ASHCOMBE HOUSE

CARSHALTON WAR MEMORIAL HOSPITAL

CARSHALTON

LONDON BOROUGH OF SUTTON

ASSESSMENT OF AN ARCHAEOLOGICAL EXCAVATION

ASW 08

MARCH 2010

PRE-CONSTRUCT ARCHAEOLOGY

DOCUMENT VERIFICATION

ASHCOMBE HOUSE
CARSHALTON WAR MEMORIAL HOSPITAL
CARSHALTON
LONDON BOROUGH OF SUTTON

EXCAVATION

Quality Control

Pre-Construct Archaeology Limited			K1958
	Name & Title	Signature	Date
Text Prepared by:	Dougie Killock		June 2009
Graphics Prepared by:	Jennifer Simonson		June 2009
Graphics Checked by:	Josephine Brown		June 2009
Project Manager Sign-off:	Jon Butler		June 2009

Revision No.	Date	Checked	Approved
1	March 2010	Jon Butler	

Pre-Construct Archaeology Ltd
Unit 54
Brockley Cross Business Centre
96 Endwell Road
London
SE4 2PD

AN ASSESSMENT OF AN ARCHAEOLOGICAL EXCAVATION AT ASHCOMBE HOUSE, CARSHALTON WAR MEMORIAL HOSPITAL, CARSHALTON, LONDON BOROUGH OF SUTTON

Site Code: ASW 08

Central National Grid Reference: TQ 279 639

Written by Douglas Killock
Pre-Construct Archaeology Limited, March 2010

Project Manager: Tim Bradley

Commissioning Client: CgMs Consulting on behalf of Sutton & Merton Primary Care Trust

Contractor:
Pre-Construct Archaeology Limited
Unit 54 Brockley Cross Business Centre
96 Endwell Road
Brockley
London
SE4 2PD

Tel: 020 7732 3925
Fax: 020 7732 7896

E-mail: tbradley@pre-construct.com

CONTENTS

1	Abstract	3
2	Introduction	4
3	Planning Background	7
4	Geology and Topography	10
5	Archaeological and Historical Background	12
6	Archaeological Methodology	14
7	Archaeological Sequence	15
8	Conclusions	27
9	Contents of the Archive	29
10	Importance of the Results and Publication Outline	30
11	Bibliography	31
12	Acknowledgements	32

Appendices

Appendix 1	Context Index	33
Appendix 2	Pottery Assessment by Louise Rayner	36
Appendix 3	Fired Clay Assessment by Louise Rayner	40
Appendix 4	Building Material Assessment by Kevin Hayward	42
Appendix 5	Lithic Assessment by Barry Bishop	45
Appendix 6	Burnt Stone Assessment by Barry Bishop	48
Appendix 7	Animal Bone Assessment by Kevin Rielly	51
Appendix 8	Human Bone Assessment by Kathelen Leary	55
Appendix 9	Environmental Assessment by QUEST	56
Appendix 10	OASIS Data Collection Form	64

Illustrations

Figure 1	Site Location	5
Figure 2	Trench Location	6

Figure 3 Phase 2 Middle Iron Age Features 24
Figure 4 Phase 3 Late Iron Age Features 25
Figure 5 Phase 4 Early Roman Features 26

1 ABSTRACT

1.1 This report details the results and working methods of an archaeological excavation undertaken by Pre-Construct Archaeology Limited at Ashcombe House, 16a The Park, Carshalton SM5 3BY, London Borough of Sutton. The central National Grid Reference for the site is TQ 279 639. The excavation was undertaken between the 1st and 20th of December 2008. The work was commissioned by CgMs Consulting on behalf of Sutton and Merton Primary Care Trust.

1.2 The excavation consisted of two trenches. The main area of excavation, Trench 8, measured 14m east-west by 7m north-south. The location of this trench was dictated by the concentration of archaeological remains that had previously been located at the site during an evaluation carried out by Pre-Construct Archaeology Limited **(**PCA) in September 2008[1]. The second trench, Trench 9, measured 5.60m east-west by 4.70m north-south and was located to the west of the main area of excavation in an area with some archaeological potential. The location of the trenches was based on the specification produced by CgMs Consulting in conjunction with English Heritage, GLAAS. Trenches were located to avoid excavating below the canopies of protected trees or disturbing their extensive root systems.

1.3 No archaeological features were observed in Trench 9, the smaller of the two trenches. Two undated postholes had been identified in the nearby Trench 1 during the evaluation but only natural deposits were extant in Trench 9. A concentration of cut features, mainly pits, had been recorded in Trenches 2 and 7 to the east of the standing building close to the entrance from The Park. The main area of excavation, Trench 8, was located above these evaluation trenches. A dense concentration of intercutting pits dating to the Middle Iron Age was evident in the centre of Trench 8. Further pits cut into natural deposits dating to the Late Iron Age or Early Roman period were found to both the east and west of these features.

1.4 The results of the evaluation had shown that archaeological features dating to the Middle Iron Age and Late Iron Age–Early Roman periods survived in the area of Trenches 2 and 7. The excavation produced more extensive evidence of occupation dating to both of these periods and features dating to the Late Iron Age. The latter may be contemporary with the material dated to the Late Iron Age-Early Roman period as it appears that the local pottery fabrics continued to be produced but in Romanized forms.

[1] Killock 2008

2 INTRODUCTION

2.1 An archaeological excavation was conducted by Pre-Construct Archaeology Ltd on the site of Ashcombe House, a former residential care unit which formed part of the now disused Carshalton War Memorial Hospital located at 16a The Park, Carshalton, SM5 3BY, London Borough of Sutton (Fig. 1). The excavation was conducted between the 1st and 20th of December 2008 and was commissioned by CgMs Consulting on behalf of Sutton and Merton Primary Care Trust.

2.2 The excavation consisted of two trenches. Trench 9 measured 5.60m east-west by 4.70m north-south and was located to the southeast of the former standing building which had been demolished immediately prior to the excavation (Fig. 2). Trench 8 was the largest area opened; it was located to the east of the area previously occupied by the standing building close to the entrance from The Park. The archaeological excavation followed the methodology laid out in the specification[2]. The trench locations were established by combining the areas of archaeological potential with zones that might be impacted by the redevelopment. A third major factor concerning the trench locations was the presence of large ancient chestnut trees which had very extensive root systems and could not be disturbed during the course of redevelopment.

2.3 The site had previously been the subject of an archaeological Desk Based Assessment produced by CgMs Consulting[3] and a field evaluation carried out by PCA in September 2008[4]. The evaluation had demonstrated the archaeological potential of the redevelopment area; extensive remains dating to the Middle Iron Age and Late Iron-Age-early Roman periods were identified in the eastern part of the site on the upper reaches of the hilltop.

2.4 The excavation was project managed for PCA by Tim Bradley and supervised by the author. The work was monitored by Lorraine Darton for CgMs Consulting and Diane Walls of English Heritage, GLAAS.

2.6 The completed archive comprising written, drawn and photographic records will be stored by Pre-Construct Archaeology Ltd until it's eventual deposition in the London Archaeological Archive and Resource Centre (LAARC).

2.7 The site was given the unique site code ASW 08.

---

[2] Darton 2008a
[3] Darton 2008b
[4] Killock 2008

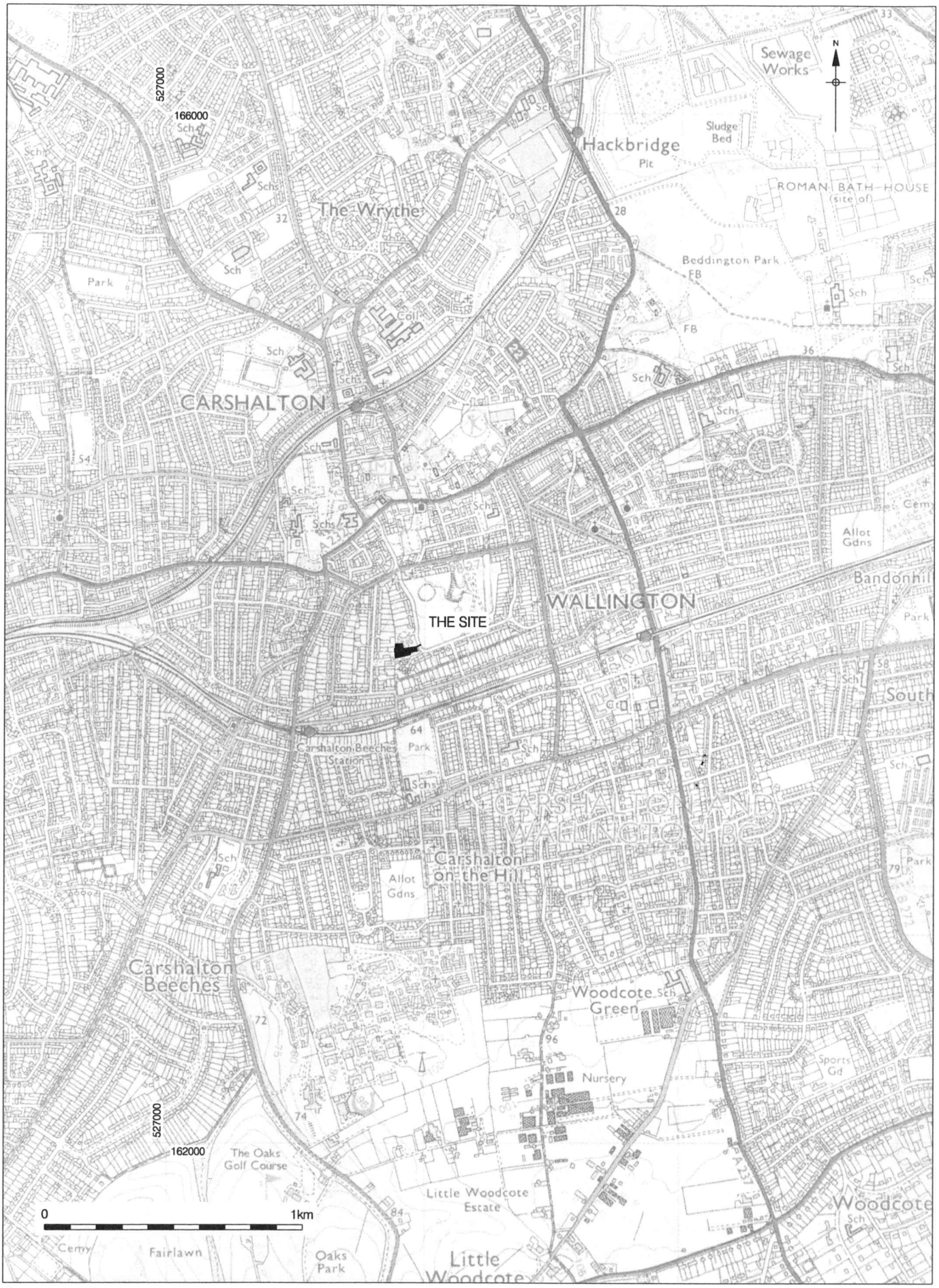

Figure 1
Site Location
1:20,000 at A4

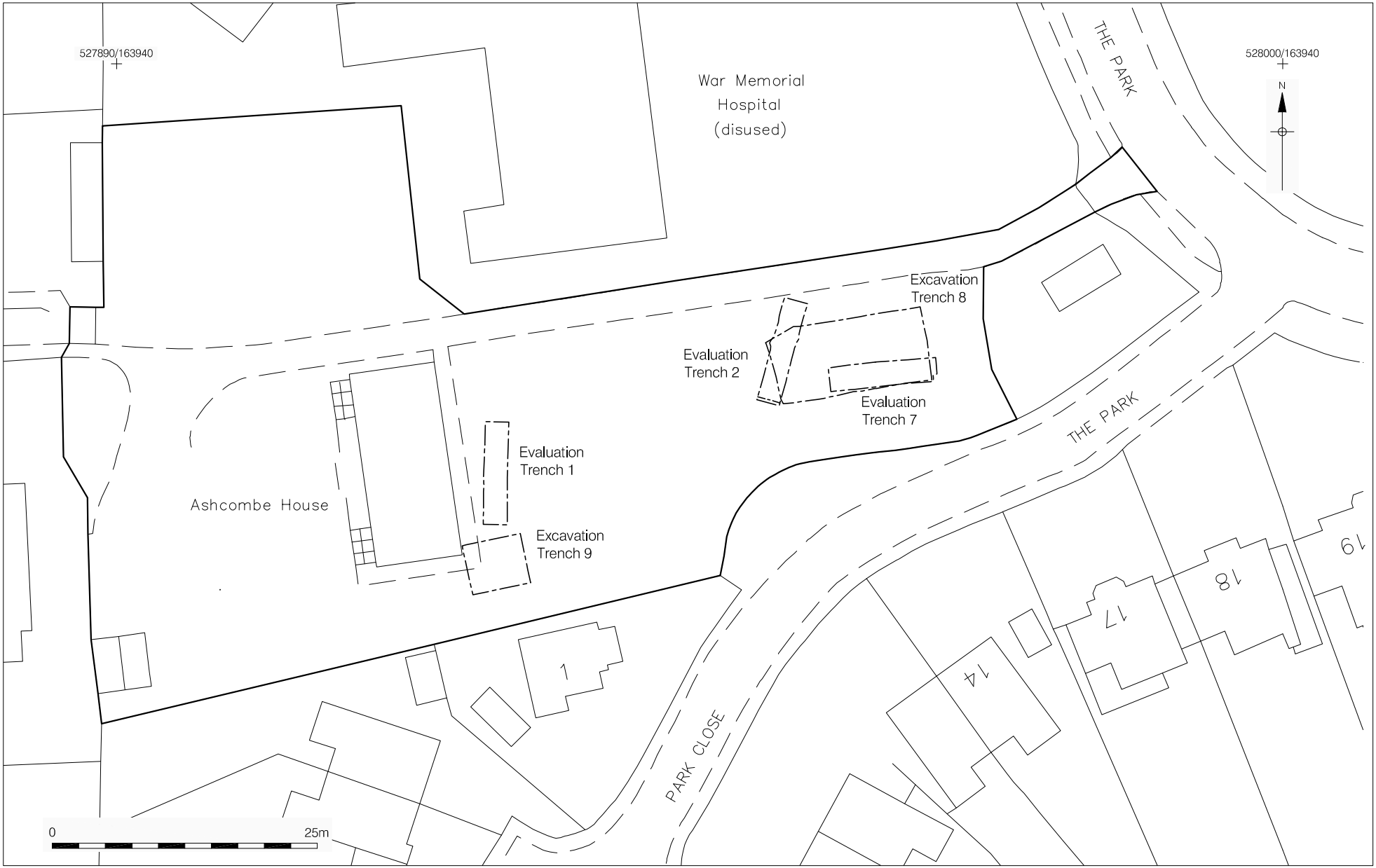

Figure 2
Trench Location
1:500 at A4

3 PLANNING BACKGROUND

3.1 The site is not located within an Archaeological Priority Zone as defined by the London Borough of Sutton's Unitary Development Plan.

3.2 The London Borough of Sutton's Unitary Development Plan contains the following policy with regard to archaeology;

Policy BE40

Before development proposals are considered within archaeological priority areas (as shown on the proposals map and as set out in Appendix 2, Schedule 2.1) the Council may require a preliminary archaeological field evaluation to be undertaken, in accordance with a written scheme of investigation to be approved in advance by the Council. Where there are reasonable grounds to believe that archaeological remains outside archaeological priority area may be under threat, the Council will, where appropriate, require an archaeological to be undertaken on sites over 0.4 hectares (1 acre), prior to development.

3.3 Following the production of a Desk Based Assessment[5], which outlined the archaeological potential of the site, Diane Walls, English Heritage, GLAAS determined that an evaluation should be carried out to establish the extent of archaeological survival. The field evaluation, carried out by PCA in September 2008, demonstrated that extensive archaeological remains were present on the site and that the redevelopment could impact on these[6].

3.4 CgMs Consulting prepared a written scheme of investigation for the site which was approved by GLAAS prior to the commencement of the excavation[7]. A site specific method statement was also prepared by PCA and this too was approved by GLAAS before the works began[8]. The aims of the excavation were:

- To further define the nature, extent, character and chronology of the Iron Age and Roman occupation on the site.
- To further determine the date, extent, nature and duration of habitation of the site.

[5] Darton 2008b
[6] Killock 2008
[7] Darton 2008a
[8] Bradley 2008

- The probable prehistoric settlement evidence at the site can help to define regional settlement patterns, where possible a settlement plan should be identified (Research Framework for London Archaeology, Museum of London, 2002, p.25).

