

CPAT Report No 1225

Hindwell Cursus, Radnorshire

An investigation of the north-east terminal, 2013



THE CLWYD-POWYS ARCHAEOLOGICAL TRUST

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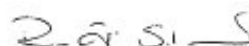
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cover: The trench in which the cursus terminal was exposed showing the route of the cursus through the landscape. Photo CPAT 3696-0030

CONTENTS

- 1 INTRODUCTION
 - 2 METHODOLOGY
 - 3 EXCAVATION
 - 4 FIELDWALKING
 - 5 CONCLUSIONS
 - 6 ACKNOWLEDGEMENTS
 - 7 REFERENCES
- APPENDIX 1: PROJECT ARCHIVE

1 INTRODUCTION

- 1.1 Recent Cadw-funded project work in the Walton Basin under the aegis of the Prehistoric Funerary and Ritual Sites and the Roman Military Vici initiatives, combined with the results of earlier assessment work by the Trust under the direction of Dr Alex Gibson which was funded by Cadw, continues to highlight the importance and complexity of this area of eastern Radnorshire. The area encapsulates the broader archaeology of the Welsh borderland and is, known to contain evidence for multiperiod activity from the early post-glacial period onwards. Recent studies have focused on the complex of prehistoric monuments around Hindwell and Walton, most of which date from the Neolithic, and include some of the largest sites of their type in Britain such as the Hindwell cursus and the Hindwell palisaded enclosure. The importance of the area as a base for Roman military campaigns is also becoming more apparent and the strategic significance of the routeway which passes through the basin into mid Wales remained influential well into the medieval period.



Fig. 1: The Walton Basin viewed from the east. Photo CPAT 04-c-0195

- 1.2 The gradual realisation that the archaeology of the Walton Basin is under varying degrees of threat from continued ploughing in this highly productive agricultural area, as well as from piecemeal development, led to the initiation of a new project which was initially approved for funding in 2012-13 and was design to address a number of pressing management issues relating to agricultural usage and development affecting the important multi-period archaeological resource within the Walton Basin. The project developed a methodology for assessing the vulnerability and level of threat from agriculture to both upstanding and buried archaeology, based upon COSMIC 2, which has become known as *Archaeological Conservation in Rural Environments*, or ACRE (Jones 2014). This is the first practical agri-environment related archaeological assessment methodology to be developed in Wales and has the potential to be of significant value across the country as a whole as a means of predicting the level of agricultural threat.
- 1.3 The complex of Neolithic monuments on the eastern side of the basin is one which is virtually unparalleled in an area of comparable size anywhere else in the British Isles. On the basis of

current evidence the earliest monument appears to be the Hindwell cursus, which on the basis of radiocarbon dates was constructed sometime after 3950-3520 BC and had gone out of use before 2870-2470 BC. It extends for about 4.6km, making it perhaps the second longest cursus in Britain, and comprises parallel ditches around 3.9m wide and 1.8m deep, set between 54m and 74m apart.

- 1.4 The project continued in 2013-14, undertaking a number of small-scale excavations with local volunteers to collect data based on the ACRE project methodology and test its application under field conditions. One of the sites chosen as part of this assessment was the north-east terminal of the Hindwell Cursus (PRN 33109; SO 2705 6183) which provided an opportunity to test the hypothesis that ploughsoils were likely to have accumulated towards the base of a slope, affording greater protection to buried archaeological deposits, as well as to confirm the position of the cursus ditch. The opportunity was also taken to investigate a second monument, known only from cropmark evidence, which had been postulated as a second, albeit much smaller cursus (PRN 122779).



