Cross Levels Way, Eastbourne, East Sussex

Interim Archaeological Assessment Report: Three Artefact Scatters

March 2020

Client: Morgan Sindell Group

Issue No: V1
OA Reference No: 7485
NGR: TQ 60442 01653

oxfordarchaeology

Client Name:	Morgan Sindall Group
Document Title:	Cross Levels Way, Eastbourne, East Sussex
Document Type:	Interim Assessment Report
Report No.:	V1
Grid Reference:	TQ 60442 01653
Planning Reference:	Pre-planning
Site Code:	HE: 2019.170
Invoice Code:	EAXLWEV
Receiving Body:	Eastbourne Heritage Service
Accession No.:	HE: 2019.170
OA Document File Location:	X:\e\East Sussex_ Cross Levels Way_ Eastbourne DBA\Evaluation
OA Graphics File Location:	X:\e\East Sussex_ Cross Levels Way_ Eastbourne DBA\Evaluation
Issue No:	V1
Date:	March 2020
Prepared by:	Mike Donnelly and Carl Champness (Project Officer/Manager)
Checked by:	Carl Champness (Senior Project Manager)
Edited by:	Daniel Stansbie (Senior Project Manager, post-excavation)
Approved for Issue by:	David Score (Head of Fieldwork)
Signature:	

OA South
Janus House
Osney Mead
Oxford
OX2 0ES

t. +44 (0)1865 263 800

OA East
15 Trafalgar Way
Bar Hill
Cambridge
CB23 8SQ

t. +44 (0)1223 850 500

OA North
Mill 3
Moor Lane Mills
Moor Lane
Lancaster
LA1 1QD
t. +44 (0)1524 880 250

e. info@oxfordarch.co.uk
w. oxfordarchaeology.com
Oxford Archaeology is a registered Charity: No. 285627

Director and Chief Executive:
Gill Hey, BA PhD FSA MCIfA
Private Limited Company, No: 1618597
Registered Charity, No: 285627
Registered Office: Oxford Archaeology Ltd
Janus House, Osney Mead, Oxford OX2 0ES

Cross Levels Way, Eastbourne, East Sussex

Interim Archaeological Assessment Report

Written by Mike Donnelly and Carl Champness

With a contribution from Alex Davies, and illustrations by Charles Rousseaux and Matt Bradley

Contents

List of Figures

List of Plates

1 INTRODUCTION

1.1 Scope of work

1.1.1 Oxford Archaeology (OA) was commissioned by Morgan Sindall Group to undertake an interim archaeological assessment of the site of a proposed new primary school at Cross Levels Way, Eastbourne, East Sussex. Following the initial excavation of the site, a more detailed programme of investigation was commissioned to excavate three large artefact scatters identified during the works, which had the potential to preserve *in-situ* artefact distributions.

1.1.2 The work was undertaken in support of a planning application for a new Primary School. A brief was set following discussion with Neil Griffin, County Archaeologist for East Sussex County Council, to help inform the production of an addendum to the written scheme of investigation (OA 2019b). This document outlines the results of the initial fieldwork investigation and assessment of the artefact scatters that will be used to develop a future mitigation strategy for the site.

1.1.3 All fieldwork was undertaken in accordance with Standards for Archaeological Works in Sussex (2019) and Chartered Institute for Archaeologists guidance (CIFA 2014).

1.2 Location, topography and geology

1.2.1 The site falls within the administrative district of Eastbourne Borough Council and is located behind St Wilfred's Hospice along Cross Levels Way (NGR: TQ442201653; Fig. 1). The site is bounded to the north and west by playing fields, to the east by industrial buildings and to the south by St Wilfrid's Hospice. Historically the site was located within the Willingdon Levels, which is an area of wetland which was dominated by a tidal embayment up until land reclamation during the medieval period.

1.2.2 The British Geological Survey (BGS) records the underlying bedrock geology of the site as Gault Formation, a sedimentary bedrock formed approximately 101 to 113 million years ago during the Cretaceous Period. These deposits were formed in an environment of shallow seas (BGS 2019).

1.2.3 The site lies within an area of widespread alluvial deposits although the BGS mapping does not show any superficial (drift) deposits within the site itself. However, the BGS (2019) does record one borehole sample within the eastern area of the site, reaching a depth of 30m. The borehole recorded the top of the Gault Formation at 6.30m below ground level. The natural bedrock was overlain by a series of river gravels and alluvial deposits which were cut by an undated rubbish pit sealed by modern topsoil.

1.3 Previous archaeological investigations

1.3.1 Within the wider area there has been a total of 21 archaeological investigations and these have generally revealed evidence for Bronze Age to post-medieval activity. More recently, there has been a borehole survey carried out to the south of the site, a watching brief carried out to the east of the site, and a series of archaeological

investigations that revealed a multi-period settlement area at Pococks Field to the south of the site.

1.3.2 Adjacent to the site, at St Wilfred's Hospice, there is evidence for an agricultural landscape dating from the later prehistoric to the medieval period. The extensive field system cuts into the upper alluvial deposits, which date to the Iron Age to Roman period (ASE 2010). There is also evidence of medieval salt-working in this area.

1.3.3 Recently a programme of archaeological works was carried out at Pococks Field, 890m south of the site, comprising a geophysical survey, an evaluation and an excavation. The evaluation consisted of six test pits. The southern part of the site was covered by a 0.8m thick layer of colluvium, containing residual prehistoric, Roman, medieval and post-medieval finds. The colluvium covered earlier alluvial deposits containing prehistoric finds. The evaluation also found evidence for a relatively recent linear earthwork running east-west across the site (WA 2008a).

1.3.4 As part of the current scheme an evaluation was undertaken in 2019 by OA (OA 2019a). The evaluation revealed a late prehistoric landscape of field systems, enclosures, pits, postholes, trackway(s) and a possible roundhouse. The features were found associated with a rich flint and pottery assemblage of middle–late Bronze Age date. Flints and pottery of probable Neolithic date were also present, as was a limited concentration of Mesolithic lithic material. The evaluation featured very dense, disturbed lithic scatters in the subsoil, but did not reveal any *in-situ* material. A possible buried soil was also revealed during the evaluation that may have higher potential to preserve *in-situ* remains. Based on the results of the evaluation the site was the focus of middle–late Bronze Age activity possibly related to a farmstead along the edges of the former tidal inlet of the Willingdon Levels.

1.3.5 In October 2019 OA excavated 20 1m by 1m test pits across the site. The aim of the survey was to provide a representative sample of the site's lithic assemblage to confirm the sedimentary context of the lithic scatters within the subsoils and ensure that no *in-situ* material was disturbed by the stripping of the site. The results of the survey confirmed the majority of lithics found within the subsoil were not *in-situ* and derived from colluvial/levelling deposits associated with the creation of the sport pitches.

1.4 Archaeological and historical background

1.4.1 The site is located in an area of significant archaeological activity, much of which dates to the Bronze Age and the Roman period. A detailed discussion of the site background can be found in the desk-based assessment (OA 2017) and is only summarized here. This document should be read in conjunction with the desk-based assessment.

Early prehistoric 900,000–4000 BC

1.4.2 The early prehistoric period is represented in the area by a limited number of isolated findspots. The earliest remains include a Palaeolithic handaxe found at Lott's Bridge drive, 750m from the site. No other evidence from this period has been identified within the vicinity of the site.

Neolithic (4000–2000 BC)

1.4.3 There are rare Neolithic finds recorded within the vicinity of the site. Worked stone and flint were recovered along Kings Drive, just to the south-west of Cross Levels Way (A2280). A Neolithic causewayed enclosure, with two concentric rings of banks and ditches, is located at Combe Hill, 3km to the west of the site.