- To ascertain whether specific agricultural, industrial or ritual activities can be determined from the observed evidence.

- The later prehistoric faunal assemblage may help to elucidate the balance between pastoral and arable economies and patterns of subsistence, and contribute to understanding and clarifying the mechanisms that prompted agricultural intensification (Research Framework for London Archaeology, Museum of London, 2002, p.25).

- To further determine the presence of possible ritual deposits on the site as evidenced by the deposition of a whole sheep skull and horse bones at the base of a Middle Iron Age pit.

- To determine whether buried soils or occupation horizons are preserved on the site.

- To ascertain if there is evidence for the continuity of settlement, occupation and land use from the Iron Age through to the early Roman period and to place the evidence from this site in its wider landscape context.

- To further clarify the presence of early Roman occupation on the site and determine how this occupation compares with other elements in the local landscape and whether there is any evidence for Roman agricultural activity indicating a renewed phase of agricultural intensification in the wider early Roman landscape (Research Framework for London Archaeology, Museum of London, 2002, p.27).

- To define the nature of the zooarchaeological and palaeoenvironmental context of the Iron Age and Roman activity, together with any earlier and/or later activity.

- The well stratified Middle Iron Age ceramic material could help to further refine and date the local ceramic sequence (Research Framework for London Archaeology, Museum of

London, 2002, p.25), in parallel with radiocarbon dating of suitable residues on the material recovered.

4 GEOLOGY AND TOPOGRAPHY

4.1 The underlying rock formation is composed of Upper Chalk[9]. The weathered surface of the chalk was exposed in all seven of the evaluation trenches. The eastern half of the site appeared to have been levelled but the surface of the chalk was still higher in this area than the western part of the site. The highest level recorded on the chalk during the evaluation was 59.23m OD in Trench 7. A plateau, probably indicative of levelling, was suggested by the levels recorded in Trenches 1 and 2 which were 59.16m OD and 59.14m OD respectively. The surface of the chalk began to fall away sharply immediately to the west of the position of the former standing building. The surface of the chalk sloped from 58.76m OD in the east to 58.01m OD in the west.

4.2 Although the British Geological Survey suggests there are no drift deposits present on the site a considerable depth of subsoil was apparent in the western half of the site during the evaluation. This again suggested that levelling had taken place on the eastern side where this deposit was not extant. The subsoil was composed of reddish brown fine sandy silt. The thickness of the subsoil increased from east to west, a maximum of 0.55m was recorded.

4.3 The subsoil was composed of material very similar to the reddish brown deposit that filled natural channels and sink-holes in the eroded surface of the chalk. These features were evident throughout the area evaluated and in some cases resembled man-made features that might have been cut into the chalk. However, sample excavation of these areas revealed no signs of human activity and the absence of artefacts and even charcoal flecks, combined with the highly irregular shapes of the sides and bottoms of these features, led to the conclusion that none of these deposits had been the subject of human intervention.

4.4 Although the site lies on a chalk hilltop, the geology of the surrounding area is complex and has had a considerable impact on human development in the area. The area to north of the site is covered by London Clay and the sand, silt and gravel deposits of the Thanet, Reading Woolwich and Blackheath beds[10]. These water-bearing strata supported streams flowing north from the Downs and could have provided a water source for wells whereas the depth of the chalk usually precluded this. The gravel terraces of the upper Wandle valley are also located to the north and east of the subject site.

[9] British Geological Survey Sheet 257 South London
[10] Adkins and Needham 1985, Fig 17

4.5 The natural slope rises from the west of the site to the east and from the north to the south. The study site is situated very close to, if not on, the highest point of the hill which slopes down to the east as it crosses Carshalton Park. The highest levels recorded on the ground surface during the evaluation, which covered a much larger area than the targeted intervention of the excavation, were 59.47m OD in the east, 59.62m OD in the west and 58.88m in the northwest.

4.6 The Ordnance Survey map of the area shows that the site occupies a small but well-defined hilltop on the northern edge of the chalk escarpment. The height of the land that stretches to the east toward Croydon and west toward Sutton is fairly consistent with values of c. 50m OD being common throughout the area. To the north of the chalk ridge the ground falls rapidly onto the very flat area occupied by the upper tributaries of the Wandle. The modern parks and heathland crossed by these waterways lie at c. 25m OD. The land to the south of the site rises gradually but consistently to heights of up to 140m before falling sharply into the Chipstead valley.

4.7 The hilltop on which the site is situated offers a panoramic view to the north over what are today parks and heathlands and could be seen as a strategic point close to the upper reaches of the Wandle. The ridge of high ground that runs from Sydenham to South Norwood provides the only interruption to the view to the northeast.

5 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

5.1 The archaeological background to the site has been covered in the Desk Based Assessment[11] and it is not proposed to reproduce all of the research contained in that document. Some detail is given regarding the later prehistoric and Roman periods as features dating to these periods were represented on the site.

5.2 Prehistoric

5.2.1 The site lies at the junction of two distinct geological areas where the chalk uplands of the Downs meet the river valley of the upper Wandle which is principally cut through sands and gravels but also passes through areas of London Clay. Both of these areas have produced a wide array of finds dating to the later prehistoric period and particularly the Bronze Age.

5.2.2 The site is located in the vicinity of two large prehistoric hilltop enclosures. The first of these is the relatively poorly investigated Carshalton Camp which occupies a spur of chalk upland that looks out over Tooting and Streatham. This monument consists of a double ditch and bank enclosure that probably dates to the later Bronze Age or early Iron Age[12]. No modern archaeological work has been carried out on the site but bronze objects, possibly associated with the enclosure, were reported to have been found during excavations for railway cuttings that passed through the area. The camp is located c. 0.60km to the northwest of the site. A much better documented late Bronze Age site is located on the the former Queen Mary's Hospital, located c. 1.5km to the south of the site. This consists of circular enclosure defined by a ditch c. 150m in diameter. It is probable that a bank once stood adjacent to the ditch but that levelling of the hilltop has destroyed all trace of this. The monument was first investigated in 1903-04, partially excavated again in 1937 and 1939[13] and more recently investigated in 1999[14]. This enclosure also dates to the late Bronze Age and the sites typify the abundant finds that represent the remains of the later prehistoric period in the area surrounding the site. In addition to these an important late Bronze Age ritual enclosure was excavated on the gravel terrace at Westcroft Road, c. 500m to the northwest of the study site[15]. To the east of the Westcroft Road site further evidence of Late Bronze Age or early Iron Age occupation at the base of the chalk escarpment had previously been discovered at the Beddington sewage works site, situated some 4km to the northeast of Ashcombe House, where a field system

[11] Darton 2008a
[12] Birch 1925
[13] Both of these interventions were documented in Adkins and Needham 1985
[14] Groves and Lovell 2002
[15] Proctor 1999

demarcated by ditches was unearthed along with pits and postholes dating this period. Many of the finds recovered from this site were comparable with those found at the Queen Mary's Hospital site. Extensive evidence of Bronze Age Fields systems has been also recovered from a succession of sites in the upper Wandle Valley in the area immediately to the north of the chalk escarpment. The War Memorial Hospital was built on the crest of this escarpment which looks out over the flat clay and gravel river valley below[16].

5.2.3 A late Bronze Age or early Iron Age ditch and three late Bronze Age pits were found at Carshalton Park House only 100m to the north of the study site.

5.2.4 Although the site at Beddington perhaps better known for the later Roman villa complex the same excavation produced extensive evidence of a late Iron Age settlement. Roundhouses and associated features were recorded within an enclosure ditch. The small settlement was probably in use during the 1st century BC and continued to be occupied into the 1st century AD, possibly into the early part of the Roman period[17].

5.3 Roman

5.3.1 Very little evidence exists for large-scale Roman occupation or exploitation of the area surrounding the site. The nearest known Roman road, Stane Street which linked London to Chichester, lies some 5km to the east. However, the major Roman site consisting of the villa and bathhouse at Beddington, although still some 4km distant to the northeast, would almost certainly have been visible from the hilltop now occupied by the disused War Memorial Hospital. The edge of the chalk escarpment would certainly not have remained unexplored by the local Roman population.

5.3.2 Although the Beddington site is perhaps better known for the late Roman villa and bathhouse complex extensive evidence for occupation in the early Roman period was recovered. A hypocausted building certainly stood nearby the site by the late 1st century AD and it is probably that pre-Flavian occupation was present. It seems likely that the Beddington site was occupied when the Ashcombe House hilltop was being used in the early Roman period.

5.3.3 Small quantities of Roman pottery and metalwork have been recovered from the area surrounding the study site but these are almost all located over 500m from Ashcombe House.

[16] Howell 2005
[17] Howell 2005

6 ARCHAEOLOGICAL METHODOLOGY

6.1 Both of the trenches were stripped of turf, some hard standing composed of tarmac, and modern topsoil using a 180º mechanical excavator. In Trench 8 the removal of the topsoil exposed clearly defined archaeological features cut into natural deposits composed of chalk and reddish brown sands and silts. In Trench 9 the topsoil was removed down to the natural deposits, no archaeological features or deposits were encountered in this area. All of the machine reduction was undertaken under archaeological supervision. Subsequent investigation of trenches used hand tools only.

6.2 Trench 8 measured 14m east-west by 7m north-south. Trench 9 measured 5.60m east-west by 4.70m north-south. Archaeological features were only revealed in Trench 8. Trenches 9 was located using a baseline, a grid was established for Trench 8. Both the grid and the baseline were tied into the National Grid by a professional surveyor.

6.3 Recording on site was undertaken using the single context recording system as specified in the Museum of London Site Manual. Representative plans and sections were drawn at a scale of 1:10 or 1:20 as appropriate. Contexts were numbered sequentially and recorded on pro-forma context sheets. Where referred to in the text context numbers are given in square brackets, i.e. pit [36].

6.4 All trenches, and where appropriate individual features, were photographed using black and white print, colour slide and digital formats.

6.5 An extensive environmental sampling strategy was developed with the advice of Ms Diane Walls of GLAAS. All pits were sampled, where possible 40-60l samples were obtained although some features did not contain a sufficient quantity to satisfy this standard requirement.

6.6 A temporary bench marks (TBM) with a value of 59.94m OD was established on the site. The value was established by transferring a level from the bench mark located on the southern brick pier of the entrance to the War Memorial Hospital on The Park, the value of which is 59.46m OD.

6.7 The site was given the unique code ASW 08.

7 ARCHAEOLOGICAL SEQUENCE

7.1 Phase 1 Natural Deposits

7.1.1 The site lies on a chalk hilltop and the majority of the geological formations observed consisted of weathered pale brown/off white coloured chalk which had a crumbly consistency. Fresh white chalk that occurred as large rectangular blocks was evident in the bases of the deepest cut features. Although the British Geological Survey suggests that there are no drift deposits present in this area the evaluation had demonstrated that a reddish brown fine silty sand deposit was present and increased in thickness on western part of the hilltop. This deposit had also filled sink-holes and channels that had been eroded into the surface of the chalk and was consequently present even on the eastern half of the site which had probably been levelled; possibly when the War Memorial Hospital was built if not previously. The sandy silt deposit, which was up to 0.55m thick, might be Thanet sand. This is potentially significant to the development of the site as the presence of a water–bearing stratum would have increased the attractiveness of this location.

7.1.2 Trench 9, situated immediately to the southeast of the former standing building, contained only natural deposits sealed by modern topsoil. The weathered chalk was recorded as layer [66]. The second layer [67] consisted of reddish brown silty sand that might be equated with Thanet Sands. These layers were recorded 59.65m and 59.46m OD.

7.2 Phase 2 Middle Iron Age Features (Fig. 3)

7.2.1 All of the features dating to this period found during both the evaluation and excavation phases are shown on Figure 3. A dense concentration of intercutting features, most of which were pits, was evident in the central part of Trench 8. This area measured c. 6m by 6m. The most imposing features within this group were the large circular pits [18] and [105]. Discrete features cut into natural deposits were evident to the west of the intercutting pits and gullies located in the centre of the Trench.

7.2.2 Pit [18] had been excavated during the evaluation, in Trench 7. The pit measured a maximum of 1.70m in diameter and was 1.14m deep; it was cut from a height of 59.55m OD. Relatively few artefacts were recovered from this feature; some fired flint was evident as was a small quantity of animal bone. A small quantity of pottery dated to the Middle Iron Age was recovered and the position of the pit in the sequence also

suggested that it dated to this period as pit [18] truncated features that also contained Middle Iron Age pottery.

7.2.3 Pit [105] was a very large sub-circular pit that measured 2.45m east-west by 2.10m north-south by 1.23m deep. The top of the cut was recorded at 59.25m OD. The fill [104] contained a relatively sparse assemblage of pot and bone although burnt flint was relatively abundant, as it was in many of the features excavated. Although the pottery assemblage was not numerous some particularly large diagnostic sherds with relatively complete profiles were recovered, all dated to the Middle Iron Age. One of these showed evidence of an internal carbonised residue indicating that it had been used for cooking[18]. The pit was steep sided with a flat base; it may have been excavated to extract chalk although grain storage is another potential function.

7.2.4 A series of shallow intercutting features [75], [77] and [71], had been truncated by both larger pits [105] and [18]. Of these [75] seemed to be a north-south aligned linear cut 0.95m wide and 0.37m deep but later truncations had destroyed any evidence that might have indicated a more extensive feature. A single large sherd of Middle Iron Age pottery was recovered from the fill of [75]; neither of the other features contained any datable artefacts.

7.2.5 A second sequence of relatively shallow intercutting features was evident to the south and west of pit [18]. No artefacts were recovered from the fill of pit [94]. Pits [98] and [96] both contained small assemblages of pottery broadly dated to the Middle to Late Iron Age whilst pit [73] contained a small group of Middle Iron Age sherds. The function of these features is unclear, the fills contained very limited quantities of domestic waste in the form of pottery, animal bone and burnt flint but they could hardly be characterised as having been dug for refuse disposal. Even the true shapes and sizes of these features were unclear due to the extensive truncation that had occurred but none penetrated more than c. 0.60m into the surface of the chalk and most were shallower. Pit [98] may not have been a single feature but an amalgam of smaller cuts whose fills could not be separated.

7.2.6 To the north of pit [98] was cut feature [119]. The fill of this feature was evident in the sides of pit [105] and it appeared to be a shallow pit or pits. A large irregularly shaped pit [92] was partially excavated to the east of the very large pit [105]. Pit [92] measured 3.60m east-west by 2.63m north-south and was 0.86m deep. The highest level taken on the cut was 59.41m OD. Although this feature was truncated and not fully excavated it appeared that it had originally been a very large steep-sided ovoid pit. The fill [91] contained a single sherd of Middle to Late Iron Age pottery. This large

[18] See Appendix 2

pit had truncated a much smaller feature [90] that only survived as a truncated remnant to the north of pit [92]. The triangularly shaped fragment contained some relatively large fragments of Middle Iron Age pottery

7.2.7 To the west of the dense cluster of pits found in the centre of Trench 8 two relatively large circular steep-sided pits were apparent. Pit [14] had been partially excavated during the evaluation, it measured 1.55m in diameter and was at least 1.02m deep, it may have been bottomed but this was not certain. A small quantity of burnt flint was present in the fill, as was pottery dated to the Middle Iron Age. The presence of a sheep's skull near the base of the pit has let to some speculation that this feature held placed deposits which might have had ritual significance. However, it should be noted that the skull was not found in the base of the pit or in association with other objects that might have lead to the conclusion that this feature held placed deposits. The position of the skull in the fill and the angle at which the object was sloping when found suggested nothing more than casual loss or deliberate discarding of domestic waste. The pit was not fully excavated but had been half-sectioned during the evaluation, the western half of this feature remained unexcavated. The highest level recorded on the top of this feature was 59.07m OD.

7.2.8 A sub-circular pit [52] was excavated to the south-east of pit [14]. This steep sided feature measured 1.50m north-south by 1.40m east-west and was 0.92m deep, the top of the cut was recorded at 59.39m OD. The fills of this pit contained only two sherds of pottery along with fragments of animal bone and the ubiquitous burnt flint. The function of this feature was not clear but it was very similar to [14] in size and shape. Either or both of these steep-sided pits could have been used for storage but no evidence of this was apparent when they were being excavated.

