Ridley Hall, Cambridge
An Archaeological Evaluation

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Summary

Three trenches were excavated in advance of an application for proposed construction works in the college grounds of Ridley Hall, Cambridge (TL4453 5782). Archaeology was encountered in all three trenches from the early Neolithic through to the mid-eighteenth century. Prehistoric archaeology was mainly residual or composed of small finds; extensive human activity from the Late Iron Age/Romano-British and Early Roman periods was represented by two large ditches enclosing a cluster of circular pits, all containing high quantities of settlement material. Post-medieval remains included a double-walled linear post structure, foundation deposits associated with the construction of the hall, and built-up ground layers containing substantial artefactual remains.
Introduction

In anticipation of a planning application for proposed development work within the grounds of Ridley Hall to the southwest of Cambridge city centre, the Cambridge Archaeological Unit (CAU) carried out an archaeological evaluation between 7\textsuperscript{th} and 10\textsuperscript{th} of September 2009 (Figure 1). The work was undertaken in accordance with an archaeological specification (WSI) by the CAU (Dickens 2009) following a Design Brief for archaeological evaluation issued by the office of Cambridgeshire Archaeology Planning and Countryside Advice (Gdaniec 2009).

Prior to the construction of the Hall in 1879 (declared open in 1881), the land was an open meadow in the Parish of St. Giles (Bullock 1941: 143). The architect, Mr. Charles L. Lynch, had originally proposed that the chapel was to be built on the southern extent of the Hall, although it was later established to the north (ibid: 157). The original proposal would have impacted on the footprint of the currently proposed development area (PDA) that at present is used as a grass lawn within the Principal’s Garden (Trenches 1a and 1b), extending to the grass lawn adjacent to the Lecture Hall (Trench 2). No previous archaeological work has been carried out within the Hall’s grounds, but a number of excavations and investigations have revealed extensive evidence for archaeological potential within the area, with material from the Mesolithic through to the Medieval period. In particular, settlement and cemetery evidence for the Romano-British and Saxon periods has been identified to the north and south of the PDA.

Site Location

The site is located upon second terrace river gravels 1.5m-2m above the floodplain of the River Cam, the bank of which lies approximately 330m to the east. The site extends over an area c.1590m\(^2\) at TL4453 5782, with a height of c. 9.4m OD.

Archaeological Background

An outline of archaeology within the vicinity of the PDA has recently been presented elsewhere (Appleby and Webb 2009; Webb et al. 2006), and the reader is directed to this resource for further detailed information. A brief background to the most relevant archaeology in the area is described here.

Prehistoric

The gravel terraces of the River Cam appear to have been an attractive location for prehistoric inhabitation (Fox 1923), yet little Stone Age activity has to date been traced. However, early activity in the form of individual or residual finds has been noted from the area local to the PDA. During excavation of the site of the Law Faculty Building about 230m to the northwest, a single Mesolithic flint scraper was recovered from the spoil of an evaluation trench positioned in an area of substantial disturbance by post-Medieval quarrying (Dickens 1993). A Neolithic flint was found in a similarly disturbed context further north on West Road (Collins 2009), and a Neolithic axe is reported to have been found 100m to the east at The Loft on Malting Lane in Newnham (Browne 1974). An abraded fragment of Beaker pottery was noted
Figure 1. Location Map
during an evaluation of Selwyn College gardens (Regan 2003), and the nearest certain Bronze Age feature is a single pit at the King’s Garden Hostel on West Road (Dodwell 2001), along with a stray find of a rapier from the area around Grange Road also having been recorded (Webb et al. 2006: 7). Following this, Late Iron Age-Romano-British settlement activity emerges beyond the peripheries of the PDA locale to both the north and the south (ibid.; Gdaniec 1992b; Gibson 1996). To the south of the PDA, yet deserving mention, is the site of a richly furnished burial, discovered in 1903 at Newnham Croft. Situated within the grounds of St Mark’s Church, Barton Road, this burial dates to the 3rd/2nd century BC. The high quality of the accompanying horse trappings, brooch, bracelet and bronze box suggest this was an individual of high status (Fox 1923).

Roman

The most prevalent archaeological presence recorded around the PDA is that of the Roman and Saxon periods, with settlement and cemetery evidence each represented. To the southwest of the PDA limited excavations revealed evidence for an enclosed Roman farmstead occupied over a period extending from the 1st through to the 4th centuries AD at the Newnham College Buttery (Webb et al. 2006). This appeared to be split between two distinct phases of early and late Roman. In addition, collections within the Museum of Archaeology and Anthropology include a large quantity of Roman pottery and other artefacts found within the grounds of Newnham College, some of which were possibly extracted during the construction of air-raid shelters in 1939. With associated burials also referenced in the collections, the significance of the site’s proximity to the PDA is unquestionable.

