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## KINGS HEDGES FARM, MILTON



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Rural Strategy

# **KINGS HEDGES FARM, MILTON**

## **An Archaeological Assessment and Roman Cremation, 1991**

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*Report no. 37*

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## **SUMMARY**

An area of some 9 hectares was evaluated, located at Kings Hedges Farm, adjacent to the A45 in the parish of Milton (TL 457 619). The evaluation, comprising desk-top assessment and trial-trenching, resulted in the excavation of a Romano-British cremation of mid 1st century date with six associated pottery vessels. Only one other cluster of archaeological material was recovered from the area. The remaining features comprised modern drains, field ditches, remains of Kings Hedges Farm and Second World War military buildings.

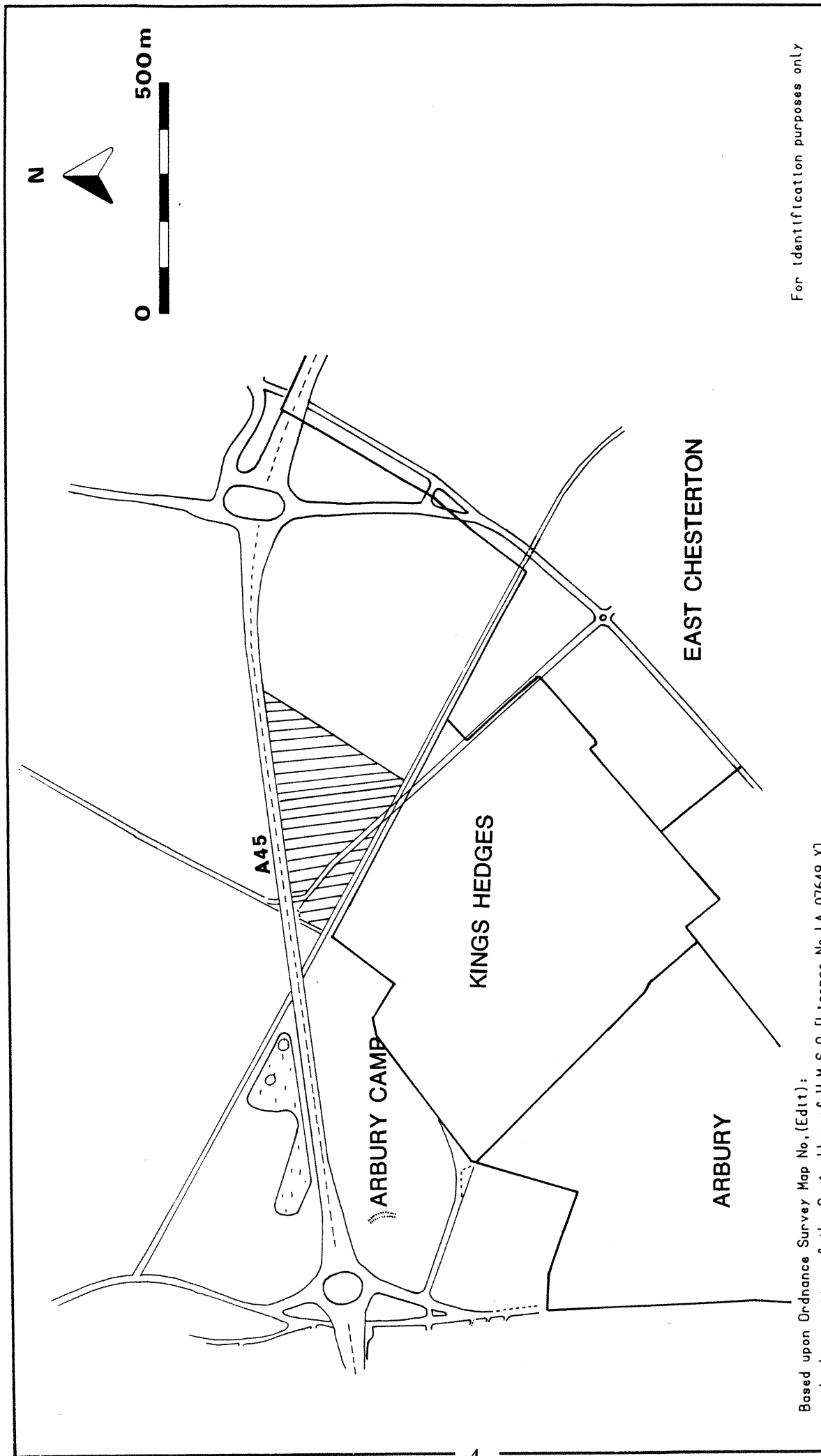
## **INTRODUCTION**

An archaeological evaluation was required for this area of Kings Hedges in advance of the proposed development of the site for the Cambridge Regional College. The area was considered to have potential for the recovery of archaeological remains. The site is located just to the north of an extensive Romano-British villa and settlement complex and is bounded by a section of Roman road to the west. The site of Kings Hedges Camp, thought to be a Medieval enclosure, was considered to extend into the proposed development area.

The evaluation was undertaken by Cambridgeshire County Council Archaeology Section between 28 May and 8 June 1990 by a core staff of three archaeologists and a site director. The overall strategy of the excavation team was to assess the impact of the proposed development on any surviving archaeological remains and make provision for further investigations, if necessary, in advance of the potentially destructive works on the site.

## **TOPOGRAPHY AND GEOLOGY**

The area lies at the interface between the Third River Terrace Gravels and the underlying Gault Clay. The Quaternary Drift (gravel) deposits comprise the western part of the evaluation area whereas the older solid cretaceous (Gault) deposits, underlie the eastern half of the site. The Gault Clay deposits exposed along two modern ditch sections to the north of Kings Hedges Road, displayed mixtures of clay, gravel and sand suggesting a disrupted sequence in this area.



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The ground surface is generally level, at a height of 12 metres O.D. for the southern field and 12.3 metres O.D. for the northern area (based on levels taken from the bench mark at 11.85 O.D. in the Science Park).

## **SITE LOCATION**

The site is located in the south-west corner of Milton parish some 2 miles north-east of the centre of Cambridge (Fig 1). The evaluated area comprised two triangular shaped fields separated by Kings Hedges Road. The smaller field is bounded by the former Cambridge to St Ives railway line to the south and by Akeman Street (Mere Way Roman road) to the west, surviving as a green lane. The northern field is delineated by the embankment of the A45, Cambridge Northern Bypass, to the north and by a deeply recut field-boundary to the east. The interior of this field contains the remains of Kings Hedges Farm, a Post-Medieval farmstead, recently demolished.

## **LAND USE CHANGE**

A recent archaeological survey of the area immediately to the north of the A45 adjacent to the site (Oetgen 1990) suggests that the area had limited evidence for occupation in the Prehistoric period. Scatters of fragmentary Roman pottery suggest that the area was subject to middening and therefore under arable cultivation by the Roman period. This regime appears to continue throughout the Medieval period, farmed under the open field system.

The Ordnance Survey map of 1886 (Fig 2) provides the first mapped record after enclosure for this area and shows the field to the south of Kings Hedges Road very much the same shape as it is today with the site of Kings Hedges Farm identified. The modern northern triangular field had been subdivided into three rectangular fields, with the Cambridge to St Ives Branch railway crossing the area from north west to south-east. This is the most marked land use change by this date.

The 1925 O.S. map shows a virtually identical land use pattern, with the exception of the two rectangular fields to the north of Kings Hedges Farm which have been subdivided by two ditches. The earthwork remains of Kings Hedges Camp are marked for the first time, parallel to Mere Way north-west of the Farm. The Camp's banks and ditches, planted with a mixture of orchard and deciduous species, had largely been cleared which

probably allowed completion of the earthwork survey. Similarly the belt of trees along Mere Way had also disappeared by this date.

Dramatic land use change occurred from the middle of the 20th century onwards. During the Second World War the fields to the north-east and east were given over to the construction of an American army tank storage depot, consisting of rectangular sheds divided by concrete roadways. The military camp and depot buildings continue to be marked on the O.S. map up until 1957. The earthwork remains at Kings Hedges Camp also survive until this period, although the O.S. survey of 1953 marks the site as an arbitrary section of scarp, interpreted as hedge banks and ridge and furrow earthworks.

