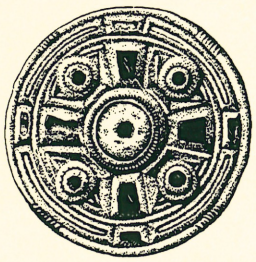

Archaeological Field Unit

Prehistoric Remains on Land Adjacent to Babraham Road, Cambridge

An Evaluation

Mark Hinman

January 1998

Cambridgeshire County Council

Report No. 147

Commissioned By J Clough

Prehistoric Remains on Land Adjacent to Babraham Road, Cambridge

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1998

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Report No 147

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SUMMARY

Between the 19th of November and the 4th of December 1997 the Archaeological Field Unit of Cambridgeshire County Council undertook evaluation by means of trial trenching on land adjacent to Babraham Road, Cambridge. The work was commissioned by Mr J Clough of the Environment and Transport division of Cambridgeshire County Council in advance of the proposed development of the site as a new park and ride facility. The evaluation revealed the entrance of an enclosure with a defensive element, a tightly flexed human burial of possible Neolithic date and a tightly flexed calf burial of unknown but presumably prehistoric date. Absolute dating of all excavated features is somewhat problematic at present with the range of flint and pottery artefacts recovered being relatively small and un diagnostic in nature. Whilst further excavation is clearly required to increase the sample size of recovered artefactual material, the current assemblage can be provisionally ascribed to the Late Bronze Age - Early Iron Age transition. Evidence from previous excavations over the past 100 years within the local area would tend to support the view that the landscape surrounding the subject site is being intensively utilised for settlement and agriculture at this time.

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An Evaluation

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1 INTRODUCTION

Between the 19th of November and the 4th of December 1997 the Archaeological Field Unit of Cambridgeshire County Council undertook evaluation by means of trial trenching on land adjacent to Babraham Road, Cambridge. The work was commissioned by Mr J Clough of the Environment and Transport division of Cambridgeshire County Council in advance of the proposed development of the site as a new park and ride facility. The evaluation was undertaken in accordance with AFU specification MH 013 and approved by Louise Austin of the County Council Archaeology Section.

2 TOPOGRAPHY AND GEOLOGY

The site is situated between Babraham Road and Cherry Hinton Road to the north of Gonville Farm and covers an area of approximately 3 hectares. The underlying geology of the area is a mixture of chalk and chalky drift. It is highly likely that erosion caused by successive seasons of ploughing since prehistoric times has softened the natural topography of the immediate area to some degree, reducing the visible impact of the occasional small knolls which appear to dot the valley floor.

3 HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

The proposed development area lies to the south east of the known Iron Age site at New Addenbrookes Hospital near to the Roman and possibly Prehistoric track of Worts Causeway. Chalk uplands rise to the south, north and the east where the possible Neolithic causewayed camp on Littletrees Hill and the later Iron Age hillforts of Wandlebury and War Ditches are located. Extensive patterns of cropmarks to the north and west of the development area provide further evidence for settlement during the prehistoric period.

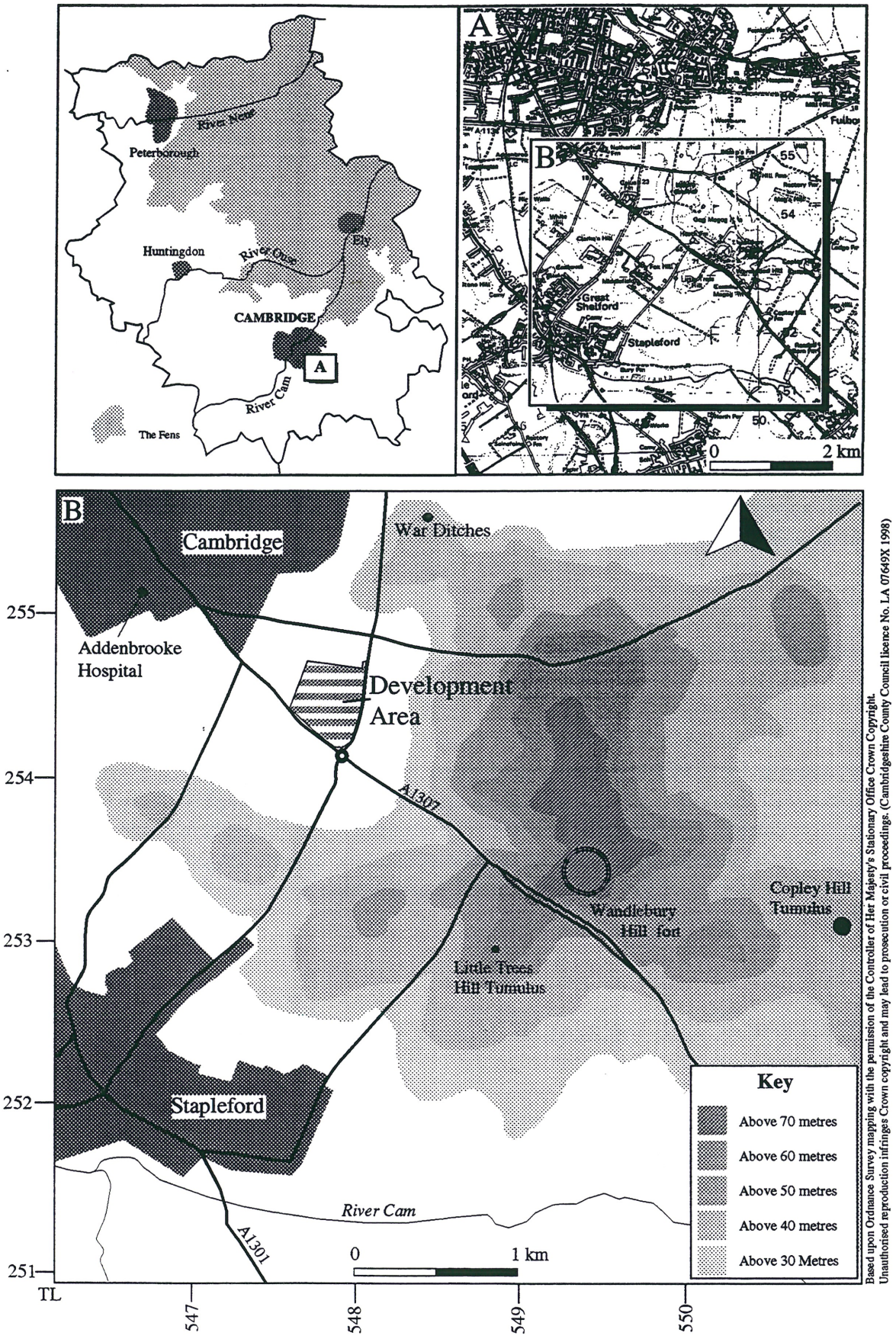

Figure 1 *Site Location*

4 METHODOLOGY

Prior to the commencement of fieldwork the AFU conducted a desktop review of the development area including a study of cartographic evidence and an examination of all available SMR entries by period. In addition an aerial photographic survey was commissioned and carried out by Rog Palmer of Air Photo Services.

Initially seven trial trenches (total length 432m giving a 2.16% sample) were opened to varying depths using a JCB with a toothless ditching bucket. The presence of a large ditch terminal within Trench 7 served to indicate the presence of archaeologically significant remains within the north western quadrant of the development area. Further machining was clearly required to determine the nature and likely extent of these remains. To this end a further 10 trenches were cut (total length 330m giving an additional 1.65% sample). In total 17 trial trenches were cut with a total length of 762m, giving a sample size of 3.81%. All trenches were 1.50m wide unless otherwise stated.

Excavation of surviving deposits and features was conducted to characterise the nature and extent of the surviving archaeological remains. Photographs were taken and plan and section drawings made where appropriate.

All deposits were recorded using the Archaeology Field Unit's single context system.

All site records and artefacts are held currently at the AFU headquarters at Fulbourn and stored under the site code CAMBAB 97.

5 RESULTS

The depth of modern ploughsoil across the development area remains at a consistent depth of between 0.20m and 0.30m. The underlying colluvium is more subject to variation. This is attributable to ploughing practices associated with medieval ridge and furrow field systems. The majority of the trial trenches were cut to an average depth of 0.40m. Trenches intersecting the medieval headlands identified as a result of the Air Photo Survey increased in depth to between 0.70m and 0.90m.

Trenches 4, 6, 7, 14, 15 and 17 were devoid of cut features or other archaeologically significant deposits.