7.2.9 Figure 3 also shows two features which were excavated in the evaluation phase in Trench 2 that lay beyond the northern limit of exaction of Trench 8. A linear cut [16] extended from east to west through the northern part of Trench 2 and continued beyond the limit of excavation to both the east and west. The maximum width of the cut was 0.93m; it was 0.30m deep and was cut from a level of 58.94m OD. The fill of this feature contained a large fragment of diagnostic Middle Iron Age pottery which showed the form of both the shoulder and rim. It was unfortunate that this feature could not be further exposed during the excavation phase as it represented the only convincing linear feature found in either phase of work and might have been part of a more extensive ditch that delimited or enclosed the majority of the features assigned to this phase.

7.2.10 A circular posthole [28] was located to the north of the linear cut [16]. The posthole was 0.24m in diameter and 0.20m deep. No artefacts were recovered from the fill of this feature which appeared to be considerably darker than the surrounding reddish brown sandy silt deposit. This feature may have been a posthole but it was not as clearly defined as some of the pits and ditches excavated in this area.

7.3 Late Iron Age Features (Fig. 4)

7.3.1 Features assigned to this phase contained pottery either dated to the Late Iron Age or ceramics that could date to either the Middle or Late Iron Age. None of the features that could date to either period was stratigraphically earlier than a feature that definitely dated to the Middle Iron Age. It appears that the apparent chronological difference between this Late Iron Age phase and the early Roman Phase 4 may be illusory and that all of these features date to the Roman period[19]. However, these phases can be combined in future work but the features currently designated as Late Iron Age are discussed separately in this document and are shown on Figure 4.

7.3.2 The principal features excavated in this period were two very large pits [99] and [62]. Pit [99] had a very complex shape which may have resulted form extensive erosion of the chalk in this location and the sinking of man-made fills into naturally formed voids. This irregularly shaped feature measured 2.00m both north-south and east-west and was 1.20m deep. The upper fill [100] contained a single sherd of pottery dated to the Middle-Late Iron Age; the lower fill was devoid of ceramics. Very small quantities of burnt flint and bone were also present in both fills. The function of this feature was unclear but it might have been for chalk extraction.

7.3.3 The full extent of the second large pit [62] was not seen as it extended beyond the edge of excavation to the south. However, the sub-circular feature measured 2.60m east-west and was probably of a similar dimensions north-south. The pit was very steep sided and excavated to a depth of 1.41m without reaching the base; the highest level recorded on the cut was 59.54m OD. Further excavation was not possible as the southern section with the topsoil above the archaeological levels represented a serious health and safety risk. The fills, [63] and [64], contained a small pottery assemblage dated to the Middle-Late Iron Age. Small quantities of bone, daub and burnt flint were also recovered. This very deep feature might again have been an extraction pit; it is most unlikely to have been dug for refuse disposal.

7.3.4 A third substantial pit [114] was located to the west of the large pit [99]. The sides of this feature were near vertical and in places undercut. The circular pit was not fully

[19] See Appendix 2

excavated but half-sectioned. It measured 1.60m east-west by 1.50m north-south and was 1.22m deep, it was cut from a height of 59.38m OD. The fill [113] contained five pottery sherds dated to the Late Iron Age along with a small assemblage of animal bone and fragments of burnt flint. The pit might have functioned as a storage pit or silo, the slightly bell-shaped profile might have been indicative of periodic or seasonal cleaning around the base. It may be noted that this pit is very similar in size and shape to pit [14] which was excavated during the evaluation and located immediately to the west of [114]. That feature has been placed in Phase 2 as it contained pottery dated to that period but a review of this may be required. If the pottery assemblage was limited in size it could easily have been residual in a later feature.

7.3.5 A group of three shallow cuts consisting of pits [106], [115] and [118] was evident in the southwest of Trench 8. The fills of these features contained very few finds and only pit [115] contained a pottery assemblage but even this consisted of just two very small fragments which were hardly diagnostic. Pit [106] contained only burnt flint and [118] produced no finds at all. It is even doubtful whether these features were man-made as the deepest, pit [106], was only 0.33m deep. The small circular pit [118] was 0.27m deep but devoid or artefacts and the largest feature [115] was only penetrated 0.17m into the surface of the chalk. All three of these features may have been formed by treethrows or bioturbations that had a limited impact on the natural deposits.

7.3.6 A remnant of a small truncated pit [59] was excavated to the east of the large pit [62]. A small pottery assemblage dated to the Late Iron Age was recovered from the fill [58] which also contained animal bone and burnt flint. The original size and shape of this feature were difficult to establish due to later truncations but it appeared to have been an ovoid pit c. 0.70m in diameter and 0.40m deep.

7.3.7 A shallow irregular rectangular cut [26] was excavated in the northwest of Trench 2 during the evaluation. This feature extended beyond the limit of excavation to the west, as seen it measured 1.10m east-west by 0.98m north-south and was 0.18m. The irregular nature of this feature suggested that it might have been a small treethrow but small quantities of burnt flint and pottery dated to the Middle or Late Iron Age were recovered from the fill.

7.3.8 Two postholes were found during the evaluation in Trench 1. Neither of these contained datable artefacts but a fragment of Middle Iron Age pottery was recovered from the topsoil close to them during machine stripping of the trench. They could therefore date to any of the three archaeological periods represented in this report but are shown on the Phase 3 drawings in the inset (Fig. 4).

7.4 Phase 4 Early Roman (Fig. 5)

7.4.1 A large sub-circular pit [12] was evident in the southern part of Trench 2 during the evaluation and was picked up again in the southwest corner of Trench 8 during the excavation. The portion of the feature excavated in Trench 8 was recorded as pit [43]. The exact dimensions of the feature are difficult to establish as it was recorded in two different interventions and extended beyond the limits of excavation to the south but it appeared to measure more than 2m in diameter, the portion excavated in Trench 8 was 0.48m deep. A relatively small quantity of burnt flint formed part of the finds assemblage; this was accompanied by a small quantity of animal bone. Pottery dating to the Middle Iron Age was recovered during the evaluation but this proved to be residual as a Roman greyware sherd was found during the excavation. A fragment of fired clay which might be a large well fired piece of burnt daub or part of a loomweight was also found. The highest level recorded on the top of this feature was 59.40m OD.

7.4.2 The most substantial feature excavated during the evaluation was a sub-circular pit or shaft [22], which was located in the eastern part of Trench 7. This feature was not fully excavated but was half-sectioned, it measured c. 1.30m in diameter at the surface but was undercut on all sides and was 1.60m wide at the depth at which excavation ceased c. 1.50m below the surface. Early Roman pottery was recovered from the fill during the evaluation as was a large iron nail and a large quantity of burnt flint; fragments of daub were also present.

7.4.3 The feature was fully excavated during the main excavation when it was recorded as context [42]. The bell-shaped profile of the feature can be seen on Figure 5, small galleries cut into the chalk at the base of the feature were especially evident on the west and south sides. The maximum diameter of the feature was 2.20m when the galleries were included although the main shaft reached 1.80m in diameter before narrowing again at the base to 1.40m. The shaft was 1.65m deep. One of the larger pottery assemblages recovered during the excavation, consisting of 34 sherds, was recovered from the upper fill [32]. The pottery dated to the Late Iron Age

7.4.4 A very similar feature [84] was evident to the west of shaft [42]. This ovoid shaft measured a maximum of 1.50m north-south by 1.30m east-west and 1.55m deep. The sides were undercut as seen in shaft [42] but this was uniform around the entire circumference of the feature and the individual galleries noted in [42] were not present. The upper fill [81] contained pottery made in a local tradition and fabric but in Romanised vessel forms. The earliest fill [85] confirmed the Roman date of this feature as it contained a sherd of south Gaulish Samian ware along with Verulamium

region whiteware and greyware from Alice Holt. This group is likely to have been deposited after AD 55[20].

7.4.5 The purpose of these features might well be for grain storage. They are clearly not domestic refuse disposal pits and it seems unlikely that they were for extraction of either chalk or other materials, no beds of flints were evident and it is unlikely that they would have been mined in this period. If the shafts were for chalk extraction the method employed was a very strange one. Once an initial hole had been excavated it would have been far easier to simply expand the hole rather than dig another restricted shaft nearby. The emission of carbon dioxide from chalk may have made this material particularly suitable for grain storage as oxygen would have been naturally excluded from the shafts. This would have aided preservation of the grain. The science behind this may not have been understood by ancient farmers but centuries of observation may have influenced the sites selected for this particular type of feature.

7.4.6 A larger more ovoid shaped pit [51] was excavated to the south of silo [84]. This feature measured 2.18m north-south by 1.66m east-west by 1.39m deep. The highest level recorded on the top of the cut was 59.51m OD. The pit was very steep sided if not undercut like silos [84] and [42]. The fills [49] and [50] contained few finds, the pottery recovered from both dated to the Middle Iron Age. This material is thought to be residual due to the position this feature occupied in the stratigraphic sequence but no later datable artefacts were recovered. The assigning of this feature to this later period may therefore need to be reviewed.

7.4.7 An irregularly shaped cut [47] was excavated to the north of silo [42]. The overall shape of this feature was sub-rectangular but a distinct deeper and circular area 1.50m in diameter was visible to the northwest. This size and shape was very similar to that of the adjacent silos but cut [47] was only 1.07m deep. The nature of this feature is very uncertain, it might originally have been more than one pit but no clear demarcation existed within the fill [46]. The latter contained one of the more numerous groups of pottery which consisted of 71 sherds dating to the early Roman period. One of the vessels present consisted of a jar which showed secondary use as a strainer as holes had been put into the base after firing. A further fragment of this vessel may have been recovered from the very large pit [61] which was located to the west of pit [47].

7.4.8 Pit [61] measured over 3m east-west and more than 1.90m north-south, it extended beyond the limits of excavation to the north. The maximum depth of the pit was

[20] See Appendix 2

0.84m; the highest level recorded on the cut was 59.46m OD. This very extensive feature might have been an amalgam of intercutting pits but no clear edges were apparent within the fill [60] and it was excavated 'as one'. The pottery recovered from the fill was spot-dated to the early Roman period, animal bone and burnt flint was also present. The purpose of this pit might have been chalk extraction.

7.4.9 A group of features consisting of a pit and four postholes was evident in the northeast corner of Trench 8. Pit [31] was an irregularly shaped sub-rectangular feature that measured 1.60m east-west and more than 1.40m north-south, the pit was 0.43m deep. A relatively numerous and diagnostic group of pottery dated to the very Late Iron Age-early Roman period was recovered from the fill [33]. The latter also contained some animal bone, a large quantity of burnt flint and part of a triangular clay loomweight[21].

7.4.10 The relationship between the pit [31] and the four postholes [34-37] was not clear as the fills of most of the cut features on the site were very similar and in some cases the postholes in question were not themselves clearly defined features. Although spread around the periphery of the pit the postholes did not have a consistent position in relation to the edge of the feature nor were they distributed in a discernable pattern around it. It was very unfortunate that the pit could not be fully exposed as more postholes might have been apparent and these could have formed clear groups such as opposing pairs.

7.4.11 Three smaller pits [48], [57] and [108] were evident to the east and south of the large pit [51]. Pit [57] had been truncated by the large pit [51] and extended beyond the limit of excavation to the south, the true dimensions of this feature were not therefore apparent but it measured at least 1.50m east-west and was 0.32m deep. The fill [56] contained a small group of pottery most of which is of Iron Age date but one very small sherd of Roman pottery was also present. The latter may be intrusive or the result of a mistake in the excavation of the very complex pit sequence encountered in this area. This small pit could have been dug in an earlier Iron Age phase of activity. However, if as has been suggested the Late Iron Age and early Roman features are in fact contemporary this apparent problem is of no consequence.

7.4.12 Pit [108] was another small but steep-sided ovoid pit that extended beyond the limit of excavation to the south. As seen it measured a maximum of 1.20m in diameter and was 0.62m deep. The fill [109] contained pottery dated to the early Roman period along with animal bone and a small quantity of burnt flint.

[21] See Appendix 3

7.4.13 The third feature in this group consisted of a very shallow ovoid or sub-rectangular truncated pit [48]. This feature had been partially excavated during the evaluation as pit [20]; it measured 1.74m by 0.62m by 0.23m deep. The eastern part of the pit was cut into weathered chalk whereas the western half had been excavated into an earlier pit fill which was well defined by the frequent chalk fragments included in it. A large quantity of burnt flint was recovered from this small pit which might suggest that it was a prehistoric feature. However, the pottery recovered from this feature included fragments of Middle Iron Age, Roman and possibly medieval fabrics. The latter may be intrusive or this could be a much later feature that had impacted on the earlier archaeological sequence.

7.4.14 A very poorly defined irregularly shaped feature [110] was evident to the east of the intercutting pits described above. When partially excavated this feature was very shallow and the edges suggested that it resulted from a natural rather than man-made action, possibly a treethrow or bioturbation. However, two fragments of pottery dated to the early Roman period were recovered from the surface of the fill [111] but these could effectively have been from the topsoil that had sunk into this feature.

7.4.15 A partially excavated feature, possibly a linear cut, was recorded as contexts [102] and [88]. This feature was located to the west of the large pit [61]. It was not clear whether this partially excavated cut was indeed a linear cut or simply the southern extremity of a large pit that extended beyond the limit of excavation to the north. As seen the feature measured c. 3.60m east-west by more than 0.90m north-south and was 0.58m deep at the east end and 0.46m deep at the west end. Two substantial sherds of pottery dated to the early Roman period were recovered from the fill [103] which also contained some animal bone.