In the 1960s the depot was levelled except for one storage building adjacent to the farm and the area largely returned to agriculture. In 1975 the A45 Cambridge Northern Bypass was constructed to the north of Kings Hedges Farm, removing all traces of Kings Hedges Camp. The farmhouse and outbuildings were also demolished at this time, leaving the land use as found in 1990.



## PREVIOUS WORK

### MEDIEVAL PERIOD

Kings Hedges Camp is first referred to in print by the antiquarian Babington (Babington 1883). He characterised the site as a large rectangular enclosure defined by banks with no evidence for either internal or external ditches. Babington postulated that it could date to the Roman period based on coinage recovered from the site. However, he also states that the camp may date to the Norman period.

In 1904 Hughes suggested that the site may have been used for hunting in the Medieval period, "the game being driven into the enclosure by a crowd of beaters".

The *English Place Name Society* (Reaney, 1943) suggests that the site may be identified with 'Thistilburg' (a burh or camp overgrown with thistles) referred to in 1277, indicating that the site was neglected or disused by this date.

Recent work (T. Way 1991 pers. comm.) dismisses the idea that the site was an enclosure associated with hunting as such enclosures were invariably located within forests or, later, chases. These are not characterised by earthworks unless forming an 'imparkment' area.

It seems unlikely that the Kings Hedges Camp was a deer park or pen on account of its small size and the lack of documentary evidence, associations or place name indicators. It may best be considered as a Medieval rectangular enclosure with, as yet, no identified function.

### ROMAN PERIOD

Excavations in the 1950s (Freund, 1954) and in the 1960s (Alexander et al 1967, 1968, 1969) uncovered the remains of two villas in the Arbury Road area.

The villa and settlement complex to the south of Arbury Road, excavated by Freund, located timber and stone buildings, barns, outhouses, a well, kiln and cemetery to the east of Mere Way Roman road. The settlement is considered to date between c. A.D. 130 and A.D. 400.

The second villa complex, to the north of Arbury Road and immediately south of the Kings Hedges Farm site, provided extensive evidence for both Roman and earlier Prehistoric settlement. Roman remains included rectangular buildings associated with the villa. The villa suite featured tessellated floors, plastered walls and glazed windows. Some of the rooms were heated by warm air conducted along flue-tiles. The complex is bounded by field systems and trackways, one of which appears to extend up to the railway line forming the south side of the development area.

Mere Way Roman road bounds the western edge of the site. The Roman road also known as Akeman Street runs from Cambridge (the Roman town was centred on the Castle Hill area) to the fens. It continued to be used into the Medieval period. Records dating to the 16th Century referred to the green lane as "Street Way" which linked the centres of Cambridge and Ely. The modern A10 road partly follows the earlier route.

## PREHISTORIC PERIODS

Iron Age activity was attested by enclosures and pits, which were uncovered during excavations in the 1960's (Alexander et al) to the south of the area. A fieldwalking survey of an area north of the site undertaken in November - December 1990 recovered very sparse Prehistoric, Roman and Medieval finds (Oetgen, 1990). It seems unlikely that this area was a focus of domestic activity in these periods but was no doubt utilised for agricultural and subsistence activities.

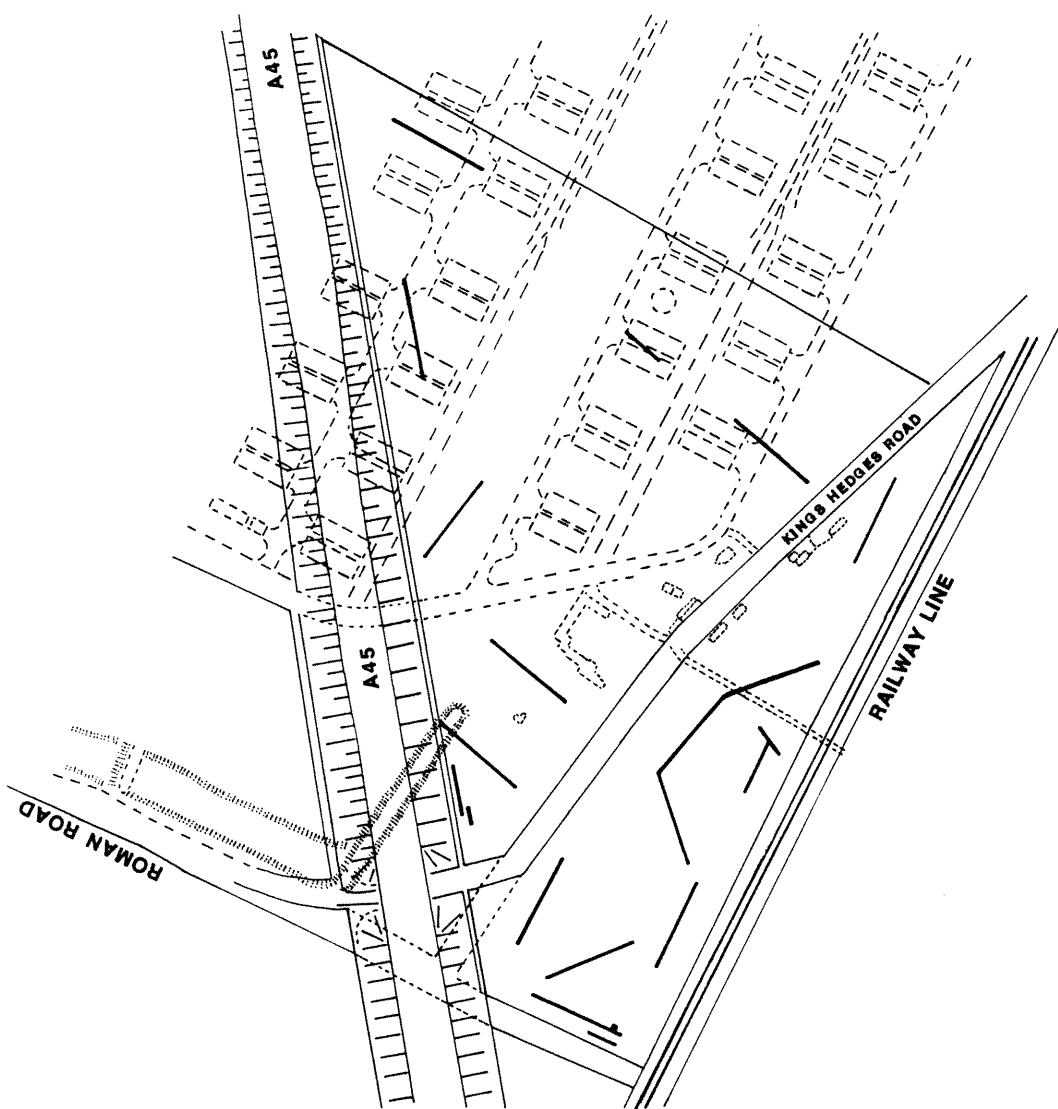
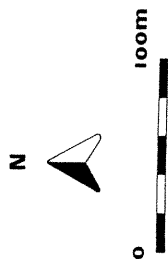
## RECENT FIELDWORK

A major archaeological assessment was undertaken by the Cambridge Archaeology Unit in September 1990. Some 0.5km to the west Evans investigated a 22 ha area, including Arbury Camp, an Iron Age 'ringwork' (Evans, 1991). No evidence for contemporary domestic occupation was recovered from within the interior. In the Roman period a scatter of pottery recovered from within the enclosure suggests re-use of the monument.

Further excavations by the Cambridge Archaeological Unit investigated areas immediately to the south, east and west of the area (Evans, 1991; Dickens, 1991). These resulted in the location of the Roman road, and associated pits and ditches, adjacent to the site. The remainder of the areas investigated suggest that the immediate area around the site was an 'empty quarter' utilised primarily for extensive agricultural activities.

## AERIAL PHOTOGRAPHS

No clear archaeological features are recorded on aerial photographs of the proposed development area with the exception of a dubious circular cropmark in the northern field. Cropmark features recorded immediately to the south (CUCAP AP FR 002) are thought to define a series of field boundaries, beneath relict Medieval ridge and furrow earthworks. To the south a large cropmark complex forms a rectangular settlement pattern extending either side of Akeman Street orientated at some 70 degrees to the road. This formed the area investigated in the 1960's in advance of housing developments (Alexander et al). The north-western side of the complex appears to be formed by a linear trackway feature which extends to the north-east to the edge of the Kings Hedges Farm site.