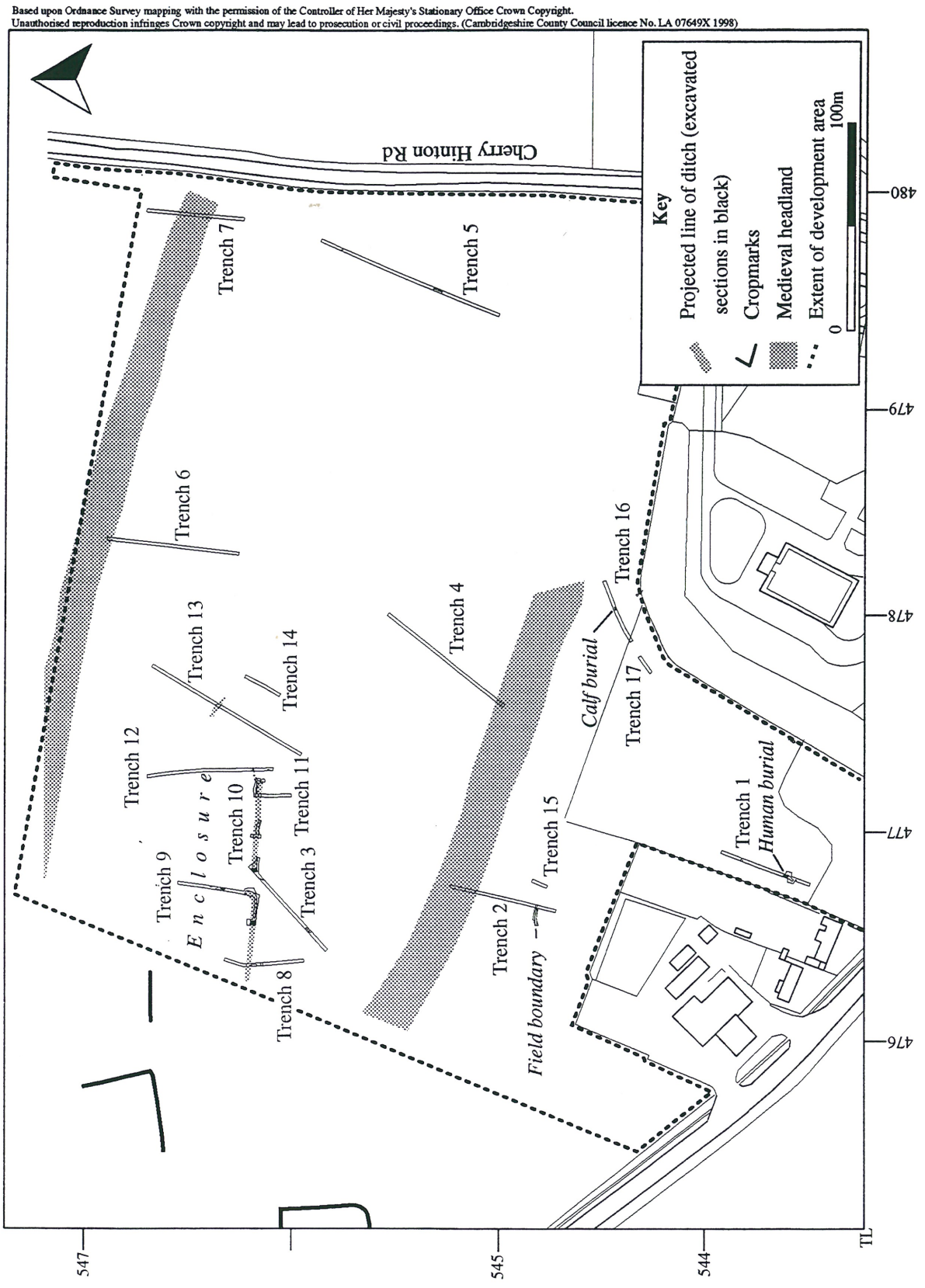

Figure 2 Showing trench locations

Trench 1

Measuring 44.50m north - south Trench 1 was located towards the southern limit of the development area adjacent to Babraham Road (Fig 2).

Machining revealed a sequence of intercutting features at *c* 0.40m BPS located towards the centre of the trench. To allow full excavation of these features the trench was widened at this point. Two of these features were subsequently fully excavated although hand cleaning of the area identified at least one additional feature extending into the western limit of excavation.

Cut **15** (11), (12), (13), (14), (50), sub oval in plan, length 1.56m x width 0.86m x 0.53m in depth, aligned north west - south east. This pit was found to contain the tightly flexed burial of an adult male (*figure 3*). The body (14) was placed on its left side with the head to the south - east. The body of this individual was so tightly flexed that the left knee was almost touching the chin which suggested to the excavation team that the body must have been tightly bound, presumably within some form of shroud, prior to burial. The dating of this burial is difficult at present - a common problem with many of the features so far excavated on this site - due to the paucity of diagnostic artefacts within the feature fills. In this instance several sherds of pottery and worked flint flakes were recovered from the backfills of

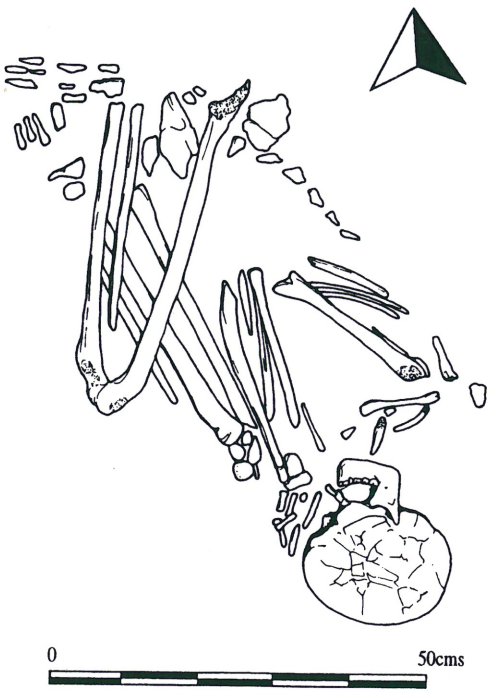

Figure 3 *Flexed inhumation*

the grave pit but none were clearly characteristic of any particular period in prehistory. Likewise the practice of burial in the flexed position is known from the Neolithic through to the Early Iron Age, a period of some 2500 years. This burial, although of uncertain date is of particular interest as there are no obvious parallels

with other known human skeletal remains within the immediate area. At Wandlebury the Iron Age burials excavated by B R Hartley consist of the heavily mutilated remains of children and adults thrown into pits whereas at the War Ditches similar types of remains were present within the infilling of the outer ditch. Radio carbon dating could be applied to the bones of this individual in order to establish it's age but this would be premature at this stage. As further burials may well be present within the development area it will be important to attempt to place these remains within the wider context of the local landscape before applying this technique as part of a fuller programme of work.

Pit cut **51** (46), (47), (48), (49), irregular in plan, length 3.66m x width 1.46m x 0.64m in depth truncates the southern edge of burial pit **15**. All of the fills are similar both in colour and consistency, comprising a series of dark brown silty clays. Definition of individual fills was difficult at times due to a combination of ancient animal and tree root disturbance. Again the few artefacts recovered from these fills offer little insight into the original nature and function of this feature.

A third feature, pre dating burial pit **15** with a mixed mid - light brown mottled fill was observed extending into the western limit of the trench. This feature was not excavated during the evaluation stage of this project.

Trench 2

Measuring 59m north - south by 1.50m east - west, Trench 2 was positioned in order to examine the headland identified as a result of the air photo survey (Fig 2). The total depth of cover above naturally lain deposits increases from 0.50m at the southern end of the trench to 0.90m to the north within the area of the headland.

A single feature, Ditch **4** (3), 0.65m wide x 0.18m in depth and aligned east - west is located towards the southern limit of the trench. Fill (3), a dark yellowish brown sandy silt was devoid of artefactual material but did contain moderate quantities of large sub angular and rounded pebbles. Trench 15 was cut in an attempt to trace the eastern extent of this ditch. The fact that it was not present indicates that the ditch is either terminating or changing alignment. The size of the ditch and a lack of artefacts suggest that this ditch once formed a field boundary. It is tempting to see the pebbles deposited within the fill as representing an episode of field clearance. The alignment of this ditch corresponds with those of the somewhat larger ditches to the north and of those features identified to the west of the area by the air photo survey. A broadly prehistoric date is therefore suggested for this feature.

Trench 3

Measuring 60.50m north east - south west, Trench 3 was located in the north west

of the proposed development area.

Ditch Terminal **20** (5), (6), (7), (8), (9), (10), (18), (19), (20), (24), (25), (26), (27), 2.55m wide x 1.20m in depth and aligned due east - west is located towards the northern limit of the trench. The ditch terminal is sub rectangular in plan with rounded corners and sides sloping at *c* 45∞ to the vertical plane tapering to a steep 'rounded v' shaped base 50mm in width (Fig 4).

A total of 13 distinct fills were recorded within the ditch terminal and they are discussed below in order of stratigraphic deposition.

Fill (27), represents the primary episode of silting across the base of the ditch and indicates the cessation of maintenance for this feature. Fill (26) illustrates the erosion of the southern edge of the ditch and is deposited through the action of water, probably caused by a heavy rainstorm. Fill (19) is similar in many respects to (27) and a short period between these depositional events is likely.

