Archaeology South-East

ASE

An Archaeological Evaluation at Carshalton War Memorial Hospital, The Park, Carshalton, Sutton

LAARC site code: CJW09

DRAFT

NGR: 527934 163962
ASE Project No: 3893

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Abstract

An archaeological evaluation of 7 trenches was undertaken by Archaeology South-East at Carshalton War Memorial Hospital, Sutton, between the 1st and 3rd July 2009 and was commissioned by CgMs on behalf of their client.

The underlying natural of chalk and brickearth was encountered between the heights of 56.25m OD in the north of the site (trench 7) and 58.81m OD in the south (trench 1). The topography consisted of gardens, gently sloping from south to north.

The evaluation identified three phases of activity: early prehistoric, Middle Iron Age and early Roman. The early prehistoric period is represented by residual flintwork of possible Mesolithic, Early Neolithic and Bronze Age date.

The Middle Iron Age and early Roman phases mirrored the activity identified on the Ashcombe House site to the immediate south, with an apparent hiatus in occupation during the Late Iron Age. Middle Iron Age features identified included a grain-storage pit and two pits containing structured deposits of placed human long bones and an inverted horse skull.

The evaluation was able to demonstrate that the area around the former hospital buildings in the centre of the site had been terraced into the gentle south to north slope, including the raising of the ground level by at least 1.5m in the area of the car park to the north.

CONTENTS

LIST OF FIGURES

LIST OF TABLES

1.0 INTRODUCTION

1.1 Archaeology South-East (ASE), the contracting division of the Centre for Applied Archaeology at the UCL Institute of Archaeology, were commissioned by CgMs on behalf of their client, to undertake an archaeological evaluation at Carshalton War Memorial Hospital, Sutton (centred NGR 527934/163962; Figure 1).

1.2 The archaeological evaluation was undertaken as predetermination work prior to a formal planning application. The work was undertaken to an agreed Specification (CgMs 2009) formally approved by Diane Walls, Archaeological Advisor, Greater London Archaeological Advisory Service (GLAAS).

1.3 The proposed development is within the gardens and land surrounding the former Carshalton War Memorial Hospital, bounded by The Park to the east and residential properties elsewhere. According to the British and Geological Survey (Sheet 270) the site lies on Upper Chalk with no drift deposits.

1.4 The aims of the project, as set out in the Specification for the site (CgMS, 2009) were:

- To establish the presence or absence of archaeological deposits
- To establish whether any late Iron Age or early Roman activity is present as were recorded and excavated at Ashcombe House
- To establish the relationship between any archaeological deposits/features on the War Memorial Hospital site with the late Iron Age and early Roman occupation and pitting found at Ashcombe House
- To establish the paleaoenvironmental potential of any archaeological deposits and features
- Evaluate the likely impact of past land use and development.
- Provide sufficient information to construct an archaeological mitigation strategy.

1.5 This report aims to disclose the results of the field evaluation and to discuss any forthcoming recommendations. The evaluation was conducted by Giles Dawkes, Rob Cole and Chris Russel, and project managed by Jon Sygrave (fieldwork) and Jim Stevenson (post-excavation).

2.0 ARCHAEOLOGICAL BACKGROUND

2.1 The archaeological background for the site has been fully summarised in the previous Desk Based Assessment (CgMs 2008).

2.2 Of particular note, previous archaeological works to the south of the site at Ashcombe House revealed evidence of Iron Age and Roman occupation on the crest of the hill to the south-east of the main hospital (PCA, 2008).

3.0 ARCHAEOLOGICAL METHODOLOGY

3.1 Seven trenches were excavated in the proposed development area (Figure 2).

3.2 The trenches and features were located using a Global Positioning System (DGPS) and DGPS Total Station (Leica 1205 R100 Total Station, Leica System 1200 GPS).

3.3 The trial trenches were excavated under archaeological supervision by a tracked 360 machine fitted with a toothless ditching bucket.

3.4 The excavations were taken down to the top of the underlying geology or to the surface of any significant archaeological deposit, whichever was higher. Revealed surfaces were manually cleaned in an attempt to identify individual archaeological features. The sections of the trenches were selectively cleaned to observe and record any stratigraphy. The removed spoil was scanned for the presence of any stray, unstratified artefacts. Subtle differences in the natural were drawn as they may represent possible prehistoric features which are difficult to identify in trial trenching.

3.5 All encountered archaeological deposits, features and finds were recorded according to accepted professional standards in accordance with the agreed specification of the works using pro-forma context record sheets. Deposit colours were verified by visual inspection and not by reference to a Munsell Colour chart. The spoil, from site clearance prior to development, was inspected by the archaeologist to recover any artefacts of archaeological interest.

3.6 A full photographic record of the work was kept (monochrome prints, colour slides and digital), and will form part of the site archive. The archive (including the finds) is presently held at the Archaeology South-East offices at Portslade, and will in due course be offered to the Museum of London.

3.7 Environmental samples were taken where appropriate and in the amount and regularity specified in the agreed specification of the works.

4.0 RESULTS (Figures 2 - 4)

4.1 Trench 1 (Figs. 2 & 3)

Number	Type	Description	Max. Length	Max. Width	Max. Depth
1/001	Layer	Topsoil	Tr.	Tr.	0.30m
1/002	Layer	Subsoil	Tr.	Tr.	0.41m
1/003	Deposit	Natural	Tr.	Tr.	N/A
1/004	Cut	Ditch fill	Tr.	0.98m	0.65m
1/005	Fill	Ditch cut	Tr.	0.98m	0.65m
1/006	Cut	Pit cut	1.01m	N/A	0.7m
1/007	Fill	Pit fill	1.01m	N/A	0.7m

Table 1: Trench 1

Natural geology of yellow brown clay (1/003) was encountered at 58.84m OD. The north-west end of the trench was located across the escarpment for the hospital building and the natural here had been reduced to 58.20m OD.

A ditch and a pit were recorded cut into the natural.

Ditch [1/004] was aligned north-east to south-west with steep sides and a flat base. Ditch fill (1/005) was grey brown silt sand with occasional chalk fragments and finds of residual Bronze Age flint work and two small sherds of early Roman pottery. The upper portion of the ditch had been truncated by the escarpment for the hospital.