Bronze Age (2000–800 BC)

1.4.4 Significant Bronze Age activity has been identified within the vicinity of the site. A possible Bronze Age tumulus was identified at Holly Grange, Hampden Park. However, the most significant evidence for this period has been found in association with the Eastbourne (Willingdon) Levels and its margins.

1.4.5 Two islands or promontories overlooking the marsh have produced evidence of extensive Bronze Age activity near to the site. A peaty layer identified during the wider excavation at Peacock Farm, north-west of the current site, produced significant quantities of Bronze Age pottery. Nationally important remains were excavated at Shinewater, 1.5km to the east of Cross Levels Way, including a large wooden platform and trackway running east-west towards Willingdon. The platform, estimated to cover an area of *c* 2000m^2, was associated with the upper peat surface and was overlain by marine silty clays. On the platform surface a 0.20m-thick accumulation of cultural material was identified dating to the late Bronze Age. Finds included several bronze axe heads and a sickle reaping hook with its wooden handle intact. Deliberately placed human remains were also recorded on the platform. The waterlogged conditions at the site provided excellent conditions for the preservation of wooden artefacts and ecofactal remains. The site was interpreted as a harbour or quay site, perhaps used by boats crossing the Channel. Excavation of the trackway in 1996 under the new bypass revealed a trackway surface and triple row alignment of vertical timbers. The trackway would have provided safe access across the wetland zone, connecting the platform to higher dry ground. Further evidence of trackways has been found at Ditton, to the north-west of Shinewater (Greatorex 1997; Jennings *et al*. 2003).

1.4.6 There are no recorded Bronze Age remains within the investigation area itself. However, during the archaeological investigations carried out at St Wilfred's Hospice, evidence of a prehistoric ring-ditch was recorded (ASE 2010). During the excavations fire-cracked flint was also found, suggesting the presence of a burnt mound in the vicinity of the site.

1.4.7 Several multi-period sites have been recorded within the area. At Decoy Drive, 620m west of the site, archaeological investigations identified worked flint and a large quantity of pottery dating to the Bronze Age and Iron Age. At Pococks Field, 895m to the south of site, a programme of archaeological works found Bronze Age pottery and an unusual burial area, consisting of a chalk spur protruding into an area of wetter ground, with a holloway leading away from the cemetery north along the wetland edge.

Iron Age (800 BC–AD 43)

1.4.8 There is little evidence for Iron Age activity within the area. Large quantities of Iron Age pottery were found close to the site along Decoy Drive, but no settlement activity has been identified to date.

1.4.9 Environmental evidence indicates a period of marine transgression that would have forced settlement off the low-lying areas and on to the surrounding higher ground. This transgression led to thick layers of silt and clay sealing the Bronze Age deposits at Shinewater (Jennings *et al*. 2003).

Roman AD 43–410

1.4.10 Eastbourne has substantial evidence for Roman activity. Several Roman villa and settlement sites have been identified a short distance from the present site.

1.4.11 A Roman villa was identified east of the promenade within Eastbourne itself. A second villa site was identified at Kings Drive/Polin's Marsh during the construction of the hospital. Evidence of possible salt production was also identified along the route of Cross Levels Way during its construction.

1.4.12 There is evidence of continued agricultural use of the landscape into the Roman period. At the St Wilfred's Hospice site agricultural features from the Iron Age were cut by Roman agricultural features.

1.4.13 During archaeological investigations at Pococks Field, 895m to the south of the site, a Roman settlement was found which originated in the Iron Age. During these investigations evidence for salt-working and crop processing was also found, as well as the establishment of another cemetery with associated mausoleum/shrine. A possible Roman settlement has also been recorded 730m south of the site. Excavation here recovered a large quantity of Roman pottery, coins and brooches as well as numerous pieces of briquetage, suggesting that the area was connected with salt-working. Within the vicinity of the possible settlement, two Roman villas were recorded. Both sites were located outside of the levels, on higher ground.

Early medieval period (AD 410–1065)

1.4.14 Within an Anglo-Saxon charter there is a reference to Borne, a Saxon settlement in the area of the Old Town of Eastbourne. King Edward held Eastbourne prior to 1066 and it is likely that few people lived in this area, as the site lies on the cusp of the levels.

1.4.15 The East Sussex HER returned two records of early medieval date within the surrounding area. An early medieval settlement was identified at Pococks Field, 895m to the south of the site, represented by five sunken-featured buildings with associated burials. A new holloway was also constructed during this time, which remained in use until the post-medieval period. Additionally, a cremation urn dating to the Saxon period was found 390m to the west of the site.

Medieval (AD 1066–1539)

1.4.16 During the medieval period the site was probably used as agricultural land. Advancing drainage techniques allowed the marsh area to be converted to farmland. The town of Eastbourne was established in the medieval period and is mentioned in the Domesday Book as being in the hands of Count Moreton, having previously belonged to Edward the Confessor.

1.4.17 Medieval remains have been found in the vicinity of the site. Excavations at Pococks Field, south of the site, found evidence of large stone-built medieval buildings and ancillary structures. Along Decoy Drive large amounts of 12th and 14th century pottery, oven tiles and bone fragments were uncovered, suggesting nearby settlement.

1.4.18 The East Sussex County Landscape Assessment states that during the medieval period there was a pattern of summer grazing and winter flooding which continued until the 20th century when industrial drainage of the levels took place (ESCC 2016).

1.4.19 The multi-period site at St Wilfred's Hospice revealed a chalky flint layer associated with salt-working. Sites relating to the salt industry are likely to have been situated on or around the edges of the levels and represent an important industry in the area.

Post-medieval (AD 1540–1900)

1.4.20 The site is likely to have been used as agricultural land for the majority of the post-medieval and modern period. Historical maps from the area indicate that the site remained open land until Cross Levels Way was constructed in the late 20th century. Drainage channels are present along the eastern boundary of the site, and the Decoy Stream ran along the eastern boundary of the site until the construction of the new road. The railway line, running east of the site, was in place by 1875.

2 AIMS AND METHODOLOGY

2.1 Specific aims and objectives

2.1.1 The specific aims and objectives of the assessment were:

i. To characterise the nature of the deposits and assess their potential to preserve *in-situ* artefact remains;
ii. To investigate the archaeological potential of any buried land surfaces that may be sealed underneath colluvial or midden deposits;
iii. To help characterise the sedimentary and archaeological context of the artefact distributions;
iv. To identify and investigate any signs of burnt mounds or salt-making practices present at the site;
v. To identify the levels of disturbance and assess the preservation of the recovered artefacts; and
vi. To characterise the archaeological potential of the artefact scatters to help inform future mitigation proposals at the site.

2.1.2 The programme of archaeological investigation was conducted within the general research parameters and objectives defined by the draft South East Research Framework (https://kccconsultations.inconsult.uk/consult.ti/SERFstageone/consultationHome).

2.2 Methodology

2.2.1 A 1m by 1m grid system was used to investigate the artefact scatters. This evolved from individual grid squares covering areas of flint concentrations to finally covering entire areas of the site in a series of 5m grids. Subsequently, grids were set out on the same overall alignment with gaps between artefact scatters. Following this, grid square codes were assigned to each of the artefact scatters and grid squares (Figure 2).

2.2.2 Once an area was stripped down to a buried soil or to the weathered natural surface, all flints and pottery greater than 10mm in maximum linear dimensions and any identified tool or tool fragment smaller than 10mm were recorded in three dimensions by total station or GPS. Each piece of flint or pottery had its location marked with pin flags and this allowed the location of artefact scatters to be quickly established. In general, areas with protective overburden were excavated in alternating 5m grids forming a chequerboard pattern.