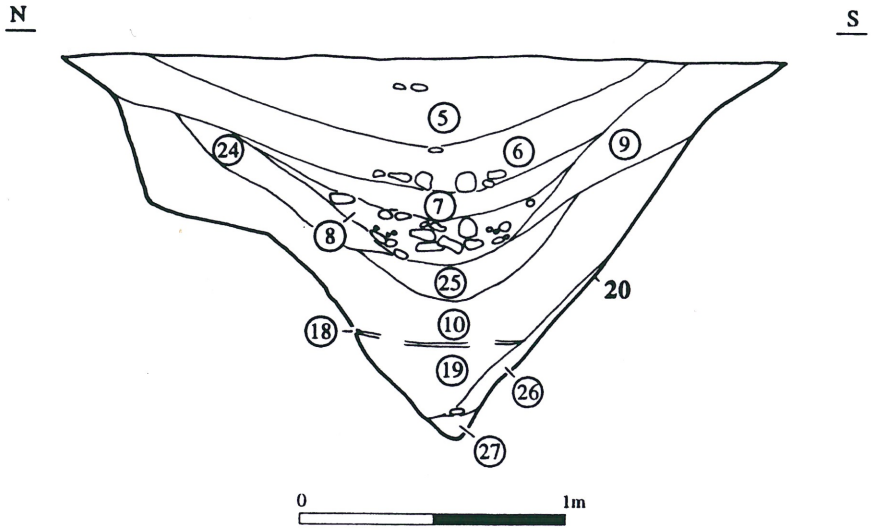

Figure 4 *Section through Ditch 20*

No artefactual material was present within the initial phase of silting represented by fills (19), (26) and (27) which may indicate either the rapid erosion of the sides of the ditch cut or possibly the temporary (seasonal?) abandonment of any enclosed settlement within the immediate vicinity.

Fill (18) is somewhat darker in colour than earlier fills, possibly suggesting a higher organic content. In addition occasional fragments of animal bone (cattle and sheep / goat) and a single abraded pot sherd were recovered from this fill.

Although barely visible in section this deposit was observed covering the entire base of the ditch above fills (19), (26) and (27).

In turn fill (18) is sealed by a series of artefactually sterile water modified deposits. Fills (10), (25), (24) and (9) originate from both the northern and southern sides of ditch cut **20** and represent a secondary silting episode.

Fill (8) a light olive brown clay silt seals earlier deposits (10), (25), (24) and (9) and is distinct from them. This fill contains a moderate amount of animal bone, much of which is heavily fragmented. Cattle bones dominate the assemblage and range in age from neo natal to adult although sheep goat of varying ages were also present. Perhaps more significant is the presence of the left fore limb of a medium sized dog. Part or all of the remainder of this animal is almost certainly still present in situ within the unexcavated portion of this fill and additional excavation here is highly desirable. Every effort should be made by means of careful hand excavation to establish the nature of depostion in this instance. Was this animal simply discarded with other 'waste' products or is there any retrievable evidence for a more symbolic gesture as regards the placement of these remains. In addition (8) contains burnt flint (usually associated with cooking), and worked flint flakes.

Fill (7) is artefactually sterile but is in turn sealed by fill (6) which is similar in terms of content to fill (8), with slightly less animal bone.

Fill (5) is the final surviving fill of ditch **20**. Once again this fill is artefactually sterile and represents the final infilling of this ditch.

Ditch terminal **20** represents the eastern side of an entranceway into a field system or more probably an enclosure. The full extent of this ditch was successfully traced by the cutting of additional trial trenches. The opposing side of this entranceway, cut **34** was also located at this time some 5m to the west within Trench 9.

The steep 'V' shaped profile of this ditch is undoubtedly a deliberate and considered design motivated by the need to defend an as yet undefined area to the north. The width of the base of the cut is roughly 50mm, making any attempt to stand within the ditch virtually impossible, fully justifying the use of the term *'ankle breaker'* commonly attached to features with this kind of profile. For such a feature to provide an effective defence to the occupants of the assumed enclosure regular cleaning of the base of the cut would have been essential. Given that Ditch **20** is cut into chalk there is no reason to expect any direct archaeological evidence for the scouring of the base of this feature to survive as the original cut edge would remain fairly distinct. If this is assumed to be the case then none of the fills present within Ditch **20** can be associated with the primary use of the feature for defence but indicate a change in use (as yet undefined) for the area. The same is also true for the sequence of cutting followed at some later stage by infilling within associated feature, Ditch **64** to the west.
A total of four broad phases of silting have been identified, interspersed by three distinct phases of artefactually rich infilling. The artefactual material recovered

from these fills cannot be taken as an indicator of the original function of the assumed enclosure as this ditch ceased to be maintained prior to deposition. Although it is not possible to establish the rapidity with which this ditch silted and was filled up it is reasonable to assume that it would have remained as a visible boundary within the local landscape for several years at the very least. The episodic infilling of this ditch with quantities of potentially butchered animal bone and associated artefacts may suggest that the secondary usage of the enclosure was a seasonal activity. An examination of the molluscan evidence taken from a column sample through this ditch gives the impression of open, exposed, grassy conditions (R Meyrick pers comm. See Appendix VI).

Posthole **29** (28), *c* 0.45m in diameter x 0.25m in depth with steeply sloping sides and an irregular base is located adjacent to the Southern corner of ditch terminal **20**. The surviving depth of this feature may be taken as evidence for a degree of truncation due to ploughing. Quite what function this post hole may have performed is unclear at present. A similar feature, posthole **33** is positioned adjacent to the south edge of the opposing ditch terminal **34** within Trench 9. It seems likely that these postholes mark the entrance to the enclosure which is assumed to lie to the north of the entranceway although open area excavation is required to confirm this point.

Cut **23** (22), 0.25m wide x 40mm in depth, aligned north - south lies c 5m to the south of ditch 20. Again it is difficult to provide an accurate interpretation at this stage although this feature may well prove to be a fenceline or the base of a heavily truncated ditch.

Layer 21, a very dark greyish brown clayey silt layer 0.30m thick survives against the edge of the chalk slope c 10m to the south of ditch terminal **20**. This would appear to be the surviving remnant of a prehistoric buried soil, the dark colour of which indicates a high organic content. Sampling of this deposit failed to produce any dateable artefactual material.

Tree Bole **16** (17), 2.50m long x 1.51m wide x 0.30m in depth with an irregular shape in plan, irregular sides and base was located towards the southern limit of the trench and is again undateable.

Trench 4

Measuring 69.50m north east - south west, Trench 4 was located towards the centre of the proposed development area. No archaeologically significant features or deposits were present within this trench.

Trench 5

Measuring 91.50m north - south, Trench 5 was located towards the eastern limit of the proposed development area.

Cut 2 (1), 0.70m wide, 80mm in depth, aligned east west was located towards the centre of the trench. The single fill (1) consisted of a pale brown silt containing several very small (*c* 10mm), heavily abraded pottery sherds. Given the degree of animal disturbance within the development area no useful information can be gleaned from this material. The alignment of this feature suggests contemporaneity with the rather more substantial ditches to the west within trenches 3 and 9. It is possible that despite the uniform nature of the fill that several phases of recutting are present here and that the apparent width of the ditch is in fact misleading. If this is the case then it is likely that this ditch is a field boundary. Although there is no archaeological proof for this at present, it has been the experience of the author that this type of ditch is not always re - cut along the same line over time and that the width of the feature may be an indicator of a long established boundary. The uniform nature of the fill can be explained by bioturbation - the action of worms and other animals over time - and suggests a prehistoric date for this feature.
No other features were present within Trench 5.

Trench 6

Measuring 61.50m north - south, Trench 6 was located towards the northern limit of the proposed development area. No archaeologically significant features or deposits were present within this trench.

Trench 7

Measuring 45.50m north - south, Trench 7 was located towards the north eastern limit of the proposed development area. No archaeologically significant features or deposits were present within this trench.

Trenches 8 to 14

Trenches 8 to 14 were cut in an attempt to define the nature and extent of the activity indicated by the presence of the large ditch terminal revealed at the northern end of Trench 3.

Trench 8

Measuring 38.00m north - south, Trench 8 was located towards the north - western limit of the proposed development area. The continuation of ditch **34** from Trench 9 was observed within this trench.

Trench 9

Measuring 45.00m Trench 9 was located within the north - western quadrant of

the proposed development area.

Cut **30** (36), sub circular in plan, length 1.30m x width 1.10m x depth 0.15m with a single light brown clay silt fill containing occasional animal bone. Located towards the centre of the north south aligned portion of the trench the function of this heavily truncated pit remains uncertain at present.

Cut **31** (37), sub circular in plan, length 1.00m x width 0.55m x depth 0.09m with a single, artefactually sterile light brown clay silt fill. Pit **31** is truncated to the south by pit cut **30**.

Cut **32** (38), sub rectangular in plan, length 0.78m x width 0.50m x depth 0.13m with a single, artefactually sterile light brown clay silt fill, located to the north of **30** and **31**.

Cut **33** (39), sub circular in plan, length 0.50m x width 0.45m (unexcavated) is positioned adjacent to the southern edge of ditch terminal **34.** Similar in terms of size and position to post hole **29** in Trench 3 it seems likely that these postholes mark the entrance to an enclosure which is assumed to lie to the north of ditch terminals **20** and **34** although open area excavation is required to confirm this point.

