

The Northbrook Site, West Durrington, Worthing, West Sussex

Archaeological Evaluation

by Sean Wallis

Site Code: NCW11/113

(TQ 1042 0388)

The Northbrook Site, West Durrington, Worthing, West Sussex

An Archaeological Evaluation (Area A)

for Northbrook College

by Sean Wallis

Thames Valley Archaeological Services

Ltd

Site Code NCW11/113

February 2012

Summary

Site name: The Northbrook Site, West Durrington, Worthing, West Sussex

Grid reference: TQ 1042 0388

Site activity: Archaeological Evaluation

Date and duration of project: 2nd – 7th February 2012

Project manager: Sean Wallis

Site supervisor: Sean Wallis

Site code: NCW 11/113

Area of site: c. 0.7 ha

Summary of results: Several archaeological features were recorded during the evaluation, which suggest that the activity previously recorded in the surrounding vicinity, extends into the area of the proposed new car park. Apart from a possible medieval or post-medieval pit, and Neolithic or Bronze Age struck flint, all the datable features appear to date from the later prehistoric period. No Roman finds or features were recorded, which is surprising, considering that a villa is known to have existed just to the south-east of the present site.

Location and reference of archive: The archive is presently held at Thames Valley Archaeological Services, Reading and will be deposited with Worthing Museum in due course

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Report edited/checked by: Steve Ford ✓ 27.02.12 Steve Preston ✓ 23.02.12

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The Northbrook Site, West Durrington, Worthing, West Sussex Archaeological Evaluation (Area A)

by Sean Wallis

Report 11/113b

Introduction

This report documents the results of an archaeological field evaluation carried out at Northbrook College, Littlehampton Road, West Durrington, Worthing, West Sussex (Fig. 1). The evaluation took place in an area to the north-west of the existing college buildings (Area A), centred on TQ 1042 0388. The work was commissioned by Mr Jon Rollings, in his capacity as the college's Director of Finance and Administration. Planning consent is to be sought from Worthing Borough Council to create a new car park to the north-west of the existing college buildings.

As a consequence of the possibility of archaeological deposits which could be damaged or destroyed by the proposed re-development of the area, a field evaluation was undertaken to determine the archaeological potential of the site, and to help formulate a mitigation strategy as necessary. This is in accordance with the Department for Communities and Local Government's Planning Policy Statement, *Planning for the Historic Environment* (PPS5 2010), and the Borough Council's policies on archaeology.

The field investigation was carried out to a specification approved by Mr John Mills, Senior Archaeologist with West Sussex County Council, who act as advises to the Borough Council on archaeological matters. The fieldwork was undertaken by Daniel Bray, Felicity Howell and Sean Wallis between 2nd and 7th February 2012, and the site code is NCW 11/113. The archive is presently held at Thames Valley Archaeological Services, Reading and will be deposited with Worthing Museum in due course.

Location, topography and geology

The site lies to the north-west of the main complex of existing college buildings, and currently consists of a grassy area, crossed to the south by a footpath (Fig. 2). The site is relatively flat, and lies at a height of approximately 10m above Ordnance Datum. According to the British Geological Survey, the underlying geology consists of Brickearth, and this was confirmed in all the evaluation trenches (BGS 2006).

Archaeological background

The archaeological potential of the site stems from its location on the Sussex Coastal Plain, which is considered to be rich in archaeological deposits of all periods (Rudling 2003). Of particular relevance to the site itself, a Roman villa was discovered, just to the south-east, when the present Northbrook College buildings were constructed in the early 1980s. Subsequent archaeological fieldwork projects, in the surrounding areas, have revealed numerous features dating from the Neolithic, late Bronze Age, Iron Age and Roman periods. The archaeological remains included evidence of occupation in the late Iron Age and Roman period, in the form of roundhouses and masonry buildings This has been recently summarised in a desk-based assessment (Wallis 2011).

Objectives and methodology

The purpose of the evaluation was to determine the presence/absence, extent, condition, character, quality and date of any archaeological or palaeoenvironmental deposits within the area of development. The work was to be carried out in a manner which would not compromise the integrity of archaeological features or deposits which might warrant preservation in-situ, or might better be excavated under conditions pertaining to a full excavation.

The specific research aims of this project were:

- to determine if archaeologically relevant levels have survived on this site;
- to determine if archaeological deposits of any period are present;
- to determine if archaeological deposits dating from the Neolithic period are present;
- to determine if archaeological deposits dating from the Bronze Age period are present;
- to determine whether any evidence of late Iron Age and Roman occupation is present.

It was originally proposed to dig six 25m long trenches in those parts of the proposed site which will be most affected by the new car park. All the trenches were to be about 1.8m wide, and excavated by a 360° type machine fitted with a toothless ditching bucket, under constant archaeological supervision. Machine excavation was to be taken down to the top of the natural geology or the top of the relevant archaeological level. All spoilheaps were to be monitored for finds.