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Fig. 2: The excavation trenches in relation to the cropmark evidence of the cursus and a linear feature

2 METHODOLOGY

- 2.1 The north-east terminal of the Hindwell cursus was identified during aerial photographic reconnaissance carried out by RCAHMW in 2011 (Jones and Driver 2011, 181-4) and its course has been plotted from these images. The same images showed a linear feature to the east comprising two parallel, but seemingly intermittent, ditches or gullies with a north-north-east/south-south-west alignment (PRN 122779). Three machine-dug trenches, each in the order of 20m long and 1.9m wide, were excavated in the field, two of which (A and B) were intended to confirm the route taken by the cursus ditch, while the remaining trench (C) was placed to investigate the linear feature (see Fig. 2).
- 2.2 Work in the trenches across the cursus (A and B) was limited to the cleaning of the machined trench and highlighting the edges of the ditch. The remaining trench (C) contained both of the ditches of the linear feature and these were completely excavated within the area exposed in an attempt to clarify their nature, function and dating.
- 2.3 While the excavations were in progress the field, from which the cereal crop had recently been removed, was examined for artefact scatters. The finds recovered were located by the use of handheld GPS equipment and the results plotted to provide a plan of the finds distribution (see Section 4).



Fig. 3: Trench A viewed from the west-south-west. Photo CPAT 3696-0024

3 EXCAVATION

Trench A (SO 27053 61822)

- 3.1 The trench, which measured 18.2m east-north-east/west-south-west by 1.9m wide, was positioned to investigate the north-east terminal of the cursus, to the south of a possible entrance gap suggested by aerial photographs.
- 3.2 The natural, mid-brown silt subsoil, with patches of grey silt and shaly stones (302) was present at a depth of between 0.33m and 0.38m below the ground surface and was covered by the local topsoil, a dark grey-brown silt (301). The main feature present in the trench was the cursus ditch (303), running north-north-west/south-south-east and 3.3m to 3.4m wide. It was filled with an orange-brown clay silt (304), but its depth was not tested as work was limited to cleaning the trench and defining of the edges of the ditch. A later shallow gully (305), about 0.5m wide and only 0.06m deep, ran on a north-east/south-west alignment for at least 4.0m, cutting the fill of the cursus ditch; it was filled by a slightly orange-brown silt (306).



Fig. 4: Trench B showing the cursus ditch, from the south-east. Photo CPAT 3696-0006

Trench B (SO 26968 61757)

- 3.3 The trench, which measured 18.4m north-west/south-east by 1.9m wide, was positioned to investigate the south-east ditch of the cursus as it approached the terminal; this was effectively the lowest point crossed by the cursus in this field.
- 3.4 The natural, orange-brown stony silt subsoil, with patches of pale grey silt (308) was present at a depth of between 0.28m and 0.32m below the ground surface and was covered by the local topsoil, a grey-brown silt (307), although the latter contained occasional stripes of subsoil which had been disturbed by the plough. The edge of the field lay about 10m to the south-west of the trench where a lynchet was clearly visible forming a raised band within 5m of the boundary and the topsoil there was notably thicker, perhaps up to 0.5m in total.

- 3.5 The main feature present in the trench was the cursus ditch (311), running east-north-east/west-south-west and up to 3.9m wide. It was filled with an orange-brown clay silt (312), whose depth was not tested as work was limited to cleaning the trench and defining the edges of the ditch, as in Trench A. At the north-west end of the trench, there was a cut for a land drain (309), 0.2m wide; this was clearly of relatively modern origin as it was filled by both grey-brown silt and angular gravel (310).



Fig. 5: Trench C after excavation, from west-north-west. Photo CPAT 3696-0075

Trench C (SO 27047 61727)