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## **RESEARCH DESIGN AND OBJECTIVES**

In view of the archaeological background of the Kings Hedges Farm site and its immediate environs field evaluation was strongly recommended for the area in advance of potentially destructive development works.

A research programme was drawn up to allow an informed judgement to be made on the presence/absence, survival, quality, potential and extent of archaeological remains within the proposed development area. These are as follows:-

1. To undertake a sampling programme for the area to locate and record archaeological features.
2. To locate Kings Hedges Camp, obtain dating evidence and comment on its functions and usage.
3. To ascertain whether the Roman trackway identified on aerial photographs to the south-west extends into the area.
4. Establish the presence of any extra-mural Roman roadside settlement remains adjacent to Mere Way (Akeman Street).
5. Investigate any other remains of quality and importance uncovered in the course of the field evaluation.
6. Make recommendations on the need for preservation or further archaeological investigations in advance of construction works.

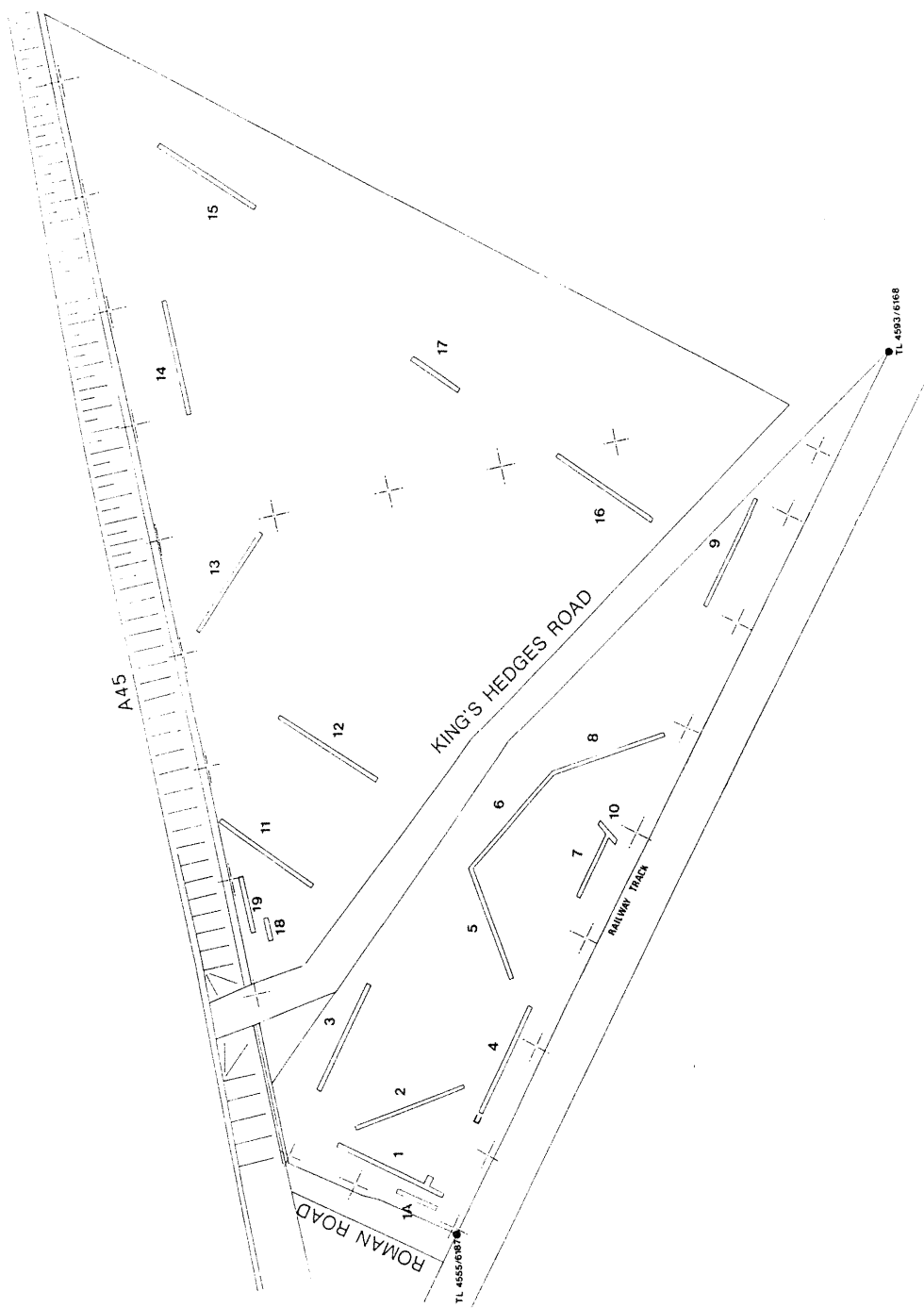
## **FIELD SAMPLING STRATEGY**

Some 8ha of the 9ha site was available for survey. The remaining area was under unsuitable land use (roads, hedges etc) and was not investigated.

Systematic fieldwalking was not possible within the time-scale set for the project. As a result assessment took place with a 0.50m high standing crop in the fields. Part of the northern area was obscured by areas of rough pasture, scrub and rubble from Kings Hedges Farm. It is likely that fieldwalking the cultivated parts of the northern area



0 100m



## TRIAL TRENCH LOCATIONS

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would not have proved informative due to the extensive land use alterations brought about by the construction and destruction of the military tank depot.

Trial-trenching by machine was chosen as the most appropriate field survey method. Trenching enables rapid survey of the archaeological potential of a large area which may contain areas of known archaeological interest such as Kings Hedges Camp. Machining was provided by JCB style Case 4x4 5809 excavator with a toothless bucket. A total of 825 linear metres were machined down to the subsoil (top of 'C' horizon). The trenches comprised a 1.9% sample of the land available for survey.

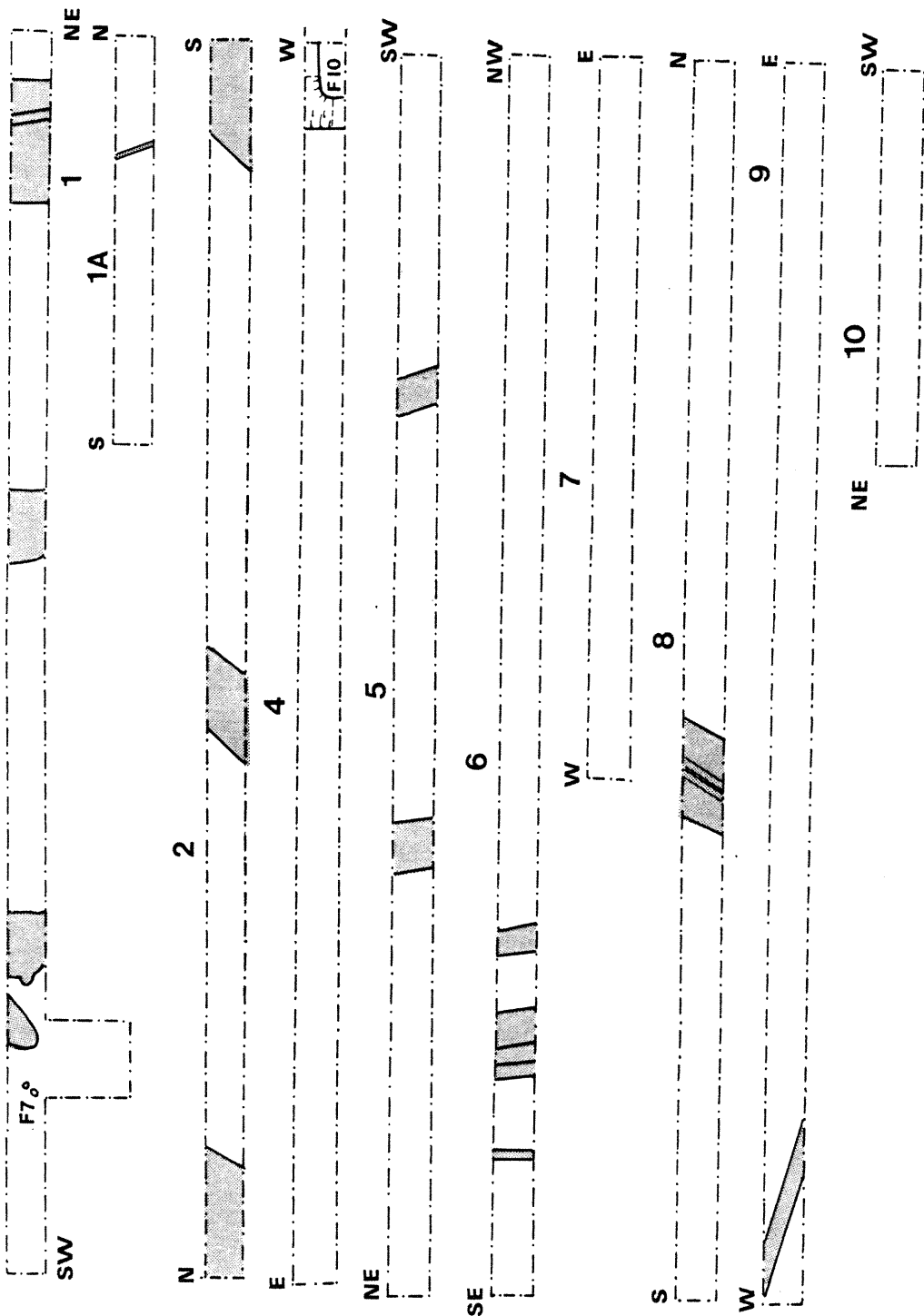
Fourteen 50m trenches and five 25m trenches were laid out within the area. Trenches were strategically located to cover as wide an area of the site as possible, including the areas highlighted as having greater potential.