Both cases described above would indicate that Roman settlement on the southern bank of the Cam is greater than has previously been assumed (contra. Alexander and Pullinger 1999), suggesting the probability of several small settlements along the hinterland of the Roman town (Hall 2001; see also Evans 2008, Chapter 3). This is increasingly becoming evident to the west of Cambridge with, for example, the substantial 1st – early 5th century settlement found at Vicars Farm off Madingley Road (Lucas and Whittaker 2001) and northwest of Cambridge between Madingley and Huntingdon Roads (R. Newman pers. comm). Further indication of settlement patterns to the south is provided by a number of sources of evidence. A gravel spur to the east of the River Cam has produced a substantial assemblage of early and later Roman settlement debris (Newman 2009: 61-9). To the west of the Cam, in the vicinity of the PDA, early Roman activity has been observed along Grange Road at Burrell’s Field (Gdaniec 1992b). Furthermore, observations during evaluation of works at Selwyn College, approximately 380m to the northeast of the PDA, located ditches of probable Roman provenance suggested to have been part of a system of field partition within an agricultural landscape (Mackay 2002; Regan 2003). Such a pattern of agriculture is likely to have been of some substance, with manuring of fields postulated at the Institute of Criminology on the Sidgwick site (Monteil in Armour et al. 2003: 13) though the quantity of material perhaps suggests more than this. With associated finds of small quantities of Roman tile and pot at Selwyn College, ‘the proximity of occupation beyond outfield demarcation’ has been postulated in this instance (Mackay 2002: 7). This view may be further supported by the course of Akeman Street which is believed to run on a northeast-southwest alignment through the west of King’s Garden Hostel on Grange Road (Evans1991a,
1991b). Elsewhere, an east-west route has been speculated to possibly transect the land between Newnham Croft and Grange Road, crossing directly through Newnham College and the near vicinity of the PDA (Webb et al. 2006: 31-4). However, there remains considerable doubt regarding this hypothesis which has been further tested in the current programme of evaluation.

_Saxon/Medieval_

A 7th century Saxon settlement was excavated at the Institute of Criminology on the University’s Sidgwick campus 175m to the north of Ridley Hall, with a 6th – 7th century inhumation cemetery located at the King’s Garden Hostel at approximately the same distance (Armour et al. 2003; Dodwell et al. 2004). Additional isolated artefacts found across a considerable area outside the investigations suggest that the settlement follows a linear alignment, but its extent and character have yet to be confirmed. Early and Middle Saxon activity was also described from evaluations at No.5 West Road, although its character, suggestive of agricultural land use on the margins of settlement, was unclear (Mackay 2002). Further Medieval activity has also been found in the vicinity of Newham Croft; within Newnham House evidence for Medieval pits, pottery, a possible pond and surviving waterlogged leatherwork was found during recent evaluation work (Gdaniec 1992a), with evidence of Medieval activity dating from the 14th century also discovered during an evaluation at 34-38 Newnham Road (Hutton & Timberlake 2006). Observations of a Medieval ploughsoil have been made on a number of occasions throughout the study area (e.g. Webb et al. 2006: 19), indicating open agriculture periodically interspersed with localised settlement.

_Methodology_

Three trenches were excavated using a mini digger with 90cm toothless bucket, to a width of 1.8m and individually specified lengths. All archaeological features and deposits were excavated by hand and recorded using the CAU modified version of the MoLAS recording system (Spence 1990), and were digitally photographed. Trenches and features were planned at a scale of 1:50, with sections and the sequence of deposits planned at 1:10. The trenches were fixed to the OS grid using a Global Positioning System. Progress of the evaluation was monitored by the County Archaeological Officer (CAO) of the Cambridge County Council. The site code was RDH09.

_Results_

_Trench 1_

Located in the Principle’s Garden, Trench 1 was 13.5m x 1.8m orientated north - south (Trench 1a) with a westerly arm approximately mid way along measuring 7.5m x 1.8m (Trench 1b). The natural sandy gravels were encountered at a gradual decline from 0.55m depth at the southwest to 0.7m depth in the northeast. A thin turf-line of no more than a centimetre overlay a 0.38m thick topsoil [039] of fairly soft dark grey silty loam representing a mixed garden soil with relict ploughsoil; this contained high quantities of fragmented ceramic (55), tile (7), clay tobacco pipe (14), glass (4) and
Figure 2. Trench Plan.
oyster shell (11, two with square perforations) from the early 16th century through to the mid-19th century, but no structural elements. Of interest were three sherd of blue-white transfer print ceramic bearing the crest and entrance visage of King’s College. Underlying this deposit was a fairly soft and fine light grey brown sandy silt subsoil [038] with occasional charcoal flecks marking the final sequence above the natural sandy gravels.

The latest features in Trench 1 were five square or rectangular postholes (F.3, F.4, F.5, F.6, F.7) forming two parallel alignments of posts oriented northwest-southeast. This is potentially the remnant of a single wall forming one side of a linear timber structure. The external framework, F.3 and F.4, supported by evenly spaced posts of 0.2-0.3m diameter approximately 2m apart, was conjoined with an internal supporting framework 1m inside the outer post line comprised of smaller (c. 0.1-0.2cm diameter) posts (F.5, F.6 and F.7) spaced at 1.5m intervals. Pottery retrieved from F.4 in the outer post alignment indicates a date of post-1760. No other features appear to be associated with this structure.

The densest concentration of archaeological features is formed by two ditches (F.1 and F.2) and a cluster of pits (F.9, F.17, F.18 and F.19). Stratigraphically the relationship between ditches F.1 and F.2 is unclear, although a functional and chronological distinction may be inferred from a comparison of the two ditches: the shallow profile of F.1 to a depth of 0.26m strongly contrasts with the sharper profile of F.2, the depth of which was not ascertained but lies in excess of 0.51m. The respective orientation of F.1 and F.2 would also suggest that they may converge in the northwest corner of the PDA. F.1 follows a northwest-southeast alignment running between both Trench 1a [009] and Trench 1b [002], whereas F.2 follows a north-south orientation along Trench 1b. A slight curvature was identified in the alignment of F.1, roughly enclosing the northeast area of Trench 1. A significant quantity of settlement debris was recovered from both ditches F1 and F2, particularly from the uppermost levels of the primary fills [001], [006] and [008], with the exception of pottery which was more readily located towards the cut of the ditches in the lower levels of [001] and [010]; this debris included animal bone, lava quern fragments and burnt stone, pottery and fired clay (including hearth material and floor tile). The pottery recovered from these features presents the best means of a chronological distinction: F.2 may be broadly assigned to a Late Iron Age/Romano-British phase, whereas ditch F.1 falls within the Early Roman period, approximately 1st – 2nd centuries AD. This sequence is discussed further in the discussion below. The possibility of a third ditch, F.8, oriented northeast-southwest and cut by both ditches F.1 and F.2, was indicated by a clear line of a dark grey brown sandy silt of approximately 0.08m in depth. However, lacking any irrefutable cut the deposit of F.8 may instead represent a secondary buried sub-soil horizon within a slightly hollowed ground surface.

