

Ormiston Bushfield Academy, Peterborough

An Archaeological Evaluation



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Summary

Evaluation trenches at Ormiston Bushfield Academy, Peterborough were requested by Peterborough City Council in order to assess the archaeological impact of proposed development within part of the associated playing fields. Four trenches totalling 180m in length revealed features associated with the medieval and post-medieval agricultural use of the land as well as demonstrating the impact of late 20th century landscaping of the area.

Introduction

Between the 13th and 15th of July 2009 the Cambridge Archaeological Unit (CAU) undertook a programme of archaeological evaluation on behalf of Peterborough City Council. The evaluation was carried out within land adjacent to Ormiston Bushfield Academy, Peterborough (centred on NGR 515194/295631) prior to proposed redevelopment. The evaluation follows a detailed desktop assessment of the PDA (Standring 2008), and was carried out in accordance with a specification of works from the Peterborough City Council Archaeology Service

Location, Topography and Geology

The school and its grounds are located approximately 4km southwest of the historic centre of Peterborough within the historical parish of Orton Waterville (Fig 1). The parish of Orton Waterville contains over 1,399 acres of land and is separated from Northamptonshire by the River Nene.

The underlying geology for the wider school site consists of banding of Kellaways Clay, Cornbrash and Blisworth Clay at approximately 20m OD, in marked contrast to the gravel terraces found to the west of the PDA. Within the trenching area there was a mixed geology comprising clay with gravel banding. At the time of evaluation the PDA was in use as a sports field associated with the school and Bushfield Sports Centre, with marked football, rounders and mini-football pitches on a very flat, regularly mowed field.

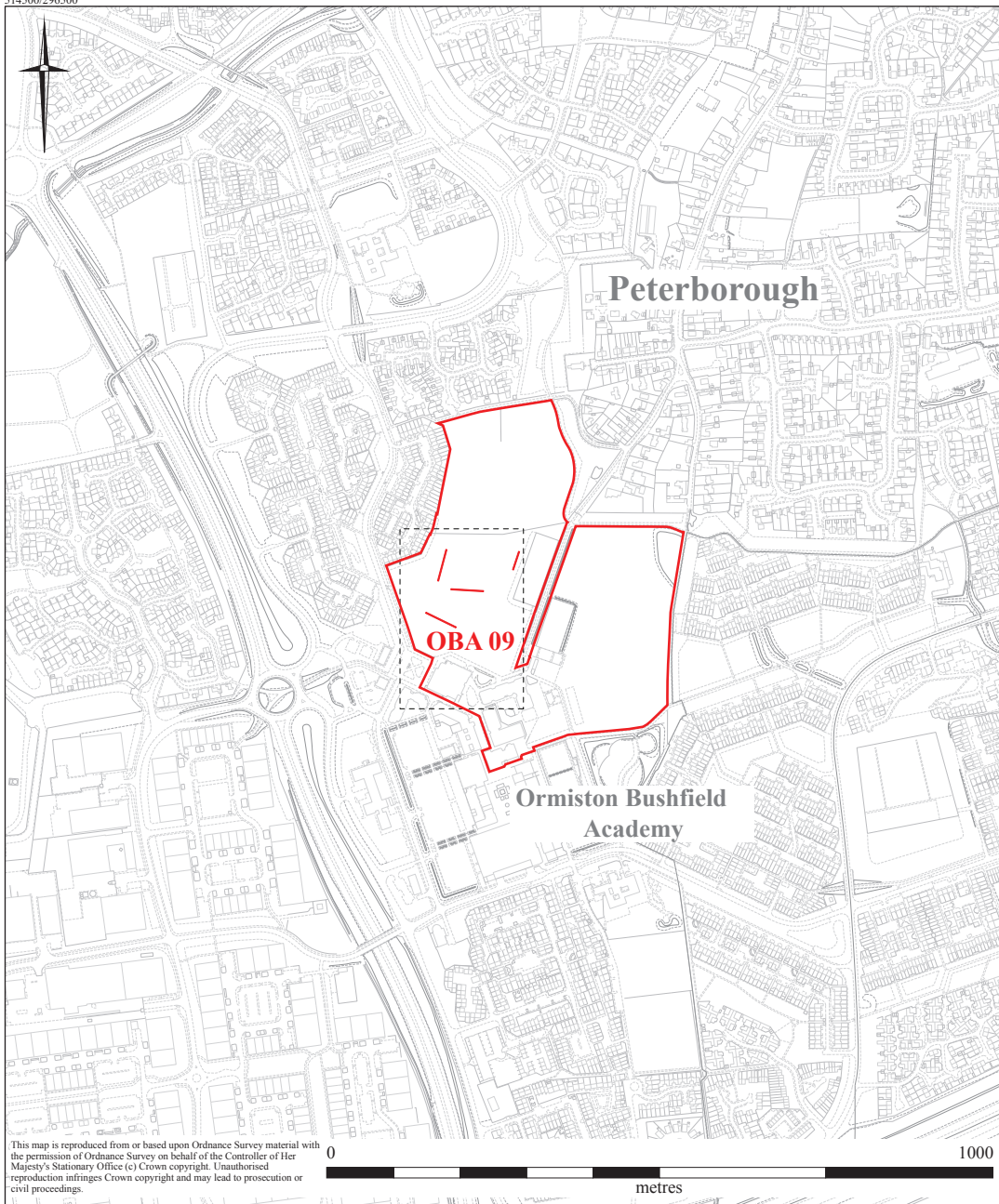
Large areas of former agricultural land remain as grassed playing fields, occupying circa 70% of the wider school grounds and are presumed to have had a low level of disturbance during construction of the school.