Results

Due to site constraints, it was necessary to subdivide one of the proposed trenches into three smaller sections. As a result, eight trenches excavated, varying in length from 5m to 27.1m, and between 0.61m and 0.75m deep (Fig.

3). A complete list of trenches giving lengths, breadths, depths and a description of sections and geology is given in Appendix 1. No trenches were located along the western boundary of the site, as this area will not be significantly disturbed by the proposed new car park. Similarly, no trenches were excavated at the southern end of the site, in order to avoid an existing footpath.

Trench 1 (Figs 4 and 5; Pls 1 and 3)

This trench was orientated approximately NW-SE, and was 25m long and up to 0.75m deep, although a small test pit was dug to a depth of 1.15m towards its southern end to confirm that the geological strata had been correctly identified. Turf and topsoil (50), up to 0.37m thick, was removed to reveal a subsoil deposit of mid orange brown clayey silt (51). The subsoil layer was about 0.07m thick, and lay directly above the natural geology (brickearth).

Towards the south end of the trench, a ditch (4/12) was investigated in two slots. It measured up to 1.05m wide and 0.4m deep and was aligned almost due north-south. The ditch had a primary fill of yellow brown clayey silt (58), which contained one small sherd of middle Iron Age pottery. Further sherds of this date were recovered from the upper fill of the ditch (57/66), along with several pieces of struck and burnt flint, and a small piece of fired clay. The western edge of the ditch was clipped by a sub-circular pit (11), which contained no archaeological finds. The pit measured 0.7m in diameter, and was 0.15m deep, with a single fill of yellow brown clayey silt (65).

A gully (5) was investigated at the south end, and appeared almost parallel to ditch 4/12. The gully was 0.45 wide and 0.16m deep, with a single fill of orange brown clayey silt (59). The only find retrieved from its fill was a tiny chip of middle Iron Age pottery.

Although both linear features recorded in this trench were aligned approximately N-S, neither was observed in Trench 2, to the north.

Trench 2 (Figs 4 and 5; Pl. 4)

Trench 2 was 27.1m long and orientated approximately SW-NE. The trench was excavated to a depth of about 0.75m. The stratigraphy generally consisted of 0.32m of turf and topsoil (50) above a subsoil layer (51), which was up to 0.26m thick. This lay directly above the natural brickearth. Two intercutting pits (1 and 2) were towards the south-western end of the trench. Neither was seen fully in plan, as they extended beyond the edge of the trench. Pit 1 was at least 0.8m long, 0.55m wide, and 0.43m deep. A struck flint was recovered from its primary fill of orange brown clayey silt (53), whilst its upper fill of greyish brown clayey silt (52) yielded no archaeological finds. The feature was clearly truncated by pit 2, which measured at least 1.3m in length and

0.55m in width. Pit 2 was 0.5m deep, with steep sides and a rounded base. A tiny fragment of middle Iron Age pottery was recovered from its primary fill of brownish grey clayey silt (55), along with a struck flint. No finds were noted within its upper fill of greyish brown clayey silt (54).

Another pit (3) was recorded in the north-eastern part of the trench. This feature was sub-circular in plan, and was 0.62m long and 0.55m wide. It had a single fill of greyish brown clayey silt (56), about 0.16m thick but which contained no archaeological finds.

Trench 3 (Figs 4 and 5)

This trench was aligned N-S, and was 25.5m long and up to 0.73m deep. Approximately 0.35m of turf and topsoil was removed to reveal the subsoil layer, which was 0.2m thick, and lay directly above the natural brickearth. A narrow gully (9) was seen to cross the trench and a slot was excavated through it. The feature was up to 0.32m wide, but just 0.06m deep, with a single fill of greyish brown clayey silt (63). The only find recovered from the gully was a small sherd of pottery, possibly dating from the late Iron Age. This gully is probably the same feature as that (6) recorded in Trench 7, to the west.

Trench 4 (Figs 4 and 6)

Trench 4 was 25.2m long and 0.64m deep, and aligned approximately SW-NE. Up to 0.31m of turf and topsoil (50) was removed to reveal a layer of subsoil (51), which was about 0.18m thick. This lay directly above the natural brickearth. A shallow gully (10) was recorded towards the southern end of the trench and which appeared to terminate within the trench. This feature was 0.38m wide and 0.04m deep, but no archaeological finds were found within its fill of orange brown clayey silt (64). The gully was clipped by pit 7, which was not seen fully in plan. The pit was at least 1m long and 0.35m, and had near vertical sides. It had a single fill of brownish grey clayey silt (61), which was at least 0.75m thick and contained occasional small fragments of chalk. A small sherd of medieval pottery was recovered from the feature, along with a fragment of glass, and three small pieces of tile. A residual struck flint was also found in the pit.