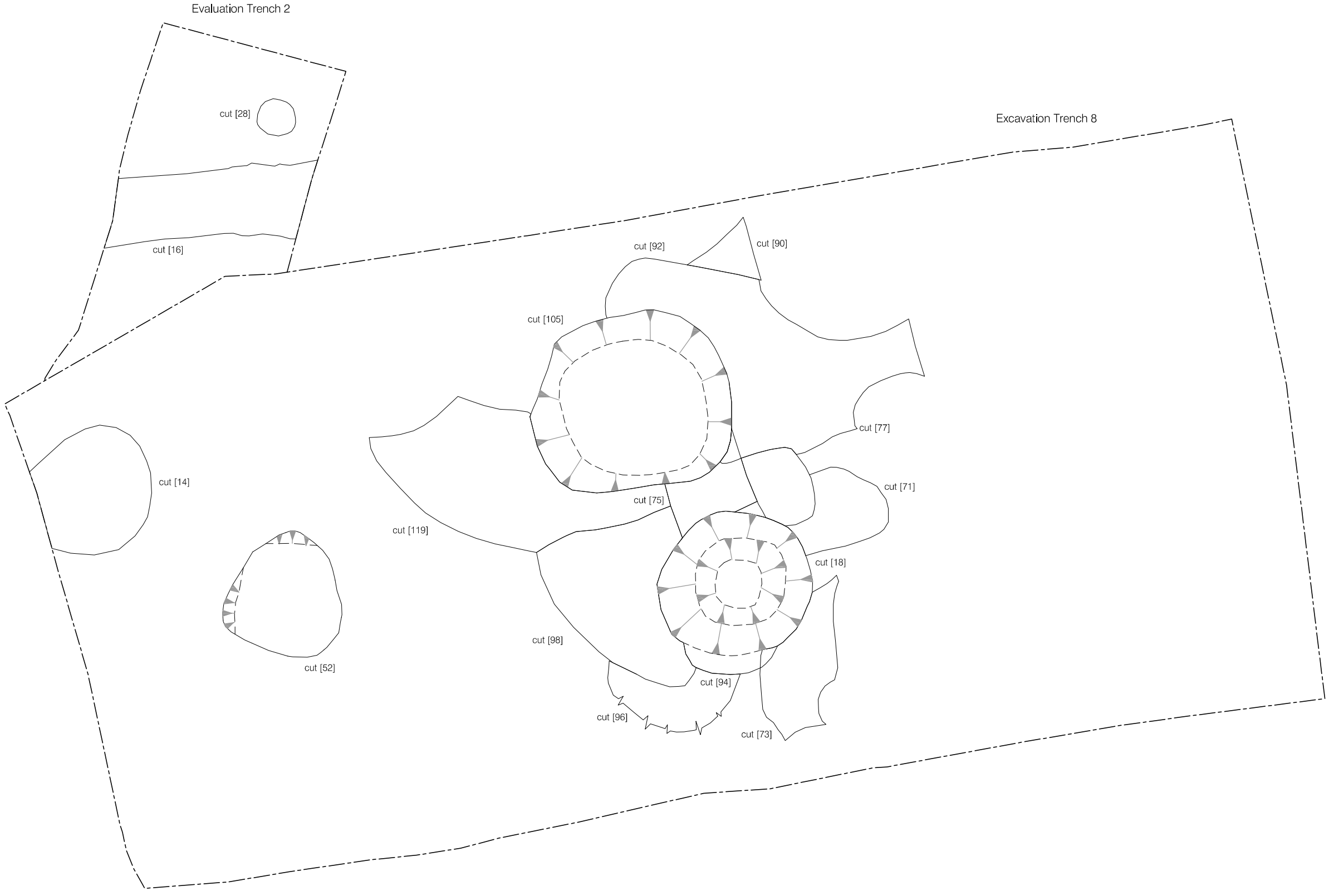

Figure 3
Phase 2
1:50 at A3

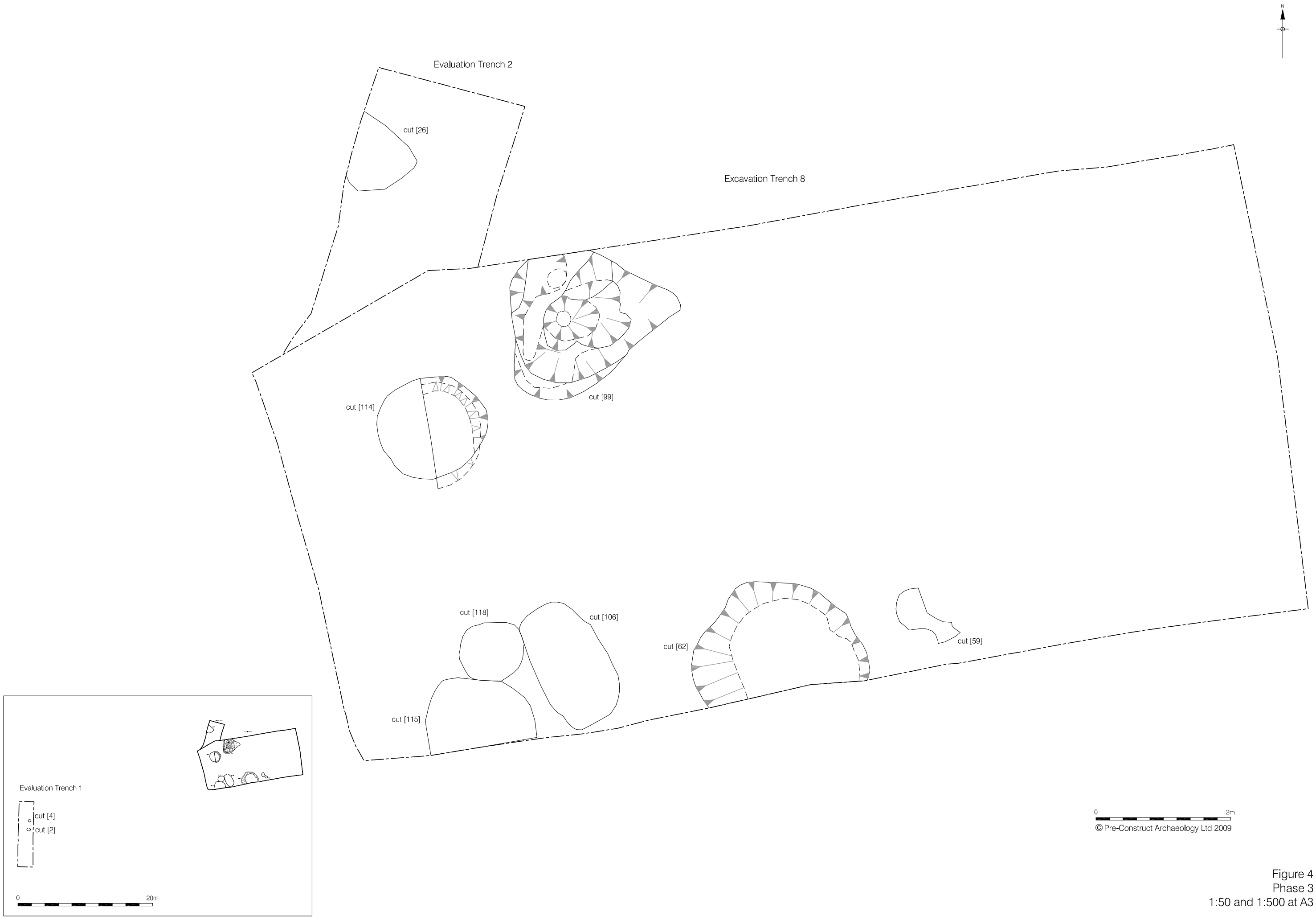

Figure 4
Phase 3
1:50 and 1:500 at A3

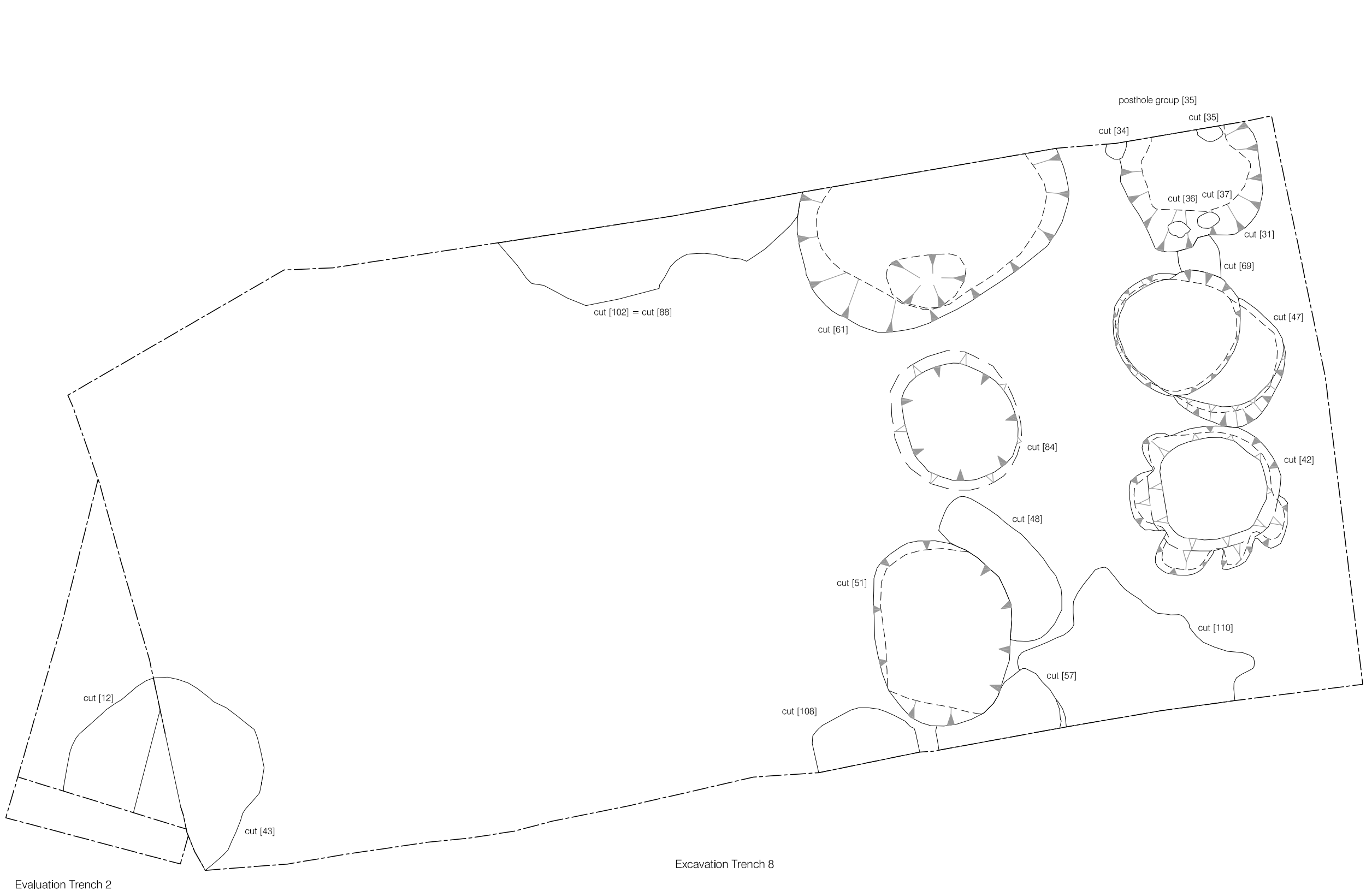

Figure 5
Phase 4
1:50 at A3

8 CONCLUSIONS

8.1 The evaluation had revealed that features dating to the Middle Iron Age and early Roman periods were present to the east of the former standing building. These ranged from large postholes, indicating that evidence of structures may still survive on the site, to linear cuts that could have defined an enclosure and pits that held domestic waste that probably derived from a nearby settlement.

8.2 The excavation confirmed that pits dating to the Middle Iron Age were present. A dense concentration of these was present in the central part of Trench 8. Some of the pottery survived as large fragments which again suggested that the excavated features were associated with a settlement located very close to the area excavated. Two roughly circular steep sided pits were evident to the west of the main cluster of pits and the presence of further features dating to this period to the northwest had previously been demonstrated during the evaluation. Although one possible posthole was evident no structures dating to this period were uncovered but it is probable that they were present beyond the small area uncovered during the fieldwork.

8.2 The presence of features dating to the Middle Iron Age was surprising given that material dating to this period is not common in the vicinity or the Greater London area as a whole and the area has previously been associated with earlier Bronze Age activity. Areas adjacent to the site which are known to have been occupied during the later Bronze Age, such as the upper Wandle Valley, were abandoned during the Middle Iron Age. This phenomenon is associated with a climatic deterioration which may have fundamentally altered patterns of agricultural landuse and settlement[22].

8.3 The site may have been abandoned before being re-occupied in the later Iron Age-Early Roman period. The features shown on Figure 4 have been placed in Phase 3, a separate Late Iron Age period, but it may be that they were in fact contemporary with those assigned to the transitional Late Iron Age-Early Roman Phase 4. However, the spatial distribution of both sets of features appears to show that the areas which had been disturbed during earlier excavations were largely avoided when new features were dug. This may have been of particular importance for the features believed to be grain storage silos. Fresh chalk might have been deliberately sought when these shafts were being sunk either because it offered advantages in the preservation of stored grain or simply because the sides of the shafts were more stable when dug through undisturbed chalk.

[22] Howell 2005, p50

8.4 If the interpretation of these features as grain storage silos is correct there can be no doubt that settlement is located on the hilltop. It is most unlikely that such a valuable resource would have been left unguarded and implies that the settlement was permanent.

8.5 The small but increasingly abundant pottery assemblage, along with other objects such as loomweights, also indicated that a settlement was located close to the area excavated although no structures were uncovered. This was also somewhat surprising as very little evidence of transitional Late Iron Age-Early Roman occupation has been found even on the edge of the chalk uplands that rise to the south of the upper Wandle Valley.

9 CONTENTS OF THE ARCHIVE

9.1 PAPER RECORDS

Context Sheets	120
Plans	41
Sections	3
Environmental Sample Sheets	33

9.2 THE FINDS

Pottery	2 boxes
Animal Bone	5 boxes
Human Bone	2 bags
Ceramic Building Material, Fired Clay & Daub	1 box
Lithics	1 box
Burnt flint	7 boxes

9.3 SAMPLES

Environmental Bulk Samples	33

9.4 PHOTOGRAPHS

Black and White Prints	107
Colour Slides	107
Digital shots	108

10 ORIGINAL RESEARCH QUESTIONS AND REVISED RESEARCH QUESTIONS

10.1 Original Research Questions

The following research questions were posed in the method statement for the Excavation[23].

10.1.1 To further define the nature, extent, character and chronology of the Iron Age and Roman occupation on the site.

Archaeological remains of Middle Iron Age and Late Iron Age/Early Roman date were revealed on the site. Middle Iron Age activity consisted of a series of pits and a ditch. The pits, which contained pottery suggesting a date of 400-200 BC, most likely represent rubbish pits associated with a nearby farmstead or settlement. The extent of the occupation could not be defined due to the limited area that could be investigated due to the presence of protected trees. However, it is possible that the east-west aligned ditch to the north of Trench 8 may define the northern limits of settlement or at least the area of pitting as no Middle Iron Age pits were revealed to the north of it. Possible buildings may have lain further to the south although this is speculation.

A series of Late Iron Age and Early Roman pits were revealed within the same area of investigation (Trench 8) which suggest similar activity as the earlier period. The pottery recovered from these pits contains many forms which continued in use from the Late Iron Age to the Early Roman which may suggest that rather than separate Late Iron Age and Early Roman phases of activity that one phase of occupation covering this transitional period is represented. At least two of the pits are interpreted as grain storage silos which suggests that a small rural community occupied the site whether an isolated farmstead or a small settlement. As with the Middle Iron Age settlement the area of occupation could not be defined due to the limited size of the area of investigation.

10.1.2 To further determine the date, extent, nature and duration of habitation of the site.

The activity recorded on site was dated from the Middle Iron Age to the Early Roman (see above 10.1.1). The intercutting nature of the pits with the resultant possibility of residual finds meant that consigning some features to a particular phase was difficult. However, it is possible that the remains suggest continuous occupation from the Middle Iron Age to the Early Roman. The limited size of the area of investigation and the lack of structural elements make this difficult to prove with any degree of certainty.

[23] Bradley 2008

10.1.3 The probable prehistoric settlement evidence at the site can help to define regional settlement patterns, where possible a settlement plan should be identified (Research Framework for London Archaeology, Museum of London, 2002, p.25)

The possible farmstead/small settlement represents one of several contemporary sites found along the edge of the chalk escarpment from east Surrey to west Kent where the dip slope of the Downs meets the clay basin or where the chalk is bisected by the sands and gravels of the minor river valleys that lead north to the Thames. The extent and plan of the settlement on this particular site cannot be defined as no structural remains were found and the boundaries of the area of occupation, with the possible exception of the Middle Iron Age ditch, were not found within the areas of investigation that were possible.

10.1.4 To ascertain whether specific agricultural, industrial or ritual activities can be determined from the observed evidence.

The presence of at least two bell shaped shafts and a possible two others have been interpreted as grain storage pits which would suggest that at least some of the features on site had an agricultural purpose. Other pits may have served as rubbish pits. It is possible that some of the pits may have served a ritual purpose or at least had ritual objects placed within them. One Middle Iron Age pit contained the skull of a sheep near its base. However, the fact that it was not placed directly on the pit's base may suggest that it merely represents the disposal of rubbish. The presence of small quantities of horse bone and two pieces of human bone, a fragment of skull from an infant and a neonatal tibia, might also be suggestive of ritual behavior as the presence of horse bones and human bones, especially long bones and skulls in features such as ditches is well attested from the prehistoric period into the Roman. However, it is also possible that these objects, especially with regard to the horse bone represent rubbish disposal.

No definite evidence of industrial activity was found on site. Quantities of burnt flint were found within some of the pits and a large assemblage of burnt daub was found in one pit, but this may represent nothing more than the disposal of hearth waste and a burnt structure. However, it is possible that the burnt flint represents activity associated with the parching of corn, large scale cooking, the residues from saunas or the product of some unidentified industrial activity such as leather making or wool processing.

10.1.5 The later prehistoric faunal assemblage may help to elucidate the balance between pastoral and arable economies and patterns of subsistence, and

contribute to understanding and clarifying the mechanisms that prompted agricultural intensification (Research Framework for London Archaeology, Museum of London, 2002, p.25)

The Iron Age deposits provided a small range of domesticates, dominated by cattle and sheep. The quantities are insufficient to judge whether there was a bias towards an arable or pastoral economy, although the wealth of aged individuals could suggest the former. A subsistence strategy would require a mixture of juveniles (the first autumn cull) as well as older animals, as described in Maltby (1981, 172). While the relatively good condition of the bones could mitigate against the poor survival of such youngsters in the assemblage, there is again the problem of non representation related to small sample size.

10.1.6 To further determine the presence of possible ritual deposits on the site as evidenced by the deposition of a whole sheep skull and horse bones at the base of a Middle Iron Age pit.

No further evidence of ritual deposits was found during the excavation. The sheep skull, horse bones and human bone is discussed above (10.1.4).

10.1.7 To determine whether buried soils or occupation horizons are preserved on the site.

No buried soils or occupation horizons were encountered on the site in either the Evaluation or Excavation phases of investigation.

10.1.8 To ascertain if there is evidence for the continuity of settlement, occupation and land use from the Iron Age through to the early Roman period and to place the evidence from this site in its wider landscape context.