Archaeological and Historical Background

The most detailed historical account of the area summary is derived from the *Victoria County History* (Page *et al.* 1936) and a detailed study of the known archaeology in and near Bushfield Community College has been compiled during a previous desktop assessment of the PDA (Standring 2008).



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Figure 1. Location map.

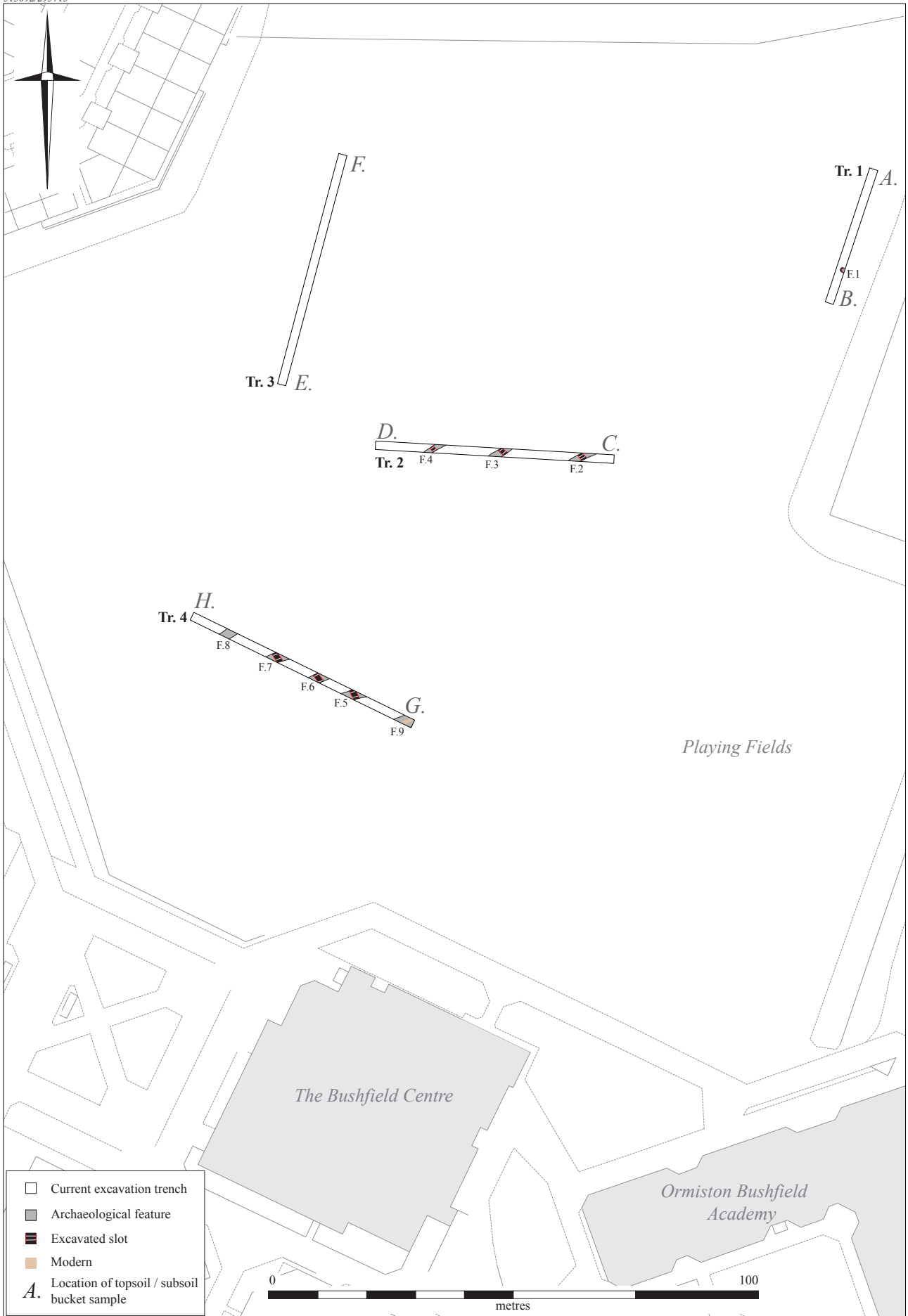


Figure 2. Archaeology within trenches.

Prehistoric

There is no documentary evidence for prehistoric activity within the boundaries of the trenching site or the wider school grounds. However, there are known prehistoric elements from the wider landscape, generally relating to well-drained gravel terraces in the vicinity. A Scheduled Ancient Monument comprised of five Bronze Age ring ditches is situated 500m to the north-west (HER 01436) and evidence of a possible nearby Bronze Age settlement was found during an archaeological evaluation of Matley School in Orton Brimbles (HER 50544). Further evidence of widespread Bronze Age activity in this zone was provided by evidence of a possible degraded Bronze Age ring ditch on the East of England Show site (HER 50651).

Evidence of settlement in the wider vicinity is recorded from a series of undated enclosures identified from cropmarks, (dated at prehistoric through morphology) which comprise Scheduled Ancient Monument 33359 (HER 01931). The extensive gravel quarrying that is recorded to the west of Orton Waterville village led to the discovery of Neolithic pottery associated with pits, Bronze Age Burials and Iron Age pottery. All finds were made by noted local antiquarian G. Wyman Abbott some time before 1932 and indicate a strong prehistoric presence on this gravel terrace (Standring 2008)

