ARCHAEOLOGICAL EVALUATION AT WORCESTER RUGBY CLUB, SIX WAYS, WORCESTERSHIRE

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Project 2935
Report 1554
WSM 36108

Contents

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Part 1 Project summary

An archaeological evaluation was undertaken at Worcester Rugby Club, Six Ways, Worcestershire (NGR SO 890 577). It was undertaken on behalf of Worcester Rugby Club, the client, who intends to redevelop the site with a new north stand, a health and racquets club, new roads, car parking, and associated landscaping, for which a planning application has been submitted. The project aimed to determine if any significant archaeological site was present and if so to indicate what its location, date and nature were.

While no prehistoric archaeological features were identified during the evaluation, the finds assemblage is of some significance. The recovery of quantities of prehistoric worked flint and flint debitage, prehistoric pottery, potting clay and fire-cracked stones indicate settled activity during the Neolithic and/or Early to Late Bronze Age near to Area A of the evaluation. The generally well-preserved nature of this prehistoric material was not indicative of substantial disturbance due to agricultural interference, such as ploughing, so the potential of preserved prehistoric features within the adjacent area may be judged to be relatively high. However, if such a site lies under the rugby practice pitches to the north of Area A, it would be subject to some truncation down to the level of the natural subsoil.

As with the prehistoric assemblage, the albeit small number, of Roman artefacts also exhibited low levels of abrasion with the potential for well-preserved Roman deposits (specifically of the 1st to 2nd century based on the pottery dates) to be present in the near vicinity of the Area A.

The lack of medieval artefacts would indicate that no significant activity was occurring on site during that period. The only securely datable archaeological deposits were those associated with the grubbing up of a series of field boundaries and ditches in Area A, and another ditch in Area B, each of which occurred after 1885. Although the date at which these boundaries were first established cannot be concluded with certainty, it is probable that they may have been introduced as part of the general agricultural improvement of the pasture here from the 17th century onwards in Area A, and the construction of the canal in the later 18th century in Area B as that ditch drained a footpath to a lock-keeper's cottage.

The scattered post-medieval and modern materials found over Area A are of a type commonly encountered on agricultural sites and are usually indicative of general rubbish discard or field manuring practises during the 17th to 20th centuries. Overall, environmental remains were poorly preserved and of low significance in the interpretation of this site.

Given the paucity of tangible evidence recovered during this evaluation, it is not relevant to relate these results to broader archaeological research frameworks at a local, regional or national level. However, these findings, together with previous archaeological work in the vicinity, point to the potential for prehistoric and Roman sites to be present nearby, although their preservation, form and significance are currently unknown.

Part 2 Detailed report

1. Background

1.1 Reasons for the project

An archaeological evaluation was undertaken at Worcester Rugby Club (NGR SO 890 577), Six Ways, Worcestershire (Fig. 1), on behalf of the Worcester Rugby Club. The client intends to redevelop the site with a new north stand, a health and racquets club, new roads and car parking and associated landscaping for which a planning application has been submitted to Wychavon District Council (reference W/06/1164), who consider that a site of archaeological interest may be affected (HER ref: WSM 29609).

1.2 Project parameters

The project conforms to the *Standard and guidance for archaeological field evaluation* (IFA 1999).

The project also conforms to a brief prepared by Mike Glyde (HEAS 2007a) and for which a project proposal (including detailed specification) was produced (HEAS 2007b).

1.3 Aims

The aims of the evaluation were to locate archaeological deposits and determine, if present, their extent, state of preservation, date, type, vulnerability and documentation. The purpose of this was to establish their significance, since this would make it possible to recommend an appropriate treatment, which may then be integrated with the proposed development programme.

More specifically the following aims have been identified.

- To assess if previously recorded evidence of prehistoric and Romano-British activity in the vicinity continued into the present development area.

2. Methods

2.1 Documentary search

Prior to fieldwork commencing a search was made of Worcestershire Historic Environment Record. In addition to the sources listed in the bibliography the following were also consulted:

Cartographic sources

- Ordnance Survey 1:2500 First Edition (1885).

2.2 Fieldwork methodology

2.2.1 Fieldwork strategy

A detailed specification has been prepared by the Service (HEAS 2007b).

Fieldwork was undertaken between 3rd May 2007 and 22nd May 2007. The site reference number and site code is WSM 36108.

A total of 39 trenches, amounting to just over 3,100m² in area, were excavated over the site area of 76ha, representing a sample of just over 4%. The location of the trenches is indicated in Figure 2 (Area A, Trenches 1 to 11) and Figure 3 (Area B, Trenches 12 to 39). In addition, an area 20m by 20m square was opened centred upon a concentration of flint located in Area A, Trench 5 (see Fig. 2).

Deposits considered not to be significant were removed using a 360º tracked excavator, employing a toothless bucket and under archaeological supervision. Subsequent excavation was undertaken by hand. Clean surfaces were inspected and selected deposits were excavated to retrieve artefactual material and environmental samples, as well as to determine their nature. Deposits were recorded according to standard Service practice (CAS 1995).