2.2.3 The grid squares were excavated by hand using trowels, under the direct supervision of a lithics specialist. Excavation was conducted in individual grid squares in 50mm spits. The grid squares were excavated until either no more flints or pottery were recovered, or natural geology was encountered. A sample of each spit was retained to check on artefact recovery and look for evidence of micro-debitage and other finds.

3 RESULTS

3.1 Introduction and presentation of results

3.1.1 The results of the excavation are briefly outlined below and include a stratigraphic description of the main types of archaeology present.

3.2 Middle–late Bronze Age settlement

3.2.1 The main excavation revealed a large enclosed middle Bronze Age settlement with the remains of at least six post-built roundhouses (Plate 1). A potential droveway can be seen running north-east to south-west, leading to one post-built structure and a large artefact spread (Artefact concentration 2). The remains of two four-post structures can also be seen towards the west of the site along with further ditches that form part of a larger field system.

3.2.2 The settlement features consisted of enclosure ditches, pits, post-structures and dark-soil spreads, which produced a significant assemblage of middle–late Bronze Age pottery, lithics, burnt stone and to a lesser extent animal bone. The site appears to represent a settlement at the edge of the Willingdon Levels, away from the main sites and barrows on the chalk.

3.3 Roman or later trackway

3.3.1 Two parallel ditches were identified running across the entire length of the site on a north-east to south-west alignment. The ditches produced little in the way of finds when compared to the richness of the Bronze Age enclosure ditches. A few abraded and probably residual sherds of Bronze Age pottery and lithics were recovered from the upper fills of the ditch. A few fragments of Roman and salt-glazed pottery, indicating a potential post-medieval date, have been recovered from the upper fills of the ditch.

3.4 Roman or later field systems

3.4.1 A series of three potential field system ditches were identified running north-west to south-east. The ditches contained a mix of residual Bronze Age pottery and later Roman pottery. These ditches are believed to form part of a field system which was Roman or later.

3.5 Artefact scatters

3.5.1 Following the completion of soil stripping three areas of potential *in-situ* artefact concentrations were identified. As outlined above, these scatters were divided up into grid squares, and a series of grid squares excavated in order to help characterise the nature of the artefactual remains and whether they potentially represented *in-situ* remains (Plate 2).

3.5.2 **Artefact Concentration 1 (Scatter 97; Fig. 3)** – A significant concentration of burnt stone, lithics, animal bone and pottery were found associated with a raised area of dark-coloured deposits measuring 4m by 6m. Further investigation and recording of the surface material, before the area was flooded, identified a significant

concentration of middle/late Bronze Age material. Currently we believe that the concentration might represent a burnt mound or midden deposit.

3.5.3 **Artefact Concentration 2 (Scatter 98; Fig. 4)** – A series of 20 grid squares were excavated within the area of the buried hollow in a checkerboard pattern. Many of the grid squares were excavated in 6–10 spits and averaged between 20–30 lithics per spit. There are also concentrations of middle-late Bronze Age pottery from the majority of spits that look fresh and un-abraded. The grids have helped to define denser areas of activity compared to the edges that only extended down to two spits. Currently we believe this area represents a working area or yard associated with the droveway and adjacent house structure. This artefact scatter represents a clear concentration of undisturbed prehistoric material that exhibits signs of spatial patterning within a well-stratified sequence of buried soils and overlying colluvial deposits (see Plates 3 and 4).

3.5.4 **Artefact Concentration 3 (Scatter 99; Fig. 5)** – Four grid squares were excavated from the two potential surface lithic scatters (Plate 2). The scatters appear to be quite shallow, only comprising 2–3 spits, each producing 10–20 lithics per spit (see plan). Some of the lithic assemblages could be earlier, but there are again concentrations of middle-late Bronze Age pottery from the grid squares that appear to be associated with the flintwork. All indications would suggest an area of *in-situ* activity associated with specific activity areas within the settlement.

4 FINDS SUMMARY

4.1.1 This initial investigation of three artefact scatters have yielded two major artefact assemblages comprising worked flint and prehistoric pottery with smaller amounts of animal bone, burnt flint and fired clay. A preliminary assessment of the two main artefact assemblages from the test pits is outlined below.

4.2 Flint *by Michael Donnelly*

Introduction (Table 1)

4.2.1 The excavation identified a very rich middle–late Bronze Age archaeological landscape with numerous flint-rich features. This included a significant area of potential *in-situ* lithics activity associated with a wide hollow measuring around 25m by 20m underneath which was a deeper hollow containing a sequence of three dark soil layers all of which were rich in finds.

4.2.2 At the time of the initial investigation (Phase 1), all artefacts from the large hollow were excavated as scatter 98, but the deposits were mapped in the squares chosen and it is possible to reassign the flints to the layers should this be deemed necessary. The work on the flints, pottery sherds and samples taken during this phase of work are ongoing and this report therefore represents a very preliminary assessment of the struck flint. It should be mentioned that much of the work on the flint scatters was undertaken in very poor weather, and it is therefore probable that the samples taken will be far richer in flint than is typical, and this will probably alter the results of the initial assessment.

Methodology

4.2.3 The artefacts were catalogued according to OA South's standard system of broad artefact/debitage type (Anderson-Whymark 2013; Bradley 1999), general condition noted, and dating was attempted where possible. The assemblage was catalogued directly into an Open Office spreadsheet. During the assessment additional information on condition (rolled, abraded, fresh and degree of cortication), and state of the artefact (burnt, broken, or visibly utilised) was also recorded. Retouched pieces were classified according to standard morphological descriptions (e.g. Bamford 1985, 72–7; Healy 1988, 48–9; Bradley 1999). Technological attribute analysis was initially undertaken and included the recording of butt and termination type (Inizan *et al*. 1999), flake type (Harding 1990), hammer mode (Onhuma and Bergman 1982), and the presence of platform edge abrasion.

4.2.4

Table 1: Flint assemblage by scatter

CATEGORY TYPE	Scatter 98	Scatter 99	Total
Flake	290	17	307
Blade	13		13
Bladelet	11		11
Blade index	7.64% (24/314)	0%	7.25% (24/331)
Irregular waste	72	5	77
Chip	5		5
Adze/axe working flake	1		1
Core tablet		1	1
Core rejuvenation flake	1		1
Core single platform flakes	5	1	6
Core multi-platform flakes	4		4
Core on a flake	3		3
Core tested nodule	2		2
Core fragment	1		1
Scraper end	3		3
Scraper side	1		1
Scraper side+end	4		4
Scraper disc	1		1
Microlith	1		1
Denticulate	3		3
Spurred piece	1		1
Notch	1		1
Retouched blade	1		1
Retouched flake	2		2
Retouch other	2		2
Retouch choppers?	1	1	2
Total	429	25	454

No. burnt (%)	28/429 (6.53%)	4/25 (16%)	62/454 (13.66%)
No. broken (%)	144/429 (33.57%)	10/25 (40%)	154/454 (33.92%)
No cores and core dressing (%)	16/429 (3.73%)	2/25 (8%)	18/454 (3.96%)
No. retouched (%)	21/429 (4.90%)	1/25 (4%)	22/454 (4.84%)

Scatter 97

4.2.1 This represented an area of *in-situ* flint, burnt flint and later prehistoric pottery at the central part of site making it the western-most of the three flint activity areas. Due to the extreme weather conditions on site, only limited investigation of the scatter was possible. However, this has high potential for further study and should be fully excavated as part of any additional works. It contains far more struck flints than is typical of any simple burnt mound or midden deposit (over 60 recorded during initial partial exposure alongside numerous pot sherds (12+) compared to figures of 10–80 for the full excavation of very large burnt mounds excavated at Bexhill in East Sussex (OA 2019c). The exact function of this spread is unclear but its relationship with nearby activity and the potential for it and the burnt flint to seal earlier features should be considered.