Trench 5 (Figs 4 and 6; Pl. 5)

This trench was orientated approximately W-E and was 25m long and 0.72m deep. Turf and topsoil (50), up to 0.40m thick, was removed to reveal the subsoil horizon (51). This layer was approximately 0.22m thick, and lay directly above the natural brickearth. Ditch 8 lay towards the west end of the trench. It was U-shaped in profile, and was approximately 1.2m wide and 0.4m deep with a single fill of greyish brown clayey silt (62). A single

sherd of late Bronze Age pottery was found close to the base of the ditch. Other finds consisted of a single struck flint and several fragments of burnt flint.

Trench 6 (Fig. 4; Pl. 2)

This trench was 12m long and 0.62m deep, and aligned approximately N-S. Ditch 13 was observed within the southern half of the trench, although its full width was not seen in plan. It was at least 1.3m wide and 0.74m deep, and appeared to have steep sides and a flattish base. Four sherds of middle Iron Age pottery were recovered from its single fill of greyish brown silty clay (67), along with three abraded lumps of pottery dating from the late Bronze Age or early Iron Age, which are presumably residual. The only other finds were two fragments of burnt flint. The ditch appears to be aligned roughly N-S, but was not seen in Trench 3.

Trench 7 (Figs 4 and 6; PL. 6)

This trench was orientated approximately N-S and was 8m long and 0.7m deep. Turf and topsoil (50), up to 0.30m thick, was removed to reveal the subsoil horizon (51). This layer was approximately 0.24m thick, and lay directly above the natural brickearth. A narrow gully (6) was recorded which had a single fill of greyish brown clayey silt (60) and contained struck and burnt flint fragments, along with a small sherd of late Bronze Age or early Iron Age pottery. The feature is probably the same of gully 9, which was recorded to the east, in Trench 3.

Trench 8

Trench 8 was 5m long and orientated approximately W-E. The trench was excavated to a depth of about 0.60m. The stratigraphy generally consisted of 0.32m of turf and topsoil (50) above a subsoil layer (51), which was up to 0.13m thick. This lay directly above the natural brickearth. No archaeological features were recorded within this trench.

Finds

Pottery by Malcolm Lyne

The site yielded 20 sherds (64g) of pottery from nine contexts, dating from the late Bronze Age, middle Iron Age, late Iron Age, and Medieval periods. Most of the sherds were quite small, and all were abraded. The pottery is catalogued in Appendix 3, and the fabrics detailed below.

All of the assemblages were quantified by numbers of sherds and their weights per fabric. These fabrics were identified using a x8 magnification lens with inbuilt metric graticule in order to determine the natures,

forms, frequencies and sizes of added filler inclusions. None of the assemblages are large enough for any further

quantification by Estimated Vessel Equivalents (EVEs) based on rim sherds.

Fabrics

Late Bronze Age-to-Early Iron Age

BA.1. Handmade brown/black with profuse protruding ill-sorted 0.10<3.00 mm. crushed calcined-flint filler

Middle Iron Age

MIA.1. Handmade rough black fabric with profuse <1.00 mm crushed calcined-flint filler MIA.2. Handmade black fabric with sparse soft rounded brown ferrous inclusions and <1.00 mm. crushed calcined-flint filler MIA.3. Handmade silty black fabric with sparse <1.00 mm. crushed calcined-flint filler

Late Iron Age

LIA.1A. Coarse grog-tempered ?East Sussex Ware. LIA.1B. Fine grog-tempered East Sussex Ware

Medieval

M.1. Wheel-turned pale-grey fabric with profuse <0.30 mm. multi-coloured and iron-stained quartz-sand filler fired buff with external splashed apple-green glaze filler.

Struck Flint by Steve Ford

A small collection comprising 17 struck flints were recovered from the site (Appendix 4). The collection comprised 13 flakes, 2 spalls (pieces less than 20x20mm), an end scraper and an invasively retouched piece. The pieces, where cortex is still present, are all made from local gravel flint, and all of the collection is likely to be locally sourced. One of the cortical flakes is a simple break off a nodule and could have been accidentally produced.

One of the pieces is invasively retouched with the bulb having been successfully reduced in thickness. However, the piece is broken with no reworking of the break. It seems likely that this was to be an arrowhead but which was discarded when it broke during manufacture.

Most of the collection is not chronologically distinctive in its own right but would appear to represent fairly basic knapping, competent but not skilled, and may, perhaps, be more typical of a later Bronze Age collection. However, the invasively retouched piece is of Early Bronze Age or Neolithic date. Any of the pieces could easily be residual.

Ceramic Building Material by Sean Wallis

Three small fragments of tile, weighing 34g, were found in pit 7 (61). This feature is possibly of medieval date, and two of the fragments have a dark, under-fired, cortex, which is characteristic of tile from this period.

Glass by Sean Wallis

One small fragment of green glass, weighing 6g, was recovered from pit 7 (61), which is possibly of medieval date.

Burnt Flint by Sean Wallis

Sixty-four fragments of burnt flint, weighing 917g, were found during the evaluation. The biggest concentration came from ditch 4/12 (57/66), which yielded forty-eight pieces, weighing 749g.