The following techniques were considered for use but were not considered to be appropriate for this project; geophysical survey, fieldwalking and topographic/earthwork survey.

2.2.2 Structural analysis

All fieldwork records were checked and cross-referenced. Analysis was effected through a combination of structural, artefactual and ecofactual evidence, allied to the information derived from other sources.

2.3 Artefact methodology by Angus Crawford

2.3.1 Artefact recovery policy

All artefacts from the area of the evaluation were retrieved by hand and retained in accordance with the service manual (CAS 1995 as amended).

2.3.2 Method of analysis

All hand-retrieved finds were examined and a primary record was made on a Microsoft Access 2000 database. Artefacts were identified, quantified and dated and a *terminus post quem* date produced for each stratified context.

The pottery and ceramic building material was examined under x20 magnification and recorded by fabric type and form according to the fabric reference series maintained by the service (Hurst and Rees 1992; Hurst 1994).

2.4 Environmental archaeology methodology, by Elizabeth Pearson

2.4.1 Sampling policy

The environmental sampling strategy conformed to standard Service practice (CAS 1995, appendix 4). Large animal bone was hand-collected during excavation. Samples of 10 to 40 litres were taken from three contexts (5005, 5006 and 5010), from two tree-throw pits and a linear adjacent to the tree-throw pits, respectively. These are of Neolithic date.

2.4.2 Method of analysis

The samples were processed by flotation followed by wet-sieving using a Siraf tank. The flot was collected on a 300µm sieve and the residue retained on a 1mm mesh. This allows for the recovery of items such as small animal bones, molluscs and seeds.

The residues were fully sorted by eye and the abundance of each category of environmental remains estimated. The flots were fully sorted using a low power EMT stereo light microscope and plant remains identified using modern reference collections maintained by the Service,

and seed identification manual (Beijerinck 1947). Nomenclature for the plant remains follows the Flora of the British Isles, 3rd edition (Stace 2001).

2.5 The methods in retrospect

The methods adopted allow a high degree of confidence that the aims of the project have been achieved. The weather was good throughout the course of the fieldwork and the nature of the subsoil allowed easy identification of any archaeological features cut into it.

3. Topographical and archaeological context

This development area is situated in a low-lying bowl (average height 35m AOD) defined by higher ground to the north, east and west. The Worcester to Birmingham Canal (WSM 12000) forms part of its northern boundary and the M5 motorway is also nearby to the east. Therefore, the development area is situated on the northeast fringe of suburban development in modern Worcester within a transport corridor.

Several springs drain from the higher ground into a culverted stream that bisects the Rugby Club that ultimately feeds into the River Severn to the southwest. To the east of the Droitwich Road are ditched field boundaries, present on the First Edition Ordnance Survey Map of 1885, but subsequently filled in, which also fed into this stream.

It is probable that the heavy clays within the bowl here have never been particularly suitable for arable cultivation. Indeed, the lowest-lying ones to the south and west of the development area are grey rather than red in colour, which is probably a result of water logging. Therefore, a pasture-orientated regime is most likely to have been the historical land use here. No obvious evidence for ploughing was found during the evaluation, but the pasture may have been improved in the 17th or 18th century. This may account for the background noise of pottery scatters of this and later dates found here, as well as for the presence of clover.

Evidence of medieval activity is largely confined to the higher ground surrounding the development area. Traces of ridge and furrow survive in a narrow field near Offerton Locks to the northeast (WSM 20150), and woodland earthworks survive in the Coneybury Wood (WSM 34554), some 800m to the southeast. A medieval church and moated site are also located at Warndon Court (WSM 9473), 700m to the south of the development area.

The development area also lies near the Droitwich salt route and is not far from the substantial Roman settlement at Worcester, and some occupation activity from the Iron Age/Romano-British period has been recorded to the south (WSM 23946), together with a crop-mark enclosure to the north (WSM 05877), of the development area. The natural transport corridor may also have served to funnel prehistoric peoples through the area, with trace evidence in the form of findspots being found in several places in the general vicinity of the development area.

4. Results

Apart from numerous field drains of 19th and 20th date the only archaeological features identified during the evaluation consisted of three field boundary drainage ditches, all filled in during the late 19th or 20th century. However, flints and pottery ranging in date from the Neolithic to Roman periods were recovered in sufficient quantities to indicate scattered occupation in the general vicinity of Area A of the development area. In addition, post-medieval artefacts further indicated that these fields were also improved from the 17th century onwards.

4.1 Structural analysis

The trenches and features recorded are shown in Figures 2 to 6. The results of the structural analysis are presented in Appendix 1. Trenches where no archaeological features were present have been grouped together and only a general description of the topsoil, subsoil and natural deposits provided (equivalent to --000, --001 and --002, respectively).