- 3.6 The trench measured 19.8m west-north-west/east-south-east by 1.9m wide and crossed both ditches of the double-ditched linear feature, near the lower (south) corner of the field.
- 3.7 The natural, brownish-orange stony clay silt subsoil with patches of stony grey silt (315) was present at a depth of between 0.32m and 0.35m below the ground surface at the east-south-east end of the trench, where it was directly covered by the local topsoil, a grey-brown silt (313). At about 2.6m from this end of the trench, an intervening layer of orangey-brown clay silt (314) appeared and eventually reached a maximum of 0.25m in thickness as it neared the west-north-west end of the trench. By this stage the natural subsoil was present at a depth of 0.6m below the existing ground surface.
- 3.8 The two ditches observed on aerial photographs were readily apparent and must have still been extant when layer 314 was deposited as it occupied the uppermost portion of both. The profile of the more westerly of the two ditches (316) formed a shallow V-shape and measured 1.40m wide and was 0.40m deep. It was filled by an initial layer of grey silt (320), up to 0.14m thick, followed by orange-brown clay silt (317), up to 0.20m thick. Fill 317 was overlain by layer 314. The east-south-east ditch (318) had a similar profile and was 1.80m wide and 0.40m deep. Its initial fill was a pale grey clay silt (319), up to 0.14m thick, and this had a wedge of overlying orangey-brown clay silt (321) on its west-north-west side, up to

0.10m thick. This material suggests there may perhaps have been some form of shallow bank on this side of the ditch. No finds were recovered from any of the ditch fills and they thus remain undated.



Fig. 6: Ditch 318 viewed from the south-south-west. Photo CPAT 3696-0068



Fig. 7: Ditch 316 viewed from the south-south-west. Photo CPAT 3696-0070

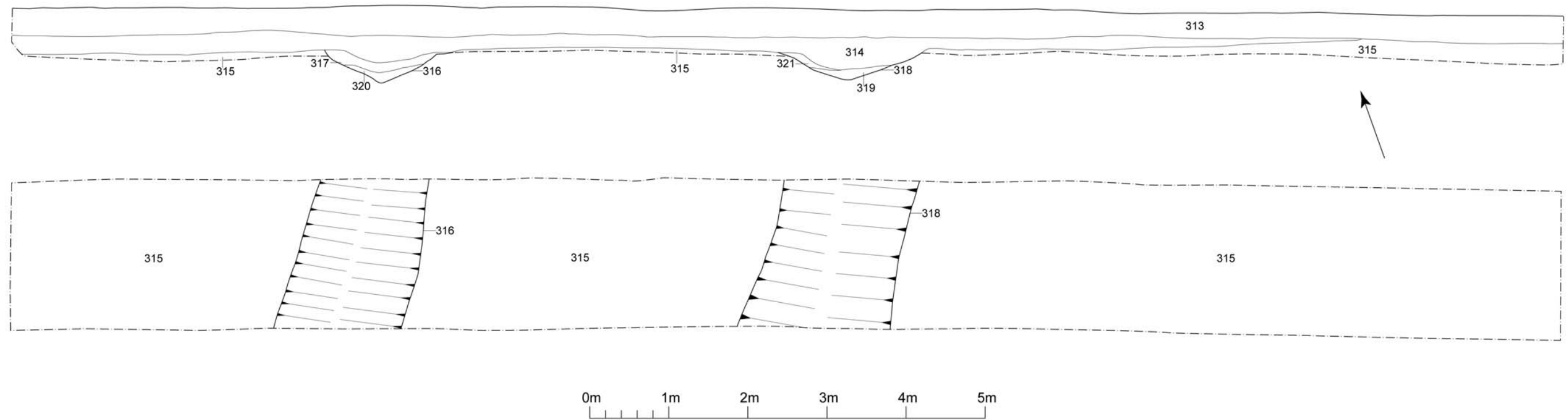


Fig. 8: Trench C plan and section

4 FIELDWALKING

- 4.1 The opportunity was also taken to examine the field for artefact scatters with the assistance of local volunteers. Conditions were relatively favourable, as a cereal crop had been recently removed from the field.
- 4.2 The methods adopted comprised walking the field in north-west/south-east aligned transects, using the rows of stubble to give a consistent pattern. Finds were located by the use of handheld GPS equipment and the results subsequently plotted to provide a plan of their distribution (Fig. 9).

