	Context	Context type	Feature type	Parent context	Sample	Subgroup	Group	Provisional Period	Provisional Phase
A	100	LAYER	TS						
A	101	LAYER	SS						
A	102	LAYER	N						
B	103	LAYER	TS						
B	104	LAYER	SS						
B	105	LAYER	N						
B	106	CUT	D			55	D2	2	1
B	107	FILL	D	106		56	D2	2	1
B	108	CUT	D			57	D2	2	1
B	109	FILL	D	108		58	D2	2	1
B	110	CUT	D			59	D1	3	
B	111	CUT	D			60	D1	3	
B	112	FILL	D	111		60	D1	3	
B	113	FILL	D	110		60	D1	3	
B	114	FILL	D	110		60	D1	3	
A	115	CUT	D			61	D24	4	
A	116	FILL	D	115		62	D24	4	
A	117	CUT	D			63	D24	4	
A	118	FILL	D	117		64	D24	4	
A	119	CUT	D			65	D24	4	
A	120	FILL	D	119		66	D24	4	
A	121	CUT	D			67	D24	4	
A	122	FILL	D	121		68	D24	4	
A	123	CUT	D			69	D3	2	2
A	124	FILL	D	123		70	D3	2	2
A	125	CUT	D			71	D24	4	
A	126	FILL	D	125		72	D24	4	
A	127	CUT	D			73	D3	2	2
A	128	FILL	D	127		74	D3	2	2
C	129	CUT	D			75	D4	1	1
C	130	FILL	D	129		76	D4	1	1
A	131	CUT	P			77	GP1	2	4
A	132	FILL	P	131		77	GP1	2	4
A	133	CUT	P			78	GP1	2	4
A	134	FILL	P	133		78	GP1	2	4
A	135	CUT	D			79	E2	2	4
A	136	FILL	D	135		333	E2	2	4
A	137	CUT	P			80	GP1	2	4
A	138	FILL	P	137		80	GP1	2	4
A	139	FILL	P	137		80	GP1	2	4
A	140	FILL	D	141		81	E2	2	4
A	141	CUT	D			82	E2	2	4
A	142	FILL	D	143		83	D5	3	
A	143	CUT	D			84	D5	3	
A	144	CUT	P			85	GP1	2	4
A	145	FILL	P	144		86	GP1	2	4
A	146	CUT	D			87	E2	2	4
A	147	FILL	D	146		88	E2	2	4
A	148	FILL	D	146		89	E2	2	4
A	149	FILL	D	146		90	E2	2	4
A	150	FILL	D	146		91	E2	2	4