Subcircular pit [1/006] was 1.01m in diameter and at least 0.7m deep with undercut 'bell-shaped' sides. Pit fill (1/007) was dark grey brown silt sand with occasional chalk fragments and finds of a residual Early Neolithic flint blade, pieces of fired clay, a moderate assemblage of early Roman pottery of AD 70-100 date and a crudely-made knife handle of sheep bone with a fragment of the iron whittle tang. The environmental bulk sample was dominated by uncharred vegetation but also contained charred botanical remains including cereal grains and glume bases.

This pit was similar in size and form to the pits interpreted as grain-storage pits on the Ashcombe House site (PCA, 2008) immediately to the south.

Sealing the features was light brown silt clay subsoil (1/002) and dark brown silt topsoil (1/001).

4.2 **Trench 2** (Figs. 2 & 3)

Number	Type	Description	Max. Length	Max. Width	Max. Depth
2/001	Layer	Topsoil	Tr.	Tr.	0.30m
2/002	Layer	Subsoil	Tr.	Tr.	0.27m
2/003	Deposit	Natural	Tr.	Tr.	N/A
2/004	Fill	Pit fill	1m	N/A	0.16m
2/005	Cut	Pit cut	1m	N/A	0.16m
2/006	Fill	Pit fill	1.41m	N/A	0.66m
2/007	Cut	Pit cut	1.41m	N/A	0.66m
2/008	Fill	Pit fill	1.03m	N/A	0.74m
2/009	Cut	Pit cut	1.3m	N/A	0.74m

Table 2: Trench 2

The natural geology of yellow brown silt clay with gravel lenses (2/003) was encountered at 58.56m OD.

Three subcircular pits were recorded cut into the natural. The similarity of the features suggests all three were of contemporary date.

Pit [2/005] had concave sides and base. Pit fill (2/004) was soft grey brown silt sand with occasional flint pebbles and finds of disarticulated human bone. The remains were the legs bones and a rib of an apparent single adult and had been deliberately stacked east to west in the upper most portion of the fill.

Pit [2/007] had near vertical sides and a concave base. Pit fill (2/006) was soft grey brown sand silt with occasional flint pebbles and finds of residual Bronze Age flint work, a human humerus bone fragment and Middle Iron Age pottery. A horse skull had been placed inverted in the upper portion of the pit. The environmental bulk sample was dominated by uncharred vegetation.

Pit [2/008] had undercut sides and a flat base. Pit fill (2/009) was grey brown sand silt with moderate flint pebbles and finds of a residual Early Neolithic flint flake, Middle Iron Age pottery and pieces of fired clay, including burnt daub. The environmental bulk sample was dominated by uncharred vegetation. Like pit [1/006], this pit may well have been used for grain-storage.

Sealing the features was light brown silt sand subsoil (2/002) and dark brown silt topsoil (2/001).

4.3 **Trench 3** (Figs. 2 & 4)

Number	Type	Description	Max. Length	Max. Width	Max. Depth
3/001	Layer	Overburden	Tr.	Tr.	0.95m
3/002	Layer	Subsoil	Tr.	Tr.	0.91m
3/003	Deposit	Natural	Tr.	Tr.	N/A
3/004	Cut	Linear cut	Tr.	1.5m	0.4m
3/005	Fill	Linear fill	Tr.	1.5m	0.4m

Table 3: Trench 3

The natural geology of banded yellow brown sand clay and chalk (3/003) was encountered at 56.37m OD.

Cut into the natural and sealed by the subsoil, (3/002), was north to south aligned linear feature [3/004] with irregular sides and a concave base. This feature was up to 1.50m wide and 0.30m deep and was filled with a sterile grey brown silt sand (3/005) with no finds. This feature may have been a palaeochannel or a variation in the natural geology.

Overlying (3/005) was light brown silt sand subsoil (3/002) and mixed clay, silt and rubble overburden (3/001). The overburden appeared to have been dumped to level the sloping ground before the construction of the hospital car park.

4.4 **Trench 4** (Fig. 2)

Number	Type	Description	Max. Length	Max. Width	Max. Depth
4/001	Layer	Overburden	Tr.	Tr.	1.59m
4/002	Layer	Subsoil	Tr.	Tr.	0.2m
4/003	Layer	Natural	Tr.	Tr.	N/A

Table 4: Trench 4

The natural geology of banded yellow brown sand clay and chalk (4/003) was encountered at 56.69m OD.

No archaeological features were identified.

Overlying the natural was light brown silt sand (4/002) subsoil and overburden (4/001). The overburden appeared to have a similar origin to the overburden in Trench 3.

4.5 **Trench 5** (Fig. 2)

Number	Type	Description	Max. Length	Max. Width	Max. Depth
5/001	Layer	Topsoil	Tr.	Tr.	0.30m
5/002	Layer	Subsoil	Tr.	Tr.	0.16m
5/003	Layer	Natural	Tr.	Tr.	N/A

Table 5: Trench 5

The natural geology of banded yellow brown sand clay and chalk (5/003)

was encountered at 57.17m OD.
No archaeological features were identified.

Overlying the natural was light brown silt sand (5/002) subsoil and dark brown sand silt topsoil (5/001).

4.6 Trench 6 (Fig. 2)

Number	Type	Description	Max. Length	Max. Width	Max. Depth
6/001	Layer	Topsoil	Tr.	Tr.	0.30m
6/002	Layer	Subsoil	Tr.	Tr.	0.29m
6/003	Layer	Natural	Tr.	Tr.	N/A

Table 6: Trench 6

The natural geology of banded yellow brown sand clay and chalk (6/003) was encountered at 56.27m OD.

No archaeological features were identified.

Overlying the natural was light brown silt sand (6/002) subsoil and dark brown sand silt topsoil (6/001) from which a Mesolithic flint flake was recovered.