Scatter 98

4.2.2 Four-hundred-and-twenty flints from scatter 98 were available for examination at the time of this assessment. These were examined for type, sub-type, breakage, burning,

retouch and damage. The total recovered from the buried soil including the evaluation, test-pit phase and excavation total approximately 2000 and this represents only a small fraction of the potential total assemblage from the scatter (estimated at around 80,000–120,000).

4.2.3 The assemblage was clearly flake based with a low blade index of 7.64%, which certainly included some residual forms but also had a number of fairly chunky blade forms that are often found as occasional members of a later prehistoric flint assemblages. The cores identified were entirely flake-orientated and were simple in nature. One curation piece was identified, and this could easily be residual. Overall, the cores accounted for 3.73% of the assemblage, around half the total for the material recovered from excavation and close to what would be expected for *in-situ* material. It should be noted that later prehistoric assemblages tend to have a low flake-to-core ratio than earlier assemblages resulting in usually higher core percentages. That knapping did occur here was evident from the numbers of cores and also from the high numbers of core preparation flakes recovered (60/290, 20.69%).

4.2.4 Tool percentages were also far more typical of *in-situ* assemblages at 4.90%, a number that will lower considerably once samples are processed to around 3–4%. This figure is again around half of the evaluation total and is very typical of assemblages where production and use occur side-by-side. Tools were from a restricted range of forms that comprised scarpers (9), denticulates (3), retouched flakes (2) and single examples of a heavy chopper, notch, and a spurred piece, along with a residual late Mesolithic microlith and a probably residual retouch/backed blade. Two complex tools were recovered and consisted of a complex triple piercer/awl/borer combination tool on a large very squat flake and a denticulate/piercer on an inner flake.

4.2.5 The assemblage also had higher levels of breakage and burning than the evaluation assemblage (especially considering that the burnt unworked flint bags have yet to be examined and these often yield higher numbers of worked pieces). The higher incidents of these factors do suggest domestic activity, which in many cases will have led to their disposal within this hollow.

Scatter 99

4.2.6 Scatter 99 was located at the eastern edge of site and included material in a markedly different condition and from a different flint source from the main scatter (98), and from the excavation assemblage as a whole. Only four test pits were examined here and the top spit was excavated in each before this area became flooded. The assemblage recovered amounted to just 25 pieces (although at least 70 more were recovered surface flints and there will be additional flints from samples taken). The initial assessment of the work suggested that there may be one or more genuine concentrations of flint in a rather diffuse background scatter. Grid square CHB at the northern limit of the tested area showed a clear concentration of material with a very distinct edge to it, which is very reminiscent of what would be expected for an *in-situ* industrial/tool production site. There were hints at something similar in grid square CHV but it would appear that most of these flints actually came from a very ephemeral ditch.

4.2.7 The flints from scatter 99 looked to be very flake orientated (17 flakes to zero blade forms) but did include one crude chopper tool of uncertain date. One single platform flake core was recovered as was a core tablet of early prehistoric date. The only tool recovered was a heavy chopper or pre-form keeled core of uncertain date. While it is most likely that these flints could also largely be later prehistoric, it must be remembered that only very summary work was conducted here and that the surface flints did include several larger blade forms of the same condition and material as the excavated examples suggesting that an early date could also still be possible.

Discussion

4.2.8 There are several marked differences between scatter 98 and the evaluation assemblage, one largely obtained from topsoil and upper subsoil horizons that was very typical of a disturbed/reworked assemblage. One very marked difference was in condition, with scatter 98 being far fresher than the evaluation material (Table 2) with nearly twice as many fresh pieces which dominate the assemblage and far less severely damaged pieces. The buried soil does however contain some residual earlier material which made up a large part of the abraded or rolled material. The flints again become far fresher when we examine just the deeper hollow (represented here by spits three–nine from the test pits and from buried soil layers 1504–16 from evaluation Trench 15) indicating more strongly than ever that these flints are largely undisturbed with perhaps only vertical displacement through various pedogenic means (root and worm action being very prevalent as well as contemporary trampling).

Table 2: Condition of the flints from scatter 98 and from the subsoil and topsoil material

CATEGORY TYPE	Topsoil/ subsoil	%	Scatter 98	%	98 deeper hollow	%
Fresh	167	27.60	202	48.21	57.14	57.14
Light	275	45.45	182	43.44	35.22	35.22
Moderate	135	22.31	29	6.92	5.656	5.65
Heavy/very heavy	22	3.64	0	0	0	0
Plough damaged//rolled	6	1.0	6	1.43	3	1.30
Total	605	[100]	419	[100]	230	[100]

4.2.9 Another marked area of difference is in the composition and complexity of the assemblage with scatter 98 representing a far purer lithics assemblage (something that will only be enhanced by examining the material from samples). Scatter 98 has far less core (6 vs 13) and tool types (12 vs 25) and it should be noted that a simpler assemblage composition is often seen as being a feature of later prehistoric lithic industries. The cores recovered did not include any blade forms nor any of the specialised core types associated with Neolithic and early Bronze Age industries, all of which suggests a largely intact assemblage, free from earlier contamination. This is with the exception of the 12 tool types that are clearly late Mesolithic in date, but given that there is Mesolithic activity on site in nearby tree-throw holes (just to the west) it would be surprising not to find some Mesolithic activity in this hollow (and it is also worth mentioning that the hollow has the potential for buried *in-situ* earlier activity).

4.2.10 Scatter 98 is also very important in that it provides a link between the various types of later prehistoric settlement activity at the site and the activity within the hollow.

Although the material is yet to be assessed, the main ditch groups associated with the later prehistoric enclosures and settlement activity here also yielded a considerable flint assemblage as did several of the pits. Comparison of these assemblages to that recovered from the hollow as scatter 98 may well reveal key information about settlement activity, use of space and numerous other factors pertinent to everyday life in middle–late Bronze Age Sussex. Opportunities to examine these activities rarely present themselves, since this requires preservation of land surfaces and a more detailed recording system such as the 3D recovery of lithics to allow for this interpretation.

4.2.11 It is believed that the buried soil deposits at Cross Levels Way represent a very remarkable resource for interpreting the importance and use of flint in later prehistoric south-east England. The degree to which flint drops from prominence in this period is well documented, but it often still makes up the bulk of the recovered tool inventories from any given site with metalwork being far rarer. The way in which the social significance of flint changes could be examined in detail through the recovery of this assemblage. It has been noted during the evaluation that the middle–late Bronze Age ditch groups included some very well-knapped groups alongside poorer examples, and this is also true of the buried soil. This is also a factor for the tool assemblages with some very well-made scrapers that indicate a lack of earlier activity (Neolithic–early Bronze Age) and are also very probably middle–late Bronze Age in date. Recovery of an intact assemblage would allow for spatial analysis of the hollow, to examine activity areas associated with various tasks, or industrial activity (hide-processing, butchery, woodwork, etc.). Such assemblages have long been ignored and seen as a poor cousin to Palaeolithic, Mesolithic and Neolithic assemblages, but here there is marked potential for their detailed study.

Recommendations

4.2.12 It is proposed that the further works in regard to these flint assemblages should comprise the full excavation of scatter 97 and its putative associated burnt mound, the full excavation of scatter or scatters 99 at the eastern end of site and for the partial excavation of the uppermost part of scatter 98 (25m by 20m red upper horizon of slightly more disturbed material (relict subsoil?) followed by the full excavation of the hollow area (*c* 16m by 13m).