Cut **34** (35), curvilinear in plan, (unexcavated) is aligned due east -west but turns through 90 degrees to run north south at the eastern terminal of the ditch. Occasional pottery sherds and moderate quantities of animal bone (cattle and sheep / goat) were recovered from the exposed surface of fill (35). Despite a lack of diagnostic rim or base forms within the ceramic assemblage it has been suggested that this material is characteristic of an extremely early Iron Age date *c* 800 BC (JD Hill pers comm.). Further excavation is required to increase the size of the faunal and ceramic assemblages so that more precise dating can be attempted. It is the fact that the ditch terminal turns to the north that leads us to suspect that the interior of what is still only assumed to be an enclosure lies in this direction. A section of this ditch was excavated towards the western limit of Trench 9, cut **64**. This same ditch was also observed within Trench 8 but was not allocated a separate number.

Cut **64** (60), (61), (62), (63), length 1.60m x width 2.30m x 0.91m in depth was excavated towards the western limit of the trench. A total of 4 distinct fills were recorded within the ditch (*Fig. 5*) and they are discussed below in order of stratigraphic deposition.

Primary fill (63), a yellowish brown silty sand was only present against the northern edge of the cut and represents damage caused by weathering to the exposed side of the ditch cut.

Fill (62), a light brownish grey silty chalk is again derived from the northern side of the ditch cut. This fill represents the end of ditch maintenance and contained flecks of what appears to be heavily burnt reddish pottery. The derivation of this

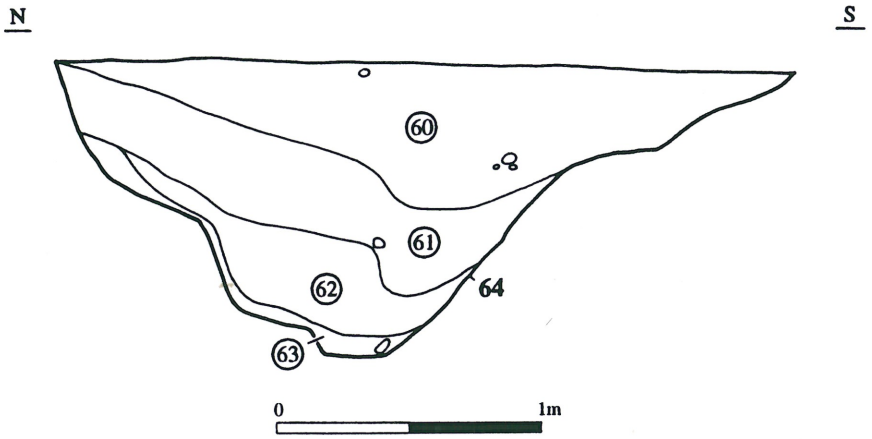

Figure 5 *Section through Ditch 64*

fill from the northern side of the cut may suggest the presence of an upcast bank adjacent to the edge of this ditch during antiquity.

Fill (61), a brown clayey silt again enters the ditch from the northern edge of the cut. It is distinguished from the earlier episodes of weathering and silting by the presence of occasional flint and ceramic artefacts. Due to the relatively small sample size it is not clear at present whether these objects are in any way associated with the secondary usage of the presumed enclosure or are simply residual.

Fill (60), a brown clay silt represents the final surviving deposit within ditch segment **64**. Moderate amounts of animal bone (much of which bears clear evidence of butchery marks) and burnt flint suggests a return to use, possibly even occupation of the area.

Trench 10

Measuring 12.00m east - west, Trench 10 was located within the north - western quadrant of the proposed development area. The continuation eastwards from ditch terminal **20** within Trench 3 was observed within this trench.

Trench 11

Measuring 27.00m Trench 11 was located within the north - western quadrant of the proposed development area.

Cut **40** (52), 0.70m wide, aligned east - west (unexcavated) extends from the north

- eastern corner of ditch terminal **41**. This cut is filled with a light brown clay silt similar in every respect to fill 53 indicating contemporaneity of disuse. Two main options exist for the interpretation of this feature. It is either a drainage channel discharging into ditch **41** or the continuation of the line of the enclosure defined by **41** at a much reduced scale. Ditch / gully **40** was also recorded within Trench 12 to the east as Cut **42**.

Cut **41** (53), 2.00m wide, (unexcavated), aligned east west represents the opposing terminal end to Cut **20** within Trench 3. The total length of this ditch is roughly 44.00m, the width remains fairly constant at nearly 2.00m.

Trench 12

Measuring 59.00m north - south, Trench 12 was located within the north - western quadrant of the proposed development area.

Cut **42** (54), 0.40m wide x 0.12m deep, aligned east - west with a light brown clay silt fill continues to the west within Trench 11 as ditch / gully **40**.

Posthole **43** (55), sub circular in plan, length 0.50m x width 0.38m x depth 0.25m, lies c 0.30m from the southern edge of gully **42**. The significance of this feature remains unclear at present. A marker / boundary post or even a structure of some kind beyond the limits of the enclosure defined by ditch **20** = **41** are all possibilities worth considering at this stage.

Posthole **44** (56), sub circular in plan, length 0.45m x width 0.38m x depth 0.09m, is located towards the southern extent of the trench. The relationship between posthole 44 and posthole 45 was not clarified as a result of excavation although the similarity of fills 56 and 57 may indicate that both cuts were infilled at the same time.

Posthole **45** (57), sub circular in plan length 0.70m x width 0.36m x depth 0.18m, is located towards the southern extent of the trench. Further excavation is required to establish the functional interpretation of this feature and associated posthole **44**.

Trench 13

Measuring 81.50m north - south, Trench 13 was located within the north - western quadrant of the proposed development area.

Ditch **59** (58), linear in plan, aligned approximately east -west, width 1.80m, is located towards the centre of the trench. Although this ditch was not excavated a relatively high concentration of animal bone and worked flint was recovered from the surface of the exposed fill. In addition to cattle and medium mammal (sheep), fill (58) is distinct from all other deposits in that it contained the only faunal evidence for pigs. The size of the identifiable bone fragments suggests that the animal was in fact a wild boar. Included within the lithic assemblage was a core

fragment, several broad hammer - struck flakes and two flint tools, one of which has been identified as an irregular horse - shoe shaped scraper. If this assemblage is contemporary with the in - filling of Ditch **59** then a date in the later Bronze Age is suggested for this feature. Even if the assemblage is residual it remains a clear indicator of a Bronze Age presence within the immediate area. The relationship of Ditch **59** (if any) to other features identified during the course of the evaluation and the likely extent of this feature remains unclear at present.

Trench 14

Measuring 69.50m north - south, Trench 14 was located within the north - western quadrant of the proposed development area. This trench was located to bisect the east - west alignment of possible enclosure ditches **34** and **20** = **41**. No archaeologically significant features or deposits were present within this trench.

Trench 15

Measuring 7.50m north - south, Trench 15 was located within the south - western quadrant of the proposed development area. Surprisingly, Ditch 4 observed within Trench 2 does not extend into this trench and must therefore terminate or return to the north or south in the 10m interval between these two trenches. No archaeologically significant features or deposits were present within this trench.

Trench 16

Measuring 32.00m east - west, Trench 16 was located within the south - western quadrant of the proposed development area. Trenches 16 and 17 were positioned to test what was visibly a relatively high point within the development area.

Burial pit **67** (65), (66), was located in the centre of the trench on the plateau of this high point. The pit cut, sub rectangular in plan, length 0.77m x width 0.39m x depth 0.15m is aligned east - west. Contained within the pit was the tightly flexed skeleton of a very young calf (*Fig. 6*), approximately 3 weeks old at time of death, placed upon it's left side with the head to the east. The tightly flexed posi tion of this skeleton suggests that the body may have been bound in some fashion prior to burial. The burial pit appears to have been cut to fit the body of the young calf almost exactly. No artefacts were recovered from fill (66), a loose mid to dark grey clay silt. The bones recovered from this burial are in a superb state of preservation, in complete contrast to those of the human skeleton (14) within Trench 1. No indication as to the cause of death can be gained from a detailed examination of the skeleton. Whilst both burials are undateable at present the complete contrast in terms of this state of preservation strongly suggests that the calf burial is significantly later in date than its human counterpart. (See also Appendix 2)

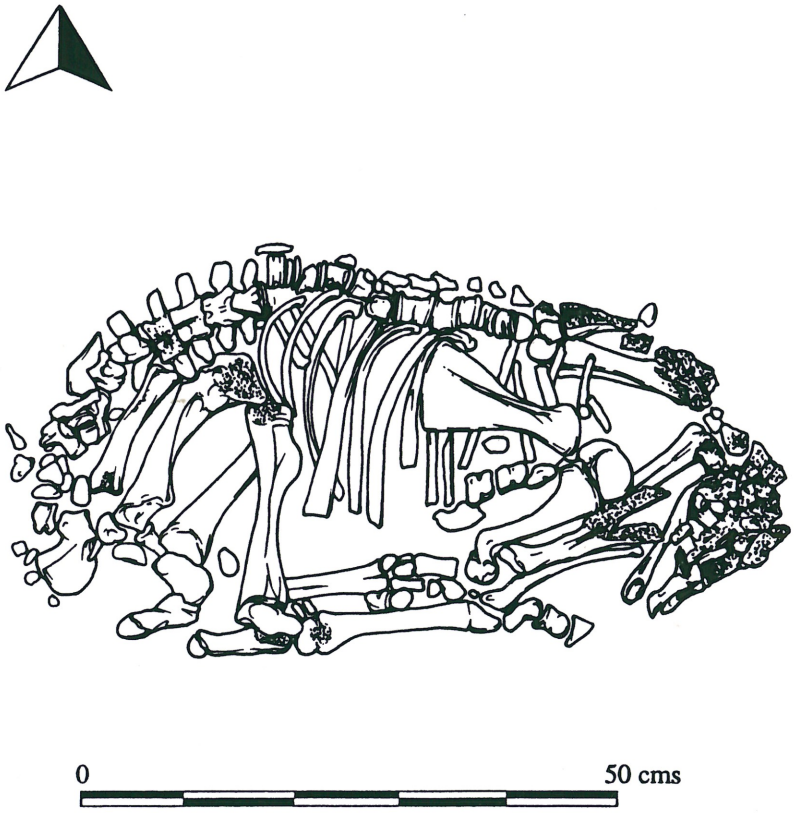

Figure 6 *Flexed calf burial*

Trench 17

Measuring 9.50m east - west, Trench 16 was located within the south - western quadrant of the proposed development area. No archaeologically significant features or deposits were present within this trench.