4.1.1 Phase 1 Natural deposits

The natural deposits (--002) consisted of Mercia Mudstone clays, and were machined down to their upper horizon in each trench. These were generally orangey red in colour with grey mottling, but became cleaner in colour the deeper they were excavated. In areas more prone to water logging these clays were uniformly grey in colour.

In Area A the subsoil interface (--001) was shallow, generally being no more than 0.10m thick, which is typical of a low-lying pasture environment, although the subsoil immediately adjacent to the Droitwich Road was slightly deeper and may be indicative of some form of cultivation of the narrow strip of land beside the road once defined by the field boundary here. The topsoil mantle (--000) was also shallow, varying between 0.15m and 0.2m in depth.

In Area B, the construction of the practice rugby pitches probably involved scouring to the depth of the natural subsoil (--002), the insertion of numerous drains and then levelling with a sandy topsoil and turf (--000) to a depth of roughly 0.3m.

4.1.2 Phase 2 Prehistoric deposits

A significant quantity of flint tools, scrapers, flakes and debitage (in excess of 40 pieces) was recovered from two 50% samples, (5005 and 5006) of a 'tree-bowl like' feature in Trench 5, Area A (see Section 4.2, below). Together these comprised an irregular spread of greyey-brown clay containing some charcoal flecking, measuring roughly 3.5m in diameter. This was situated immediately adjacent to a post-medieval field drainage ditch that demarcated a boundary between lower lying, more waterlogged grey Mercia Mudstone and the redder deposits described above.

No discernible shape or form could be confidently ascribed to this 'feature' and it most likely represents a tree-bowl into which this material had accumulated. Unfortunately, the results of a programme of environmental sampling of 5005 and 5006, together with an adjacent test deposit (5010) proved negative, and do not add to the interpretation of this flint tool concentration, (see Section 4.3, below). A lesser quantity of flint artefacts was also recovered from the topsoil and subsoil of adjacent Trenches 4 and 6, and this together with some other broadly contemporary pottery fragments points to some kind of prehistoric activity in the vicinity of Trench 5. However, this was probably located on the higher ground to the northeast and outside of the development area.

4.1.3 Phase 3 Post-medieval deposits

The only securely datable archaeological deposits were those associated with the infilling of a series of field boundaries and ditches. The date of their infilling was after 1885. Although the date at which these boundaries were first established cannot be concluded with certainty, it is probable that they may have been introduced as part of the general agricultural improvement of the pasture that was taking place here from the 17th century onwards.

The first north-south aligned field boundary in Area A was cut by Trench 1 (cut 1003, fill 1004) and Trench 7 (cut 7003, fill 7004, Fig 6). It was a shallow depression *c* 1.8m wide and 0.15 m deep, that ran parallel to, and was set back by about 20m from, the Droitwich Road. The northern part of this boundary survived to the north of the modern line of the Offerton Road up to the older line of that road, which originally ran parallel to the canal. The southern

grubbed up section was still visible on the Ordnance Survey Map of 1885. Both fills contained a greater percentage of organic material and were clearly defined against the natural Mercia Mudstone.

A second field boundary in Area A was aligned northeast-southwest and was defined by a 2m wide ditch with initially gently sloping sides, and then a steep-sided U-shaped bottom that varied between 0.6m and 0.8m in depth. This ditch would originally have drained water from the higher ground to the northeast into the stream to the west of the Droitwich Road. Its line was cut by Trench 5 (cut 5003, fill 5004; Fig 4), Trench 6 (cut 6005, fill 6006; Fig. 5), and Trench 7 (cut 7005, fill 7006; Fig. 6). The darker more organic fills of the ditch contained pottery and detritus of relatively modern (i.e. late 19th/early 20th century) date.

The final north-south aligned boundary ditch was located roughly in the middle of Area B. It was cut by Trench 23 (cut 23004, fill 23003), Trench 24 (cut 24004, fill 24003) and Trench 29 (cut 29004, fill 29003). The ditch was 2.2m wide 0.5m deep and had a similar profile to the drainage ditch in Area A, above. Again, finds of relatively recent date were found in its fills, and the most likely explanation for this feature is that it was a drainage ditch cut beside the footpath that lead to the lock-keeper's cottage as depicted on the Ordnance Survey Map of 1885.

4.2 Artefact analysis, by Angus Crawford

The pottery assemblage retrieved from the excavated area consisted of 53 sherds of pottery weighing 545g, In addition fragments of tile, glass, fire-cracked stone, flint tools, flakes, other waste, fired clay, iron slag, iron chain, coal, brick, animal bone and clay pipe stems were recovered. The group came from 19 stratified contexts and could be dated from the prehistoric period onwards (see Table 1). Level of preservation was generally fair with the majority of sherds displaying only moderate levels of abrasion.