4.7 Trench 7 (Figs. 2 & 4)

Number	Type	Description	Max. Length	Max. Width	Max. Depth
7/001	Layer	Topsoil	Tr.	Tr.	0.30m
7/002	Layer	Subsoil	Tr.	Tr.	0.22m
7/003	Layer	Natural Brickearth	Tr.	Tr.	N/A
7/004	Layer	Natural Chalk	Tr.	Tr.	N/A
7/005	Cut	Root bole	0.24m	-	0.18m
7/006	Fill	Root bole fill	0.24m	-	0.18m
7/007	Cut	Root bole	0.27m	-	0.17m
7/008	Fill	Root bole fill	0.27m	-	0.17m
7/009	Cut	Root bole	0.18m	-	0.14m
7/010	Fill	Root bole fill	0.18m	-	0.14m
7/011	Cut	Root bole	0.45m	0.2m	0.2m
7/012	Fill	Root bole fill	0.45m	0.2m	0.2m

Table 7: Trench 7

The natural geology of banded yellow brown sand clay (7/003) and chalk (7/004) was encountered at 56.25m OD.

Four small, irregular features of apparent natural origin and interpreted as probable root boles were cut into the chalk natural.

All four features ([7/005], [7/007], [7/009], [7/011]) were irregular in shape and filled with a yellow brown clay silt ([7/006], [7/008], [7/010], [7/012] respectively) very similar to the natural. A single flint flake of possible Mesolithic date was recovered from fill [7/012].

Overlying was light brown silt sand (7/002) subsoil and dark brown sand silt

topsoil (7/001).

5.0 THE FINDS

A small assemblage of finds was recovered during the excavations. A summary of these can be found in Table 1. In addition to these bulk finds, a bone knife handle (wt 14 g) was assigned a unique Registered Finds number (RF <1>).

Context	Pot	Wt (g)	CBM	wt (g)	Bone	wt (g)	Flint	wt (g)	FCF	wt (g)	F.Clay	wt (g)	Glass	wt (g)
1/005	2	4					1	82	1	<2				
1/007	21	222			2	8	2	176	5	170	17	98		
2/004					20	796								
2/006	2	16			73	546	2	6	4	206				
2/009	4	74			7	36	5	88	11	894	1	14		
6/001							1	4						
7/001	1	20	8	598									4	452
7/012							1	<2						
Total	30	336	8	598	102	1386	12	356	21	1270	18	112	4	452

Table 8: Quantification of the finds

5.1 The Iron Age and Roman Pottery by Anna Doherty

A small assemblage of 47 sherds, weighing 352 grams was excavated from across four different stratified contexts, including material recovered from bulk environmental samples. The pottery was examined using a x20 microscope and recorded on pro-forma recording sheets, according to a standardised methodology in use at MoLA/LAARC. However, prehistoric fabrics have at present only been defined quite loosely according to their major inclusion type, because of the possibility that this material will need to be integrated into a larger type-series encompassing pottery from previous or further work on the site.

The assemblage from trench 2 contexts [2/006] and [2/009] is broadly similar to the phase 2 material from a previous excavations on the site (Rayner 2009). The majority of the sherds are flint-tempered and, although there is some slight variability in the coarseness and frequency of flint, all the sherds are united by coarse sandy matrixes typical of the Middle Iron Age in Southern Britain. There are also a few examples of shell or flint-with-shell fabrics, as well as one purely sand-tempered sherd, which is residual in one of the early Roman contexts. There are no diagnostic feature sherds which would help to narrow down the dating of these contexts and they might be placed anywhere within a range c.400-50BC. One tiny sherd from [2/006] possibly features a haematite coating diagnostic of Early Iron Age fine wares, but the sherd is so small that it is difficult to tell whether the red colour is purely an effect of firing. In any case, the absence of any typically Post-Deveral Rimbury type fabrics, makes it likely that, if correctly identified, this is residual rather than indicative of an Early to Middle Iron Age date.

A small to moderate earlier Roman group was recovered from context

[1/007], and two relatively undiagnostic sherds, presumably of similar date, were found in context [1/005]. A *terminus post quem* for [1/007] is provided by a sherd from a poppy head beaker in Highgate C ware dated to AD70-160. However, although the group consists mainly of Romanised sandy wares, a small quantity of grog-tempered fabrics and Late Iron Age/early Roman shell-tempered wares are also present, which makes it unlikely that this material post-dates the 1st century. One of the shell-tempered sherds is a distinctive wheel-thrown bead-rim jar with an undercut rim, which is likely to have originated in the Thames Estuary area, either in North Kent or South Essex.

Some of the coarse oxidised/grey sandy wares may be Sugar Loaf Court wares which are rarely found after the early Flavian period (Davies et al 1994, 29). However, comparison with reference sherds and further research into the extent of the distribution of this ware is needed to confirm this possible identification.

5.2 **The Post-Roman Pottery** by Elke Raemen

A single white china cup fragment was recovered from the topsoil in Trench 7. The piece dates to the mid 19th to early 20th century.

5.3 **The Ceramic Building Material** by Sarah Porteus

A total of eight fragments of ceramic building material (CBM) weighing a total of 598g were recovered from context [7/001]. The earliest fragments of peg tile were of an orange fabric with moderate poorly sorted quartz, fine white mica, coarse orange silt and red and black iron rich inclusions. Peg tile in this fabric had course sanding on the underside with an irregular finish to the edges and has a probable date range of between the 17th and 19th century. Two fragments of nibbed pegtile in a high fired pinkish red fabric with moderate coarse black and red iron rich silt with 'DREADN..' (probably 'DREADNOUGHT') stamped in the underside were also recovered and are of 20th century date.

5.4 **Glass** by Elke Raemen

Four pieces of glass were recovered during the evaluation, all from the topsoil in Trench 7. Included is a clear glass cylindrical bottle fragment, a clear glass cylindrical bottle, a small cobalt blue rectangular bottle and a rectangular clear glass perfume bottle. The latter three are near complete and all have an external screw thread, some with the iron cap in situ. The cobalt blue bottle retains traces of the label and contained Milk of Magnesia tablets (Phillips'). All are of 20th-century date.

5.5 **Fired Clay** by Elke Raemen

A total of eighteen fired clay fragments was recovered from two individually numbered contexts. Most are from [1/007], which was dated by the pottery to the late 1st century AD. Included are eight pieces in a poorly mixed, sparse fine sand-tempered clay with rare iron oxide inclusions to 1 mm and rare voids/organic inclusions. A further nine sparse fine sand-tempered

pieces contain moderate chalk temper to 16.6mm. Three fragments exhibit one flat surface. All other pieces are amorphous.