Conclusion

The evaluation successfully investigated those parts of the site which will be most affected by the proposed new car park. Archaeological features were encountered in seven of the eight trenches excavated, indicating that the activity noted in earlier investigations nearby extends into the area to the north-west of the existing college buildings. Although about a dozen features were identified, there was a paucity of closely datable finds, which means that some features can only be given a speculative date. Nevertheless, with the exception of a medieval or post-medieval pit, all of the features appear to date from the later prehistoric period, and pottery from the late Bronze Age / early Iron Age, middle Iron Age, and late Iron Age periods was recovered during the evaluation. The ditches and gullies observed are typical for a small farmstead, although no clear evidence of structures was observed, and it seems likely that the focus of any settlement would have been further east, as evidenced by the features recorded during the 1997 evaluation. Perhaps surprisingly, given the close proximity of the villa site discovered in the late 1970s, no Roman finds or features were recorded during the evaluation. Once, again, this probably suggests that activity associated with the villa extended to the north and north-east of the existing college buildings, and this appears to have been confirmed during previous archaeological work.

Whilst the evaluation have undoubtedly shown that archaeological features are present within the area of the proposed new car park, it has also demonstrated that they are buried beneath relatively deep deposits (0.44m-0.62m) of topsoil and subsoil. This depth of overburden presents the possibility that these deposits can be preserved in-situ by careful design of the development foundations and control of construction phase impacts.

References

- BGS, 1993, British Geological Survey, 1:50000, Sheet 318/333, Bedrock and Superficial Deposits Edition, Keyworth
- PPS5, 2010, Planning for the Historic Environment, The Stationery Office, Norwich

Rudling, D, (ed) 2003, The Archaeology of Sussex to AD2000, Brighton

Wallis, S, 2010, 'Land at Northbrook College and Lower Northbrook Farm, West Durrington, Worthing, West Sussex – an archaeological desk-based assessment', Thames Valley Archaeological Services report 11/113, Reading

APPENDIX 1: Trench details

Trench	Length (m)	Breadth (m)	Depth (m)	Comment
1	25.00	1.85	0.75	0–0.37m turf and topsoil (50); 0.37–0.44m subsoil (51); 0.44m+ mid orange
			1.15 (test pit)	brown clayey silt brickearth (natural geology). Ditch 4/12, gully 5, and pit 11.
				[Plates 1 and 3]
2	27.10	1.85	0.75	0-0.32m turf and topsoil (50); 0.32-0.58m subsoil (51); 0.58m+ mid orange
				brown clayey silt brickearth (natural geology). Pits 1, 2 and 3. [Plate 4]
3	25.50	1.85	0.73	0-0.35m turf and topsoil (50); 0.35-0.55m subsoil (51); 0.55m+ mid orange
				brown clayey silt brickearth (natural geology). Gully 7.
4	25.20	1.85	0.64	0-0.31m turf and topsoil (50); 0.31-0.49m subsoil (51); 0.49m+ mid orange
				brown clayey silt brickearth (natural geology). Pit 7 and gully 10.
5	25.00	1.85	0.72	0-0.40m turf and topsoil (50); 0.40-0.62m subsoil (51); 0.62m+ mid orange
				brown clayey silt brickearth (natural geology). Ditch 8. [Plate 5]
6	12.00	1.85	0.62	0-0.30m turf and topsoil (50); 0.30-0.52m subsoil (51); 0.52m+ mid orange
				brown clayey silt brickearth (natural geology). Ditch 13. [Plate 2]
7	8.00	1.85	0.70	0-0.30m turf and topsoil (50); 0.30-0.54m subsoil (51); 0.54m+ mid orange
				brown clayey silt brickearth (natural geology). Gully 6. [Plate 6]
8	5.00	1.85	0.61	0-0.32m turf and topsoil (50); 0.32-0.45m subsoil (51); 0.45m+ mid orange
				brown clayey silt brickearth (natural geology).