Context	Material	Type	Total	Weight (g)
1004	Ceramic building material	Various	5	53
1004	Pottery	Post-medieval	1	1
1004	Tile	Roman	1	11
2000	Tile	Roof	1	27
4000	Flint	Scraper	1	2
5000	Bone	Anim	1	2
5000	Flint	Blade	3	24
5000	Iron	Modern chain link	1	29
5000	Pottery	Late bronze age	2	8
5000	Pottery	Post-medieval	6	141
5000	Pottery	Prehistoric (?neolithic)	1	2
5000	Stone	Fire cracked	3	83
5000	Tile	Roof	2	45
5001	Pottery	Post-medieval	1	3
5004	Clay	Potting clay	11	55
5004	Clay	Fired	4	32
5004	Clay pipe	Stem	1	1
5004	Coal		8	36
5004	Iron	Slag	1	215
5004	Pottery	Modern	1	138
5004	Pottery	Post-medieval	1	2
5004	Pottery	Roman	1	5
5004	Stone	Fire cracked	3	74
5005	Fired	Clay	2	2
5005	Stone	Fire cracked	1	31
5005	Flint	Burnt	2	1
5005	Flint	Flake	14	118
5005	Flint	Knife	2	43
5005	Flint	Neolithic	6	26
5005	Flint	Waste	15	1

5006	Flint	Lump	1	108
5008	Clay	Fired	1	0.5
5008	Stone	Fire cracked	1	14
6002	Flint	Flake	1	5
6002	Pottery	Roman	1	3
7000	Coal	Reformed modern	1	35
7000	Glass	Bottle	1	12
7000	Pottery	Modern	2	16
7000	Pottery	Post-medieval	3	13
7004	Pottery	Modern	4	38.5
7004	Pottery	Post-medieval	2	18
8000	Claypipe	Various fragments	3	5
8000	Glass	Bottle	1	6
8000	Pottery	Modern	5	17
8000	Pottery	Post-medieval	6	19
9000	Pottery	Modern	1	3
9000	Pottery	Post-medieval	1	1
9000	Pottery	Roman	1	75
10000	Pottery	Modern	2	1.5
10000	Pottery	Post-medieval	1	1
23004	Brick	Post-medieval to modern	2	121
23004	Ceramic building material	Various	4	16
23004	Clay pipe	Stem	1	1
23004	Glass	Various	2	1
23004	Pottery	Modern	1	0.5
24003	Claypipe	Stem	1	1
24003	Pottery	Kiln spacer	1	3
24003	Pottery	Modern	1	1
24003	Pottery	Post-medieval	1	10
29003	Pottery	Modern	2	4
29003	Pottery	Post-medieval	1	3
36004	Claypipe	Stem	2	4
36004	Pottery	Modern	1	0.5
36004	Pottery	Post-medieval	2	3

Table 1: Quantification of the assemblage

4.2.1 **Discussion of the pottery**

All sherds have been grouped and quantified according to fabric type (see Table 2). All sherds were datable by fabric type to their general period or production span.

The discussion below is a summary of the finds and associated location or contexts by period. Where possible, *terminus post quem* dates have been allocated and the importance of individual finds commented upon as necessary.

Context	Fabric name	Fabric number	Total	Weight (g)
1004	Post-medieval red sandy ware	78	1	1
5000	Post-medieval red sandy ware	78	4	120
5000	Tin glazed ware	82	1	1
5000	Post-medieval buff ware	91	1	20
5000	Miscellaneous prehistoric wares	97	3	10
5001	Post-medieval buff ware	91	1	3
5004	Wheel made Malvernian ware	19	1	5
5004	Miscelaneous late stone ware	81.4	1	138
5004	White salt glazed stone ware	81.5	1	2
6002	Oxidized organically tempered Severn Valley ware	12.2	1	3
7000	Post-medieval red sandy ware	78	1	1
7000	Stone ware	81	1	10
7000	Porcelain	83	2	16
7000	Post-medieval buff ware	91	1	2
7004	Post-medieval red sandy ware	78	2	18
7004	Miscelaneous late stone ware	81.4	1	13
7004	Porcelain	83	1	0.5
7004	Modern stone china	85	2	25
8000	Post-medieval red sandy ware	78	3	14

8000	Porcelain	83	3	13
8000	Creamware	84	3	5
8000	Modern stone china	85	2	4
9000	Mancetter-Hartshill mortarium	32	1	75
9000	Post-medieval red sandy ware	78	1	1
9000	Porcelain	83	1	3
10000	Porcelain	83	1	0.5
10000	Creamware	84	1	1
10000	Modern stone china	85	1	1
23004	Post-medieval red sandy ware	78	2	6
23004	Tin glazed ware	82	1	11
23004	Modern stone china	85	1	0.5
24003	Post-medieval red sandy ware	78	1	10
24003	Porcelain	83	1	1
29003	Porcelain	83	2	4
29003	Modern stone china (variant)	85	1	3
36004	Porcelain	83	1	0.5
36004	Creamware	84	2	3

Table 2: Quantification of the pottery by fabric

Prehistoric period

Three sherds of prehistoric pottery were identified within the assemblage, all from context 5000. Their relatively small size made identification problematic and they could only be classified as miscellaneous prehistoric wares (fabric 97). However, general fabric characteristics suggest that two sherds may be of Late Bronze Age date. The third sherd could only be identified as prehistoric and exhibited sooting to one surface suggesting that it may have originated from a form of cooking vessel. The presence of fire-cracked stone within the assemblage (three fragments from context 5000, three fragments from context 5004 and one fragment each from contexts 5005 and 5008) may be evidence for cooking practices, during this period, within the locality of the site.