In addition, [2/009] contained a sparse fine sand-tempered piece with rare chalk temper to 3mm. The piece retains a wattle impression with a diameter of 9.5mm. Pottery from this context dates to the Mid Iron Age.

5.6 Prehistoric Flintwork by Chris Butler

A small assemblage of twelve pieces of worked flint weighing 221gms was recovered during the work at Carshalton, and is listed in Table 1. The raw material is a mixture of different types obtained from local sources, and is discussed further below.

The assessment comprised a visual inspection of each bag, counting the number of pieces of each type of worked flint present, noting details of the range and variety of pieces, general condition, and the potential for further detailed analysis. Classification follows Butler (2005). A hand written archive of the assemblage was produced at this stage. Those pieces of flint that were obviously not worked (5/001) were discarded during the assessment.

Hard hammer-struck flakes	5
Soft hammer-struck flakes	3
Blade	1
Flake fragment	1
Shattered piece	1
One platform flake core	1
Total	*12*

Table 9 Prehistoric Flintwork

The flintwork appears to fall into three groups of material which can be defined by the colour and patination of the flint together with the diagnostic traits of the flinknapping technology used.

The earliest pieces are two soft hammer-struck flakes (6/001 & 7/012) in a light blue or light grey patination, which may be Mesolithic in date.

A long blade from (1/007), unfortunately missing its bulb and platform, but probably soft hammer-struck, and a soft hammer-struck flake from (2/009) are both in a mottled mid grey coloured flint, and are likely to date form the Early Neolithic.

The remaining flakes and other debitage are in a dark grey or black coloured flint, and are all hard hammer-struck, and together with the multi-platform flake core, exhibit no evidence for the careful flint-working found in earlier period. These pieces are therefore likely to date to the Later Neolithic or more likely the Bronze Age.

5.7 The Animal Bone by Gemma Driver

The bone assemblage consists of 73 fragments from 3 contexts. The bone was recovered through hand collection and environmental samples. Context [1/007] dates to the early Roman period whilst the remaining contexts [2/006] and [2/009] date to the middle Iron Age.

The bone was identified using the in-house reference collection and Schmidt (1972). Where species identification was not possible, for long-bone and small cranial fragments, the bone was identified according to the size. The part and proportion of the bone present was noted as well as the state of fusion.

	[1/007]	<3>	[2/006]	<1>	[2/009}	<2>
SPECIES	HAND	SAMPLED	HAND	SAMPLED	HAND	SAMPLED
CATTLE-SIZE			19	1		
CATTLE					2	
HORSE			28			
SHEEP		2	1	1		3
SHEEP-SIZED	2	2			1	3
SMALL MAMMAL		4				1
RODENT		1				1
AMPHIBIAN		1				
TOTAL	2	10	48	2	3	8

Table 10: Animal Bone: NISP count for all phases.

Middle Iron Age

Context [2/006] and [2/009] are dated to the Middle Iron Age. Context [2/006] contains the remains of a horse skull including mandible fragments. During excavation the feature was noted to have been rooted thus disturbing the fill. Four medium to large cranial fragments were recovered, including the brain cavity which is normally crushed. In contrast, no teeth were found which is unusual as their hard enamel surface generally facilitates their survival. This suggests that the teeth may have been removed from the skull before burial.

Context [2/009] contained a small amount of animal bone including a calcined sheep ulna and fragments of cattle and sheep mandible and teeth. Fragments of small mammal, including rodent teeth, were recovered from the environmental samples. The feature has been provisionally interpreted as a grain storage pit.

The burial of disarticulated horse skulls and mandibles at Danebury has been interpreted as evidence of ritualistic activity (Grant: 1984). At Danebury, nearly 20% of the skull deposits comprised of horse whereas

horse bones make up only 4% of the animal population (Grant 223: 1984). If the NISP counts from this evaluation are combined with those from nearby excavations carried out by PCA (2008), it is evident that the animal population is dominated by sheep and cattle. Butchery marks are rarely seen on horse skulls and it is unlikely that horse was utilised as a food

resource. Cunliffe (1992) suggests that the votive offering were deliberately placed at the bottom of the pits soon after their use as storage silos had ceased (Cunliffe 70: 1992).

Evidence of ritualistic activity was also found during previous excavations on the site (Reilly 2009) which revealed a sheep skull at the base of a pit (Reilly 2009).

Pit [2/009] contains a small amount of bone probably representing domestic waste. The presence of small mammal suggests that the pit was left open once it had ceased to be used for grain storage.

Early Roman
Context [1/007] has also been provisionally interpreted as a grain storage pit. Only twelve fragments of bone from this period were recovered through hand collection and sampling and included a charred sheep patella and sheep molar as well as sheep-sized long-bone and cranial fragments.

Previous excavations reveal a slightly larger Early Roman bone assemblage containing 32 fragments. The assemblage was also recovered from a series of pits and is dominated by cattle and cattle-sized fragments.

5.8 **Worked Bone** by Elke Raemen

A crudely shaped bone handle fragment (RF <1>) was recovered from [1/007]. The piece, made from a sheep-size long bone (Gemma Driver pers. comm.), retains some traces of iron as well as a fragment of the iron whittle tang. Pottery from this context dates to ca. AD 70 to 100.

5.9 **Human Bone** by Lucy Sibun

Human skeletal material was recovered from two pits in trench 2, [2/004] and [2/006]. The disarticulated remains were in a good state of preservation but highly fragmented, preventing the recording of any metrical data. All elements were examined for the presence of anything of particular interest or pathological lesions or but none were noted.

The assemblage in [2/004] consists of the shafts and distal ends of a left and right femur, a complete but fragmented left tibia, the proximal end and shaft of a right tibia, a left rib and a single phalange. All the skeletal elements are of adult size and it seems likely that the bones are from a single individual. However, in disarticulated form and without metrical data, this is assumption only. Pit [2/006] contained the distal end of a left humerus. This was also from an adult individual but no measurements were possible.