Romano-British

There are no records of Roman activity within the boundaries of the trenching area or wider school grounds. However, stray finds of Roman pottery are known from the wider vicinity, such as that of a Roman Dish found in the vicinity of Orton Waterville (exact provenance unknown, HER 07858) as well as the finds made by G. Wyman Abbott in quarries just to the west of Orton Waterville village. Known settlement includes stone buildings from the playing fields of Orton Longueville School some 1km to the north east (Standring *ibid*).

Late Iron Age and Early Romano-British settlement has been excavated circa 1km to the south west of the PDA in Orton Longueville (Mackreth 2001), dating between the 2nd century BC and the 4th century AD. The potential of the wider Nene valley for Roman activity is well documented, it containing major settlement foci, military structures and rural farmsteads (Standring *ibid*, RCHME 1969)

Anglo-Saxon and Early Medieval

Anglo-Saxon remains found during excavations at 21 Cherry Orton Road (some 600m from the limits of the PDA) indicate that Orton Waterville may have been continually occupied since at least the 6th/7th centuries (Wright 2004). This excavation located an Anglo-Saxon *Grubenhaus* from an early phase of settlement as well as pits, post holes, and property boundaries from the Middle and Later Saxon periods. Further Anglo-Saxon remains were found from the quarries to the east of Orton Waterville in the early twentieth century. These finds were also assigned to the 6th and 7th centuries and include ubiquitous finds of spindle whorls, pottery and bone combs (Standring

ibid, RCHME 1969). These finds suggest that the focus for Saxon activity may have been on the gravel terraces in the centre and to the east of the current village.