Fragments of fired clay were identified with four fragments from context 5004 and one from context 5008, but could not be dated. However a fragment of air-dried clay from context 5004 is potentially of unfired prehistoric potting clay and may warrant further examination.

Roman period

Only three sherds of Roman pottery were present within the assemblage, weighing 83 g. This included a single body sherd from an oxidised organically tempered Severn Valley ware vessel (fabric 12.2, context 6002) and, while no form type could be identified, the sherd may be of mid 1st to 2nd century date when this fabric was at it's most dominant. A single sherd of wheel made Malvernian ware was identified from context 5004 and could only be dated by fabric type to its general production span of 2nd to 4th century. The remaining sherd was identified as a rim from a Mancetter-Hartshill mortarium (fabric 32, context 9000) of a form produced in the 1st to 2nd century.

Post-medieval and modern period

The post-medieval and modern pottery assemblage was dominated by post-medieval red sandy wares (fabric 78) with four sherds from context 5000, three sherds from context 8000, two sherds each from contexts 7004 and 23004 and single sherds from contexts 1004, 7000, 9000 and 24003. No forms were identifiable but all sherds were typical of domestic wares produced in this fabric, which included storage jars, tygs and chamber pots generally produced from the 17th to 18th centuries.

The second largest fabric group for this period was porcelain (fabric 83) with 12 sherds weighing 39g. Single porcelain sherds were identified from contexts 7004, 9000, 1000 and 24003 and 29003 with a further two sherds from context 7000 and three sherds from context 8000. All forms were of common domestic and table wares with a small jar from context 7000

and probable teacup sherds from context 7004, 9000 and 10000. All sherds could be dated to the mid 19th to 20th century.

Severn sherds of modern stone china (fabric 85) were identified with two sherds each from contexts 7004 and 8000 and single sherds from contexts 10000, 23004, and 29003. Due to their small size only one form was recognizable by its 'Willow Ware' pattern and identified as a fragment of platter of mid 19th to mid 20th century date (context 7004). The remaining sherds in this fabric could only be dated to the late 19th to 20th century on the presence of partial pictorial designs more typical of that date range.

The remaining fabrics within the assemblage consisted of six sherds of creamware (fabric 84) and two sherds of tin glazed ware (fabric 82). The cream ware, with three sherds from context 8000, two sherds from context 36004 and a single sherd from context 10000 can be more securely dated with a date range of 1760 to 1790 when this fabric was at it's most popular. The two sherds of tin glazed ware included a body sherd of general 17th to 18th century date from context 5000 and a handle fragment of 18th century date from context 23004.

A partial porcelain kiln ring, used to separate porcelain products during firing, was identified from context 24003, as were two unglazed (primary biscuit fired only) sherds from contexts 29003 and 36004. These are generally indicative of discarded miss-fired pottery and general kiln waste from the Worcester Porcelain industry and could be dated from the mid 19th to 20th century.

4.2.2 Discussion of the prehistoric flint

A total of 45 flint artefacts were identified within the assemblage. This consisted of two knives, one blade, a thumbnail scraper, 20 flakes and various debitage. All flint was of light to mid grey brown except for the two knives with one of mid grey and the other of light greyish brown flint. The type of flint utilised for the tool production is not consistent with local gravel derived sources indicating that the flint has been imported from a source further a field.

The thumbnail scraper (context 4000) had direct abrupt retouch and could be broadly dated to the Late Neolithic or Early Bronze Age period.

Two flint knives (both from context 5005, one illustrated in Figure 7) were identified and could be provisionally dated to the Early Neolithic period. Both are naturally backed flakes, although one appears to have been further worked along the ventral edge.

A flake, also from context 5005, is of large size (80mm x 45mm) and has a feathered termination and could only be generally dated to the Neolithic period. The left edge of the dorsal face retains a thin section of the cortex while the right edge exhibits light retouching giving the blade a slightly serrated edge.

An early Neolithic backed blade (context 5000, Fig. 7), backed on the right edge of the dorsal face, was recovered as two conjoining fragments. Initial observation indicated that fragmentation occurred during machine topsoil stripping rather than in antiquity. Further flint flakes were recovered with a single flake from context 6002 and fourteen from context 5005. All could be generally dated to the Neolithic period. Further flint artefacts included waste debitage from flint working (context 5005) and unworked flint (context 5006).