Pottery recovered from the pits suggest activity dating from the Middle Iron Age (400-200 BC) to the Late Iron Age/Early Roman. The limited size of the area of investigation coupled with the lack of buildings makes it difficult to determine with any degree of certainty whether there was unbroken occupation on the site from the Middle Iron Age to the Early Roman or whether there was a hiatus between the two periods. The intensity of pitting within the relatively small area of investigation might suggest long term occupation of the area and thus continuous activity on the site.

As mentioned above (10.1.3), the site is one of a number of the same period which occupies the slopes of the chalk escarpment in east Surrey and west Kent. Evidence from these sites will be compared with the results of the subject site during the further analysis and publication phase of the post-excavation.

10.1.9 To further clarify the presence of early Roman occupation on the site and determine how this occupation compares with other elements in the local landscape and whether there is any evidence for Roman agricultural activity indicating a renewed phase of agricultural intensification in the wider early Roman landscape (Research Framework for London Archaeology, Museum of London, 2002, p.27).

The features currently dated to the Late Iron Age and Roman phases of activity contains pottery which remained in use between the two periods and might suggest that this site represent transitional activity. The presence of probable grain storage pits suggest the presence of agricultural activity on the site and indicate that a surplus was being produced which was stored both for later consumption and for next year's seeding. It would therefore suggest that the site was occupied by a small farmstead or settlement. However, it is not possible to state whether it represents a phase of agricultural intensification in the Early Roman period as the limited size of the investigation precludes a comparison with earlier agricultural practices on the site.

10.1.10 To define the nature of the zooarchaeological and palaeoenvironmental context of the Iron Age and Roman activity, together with any earlier and/or later activity.

There are minor differences between the Iron Age and Roman assemblages, the principal ones being the apparently greater range of ages of cattle and sheep in the later collection as well as the majority of head and foot parts amongst the Roman sheep assemblage. The first may indicate a move towards mixed farming while the second is indicative of deliberate deposition. It is unclear if this evidence shows actual differences. However, the larger Roman assemblage could reflect a more accurate representation of the originally deposited bone collections. Of some interest is the potential 'ritual' deposit comprising a sheep skull, from one of the Iron Age pits. Similar deposits have been found at a number of other contemporary sites in South-East England, no doubt representing a similarity of purpose as defined by the spiritual requirements of the local population.

The limited results of the environmental analysis makes it difficult to define the nature of the palaeoenvironmental context. The presence of probable grain storage pits during the Late Iron Age would suggest that grain crops were being grown and harvested in the vicinity.

10.1.11 The well stratified Middle Iron Age ceramic material could help to further refine and date the local ceramic sequence (Research Framework for London Archaeology, Museum of London, 2002, p.25), in parallel with radiocarbon dating of suitable residues on the material recovered.

A small assemblage of Middle Iron Age pottery was recovered from the site. This was recovered in small quantities from a number of pits that were assigned to the Middle Iron Age phase. However, there was a great deal of intercutting of pits on the site with residual Middle Iron Age pottery recovered from the Late Iron Age and Early Roman features. There is therefore a strong possibility that some of the features currently assigned to the Middle Iron Age may in fact contain residual Middle Iron Age pottery and be much later in date.

Radiocarbon dating of carbonised material from within the possible Middle Iron Age pits is unlikely to refine the dating of the pottery as the assemblages are rather small and the results are unlikely to give a narrower timeframe than 400-200 BC. On larger sites with a good stratified sequence it may have been possible to further refine the radiocarbon dates using Bayesian techniques, however with the limited size of this site and questions regarding the stratigraphy it is not felt that this site would have fulfilled the necessary requirements for refining the date of the local ceramic sequence to succeed.

10.2 Revised Research Questions

10.2.1 The results of the excavation would suggest that the following revised research questions should be considered.

- Can the results of the site be compared with similarly dated sites on the slopes of the chalk escarpment in east Surrey and Kent?
- How does the site fit into its regional context?
- Is the location of the farmstead/settlement determined by the local geology and topography?
- How do the pottery assemblages compare to those from similar sites in the locality such as Beddington[24]?
- How does the animal bone assemblage compare to that of Beddington[25]?

[24] Howell 2005
[25] Howell 2005

11 IMPORTANCE OF THE RESULTS, FURTHER WORK AND PUBLICATION OUTLINE

11.1 Importance of the Results

11.1.1 The site has provided important evidence of Middle Iron Age to Early Roman activity in an area where such activity has not been recorded before. The presence of possible grain storage pits and the assemblages of pottery, animal bone and loomweights would suggest that a settlement was located close to the area of excavation. The results of the excavation are thus of some significance as they suggest a continuity of occupation activity after the well documented Bronze Age activity in the vicinity.

11.2 Further Work

11.2.1 The geology and topography of the site will be further considered and compared to similarly located sites in the region. Other sites of Middle Iron Age and Late Iron Age/Early Roman in the East Surrey and Kent area positioned in similar locations will be studied and compared to the subject site, allowing the results from Carshalton to be placed within a regional context.

11.2.2 Limited comparative work will be undertaken on the pottery with other contemporary assemblages from Beddington[26] and others further afield.

11.2.3 Limited comparative work will be undertaken on the animal bone with contemporary assemblages from Beddington[27].

11.2.4 Further analysis of the distribution of the burnt flint will be attempted.

11.3 Publication Outline

11.3.1 It is proposed that the results of the excavation be published as an article in London Archaeologist. The report will be a synthetic text with finds information integrated into the main archaeological sequence. The report will contain a background to the excavation and attempt to place the site in its regional context. It will be fully illustrated with site and trench locations, phase plans, site photos and finds illustrations where appropriate.

[26] Howell 2005
[27] Howell 2005

12 BIBLIOGRAPHY

Adkins, L. and Needham, S., 1985. New Research on a Late Bronze Age Enclosure at Queen Mary's Hospital, Carshalton, *Surrey Archaeological Collections* 76,11-50.

Bradley, T., 2008. *Method Statement for an Archaeological Excavation and Monitoring Exercise at Ashcombe House, Carshalton War Memorial Hospital, Carshalton, London Borough of Sutton,* PCA unpublished report.

Birch, Mrs, 1925. A Carshalton Camp, *Surrey Archaeological Collections* 36, 102-106.

Darton, L., 2008a. *Specification For An Archaeological Excavation And Monitoring Exercise: Ashcombe House, Carshalton War Memorial Hospital, Carshalton,* CgMs Consulting unpublished document.

Darton, L., 2008b. *Archaeological Desk Based Assessment Land at Carshalton War Memorial Hospital The Park Carshalton,* CgMs Consulting unpublished document.

Groves, J. and Lovell, J., 2002. Excavations within and close to the Late Bronze Age enclosure at the former Queen Mary's Hospital, Carshalton, 1999, *London Archaeologist* Vol. 10 No. 1, 13-19.

Howell, I. (ed), 2005. *Prehistoric Landscape to Roman villa: Excavations at Beddington, Surrey 1981-7*, Museum of London Archaeology Service Monograph 26.

Maltby, M. 1981. Iron Age, Romano-British and Anglo-Saxon animal husbandry - a review of the faunal evidence, in M. Jones and G. Dimbleby (eds), *The environment of man: the Iron Age to the Anglo-Saxon period,* B.A.R. British Series 87, 155-203.

Killock, D., 2008. *An Archaeological Evaluation At Ashcombe House, Carshalton War Memorial Hospital, Carshalton SM5 3BY,* PCA unpublished report.

Proctor, J., 1999. Late Bronze Age/Early Iron Age placed deposits from Carshalton, *London Archaeologist* Vol. 9 No. 2, 54-59.

Nixon, T., McAdam, E., Tomber, R. & Swain, H. 2002 *A Research Framework for London Archaeology 2002*, Museum of London

Webpages consulted;

http://www.butser.org.uk/iafsgu_hcc.html

http://www.croydononline.org/history/topics/geology1.asp

13 ACKNOWLEDGEMENTS

13.1 Pre-Construct Archaeology Limited would like to thank CgMs Consulting who commissioned the work on behalf of Sutton and Merton Primary Care Trust who funded the archaeological investigation and in particular Lorraine Darton who acted as consultant for the client. Thanks also to Diane Walls who monitored the site for English Heritage, GLAAS.

13.2 The author would like to thank Tim Bradley for project managing the excavation and Jon Butler for the post-excavation management and editing this report. Thanks to Jenny Simonson for her hard work on the illustrations. Thanks go to Louise Rayner for the pottery and fired clay reports, Kevin Hayward for the building material report, Barry Bishop for the lithic and burnt stone reports, Kevin Rielly for the animal bone report, Kathelen Leary for the human bone report and QUEST for the environmental report. Thanks also to Lisa Lonsdale who provided logistic support to the excavation and organised machine hire. The excavation was surveyed by Nathalie Barrett who is thanked for her help. Specialist photographic coverage was provided Streph Duckering who produced some splendid overhead shots of the site, many thanks.

13.3 Finally thanks are given to the excavation staff Ian Bright, Will Johnstone, Matt Edmonds and Stuart Watson for their very hard work. A huge amount of earth was moved in a very short space of time during this small excavation and December was as usual as pretty cold month. Thanks again to you all.

APPENDIX 1: CONTEXT INDEX

Context No.	Trench	Plan	Section / Elevation	Type	Description	Phase
1	Trench 1	0		Fill	Fill of [2]	3
2	Trench 1	Tr1		Cut	Posthole	3
3	Trench 1	0		Fill	Fill of [4]	3
4	Trench 1	Tr1	0	Cut	Posthole	3
5	Trench 4	0	S2	Fill	Fill of [6]	5
6	Trench 4	0	S2	Cut	Pit	5
7	Trench 4	0	S2	Layer	Natural subsoil	1
8	Trench 4	Tr4	S2	Layer	Natural chalk	1
9	Trench 5	Tr5	S3	Layer	Natural chalk	1
10	Trench 5	0	S3	Layer	Natural subsoil	1
11	Trench 2	0	0	Fill	Fill of [12]	4
12	Trench 2	Tr2	0	Cut	Pit	4
13	Trench 2	0	0	Fill	Fill of [14]	2
14	Trench 2	Tr2	0	Cut	Pit	2
15	Trench 2	0	0	Fill	Fill of [16]	2
16	Trench 2	Tr2	0	Cut	Ditch/gully	2
17	Trench 7	0	0	Fill	Fill of [18]	2
18	Trench 7	Tr7	0	Cut	Pit	2
19	Trench 7	0	0	Fill	Fill of [20]	4
20	Trench 7	Tr7	0	Cut	Pit	4
21	Trench 7	0	0	Fill	Fill of [22]	4
22	Trench 7	Tr7	0	Cut	Pit/shaft	4
23	Trench 6	0	0	Fill	Fill of [24]	1
24	Trench 6	Tr6	0	Cut	Natural channel	1
25	Trench 2	0	0	Fill	Fill of [26]	3
26	Trench 2	Tr2	0	Cut	Pit	3
27	Trench 2	0	0	Fill	Fill of [28]	2
28	Trench 2	Tr2	0	Cut	Posthole	2
29	Trench 3	0	S1	Layer	Natural subsoil	1
30	Trench 3	0	S1	Layer	Natural chalk	1
31	Trench 8	31	0	Cut	Pit	4
32	Trench 8	0	0	Fill	Fill of [42]	4
33	Trench 8	0	0	Fill	Fill of [31]	4
34	Trench 8	35	0	Cut	Posthole	4
35	Trench 8	35	0	Cut	Posthole	4
36	Trench 8	35	0	Cut	Posthole	4
37	Trench 8	35	0	Cut	Posthole	4
38	Trench 8	0	0	Fill	Fill of [34]	4
39	Trench 8	0	0	Fill	Fill of [35]	4
40	Trench 8	0	0	Fill	Fill of [36]	4
41	Trench 8	0	0	Fill	Fill of [37]	4
42	Trench 8	42	0	Cut	Pit/shaft, same as [22]	4
43	Trench 8	43	0	Cut	Pit, same as [12]	4
44	Trench 8	0	0	Fill	Lower fill of [43]	4
45	Trench 8	0	0	Fill	Upper fill of [43]	4
46	Trench 8	0	0	Fill	Fill of [47]	4
47	Trench 8	47	0	Cut	Pit	4
48	Trench 8	48	0	Cut	Pit, same as [20]	4
49	Trench 8	0	0	Fill	Upper fill of [51]	4
50	Trench 8	0	0	Fill	Lower fill of [51]	4

Context No.	Trench	Plan	Section / Elevation	Type	Description	Phase
51	Trench 8	51	0	Cut	Pit	4
52	Trench 8	52	0	Cut	Pit	2
53	Trench 8	0	0	Fill	Upper fill of [52]	2
54	Trench 8	0	0	Fill	Lower fill of [52]	2
55	Trench 8	0	0	Fill	Lower fill of [42]	4
56	Trench 8	0	0	Fill	Fill of [57]	4
57	Trench 8	57	0	Cut	Pit	4
58	Trench 8	0	0	Fill	Fill of [59]	3
59	Trench 8	59	0	Cut	Pit	3
60	Trench 8	0	0	Fill	Fill of [61]	4
61	Trench 8	61	0	Cut	Pit	4
62	Trench 8	62	0	Cut	Pit	3
63	Trench 8	0	0	Fill	Upper fill of [62]	3
64	Trench 8	0	0	Fill	Lower fill of [62]	3
65	Trench 9	0	0	Layer	Topsoil	5
66	Trench 9	Tr 9	0	Layer	Natural chalk	1
67	Trench 9	Tr 9	0	Layer	Natural red sand	1
68	Trench 8	0	0	Fill	Fill of [69]	4
69	Trench 8	69	0	Cut	Posthole, possibly associated with [31]	4
70	Trench 8	0	0	Fill	Fill of [71]	2
71	Trench 8	71	0	Cut	Pit	2
72	Trench 8	0	0	Fill	Fill of [73]	2
73	Trench 8	73	0	Cut	Pit	2
74	Trench 8	0	0	Fill	Fill of [75]	2
75	Trench 8	75	0	Cut	Heavily truncated linear cut	2
76	Trench 8	0	0	Fill	Fill of [77]	2
77	Trench 8	77	0	Cut	?Pit	2
78	Trench 8	0	0	Fill	Fill of [48]	4
79	0	0	0		VOID	-
80	0	0	0		VOID	-
81	Trench 8	0	0	Fill	Fill of [84]	4
82	Trench 8	0	0	Fill	Fill of [84]	4
83	Trench 8	0	0	Fill	Fill of [84]	4
84	Trench 8	84	0	Cut	Pit/shaft	4
85	Trench 8	0	0	Fill	Fill of [84]	4
86	Trench 8	0	0	Fill	Fill of [84]	4
87	Trench 8	0	0	Fill	Fill of [88]	4
88	Trench 8	88	0	Cut	Small pit	4
89	Trench 8	0	0	Fill	Fill of [90]	2
90	Trench 8	90	0	Cut	Heavily truncated pit	2
91	Trench 8	0	0	Fill	Fill of [92]	2
92	Trench 8	92	0	Cut	Large pit	2
93	Trench 8	0	0	Fill	Fill of [94]	2
94	Trench 8	94	0	Cut	Small truncated pit	2
95	Trench 8	0	0	Fill	Fill of [96]	2
96	Trench 8	96	0	Cut	Heavily truncated pit	2
97	Trench 8	0	0	Fill	Fill of [98]	2
98	Trench 8	98	0	Cut	Truncated pit	2
99	Trench 8	99	0	Cut	Very large pit	3
100	Trench 8	0	0	Fill	Upper fill of [99]	3
101	Trench 8	0	0	Fill	Lower fill of [99]	3
102	Trench 8	88	0	Cut	Pit or linear cut, same as [88]	4
103	Trench 8	0	0	Fill	Fill of [102], same as [87]	4

Context No.	Trench	Plan	Section / Elevation	Type	Description	Phase
104	Trench 8	0	0	Fill	Fill of [105]	2
105	Trench 8	105	0	Cut	Large pit	2
106	Trench 8	106	0	Cut	Pit	3
107	Trench 8	0	0	Fill	Fill of [106]	3
108	Trench 8	108	0	Cut	Pit	4
109	Trench 8	0	0	Fill	Fill of [108]	4
110	Trench 8	110	0	Cut	Irregularly shaped shallow cut	4
111	Trench 8	0	0	Fill	Upper fill of [110]	4
112	Trench 8	0	0	Fill	Lower fill of [110]	4
113	Trench 8	0	0	Fill	Fill of [114]	3
114	Trench 8	114	0	Cut	Pit	3
115	Trench 8	115	0	Cut	Shallow cut, possible treethrow	3
116	Trench 8	0	0	Fill	Fill of [116]	3
117	Trench 8	0	0	Fill	Fill of [118]	3
118	Trench 8	118	0	Cut	Small shallow pit	3
119	Trench 8	119	0	Cut	Pit, unexcavated	2
120	Trench 8	0	0	Fill	Fill of [119]	2

APPENDIX 2: POTTERY ASSESSMENT

Louise Rayner

Introduction

The excavation phase of fieldwork on site recovered a moderate assemblage of 292 sherds (4756g) in addition to the evaluation assemblage of 77 sherds. As with the evaluation assemblage, the excavation phase produced material of Middle Iron Age and Late Iron Age – early Roman date (see Table 1: Spot-Dates with comments). Pottery was recovered from 29 individual contexts, although all but one of these is small in size (less than 30 sherds).