A cluster of pits (F.9, F.17, F.18 and F.19) to the north of Trench 1a were only revealed after several careful cleaning by trowel after a short period of weathering. They appear to range in size from 0.25m to 1.17m in diameter, and are tightly clustered within the northeast curve of the two ditches. Only pit F.9 was tested with a half-section against the eastern baulk edge of the trench. This proved to be much larger than anticipated from the surface, reaching 1.17m in diameter and 0.35m in depth, with three distinct fills [034], [035] and [036], all producing significant
quantities of additional settlement debris. The uppermost fill [034] was later cut by a post-medieval square post-hole, F.5, and the unexcavated pit, F.17, has also been cut by the larger square post-hole of F.4. As with ditch F.1, the pottery from pit F.9 indicates a date falling between the 1st – 2nd centuries AD, which may also be provisionally assigned to the remaining three pits.

Earlier prehistoric activity was encountered at the interface of the subsoil [038] and the natural gravels, or as residual inclusions within the fill of later features, particularly F.1, F.2, F.4 and F.9, and was solely represented by 8 flint blades or flakes, a scraper and a multi-platform core, each freshly displaying general technological affinity with late Mesolithic/early Neolithic industries, although the scraper may represent a later technology.

F.1 Ditch. Early Roman. Fill [001], cut [002]; and Fill [008], cut [009]. Fills [001] and [008] a soft and fine light greyish brown sandy silt with occasional small angular stones <5cm diameter. Oriented NW-SE. Cut [002] of width 0.9m, depth 0.25m with sharp upper break of slope, rounded concave sides and flat base. Cut [009] not excavated.

F.2 Ditch. Late Iron Age/Romano-British. Fills [006] and [010], cut [007]. Fill [006] a soft and fairly fine mid-greyish brown sandy silt with occasional small angular stones <10cm diameter; fill [010] a fine but slightly friable reddish brown silty sand. Excavated up to the baulk section. Oriented N-S. Width >1.2m, depth >0.51m with sharp upper break of slope, inclined straight sides running into baulk edge of trench; base not reached.

F.4 Post-hole. Post-Medieval. Fills [003] and [004], cut [005]. Fill [003] fairly soft mid-grey silty loam mixed with mid-orange silty sand; fill [004] a fairly soft mid greyish brown silty loam with very rare small angular and sub-angular stones <5cm diameter; slight compaction at base. Width 0.46m, depth 0.28m with sharp upper break of slope with combination of inverted and vertical straight sides towards a flat base. Rectangular in plan; oriented north-south.

F.5 Post-hole. Post-Medieval. Fill [040], cut [041]. Fill a fairly soft mid greyish brown silty loam with very rare small angular and sub-angular stones <5cm diameter; slight compaction at base. Width 0.21m, depth 0.08cm with sharp upper break of slope with vertical straight sides and flat base.

F.6 Post-hole. Post-Medieval. Fill [011], cut [012]. Fill a fairly soft mid greyish brown silty loam with very rare small angular and sub-angular stones <5cm diameter; slight compaction at base. Width 0.19m, depth 0.06m with sharp upper break of slope, inverted straight sides and a near flat, slightly undulating base; square in plan.

F.7 Post-hole. Post-Medieval. Fill [013], cut [014]. Fill a fairly soft mid greyish brown silty loam with very rare small angular and sub-angular stones <5cm diameter; slight compaction at base. Width 0.19m, depth 0.07m with sharp upper break of slope with combination of inverted and vertical straight sides towards a flat base; square in plan.

F.8 Post-hole. Post-Medieval. Fill [032], cut [033]. Fill fairly soft and fine dark grey brown sandy silt. Width >0.85m, depth 0.08m with an undefined cut with possible concave sides and flat base; oriented approximately NE-SW.

F.9 Pit. Early Roman. Fills [034], [035] and [036], cut [037]. Fill [034] a soft dark greyish brown silty loam with occasional charcoal flecks; fill [035] a fairly compact mid grey silty loam with inclusions of ash and charcoal with occasional small angular stones <5cm; fill [036] a compact mid-yellowish brown sandy silt with occasional charcoal flecks. Width 1.17m, depth 0.35m with a sharp upper break of slope, concave sides and flat base; circular in plan.

F.17 Pit. Early Roman?. Width 0.25m, circular. Unexcavated.

F.18 Pit. Early Roman?. Width 0.70m, circular. Unexcavated.
F.19 Pit. Early Roman?. Width 0.40m, circular. Unexcavated.