6.0 THE ENVIRONMENTAL SAMPLES by Dr Lucy Allott

Three bulk samples were taken during archaeological investigations at Carshalton. The samples were taken from small pit features, one of which was interpreted on site as a possible grain storage pit. Although the fills of these pits (2/006 and 2/009 in particular) were moderately heavily rooted, their visible contents and overall morphology were considered potentially significant and therefore samples were taken.

Samples were processed in their entirety in a flotation tank and the flots and residues were captured on 250µm and 500µm meshes respectively and air dried. The residues were passed through 4mm and 2mm geological sieves and were sorted for environmental and artefact remains. The flots were scanned under a stereozoom microscope at magnifications of x7-45 and their contents recorded.

Preliminary identifications have been made through consultation with modern comparative material and reference atlases (Anderberg 1994, Berggren 1969, 1981, Cappers *et al.* 2006, Jacomet 2006, NIAB 2004). Nomenclature used follows Stace (1997).

All animal bones and pottery fragments present in these samples are recorded in Tables 8 and 10 and have been incorporated in the appropriate finds reports.

Results - Macrobotanical Remains and Charcoal

Samples <1>, (2/006) and <2>, (2/009) were dominated by uncharred vegetation, including seeds and other fruiting structures as well as roots. Both samples also produced small quantities of wood charcoal fragments, the majority of which were <4mm in size and highly comminuted. Infrequent and indeterminate cereal grain fragments were noted in both samples however no further charred macrobotanical remains were present. Land snail shells were recorded in sample <2> and given the level of bioturbation within the feature these may be of modern origin.

Sample <3>, (1/007) was taken from the fill of a possible grain storage pit. This sample was also dominated by uncharred vegetation however the deposit appears to contain significantly more chalk and charred botanical remains than in samples <1> and <2>. Similar quantities of wood charcoal (to samples <1 and 2>) were noted although a few fragments >4mm in size were also present. Charred macrobotanical remains were moderately frequent and although poorly preserved several grass (Poaceae) seeds, taxa from the pink family (Caryophyllaceae) and knotweed (cf. *Fallopia* sp.) were noted. Cereal grains and glume bases, including possible spelt wheat (*Triticum spelta*) glume base, were recorded although these were generally poorly preserved. These crop remains are infrequent.

Discussion

Sampling has confirmed the presence of small quantities of environmental remains including charcoal, charred cereals, weed seeds and other

macroplant remains as well as bone. Of particular interest is the assemblage of charred macrobotanicals in sample <3>, (1/007) from a possible grain storage pit. The contents of this feature are consistent with those documented in storage pits elsewhere (Allott 2008). The quantity of grain recovered from this feature is too small to suggest that the contents of the storage pit were burnt in their entirety, however, it is possible that these seeds represent the remains of the crops stored within the pit and that these were charred either deliberately to clean/sterilise the pit or accidentally. There is also evidence for grain, seeds and other plant remains being deliberately deposited within grain storage pits (Hill 1995). Unfortunately the current assemblage is too small and isolated to explore either interpretation further.

Table 11: Residue Quantification * = 0-10, ** = 11-50, *** = 51-250, **** = >250 and weights in grams

Sample Number	Context	Context / deposit type	Sample Volume litres	sub-Sample Volume litres	Charcoal >4mm	Weight (g)	Charcoal <4mm	Weight (g)	Charred botanicals (other than charcoal)	Weight (g)	Bone and Teeth	Cremated/Burnt?	Weight (g)	Fishbone and microfauna	Weight (g)	Land Snail shells	Weight (g)	Other (eg ind, pot, cbm)
1	2/006	Pit Fill	40	40			*	<1			**	N	18					FCF **/218g, Pot */12g
2	2/009	Pit Fill	40	40	*	<1	*	<1			**	N	12	*	<1			FCF ***/980g, Flint */6g, Pot **/36g
3	1/007	Pit Fill	40	40			*	<1	*	<1	**	Y-some	16			*	<1	FCF */348g, Pot **/22g

Table 12: Flot Quantification including preliminary identifications and assessment of the preservation of botanical remains
Key: Quantification (* = 0-10, ** = 11-50, *** = 51-250, **** = >250), Preservation (+ = poor, ++ = moderate, +++ = good), g.b. = glume bases, indet. = indeterminate.

Sample Number	Context	Weight g	Flot volume ml	Uncharred %	Sediment %	Seeds uncharred	Charcoal >4mm	Charcoal <4mm	Charcoal <2mm	Crop seeds charred	Identifications	Preservation	Weed seeds charred	Identifications	Preservation	Other botanical charred	Identifications	Preservation	Fish, amphibian, small mammal bone	LSS
1	2/006	22	160	90	<5	**		**	***	*	Indet. frags	+								
2	2/009	8	80	90	5	**		**	***		frags?									**
3	1/007	32	150	70	25		*	**	***	*	cerealia indet.	+	**	Caryophyllaceae, cf. *Fallopia* sp. Poaceae	+	*	g.b. incl. cf. *Triticum spelta*	+	*	***

7.0 DISCUSSION

7.1 Overview

7.1.1 The programme of trenching has demonstrated the presence of three main phases of archaeology: early prehistoric, Middle Iron Age and early Roman.

7.2 Mesolithic – Bronze Age (7000 – 800 BC)

7.2.1 The small flint work assemblage ranged in date from Mesolithic to Bronze Age and was all residual, recovered from across the site. Its presence indicates that the site was at least in periodic use throughout the earlier prehistoric eras.

7.3 Middle/Late Iron Age (400 – 50 BC)

7.3.1 This phase was identified solely in trench 2. Pit [2/009] was an apparent grain-storage pit, although this pit was dug into the brickearth and did not utilise the areas of chalk as in the Ashcombe site.

7.3.2 Pits [2/007] and [2/005] seemed to be more than just rubbish pits. Both pits contained what appeared to be structured deposits: an inverted horse skull in the former and placed human long bones in the latter. The presence of human remains in both pits may indicate an inhumation cemetery in the vicinity of the site, which was disturbed in antiquity and re-interred here.

7.3.3 Although no structural remains were identified, the finds of fired clay including a burnt daub fragment with wattle impression indicates buildings in the vicinity. Post-holes were identified in the Middle Iron Age phase at the Ashcombe House site.