APPENDIX 2: Feature details

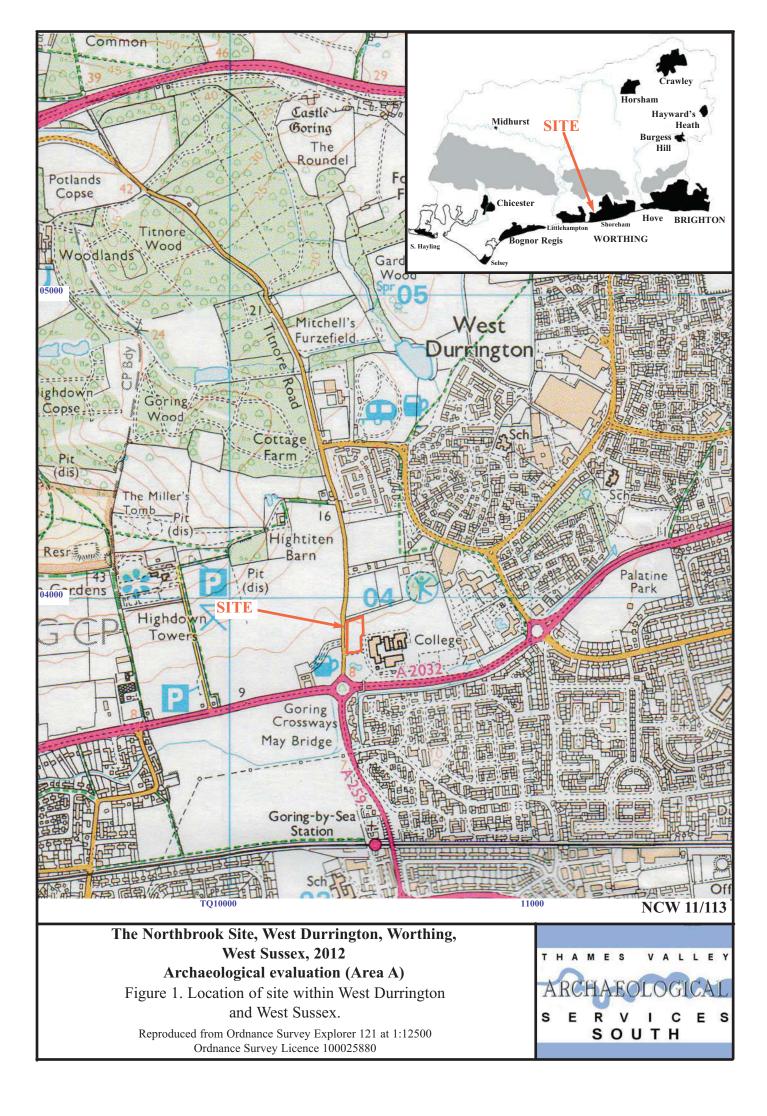
Trench	Cut	Fill(s)	Туре	Date	Dating evidence
2	1	52, 53	Pit	Undated	
2	2	54, 55	Pit	Middle Iron Age ?	Pottery
2	3	56	Gully	Undated	
1	4/12	57, 58, 66	Ditch	Middle Iron Age	Pottery
1	5	59	Gully	Middle Iron Age ?	Pottery
7	6	60	Gully	Late Bronze Age / early Iron Age ?	Pottery
4	7	61	Pit	Late medieval/post medieval	Pottery
5	8	62	Ditch	Late Iron Age	Pottery
3	9	63	Gully	Late Iron Age ?	Pottery
4	10	64	Gully	Undated	
1	11	65	Pit	Undated	
6	13	67	Ditch	Middle Iron Age	Pottery