The southern field was more extensively covered by trenches (1% ) as it was largely undisturbed by non-agricultural land use and located adjacent to the Roman road. Remains associated with the villa complexes to the south may also have extended into this area.

The northern field was less intensively surveyed (0.9% of available area). Trenches 11, 12 and 13 were laid out to attempt to locate King Hedges Camp. The remainder of the field was sampled by relatively few trenches as it included the area previously disturbed by the tank depot. A linear re-cut field ditch some 2m deep extending along the whole of the south-eastern boundary of the site provided a 360m section across the area thus reducing the need for more extensive trenching in this area.

The trenches were tied into the O.S. grid at the south-west corner of the field. The site grid ran parallel to the railway to the south and the A45 embankment to the north. All archaeological features were excavated by hand. In some cases deeper machine cut slots were excavated as a test of the geology. Post-Medieval field-drains were excavated by hand in the first few trenches and then by machine. All features were planned at 1:100. Archaeological features were planned at 1:10 with sections at 1:5. Each trench was photographed to provide an additional record of the field evaluation programme. A complete archive record is maintained with the finds at the County Archaeology store.

Modifications to the original trench design included an extension to Trench 1 and the location of an additional trench some 5m to its west (1A). These acted as a check on whether archaeological remains (discussed below) extended closer to Akeman Street. Trench 4 was extended an additional 5m after the discovery of a pottery group at the west end. A new trench (Trench 10) was cut crossing the end of Trench 7 as a check on



0 10m

MODERN INTRUSIONS

# KHF90 FEATURE PLAN OF TRENCHES

1-10

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an unexpectedly deep B horizon. In the northern area Trenches 18 and 19 were excavated during backfilling in a final attempt to locate Kings Hedges Camp. These were not included in the trench plans (Fig.5) as no archaeological features were uncovered. Trench 7 was shortened to a 25m trench due to modern disturbance.

## **RESULTS**

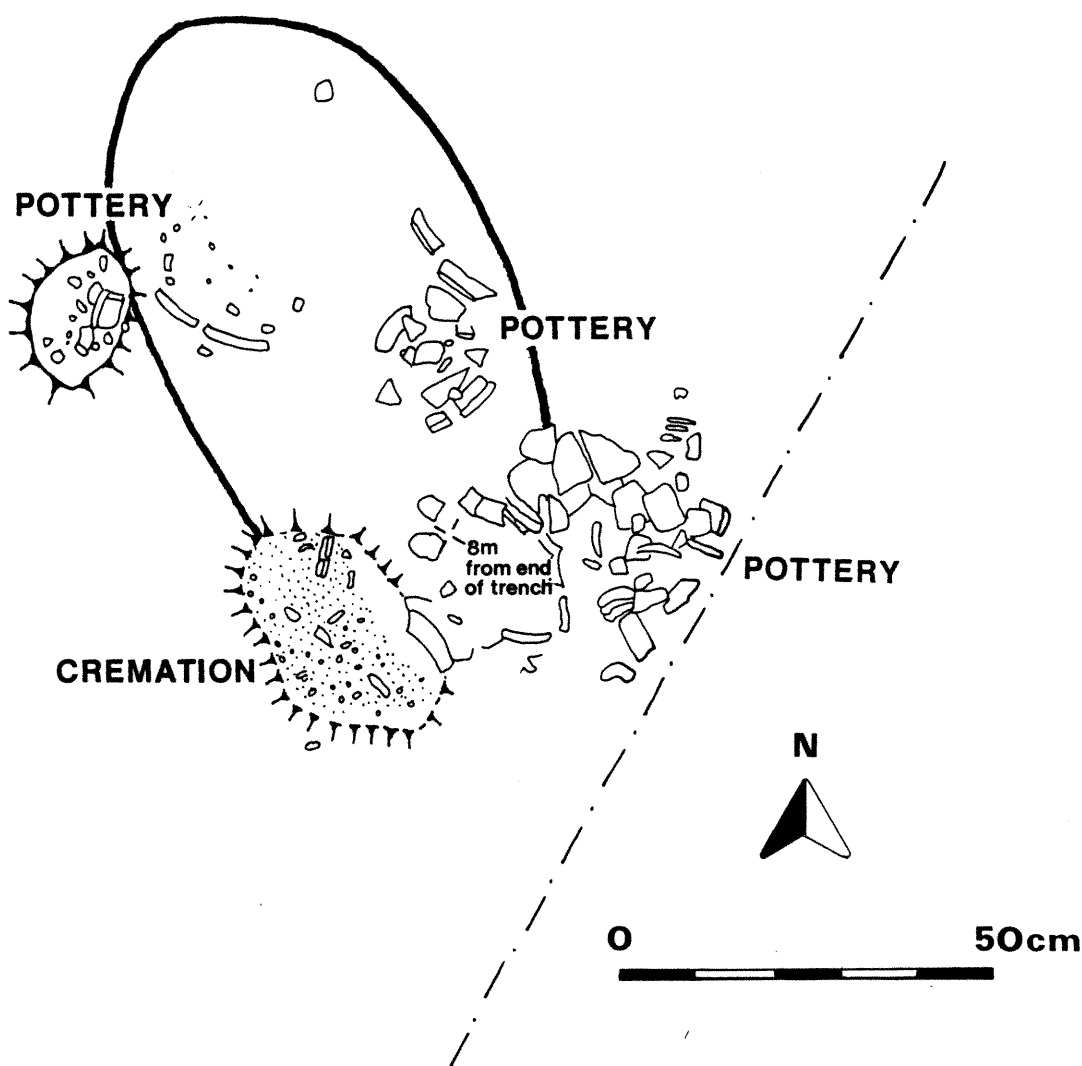
### **SUMMARY**

Of the 19 trenches excavated only one (Trench 1) located discrete archaeological features. A scatter of Romano-British pottery in Trench 4 and a finely retouched Neolithic flint blade in Trench 3 were the only other archaeological remains recovered from the southern part of the assessment area.

### **THE SOUTHERN FIELD**

Numerous non-archaeological features included a series of broad field-drains running NW-SE across the southern field (Fig 5) located in Trenches 1, 2, 5, 8 and 9 excavated by hand in Trenches 1, 8 and by machine in Trenches 1 and 2. The drains are Post-Medieval in date - recovery of clay pipe fragments may suggest an 18th -19th century date.