The pottery is largely in good condition with little sign of abrasion, although sherds are mostly small-medium in size (16g average sherd weight) and few large profiles are present. The only possible sherd joins between contexts were noted for [46] and [60]. Some sooting is evident indicative of domestic cooking use.

Methodology

The assemblage was recorded on pro-forma sheets to standards outlined by the Museum of London. Fabric and form codes of MoL/LAARC were used for the Roman material but in the absence of a London-wide system of coding for pre-Roman, a site specific fabric type series has been outlined using guidelines as defined by the Prehistoric Research Ceramics Group (1997).

All sherds were examined with a x20 binocular microscope and quantified by sherd count and weight.

Period Overview of Fabrics and Forms

Pre-Roman Material (Phase 2)

The excavation assemblage comprised the same range of fabrics as had already been identified in the evaluation assemblage including: shell-tempered, flint-and-sand- tempered and sandy-wares. This diverse range of fabric types has on other sites from the London area indicated a date in the range 400-200 BC and it is likely the material from this site can be broadly placed in this period. As flint-tempered fabrics are still present and grog-tempered fabrics absent from these groups, they are unlikely to date much into the 1st century BC.

The majority of these sherds are plain body sherds, typically with well finished burnished surfaces. In [72] a single example of a crude carinated shouldered jar is present with a roughly folded over rim; this form is derived from earlier Iron Age types. An inturned rim with fingertip impressions on the upper edge is also present in [89]. The most complete profile of this phase is in [104] comprising a simple, upright rounded rim jar with a low rounded shoulder (shallow S-shape profile). Internal carbonised residue on this vessel is indicative of its use as a cooking vessel but would also provide a useful C14 dating sample for both the ceramic type and large pit [105].

Romanised Material (Phases 3 & 4)

The majority of the groups can be placed in these phases. It is unclear at this stage, how real the division between phase 3 and phase 4 is; the difference between the groups that contain Roman sherds from known kiln sources (such as Alice Holt and Verulamium region wares) and those with increasingly Romanised form types but in fabrics with native origins (often the same as those in the Middle Iron Age groups) may be chronological but may also be a factor of sample size and in fact all such groups are contemporary.

The assemblage from [46] is the best example of this phase composed predominately of shell-tempered and sandy wares in simple beaded rim jar forms (2A's). Also present in a fine sandy oxidised ware is a round shouldered, cordoned jar of 'Belgic' style with post-firing perforations in the base indicating a secondary use as a strainer or similar function. Sherds from this vessel may also be present in context [60]. This assemblage recovered from [47] may be a fourth pit shaft and the large assemblage recovered (some 71 sherds) is one of the key groups from the site.

A second group with good examples was recovered from [33] (fill of pit [31]) which included grog-tempered cordoned necked jars and shell-tempered storage jar. Wheel-thrown bases are also present.

The only imported ware was recovered from [85] and comprised a single sherd of south Gaulish samian (SAMLG) probably from the lower part of a Dragendorff 27 cup. Also in this group are sherds of Verulamium white ware and Alice Holt grey ware which are likely to indicate a date of post AD 55 in this context.

Significance

The area of Carshalton is much better known for the presence of a Late Bronze Age fortified enclosure at Queen Mary's Hospital, and the large ceramic assemblage recovered which has been established as a type site for the region.

The identification of stratified Middle Iron Age material during the evaluation was a surprising but important discovery and with the LIA/ERB groups, both of which have been augmented by the excavation assemblages, are of local significance for characterising the ceramic tradition of the area for these periods. The assemblage does find some parallels with the assemblage recovered to the west at Beddington (Howell 2005); although a clear Middle Iron Age phase is absent at this site, the Later Iron Age pottery, also dominated by shell-tempered wares especially bead-rimmed jars is comparable.

A small number of sherds from both phases of fieldwork have been identified with carbonised residues and consideration should be made of dating these. Radiocarbon dates for the Iron Age are most useful when these can be modelled using Bayesian techniques (multiple dates, sequencing based on stratigraphic relationships etc) and it may be this site does not meet these criteria.

Further Work

The assemblage is worthy of publication with key groups illustrated and catalogued. Limited comparative work will be undertaken with the assemblage from Beddington and potentially others from further afield but that may provide regional context such as the Middle Iron Age pit groups from Hawk's Hill, Leatherhead. The evaluation assemblage will be fully integrated with the excavation data and feature groups examined in detail to refine and finalise dating.

Bibliography

Howell, I. (ed), 2005. *Prehistoric landscape to Roman villa: excavations at Beddington, Surrey, 1981-7,* Museum of London Archaeology Service Monograph 26.

PCRG, 1997. Guidelines for the recording and publication of later prehistoric pottery, Occ Paper Nos. 1 & 2

Context	Description	Period	Date	Group Size	Comment
U/S		MIA	400-200 BC	S	
32	Fill of [42] Pit/shaft, same as [22]	LIA	100 BC - 40 AD	S	LIA based on grog & shell fabrics
33	Fill of [31] pit	LIA/ERB	c 50AD	S	
44	Lower fill of [43] Pit, same as [12]	ERB	c 50AD	S	
45	Upper fill of [43] Pit, same as [12]	MIA		S	Single shd
46	Fill of [47] Pit	ERB	c 50AD	M	Good group; native fabrics continue but Romanised vessel also
49	Upper fill of [51] Pit	MIA	400-200BC	S	
50	Lower fill of [51] Pit	MIA	400-200 BC	S	
53	Upper fill of [52] Pit	M/LIA	400-100 BC	S	Single shd
54	Lower fill of [52] Pit	M/LIA	400 - 100 BC	S	Single shd
56	Fill of [57] Pit	M/LIA - ERB		S	Single Roman shd? Intrusive
58	Fill of [59] pit	LIA	100 BC - 40 AD	S	
60	Fill of [61] Pit	ERB	c 50AD	S	Based on OXID1 sherd
63	Upper fill of [62] Pit	M/LIA	400-100 BC	S	
64	Lower fill of [62] Pit	M/LIA	400-100 BC	S	
72	Fill of [73] Pit	MIA	400-200 BC	S	
74	Fill of [75] truncated linear cut	MIA	400-200 BC	S	
81	Fill of [84] Pit/shaft	ERB	c 50AD	S	Romanised shds present
85	Fill of [84] Pit/shaft	ERB	50 - 70 AD	S	
89	Fill of [90] Heavily truncated pit	MIA	400-200 BC	S	
91	Fill of [92] Large pit	M/LIA	400-100 BC	S	Single shd
95	Fill of [96] Heavily truncated pit	M/LIA	400-100 BC	S	
97	Fill of [98] Truncated pit	M/LIA	400-100 BC	S	
100	Upper fill of [99] Very large pit	M/LIA	400-100 BC	S	Single shd
103	Fill of [102], same as [87] Pit or linear cut, same as [88]	LIA/ERB	50 BC - AD 50	S	Single vessel
104	Fill of [105] Large pit	MIA	400-200 BC	S	
109	Fill of [108] Pit	ERB	c 50AD	S	
111	Upper fill of [110] Irregularly shaped shallow cut	ERB	50 -70 AD	S	
113	Fill of [114] Pit	LIA	100 BC - 40 AD	S	
116	Fill of [116] Shallow cut, possible treethrow	M/LIA	400-100 BC	S	

Table 1: Spot dates by Context

APPENDIX 3: FIRED CLAY ASSESSMENT

Louise Rayner

Introduction

A total of 143 fragments (3196g) of fired clay and daub was recovered from 20 individual contexts. Of these 14 contexts also contained pottery to provide some independent dating information.
The assemblage was examined with an x20 binocular microscope and broad fabric categories devised; each context was recorded on a pro-forma sheet, quantified by count and weight and described and assigned to an object type where apparent.

Fabric Types

Five fabric types were devised although the majority of the assemblage is represented by fabric 1 and fabric 3.

Fabric 1: Hard fired fabric, mostly orange-red in colour (some with grey core); inclusion-less, laminated fracture
Fabric 2: Similar to fabric 1 but with sandier fabric; grey throughout
Fabric 3: Sandy, orange-buff fabric with rounded calcareous inclusions; daub
Fabric 4: Sandy fabric, grey with coarse flint inclusions
Fabric 5: Buff-orange, soft powdery fabric with mixed marled iron-rich clays

Form Types

The only identifiable object type in the assemblage is triangular-shaped weights. These feature in contexts [33] (fill of pit [31]) and [48] (pit) with a further possible example in [49] (upper fill of pit [51]). The examples are fairly standard with cross-corner perforations present; the example in context [48] appears to be quite a small example, although as both are incomplete with shattered fragments the overall size is difficult to reconstruct.

Triangular weights are associated with Middle and Late Iron Age periods and appear to continue into the early Roman period, with finds from central London indicative of an early post-conquest date. However, they are common on Middle and Late Iron Age settlement sites including the large hillforts such as Danebury where large assemblages have been examined (Poole 1984, 404-5).

The function of these triangular objects has been the subject of much discussion (Poole 1995; Brown 1995) although their use as weights associated with textile production is still generally favoured in the

absence of compelling evidence for alternative interpretation such as oven bricks or other structural uses (Poole 1995).

Fabric 3 is a fabric type commonly described as daub with large calcareous inclusions. The soft rounded fragments would agree with this interpretation.

All other fragments cannot be assigned a form or function. It is possible all fragments in fabric 1 relate to triangular weights but diagnostic pieces are largely absent; the shattered condition of the two better preserved examples and laminated nature of the fabric may explain why surfaces are largely absent and only undiagnostic core fragments are present.

Significance

This small and limited assemblage is of little significance and potential. The presence of triangular weights is of some note but given the condition of these, they are unable to contribute further to our understanding of these objects and their use.

The recovery of these objects in pits is unlikely to be related to their primary function.

Further Work

Given the limited significance and potential, no further work is recommended for this assemblage. The presence of the objects can be noted in the site narrative with reference to this assessment report and the data created during assessment without need for a stand alone report or further examination.

Bibliography

Brown, L., 1995. Pottery Production, in B. Cunliffe *Danebury: An Iron Age Hillfort in Hampshire, Volume 6: A Hillfort community in perspective*, CBA Res Rep 102, 53-65.

Poole, C., 1984. Objects of baked clay, in B.W. Cunliffe *Danebury: An Iron Age Hillfort in Hampshire, Volume 1: The Excavations1969-78*, CBA Res Rep 52, 398-407.

Poole, C., 1995. Loomweights versus oven brick, in B. Cunliffe, *Danebury: An Iron Age Hillfort in Hampshire, Volume 6: A Hillfort community in perspective*, CBA Res Rep 102, 285-286.

APPENDIX 4: BUILDING MATERIAL ASSESSMENT

Kevin Hayward

Introduction

A very small assemblage (3 examples – 2.05kg) of building material was retained from excavation from the Late Iron Age - Early Roman site of Carshalton War Memorial Hospital, TQ 279 639 (ASW 08). The assemblage was examined at Pre-Construct Archaeology as part of an assessment of the building materials.

Aims

This assessment serves a number of purposes.

- The identification (under binocular microscope) by form and fabric of the main Late Iron Age building materials at Carshalton War Memorial Hospital including: - The identification (under binocular microscope) of the quernstone and (where possible) its geological source.
- In each section - identify any interesting or unusual pieces that warrant retention.

Methodology

The building materials were examined using the London system of classification with a fabric number allocated to each object. The application of a 1kg mason's hammer and sharp chisel to each example ensured that a fresh fabric surface was exposed. The fabric was examined at x20 magnification using a long arm stereomicroscope or hand lens (Gowland x10). Where possible, comparison was then made with the Pre-Construct Archaeology Building Material reference collection in order to provide a match as well as consultation of the grey and published literature. After analysis the common fabric types were discarded. Any unusual or interesting fabrics were retained.

Condition

The small quantity of building material that has been retained is all in a fragmentary condition.

Late Iron Age Building Material

A quern stone fragment and an example of unworked burnt stone from the Phase 3 pit [64] were the only examples of building material retained from the Late Iron Age occupation at the site. Small quantities of burnt flint [104], however, have been recorded from Phase 2 Middle Iron Age pits, whilst tiny background quantities of both burnt flint and daub have been recorded in Phase 3 Late Iron Age pits [64].

Stone *3106*
2 Examples 2.03kg

Comparable to *3106* Hassock stone – hard, medium grained glauconitic sandstone– Lower Greensand (Lower Cretaceous) These examples are tightly bound together by crystalline calcite cement making it a harder material to work than the conventional Hassock stone (Lower Greensand – West Kent) and more suitable therefore, as a quern stone (for the purposes of grinding grain into course flour). The source of the rock is likely to be from the local Lower Greensand outcrop (10-15 miles) directly south.

One example (52mm thick) is definitely a quern stone with a worked surface. The other appears to be rubble, but breaks up easily exposing a burnt core. This example has clearly been heated and the presence of burnt flint also in this feature represents other burnt waste.

Post-Medieval

2276 1 example 15g

A small fragment of post-medieval roofing (peg) tile was intrusive in the Phase 4 fill [109] of a Roman pit [108] is all that has been retained from the site.

It is made from the very fine post-medieval sandy fabric *2276* which was used between 1480 and 1900. However, the moulding sand is very fine which would indicate that its manufacture was after 1700.

Distribution – Key contexts

Context	Size	Date range of material		Latest dated material	
64	2	100BC	1660	100BC	1660
109	1	1480	1900	1480	1900

Summary

Little can be deduced from this small fragmentary building material assemblage however the following general statements are applicable.

- The small quantity of retained building material is dominated almost entirely by portable worked and unworked stone present in a single Late Iron Age pit [64].

- The geological source of the greensand is local (within 15 miles). Therefore the possibility that the quern stone fragment was the widely available LIA Lodsworth greensand (Peacock 1987) from West Sussex, seen elsewhere in LIA/ERB sites in South London (e.g. LCS05) (Hayward 2007), can be discounted. The acquisition of less suitable, local greensand sources for its quern stone may be an indication of the sites geographical isolation from this network and/ or its lower status.

- Tiny quantities of recorded daub provide the only building material evidence for the structure(s) from a nearby settlement identified from the evaluation.

Recommendations

No illustrations required. A brief overview of the building material is all that is required.

Bibliography

Hayward, K.M.J., 2007. Stone Report for LCS05. Unpublished stone report for Pre-Construct Archaeology Ltd.

Peacock, D.P.S., 1987. Iron Age and Roman quern production at Lodsworth, West Sussex, *Antiq J*, 47, 61-85.

APPENDIX 5: LITHIC ASSESSMENT

Barry Bishop

Introduction

Excavations at the site resulted in the recovery of seven struck flints. This report quantifies and describes the material, comments on its significance and recommends any further work needed for it to attain its full research potential. All metrical descriptions follow Saville (1980).

Raw Material

All of the struck flints are made from a good knapping-quality translucent black flint with occasional opaque grey mottling. It has a rough but weathered cortex and frequent exterior thermal scars. It is typical of flint from the North Downs, its cortex indicating that it was obtained from derived surface deposits rather from within the chalk itself. It would have been abundant in the sub-soils at the site and in its vicinity.

The Assemblage

Phase 2

Context [97] <SF 3> Small flake fragment with a thermal dorsal, chipped.

Phase 3

Context [25] Flake with shattered striking platform, pronounced bulb of percussion and hinged distal termination. Dorsal surface consists of a thermal scar. Slightly chipped. Dimensions: 22mm X 26mm X 3mm.

Context [58] Retouched broken flake with bulbar end missing. Has somewhat irregular sinuous steep scalar retouch around distal end, possibly forming a denticulated scraper. Slightly chipped. Dimensions: >49mm X 50mm X 15mm.