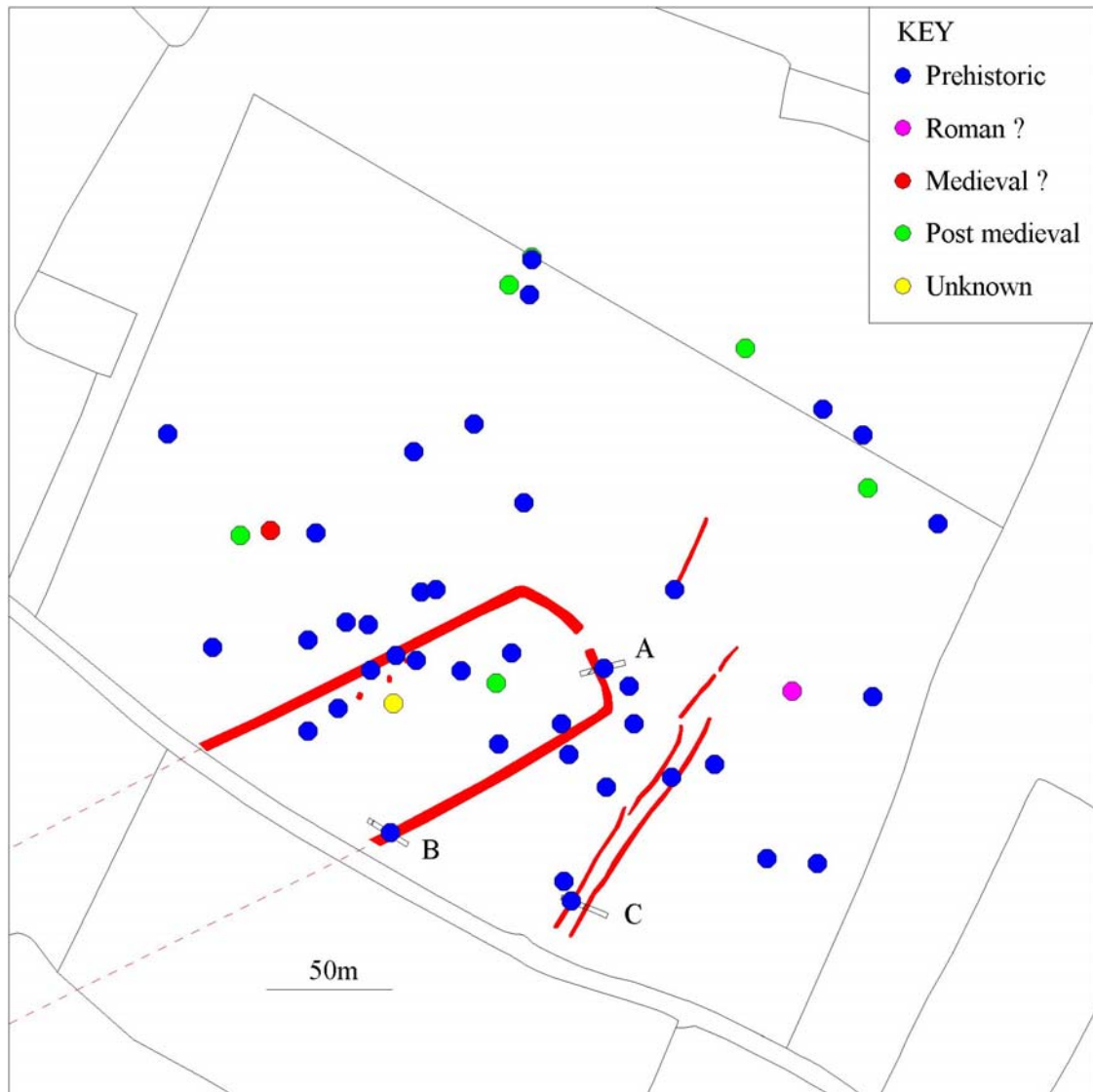


Fig. 9: Distribution of finds recovered from the field under investigation

- 4.3 The distribution of finds (Fig. 9) shows some clustering of prehistoric material around the known cursus, with lesser amounts towards the edges of the field. Some caution needs to be displayed owing to the likelihood of material being recovered in the vicinity of the trenches and while walking to them, and thus disturbing the overall pattern.