Trench 1 measured 50m in length and was laid out parallel to Akeman Street Roman road (Fig 4). Machine excavation of the top-soil (0.45m thick mid grey-brown sandy loam) exposed a series of light to mid grey-brown clay loam linear features (Fig 5 Trench 1) crossing the trench at right angles spaced at roughly 10m intervals. On excavation these proved to be field-drains, the drain cut forming a 'U' shaped ditch measuring up to 3m wide at the top, cut to a depth of 0.40m below the topsoil. Its vertically sided pipe cut measured some 0.40m in width by 0.35m deep. The in-situ drain pipe consisted of a round buff yellow biscuity fabric, fired into a series of rounded sections. Investigation of an oblong pit some 10m from the south-west end was also undertaken. The pit proved to be modern, constructed for the support of an electricity cable stantion.



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# KHF90 TRENCH I PLAN OF CREMATION F7

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### **Roman Cremation (Feature 7):**

One significant archaeological feature was uncovered in Trench 1. Some 8m from the south-west end of the trench a cluster of pottery fragments and burnt bone were uncovered by the machine in the top of the subsoil 'B' horizon (a layer up to 100mm thick except where cut by modern ditches and pits). A discrete cluster of burnt bone measuring some 0.33m by 0.21m in extent (Fig. 6) was excavated. It comprised a mixture of cremated bone fragments and moderate amounts of charcoal, within a light reddish-brown sandy loam matrix.

The cremated bone and pottery were located in the top fill of a shallow pit or hollow. The bone was located in a very discrete cluster suggesting it may have been contained within some form of organic container or bag which has since decayed. The majority of the pottery was located around the edge of the feature which may have been caused by slight plough truncation of the top fill of the hollow. Further fragments of cremated bone and pottery were recovered from the top 20 - 40mm of the shallow feature.

The pottery comprised a group of six vessels. These comprised a *Terra Nigra* cup with a stamped footring base, a groove-rimmed platter, a small jar, a Hofheim flagon with a ribbed handle and a narrow necked jar, all of which may be dated to the 1st - early-mid 2nd century AD. Study of the bone indicated it belonged to one young individual cremated in a fire of over 900 degrees centigrade. The cremation most probably took place on a pyre away from the site; the roadside location near to Roman towns is a common place for the deposition of human remains (Taylor 1992).

A 3m by 3.5m machine-cut extension was opened adjacent to the feature in an attempt to locate further cremations or associated features. In addition a 17m long machine trench was inserted between Trench 1 and Akeman Street parallel to the Romano-British road (Fig 4 Trench 1A & Fig 5). No further cremations or associated features were uncovered in either area.

### **TRENCHES 2-10:**

Plans showing the number and orientation of field-drains and other modern features are reproduced to avoid the need of lengthy trench by trench descriptions (Fig 5).

Within the western end of Trench 4 a further cluster of ceramic remains were excavated from within a shallow scoop (feature 10). These comprised three vessels; a bead-

rimmed dish, a necked jar, and narrow-necked jar all dating to the mid-1st to early-mid 2nd century AD. The pottery may have been associated with a cremation which had been removed by post-depositional processes (see Appendix 1).

Apart from the field-drains (discussed above) the assessment uncovered the remains of a series of shallow pits in Trenches 6 and 8 filled with dirty mixed ashy deposits probably derived from the adjacent railway works. Trenches 6, 8 and 10 also uncovered the remains of a trackway which crossed the railway to the south and led to Kings Hedges Farm in the northern area. The trackway was made up of redeposited natural soil derived from scooping up the adjacent subsoil or from the levelling of the railway line itself to form a slight cutting. Trench 10 was excavated to check the possibility of preserved ground surfaces or features beneath the trackway. No buried features were uncovered. No trace was uncovered of the potential trackway identified from aerial photographs.

Trench 9 showed that the eastern part of the field had been cultivated less recently. The ground surface was much more compact and the ploughsoil thinner. Apart from the continuation of the field-drain system, the only features were a series of animal burrows cut into the subsoil.

## **Conclusion**

Due to the extensive trenching coverage of this area it is likely that no significant structural remains will be uncovered by development works. Except for the cremation, Roman activity associated with the Romano-British villa to the south and Roman road to the west appears to be minimal, with no structural remains or field-ditches encountered.

## **THE NORTHERN FIELD**

The northern field was potentially more disturbed by modern buildings associated with the farm and tank depot. Trenching was undertaken in this area to attempt to identify Kings Hedges Camp, and locate previously unrecorded remains, in accordance with the sampling strategy.

The area produced abundant evidence for Post-Medieval field-drains and modern features (Fig 7). Trench 11, positioned to pick-up the south-west arm of Kings Hedges Camp, located a modern sewer trench running parallel to the A45 embankment. The

only other features comprised linear field-ditches and a modern pit (filled with topsoil). No trace of Kings Hedges Camp was found.

In Trench 12 a gravelled surface, probably a yard associated with Kings Hedges Farm, sealed one of a series of linear field-ditches. A modern service (gas) pipe was the only other feature exposed in this trench.

Trench 13 was positioned to locate the projected south-eastern side of Kings Hedges Camp, no features associated with the Camp were uncovered. A wide ditch filled with rich orange-brown clay was located. This is probably a field-boundary running north-east from Kings Hedges Farm marked on the 1886 O.S. map (Fig 2).

Trenches 18 and 19 were opened in a final attempt to locate Kings Hedges Camp, but also proved archaeologically negative. (No trench plans were recorded).

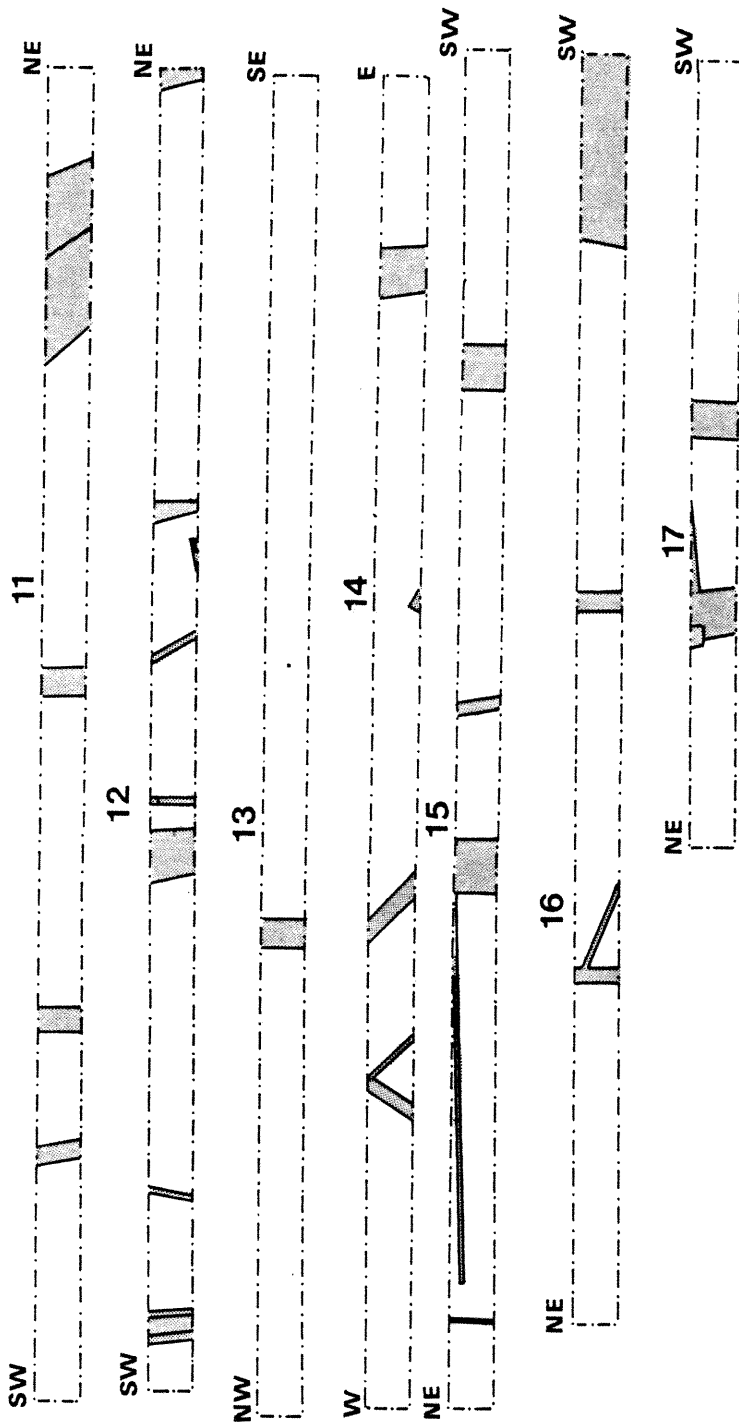
The brick foundations of one of the Second World War storage buildings were uncovered in Trench 14, some 0.30m below ground surface evidenced by modern rubble foundation material marking out a wall line aligned at a 30 degree angle to the trench.