Phase 4

Context [46] Flake with a 9mm wide cortical striking platform, pronounced bulb of percussion and hinged distal termination. Dorsal consists of single flake scar. Chipped. Dimensions: 34mm X 32mm X 12mm

Context [46] Broken flake with distal end missing. Cortical striking platform 4mm wide and pronounced bulb of percussion. Dorsal consists of three multidirectional dorsal flake scars. Slightly chipped. Dimensions: >33mm X 35mm X 8mm.

Context [46] Broken flake with distal end missing. Cortical striking platform 5mm wide and pronounced bulb of percussion. Dorsal surface retains two unidirectional flake scars and c.30% thermal scar. Slightly chipped. Dimensions: >34mm X 33mm X 6mm.

Context [50] Flake fragments with bulbar and distal ends missing. Has a thermal dorsal surface and is in good condition but has very pronounced radiating fracture lines on the ventral surface. This

suggests that it may have been made by accidentally striking a piece of natural flint, rather than through deliberate manufacture. Good condition.

Discussion

The struck flint comprises a small assemblage of seven flakes, one of which has been retouched and another that may have been produced accidentally. It forms an homogenous industry based on the manufacture of thick flakes. These are broad and mostly have thick and often cortical striking platforms. Their technological characteristics suggest an exclusive hard-hammer technology and a rather casual approach to flake production. They are typical products of later prehistoric industries, being comparable to later Bronze Age or Iron Age flintwork (Herne 1991; Young and Humphrey 1999; Humphrey 2003). The single retouched piece, an irregular denticulated scraper, is also characteristic of such industries. This dating raises the possibility that these are contemporary with the Iron Age structural and pottery evidence identified, and the nature of Iron Age flintworking has been identified as a research priority (Haselgrove *et al.* 2001). Their condition, however, suggests that they have been redeposited, having been 'kicked around' for some time before incorporation. They cannot therefore be directly associated with the evidence for Iron Age occupation at the site and, whilst this remains a distinct possibility, it is also possible that they reflect previous later Bronze Age or earlier Iron Age activity at the site, periods which are amply represented at the many other sites in the vicinity.

Recommendations

Due to the size of the assemblage and the lack of certain contextual associations, this report is all that is required for the purposes of the archive and no further work is warranted. Mention should be made of the assemblage and the possibility of it construing evidence for Iron Age flintworking in any published report of the excavations.

Bibliography

Haselgrove, C., Armit, I., Champion, T., Creighton, J., Gwilt, A., Hill, J.D., Hunter, F. and Woodward, A., 2001. *Understanding the Iron Age: an agenda for action*. Iron Age Research Seminar / Council of the Prehistoric Society.

Herne, A., 1991. The Flint Assemblage. In: I. Longworth, A. Herne, G. Varndell and S. Needham, *Excavations at Grimes Graves Norfolk 1972 - 1976. Fascicule 3. Shaft X: Bronze Age flint, chalk and metal working*, British Museum Press. Dorchester, 21-93.

Humphrey, J., 2003. The Utilization and Technology of Flint in the British Iron Age, in J. Humphrey (ed.) *Re-searching the Iron Age: selected papers from the proceedings of the Iron Age research student seminars, 1999 and 2000*, Leicester Archaeology Monograph 11, 17-23.

Saville, A., 1980. On the Measurement of Struck Flakes and Flake Tools, *Lithics* 1, 16-20.

Young, R. and Humphrey, J., 1999. Flint Use in England after the Bronze Age: time for a re-evaluation? *Proceedings of the Prehistoric Society* 65, 231-242.

APPENDIX 6: BURNT STONE ASSESSMENT

Barry Bishop

Introduction

The excavations at the site resulted in the recovery of nearly 45kg of burnt stone. This report quantifies the material, assesses its significance and recommends any further work required for the material to achieve its full research potential.

Quantification

A total of 890 pieces of otherwise unmodified burnt flint weighing 44,509g was recovered from 32 separate contexts (Table 1).

Context	No.	wt (g)	ave wt (g)	% heavily burnt	% partially burnt	% lightly burnt
12	1	2	2	100		
32	118	5343	45.3	90	10	
44	4	180	45		50	50
45	4	134	33.5	75	25	
46	97	4888	50.4	90	10	
49	100	5156	51.6	90	10	
50	74	3307	44.7	100		
53	6	336	56	100		
54	3	22	7.33		100	
56	29	2263	78		70	30
58	20	1531	76.6	60	20	20
60	104	4762	45.8	60	40	
63	1	22	22		100	
64	4	182	45.5	75	25	
68	1	7	7	100		
70	3	165	55	75	25	
72	35	1408	40.2	20	80	
74	4	315	78.8		50	50
76	7	594	84.9		100	
81	3	211	70.3		100	
85	35	1580	45.1	70	30	
86	1	80	80		100	
87	4	240	60	100		
89	34	1472	43.3	60	30	10
91	28	1488	53.1	60	40	
95	5	314	62.8	60		40
97	16	827	51.7	70	30	
101	37	2305	62.3	80	20	
104	68	3233	47.5	90	10	
107	8	303	37.9	60	40	
109	15	493	32.9	60	40	
113	21	1346	64.1	70	30	

Table 1: Quantification of Burnt Stone ASW 08

Description

The burnt stone consists of unmodified nodular flint fragments that had been burnt to a variable but frequently to very intense degree and with large fragments often present.

The quantities recovered from the site may be regarded as high given the size of the areas excavated. Although some of the smaller quantities may represent residual background waste from 'domestic' hearth use, many of the contexts contained significant quantities that had been heavily and uniformly heated, which is more characteristic of deliberately burnt flint.

Substantial quantities were recovered from all three of the archaeological phases. Phase 4 produced the greatest quantities, totalling just under 29kg, whilst Phase 2 produced just over 10kg and Phase 3 just under 7kg.

Ten separate features in Phase 2 produced burnt flint with four pits, [73], [90], [92] and [105] containing quantities in excess of 1kg. Of the five features in Phase 3 that contained burnt flint, three, pits [59], [99] and [114], contained over 1kg. Phase 4 included 11 features containing burnt flint of which six produced over 1kg, the greatest quantities coming from the two fills of pit [51] which produced a combined total of over 8kg.

Some of the burnt flint may have originated from background waste and there may have been a degree of residual incorporation, particularly from intercutting features. Nevertheless, the quantities from these features indicate that the burnt flint had been deliberately generated and disposed of in the features.

The purposes that lie behind both the creation of the burnt stone and its deposition remain enigmatic, although the deliberate heating of often-large quantities of stone is frequently documented at prehistoric sites. In addition to the classic burnt mound sites, which most frequently belong to the Bronze Age and bear few of the characteristics noted here, large quantities of burnt flint are on occasion recovered from Iron Age settlement sites, often in similar contextual circumstances to those recorded here (eg Cunliffe 1974; Cunliffe 1976; Smith 1977). Perhaps the most favoured explanations see it as either being associated with the parching of corn, a means of aiding its preservation cooking activities, or with cooking activities, its scale suggesting communal efforts, perhaps associated with feasting or ceremonial practices. Other explanations regard it as the residues from saunas (Barfield and Hodder 1987) and a variety of industrial processes, such as leather making or wool processing, have been put forward to account for its generation (eg Hedges 1975; Barfield and Hodder 1987; Barfield 1991; Jeffery 1991; Dunkin 2001).

Significance and Recommendations

The quantities of burnt flint recovered indicate that pyrotechnical activities were an important and enduring aspect of the occupations at the site. At present it is far from clear what the exact nature of

the processes were that led to the generation of the burnt flint and how they may have related to other activities at the site. It is therefore recommended that further work is conducted: to examine the spatial distribution of the material; relate it to the specifics of the feature types and the other classes of material culture present, and an account of the burnt stone and its possible functions and significance compiled and included in any published account of the excavations.

Bibliography

Barfield, L. and Hodder, M., 1987. Burnt Mounds as Saunas, and the Prehistory of Bathing, *Antiquity* 61 (233), 370-379.

Barfield, L. H., 1991. Hot Stones: hot food or hot baths? In M. A. Hodder and L. H. Barfield, (eds.) *Burnt Mounds and Hot Stone Technology: papers from the 2nd International Burnt Mound Conference, Sandwell*, 12-14 October 1990, Sandwell Metropolitan Borough Council. Sandwell, 59-67.

Cunliffe, B., 1974. *Iron Age Communities in Britain*, Routledge And Keegan Paul. London.

Cunliffe, B., 1976. *Iron Age Sites in Central Southern England*, Council For British Archaeology Research Report 16.

Dunkin, D. J., 2001. Metalwork, Burnt Mounds and settlement on the West Sussex Coastal Plain: a contextual study, *Antiquity* 75, 261-262.

Hedges, J., 1975. Excavation of Two Orcadian Burnt Mounds at Liddle and Beaquoy, *Proceedings of the Society of Antiquarians of Scotland* 106, 38-98.

Jeffery, S., 1991. Burnt Mounds, Fulling and Early Textiles. In M. A. Hodder and L. H. Barfield, (eds.) *Burnt Mounds and Hot Stone Technology: papers from the 2nd International Burnt Mound Conference, Sandwell, 12-14 October 1990*, Sandwell Metropolitan Borough Council. Sandwell, 97-108.

Smith, K. ,1977. The Excavation of Winklebury Camp, Basingstoke, Hampshire, *Proceedings of the Prehistoric Society* 43, 31-129.

APPENDIX 7: ANIMAL BONE ASSESSMENT

Kevin Rielly

Introduction

The site consists of a series of pits, several intercutting, with a few other cut features. These appear to date from the Middle Iron Age through to the Early Roman period. There would appear to be very little documented evidence concerning Iron Age occupation in this area, while Roman activity is indicated by a series of chance finds (Killock 2008) and the nearest notable site dating to this period, is the villa at Beddington, some 5 km to the east (Howell 2005). Animal bones were found in the majority of the site features and the assemblage, while clearly suffering from some root damage, was generally in a good state of preservation with minimal fragmentation. The hand collection was augmented by a thorough sampling strategy. The bone collection described in this report incorporates those recovered during the evaluation stage (Rielly 2008).

Methodology

The bone was recorded to species/taxonomic category where possible and to size class in the case of unidentifiable bones such as ribs, fragments of longbone shaft and the majority of vertebra fragments. Recording follows the established techniques whereby details of the element, species, bone portion, state of fusion, wear of the dentition, anatomical measurements and taphonomic including natural and anthropogenic modifications to the bone were registered. The sample collections were washed through a modified Siraf tank using a 1mm mesh and the subsequent residues were air dried and sorted.

Description of faunal assemblage

The site provided a grand total of 275 animal bones, with 239 provided by hand recovery and the remaining 36 taken from 14 samples. The assemblage has been divided into 4 main phases, as follows: - 1 - Natural; 2 - Middle Iron Age; 3 – Late Iron Age; and 4. Early Roman. Animal bones were found in each of the occupation phases. The trenches referred to in this report will essentially include those with the greatest concentration of features, these discovered in the evaluation stage in Trenches 2 and 7, which were later expanded to become Trenches 8 and 9 during the final excavation.

Phase 2
The moderately sized collection of 86 bones was recovered from a total of 12 pits, the majority providing less than 10 fragments. Those pits with the largest collections include [105] with 11 bones, [96] with 12 bones and [98] with 14 bones. Notably, the first of these is amongst the larger pits discovered in this phase, while the latter two are from rather small and shallow features.

Phase:	**2**	**3**	**4**	**2**	**3**	**4**
Recovery:	**hc**	**hc**	**hc**	**siv**	**siv**	**siv**
Species						
Cattle	15	9	43	2		
Equid	6	4	4			
Cattle-size	10	5	30	10		1
Sheep/Goat	23	2	46	4	2	1
Pig	5		10			
Sheep-size	4	1	21	7	7	1
Dog		1				
Small mammal					1	
Grand Total	**86**	**32**	**157**	**23**	**10**	**3**

Table 1. Species abundance by phase and recovery method, where hc is hand collected and siv is sieved.

There is a general mix of major domesticates amongst the identifiable portion with reasonable quantities of cattle and sheep, plus smaller amounts of pig and horse bones. The sheep collection includes a complete skull (from pit [14]), complete with mandibles belonging to an adult animal, possibly a ewe, based on the presence of rather small stubby horncores. Its position at the base of this pit may be indicative of a placed (?ritual) deposit. This skull and, indeed, the great majority of the bones recovered from these pits, were taken from adult animals. The exceptions include one young calf and a similarly aged lamb. In addition, one of the horse fragments, a loose maxillary tooth, is from an individual aged approximately 9 years (after Levine 1982). A few of the cattle bones and one of the sheep bones had been butchered, all showing slight knife marks related to jointing and defleshing.

Phase 3.

This rather slight collection was recovered from 5 pits, none providing mote than 8 bones. There is again a range of domestic species, although without any pig bones and with the addition of dog. The age range includes a majority of adults although there are a few subadult cattle and a single juvenile sheep. The dog bone from a moderate sized individual is also juvenile.

Phase 4

The Early Roman deposits provided the largest collection of bones, these taken from 13 pits and one posthole. The larger assemblages were derived from the large bell-shaped pits (described as shafts or silos) i.e. pits [22], [42], [47] and [84], producing 22, 17, 54 and 13 bones respectively. There was no discernable difference between the bone contents of these separate pits, or indeed with those containing lesser collections, the major part of each collection composed of cattle and sheep/goat bones. However, it is perhaps significant that most of the pig bones were found in these large features i.e. 9 out of 10 fragments with the majority in pits [22] (5 bones) and [47] (3 bones). The sheep component within these pits is clearly biased towards head and foot parts, perhaps indicative of the deliberate deposition of processing waste. There is a wider age distribution amongst the cattle and sheep/goat in this phase, shown in particular by the sheep

mandibles, with 4 belonging to juveniles, 2 to subadults and 7 to adults. Several of the cattle and sheep bones show butchery marks, most often made with a knife, while one sawn ram's horncore from pit [51] is a clear indicator of on-site bone/horn-working.

Finally, there is again a small quantity of horse bones. These belonged to small to medium-sized adult ponies, with an age range between about 2 years (just fusing distal tibia, after Schmid 1972, 75) and 7/8 years (tooth crown height after Levine 1982).

Conclusion and recommendations for further work

The positive aspects of these collections include their reasonably good condition and the fact that they appear to be well dated. In addition, there is the probable 'special deposit', the sheep skull at the base of one of the early pits (Phase 2). The use of sheep skulls in this apparent 'ritual' fashion has been noticed at other Iron Age sites, most notably at Danebury (Grant 1984, 537-8), where the proportion of skull 'special deposits' is higher amongst the earlier Iron Age pits, dated between 550 and 450BC. The negative aspect is essentially related to the rather small size of the phased collections, although those from Phases 2 and 4 can certainly provide some idea of meat preference or availability. In addition, the Phase 4 assemblage and to a lesser extent that from Phase 2, can be used to assess the major exploitation trends – meat and/or ante-mortem uses. Indeed, the described evidence does seem to suggest a slight change in exploitation emphasis, with both cattle and sheep displaying a greater range of ages in the Roman period. However, with such small datasets, any conclusions must necessarily remain open to other interpretations.

In conclusion, the information gleaned from these collections, and in particular from Phases 2 and 4, does appear to show some potential. In addition, the value of any further analysis of this data is heightened by the lack of Iron Age and Roman bone assemblages from this general area. It has been mentioned that the nearest comparable or larger bone collection dated to the Roman period was found at Beddington Roman villa. It would be of interest to compare this high status assemblage with that from the presumed Romano-British settlement at Carshalton.

References

Grant, A., 1984. The animal remains, in B. Cunliffe *Danebury: an Iron Age hillfort in Hampshire, vol 2, The excavations 1969-1978: the finds,* CBA Res. Rep. 52, 496-526.

Howell, I., 2005. *Prehistoric landscape to Roman villa, Excavations at Beddington, Surrey, 1981-7*, Museum of London Archaeology Service Monograph Series 26

Killock, D., 2008. *An Archaeological Evaluation at Ashcombe House, Carshalton War Memorial Hospital, Carshalton, SM5 3BY*, Pre-Construct Archaeology unpublished report.

Levine, M., 1982. The use of crown height measurements and eruption-wear sequences to age horse teeth, in B. Wilson, C. Grigson and S. Payne (eds.) *Ageing and sexing animal bones from archaeological sites*, BAR Brit Ser 109, 223-250.

Rielly, K., 2008. *Evaluation of animal bone recovered from Ashcombe House, Carshalton War Memorial Hospital, Carshalton, SM5 3BY (ASW08)*, Pre-Construct Archaeology unpublished report.

Schmid, E., 1972. *Atlas of Animal Bones*.