Later Medieval

The origins of the manor of Orton Waterville or Cherry Orton can be traced back to a grant of five hides of land at Orton mentioned in a charter of King Edgar to Peterborough Abbey. In the reign of Edward the Confessor five hides of land in Orton also formed part of the Abbey manor of Alwalton, but post-Conquest this land was granted to a military sub-tenant Angsered who was an ancestor of the Waterville family which ultimately gave the area its name. However, in 1086 part of this land was held by charter to the Bishops of Lincoln. William son of Angsered was succeeded by Geoffrey, then by Robert de Waterville, then by Guy de Waterville in 1275. In 1395 the manor passed to Sir William Thorpe. Before 1469 the manor was in the possession of John Tiptoft, Earl of Worcester. However, the earl was beheaded in 1470 during the short restoration of King Henry VI. Soon afterwards the manor came into the hands of Laurence Bothe, Master of Pembroke College, Cambridge and later Archbishop of York (1476). On his death in 1480 the manor was conveyed to Pembroke College.

The church of St. Mary, Orton Waterville, although not mentioned in Domesday (1086), appears to have been in existence as a stone church with a north aisle in the 12th century. This appears to have been rebuilt towards the end of the 13th century, the chancel arch being rebuilt between 1300-1310, the porch and aisles in 1330. The belfry was added circa 1500 and the chancel completely rebuilt in the 17th century upon the old foundations. The nave roof was replaced in 1753 and other repairs carried out during the 19th and early 20th centuries. Inside the church there is a surviving 1300 plain octagonal font, a 17th century Communion table said to have come from Great St. Mary's Church in Cambridge, a 16th century priest's desk and seat in the chancel and 17th century church plate.

Later medieval settlement at Orton Waterville is attested by the documentary evidence contained within the *Victoria County History* (Page *et al* 1936). The major part of the extant Church dates from the 13th and 14th centuries. A find of a medieval pot beneath the floor of a Post-medieval house at 46 Cherry Orton Road does suggest continual occupation along this road and may show the reconstruction of houses on the same plots over many hundreds of years. The modern village contains a large number of Post Medieval buildings along Cherry Orton Road, many of which date from at least the 17th century. On the north western boundary of the PDA a former farmhouse and barn are inscribed with the date '1682'. Situated on the edge of fields with preserved medieval ridge and furrow, it is likely that these buildings reflect the southern extent of Orton Waterville in the Post-medieval period.

Evidence of the origins of the place names of Orton Waterville and the nearby Orton Longueville suggest a development from earlier name of Orton (from Old English *uferra* and *tun*) meaning 'higher farmstead' or 'farmstead near a ridge or bank' (Mills 1991, Ayto and Crofton 2005) with the familial suffixes relating to the de Watervilla and de Longavilla families and does indeed support the notion of Anglo-Saxon occupation prior to later medieval reorganisation.

Post- Medieval

The wider area of the school site is characterised by playing fields which include elements of Post-medieval field boundaries, first mapped in detail by William Custance in 1809 (see Standing 2008, figure 4.). The survey was undertaken at the time of enclosure of the land, and the majority of the site was divided between land allotted to Earl Fitzwilliam, George Augustus Palmer and a series of smaller land owners from Orton Waterville. The eastern part of the school site conforms to field boundaries which are extant in 1809, and the public footpath formerly known as 'New Road' bisects the study area. This road clearly continues under the area of modern school buildings. The date of this road is not known, but is most likely to be Post-medieval in date, having been built to join the main street in Orton Waterville (Cherry Orton Road) rather than being a seamless continuation of this route way. The study area is now enclosed by the urban spread and development of Peterborough that has linked the villages of Orton Waterville and Orton Longueville.

The agricultural use of the area in the medieval and Post-medieval periods is well attested by the cartographic sources (Standing 2008), with remains of cultivation features being recorded by air photo study (Palmer 2008).