4.3 Prehistoric pottery *by Alex Davies*

4.3.1 The spreads of dark soil rich in pottery and struck flint have been discovered in a settlement and enclosure system. Test-pitting has been carried out on these occupation/midden layers and artefacts recovered in spits with the location of each sherd and lithic recorded in 3D. The purpose of this brief report is to assess the pottery from the grid squares and comment on the potential of the unexcavated assemblage in order to inform the method of excavation.

4.3.2 Some 165 sherds were recovered from 24 1x1m test-pits and these have been subsampled and examined in this interim assessment.

Date

4.3.3 All of the material from the spreads except two sherds belong to a homogenous group and are very likely to be of the same broad period. There are few feature sherds, although incurving rims are present. Brief inspection of some of the material from other contexts on the settlement shows that the material in the artefact-rich layers is of the same type and date. This probably belongs to the early part of the late Bronze Age. Some of the material could belong to the earlier, Deverel-Rimbury (middle Bronze Age), style and it is possible that the assemblage spans the transition between Deverel-Rimbury and post-Deverel-Rimbury, *c* 1200-1050 cal BC. The group are almost all tempered with calcined flint of varying grades.

4.3.4 The nationally important late Bronze Age timber platform at Shinewater is located 1.5km to the east of the site. Published data about the site is limited, although the available information suggests that Shinewater belongs mainly or entirely to the latter part of the late Bronze Age, the 9th century BC (Greatorex 1997; Seager Thomas 2008, 38–43). The pottery at Cross Levels Way dates prior to the 9th century, with activity at the site probably preceding that at Shinewater.

4.3.5 Two sherds from the artefact-rich spread layers are of a different date, both probably from late Neolithic/early Bronze Age Beakers. These are no doubt residual from a different phase of activity. No material post-dating the late Bronze Age was discovered in the grid squares.

Condition

4.3.6 Approximately one-third of the sherds were sub-sampled for detailed analysis of their condition. Each of these sherds was measured and weighed and the level of abrasion was noted following a three-tiered system (Tables 3 and 4). The mean sherd weight (MSW) is 5.7g, 91% of the sherds are below 4cm in size, and 61% of the sherds are moderately abraded.

4.3.7 The MSW and sherd sizes appears low, but these figures are biased due to the careful recovery by hand and trowel, leading to the retrieval of smaller, more fragmentary material than would be recognised under usual conditions. The figures relating to condition need to be compared against material recovered from similar contexts using the same methods. The late Bronze Age/early Iron Age midden site of Whitchurch, Warwickshire, was excavated in similar ways, recovering material from a mound of artefact-rich midden material by hand and trowel, and sieving spoil (Brudenell 2009; Waddington and Sharples 2009). The MSW and sherd size between the Cross Levels Way test-pitting and Whitchurch are compared in Table 2. MSW and sherd size at Cross Levels Way is slightly below that from Whitchurch, but they are broadly comparable. This suggests that the material is in a similar condition to the pottery in the Whitchurch midden.

4.3.8 The level of abrasion can be compared to two middle Bronze Age assemblages from Slade End Farm and Winterbrook near Wallingford in Oxfordshire (Davies in prep.). Most of this material derived from field systems although there were some settlement elements. The pottery was recovered under normal excavation methods. The pottery from Cross Levels Way is more abraded than both these sites, although recovery methods might bias recovery of smaller more abraded sherds at Cross Levels Way.

MSW of the Oxfordshire assemblages is slightly higher, but they are broadly comparable. This suggests that the material from the Cross Levels Way artefact-rich layers is only slightly less well preserved.

Conclusion and recommendation

4.3.9 No material post-dating the late Bronze Age was discovered in the grid squares suggesting that the layers formed in the later Bronze Age, no doubt during the occupation of the adjacent settlement. The pottery evidence suggests that the layers represent *in-situ* later Bronze Age deposition that is not contaminated by later activity. The pottery from the layers at Cross Levels Way is not particularly well-preserved, although it is in approximately the expected state of fragmentation for such a context.

4.3.10 One of the most important aspects of the potential of this pottery assemblage is the retrieval of stratified material allowing development and change of pottery styles to be tracked. The assemblage appears to belong to the transition between middle Bronze Age Deverel-Rimbury and late Bronze Age post-Deverel-Rimbury styles. Details of this transition are not well-understood, with information having the potential to inform understanding of Bronze Age ceramic changes across southern Britain. To realise this potential, the analysis of stratified material should be undertaken in combination with a programme of radiocarbon dating also utilising stratigraphic information in the form of Bayesian modelling. The effectiveness of this method in dating later prehistoric layers of artefact-rich dark-earth has recently been demonstrated (Waddington *et al.* 2019).

4.3.11 Layers of dark soils producing abundant artefacts are very rarely found on later Bronze Age settlements, especially deep layers where changes in artefacts can be quantified vertically. Midden sites comprising mounds that may share similarities are recognised as a phenomenon of the late Bronze Age/early Iron Age transition, with radiocarbon dating suggesting these do not start prior to *c* 850 cal BC (Waddington *et al.* 2019, 30–7). While it is possible that the spreads at Cross Levels Way are early examples of the same type of site, the midden sites appear of a different order and the Cross Levels Way layers may instead be occupation or midden layers relating directly to the use of the settlement that they are within. Occupation and midden layers are features that were no doubt part of many, perhaps all, later prehistoric settlements, but such features very rarely survive due to plough truncation. Excavation of these layers has the potential to provide information on a rarely surviving element of Bronze Age settlement.

	MSW	*Small sherds (<4cm)*	*Medium sherds (4-8cm)*	*Large sherds (>8cm)*
Cross Levels Way	**5.7g**	**91%**	**9%**	**0%**
Whitchurch	7.1g	*c* 75%	*c* 14%	*c* 1%
Slade End Farm	6.5g			
Winterbrook	8.3g			

Table 3: Degree of fragmentation comparing Cross Levels Way with three other sites

	Fresh	*Moderately abraded*	*Highly abraded*
Cross Levels Way	**7%**	**61%**	**33%**
Slade End Farm	28%	58%	15%
Winterbrook	14%	61%	24%

Table 4: Levels of abrasion comparing Cross Levels Way with two other sites

5 DISCUSSION

5.1 Reliability of field investigation

5.1.1 The conditions during the fieldwork were very poor with periods of prolonged heavy rain and the constant risk of flooding. Every effort was made in the field to maximise the recovery of artefacts and environmental material, but conditions were not conducive to full recovery.

5.2 Interpretation

5.2.1 Based on the results of the interim assessment the following observations and interpretations can be made:

5.2.2 **Artefact Concentration 1 (Scatter 97)** – The significant concentration of burnt stone, lithics, animal bone and pottery were found associated with what appears to represent a well-preserved burnt mound or midden deposit.

5.2.3 **Artefact Concentration 2 (Scatter 98)** – Based on the results of grid square investigation this area represents a working area/yard associated with an entranceway to a droveway and adjacent post-structure. The concentration of both pottery and lithics within well-stratified and undisturbed buried soil deposits would indicate high potential for *in-situ* remains.

5.2.4 **Artefacts Concentration 3 (Scatter 99**) – A series of two or more scatters indicate an area of activity which is very reminiscent of what would be expected for an *in-situ* industrial/tool production site. Both artefact scatters produced Bronze Age pottery and lithics, and some blade-like forms suggestive of earlier activity were also identified. Further investigation would be required in order to define, characterise and date these scatters.