Trench 15 was excavated to investigate a circular cropmark visible on the aerial photographs of the area. Once again no archaeological features were encountered. At its north-eastern end a small (0.60m wide) field-drainage ditch contained irregular buff coloured tile similar to those found within the broader 1.5-2m wide ditches. Other field-drains and a modern (0.75m wide) sewer were also located.

Trench 16 exposed very 'disrupted' subsoil consisting of dirty brown clays, sticky marl and mixed gravels. Further phases of narrow and broad field-ditches were located.

Trench 17, originally intended to be 50m in length, was shortened to 25m due to the absence of archaeological remains and the discovery of further Post-Medieval drains and modern building spreads. The building formed part of the tank depot, constructed upon mixed 'natural' clays, marls and gravels.

No archaeological features were visible within the 360m long section of field-ditch which formed the eastern boundary to the site.



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# KHF90 FEATURE PLAN OF TRENCHES **11-17**

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## **Conclusion**

The northern area proved to be archaeologically negative based on the trial-trenching programme. No trace of Kings Hedges Camp or any archaeological remains were recovered.

This situation was somewhat remedied by the casual discovery of a carved stone capital from the centre of the northern field by Patrick Joyce, County Farms Section, whilst assessing the state of the crops in the early Spring of 1991. The capital, a variant in the Corinthian order for a pilaster, measures 0.27m in diameter and features deeply carved acanthus leaf decoration (see appendix 3, fig. 10). The stone is thought likely to be derived from quarries at Ketton near Peterborough which have been mined as a source of fine building stone from Roman times until the middle of the 19th century.

The date of the capital is uncertain, as the piece does not conform to any easily recognised school of masonry carving. It may be 17th century in date possibly deriving from a funerary monument or a high status building. Alternatively it may be Roman in date, perhaps originating from one of the two villas located to the south of the site.

What remains a mystery is how the capital came to reside within this area, without trace of associated remains. It is possible to speculate that it may well have been a curated item found elsewhere and brought to the site, perhaps by the residents of Kings Hedges Farm.

## **DISCUSSION**

### **Roman (Alison Taylor)**

South of Cambridge the Cam Valley was thickly settled by late Iron Age times. The farms were mixed arable and pastoral, producing wheat, barley, beans, cattle, pigs and sheep. Settlements show no signs of defences beyond some fairly substantial enclosure ditches (eg Barrington, Malim forthcoming). This pattern of 'rural sprawl' continued through the Roman period, with most of the available land producing evidence of manuring at the very least and innumerable settlements and farmsteads recognised through aerial photography and fieldwalking. However, north of Cambridge the pattern is very different. There is far less evidence of Iron Age settlement, even within the Iron

Age 'ringwork' of Arbury Camp, and subsequent Roman land use is markedly non-agricultural until the fen edge is reached at Landbeach. Original fieldwalking at Milton, for example, produced only 49 sherds over 30ha. (Oetgen 1990).

Cambridge itself was a market town, fortified by walls in the 4th century, topographically dominating a river-crossing and a crossroad. It was strictly bounded on the Castle Hill site, with extra-mural areas used for industrial purposes (eg pottery kilns at Jesus Lane) and burials. Two kilometres north, separated by open countryside, were the wealthy Arbury villas which would have utilised land over a wide area. Another 2 kilometres north-east are the extensive Roman pottery kilns of Milton and Horningsea, dependant on Car Dyke to take their wares north through the Fens. Beyond the kilns begin densely packed fen-edge farming settlements. Outside these zones recent fieldwalking and assessment excavation (Oetgen, 1990; Evans, 1991) show a remarkably empty landscape, probably mainly used for pastoralism and woodland products (a valuable resource in relation to the pottery industry). In this area, therefore, we expect either large quantities of artefacts, as at Arbury, Milton and Horningsea or no signs of settlement at all.

Mere Way, a Roman road, also known as Akeman Street, ran from Shire Hall, (Isaac Newton Public House) to Landbeach, where it joins the modern A10. Parts of this route are visible as a 'greenway', surviving in parts as low earthworks in ploughed fields. Where it has been seen in section (Evans, 1991) it consists simply of a low bank, or agger, of rather gravelly soil. The road mainly follows the A10 through the Fens to Chittering. Its course from here on to Ely is uncertain.

Burials, except of infants, were not allowed in towns. Roads leading out of town were therefore the favoured sites for burials throughout the Roman period. The distribution of Roman burials in Cambridgeshire, with gazetteers of all known sites will be published in *Britannia* (Alison Taylor, 1992). The roads leading north from Cambridge (now A10 and A604) attracted particularly large numbers of graves, some in lead and stone coffins as at Arbury, other single inhumations with and without grave-goods, and others (generally of the 1st and 2nd centuries AD) cremated and often found in pots or glass jars.

The Kings Hedges cremation is very early, with pottery dated shortly after the conquest of 43 AD. At this date there were already rectilinear ditched enclosures (possibly a fort) on the site of Shire Hall, but it seems unlikely that a burial so far away (nearly 3 km) would be connected with this, although the road could well have been in use at this time. John Alexander's work at Arbury (Alexander, 1969) dates the occupation back to the late 1st century. A rich cremation at Arbury contained Antonine (late 1st century)



pottery (Freund, 1954) but so far the Kings Hedges group appear to pre-date other Roman land use in this area.

### **Medieval and Post-Medieval (John Etté)**

Kings Hedges Camp remains enigmatic but is thought to be some form of Medieval enclosure. Trenches opened in the northern area failed to recover any trace of the site. It seems likely that construction of the A45 removed any residual trace of the monument; its banks proving vulnerable to post-depositional truncation and destruction.

The area provided a wealth of information concerning Post-Medieval land use change, with the area divided by a series of field-ditches and drains. In the northern area remains of Kings Hedges Farm and its associated service trenches were uncovered as well as remains of the second World War tank storage depot. The sewer running adjacent to the A45 embankment was the most recent feature.

### **CONCLUSIONS**

Extensive trial-trenching and landscape historical assessment suggests that it is unlikely that any significant archaeological sites and monuments survive within the area proposed for development of the new Regional College. The archaeological potential of the site, outlined in the research design, has been demonstrated to be minimal, partly due to Post-Medieval and modern land use changes, with the A45 truncating and removing evidence of Kings Hedges Camp. The villas to the south have failed to provide evidence of associated features to the east of the Roman road. It is likely that this area was utilised as a series of outfields during the period, consistent with the scatters of abraded pottery recovered from the Milton Waste Disposal site to the north.

## **RECOMMENDATIONS**

Based on the results of the assessment there is no requirement for the excavation of archaeological remains within the area proposed for development. Limited proposals are recommended to secure the preservation of sites and items of archaeological importance which may be affected by the scheme. These are :

1. Mere Way, Roman road, (forming the western boundary of the site) should be preserved and adequately protected from any adverse affects of the development. A 25 metre constraint line should be drawn to the east of the road acting as an absolute constraint for building or related works. In addition any roadway or service trench crossing the road will need to be archaeologically investigated prior to construction. The Roman road should be viewed as a positive and important cultural resource and preserved and managed in accordance with its archaeological and amenity value.
2. An archaeological recording brief should be carried out during topsoiling and construction works for a further 25m beyond the Roman Road to record any further cremations or inhumations in this area. Early consultation and liaison with a recognised archaeological body should ensure that information loss is kept to a minimum.