4.2.3 Other finds

Eight fragments of clay tobacco pipes were also present within the assemblage (contexts 5004, 8000, 23003, 23004, and 36004). While the majority could only be broadly dated from the 18th to 19th century, a single stem fragment (context 36004) retained a makers stamp of John Rhoden, who produced claypipes in Stourbridge from 1819 to 1836.

Glass bottle fragments (context 7000, 8000, and 23004) were identified as relatively modern and could be dated from the mid 19th to early 20th century.

Further identified finds consisted of ceramic building material with roof tile fragments of 16th to 18th century date from contexts 2000 and 5000 and brick fragments of 19th to 20th century date from context 23004. Further ceramic building material was unidentifiable due to its small size and high surface abrasion (contexts 1004 and 23004). However a single fragment of Roman roof tile (context 1004) was identified by fabric and could be dated to the broader Roman period of mid 1st to 4th century.

4.3 Environmental analysis, by Elizabeth Pearson

The environmental evidence recovered is summarised in Tables 3, 4 and 5.

Context	Sample	Sample type	Context type	Description	Period	Sample volume (L)	Volume processed (L)	Residue assessed	Flot assessed
5005	1	General	Pit	tree-throw	NEOLITHIC	40	40	Y	Y
5006	2	General	Pit	tree-throw	NEOLITHIC	10	10	Y	Y
5010	3	General	Linear		NEOLITHIC	10	10	Y	Y

Table 3: List of environmental samples

Context	Sample	large mammal	waterlogged plant	Comment
5006	2	Occ	abt*	*intrusive roots
5005	1		abt*	*includes intrusive roots
5010	3		abt*	*intrusive roots

occ= occasional; abt = abundant

Table 4: Summary of environmental remains

Latin name	Family	Common name	Habitat	5005	5006	5010
Uncharred plant remains						
Chenopodium album	Chenopodiaceae	fat hen	AB		+	
unidentified root fragments	Unidentified			+++	+++	+++

Key:

Habitat	Quantity
A= cultivated ground	+ = 1 – 10
B= disturbed ground	++ = 11- 50
	+++ = 51 –100
	++++ = 101+

Table 5: Plant remains

Hand-collected animal bone

Only one sheep/goat (Ovis/Capra) tooth was recovered from unstratified deposits from Trench 5.

Macrofossil remains from bulk samples

The only identifiable environmental remains recovered were occasional seeds of fat hen (*Chenopodium album*) from context 5006. These are probably intrusive as they were uncharred and are unlikely to have survived in this state since the Neolithic period. Moreover,

all three samples contained abundant fine root fragments and occasional earthworm eggs, indicating the likelihood of contamination by modern organic material. Occasional small unidentifiable fragments of charcoal and animal bone were noted in all three contexts, but it is also uncertain whether these are contemporary with the Neolithic deposits.

Fragments of artefacts, in low levels, included small flint flakes in layer 5006, burnt or heat-cracked pebbles in 5010 and 5005, and small fragments of possible fired clay in all three contexts.

Little interpretation could be made of the environmental evidence, on account of the uncertainty of its origin.

5. Synthesis

5.1 Prehistoric

While no prehistoric archaeological features were identified during the evaluation the finds assemblage is of some significance. The recovery of quantities of prehistoric worked flint and flint debitage, prehistoric pottery, potting clay and fire-cracked stones indicate settled activity during the Neolithic and/or Early to Late Bronze Age near to Area A of the evaluation. The generally well-preserved nature of the prehistoric material was not indicative of substantial disturbance due to agricultural interference, such as ploughing, so the potential of preserved prehistoric features within the adjacent area may be relatively high. However, if such a site lay under the rugby practice pitches to the north of Area A, it would be subject to some truncation down to the level of the natural subsoil.

Environmental remains were poorly preserved and of low significance in the interpretation of this site.

5.2 Roman

As with the prehistoric assemblage the Roman artefacts also exhibited low levels of abrasion with the potential for well-preserved Roman deposits (specifically of the 1st to second century based on the pottery dates) to be present in the near vicinity of the Area A.

5.3 Post-medieval and modern

The lack of medieval artefacts would indicate that no significant activity was occurring on site during that period. The only securely datable archaeological deposits were those associated with the grubbing up of a series of field boundaries and ditches in Area A, and a ditch in Area B, each of which occurred after 1885. Although the date at which these boundaries were first established cannot be concluded with certainty, it is probable that they may have been introduced as part of the general agricultural improvement of the pasture here from the 17th century onwards in Area A, and the construction of the canal in the later 18th century in Area B as that ditch drained a footpath to the lock-keeper's cottage.

The scattered post medieval and modern materials found over Area A are of a type commonly encountered on agricultural sites and are usually indicative of general rubbish discard or field manuring practices during the 17th to 20th century.