5.3 Significance

5.3.1 The assessment of the three artefact scatters has revealed concentrations of undisturbed middle to late Bronze Age activity across the site, which is all the more significant due to its potential association with the Bronze Age settlement. There is a strong possibility that the remains represent both *in-situ* knapping episodes and domestic middening activity.

5.3.2 Evidence of buried soils producing abundant artefact spreads are very rarely found on Bronze Age settlements, especially deep layers where changes in artefacts can be quantified stratigraphically. Equally large lithic assemblages associated with later prehistoric activity and domestic settlement are extremely rare and important archaeological resource. These remains have significant potential both regionally and perhaps nationally to contribute to our understanding of Bronze Age activity and settlement practices.

APPENDIX A BIBLIOGRAPHY

Allen, T, Barclay, A, Cromarty, A, M, Anderson-Whymark, H, Parker, A, Robinson, M, and Jones, G, *Opening the wood, making the Land; The Archaeology of a Middle Thames Landscape, Mesolithic, Neolithic and Bronze Age, Vol 1*, Oxford: Oxford Archaeological Unit. Thames Valley Landscapes Monograph **38**

Anderson-Whymark, H, 2015, the flint, in Allen, T, Barclay, A, Cromarty, A, M, Anderson-Whymark, H, Parker, A, Robinson, M, and Jones, G, Opening the wood, making the Land; The Archaeology of a Middle Thames Landscape, Mesolithic, Neolithic and Bronze Age, Vol 1, Oxford: Oxford Archaeological Unit. Thames Valley Landscapes Monograph 38

Archaeology South-East, 2010, St Wilfrid's Hospice, Eastbourne, East Sussex, Archaeological and Geoarchaeological Evaluation, Written Scheme of Investigation, Project No. 4378.

Bamford, H., 1985 *Briar Hill: excavation 1974-1978*, Northampton: Northampton Development Corporation. Archaeological monograph **3**

Bradley, P, 1999 The worked flint. In A. Barclay and C. Halpin. Eds. *Excavations at Barrow Hills, Radley, Oxfordshire*, Oxford: Oxford Archaeological Unit. Thames Valley Landscapes Monograph **11**: 211-227

Brudenell, M, 2009 Bronze Age and Iron Age pottery, in K Waddington and N Sharples, The excavations at Whitchurch 2006-2009. An Interim Report, Cardiff Studies in Archaeology Specialist Report 31, 47-51

Greatorex, C, 1997 Late Bronze Age waterlogged remains at Willingdon Levels, Sussex, *Archaeology International* **1**, 15-5

Harding, P, 1990 The worked flint, in *The Stonehenge environs project*, (ed J C Richards) London, English Heritage

Healy, F, 1988 *The Anglo-Saxon Cemetery at Spong Hill, North Elmham, Part VI: Occupation during the seventh to second millennia BC*, East Anglian Archaeological reports 38

Inizan, M-L, Reduron-Ballinger, M, Roche, H and Tixier, J, 1999 *Technology and terminology of knapped stone*, Cercle de Recherches et d'Etudes Préhistoriques, CNRS, Nanterre

Jennings, S, Greatorex, C, Symth, C, and Spurr G, 2003 The environmental archaeology of the Late Bronze Age occupation platform at Shinewater, Near Eastbourne, UK, in A Howard, M Macklin and D Passmore (eds) *Alluvial Archaeology in Europe*, Lisse

Longworth, I and Cleal, R M J, 1999 Grooved Ware gazetteer, in R Cleal *Grooved Ware in Britain and Ireland*, Neolithic Studies Group Seminar Papers **3**, 177–206

Mepham, L N 2008 The Pottery, in Fitzpatrick, A.P. Powell, A.B. and Allen, M.J. Archaeological *Excavations on the Route of the A27 Westhampnett Bypass, West Sussex, 1992. Volume1: Late Upper Palaeolithic-Anglo-Saxon*. Wessex Archaeology Report **21**, 103-7

OA, 2017 Cross Levels Way, Eastbourne. Archaeological desk-based assessment

OA, 2019a Cross Levels Way, Eastbourne, East Sussex. Archaeological evaluation report

OA, 2019b Cross Levels Way, Eastbourne, East Sussex. Written scheme of investigation: archaeological excavation and test pitting survey

OA, 2019c Bexhill to Hastings link road. Post-excavation assessment and updated project design

Onhuma, K and Bergman, C A, 1982 Experimental studies in the determination of flake mode, *Bulletin of the Institute of Archaeology, London* **19**, 161-171

Saville, A., 1980 On the measurement of struck flakes and flake tools, Lithics **1**, 16-20.

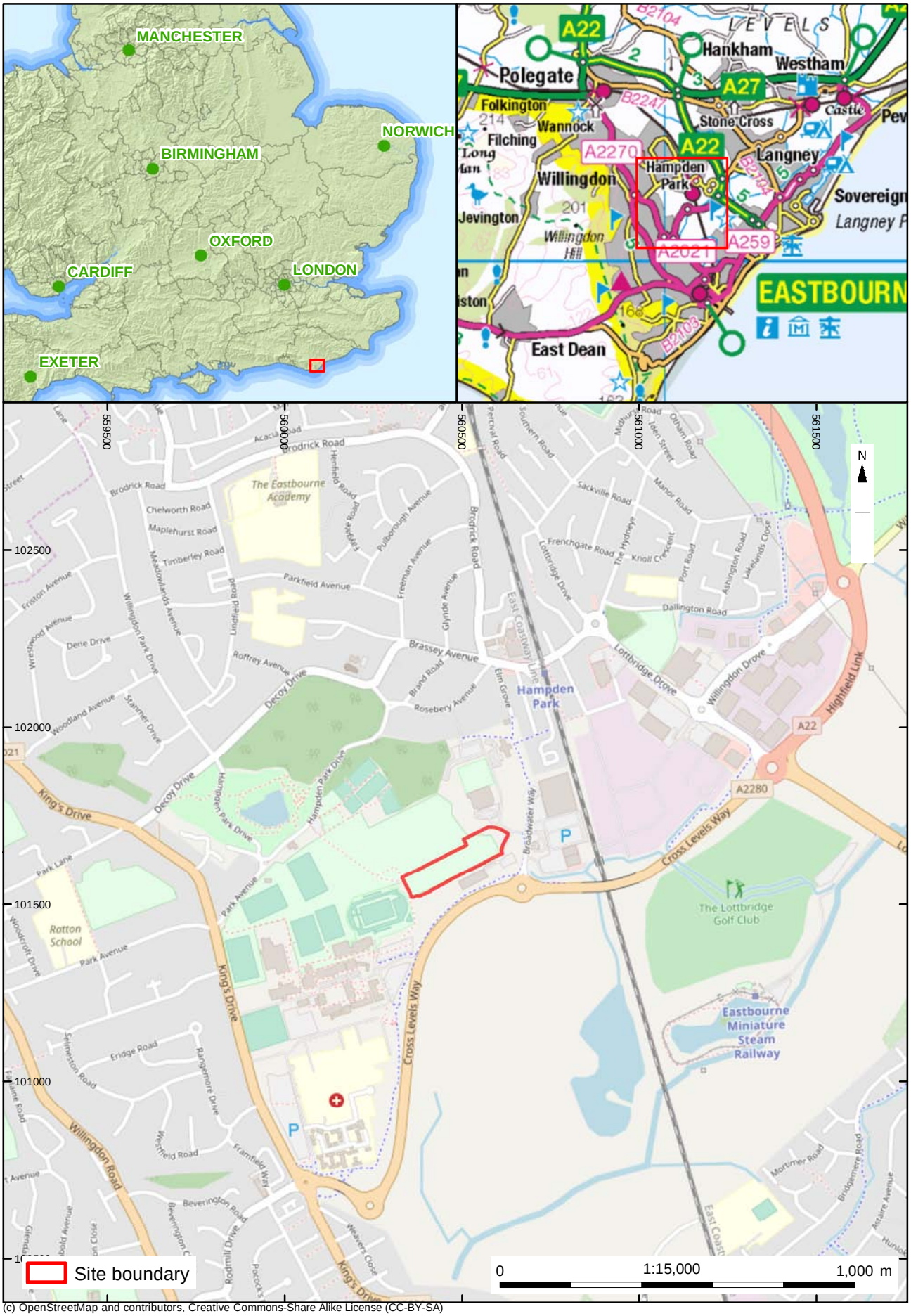
Seager Thomas, M, 2008 From potsherds, to people: Sussex prehistoric pottery. Collared Urns to Post Deverel-Rimbury, *c.* 2000-500 BC, *Sussex Archaeological Collections* **146**, 19-51