7.4 Early Roman (AD 70 – 100)

7.4.1 The ditch and grain-storage pit in trench 1 were the only features of this date. The grain-storage pit was, like [2/009], dug into the brickearth natural. Features of this date were also identified in the Ashcombe House site to the south.

7.5 Modern

7.5.1 The evaluation was able to demonstrate that the area of the former hospital buildings in the centre of the site had been terraced into the gentle south to north slope, with the southern portion dug into the natural by at least 0.6m and the northern portion including the car park area, had been raised with dumped made ground by at least 1.5m.

8.0 CONCLUSIONS

8.1 The evaluation identified three phases of activity: early prehistoric, Middle Iron Age and early Roman. The early prehistoric period was only represented by residual flintwork.

8.2 The Middle Iron Age and early Roman phases mirrored the activity identified on the Ashcombe House site to the immediate south, with an apparent hiatus in occupation during the Late Iron Age. Middle Iron Age features identified included a grain-storage pit and two pits containing structured deposits of placed human long bones and an inverted horse skull.

8.3 The evaluation was able to demonstrate that the area around the former hospital buildings in the centre of the site had been terraced into the gentle south to north slope, including the raising of the ground level by at least 1.5m in the area of the car park to the north.

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ACKNOWLEDGEMENTS

Archaeology South-East would like to thank Lorraine Darton of CgMs and Diane Walls of GLAAS for their involvement in the project.