6 DISCUSSION

The recent evaluation of the proposed development area on land adjacent to Babraham Road clearly demonstrates the presence of archaeologically significant deposits from differing periods.

Trial trenching has highlighted at least three main areas of likely archaeological interest. This however does not preclude the presence of similar features within those parts of the development area which have not been trenched.

Evaluation has demonstrated the existence of human remains. The tightly flexed inhumation of a young adult male was revealed within Trench 1 towards the southern end of the development area, adjacent to Babraham Road. The lack of any clearly dateable artefactual material is somewhat problematic but burial in the foetal position is known from the Neolithic to the Iron Age a period of at least 2500 years. It is possible for these burials to occur singly, in pit groups or clusters or even as linear pit arrangements. Although several small sherds of pottery were recovered from the fill of the burial pit none were particularly diagnostic. A Late Neolithic / Early Bronze Age or Early Iron Age date are both equally plausible based on an examination of the ceramics alone. Whilst radio carbon dating may prove to be an aid to identifying the physical age of those remains already recovered it would be best to examine the immediate area for any more evidence, including further burials before any meaningful interpretation can be attempted.

The second inhumation, that of a young (sacrificial?) calf was also buried in a very tightly flexed position. The calf burial is located on top of a slight knoll, one of two relatively 'high' points within the within the development area. Again the lack of any associated artefactual material makes rapid dating impossible. This complete skeleton was in an excellent state of preservation in contrast to that of the human burial to the south west which may indicate a much later burial date for the calf. It seems that a series of carbon dates will be required upon the completion of full scale excavation in order to try to establish the period/s under investigation.

The third main area of interest covers the north western quadrant of the development area and primarily consists of a pair of large steeply sided ditches. These ditches are c 2.00m wide and at least 1.20m in depth and trial trenching has identified a break or entranceway roughly 5.00m in width running between them. The size and form of these ditches suggests that in part at least they perform a defensive function enclosing an embanked but as yet undefined area to the north of the entranceway. The defensive aspect is reinforced by the position of these ditches on the top of the second high point within the area. Although no return to these east - west ditches was located to enable us to define the limits of an enclosure the results of previous excavations (Kemp 1993) and available aerial photographic evidence strongly suggest that this interpretation is valid. Dating of these ditches and associated features is once again difficult at present. The presence of short horned cattle bones within the secondary infilling of the ditches indicates a likely Iron Age date. Butchered bone in substantial quantities within certain of these secondary fills may indicate specific and probably seasonal activities. The flintwork and pottery suggest a Bronze Age date (S Kemp and J Last pers comm.) but neither assemblage denies the possibility that they originate from the Earlier Iron Age (*A quick scan of this material seems to suggest that it may fall within that period attributed to the very beginning of the Iron Age within Cambridgeshire and that it may pre date the earliest material yet recovered from Wandlebury* JD Hill Pers Comm.). A review of the available aerial photographic evidence indicates a number of similarly aligned (and therefore possibly contemporary) enclosures and field systems adjacent to the development area. A ditch of similar size and profile

was revealed during the evaluation of the route of the proposed Cambridge Southern Relief Road in 1993 containing pottery broadly dateable to the Iron Age. It is the excavator's impression that the ditches represent part of a fortified enclosure which utilises a natural rise on the valley floor. This enclosure seems to be one in a series of interlinked enclosures with associated field systems occupying the valley floor *c* 1.50km to the north - west of Wandlebury Camp, and is probably associated with settlement in the immediate vicinity.

This evaluation has served to raise a number of interesting questions that it may be possible to address through further excavation, the foremost of which are:

Over what period of time was the subject area occupied?

What is the range of functions / activities represented throughout these periods?

How do those remains present across the development area relate (if at all) to the series of well known ancient sites and monuments in the immediate vicinity such as the causewayed enclosure at Littletrees Hill (Neolithic / Bronze Age), Wandlebury Camp (Iron Age and earlier), the War Ditches (Iron Age and ear lier) and the settlements at Rectory Farm (Late Bronze Age and Iron Age) and New Addenbrookes Hospital (Iron Age).

RECOMMENDATIONS

Evidence from the recent evaluation suggests that certain different types of activity are represented within the development area. The burials suggest some form of ritual activity. Both the human and the calf inhumations were so tightly flexed that their bodies must have been tightly bound prior to burial. It is unknown whether the ditches and associated features within the north - western quadrant are of a contemporary date at present. Previous evaluation within the immediate area (Kemp 1993, Site 4 Trench B) has also experienced difficulties in obtaining sufficient dateable artefactual assemblages. Past excavators on sites such as New Addenbrookes Hospital, Rectory Farm, The War Ditches and Wandlebury Hillfort have all experienced similar problems in achieving a sufficient sample size to retrieve reliably dateable materials from this period. This highlights the necessity to ensure that a suitably high level of sampling is followed during full excavation. It is further recommended that a range of dating techniques be applied to the faunal and ceramic assemblages recovered. In addition to radio carbon dating Thermoluminessence Dating should be applied to elements of the ceramic assemblage. In order that the surviving remains be placed securely within the context of the surrounding landscape it is necessary to strip at least three distinct open areas to further investigate those areas containing archaeologically significant remains. In addition it is recommended that following on from open area stripping further trenching (using a 2m wide toothless bucket) be undertaken to record the nature and extent of the field systems surrounding the probable enclosure. Again a comprehensive sampling strategy will be required to enable an examination of spatial patterning and to look for any evidence for the zonation of specific activities.

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The author would like to thank Mr J Clough for commissioning this project, and to S Kenney, C Fletcher, Dave Curry and Michelle Bullivant for their assistance with the excavation and recording of the Trial Trenches. Additional thanks are due to P Coppleston and D Schlee for the finds and environmental processing, S Kemp for the lithics analysis, Ian Baxter for examining the faunal remains, Corinne Duhig for examining the human skeletal remains and to J Cane for producing the illustrations.