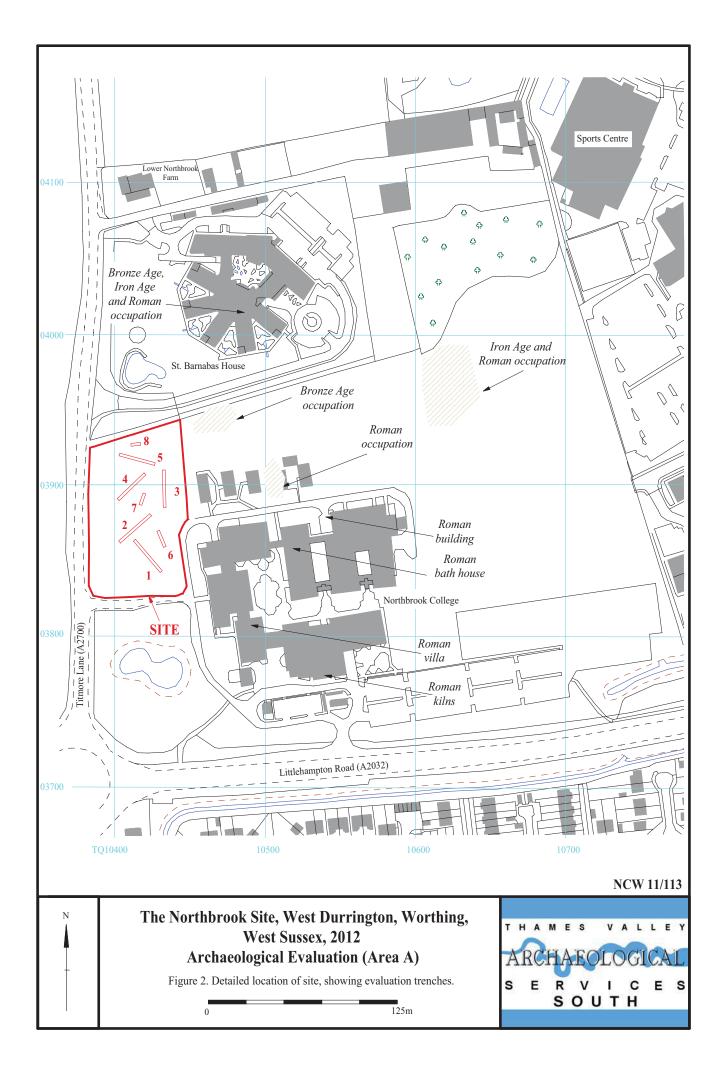
APPENDIX 3: Pottery catalogue

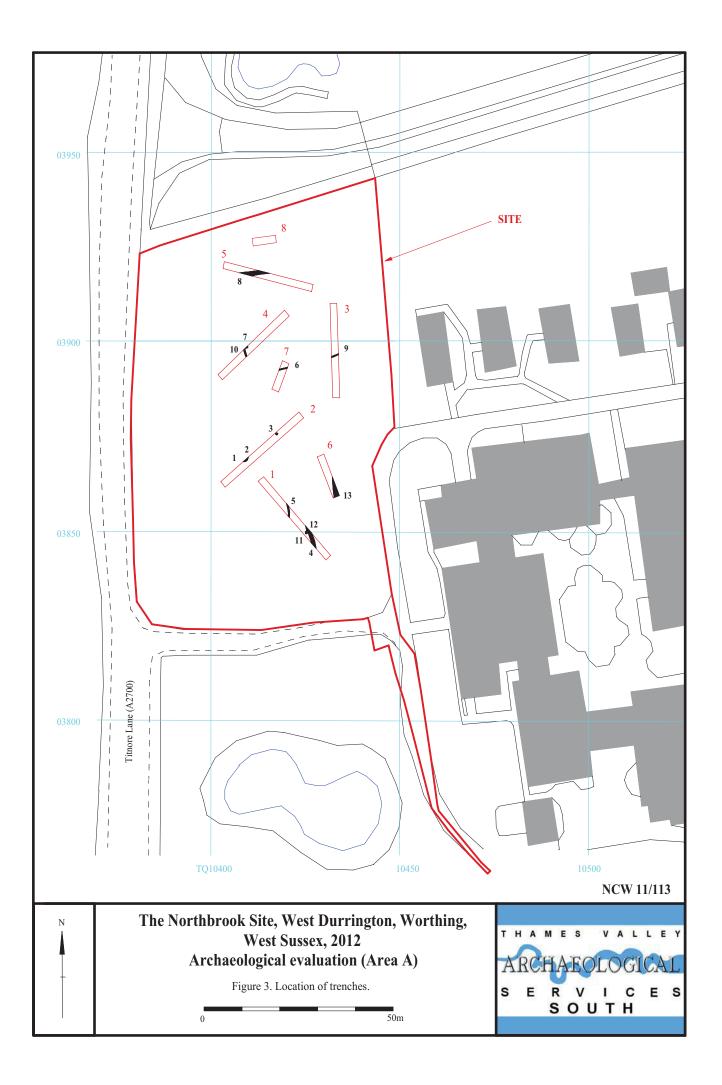
Trench	Cut	Deposit	Fabric	Form	Date-range	No. sherds	Wt. (g)	Comments
2	2	55	MIA2		500-50BC	1	1	Tiny abraded pellet.
1	4	58	MIA1		500-50BC	1	1	Abraded lump.
1	5	59	MIA3		500-50BC	1	1	Abraded chip.
7	6	60	BA1	?large jar	1150-500BC	1	5	Abraded lump.
4	7	61	M1	?jug	AD1250-1500	1	1	Abraded chip
5	8	62	LIA1A	Storage jar	50BC-AD70	1	10	Abraded.
3	9	63	LIA1B		50BC-AD70	1	1	Abraded.
1	12	66	MIA1		500-50BC	6	10	Abraded.
6	13	67	BA1		1150-500BC	3	14	Abraded lumps
			MIA1		500-50BC	4	20	Abraded.
		Total				20	64	