## BIBLIOGRAPHY

- Alexander, J. 1969. *Excavations in Cambridge, 1969; A Preliminary Report on excavations at Arbury Road*. Boards of Extra-Mural Studies, Cambridge & London.
- Babington, C.C. 1883. *Ancient Cambridgeshire*.
- Dickens, A. 1991. *The Trinity Hall Field; The Archaeology of the Arbury Environs*. Pt III.
- Evans, C. 1991. *Archaeological Investigations at Arbury Camp, Cambridgeshire*.
- Evans, C. 1991. *Arbury East. The Archaeology of the Arbury Environs Part II. The Unix Lands and Gypsy Ditches site*.
- Frend, W.H.C. 1954. A Romano-British settlement on Arbury Road, Cambridge, *Proc. Camb. Antiq. Soc.* 48, pp. 10-43
- Hughes, Prof. T.M. 1904. Second Report on Arbury, *Proc. Camb. Antiq. Soc.* Vol 11, No 46, pp. 211 - 218,
- Malim, T. Barrington Anglo-Saxon Cemetery, Interim Report 1992 (*forthcoming*)
- Oetgen, J. 1991. *Proposed Waste disposal Site at Milton. An Archaeological Survey*. Cambridgeshire County Council Report no. 20.
- Reaney, P.H. 1943. *Cambridgeshire and the Isle of Ely*. EPNS vol. XIX Appendix 1.
- Taylor, A. 1992. *Britannia*. "A Roman Lead Coffin with Pipeclay Figurines from Arrington, Cambs."
- Victoria County History 1967. *Cambridgeshire and Isle of Ely* Vols I - IV.

## APPENDIX 1

### POTTERY REPORT FOR KINGS HEDGES

by C.J. Going.

The ceramic assemblage recovered from the excavations was insubstantial (less than 5kg). Most of the assemblage derived from the burial in Trench 1 (context 7), the only other assemblage coming from the shallow scoop (10) in trench 4. With the exception of a handle fragment from the bottom of the topsoil in trench 4, which is arguably of Medieval date, all the material belongs to the first to early-mid 2nd century AD.

#### **The burial** (Trench 1, context 7, Figure 8).

The pottery assemblage from this feature was extremely badly crushed, having been discovered during machining of the site. However, it appears to comprise six vessels.

01. Groove-rimmed platter form with an internal ledged moulding; a poor copy derived from a Gallo-Belgic prototype. Badly worn, surface completely abraded/spalled and crushed. The base is missing but it probably possessed a non-functional footring. Probably Neronian-Flavian in date. Context 7. Vessel II.
02. Terra Nigra cup (Cam f 56; Rigby (1981), type 29). Nearly complete but broken. Worn surface and footring. Single central stamp on the interior base reading SATOE (E Ret), or possibly SATO Fe (cit), perhaps TORNOS. (Rubbing to be sent to V. Rigby at the British Museum for confirmation. Date: Tiberian-Claudian. Context 7. Vessel I.)
03. Small jar with an out-turned rim, plain cordon, and bulbous body. The fabric, a coarse sandy reduced ware, resembles vessel 01. Probably Claudian-Neronian. Context 7. Vessel IV.
04. Extremely fragmentary Hofheim flagon, in a local oxidised fabric, fairly fine. Three ribbed handle. Not enough survives to indicate whether there was a second handle. The body is squat. The vessel is badly flame-marked and there are traces of thermal crazing. Probably Claudian-Neronian. Context 7. Vessel III or V.

05. Narrow necked jar in a fabric resembling 04, but finer. It too is badly flame marked. Probably mid-1st century AD. Context 7. Vessel III or V.
06. Sherds from a vessel resembling 5, but in a very fragmentary state. The body is fairly squat, and decorated with comb impressed marks. Date: probably mid-1st century AD, as 5. Context 7. Vessel VI.

### **Remarks:**

*Date* - The evidence of the six vessels taken together suggests a date bracket in the middle decades of the 1st century AD. The Terra Nigra cup is fairly worn, and if it is correctly ascribed to the Tiberio-Claudian period it had had several years of use before placed in the grave. The remaining vessels are characteristic of mid-1st century AD contexts in the region as a whole.

*Ritual* - The post depositional damage done to the pottery makes it uncertain whether or not the vessels had been deliberately broken before their interment - a phenomenon noted at a number of other local contexts eg at Great Dunmow, Essex, (Going and Ford 1988); Skeleton Green, Hertfordshire, (Partridge 1981); Great Chesterford, Essex, (Going, in press); and Guilden Morden, Cambridgeshire (Fox and Lethbridge 1925). However, vessels 4-5, and perhaps 6 are very incomplete and unless recovery was poor, it is probable that they were deposited in the grave in a fragmentary condition. This seems clear from the evidence that vessels 4-5 at least were badly flame discoloured and showed signs of thermal shock. It is suggested that both of them had been placed in the pyre when the dead youngster was burned. Being thin walled they are likely to have broken. It may have been thought sufficient only to place a token gathering of sherds in the grave. This phenomenon is also met with locally, but is probably under-reported in publications of funerary assemblages, as is the possibility that parts of the vessels may have been placed higher up in the grave fill, and thus not survived the plough.

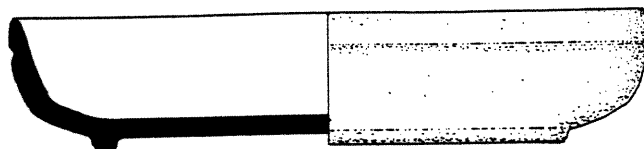
**Hollow.** (Trench 4, context 10, Figure 9).

01. Bead-rimmed dish (Cam f. 37) in a coarse, probably locally-produced reduced ware. The surface is spalled suggesting exposure to heat. The rim shape suggests a mid-Antonine date rather than earlier.

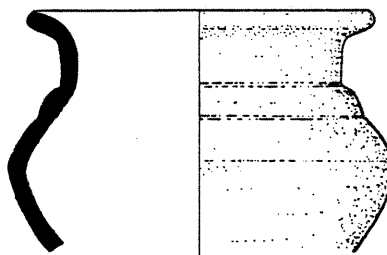
02. Reduced coarse ware necked jar. The base is missing and the rest is represented by several large conjoining fragments. Probably of Hadrianic-Antonine date.
03. Reduced coarse ware narrow-necked jar. Probably early-mid 2nd century AD. Probably a local product. All three vessels are in fairly substantial fragments, but none is complete. Is this a second, Antonine cremation group, or just detritus in a pit?

## BIBLIOGRAPHY

- Fox, C. & Lethbridge, T. 1925. *Proc. Camb. Antiq. Soc.* Vol 27, Guilden Morden pp. 109-126
- Going, C.J. *In press.* The Romano British Pottery. *In* Evison, V.I.
- Going, C.J. & Ford, B. 1988. *The Roman Pottery. In. Wickenden, N.P. 1988. Excavations at Great Dunmow, Essex. A small town in the Trinoventian Civitas.* East Anglian Arch. Report.
- Partridge, C.R. 1981. *Skeleton Green. A late Iron Age and Romano British site.* British Monograph Series 2.
- Rigby, V. 1981. *The Gallo-Belgic Wares In.* Partridge, C. 1981.