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APPENDIX I

CONTEXT INDEX

Cntxt	Cut	Tr	Category	Type	Function	Description	Below	Above	Finds
1	2	5	Deposit	Fill		Pale brown silt		2	Pot
2	2	5	Cut	Ditch?		Wide, shallow E-W linear	1	Nat	
3	4	2	Deposit	Fill		Dark yellowish brown sandy silt		4	
4	4	2	Cut	Ditch	Drainage?	Narrow, shallow E-W linear	3	Nat	
5	20	3	Deposit	Fill		Greyish brown clay silt		6	
6	20	3	Deposit	Fill		Pale brown clay silt	5	7	Bone, flint, burnt flint
7	20	3	Deposit	Fill		Brown clay silt	6	8	
8	20	3	Deposit	Fill		Light olive brown clay silt	7	24, 9	Bone, flint, burnt flint
9	20	3	Deposit	Fill		Light olive brown chalky clay silt	8	25	
10	20	3	Deposit	Fill		Olive brown chalky silt	25	18	
11	15	1	Deposit	Fill		Brown silty clay	51	12	Pot
12	15	1	Deposit	Fill		Brown silty clay	11	13	Pot, flint
13	15	1	Deposit	Fill		Dark brown silty clay	12	14	Pot, stone, flint
14	15	1	Deposit	Skeleton	Burial	Tightly flexed human burial	13	50	
15	15	1	Cut	Pit	Grave	Steep-sided oval pit	50		
16	16	3	Cut	Tree Bole		Irregular subrectangular hollow	17	Nat	
17	16	3	Deposit	Fill		Mixed subsoil and chalk		16	Fe blade, shell
18	20	3	Deposit	Fill		Greyish brown chalky silt	10	19	Pot, bone
19	20	3	Deposit	Fill		Olive brown chalky silt	18	26	
20	20	3	Cut	Ditch		Broad, steeply sloping terminal	27	Nat	
21	21	3	Deposit	Layer		Very dark greyish brown clay silt	Sub	Chalk	
22	23	3	Deposit	Fill		Light brownish grey clay silt		23	
23	23	3	Cut	Gully		Narrow shallow N-S linear	22	Nat	
24	20	3	Deposit	Fill		Light olive brown chalky clay silt	8	25	
25	20	3	Deposit	Fill		Brown clay silt	24, 9	10	
26	20	3	Deposit	Fill		Olive yellow sandy silt	19	27	
27	20	3	Deposit	Fill		Pale yellow clay silt	26	20	
28	29	3	Deposit	Fill		Greyish brown clay silt		29	
29	29	3	Cut	Posthole		Circular steep-sided posthole	28		
30	30	9	Cut	Pit		Subcircular shallow pit	36	37	
31	31	9	Cut	Pit		Subcircular shallow pit	37	Nat	
32	32	9	Cut	Pit?		Subrectangular shallow pit	38	Nat	
33	33	9	Cut	Posthole		Subcircular posthole			
34	34	9	Cut	Posthole					
35	34	9	Deposit	Fill		Clay silt			Pot, bone
36	30	9	Deposit	Fill		Clay silt			Bone
37	31	9	Deposit	Fill		Clay silt			
38	32	9	Deposit	Fill		Clay silt			
39	33	9	Deposit	Fill		Clay silt			
40	40	11	Cut	Gully		Narrow E-W linear			
41	41	11	Cut	Ditch		Inturned ditch terminal			
42	42	12	Cut	Gully?		Slightly curved narrow E-W linear			
43	43	12	Cut	Posthole		Subcircular steep-sided posthole			
44	44	12	Cut	Posthole		Subcircular shallow posthole			
45	45	12	Cut	Posthole		Subcircular shallow posthole			
46	51	1	Deposit	Fill		Brown silty clay	Sub	47	Pot, flint
47	51	1	Deposit	Fill		Brown/dark brown silty clay	46	48	Pot, flint
48	51	1	Deposit	Fill		Dark brown silty clay	47	49	Stone, flint
49	51	1	Deposit	Fill		Dark brown/brown silty clay	48	51	
50	15	1	Deposit	Fill		V dark greyish brown silty clay	14	15	
51	51	1	Cut	Pit		Long irregular pit	49	11	
52	40	11	Deposit	Fill		Clay silt		40	
53	41	11	Deposit	Fill		Clay silt		41	Pot, burnt stone
54	42	12	Deposit	Fill		Greyish brown clay silt		42	
55	43	12	Deposit	Fill		Clay silt		43	
56	44	12	Deposit	Fill		Clay silt		44	
57	45	12	Deposit	Fill		Clay silt		45	
58	59	13	Deposit	Fill		Clay silt		59	
59	59	13	Cut	Ditch		Broad E-W linear	58	Nat	
60	64	9	Deposit	Fill		Brown clay silt		61	Bone, burnt flint
61	64	9	Deposit	Fill		Brown clay silt	60	62	Pot, flint
62	64	9	Deposit	Fill		Light brownish grey chalk	61	63	Pot
63	64	9	Deposit	Fill		Yellowish brown silty sand	62	64	
64	64	9	Cut	Ditch		Broad steep-sided E-W ditch	63	Nat	
65	67	16	Deposit	Skeleton	Sacrifice?	Tightly flexed calf burial	66	67	
66	67	16	Deposit	Fill		Dark greyish brown clay silt		65	
67	67	16	Cut	Pit	Grave	Subrectangular shallow pit	65	Nat	

APPENDIX II

FAUNAL REMAINS

The Animal Bone from Babraham Road, Cambridge (CAM BAB 97)

Ian L. Baxter

Introduction

The identifiable animal bone from this site came from ditches **20, 34, 59** and from a 'special deposit', the burial of a single animal in pit **67**. With the exception of pit **67** the bone from the site seems naturally cracked and weathered as if it had been exposed on the surface for some time prior to deposition. Considerable fragmentation has taken place both before and after deposition. Many fragments could only be identified as coming from "large mammal", almost certainly cattle as no other large species can be identified in the assemblage. Due to doubts concerning agencies of fragmentation and potential skewing of fragment counts, the large number of probable cattle long bone shaft fragments from **59** (58), over 50, are omitted from Table 1 which gives the number of identified fragments for each taxon by context. Because the bone surface is eroded, butchery marks such as cuts and chops are erased or masked and it is frequently difficult to tell if a bone has been broken before, during or after excavation. Fragmentation zones, following the method of Rackham (unpublished), were recorded for future reference when larger samples are available.

Most of the identified bone came from two contexts, 6 and 8 in ditch terminal **20**, 91 fragments representing 75% of the total. Of these, 68 fragments or 75% belong to cattle or probable cattle. Ditch **59,** (58) is the only feature to produce pig remains, some of which almost certainly derive from wild animals due to their size. Associated bones from the fore foot of a dog were found in **20,** (8). The burial of a calf in **67**, (65) forms a special deposit of probable ritual significance and is considered separately below. While the other features on the site probably date from the late Bronze Age/early Iron Age, the much better preservation of the bones in **67**, (65) suggests that this deposit is later in date.

The calf burial

Only one animal was buried in pit **67**, (65) of Trench 16, a very young calf. As found the skull was crushed and certain bones of the left fore leg are either miss-

ing or fragmented. This probably happened during trenching. The lack of wear on the deciduous teeth with the lower dP2 not yet occluded and M1 unerupted, indicate that the animal was unweened and under one month old (Amorosi 1989:53-6). Gestation lengths in modern cattle vary from 275 to 290 days (Hunter 1982:131). Comparison of long bone diaphyseal lengths in this specimen with modern foetal specimens suggests an age of about three weeks for this calf (Prummel 1989:Table 2). The skeleton was found lying on its left side very tightly fitting the pit with both fore and hind limbs tightly flexed (Fig. 1); this indicates that at the time of deposition carcass flexibility was not affected by *rigor mortis*. It is possible that this calf burial represents a sacrificial deposit of some kind. At Cadbury a number of young domestic animals, mostly calves, were found in shallow graves associated with a small square building with a porch identified as a shrine (Merrifield 1987:34-5; Alcock 1972:84).

Table 1. Number of fragments per taxon from each context

Taxon/Context		**6**	**8**	**18**	**35**	**58**	**65**	**Total**
Cattle		19*	17*	1	3	6	1*	47
Pig	0	0	0	0	5	0	5	
Sheep/Goat	2	2	1	2	0	0	7	
Dog	0	1*	0	0	0	0	1	
Large Mammal		12	20	0	6	M	0	38+
Medium Mammal		15	1	0	3	2	0	21
Medium /Small Mammal		0	2	0	0	0	0	2
Total	**48**	**43**	**2**	**14**	**13**	**1**	**121**	

Notes on the species
The following species were recovered from deposits at the site:

		Cut
Cattle	*Bos* f. Domestic	20, 34, 59, 67
cf. Wild Boar	*Sus scrofa* L.	59
Pig	*Sus* f. Domestic	59
Sheep/Goat	*Ovis/Capra* f. Domestic	20, 34
Dog	*Canis familiaris* L.	20

Cattle
Apart from the young calf buried in pit **67**, a mandible fragment belonging to a calf and a metatarsus fragment from a neonatal animal were found in ditch **20**, (8).

Mandible fragments and teeth from young adults came from **34**, (35) and **20**, (6), and from more mature beasts in **20**, (6) and (8). One horncore from an adult shorthorn cow was recovered from ditch **34**, (35). The only usefully measurable bones are a distal humerus and complete radius from the same animal found in **20**, (8) which came from a beast approximately 1.07m high at the shoulder (Matolcsi 1970). As noted above, cattle are the dominant fauna recovered from the ditches.

Pig

The only pig remains came from ditch **59**, (58). Two distal humerus fragments from opposite sides of the body are so large that they almost certainly belong to wild boar rather than domestic pig. The more complete example has a distal breadth (Bd) of at lest 50.3mm, which is much larger than a sample of German and Swiss Neolithic domestic pigs published by Weinstock (1993:91, Table 2). The other pig remains from this context are indistinguishable from domestic animals.

Sheep/Goat

Sheep/goat remains occur at a much lower frequency than those of cattle in ditches **20** and **34** and are absent in the other features except as undiagnostic long bone shaft fragments. The teeth recovered are from both young and old adult animals.

Dog

Several bones from the left fore foot of a medium sized dog were recovered from ditch terminal **20**, (8). It could be that more of the skeleton was originally present and that it forms part of a "special deposit".

Site potential and suggested sampling strategy

The site has good potential for animal bone retrieval. The discovery of human and animal burials in the evaluation suggests that similar deposits would be uncovered during a full excavation, possibly associated with a shrine of some sort. If, as seems probable, a settlement lies within the ditches, recent research suggests that the patterning of animal bone discard will be different within the settlement compared to that in the ditches. Spatial distribution studies on bones from the upper Thames Valley has shown that bones are preserved in ring-like patterns centred on houses or hearths (Wilson 1996:70-72), and proposes an explanation based on the idea of butchery at the edges of settlements and the cleaning up of the house areas being imperfect, moving some larger bones to the outer edges and leaving the smaller bones in and around the floors.