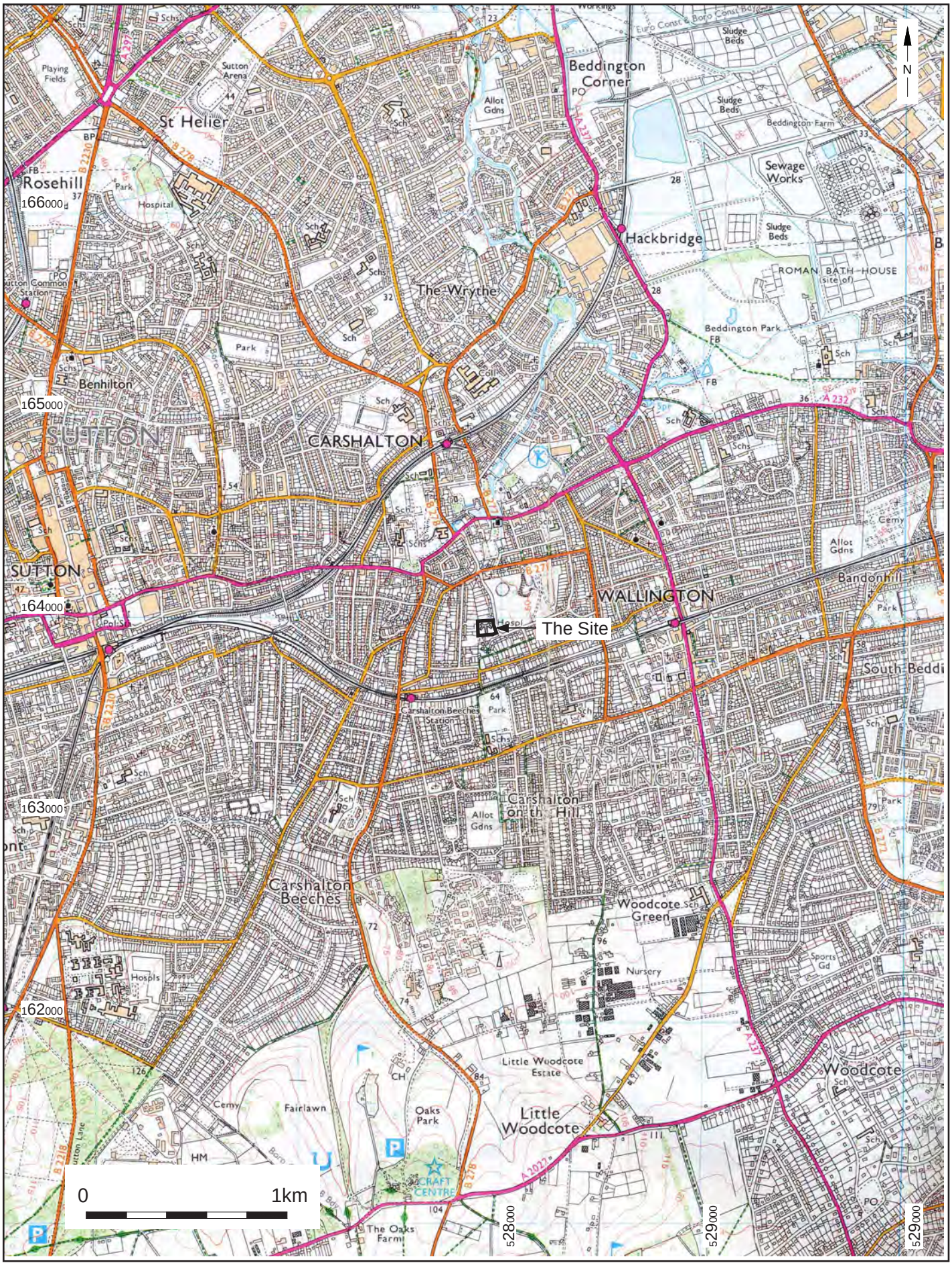
OASIS FORM

OASIS ID: archaeol6-62241

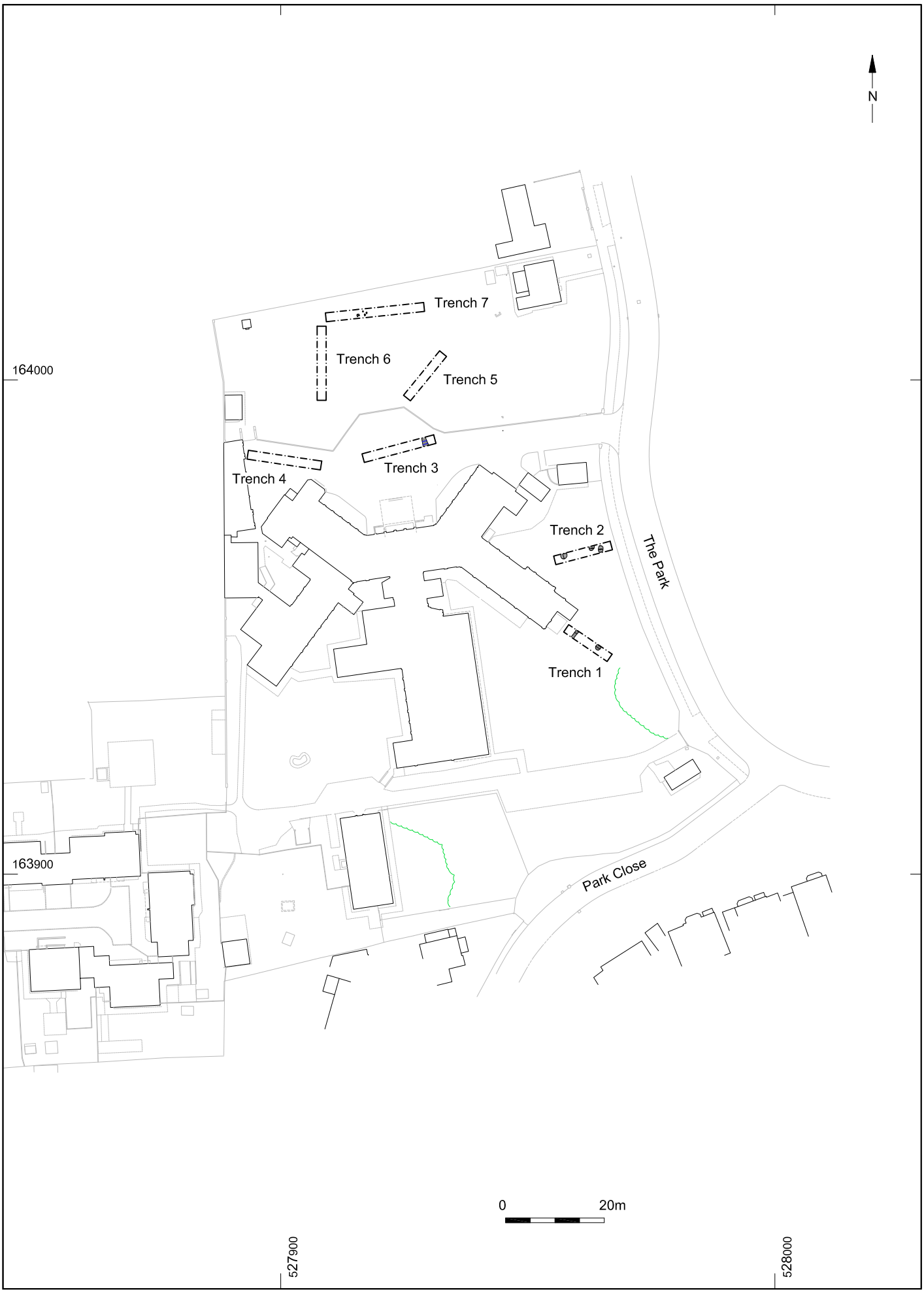
Project details	
Project name	Carshalton War Memorial Hospital
Short description of the project	An archaeological evaluation of 7 trenches was undertaken by Archaeology South-East at Carshalton War Memorial Hospital, Sutton, between the 1st and 3rd July 2009 and was commissioned by CgMs on behalf of their client. The underlying natural of chalk and brickearth was encountered between the heights of 56.25m OD in the north of the site (trench 7) and 58.81m OD in the south (trench 1). The topography was of gardens, gently sloping from south to north. The evaluation identified three phases of activity: early prehistoric, Middle Iron Age and Early Roman. The early prehistoric period was represented by residual flintwork.. The Middle Iron Age and Early Roman phases mirrored the activity identified on the Ashcombe House site to the immediate south, with an apparent hiatus in occupation during the Late Iron Age. Middle Iron Age features identified included a grain-storage pit and two pits containing structured deposits of placed human long bones and an inverted horse skull. The evaluation was able to demonstrate that the area around the former hospital buildings in the centre of the site had been terraced into the gentle south to north slope, including the raising of the ground level by at least 1.5m in the area of the car park to the north.
Project dates	Start: 01-07-2009 End: 03-07-2009
Previous/future work	Yes / Yes
Type of project	Field evaluation
Site status	None
Current Land use	Other 5 - Garden
Monument type	PITS Middle Iron Age
Monument type	PIT Roman
Significant Finds	POTTERY Middle Iron Age
Significant Finds	HUMAN BONE Middle Iron Age
Methods &	'Documentary Search','Sample Trenches'

techniques	
Development type	Urban residential (e.g. flats, houses, etc.)
Prompt	Planning condition
Position in the planning process	After outline determination (eg. As a reserved matter)
Project location	
Country	England
Site location	GREATER LONDON SUTTON CARSHALTON Carshalton War Memorial Hospital
Postcode	SM 2 5
Study area	1.00 Hectares
Site coordinates	TQ 527934 163962 50.9261824072 0.174356590423 50 55 34 N 000 10 27 E Point
Height OD / Depth	Min: 56.25m Max: 58.81m
Project creators	
Name of Organisation	Archaeology South-East
Project brief originator	English Heritage/Department of Environment
Project design originator	English Heritage
Project director/manager	JON SYGRAVE
Project supervisor	Giles Dawkes
Type of	Developer