However, apart from traces of such ridge and furrow cultivation, no further remains are known. The nature of medieval open field cultivation around Orton Waterville has previously been summarised as three large open fields: Ham, Bush and Church fields (RCHME 1969) the extent of which can be traced by the air photo study and a note in the Historic Environment Record (HER 0914).

Methodology

Following on-site consultation with Ben Robinson, City Archaeologist of Peterborough City Council, a total of 4 trenches were excavated to a combined length of 180m by a 360° tracked digger, under constant archaeological supervision, using a 1.8m wide trenching bucket. Based on initial results, a reserve contingency of 20 metres of trenching was not used.

The turf, topsoil and subsoil were stripped in order to expose the underlying archaeology and separated to facilitate reinstatement. Trenches were located in order to give an even coverage of the footprint of a proposed building and to avoid extant sports pitches and a buried electricity cable. Excavation of archaeological features involved half-sectioning by hand, all identified discrete features (pits and postholes), and one metre slots were excavated through linear features. All trenches were planned at a scale of 1:50 and sections at 1:10. Recording was conducted using the CAU modified Museum of London system. Archaeological feature numbers are referred to in the text by the prefix **F.**; context numbers are referred to in bracketed type, e.g. [001] for cuts and fills.

Following the excavation of all sub-surface features, a programme of 'bucket-sampling' was undertaken; involving the hand searching of 100 litres of top and sub-soil at a location of 5m from both ends of each trench. Such searches have been demonstrated to give an indication of 'background noise' of different types of

archaeological activity and locate prehistoric remains which may not survive as cut features. All material culture from each search area was collected.

All work was carried out in strict accordance with statutory Health and Safety legislation and within the recommendations of SCAUM (Allen and Holt 2002) and was monitored by Ben Robinson, City Archaeologist of Peterborough City Council. The site code was OBA 09.

Results

A total of 180m of trenching was opened within the PDA; details of which are summarised by table 1.

Trench No.	Length (m)	Orientation	Turf (m)	Topsoil (m)	Subsoil (m)	Total Depth (m)	Geology
1	30m		0.1m	0.36m	0.13m	0.59m	Clay with Gravel Banding
2	50m		0.1m	0.21m	0.12m	0.43m	Clay with Gravel Banding
3	50m		0.1m	0.21m	0.14m	0.45m	Clay with Gravel Banding
4	50m		0.1m	0.13m	0.11m	0.34m	Clay with Gravel Banding

Table 1 trench descriptions (all depths represent averages throughout length of trench).

Cut features were identified and excavated within trenches 1, 2 and 4. No features were present within trench 3.

Trench 1

Trench 1 was located within the north-eastern corner of the Proposed Development Area (PDA), and was aligned north-east to southwest adjacent to a tree-line that marked the eastern limit of the evaluated area. The turf layer of trench 1 was shallow and consistent with that covering the rest of the field. The topsoil was a mid to dark grey-brown moderately compacted silty-clay with frequent angular and sub-angular stones and gravels and frequent charcoal flecking. The subsoil increased in depth from 0.25m within the northern end to 0.45m within the southern end of the trench. Frequent root disturbance was identified, potentially associated with the adjacent boundary. Subsoil was a mid to light brown firm to moderately compacted silty clay with very occasional gravels and infrequent charcoal flecking at a consistent thickness of 0.13m throughout the trench.

A single possible pit (F.1) was located within the southern-western end of trench 1. F.1 was partially exposed within the eastern baulk of the trench and could not be fully revealed due to the close proximity of the eastern boundary trees. F.1 was sub-rounded in plan, a maximum of 0.86m in width and 0.16m in depth. The cut [002] was gradually sloping, with slightly concaved sides and gradually concaved base. A single fill [001] was a mid to dark grey-brown compacted sandy-silt with very infrequent angular and sub-angular stones and gravels and infrequent charcoal flecking throughout. Small fragments of degraded and unidentifiable animal bone were recovered from the fill.

Trench 2

Trench 2 was located centrally within the evaluated area, and aligned east to west. The turf layer was a consistent 0.1m in thickness and overlay a topsoil of mid to dark grey-brown moderately compacted silty clay with infrequent small stones and very infrequent charcoal flecking, which increased in depth from 0.16m within the eastern end and 0.26m within the western end of the trench. Subsoil within trench 2 was a mid orangey-brown, firm to moderately compacted sandy-silt with occasional angular and sub-angular gravels and very infrequent charcoal flecking of a consistent thickness of 0.12m throughout the length of the trench.