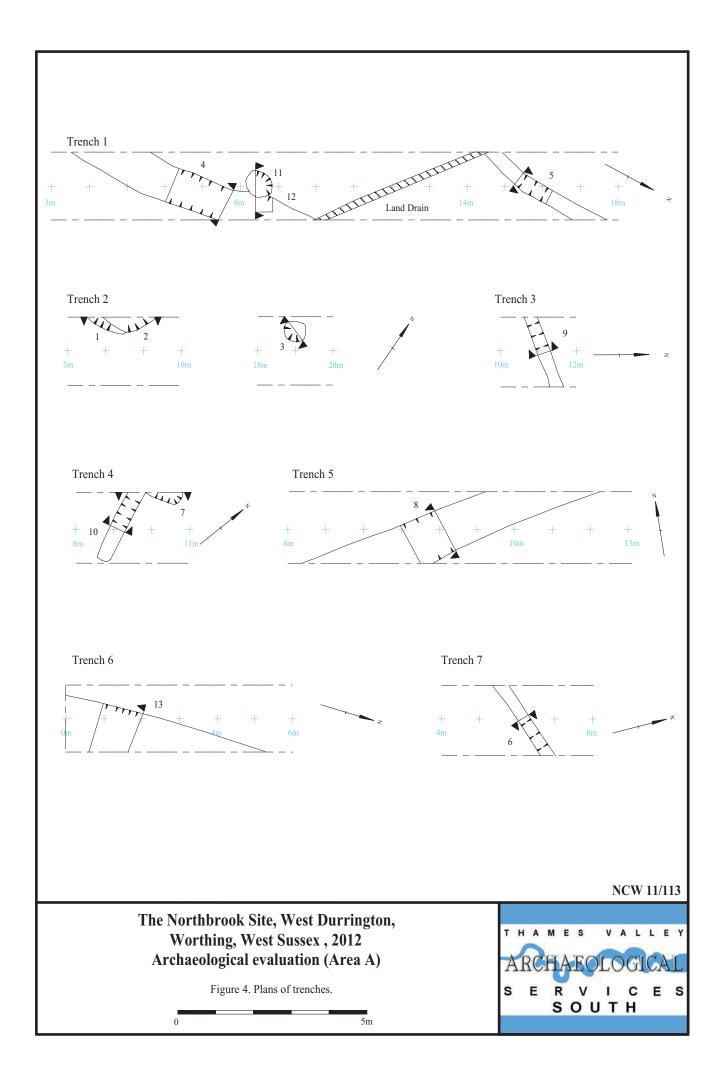
APPENDIX 4: Struck flint catalogue

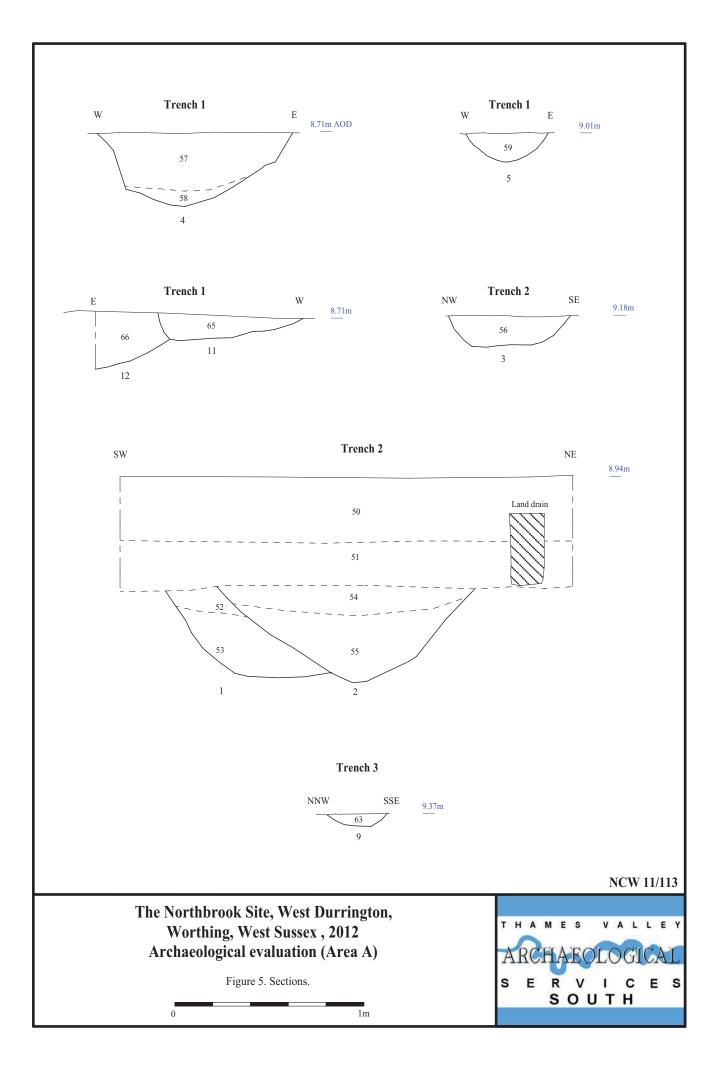
Trench	Cut	Deposit	Туре
1		subsoil	End scraper
1	4	57	8 Intact flakes; 2 spalls; 1 invasively retouched piece (broken arrowhead?)
2	1	53	Intact flake
2	2	55	Intact flake
4	7	61	Intact flake (accidental?)
5	8	62	Broken flake
7	6	60	Broken flake