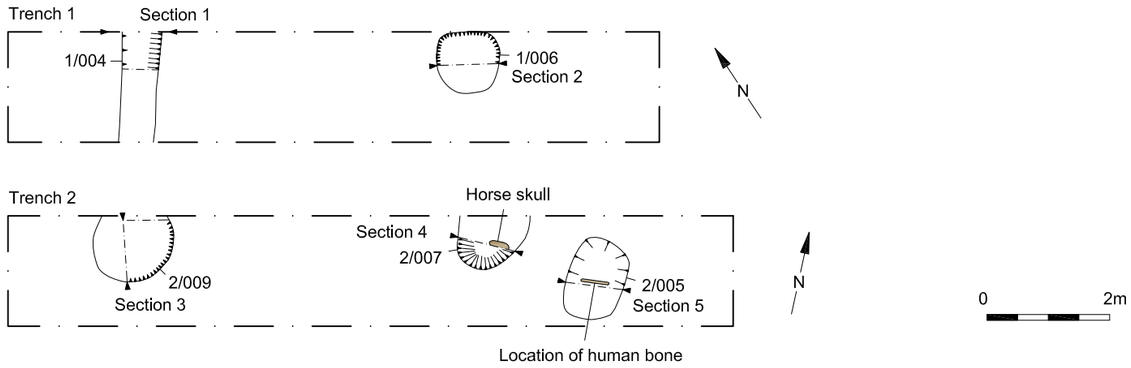
sponsor/funding body	
Project archives	
Physical Archive recipient	Museum of London
Physical Contents	'Animal Bones','Ceramics','Environmental','Glass','Human Bones','Metal','Worked bone'
Digital Archive recipient	Museum of London
Digital Contents	'Animal Bones','Ceramics','Environmental','Glass','Human Bones','Metal','Survey','Worked bone'
Digital Media available	'Spreadsheets','Survey','Text'
Paper Archive recipient	Museum of London
Paper Contents	'Stratigraphic'
Paper Media available	'Context sheet','Microfilm','Photograph','Plan','Report','Section','Survey '
Entered by	Giles Dawkes (giles.dawkes@ucl.ac.uk)
Entered on	21 July 2009

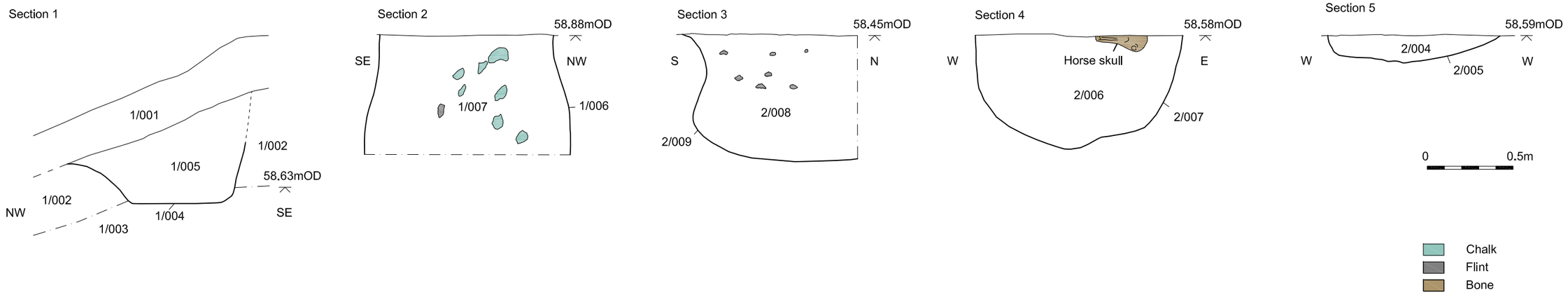


© **Archaeology South-East**		Carshalton War Memorial Hospital	Fig. 1
Project Ref: 3893	July 2009	Site location plan	
Report Ref: 2009105	Drawn by: JLR		



© Archaeology South-East		Carshalton War Memorial Hospital	Fig. 2
Project Ref: 3893	July 2009	Trench location	
Report Ref: 2009105	Drawn by: RC/JR		

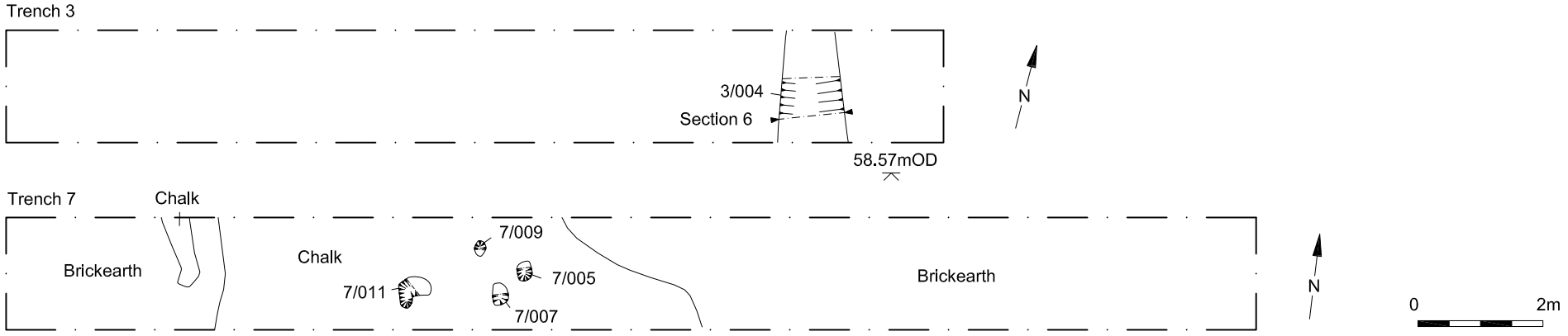




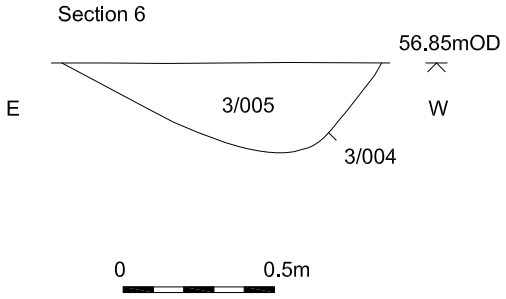
Early Roman grain storage pit 1006 (section 2)

Pit 2007 with inverted horse skull (section 4)

© **Archaeology South-East**		Carshalton War Memorial Hospital	Fig. 3
Project Ref: 3893	July 2009	Trenches 1 and 2: Plans and sections	
Report Ref: 2009105	Drawn by: RC/JR		



Trench 7 facing east. The postholes are located in the chalk



© Archaeology South-East		Carshalton War Memorial Hospital	Fig. 4
Project Ref: 3893	July 2009	Trenches 3 and 7: Plans	
Report Ref: 2009105	Drawn by: RC/JR		

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