APPENDIX 8: HUMAN BONE ASSESSMENT

Kathelen Leary

Introduction

Two fragments of human bone were recovered from the upper fill of Phase 2 pit [52] and the fill of Phase 3 pit [114].

Results

Context [53] Upper fill of pit [52] Middle Iron Age

This context contained a single neonatal right tibia. The bone was in moderate condition with post-mortem damage to the ends of the bone. The neonate would have been around full term at approximately 38 weeks.

Context [113] Fill of pit [114] Late Iron Age

This context contained a skull fragment from an infant. The bone was in good condition.

No further work is required on the bone.

APPENDIX 9: ENVIRONMENTAL ASSESSMENT

C.P. Green and C.R. Batchelor
Quaternary Scientific (QUEST), School of Human and Environmental Sciences, University of Reading, Whiteknights, PO Box 227, Reading, RG6 6AB, UK

INTRODUCTION

This report summarises the findings arising out of the environmental archaeological assessment undertaken by Quaternary Scientific (University of Reading) in connection with the proposed development of land at Ashcombe House, Carshalton War Memorial Hospital, Carshalton, London Borough of Sutton (Site Code: ASW08; National Grid Reference: TQ 279 639). During recent archaeological investigations at the site undertaken by Pre-Construct Archaeology Ltd, thirty-four bulk samples were obtained mainly from pits and postholes, and processed by flotation for environmental archaeological assessment, and possible future analysis. The archaeological contexts of the site have been divided into four Phases as follows: Natural (Phase 1); Middle Iron Age (Phase 2); Late Iron Age (Phase 3) and Early Roman (Phase 4).

The aims of the environmental archaeological assessment was to evaluate the potential of the samples for reconstructing the past economy and diet, and general environmental context, of the site. In order to achieve this aim, the environmental archaeological assessment consisted of:

1. Rapidly assessing the preservation and concentration of charred plant remains (seeds and wood), Mollusca and bone from 34 bulk samples
2. Detailed assessment of the concentration of Mollusca, and identification of the main taxa, from 29 selected bulk sample to provide an indication of the potential of Mollusca for providing information on the local environment.

METHODS

Rapid assessment of the bulk samples

Thirty-four bulk samples (up to 10 litre sub-samples) were processed by flotation by Pre-Construct Archaeology Ltd using a 1mm and 300-micron mesh sizes. The dried flots and residues were sorted 'by eye'. Flots and were scanned under a stereozoom microscope at magnifications of x7-45 and an overview of the concentration of charcoal, seeds, Mollusca, bone and artefacts recorded (Table 1).

Mollusca assessment

Mollusca remains from twenty-nine selected flots and residues were submitted for assessment. The Mollusca fragments were scanned under a low powered stereo-microscope with a magnification range of 10 to 40x. Identification and interpretation was based on reference to Kerney (1999) and Kerney and Cameron (1979). The results are presented in Table 2.

RESULTS AND INTERPRETATION OF THE RAPID ASSESSMENT

Thirty-four samples from a range of features including waterlain deposits and pits were rapidly assessed to establish the nature of the environmental archaeological remains present. Charred plant macrofossils (seeds and wood) were preserved in a number of the samples. However, charred seeds were only present in minimal quantities in 4 samples and were fragmented preventing identification; charcoal was present in many samples, but the quantities were very low and in the vast majority of cases the size of fragments was very small <2mm. Thus no charred plant macrofossils (seeds and wood) were identifiable and thus not taken forward to detailed assessment. Twenty-nine samples contained a high enough concentration of Mollusca to proceed to a detailed assessment.

Table 1: Rapid assessment of bulk samples from Ashcombe House, Carshalton War Memorial Hospital, Carshalton, London Borough of Sutton (Site Code: ASW08)

Sample number	Context number	Phase number	Feature	Sample volume	Volume processed	Volume remaining	Percentage of whole context	Flots			Residues			
								Charcoal/ Wood	Seeds	Mollusca	Bone	Charcoal	Mollusca	Bone
<22>	(79)	VOID	VOID	?	?	?	?	1		1/2		1		
<8>	(53)	1	Upper fill of pit [52]	30	10	20	5-25	1		2				
<1>	(15)	2	Fill of ditch/gully [16]	40	10	30	25-50			2			1	
<16>	(70)	2	Fill of pit [71]	20	10	10	5-25	1		2/3				
<17>	(72)	2	Fill of pit [73]	30	10	10	5-25	1		2				
<18>	(74)	2	Fill of heavily truncated linear cut [75]	20	10	10	5-25	1		1/2		1		1/2
<19>	(76)	2	Fill of pit? [77]	10	10	0	5-25	1		1/2				
<26>	(97)	2	Fill of truncated pit [98]	30	10	20	5-25	1		1/2				
<27>	(95)	2	Fill of heavily truncated pit [96]	30	10	20	5-25	1		1/2		1		
<28>	(93)	2	Fill of small truncated pit [94]	30	10	20	5-25	1	1	2				
<29>	(89)	2	Fill of heavily truncated pit [90]	40	10	30	5-25			2				
<31>	(104)	2	Fill of large pit [105]	40	10	30	<5	1		3				
<12>	(58)	3	Fill of pit [59]	30	10	20	25-50	1		1/2				
<13>	(63)	3	Upper fill of pit [62]	30	10	20	5-50	1		2/3				
<14>	(64)	3	Lower fill of pit [62]	30	10	20	5-25		1	1/2				
<32>	(107)	3	Fill of pit [106]	60	10	50	25-50			2/3		1		
<33>	(113)	3	Fill of pit [114]	40	10	30	<5	1		2		1	1	
<36>	(118)	3	Small shallow pit	10	10	0	25-50			2/3		1		
<2>	(21)	4	Fill of pit/shaft [22]	?	?	?	?	1		2				
<5>	(32)	4	Fill of pit/shaft [42]	40	10	30	<5		1	1				
<6>	(46)	4	Fill of pit [47]	?	?	?	?	1		2				1
<7>	(49)	4	Upper fill of pit [51]	30	10	20	25-50	1		1/2				
<9>	(34)	4	Posthole	30	10	20	<5	1		1/2				
<10>	(55)	4	Lower fill of pit/shaft [42]	40	10	30	5-25			1				

<11>	(60)	4	Fill of pit [61]	40	30	10	5-25	1		2/3				
<15>	(68)	4	Fill of posthole [69] possibly associated with [31]	10	10	0	>50			2				
<20>	(81)	4	Fill of pit/shaft [84]	20	10	10	5-25		1	3				
<21>	(82)	4	Fill of pit/shaft [84]	20	10	10	5-25	1		1/2				
<23>	(83)	4	Fill of pit/shaft [84]	30	10	20	5-25			1/2				
<24>	(85)	4	Fill of pit/shaft [84]	?	10	?	<5	1				1		
<25>	(86)	4	Fill of pit/shaft [84]	30	10	20	5-25	1				1		
<30>	(103)	4	Fill of pit or linear cut[102]	30	10	20	5-25	1		2/3				
<34>	(111)	4	Upper fill of irregularly shaped shallow cut [110]	30	10	20	5-25	1				1		
<35>	(112)	4	Lower fill of irregularly shaped shallow cut [110]	30	10	20	5-25	1		2				

Key: 0 = Estimated Minimum Number of Specimens (MNS) = 0; 1 = 1 to 25; 2 = 26 to 50; 3 = 51 to 75; 4 = 76 to 100; 5 = 101+

RESULTS AND INTERPRETATION OF THE MOLLUSCA ASSESSMENT

Mollusca remains from twenty-nine selected flots and residues were submitted for assessment. Apart from sample <1> which was taken from a ditch or gully; samples <18>, <34> and <35>, taken from 'cuts', and samples <9> and <15> taken from a postholes, all the samples were taken from features described as pit or pit/shaft. In all, 24 features are represented. Multiple samples were taken from three features, as noted in Table 2.

In all the samples the overwhelmingly dominant species was the small subterranean snail *Cecilioides acicula*. This species is found in well-drained calcareous soils at depths down to between 2.0m and 3.0m from the ground surface. It is characteristic of unwooded habitats, such as dry pasture and grassland, but has also been noted in gardens. Some of the shells of *C. acicula* in most of the samples were glassy and transparent, indicating the presence of a living population of the species. Following death the shells rapidly become white and opaque.

Apart from *C. acicula*, the molluscan remains were rather poorly preserved, with many corroded and damaged shells lacking features critical for identification. In only four of the samples, <1> (Phase 2), <20>, <21> and <23> (Phase 4), were species other than *C. acicula* collectively represented by more than ten individuals and in 21 of the samples fewer than five other individuals were present. After *C. acicula*, the species most commonly represented was *Vallonia pulchella* which was present in 19 of the samples (all Phases). Other species represented in several samples were: *Trichia hispida* (<1>, <28>, <29> (Phase 2) and <33> (Phase 3)), *Pupilla muscorum* (<1>, <6>, <23>, <31> (Phases 2 and 4)), and *Vertigo pygmaea* (<1>, <11>, <27> (Phases 2 and 4)). All these species are characteristic of open calcareous habitats. *Cochlicopa lubrica,* typically found in moist herbage was also present in two samples (<20>, <31> (Phases 2 and 4)).

Where slightly larger numbers of individuals were present (apart from *C. acicula*), single specimens of a few other species were noted - *Lymnaea truncatula* (<21>, <23>), *Gyraulus laevis* (<21>) and *Carychium tridentatum* (<23>). These species indicate the presence of a rather damper habitat but were all from samples taken from a single feature described as a pit or shaft (Phase 4). They were associated however with the species mentioned above which are characteristic of drier, open habitats.

Table 2: Mollusca assessment of bulk samples from Ashcombe House, Carshalton War Memorial Hospital, Carshalton, London Borough of Sutton (Site Code: ASW08)

Sample number	Context number	Phase number	Feature	Number of individuals	Species noted
<22>	(79)	VOID	VOID	3	*Vallonia pulchella* *Cochlicopa lubrica*
<8>	(53)	1	Upper fill of pit [52]	2	-
<1>	(15)	2	Fill of ditch/gully [16]	51	*Vallonia pulchella* *Pupilla muscorum* *Vertigo pygmaea* *Trichia hispida*
<16>	(70)	2	Fill of pit [71]	7	*Vallonia pulchella*
<17>	(72)	2	Fill of pit [73]	4	*Vallonia pulchella*
<18>	(74)	2	Fill of heavily truncated linear cut [75]	3	*Vallonia pulchella*
<19>	(76)	2	Fill of pit? [77]	6	*Vallonia pulchella*
<26>	(97)	2	Fill of truncated pit [98]	1	*Vallonia pulchella*
<27>	(95)	2	Fill of heavily truncated pit [96]	4	*Vallonia pulchella* *Vertigo pygmaea*
<28>	(93)	2	Fill of small truncated pit [94]	1	*Trichia hispida*
<29>	(89)	2	Fill of heavily truncated pit [90]	2	*T. hispida*
<31>	(104)	2	Fill of large pit [105]	10	*Pupilla muscorum* *Cochlicopa lubrica*
<12>	(58)	3	Fill of pit [59]	1	*Vallonia pulchella*
<13>	(63)	3	Upper fill of pit [62]	2	-
<14>	(64)	3	Lower fill of pit [62]	4	*Pupilla muscorum*
<32>	(107)	3	Fill of pit [106]	8	*Vallonia pulchella*
<33>	(113)	3	Fill of pit [114]	1	*Trichia hispida*
<36>	(118)	3	Small shallow pit	3	*Vallonia pulchella*
<2>	(21)	4	Fill of pit/shaft [22]	2	*Vallonia pulchella*
<6>	(46)	4	Fill of pit [47]	4	*Vallonia pulchella* *Pupilla muscorum*
<7>	(49)	4	Upper fill of pit [51]	0	-
<9>	(34)	4	Posthole	4	*Vallonia pulchella*
<11>	(60)	4	Fill of pit [61]	3	*Vertigo pygmaea*
<20>	(81)	4	Fill of pit/shaft [84]	13	*Vallonia pulchella* *Cochlicopa lubrica*
<21>	(82)	4	Fill of pit/shaft [84]	12	*Vallonia pulchella*

					Lymnaea truncatula *Gyraulus laevis*
<23>	(83)	4	Fill of pit/shaft [84]	12	*Vallonia pulchella* *C. tridentatum* *Lymnaea truncatula* *Pupilla muscorum*
<30>	(103)	4	Fill of pit or linear cut[102]	4	*Vallonia pulchella*
<35>	(112)	4	Lower fill of irregularly shaped shallow cut [110]	1	*Vallonia pulchella*

Note: 'number of individuals' and 'species noted' do not include Cecilioides acicula

CONCLUSIONS AND RECOMMENDATIONS

In all the samples an open calcareous habitat is clearly indicated by the Mollusca. The individual assemblages, apart from the presence of *Cecilioides acicula,* are all small or very small. They probably represent in-wash over a relatively short period of time into pits and other artificial depressions from surrounding open habitats, probably grassland. They offer no scope for the development of a more detailed understanding either of local habitats or of any sequential development of the local environment. It is therefore recommended that no further work be undertaken on the samples from this site.

REFERENCES

Kerney, M.P., 1999. *Atlas of the Land and Freshwater Mollusca of Britain and Ireland*. Harley Books, Colchester.

Kerney, M.P. & Cameron, R.A.D., 1979. *A Field Guide to the Land Snails of Britain and North-west Europe*. Collins, London.

APPENDIX 10: OASIS DATA COLLECTION FORM

OASIS ID: preconst1-57312

Project details

Project name	Ashcombe House
Short description of the project	Excavation of two trenches measuring 14 by 7m and 5.60 by 4.70m. A variety of cut features, mostly pits, dating to the Middle Iron Age and Late Iron-Age or early Roman periods.
Project dates	Start: 01-12-2008 End: 20-12-2008
Previous/future work	Yes / No
Any associated project reference codes	ASW 08 - Sitecode
Type of project	Recording project
Site status	None
Current Land use	Residential 2 - Institutional and communal accommodation
Monument type	PIT Middle Iron Age
Monument type	PIT Late Iron Age
Monument type	PIT Roman
Monument type	POSTHOLE Roman
Significant Finds	POTTERY Middle Iron Age
Significant Finds	POTTERY Late Iron Age
Significant Finds	POTTERY Roman
Significant Finds	LOOMWEIGHT Roman
Investigation type	'Full excavation'
Prompt	Direction from Local Planning Authority - PPG16

Project location

Country	England
Site location	GREATER LONDON SUTTON CARSHALTON Ashcombe House
Postcode	SM5 3BY
Study area	0.45 Hectares
Site coordinates	TQ 279 639 51.3592393994 -0.162805510285 51 21 33 N 000 09 46 W Point
Height OD / Depth	Min: 58.01m Max: 59.23m

Project creators

Name of Organisation	Pre-Construct Archaeology Ltd
Project brief originator	CgMs Consulting
Project design originator	Lorraine Darton
Project director/manager	Tim Bradley
Project supervisor	Douglas Killock
Type of sponsor/funding body	Developer
Name of sponsor/funding body	Sutton and Merton Primary Care Trust

Project archives

Physical Archive recipient	LAARC
Physical Contents	'Animal Bones','Ceramics','Environmental','Metal','Worked stone/lithics'
Digital Archive recipient	LAARC
Digital Media available	'Images raster / digital photography','Survey'
Paper Archive recipient	LAARC
Paper Media available	'Context sheet','Drawing','Matrices','Miscellaneous Material','Photograph','Plan','Report','Section','Survey ','Unpublished Text'

Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	An Archaeological Excavation At Ashcombe House, Carshalton War Memorial Hospital, Carshalton, SM5 3BY
Author(s)/Editor(s)	Douglas Killock
Date	2009
Issuer or publisher	Pre-Construct Archaeology Limited
Place of issue or publication	Brockley
Description	A4 Blue cover

Entered by	Douglas Killock (dkillock@pre-construct.com)
Entered on	24 March 2009

P C A

PRE - CONSTRUCT ARCHAEOLOGY LIMITED

UNIT 54

BROCKLEY CROSS BUSINESS CENTRE

96 ENDWELL ROAD

BROCKLEY

LONDON SE4 2PD

TEL: 0207 732 3925 0207 639 9091

FAX: 0207 639 9588

EMAIL: info@pre-construct.com

PRE-CONSTRUCT ARCHAEOLOGY LIMITED (NORTHERN OFFICE)

UNIT 19A

TURSDALE BUSINESS PARK

DURHAM DH6 5PG

TEL: 0191 377 1111

FAX: 0191 377 0101

EMAIL: info.north@pre-construct.com