Trench 2

Set between the Moule Hole Lawn and the Lecture Hall Lawn, Trench 2 was opened with a north-south orientation measuring 1.8m x 9.5m. The depth of Trench 2, reaching up to 0.90m at the northern end, was over 0.20m greater than Trench 1 as a result of built-up ground consisting of a secondary, or upper, subsoil [027] and topsoil or garden soil [026] beneath the turf-line. These layers contained artefacts from the mid-19th century up to the present, and were superimposed upon a lower, or buried, topsoil [030] (again representing a mixed garden soil and relict ploughsoil) with artefacts from the late 16th to mid-19th century overlying a yellowish-brown charcoal flecked subsoil [031]. Separating these deposits was a 0.05m thick layer of fine yellowish white sandy chalk interspersed with occasional larger compact lumps of chalk [028]. This is interpreted as a temporary rubble layer associated with the construction of Ridley Hall and its enclosed gardens during the 1870s. This view is supported by a concrete surface, F.13, c. 0.06m thick resting directly upon [028] at the southern end of the trench for about 0.3m from the baulk edge. Two parallel square moulded recesses of 0.1m width, and a third square feature, F.14, of similar dimensions cut at a different angle, affirm the structural nature of the surface and its alignment with the foundation of the Hall. A pit, F.16, cutting through F.13 may similar be contemporary with the construction of the Hall, or a more recent intrusion. A 0.12m wide post-hole, F.12, filled with loose light yellow pebbly sand [024] was observed in section directly beneath the rubble layer [028], but could still be part of the same sequence as F.13.

Further post-medieval activity was represented by the terminus of a small east-west oriented ditch, F.11, cutting through the lower subsoil [031]. No datable finds were recovered, although small fragments of brick and charcoal flecks were present within the fill [019].

The continuation of a Romano-British sequence was observed in Trench 2 with a shallow ditch, F.10, 1m wide, positioned on an east-west axis. A small post-hole, F.15, 1m to the north of F.10, contained a non-diagnostic flint flake, and its contemporaneity to F.10 is unverified, but should not be discounted.

Although an unworked flint flake and blade were found in F.10 and F.15, they may be regarded as residual; otherwise no certifiable traces of prehistoric activity were identified.

F.10 Ditch. Romano-British. Fills [021] and [022], cut [023]. Fill [021] a compact mid grey silty loam with occasional charcoal flecks; fill [022] a friable and compact mid-orange silty sand mixed with mid-grey loamy (silt) sand. Oriented E-W. Width 1m, depth 0.23m with a sharp upper break of slope and rounded profile.

F.11 Ditch terminus. Post-Medieval. Fill [019], cut [020]. Fill a soft dark grey silty loam with fragments of brick and charcoal. Oriented E-W. Width 0.29m, depth 0.19m with a sharp upper break of slope and slightly concave sides towards a flat base.

F.12 Post-hole. Post-Medieval. Fill [024], cut [025]. Fill a loose light yellow pebbly sand. Width 0.12m, depth 0.35m with sharp upper and lower break of slope with vertical sides and flat base; square in plan.
Turfline

Built up ground

Rubble

Buried 'topsoil'

Figure 3. Sections
F.13  Foundation layer. Post-Medieval. Layer [029]. A compact mid yellowish white friable concrete deposit. Thickness 0.06m.

F.14  Post-hole. Post-Medieval. Width 0.11m. Unexcavated.

F.15  Post-hole. Romano-British?: Fills [015], [016] and [017], cut [018]. Fill [015] a fairly compact mid grey silty loam with inclusions of ash and occasional small angular stones <5cm; fill [016] a friable orange silty sand; fill [017] a soft light grey sandy silt with charcoal flecks and occasional small angular stones <3cm. Width 0.26m, depth 0.26m with a sharp upper break of slope with vertical straight sides and rounded base. Circular in plan.

F.16  Pit. Post-Medieval. Width >0.32m. Unexcavated.

Discussion

Prehistoric and Romano-British

Considering the relatively limited area of investigation within the PDA, the numbers of prehistoric flints recovered (12) may be considered fairly high. Although these are all either residual to their context of discovery, or else unstratified, their generally fresh condition points to disturbed localised activity, predominantly of the early Neolithic, and of an ‘intensification’ that is certainly greater than has previously been found in the proximity.

Sherds from at least six Late Iron Age vessels appear to have been incorporated into two separate contexts as residual inclusions (F.1 and F.9). Ditch F.2 also produced two sherds of probable Late Iron Age pottery, although it is less coherent as to whether or not these also represent residual inclusions based on the similarity of finds in both F.1 and F.2, as well as the aforementioned residuality of earlier material culture identified elsewhere. However, recovery of sherds from both upper [006] and lower [010] fills in F.2 presents a stronger degree of security for the context of the pottery finds. With this in mind, the remaining finds of bone, quern etc. from the upper limits of the upper fill [006] may be residual from later occupation (see below). Henceforth, a broad Late Iron Age/Romano-British date may be assigned through association to a number of other features deemed to be related throughout the local landscape (Figure 4). Furthermore, this process enables the placement of these additional features into a more composite chronological framework.

The connection of broader landscape features relies upon the comparison of ditch profiles and orientation since few material date markers have been retrieved in previous investigations. Ditch F.2 followed a north-south orientation with strongly sloping sides of moderate depth, possibly forming a V or sub-V profile. The same traits may be observed from similar ditches to the northwest of Ridley Hall, also thought to be of Late Iron Age/Romano-British date. Ditch [015] of the Selwyn College site runs northeast-southwest with steep sides of moderate depth and a concave base, or sub-V profile (Regan 2003), and at No.7 West Road ditch, F.2, displaying a similar profile, although slightly shallower than the others described here, also followed a northeast-southwest orientation (Collins 2009), although not directly on the same alignment as those from the Selwyn College and Ridley Hall sites. It is possible that this latter ditch is associated with a ditch (F.3) at the Newnham
College Buttery site, cut by a Roman enclosure ditch (Webb et al. 2006), but such a connection requires further investigation.