Waddington, K, Bayliss, A, Higham, T, Madgwick, R, and Sharples, N, 2019 Histories of deposition: creating chronologies for the Late Bronze Age-Early Iron Age transition in Southern Britain Archaeological Journal 179, 84-133

Waddington, K, and Sharples, N, 2009 The excavations at Whitchurch 2006-2009. An Interim Report, Cardiff Studies in Archaeology Specialist Report 31

Wessex Archaeology, 2008a Land at Pococks Field, Kings Drive, Eastbourne Park, Eastbourne: evaluation report

Wessex Archaeology, 2008b South Downs College, Cross Levels Way, Eastbourne, East Sussex. Report on programme of archaeological works



X:\e\East Sussex_ Cross Levels Way_ Eastbourne DBA\010Geomatics\03 GIS Projects\EAXLWEV_Figure 1_2019-09-17.mxd*matt.bradley*17/09/2019

Figure 1: Site location

oxfordarchaeology

- Limits of Excavation
- Test Pit
- Feature
- Intervention
- Layer
- Natural / Geology
- Truncation
- Burials
- Section

560400

560600

101600

Artefact Scatter 99

Artefact Scatter 97

Artefact Scatter 97

N

0 40m

1:1,000 @ A3

X:\e\East Sussex_ Cross Levels Way_ Eastbourne\010Geomatics\03 GIS Projects - DRM_v2\Figures\HE-2019-228_Figure2_A3L_2020-03-25.mxd*matt.bradley*25/03/2020