Worked flint by Philippa Bradley

- 4.4 A small assemblage of worked flint and one possible piece of grey chert was recovered from fieldwalking. The assemblage is summarised in Table 1, and includes diagnostic pieces of Mesolithic and Neolithic–Bronze Age date. The flint fairly good quality, and ranges in colour from dark brown to light grey, while a few pieces have a smooth, buff or white cortex. This raw material is probably derived from glacial drift deposits, perhaps from deposits in the northern Cotswolds or around Cardiff and the Vale of Glamorgan (e.g. Charlesworth 1957, 77; Tyler 1976, 4). Better quality flint may have come from Berkshire Downs or Chilterns. Some plough damage was noted, although this was not extensive, and 11 pieces have been burnt.

Assemblage composition

- 4.5 The assemblage is dominated by debitage (flakes, chips, cores and pieces of irregular waste) and the majority of the flakes are relatively small and not particularly chronologically distinctive. Both soft and hard hammers have been used and four cores were recovered, all of them flake cores, in varying states of reduction. The keeled and discoidal cores have been carefully and fairly extensively reduced, but the possible chert core has been fairly roughly worked. A small multi-platform flake core has also been extensively worked. Two core rejuvenation flakes (tablet and face/edge types) indicate that platforms were rejuvenated when they became unworkable. Two irregularly worked pieces of flint and three small chips were also recovered. A truncated blade is likely to be of Mesolithic date.
- 4.6 Seven retouched pieces were recovered, although only two of these are typologically diagnostic: the microlith and ‘thumbnail’ scraper (find nos 41 and 30). The microlith, although broken, is a small edge blunted point, a type which occurs throughout the Mesolithic period (Pitts and Jacobi 1979). The ‘thumbnail’ scraper is neatly worked but is quite thick and an early Bronze Age date is likely for this piece. Two other scrapers are both broken (and one burnt), but are likely to be Neolithic or Bronze Age in date; one of these may have been another ‘thumbnail’ type (find no. 39). The remaining retouched pieces – a retouched flake, a notched flake and a serrated blade (find nos 38, 19, and 45 respectively) are not chronologically diagnostic but are likely to be of Neolithic or Bronze Age date.

Table 1: assemblage composition

Type	Number
Chip	3
Core	4
Core rejuvenation flake	2
Flake	28
Irregular waste	2
Tools	7 (1 microlith, 2 ?scrapers, 1 ‘thumbnail’ scraper, 1 serrated blade, 1 notched flake, 1 retouched flake)
Truncated blade	1
Total	47

Discussion

- 4.7 This small assemblage contains diagnostic pieces dating from the Mesolithic to the Bronze Age and adds to the growing body of evidence from the Walton Basin (e.g. Bradley 1999; Gibson 1999). The size of the assemblage precludes detailed discussion but it can be seen that

domestic activities were being undertaken including hide preparation, cutting and whittling, and knapping. The microlith and truncated blade were probably chance losses.