Other work on a small number of Iron Age settlements in the Wessex chalk downland has indicated that bones were discarded in an orderly and structured manner, and of the possibility of ritual in this structure (Hill 1995). Hill makes two crucial points. The first is that the vast majority of the material used in the past is destroyed and cannot be recovered by excavation. The second is that rich deposits are unusual, and their deposition in the ground is governed by the type of feature into which they are placed, the position in the settlement of that point

(principally inside versus outside, east versus west, and front versus back), and what has already been discarded into that feature. It is clear that rich deposits are not randomly thrown into the nearest available hole, and that there is no guarantee that these rich deposits are purely the debris from usual day-to-day existence.

Wilson (1996:85) clearly states that coherent settlements which have a central area (houses and pits) and peripheral areas (outside surfaces, enclosure ditch and fields) must be those chosen for retrieving bones, and that these settlements need to be excavated "substantially and systematically" in a broadly concentric way. The bones must be retrieved in a way that allows them to be placed to within a metre of where they were found.

Hill also points out that excavated segments in enclosure ditches need to be dug to consistent lengths , and to be at consistent lengths apart (Hill 1995:79). Three types of bone found in bone-rich deposits (whole human or animal skeletons; the so-called "associated bone groups" of partial skeletons- usually limbs- and piles of loose bones all from one or two animals; and human and animal skulls) need to be recognised by the excavators and recorded in much more detail. These three types of deposits are those which contain loose individual human bones.

Excavation

Discrete dumps in pits and ditches: distinct piles or layers of ash, charcoal, bones, pottery, or daub should be given context numbers and located accurately in three dimensions. Dumps of bone, pottery and daub should be cleaned of spoil and photographed as an aid to post-excavation interpretation. Loose skulls should be small-found. These discrete dumps are not always large or obvious, they may only be as small as a single bucket-full in volume. The dumps of bone noted by Hill are: whole human and animal skeletons; the "associated bone groups" of partial skeletons (usually limbs) and piles of loose bones all from one or two animals; and human and animal skulls.

Pits: A large enough number need to be excavated to ensure that a full range of types of pits on the site has been found, therefore the coverage of excavation should be evenly spread across the settlement. About the same percentage of pits from the total in each part of the site needs to be excavated.

Field ditches: on the whole these are not likely to contain rich assemblages. However, these features cannot be ignored as there is a need to confirm that the assemblages are not rich. The same recovery methods- slot width 1.0m, sample sizes- must be used to measure the differences.

Post-holes: the strategy here is dependant on the degree of truncation caused by medieval and later cultivation, if any. At the very least, excavation of circular structures can be confined to door- posts by the entrances, and one or two others. The function of four- and six-post structures (possibly grain stores or gutting racks) is not understood and these should be excavated and sampled for bones and charred

remains if well preserved (post-pipe and back-fill are clearly differentiated).

Soil sample collecting

General considerations: The final decisions about sampling cannot be made with reliability until the excavation has begun. These comments are only a guide, and further advice from the relevant specialists may be required.

Initially, all soil samples should be 100 litres, as suggested in the English Heritage guidelines for bone sampling (Payne 1992:3). The entire deposit should be bagged up as a soil sample if it is less than 100 litres. The material recovered from the sample processing is the best guide to the effectiveness of the sampling strategy, and to whether the sample is appropriate. The sample size may increase or decrease, depending on the results of processing. The processing of some soil samples early in the excavation timetable is therefore pressing. Nothing should be removed from the soil samples- no pottery, no bone, no stones unless they are too large to fit in the container. Large animal bones that will not fit in the sample bags can be removed and sent to the finds section, but it is critical that these bones be labelled with the relevant soil sample number. Residual and intrusive material is to be avoided.

Comprehensive sampling: Some points in the excavation should be comprehensively sampled. This means that every principal fill (all the fills excepting only minor erosive slips) has soil samples retrieved from them.

Soil sample processing

Sample size: It is difficult to tell what is an appropriate sample size for bone recovery before several samples have been processed. The initial sample size suggested is 100 litres with the aim to recover consistently more than 100 grams from the coarse meshes (exclusive of single large and heavy bones), and consistently more than 10 grams from the finest mesh (Payne 1992:3).

Wet-sieving aims: Wet-sieving and sorting of both the coarsest fraction (>10mm) and the medium-sized fraction (10-4mm) is required. The coarse sieve will catch virtually all bones from the larger animals and many bones from the smaller animals, but will let through the smaller bones of the smaller animals (Payne 1992:2). Sorting of the 10-4mm fraction is required to recover the foot bones of the smaller animals, which is a critical part of identifying where butchery waste was discarded.

Processing procedure:

1. A 40 litre portion of each sample to be processed for charred remains by flotation.

2. The mineral residue from flotation to be wet sieved through a stack of 10mm,

4mm and 2mm sieves.

3. The coarsest material (the >10mm residue fraction) to be sorted for all artefacts and bones. Each material to be bagged up separately.

4. The middle-sized material (the 10-4mm residue fraction) to be sorted for bone and all non-ceramic artefacts.

5. The finest fraction (the 4-2mm residue fraction) to be scanned on the sieve and retained if over 10 bones are clearly recognised - otherwise it should be discarded.

6. If fewer than 15 identifiable bones have been recovered from the 10mm and 10-4mm fraction in total, the remaining portion of the sample is not worth processing and should be discarded.

7. If further processing is merited, the remaining 60 litre portion of sample should be wet-sieved through 10 and 4mm sieves. In those cases were all the deposit has been collected and is less than 40 litres no sieving will be possible.

8. The coarser fraction (>10mm) to be sorted for bone and for all artefacts, and these combined with those sorted from the >10mm fraction of the 40 litre portion.

9. The finer fraction (10-4mm) to be sorted for bone and for all non-ceramic artefacts, and these combined with those sorted from the 10-4mm fraction of the 40 litre portion.

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APPENDIX III

HUMAN SKELETAL REMAINS

A SKELETON FROM BABRAHAM ROAD, CAMBRIDGESHIRE (CAMBABA97)

Corinne Duhig MA MIFA, Wolfson College Cambridge

Methods used are those of Cho et al. (1996) and Ubelaker (1989). Approximately 35% of the skeleton is present, loss being principally from the more - cancellous bones of the axial skeleton, mainly the spine; the bones are broken - the skull particularly severely - and the surfaces heavily root eroded.

Although the pelvis is too poorly preserved for any sexing features to have been recovered, every feature of the skull is male in form. The skeleton is gracile for a male and the stature only 170 cm (just under 5'7").

All teeth were recovered except the upper second incisors, which were congenitally absent and replaced on one side by a small, peg - like tooth. Dental health was perfect, with minimal wear characteristic of a young adult of not more than 25 years. No pathological changes could be observed in the bones due to their eroded condition, but the femora are hyperplatymeric: they have abnormal side to side flattening, a condition suggested as being due to a habitual squatting posture (Kennedy 1989: 131, 146-51)

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APPENDIX IV

LITHICS

LITHICS FROM BABRAHAM ROAD, CAMBRIDGESHIRE (CAMBABA97)

By Steve Kemp

It is important to recognise that these artefacts were not knapped into the ditch, they are likely to represent more than one event and that they would have been deposited on to a land surface which presumably no longer exists.

Report of findings.

The small collection of lithic artefacts indicate a flake based industry utilising locally available white and grey/brown cobble flints which would have been locally available from the river gravels and possibly from the chalk[1]. The white flint indicates access to raw material which is greater than 70mm in length, almost twice the size of the typical cobble flint material found in the rest of the collection. In the stratified contexts both types of flint are found in association and although the excavated assemblage can be divided on the basis of size the techniques of manufacture may suggest a temporal association with only one period of archaeological activity represented.

The technique of manufacture is wholly hard hammer; the resultant collection is composed irregular flint flakes. As mentioned above the raw material has had a significant impact on flake attributes; the excavated assemblage suggests that river cobbles of up to 45mm in length were collected and utilised. Platform preparation was absent and hinged flakes were common indicating a 'utilitarian' approach to artefact manufacture. One of the flakes (context (8)) was burnt subsequent to manufacture which suggests that flint knapping may have occured adjacent to hearths. The large number of burnt flint cobbles from adjacent contexts suggests that one or more hearths lay adjacent to these collection areas.

The whole of the collected assemblage was recovered from the upper fills of ditches it is therefore suspected that they are not in their primary location and that either they represent the discard from clearing of adjacent areas such as a hearth (few of the lithic artefacts are burnt) or they represent the natural input of a disturbed assemblage in to the ditch. The latter is supported by the heavy patination, abraded condition and the presence of fresh breaks which do not appear to be associated with the excavation technique. The former could be supported by the presence of a large quantity of burnt flint.

At the time of writing the author is unaware of the interpretation of artefact bearing contexts and specifically whether these artefacts were found within the fills of the early Iron Age enclosure or the associated field boundaries. The presence of large quantities of burnt flint cobbles with the work flint is significant and suggests the proximity of these ditches to hearths and flint working areas.