In Trench 2 at Ridley Hall, ditch F.10 also appears to be of a broad Romano-British date, although possibly superseding ditch F.2. Again, the east-west orientation of F.10 with narrow and shallow profile may be compared to features identified from previous investigations to the northeast of the PDA. Here an east-west line of three separate ditch slots, all thought to be potentially Late Iron Age or Romano-British in date, seem to join together into a single ditch: ditch [006] of the Selwyn College site (Hall 2003); ditch [008] from No.5 West Road (Mackay 2002); and ditch F.5 at No.7 West Road (Collins 2009).

Taken together, ditches F.2 and F.10 at Ridley Hall form part of a Late Iron Age/Romano-British landscape of discrete open land plots delineated by at least three northeast-southwest aligned ditches and two ditches oriented in an east-west direction. It is difficult to ascertain any chronological relationship between the two sets of ditches, although further investigation within the footprint of the PDA is likely to capture their crossing point. Clearly these insights suggest that a significant Late Iron Age/Romano-British geography is structured around the Newnham landscape, although the nature of this activity remains unclear. Whereas the greatest concentrations of Late Iron Age assemblages have been identified as a settlement located upon the high ground around Castle Hill and Huntingdon Road (Evans 1996; Mortimer and Evans 1997), the landscape around Newnham encompasses a lavish 3rd – 2nd century AD burial with horse trappings discovered in 1903 within the grounds of St Mark’s Church on Barton Road (Fox 1923: 81), and possible additional ‘prehistoric’ (Iron Age?) burials recovered from Newnham Playing Field (Browne 1974). Further evidence lies to the north within the Western Bookstack Range of the University Library (Gibson 1996), with a ditch aligned perpendicular to the northeast-southwest orientation of Ridley Hall’s F.2 and related ditches. Considered to be of Iron Age or Roman-British date, it may be of significance that this Library ditch ran nearly parallel to a slightly curvilinear ditch [063] further north in Burrell’s Field, also thought to be of Iron Age or Roman-British date (Gdaniec 1992b: 12-13).

It is of further interest that ditch F.2 and related features establish the subsequent course of the Roman road, Akeman Street, thought to exist on a northeast-southwest alignment approximately following the passage of present-day Grange Road. A result of this succession of alignments is that the relationship between the ditches following the line of ditch F.2 and those following the line of ditch F.10 (potentially later in the sequence), are placed further into question, and may only be resolved through further investigation, again potentially within the PDA of Ridley Hall.

Roman

Clearly the most abundant findings lie within an early Roman timeframe, approximately from the 1st to 2nd centuries AD. Ditch F.1 is of particular importance here for it was constructed with a curvilinear form that envelopes a tight cluster of pits, F.9, F.17, F.18 and F.19. The significance of this locality is demonstrated by the quantities of material retrieved from two separate features, F.1 and F.9: bone (479), burnt stone (26), pottery (19), tile (6), worked stone (2) and masonry (6). As mentioned above, material recovered from the upper surface [006] of ditch F.2 may
Figure 4. Relevant archaeological investigations in the immediate vicinity
also belong to this assemblage. The material derived from these contexts illustrates processes of production and consumption as may be expected from a modest localised habitation space. The fauna display signs of food processing, including butchery and preservation through dry-curing, whilst individual species, particularly cattle, bear the marks of heavy work or trauma. Rotary querns and grinding stones may indicate crop processing; whilst mortar, tile and floor tiles suggest the presence of a nearby building.

It may appear unusual that the density of Early Roman activity within Trench 1 was not replicated or continued within Trench 2. However, this does not necessarily indicate a limit of early Roman activity, but instead may delineate areas of activity within the same temporal space. Nonetheless, the absence of any Roman features in Trench 2 does present an ambiguity that only further investigation is likely to resolve.

The enclosing ditch, F.1, is wide and shallow, inscribing rather than enforcing a boundary, and in both profile and curvature resembles a ditch encountered at the Newnham College Buttery site (Webb et al. 2006). Two phases of unbroken inhabitation were recorded at the Buttery site: the first during the 1st century AD; the second during the 2nd – 4th centuries AD. The construction and use of the Ridley Hall site evidently corresponds with the first phase of activity, but may also provide some overlap with the second. It remains to be seen as to whether the second phase of activity is fully represented at Ridley Hall. Moreover, the relationship between the two sites is open to interpretation as to whether these represent two separate units of a single settlement, or two discrete entities. Considering the aforementioned (and unfortunately unlocated) cemetery approximately several hundred metres to the southeast, the former scenario seems most likely. Either way, any future investigation must consider the two sites in unison as another important Roman settlement along the hinterland of the centralised and fortified Roman town of Cambridge. Together the sites indicate that the core of Roman activity in Newnham should lie no further to the north where open fields are indicated by the suggestion of manuring as a result of 34 abraded sherds of pottery, all unstratified from Saxon contexts, dating to around 150 AD, found at the Institute of Criminology on the Sidgwick site (Monteil in Armour et al. 2003: 13).