5 CONCLUSIONS

- 5.1 The results from the excavation have provided further field evidence as part of an evaluation of the methodology developed during the 2012-13 ACRE study (Jones 2014). This had postulated that regular ploughing on a sloping field would gradually lead to an accumulation of ploughsoil towards the base of the slope, with the effect that buried archaeological deposits may be under less threat there than higher up the slope. The results were somewhat unexpected, however, as the ploughsoil proved to be more shallow at the base of the slope. One reason for this could be the presence of a 5m-wide lynchet against the nearby boundary which may have influenced the depth of ploughing noted in trench B. In the other two trenches the topsoil was seen to be around 0.1m deeper.
- 5.2 The ACRE methodology identified this field as being under regular arable cultivation, thus presenting a very high potential risk to buried archaeology. The magnitude of impact from cultivation was assessed as being in category A (where A is the highest category and E has no impact) and is likely to result in change to most or all key elements of a monument, such that the resource is totally altered.
- 5.3 One of the primary objects of the excavations was accurately to identify the course of the ditch defining the north-east end of the Hindwell Cursus and this was accomplished. Minor discrepancies between its actual course and the plot compiled by the rectification of the aerial photographs were identified and the plot was altered accordingly. The maximum discrepancy was 2.7m in Trench A, while elsewhere the figure was just over 1m. The width of the cursus ditch varied from 3.3m in Trench A to a maximum of 3.9m in Trench B; it is not known whether this is a result of simple variations in its size or the effects of past agricultural practice.
- 5.4 The linear feature, comprising two intermittent ditches to the east of the cursus, was successfully identified in Trench C. Both ditches had a shallow V-shaped profile and were 0.4m deep, with a level area between them about 4.5m wide. The initial fills of the ditches appeared similar and this supports the likelihood that they are contemporary. The fill of the east-south-east ditch implied that there may have been a small bank on its west-north-west side or that material had eroded into it from that direction. No artefactual material was recovered from either ditch and their function and dating remain uncertain, though the mostly likely interpretation is that the ditches flanked a former trackway.

6 ACKNOWLEDGEMENTS

- 6.1 The writer would particularly like to thank the landowner, Mr E Davies and the tenant, Mr D Williams, for permission to carry out the work.
- 6.2 The writer would also like to thank his colleague, Sophie Watson, for her assistance with the work and local volunteers Ian Cole, Celia Jones and Paul Wood for their help with the excavation and fieldwalking.

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APPENDIX 1

Project Archive

80 digital photographs, CPAT Film No 3696
 Photographic catalogue
 21 context description forms
 1 A1 site drawing
 1 A4 site drawing
 Context register
 Drawings register

Fieldwalking finds

The preliminary assessment of the finds is included below in Appendix 2.

Digital data

Location plans of trenches – cursus trenches plan.dxf.

Contexts Register

Context (Trench)	Type	Comment
301 (A)	Layer of soil	Topsoil
302 (A)	Layer of soil	Natural subsoil
303 (A)	Ditch	Cursus ditch in Trench A
304 (A)	Layer of fill	Fill of 303
305 (A)	Gully	Shallow gully
306 (A)	Layer of fill	Fill of 305
307 (B)	Layer of soil	Topsoil
308 (B)	Layer of soil	Natural subsoil
309 (B)	Land drain	Narrow land drain
310 (B)	Layer of fill	Fill of 309
311 (B)	Ditch	Cursus ditch in Trench B
312 (B)	Layer of fill	Fill of 311
313 (C)	Layer of soil	Topsoil
314 (C)	Layer of soil	Subsoil, final fill of 316 and 318
315 (C)	Layer of soil	Natural subsoil
316 (C)	Ditch	WNW ditch in Trench C
317 (C)	Layer of fill	Upper fill of 316
318 (C)	Ditch	ESE ditch in Trench C
319 (C)	Layer of fill	Lower fill of 318
320 (C)	Layer of fill	Lower fill of 316
321 (C)	Layer of fill	Fill of 318, above 320 and only on WNW

Drawings Register

No	Scale	Contexts	Comment
1	1:20	313-321	Trench C plan and section (A1)
2	1:20	305-306	Gully 305 section (A4)