Dating is problematic as there is little that is distinctive about the technique of manufacture other than the lack of preparation and high proportion of hinges and incidental breaks within the collected assemblage. A single tool was found in an unstratified context. Unfortunately this is quite distinct from the rest of the assemblage; it is on a dark grey flint and is unpatinated and very slightly abraded. The tool is a horse-shoe (shaped) scraper, with retouch around 75% of the edge, and was made on a short hard hammer flake. The retouch is abrupt and on the ventral surface. This artefact is likely to be Bronze Age in date and although distinctive in its flint type and 'sophistication' in comparison within the rest of the assemblage it may be related as it is possible that a specific raw material has been selected for formal tool production and/or that the tools themselves were being curated[2]. A second irregular horse shoe scraper on a large patinated hard hammer flake was found in context 58. If these scrapers are associated with the rest of the collection this may suggest a later Bronze Age date for these activities.

Only twenty four flint artefacts were collected during the course of this phase of excavation. Unless further excavation occurs and the collection is added to no further work is justified. Should additional material be collected site specific research should entail spatial analysis of the burnt flint and artefactual lithics assemblages and their association with the enclosure ditches as there may be a degree of contemporaneity. Refined dating of the assemblage, in addition to the spatial aspects of the site, is obviously a priority given the association with enclosure ditches and a burial within the site, whilst an understanding of raw material procurement would obviously be of interest in any landscape study. Raw material utilisation and curation would also be important aspects when assessing the role of the assemblage.

Non-flint material collected during the evaluation includes sandstone, quartzite and degraded granite which would have been available within the local terrace gravels. Although a number of these rock fragments appear to be worn, as they are river cobbles I have reservations in regarding any of the worn surfaces as worked. The degradation of the granite could be related to heat, equally, acidic conditions within the gravels may have had a similar effect.

APPENDIX V

SITES AND MONUMENTS RECORD

A Summary of evidence from SMR entries and AP studies

1 INTRODUCTION

This document is intended as a brief summary of the SMR, historical and aerial photographic evidence relating to the site of the proposed Babraham Road Park and Ride (centred on TL 4755/5452).

2 HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

2.1 Historical Background

As far as easily accessible maps indicate, before Enclosure in 1835, the area belonged to Gonville and Caius College and was part of Heath Field. The subject area had no buildings on it, and a single boundary crossed from north to south, slightly kinked, and with one dog-leg turn.

2.2 Archaeological Background

2.2.1 Palaeolithic and Mesolithic

No definitively Palaeolithic or Mesolithic finds have been recovered from the subject area or its immediate surroundings.

2.2.2 Neolithic and Bronze Age

During the investigation of an anti-tank ditch in 1945, pits containing Neolithic pottery were found at SMR 04452, 04817, to the west of the subject area. Flints were also found in the top of a ditch during the same investigations at SMR 05119a to the SW of the site. Stray flints have also been found at SMR 05106, 083338a, 08710 (W, SW and NW of the site respectively). Littletrees Hill a Neolithic / Bronze Age Causwayed Enclosure (SM 24422) lies c 1.50km to the SE.

2.2.3 Iron Age

SW of the site, across the A1307, at SMR 05119, Iron Age pottery was recovered from a large ditch during investigations of anti-tank ditches in 1945. During evaluation along the route of the proposed Cambridge Southern Relief Road in 1993,

Iron age pottery was recovered from a large ditch WNW of the study area (Kemp, 1993, Site 4, Trench B). The Iron Age hillfort of Wandlebury Camp (SM 24406), lies 1.5km ESE of the site, and is a monument of national importance. War Ditches (4963 A-C) the later Iron Age hillfort lies c 1km to the north of the subject site.

2.2.4 Roman

Wort's Causeway, on the northern boundary of the subject area, and the northern parish boundary of Great Shelford, is a section of the Roman road to Colchester (SMR 07970, 08229). A single sherd of Roman pottery was located at SMR 08709 to the W of the study area.

2.2.5 Anglo-Saxon

No definitively Saxon finds have been located in the subject area or its immediate vicinity.

2.2.6 Medieval

Medieval pottery has been found at SMR 05016a and 08112, W of the site. SW at SMR 08338b, traces of possible ridge and furrow were identified.

2.2.7 Post-Medieval

Post-Medieval sherds have been recovered at SMR 05016, 08112a, 08338c and 08708, W, W, SW and WNW of the site.

2.2.8 Undated

Cropmarks as yet undated are manifold around the subject area: SMR 07892, 08338, 09598 and 09956, the latter being the only one within the subject area itself. SMR 08338 would appear to have produced both Iron Age and Neolithic finds in different places, but dating remains inconclusive.

3 AERIAL PHOTOGRAPHIC EVIDENCE

Rog Palmer of Air Photo Services has indicated in a preliminary statement that he believes that the cropmarks indicated on the SMR map as 09956 are "probably non-archaeological". This is the only cropmark visible within the subject area itself, apart from the broadly EW "medieval headlands", one of which was investigated by Kemp in 1993, but remains undated. Just to the west of the area, and extending southwards for at least 700m is SMR 08338, a cropmark of enclosures and possible field systems, and it is quite possible that this could extend east into the subject area.

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[1] Extraction from the chalk would require open cast **'mining'**. I am not aware of any seams of chalk within this area which would justify this level of exploitation or any field evidence to support such an interpretation (obviously these exposures would be difficult to date unless associated with preparation of artefacts prior to dispersal). The white flint is poor and would probably not justify the labour input when it can be gathered in haphazard way from the surface of the chalk or from adjacent gravels)

[2] This may explain the extension of the scraper retouch around the majority of the edge. This piece is surprising in the main scraper edge occurs on the platform, which would suggest to me that the piece is late and less 'formal' than earlier examples/typical should be; opportunism springs to mind ! a term commonly applied to the later stone industries i.e. late Bronze Age and Iron Age.

APPENDIX V1

MOLLUSCAN ANALYSIS

A thorough appraisal of molluscan species composition was undertaken on Fills 27, 25, 19, 10, 8, 7, 6 and 5. In each instance, all material >0.5mm was examined for molluscan remains. The following table represents those species present in each of the eight deposits.

	Fill 27	Fill 19	Fill 10	Fill 25	Fill 8	Fill 7	Fill 6	Fill 5
Pupilla muscorum	+	+	+	+	+	+	+	+
Vallonia costata	+	+	+	+	+	+	+	+
Helicella itala	+	+	+	+	+	+	+	+
Vallonia excentrica	+	+	+	+	+	+	+	+
Pomatias elegans	+	+	+	+	+	+	+	+
Pisidium sp.	+	+	+					+
Anisus leucostoma	+				+			
Cepaea sp.	+	+		+		+	+	+
Helicigona lapicida	+	+			+		+	
Deroceras/Limax	+					+		+
Carychium minimum		+	+	+	+	+		
Planorbis planorbis		+	+	+				
Truncatellina cylindrica		+		+	+	+	+	+
Vitrina pellucida		+		+	+	+	+	
Clausilia bidentata		+		+	+	+	+	+
Lymnaea truncatula		+	+					
Discus rotundatus		+	+		+	+		+
Armiger crista		+	+					
Arianta arbustorum		+			+			+
Lymnaea peregra		+						
Nesovitrea hammonis		+						
Cecilioides acicula			+	+	+	+	+	+
Vertigo pygmaea			+	+		+		
Succinea/Oxyloma			+	+		+		
Cochlicopa lubrica (agg)			+	+	+	+	+	+
Punctum pygmaeum			+			+	+	+
Trichia sp.				+	+	+	+	+
Aegopinella nitidula					+			+
Oxychilus cellarius					+	+		
Cepaea nemoralis					+			
Milax					+			
Cochlodina laminata						?		
Ena obscura							+	
Vertigo sp.							+	
Acanthinula aculeata								+
Number of Species	10	19	16	16	20	20	16	18
Abundance	fair	high	high	high	high	high	very high	very high

The high abundances obtained from all the fills examined would strongly suggest that in each case those taxa identified closely represent the life assemblages at the time of deposition. The general impression is of open, exposed, grassy conditions. *Pupillamuscorum* and in particular *Vallonia excentrica* are intolerant of shade and are

present in large numbers throughout. Some shade is available, as indicated by the occurrence of species such as *Discus rotundatus* and *Oxychilus cellarius*. This could conceivably be provided by walls associated with human habitation. The major environmental trend transgressing the period examined, is a general drying out of the site. In the lower fills (27, 19, 10 and 25) there are several damp-loving terrestrial species (e.g. *Carychium minimum* and *Succinea / Oxyloma*) which become progressively less common. In addition, the presence of aquatic species such as *Planorbis planorbis* and *Lymnaea peregra* in these early deposits, implies the presence of areas of open water. However, the occurrence of taxa such as *Vallonia costata* (usually associated with dry conditions) throughout the sequence suggests that some dry ground is present even during these early stages in the record.

One species which deserves special comment is *Truncatellina cylindrica*. This taxa, characteristic of very dry calcareous grassy places, occurs in reasonably large numbers in all the samples except Fill 27. Today it is only known to occur living at one location in Great Britain, at Potton Church near Sandy.

The molluscan record outlined in this investigation would appear to provide the basis for an interesting environmental history to accompany the archaeological investigations from this site. It is suggested that a more detailed sampling strategy is undertaken to increase the resolution of this environmental information.

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