Previously inference has been made between the alignment of Medieval trackways in Newnham (Long baulk, Cutter Baulk and Froshlake lane) and the possible existence of an east-west Roman system of minor roads and tracks that linked the major road network with smaller outlying settlements (Webb et al. 2006). Whilst a road has been speculated to have followed a course through Newnham College between Lammas Land and Grange Road (ibid), little evidence for any such routeway was observed during the evaluation. However, the alignment of the Romano-British ditches (F.10, and similar northerly ditches) does appear to correspond with the Medieval layout (of which ditch F.11 may form a part). The continuation of field boundaries between these periods is well attested throughout the literature, but whilst pathways may follow these lines as informal approaches to settlement space during the Roman phases of occupation, there is currently little evidence to support the projected line of a Roman road as illustrated in Webb et al. (2006: figure 15).
Saxon

The absence of any Saxon remains is of note, for this enables a further limit to be set for previously identified Saxon features within the proximity of the PDA. As noted above, the extent of the settlement identified at King’s Garden Hostel and the Institute of Criminology remains unconfirmed, but clearly does not reach the grounds of Ridley Hall.

Medieval/Post-medieval

Direct evidence for Medieval practice appears to be limited in the PDA at Ridley Hall. An exception may be the terminus of a small ditch, F.11, in Trench 2; direct dating for this feature is absent, although its alignment appears to correspond with the layout of medieval trackways. This dearth may seem surprising when considering the locally identified evidence in the vicinity of Newnham Croft in addition to the residual evidence frequently noted for a Medieval ploughsoil, but the small quantity of these signatures at Ridley Hall is less questionable owing to the absence of any Saxon presence. It may be that much of the land was laid to pasture over these centuries prior to a return to more intensive agricultural usage during the 17th/18th centuries. A subsequent return to agriculture is indicated by the quantity of debris in the topsoil [039] of Trench 1 and the sealed, or lower Topsoil [030] of Trench 2: pot (65), tobacco pipe (24), shell (12), tile (8) and glass (4). Part refuge, part manure agent, this represents both artificial sedimentation and turning of the soil.

An aisled timber post structure was noted in Trench 1. The double alignment of posts, with the largest spaced along the outer perimeter of the structure, is characteristic of barn forms constructed up to the early twentieth century. Prehistoric flint in the base of post hole F.4 is likely to be residual, and possibly a result of cutting pit F.17 of potentially Roman date. *Terminus ante quem* is provided at least by F.4 with two finds of cream ware, dating no later than the 1760s (C. Cessford pers. comm), and probably also residual through the decommissioning of the structure. The use of this building remains uncertain, although in his *History of Ridley Hall* Bullock (1941: 143) recounts that ‘there was a tradition that a century or two previously [to the construction of Ridley Hall] a tannery had stood on the site.’ The correlation of this aisled structure to a building for the purpose of a tannery is difficult to verify in this instance. Tanning is a process utilising a number of industrial tasks. In the eighteenth century the primary workshop was rarely a simple ephemeral structure, and a range of pits, a water source and storage facilities comprised important stages of the tanning procedure. Whilst the aisled timber structure at Ridley Hall may represent one phase of such a procedure, possibly relating to drying or storage, it is more appropriate with the current evidence to equate the structure with general farming practice prior to the construction of the Hall.

The rubble layer [028] of Trench 2 clearly distinguishes a chronological break in the stratigraphy during the late nineteenth century. The overlying deposits of [026] and [027] indicate built-up land of a levelling surface and garden soil, and all three layers may with a high degree of certainty be associated with the initial construction of the primary phase of Ridley Hall during the 1870s under the direction of M.G. Dobson of Colchester (Bullock 1941: 156). In particular, the concrete layer of F.13 resting upon
includes angular cuts and recesses, e.g. F.14, conducive with the support of scaffold and other construction mechanisms.

**Conclusions**

The evaluation within the grounds of Ridley Hall has revealed a dense array of archaeological features from the late prehistoric to post-Medieval periods. Preservation of these deposits has been ensured by overlying post-seventeenth century plough soils and garden soils, and the potential for the retrieval of a high detail of information is good, and may be tied into a broader picture of local and regional Cambridge archaeology. A number of important observations may be deduced from the investigations, and should be borne into account during future works:

- One of Cambridge’s hinterland Roman settlements lies beneath Ridley Hall.

- Quantities of butchered animal bone, Roman pottery, brick and tile indicate the nearby presence of a building or buildings.

- Spot-dating of the pottery provides a sequence of Roman activity within the 1st – 2nd centuries AD, and earlier localised activity of a smaller scale during the Late Iron Age/Romano-British period.

- A Late Iron Age/Romano-British enclosure system appears to transect beneath Ridley Hall, offering potential for establishing chronological clarity between the ditch systems and the Roman settlement enclosure. This system sets the conditions for the alignment of the Grange Road Roman road and the medieval trackway layout.

- A ‘background noise’ of prehistoric flintwork is indicative of the earliest site usage, with little parallel elsewhere in the vicinity.

**Acknowledgments**

The evaluation was funded by Ridley Hall, and the enthusiasm and interest of staff and students during the project is gratefully acknowledged, particularly groundsman Trevor Bossley. Alison Dickens was the Project Manager for CAU. Bryan Crossan and Vicki Herring worked on the graphics, illustrations and photographs, and Grahame Appleby proof read an earlier version of this report.
Appendix 1
Early Pottery and Tile
Katie Anderson

Pottery

A small assemblage totalling 20 sherds, weighing 178g and representing 1 EVE was recovered from the evaluation. All of the material was analysed and details of fabric, form, decoration, usewear and date were recorded.

F.1, a large ditch, contained the largest quantity of material, totalling 14 sherds and weighing 131g. This comprised 12 Late Iron Age sherds, of which seven were from a single vessel, a highly burnished bowl/cup. There was a further Late Iron Age jar with a plain rim. Two Roman sherds were also recovered from this feature, comprising one sandy greyware body sherd with a cordon, and a large coarseware body sherd. Both of these sherds date mid 1st-2nd century AD. The mixed date of the material suggests that the Late Iron Age pottery is residual within this feature.