5.4 Research frameworks and overall significance

Given the paucity of tangible evidence recovered during this evaluation, it is not relevant to relate these results to broader archaeological research frameworks at a local, regional or national level. Equally these findings, together with previous archaeological work in the

vicinity, point to the potential for prehistoric and Roman sites of occupation or other activity to be present nearby, although their preservation, form and significance are currently unknown.

6. Publication summary

The Service has a professional obligation to publish the results of archaeological projects within a reasonable period of time. To this end, the Service intends to use this summary as the basis for publication through local or regional journals. The client is requested to consider the content of this section as being acceptable for such publication.

An archaeological evaluation was undertaken at Worcester Rugby Club, Six Ways, Worcestershire (NGR SO 890 577; WSM36108), on behalf of Worcester Rugby Club. While no prehistoric archaeological features were identified during the evaluation, the finds assemblage is of some significance. The recovery of quantities of prehistoric worked flint and flint debitage, prehistoric pottery, potting clay and fire-cracked stones indicate settled activity during the Neolithic and/or Early to Late Bronze Age near to Area A of the evaluation. The generally well-preserved nature of this prehistoric material was not indicative of substantial disturbance due to agricultural interference, such as ploughing, so the potential of preserved prehistoric features within the adjacent area may be judged to be relatively high. As with the prehistoric assemblage, the albeit small number, of Roman artefacts also exhibited low levels of abrasion with the potential for well-preserved Roman deposits (specifically of the 1st to second century based on the pottery dates) to be present in the near vicinity of the Area A.

The lack of medieval artefacts would indicate that no significant activity was occurring on site during that period. Three former field boundaries were found that had been grubbed up in the 20th century. Although the date at which these boundaries were first established cannot be concluded with certainty, it is probable that two may have been introduced as part of the general agricultural improvement of the pasture here from the 17th century, and the other one dated from the construction of the canal in the later 18th century as it drained a footpath to a lock-keeper's cottage. The scattered post medieval and modern materials found over Area A are of a type commonly encountered on agricultural sites and are usually indicative of general rubbish discard or field manuring practices during the 17th to 20th century. .

7. Acknowledgements

The Service would like to thank the following for their kind assistance in the successful conclusion of this project, Worcester Rugby Club, Sean Power of Laser Construction, and Mike Glyde, Worcestershire County Council Historic Environment Planning Advisor.

8. Personnel

The fieldwork and report preparation was led by Steve Litherland. The project manager responsible for the quality of the project was Tom Vaughan. Fieldwork was undertaken by Steve Litherland, Christine Elgy, Dennis Williams, finds analysis was by Angus Crawford and Robin Jackson, environmental analysis by Elizabeth Pearson, the illustration was by Carolyn Hunt and Steve Rigby.

9. Bibliography

Barclay, W J, Green, G W, Holder, M T, Moorlock, B S P, Smart, J G O, Strange, P J, and Wilson, D, 1988 *Bristol Channel (sheet 51°N-04°W): solid geology*, 1:250,000 map, British Geological Survey, Keyworth

Beijerinck, W, 1947 *Zadenatlas der Nederlandsche Flora*, Wagoningen

CAS, 1995 (as amended) *Manual of Service practice: fieldwork recording manual*, County Archaeological Service, Hereford and Worcester County Council, report, **399**

HEAS, 2007a *Brief for an archaeological evaluation at Worcester Rugby Club, Six Ways, Worcestershire,* Historic Environment and Archaeology Service, Worcestershire County Council unpublished document dated March 2007

HEAS, 2007b *Proposal for an archaeological evaluation at Worcester Rugby Club, Six Ways, Worcestershire*, Historic Environment and Archaeology Service, Worcestershire County Council, unpublished document dated 22nd March 2007, **P2935**

Hurst, J D, 1994 (as amended) *Pottery fabrics. A multi-period series for the County of Hereford and Worcester*, County Archaeological Service, Hereford and Worcester County Council, report, **445**

Hurst, J D, and Rees, H, 1992 Pottery fabrics; a multi-period series for the County of Hereford and Worcester, in Woodiwiss, S G (ed), *Iron Age and Roman salt production and the medieval town of Droitwich*, CBA Res Rep, **81**

IFA, 1999 *Standard and guidance for archaeological field evaluation,* Institute of Field Archaeologists

Mawer, A, and Stenton, F M, 1927 *The place-names of Worcestershire*, Cambridge University Press, London

Ragg, J M, Beard, G R, George, H, Heaven, F W, Hollis, J M, Jones, R J A, Palmer, R C, Reeve, M J, Robson, J D, and Whitfield, W A D, 1984 *Soils and their use in midland and western England*, Soil Survey of England and Wales, **12**

Soil Survey of England and Wales, 1983 Midland and Western England, sheet 3, scale 1:250,000 + *Legend for the 1:250,000 Soil Map of England and Wales (A brief explanation of the constituent soil associations)*

Stace, C, 2001 (2nd Edition) *New Flora of the British Isles*, Cambridge University Press