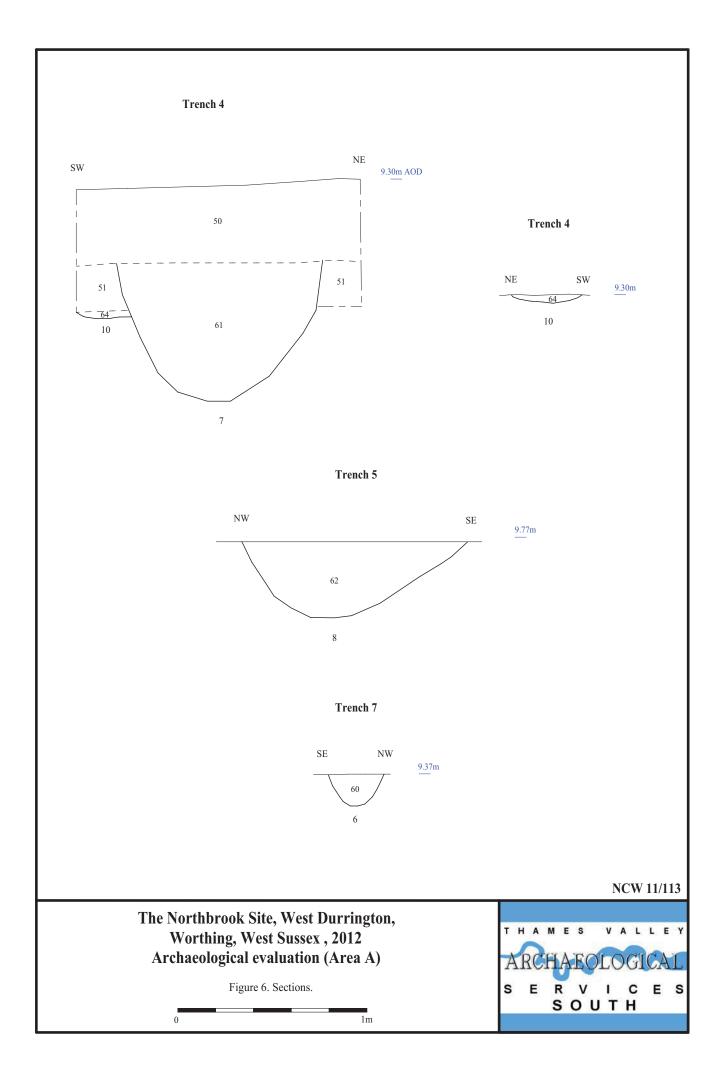




Plate 1. Trench 1, looking north west, Scales: 2m and 1m.



Plate 2. Trench 6, looking north, Scales: 2m and 1m.

The Northbrook Site, West Durrington, Worthing, West Sussex, 2012 Archaeological Evaluation (Area A) Plates 1 and 2.



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Plate 3. Trench 1, ditch slot 4, looking north west, Scales: 0.5m and 0.3m.



Plate 4. Trench 2, pits 1 and 2, looking north west, Scales: 0.5m.

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The Northbrook Site, West Durrington, Worthing, West Sussex, 2012 Archaeological Evaluation (Area A) Plates 3 and 4.



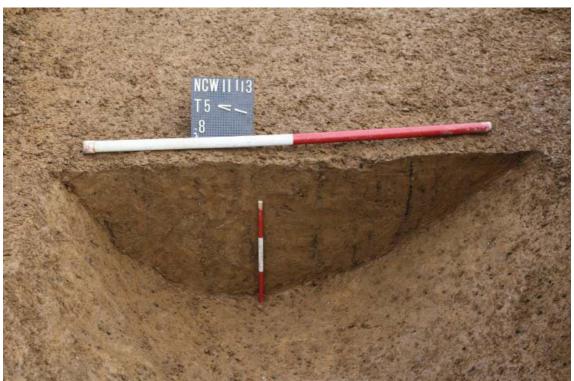


Plate 5. Trench 5, ditch slot 8, looking east, Scales: 1m and 0.3m.



Plate 6. Trench 7, gully slot 6, looking west, Scales: 0.3m and 0.1m.

NCW 11/113

The Northbrook Site, West Durrington, Worthing, West Sussex, 2012 Archaeological Evaluation (Area A) Plates 5 and 6.

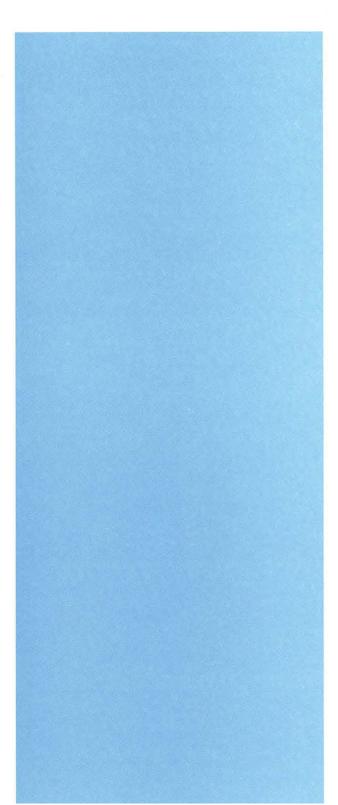


TIME CHART

Calendar Years

Modern	AD 1901
Victorian	AD 1837
Post Medieval	AD 1500
Medieval	AD 1066
Saxon	AD 410
Roman Iron Age	BC/AD
	750 BC
Bronze Age: Late	1300 BC
Bronze Age: Middle	1700 BC
Bronze Age: Early	2100 BC
Neolithic: Late	3300 BC
Neolithic: Early	4300 BC
Mesolithic: Late	6000 BC
Mesolithic: Early	10000 BC
Palaeolithic: Upper	30000 BC
Palaeolithic: Middle	70000 BC
Palaeolithic: Lower	2,000,000 BC ↓





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