Three shallow linear furrows, aligned north-east to south-west were excavated within trench 2. **F.2** within the eastern end of the trench was 1.04m in width with a cut [004] of gradually sloping, generally straight sides leading to an irregular, undulating base a maximum of 0.08m in depth. A single fill [003] of mid orangey-brown firmly compacted sandy-silt with infrequent gravel inclusions was identified within F.2, likely to be congruent with the sub-soil. The second furrow, **F.3** was located 14m to the west of F.2 and was 1.2m in width with a cut [006] of irregular, very gradually sloping sides leading to an irregular, flat base a maximum of 0.04m in depth. A single fill [005] of mid yellowy-brown, firmly compacted sandy-silt with infrequent angular and sub-angular gravels, appeared to be identical to the subsoil-filled F.3. The third furrow, **F.4** was located 11.5m west of F.3 and was 0.9m in width with a cut [008] of gradual, irregular sloping sides leading to a flat, undulating base to a maximum of 0.05m in depth. A single fill [007] of mid orangey-brown firmly compacted sandy-silt with infrequent gravel inclusions, likely to be the same as the sub-soil. No material culture was recovered from within F.2, F.3 or F.4.

Trench 3

Trench 3 was located within the north-west corner of the PDA, aligned north-east to south west and contained no archaeological features. The turf layer was 0.1m in thickness, consistent with the rest of the field, whilst a topsoil deposit of mid to dark brown, moderately compacted silty clay with infrequent angular and sub-angular stones and very infrequent charcoal flecking became thicker from 0.16m in depth at the northern end to 0.26m in depth at the southern end of the trench. A subsoil deposit of mid orangey-brown, firmly compacted silty clay, consistent with the other excavated trenches was identified at a thickness of 0.12m throughout the trench.

Trench 4

Trench 4 was located along the southern boundary of the PDA, aligned north-west to south-east adjacent to a modern car-park. Turf of 0.1m overlay a topsoil of mid to dark brown, moderately compacted silty clay with occasional angular and sub-angular gravel inclusions and very occasional charcoal flecking; the topsoil was a consistent thickness of 0.13m throughout the trench. A subsoil deposit of mid orangey-brown compacted silty clay with occasional gravels and very infrequent charcoal flecking was identified at a consistent thickness of 0.11m throughout the trench.

Three furrows, a possible furrow and a modern service trench were identified within trench 4; all aligned north-east to south-west. **F.9**, within the westernmost end of the

trench was 2.75m in width, filled with dark grey silty clay with frequent nodules of re-deposited top and subsoil and a central fill of compacted angular gravels. Whilst it is possible that F.9 did indeed represent a furrow, it was likely to have been re-used as the trench for a modern service and was not excavated. Some 9m to the west of F.9 was **F.5**, 2.1m in width; the cut [009] was irregular with moderately steeply sloping sides to an irregular, undulating base a maximum of 0.12m in depth. A single fill of light orangey-brown firmly compacted sandy-clay [010] was identified as being identical to the subsoil. Some 5m west of F.5 was furrow **F.6**, 2m in width; the cut [011] was irregular with gradually sloping, irregular sides leading to an irregular, undulating base a maximum of 0.18m in depth. Fill [012] was compacted, light yellowy brown silty clay with occasional gravel inclusions, similar to the subsoil. Some 6m west of F.6 was a third definite furrow, **F.7**; 2.1m in width the cut of F.7, [013] was gradually sloping irregular but generally straight sides to an undulating flat base a maximum of 0.13m in depth. A single fill [014] was light orangey-brown moderately compacted silty clay with frequent angular stones becoming more frequent towards the base and infrequent charcoal flecking which appeared congruent with the overlying subsoil. 8m to the west of F. 007 was a possible furrow (**F.8**), although unclear edges and a shallow base indistinguishable from the clay-gravel natural limited interpretation. An estimated width of approximately 2m was consistent with the other furrows within the trench.