Figure 2: Site plan showing the location of Artefact Scatters

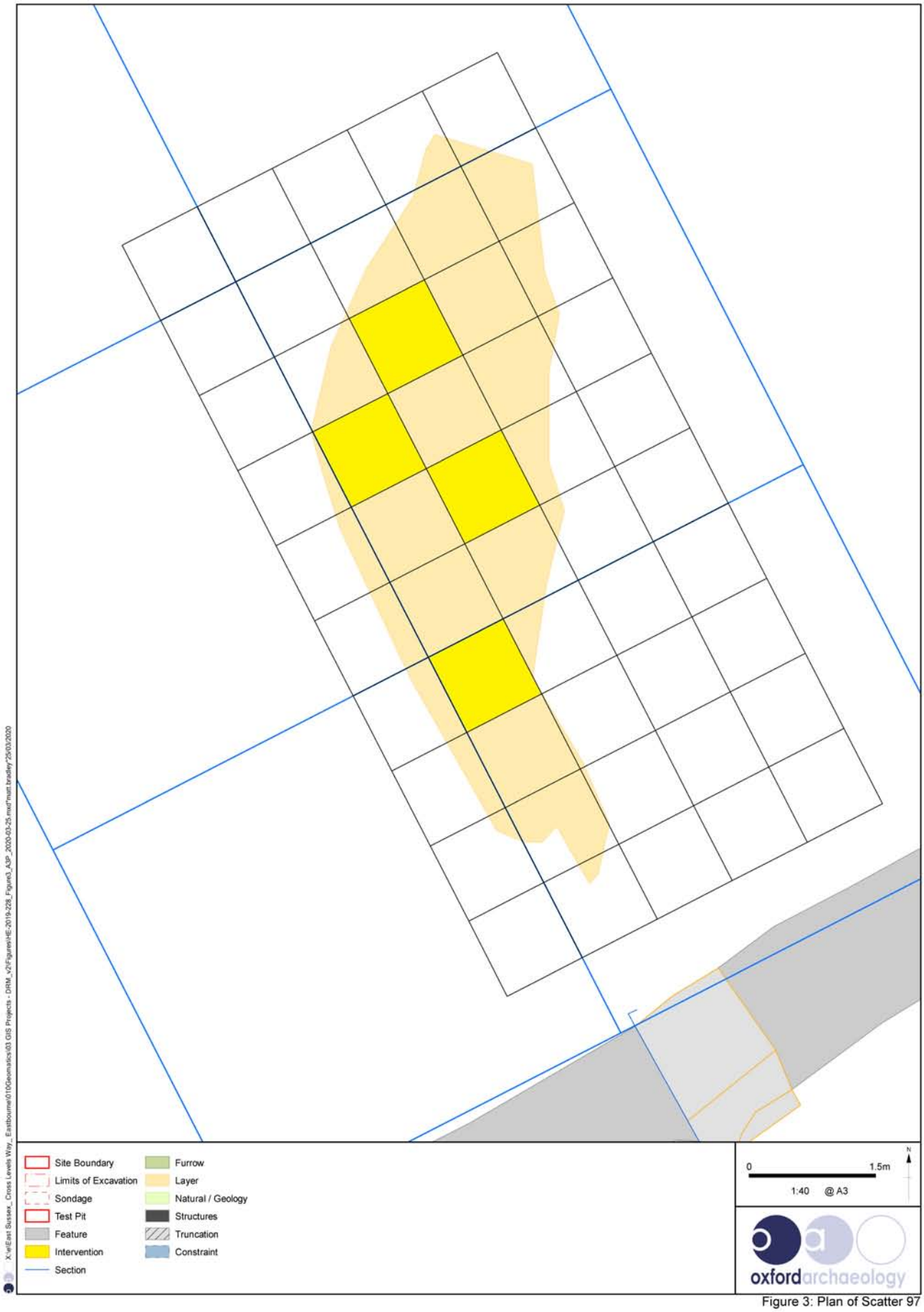


Figure 3: Plan of Scatter 97

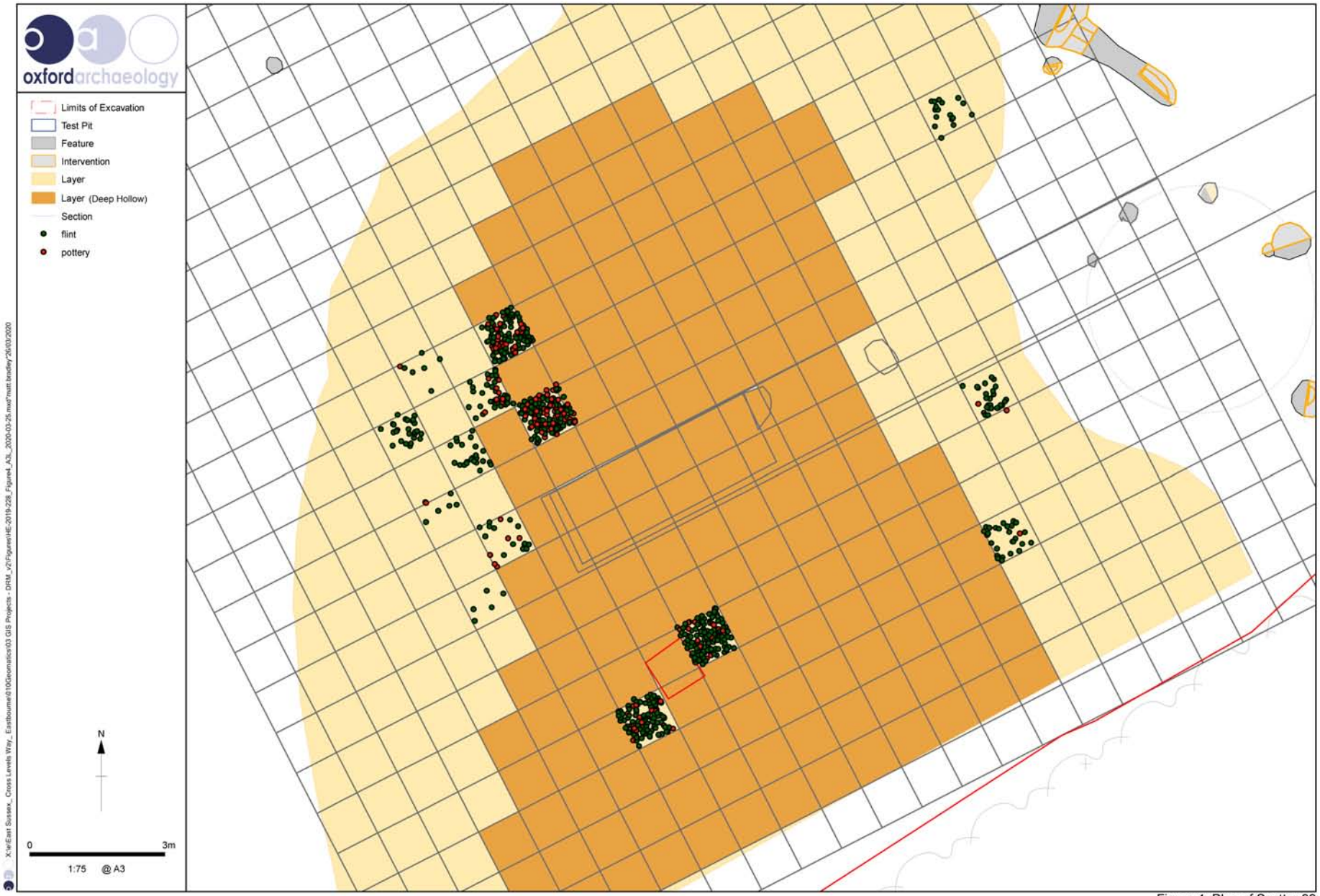


Figure 4: Plan of Scatter 98

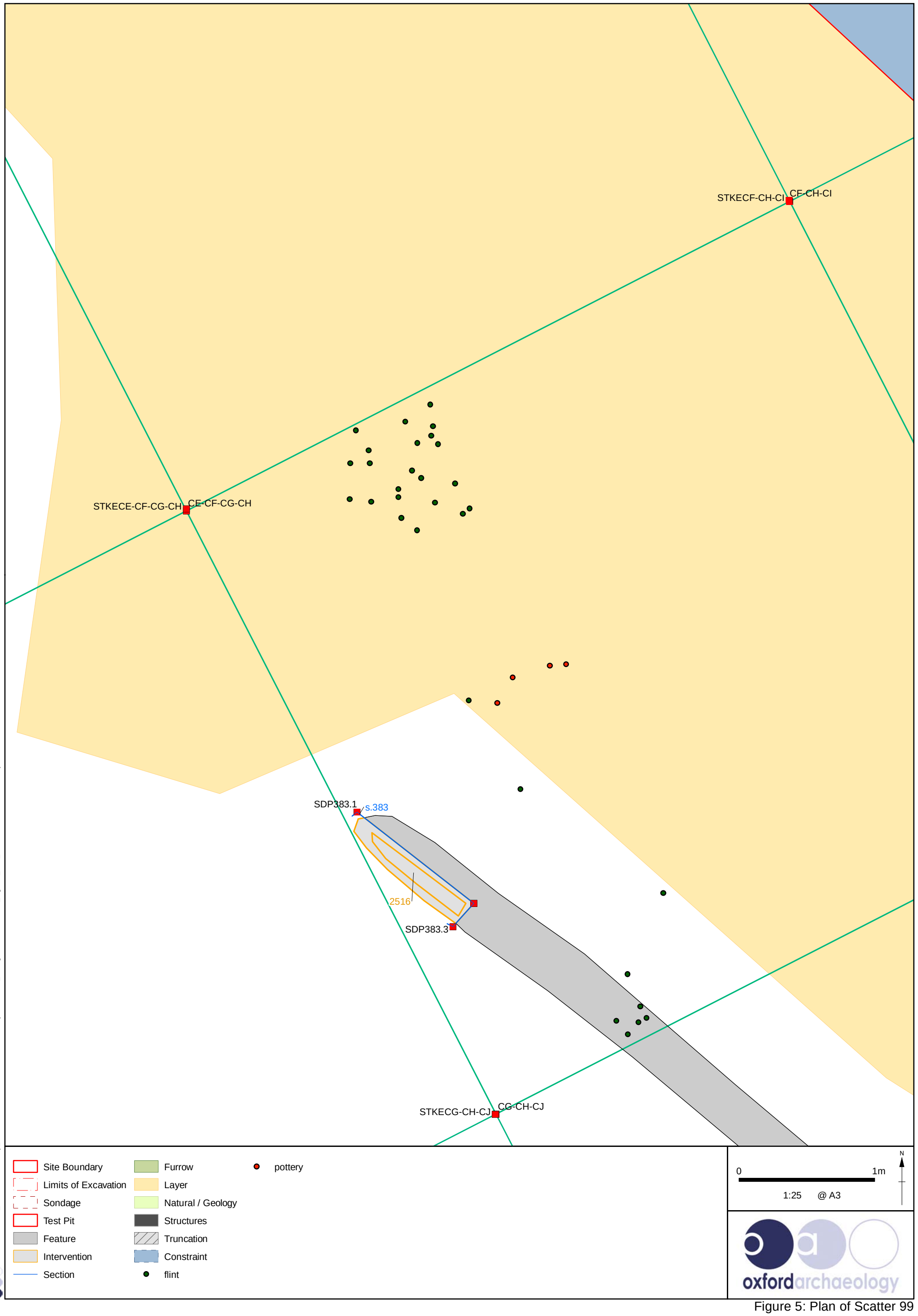


Figure 5: Plan of Scatter 99

Plate 1: Middle – Late Bronze Age post-built structure (2x1m scales)

Plate 2: Distribution of artefacts within Artefact Scatter 99

Plate 3: Stratified dark soil sequence with Artefact Scatter 98, grid BLN (1m scale)

Plate 4: Stratified dark soil sequence with Artefact Scatter 98, grid BLD (1m scale)

oxfordarchaeology

Head Office/Registered Office/ OA South

Janus House
Osney Mead
Oxford OX2 0ES

t: +44 (0) 1865 263 800
f: +44 (0) 1865 793 496
e: info@oxfordarchaeology.com
w: http://oxfordarchaeology.com

OA North

Mill 3
Moor Lane
Lancaster LA1 1QD

t: +44 (0) 1524 541 000
f: +44 (0) 1524 848 606
e: oanorth@oxfordarchaeology.com
w: http://oxfordarchaeology.com

OA East

15 Trafalgar Way
Bar Hill
Cambridgeshire
CB23 8SQ

t: +44 (0) 1223 850500
e: oaeast@oxfordarchaeology.com
w: http://oxfordarchaeology.com