APPENDIX 2

Fieldwalking finds

Find No	NGR	Find type	Period	Description
1	SO2702461984	pottery	Post-medieval	Early post-medieval, glazed on one side.
2	SO2714061924	chert	Prehistoric	core tablet removing platform
3	SO2718661879	flint	Prehistoric	Burnt chip
4	SO2690861874	pottery	Post-medieval	Internally glazed early post-medieval base fragment
5	SO2710961948	pottery	Post-medieval	Early post-medieval rim fragment, internally glazed
6	SO2702461983	flint	Prehistoric	Discoidal core, good quality dark brown flint
7	SO2708161853	flint	Prehistoric	good quality dark brown flint, thin buff cortex, broken
8	SO2715861893	pottery	Post-medieval	Early post-medieval, internally glazed
9	SO2716061811	flint/chert	Prehistoric	from a discoidal core, removes one face of core
10	SO2700161918	flint	Prehistoric	burnt flake fragment
11	SO2702161887	chert	Prehistoric	Grey chert, very rolled and battered but some possible flaking
12	SO2692061876	tile	Medieval ?	Probable glazed tile fragment
13	SO2701561973	pottery	Post-medieval	
14	SO2697761907	flint	Prehistoric	small fragment of irregular waste
15	SO2712861813	pottery	Roman ?	Buff-coloured body sherd
16	SO2702361969	flint	Prehistoric	heavily burnt flake
17	SO2715661914	flint	Prehistoric	heavily burnt flake
18	SO2701661828	flint	Prehistoric	heavily burnt - possibly a core fragment
19	SO2693561797	flint	Prehistoric	Broken flake with a small semi-circular notch, some later damage
20	SO2703761738	flint	Prehistoric	small flake
21	SO2689761830	flint	Prehistoric	Broken flake , good quality dark brown flint buff/white cortex
22	SO2705461775	flint	Prehistoric	squat flake
23	SO2711861747	flint	Prehistoric	small multi-platform flake core, burnt
24	SO2694761806	flint	Prehistoric	alternate flaking
25	SO2704061730	flint	Prehistoric	Flake - broken, good quality brown flint smooth buff cortex
26	SO2693561833	flint/chert	Prehistoric	Flake - dark brown flint with large cherty inclusions
27	SO2701061816	pottery	Post-medieval	Early post-medieval, glazed
28	SO2708061779	pottery	Prehistoric	Two joining sherds, later prehistoric?
29	SO2703961788	flint	Prehistoric	Truncated blade, grey flint
30	SO2699661821	flint	Prehistoric	small, steeply retouched 'thumbnail' scraper retouched around entire circumference, grey flint

31	SO2698061852	flint	Prehistoric	Flake, grey flint
32	SO2696961808	iron	Unknown	Iron object/point?
33	SO2697061827	flint	Prehistoric	Flake, broken and worn
34	SO2698661853	flint	Prehistoric	small flake, recent breaks, dark good quality flint
35	SO2701161792	flint	Prehistoric	Flake, grey flint, recent breaks
36	SO2697861825	flint	Prehistoric	Possible scraper - heavily burnt possible scraper, broken, shallow retouch
37	SO2709761784	flint	Prehistoric	Flake, grey flint, good quality
38	SO2696861757	flint	Prehistoric	light brown flake fragment with steep, neat reouch along LHS
39	SO2705361822	flint	Prehistoric	?broken scraper, quite thick but neat retouch, possibly a 'thumbnail' type; good quality brown flint
40	SO2693861875	flint	Prehistoric	broken flake, dark brown good quality flint
41	SO2687961914	flint	Prehistoric	Microlith - small edge blunted point, broken and damaged
42	SO2713861745	flint	Prehistoric	heavily burnt flake
43	SO2703661800	flint	Prehistoric	heavily burnt flake
44	SO2706361815	flint	Prehistoric	small hinge fractured flake, grey cherty flint
45	SO2706561800	flint	Prehistoric	broken blade, good quality brown flint, very worn serrated edges
46	SO2696061821	flint	Prehistoric	Flake - broken and damaged edges, good quality brown flint
47	SO2695961839	flint	Prehistoric	small flake, good quality brown flint, thin smooth cortex
48	SO2704061730	flint	Prehistoric	Tiny keeled core, heavily corticated
49	SO26956184	flint	Prehistoric	4 flakes (1 heavily burnt, 3 good quality brown flint) and 1 chip