Bucket sampling results.

Sample Point (Fig 2)	Trench	Topsoil/Subsoil	Material	Date	Quantity
A	1	Subsoil	Glass, Body-sherd	19-20 th century	1 sherd, 26g
A	1	Subsoil	Animal Bone (unidentified)	Undated	3 frags, 4g
C	2	Subsoil	Pottery, Black-glazed Red Earthenware	18-19 th century	1 Sherd, 71g
C	2	Topsoil	Tar/ Bitumen	19-20 th century	50g
H	4	Topsoil	Asbestos Pipe	20 th century	18g
H	4	Subsoil	Pottery, Abraded tile	14 th -17 th century	1 sherd, 12g

Table 2, location, type and quantity of finds from bucket sample, see figure 2

Very few items were recovered from the 100ltrs of topsoil and 100ltrs of subsoil sampled at each point (A-H). Several very modern items (three golf balls and a plastic toy coin) were located within the turf as it was being removed and were discarded. All items recovered from the subsoil were consistent with agricultural use, a single undiagnostic pottery sherd probably being evidence of field ‘manuring’ in the late medieval or early Post-medieval periods.

Discussion

The evaluation at Ormiston Bushfield Academy revealed six definite and two probable shallow, generally ill defined agricultural furrows (F.2, F.3, F.4, F.5, F.6,

F.7, F.8 and F.9) all aligned north-east to south-west. Although no material culture was identified which allowed a date to be attributed to the furrows, it is likely they are of medieval and / or post medieval origin. The orientation of the furrows appear to correspond with those previously identified by both study of early to mid 20th century aerial photographs (Palmer 2008) and by historic maps (Standing 2008) which suggest a pre-enclosure (1809) origin. The fill of the identified furrows was almost identical to that of the subsoil identified throughout the evaluated area and it is therefore likely that the medieval to post-medieval ceramics recovered from the bucket sampling of the subsoil within trench 4 are in fact contemporary with the development of the furrows.

The slightly different alignments of furrows within trenches 2 and 3 appear to correspond well with furrows identified from the aerial photographic survey (Palmer 2008) in fields to the east with the characteristic curvature often noted towards the end of a furlong or parcel (Hall 1982). The presence of a possible head, marking the edge of such a furlong has been identified within the aerial survey immediately south-west of the evaluated area (Palmer 2008).

The variations in depth of geological 'natural' within the trenches allowed the reconstruction of the topography of the PDA prior to construction of the school and sports fields. A noticeable slope was identified from the highest point at the north-eastern end of trench 3 downwards in both a south and eastwards direction, being deepest within trench 1. An almost consistent depth of subsoil (average 0.11-0.13m) which can be attributed as being associated with the medieval and Post-medieval agricultural activity was located throughout the site, mirroring the geological topography. The depth of topsoil throughout the site varied more noticeably, seemingly in contraposition to the 'natural' and subsoil deposits, being thicker where the 'natural' was deepest and thinner where the geology was higher. This potentially suggests a deliberate programme of the lowering of topsoil within the highest areas and consolidation of the lowest. The complete absence of visible furrows from the topsoil and recovery of such modern materials as asbestos piping and bitumen from the topsoil during the bucket sampling (table 2) certainly suggests this was undertaken during the construction of the Community College, as does the consistently thin, compact and well cared for turf layer identified throughout the site. Trench 1 was shown to have the deepest overlying deposit of topsoil, which contained a higher quantity of charcoal and gravels than trenches 2-4 as well as a higher level of root disturbance from the adjacent boundary. It is indeed feasible therefore that given the depth of the 'natural' within trench 1 a larger proportion of the topsoil represents original agricultural soil, sealed by later addition of topsoil imported from elsewhere on the site.

Feature F.1 within trench 1 was sealed by the subsoil and potential 'original' soil horizon which although undated by material culture was therefore at least contemporary with the medieval and post-medieval agricultural activity identified within trenches 2 and 4. The small fragments of bone, likely to be bovid within the fill of F.1 showed high quantity of abrasion and breakage prior to final deposition, suggesting a period of exposure, perhaps within a cultivation soil.

Acknowledgements

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