F.2 contained two sherds of pottery, one of which was a small (1g) sandy sherd, which possibly dates to the Late Iron Age. The other sherd is less distinct, but is probably also of a Late Iron Age date (S. Lucy and M. Brudenell pers. comm). The mixed date of pottery from Features 1 and 9 makes dating of the features problematic, however, a mid 1st-2nd century AD is suggested.

F.9 contained three sherds of pottery weighing 25g, which included the rim from a buff sandy flagon, dating mid 1st-2nd century AD. A further sandy greyware sherd was also recovered from this feature, which is of the same date, along with a Late Iron Age sandy sherd. One sandy greyware sherd was collected from Feature 10; however this was a body sherd which could only be dated Romano-British.

Overall the assemblage is too small to enable detailed discussion; however, the fabrics and forms identified indicate a presence from the Late Iron Age and earlier Roman period, although the nature of occupation remains unclear.

Tile

Six pieces of Roman tile were recovered from F.1, weighing 1635g. This included two floor tiles, one of which has mortar on one side, and the other which is slightly burnt. Two unidentifiable pieces were also recorded. The presence of the tile suggests a Roman building of some sort in the vicinity, although the location and nature of this is unclear.
Appendix 2
Faunal Remains
Vida Rajkovača

Introduction

An animal bone assemblage totalling 229 bones was recovered during the evaluation undertaken at Ridley Hall. The assemblage represents hand-recovered material and this report offers an overview of the results following the zooarchaeological analysis of the assemblage.

Overall preservation ranged from moderate to quite good. Faunal material has been recovered from ditches and pits dated to the Early Roman period, with the majority of bone coming from F.1, a curvilinear ditch, and pit F.9.

Methodology

Identification, quantification, ageing and biometry

The zooarchaeological investigation followed the system implemented by Bournemouth University with all identifiable elements recorded (NISP: Number of Identifiable Specimens) and diagnostic zoning (amended from Dobney & Reilly 1988) used to calculate MNE (Minimum Number of Elements) from which MNI (Minimum Number of Individuals) was derived. Identification of the assemblage was undertaken with the aid of Schmid (1972), Hillson (1999) and reference material from the Cambridge Archaeological Unit, Grahame Clark Zooarchaeology Laboratory at the Department of Archaeology in Cambridge. Although most of the ovicaprid bones are difficult to identify to species, it was possible to identify a selective set of elements as sheep or goat from the assemblage, using the criteria of Boessneck (1969) and Halstead (Halstead et al. 2002). Ageing of the assemblage employed both mandibular tooth wear (Grant 1982; Payne 1973) and fusion of proximal and distal epiphyses (Silver 1969). Sexing using morphological characteristics was only undertaken for pig canines on the bases of their size, shape and root morphology (Schmid 1972: 80-81).

Where possible, the measurements have been taken (Von den Driesch 1976). Withers height calculations follow the conversion factors of Kiesewalter for horse (see Von den Driesch and Boessneck 1974). Taphonomic criteria including indications of butchery, pathology, gnawing activity and surface modifications as a result of weathering were also recorded when evident.

Results

The assemblage has been quantified in Table 1. Livestock species are well represented, with cattle being the predominant species. This is followed by ovicaprids (sheep and goat) and pig. Of non-meat species, horse is present with three specimens only. There are indications for keeping or consuming poultry on site evidenced by the
remains of chicken and domestic goose. Remains of red deer recovered from F.1 could suggest that wild resources still played some part in the site’s economy. Material recovered from F.1 represents more than a half of the assemblage totalling 139 bone specimens.

Out of 229 bones recorded, 222 (97%) were possible to assign to element and further 101 (44%) to species. Ageing data available from the assemblage shows that cattle were killed at the early stage, during their first year. Three ovicaprid specimens were aged suggesting the slaughter between three and six years of age. Pig mandibles showed the age at death before their second year. It has to be borne in mind that these are based on the total of seven specimens and that more information is needed if we wanted to draw kill-off profiles for each of the species. Based on a complete metacarpal, it was possible to derive shoulder height estimates for horse which stood 14 hands high and is considered to be a pony-sized individual (see Kiesewalter in Von den Driesch and Boessneck 1974).

<table>
<thead>
<tr>
<th>SPECIES</th>
<th>NISP</th>
<th>%NISP</th>
<th>MNI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cow</td>
<td>43</td>
<td>43</td>
<td>4</td>
</tr>
<tr>
<td>Ovicaprids</td>
<td>31</td>
<td>30</td>
<td>2</td>
</tr>
<tr>
<td>Sheep</td>
<td>6</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Goat</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Pig</td>
<td>11</td>
<td>11</td>
<td>1</td>
</tr>
<tr>
<td>Horse</td>
<td>3</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Domestic fowl</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Domestic goose</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Red deer</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Deer (sp.)</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>ULM</td>
<td>70</td>
<td>65 (Σ=222)</td>
<td>-</td>
</tr>
<tr>
<td>UMM</td>
<td>56</td>
<td>54 (Σ=222)</td>
<td>-</td>
</tr>
<tr>
<td>UUM</td>
<td>1</td>
<td>1 (Σ=229)</td>
<td>-</td>
</tr>
<tr>
<td>UUB</td>
<td>1</td>
<td>1 (Σ=229)</td>
<td>-</td>
</tr>
</tbody>
</table>

Table 1: NISP and MNI counts
Key: UMM & ULM = Unid. Medium and Large Mammal / UUM = Unid. Fragment. NB: Species percentages are out of 101. These differ from the unidentified counts as these are calculated on the basis of element identification (for UMM & ULM) and total fragments (for UUM) (corresponding to Σ in brackets).