Thorn, F, and Thorn, C, 1982 *Domesday Book - Worcestershire*, Chichester

Figures

Appendix 1 Trench descriptions

Trenches 1 to 11

Site area: Area A

Maximum dimensions: Length: 50m Width: 1.8m Depth: 0.4m

Orientation: see Figure 2

Main deposit description

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
--000	Topsoil	Medium beige/brown clay silt with moderate compaction. Contains occasional small to medium sized ovoid pebbles and a few flecks of charcoal. Cut by several modern field drains.	0-0.28m
--001	Subsoil	Medium pinkish-brown moderately compacted silty clay, with occasional small to medium ovoid pebbles. Also cut by field drains.	0.28m-0.36m
--002	Natural	Very compact red/orange clay with veins and patches of grey clay, some manganese mottleing, and occasional small to medium ovoid pebbles. Where this clay has been subject to water-logging the clay is grey. Cut by field drains. Typical Mercia Mudstone deposit.	0.36m-not excavated

Features/Other deposits:

Trench 1

1003 : Shallow depression caused by grubbing up of hedgerow

1004 : Friable fill, mid-brown silty clay

Trench 5

5003: U-shaped gentle sided field drain cut

5004: Orange-brown silty clay with fired clay, stone concentration in middle

5005: Compact light brownish-grey clay deposit comntaining flint and occasional small stone pebbles and charcoal flecks

5006: As above, second sample of amorphous, tree-throw-type feature (not numbered)

5007: Possible land drain or drainage cut

5008: Light grey compact clay fill of 5007

5009: Another poorly defined V-shaped shallow cut, again possible drainage feature

5010: Orangey-grey clay fill of 5009

Trench 6

6003: Shallow sub-circular cut with poorly defined edges, interpreted as tree/shrub-throw

6004: Grey-brown silty fill of 6003

6005: Cut of field drain (like 5003, above)

6006: Compact mid-grey/brown silty clay fill of 6005

6007: Straight-sided cut of modern field drain

6008: Redeposited natural fill of 6007

Trench 7

7003: Cut of grubbed up hedgerow (like 1003, above)

7004 : Friable brown silty clay fill of 7003

7005: Cut of infilled field drain (like 5003 and 6005, above)

7006: Compact mid-grey/brown silty clay fill of 7005

Trenches 12, 13, 20-22, 25-27, and 38

Site area: Area B

Maximum dimensions: Length: 50m Width: 1.8m Depth: 0.28m

Orientation: see Figure 3

Main deposit description

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
--000	Car parking surface	Aggregate levelling material and hard-core base for car parking, laid over terram backing	0-0.25m
--001	Natural	Very compact red/orange clay with veins and patches of grey clay, some manganese mottleing, and occasional small to medium ovoid pebbles. Where this clay has been subject to water-logging the clay is grey. Cut by field drains. Typical Mercia Mudstone deposit.	0.25m-not excavated

Trenches 14-19, 23-24, 28-37, and 39

Site area: Area B

Maximum dimensions: Length: 50m Width: 1.8m Depth: 0.30m

Orientation: see Figure 3

Main deposit description

Context	Classification	Description	Depth below ground surface (b.g.s) – top and bottom of deposits
--000	Rugby pitch	Turf then sandy clay improved playing area	0-0.2m
--001	Subsoil	Reddy brown sandy clay subsoil. Very compact red/orange clay with veins and patches of grey clay, some manganese mottleing, and occasional small to medium ovoid pebbles. Where this clay has been subject to water-logging the clay is grey. Cut by field drains. Typical Mercia Mudstone deposit.	0.2m-0.25m
--002	Natural	Very compact red/orange clay with veins and patches of grey clay, some manganese mottleing, and occasional small to medium ovoid pebbles. Where this clay has been subject to water-logging the clay is grey. Cut by numerous drains. Typical Mercia Mudstone deposit.	0.25m-not excavated

Features/Other deposits:

Trenches 23, 24 and 29

--003 : Red-brown clay fill of cut –004, some oval pebbles and coal

--004 : U-shaped cut with gently sloping sides initially, field drain

Appendix 2 Technical information

The archive

The archive consists of:

0	Context records AS1
0	Fieldwork progress records AS2
2	Photographic records AS3
0	Colour transparency film
0	Black and white photographic films
101	Digital photographs
1	Drawing number catalogue AS4
0	Context number catalogues AS5
0	Matrix sheets AS7
0	Context finds sheets AS8
1	Sample record AS17
3	Levels record sheets AS19
12	Abbreviated context records AS40
21	Trench record sheets AS41
12	Scale drawings on 3 A3 sheets
1	Box of finds
1	Computer disk

The project archive is intended to be placed at:

Worcestershire County Museum
Hartlebury Castle
Hartlebury
Near Kidderminster
Worcestershire DY11 7XZ
Tel Hartlebury (01299) 250416