Butchery marks were noted on 10 specimens (c.5%) mainly suggesting gross dismemberment and consisting of chop marks. Ribs were chopped to pot size and one cattle scapula demonstrated signs of butchery indicative for a dry-curing process (trimming of the spina).

One instance of a non-metrical trait was noted on a cow mandible and that was partial anodontia or the absence of the second premolar. This absence is thought to be congenital and many cases of partial anodontia have been observed in conjunction with hereditary ectodermal dysplasia, but that has not been proved so far (Ohtaishi 1972). As for the pathology, of particular interest was the occurrence of osteochondritis dissecans observed on cattle proximal metacarpals. These lesions result from the herniation of small portions of the joint cartilage through the articular surface of the bone (Dobney et al. 1996: 38). Although their aetiology is not fully understood, it is thought that these result from sudden physical stress or trauma to the joint. In addition, one such specimen was positively identified as a male pig based on a complete canine (Schmid 1972: 80).
Summary and conclusions

A great deal of work has been done in the area, extensively recovering remains of Romano-British activities in the town and at the outskirts of a Roman town (Evans 1993; Evans 1996; Mortimer & Evans 1997; Lucas & Whittaker 2002; Wills 2004; Mackay 2006). Also, the early Roman horizon from the Castle Street site in side Cambridge has shown a somewhat similar representation of species (Rajkovača forthcoming). Following the zooarchaeological analysis of the assemblage, the results seems to show that this assemblage simply represents food waste from domestic activities. It was not possible to observe butchery marks that could suggest the presence of skilled or specialised professional butchery practice. Cattle being the dominant livestock animal is in keeping with most of the commonly recovered assemblages in Britain. Furthermore, dietary preference for beef is believed to have come from the Continent with Roman legions populating Britain, so it is not a surprise that cattle dominate the assemblage (King 1999: 180). Usage of a cleaver recorded on this site has been seen as a characteristic of Roman butchery where it was used to facilitate and improve carcass dismemberment (Seetah 2006: 109). By contrast, a slight predominance of sheep has been noted on the other contemporary sites in the area (see above); this difference to the fauna at Ridley Hall may reflect variation in environmental circumstances that is more suitable for sheep husbandry.

This assemblage is quantitatively inadequate to sustain propositions about animal use but it does provide some basic information for comparison with the contemporary sites in area. It is clear that a comparative detailed zooarchaeological study is much needed to further our understanding of Roman Cambridge and its environs.
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Evaluation at Ridley Hall, Cambridge

Three trenches were excavated in advance of an application for proposed construction works in the college grounds of Ridley Hall, Cambridge (TL4453 5782). Archaeology was encountered in all three trenches from the early Neolithic through to the mid-eighteenth century. Prehistoric archaeology was mainly residual or composed of small finds; extensive human activity from the Late Iron Age/Romano-British and Early Roman periods was represented by two large ditches enclosing a cluster of circular pits, all containing high quantities of settlement material. Post-medieval remains included a double-walled linear post structure, foundation deposits associated with the construction of the hall, and built-up ground layers containing substantial artefactual remains.

Start: 07-09-2009 End: 10-09-2009

ECB3289 - HER event no.
RDH09 - Sitecode

Field evaluation
None
Other 15 - Other
DITCH Late Iron Age
DITCH Roman
PIT Late Iron Age
POSTHOLES Post Medieval
FLINT Neolithic
Significant Finds
- POTTERY Late Iron Age
- TILE Roman
- POTTERY Roman
- POTTERY Post Medieval
- ANIMAL BONE Iron Age
- ANIMAL BONE Roman

Methods & techniques
'Sample Trenches'

Development type
Large/medium scale extensions to existing structures (e.g. church, school, hospitals, law courts, etc.)

Prompt
Direction from Local Planning Authority - PPG16

Position in the planning process
Pre-application

Project location
Country: England
Site location: CAMBRIDGESHIRE CAMBRIDGE CAMBRIDGE Ridley HALL
Postcode: CB3 9HG
Study area: 1590.00 Square metres
Site coordinates: TL 4453 5782 52.1992119003 0.115024240336 52 11 57 N 000 06 54 E Point
Height OD / Depth: Min: 8.50m Max: 8.70m

Project creators
Name of Organisation: Cambridge Archaeological Unit
Project brief originator: Local Authority Archaeologist and/or Planning Authority/advisory body
Project design originator: Alison Dickens
Project director/manager: Alison Dickens
Project supervisor: Marcus Brittain
Type of sponsor/funding body: Landowner
Name of sponsor/funding body: Ridley Hall

Project archives
Physical Archive recipient: Cambridge Archaeological Unit
Physical Archive ID: RDH09

Physical Contents: 'Animal Bones', 'Ceramics', 'Environmental', 'Worked stone/lithics', 'other'

Digital Archive recipient: Cambridge Archaeological Unit

Digital Contents: 'Animal Bones', 'Ceramics', 'Stratigraphic'

Digital Media available: 'Database', 'Spreadsheets', 'Text'

Paper Archive recipient: Cambridge Archaeological Unit

Paper Contents: 'Animal Bones', 'Ceramics', 'Environmental', 'Stratigraphic', 'Survey', 'other'


Project bibliography 1

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