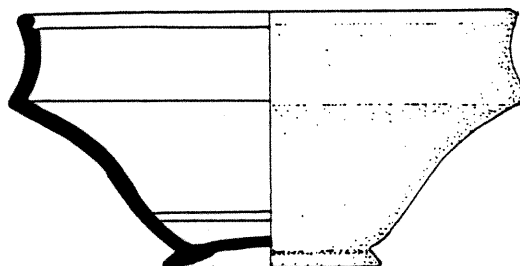


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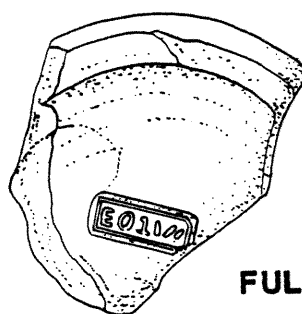


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2



FULL SCALE



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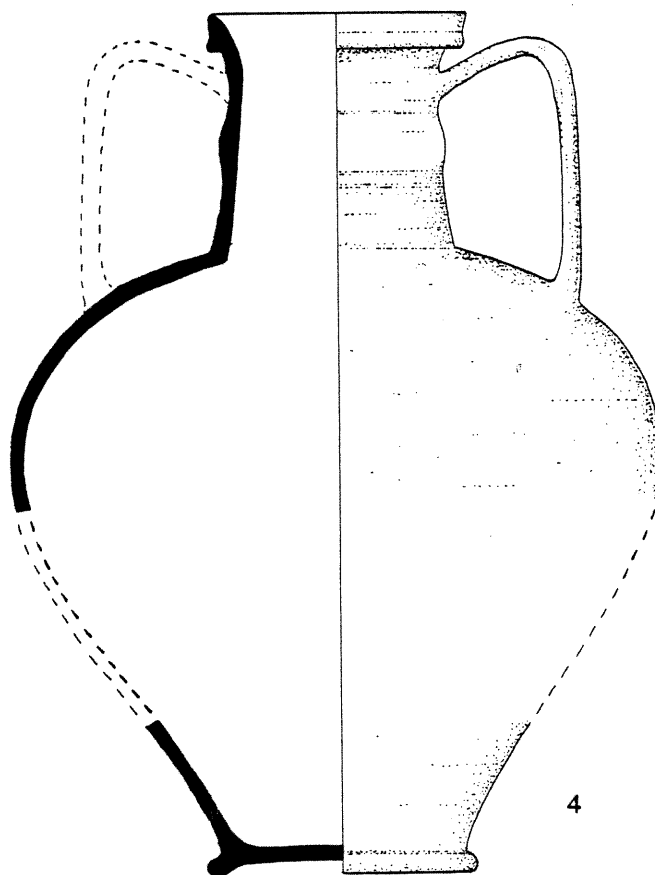
CONTEXT 7

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Archaeology Section

CONTEXT 7

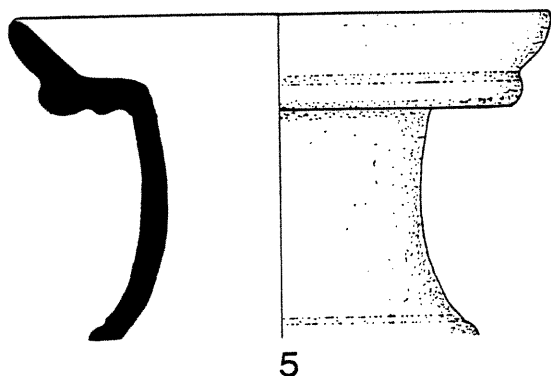
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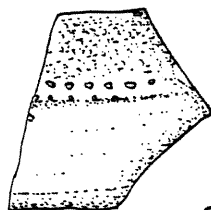
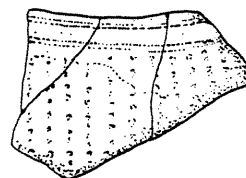
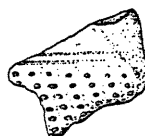
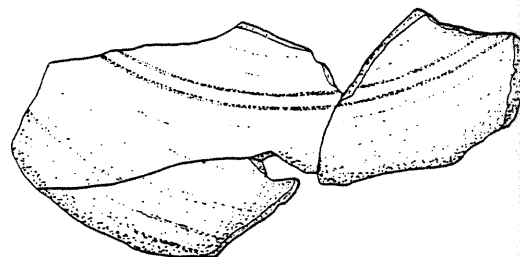
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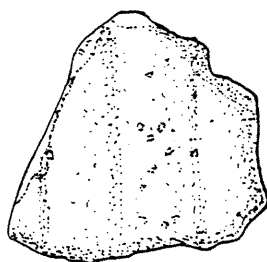




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6



misc



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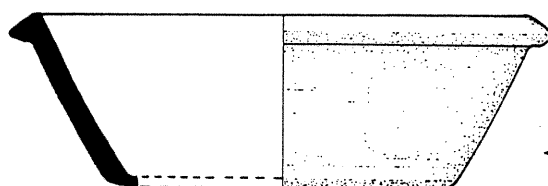
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CONTEXT 7

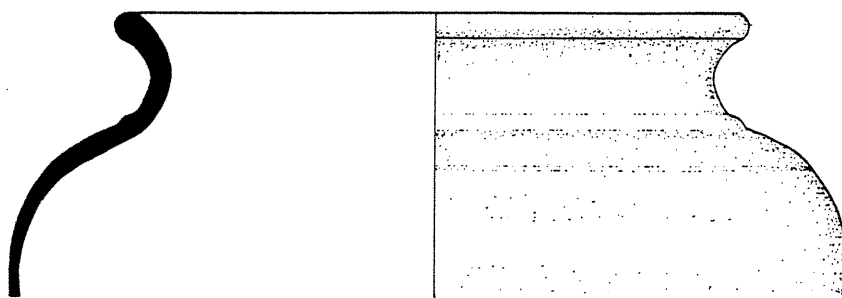
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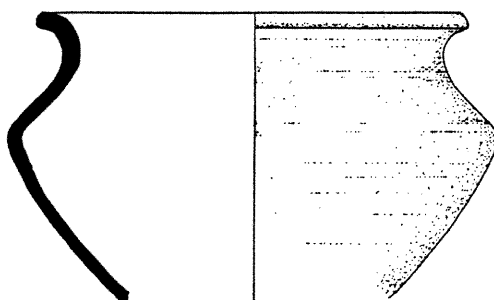
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County Council

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Archaeology Section

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## THE CREMATION REPORT

During the excavation of a Roman site at King Hedges Farm in May and June 1990, cremation was uncovered. The cremation appeared to have been interred in some form of organic container, possibly leather, in a scoop in the ground. Associated with the cremation were several fragmentary and incomplete pots considered to be late 1st - 2nd century. There was little evidence for any charcoal or burning and it was the excavator's impression that the cremation had not taken place in situ (Ette pers comm). The cremation was uncovered during trial trenching, but little of the feature appeared to have been damaged. The feature was then excavated and the entire cremation was collected and subsequently sieved and floated.

The majority of the sample consisted of unidentifiable bone fragments, although the fragments in the over 5mm categories could be placed in broad bone types, most of which consisted of remains from the long bones and cranial vault. Identifiable fragments include pieces of the skull, the lower jaw and the talus. None of the fragments suggested that there was more than one individual present.

The skull fragments show that the sutures are open with no indication of the early stages of closure, and the thickness of the bone, taking into account any shrinkage on burning, is not great (approximately 5mm), suggesting that it belonged to a young individual. The two fragments of the lower jaw have sockets for 3 teeth, from the premolar to molar regions. These teeth are from the permanent dentition placing the individual over the age of 12 years. Unfortunately there are few articular surfaces present, and an indication of degree of epiphyseal fusion therefore proved impossible. Finally the overall appearance and thickness of the cortical bone of the long bones also suggests a young individual. In conclusion, the age at death was tentatively placed between adolescence and young adulthood.

An attribution of sex or the stature of the individual proved impossible and by and large the material was too fragmentary for any observation of the presence of any abnormalities or pathological lesions to be made. However, associated with the socket for one of the teeth, (probably for the 1st permanent molar), is an irregular osteolytic or bone destructive lesion. This is the result of apical abscess, a localised area of infection resulting in a build up of pus. It may be secondary to dental caries or result from infection through the pulp cavity as a result of extreme attrition. In this instance, given the age of the individual, an abscess secondary to caries is more probable.

The efficiency in the method of cremation can be seen in the highly calcined nature of the bone sample. The colour of burnt bone has been used to suggest the firing temperature of the cremation. Burnt bone varies in colour from white to grey and black, with white assumed to represent the highest temperatures. Ubelaker (1984) considers white bone to result from burning at temperatures in excess of 900°C. Colour may also provide information on the method of burning used for cremation. Parker (1985:18) suggests that the colour of calcined bone may be a feature of the amount of oxygen supplied to a fire. From experimental cremations she was able to show that where cremation had taken place on a pyre, with a free circulation of oxygen, the bone had a uniform colour. She also considered that uniform 'high temperature' colours occurred when cremation took place while there was still flesh on the bones. The flesh would not only have ensured a constant temperature but probably also a higher temperature with much of the fuelling of the cremation coming from the body fats.

Almost all the fragments of calcined bone from Kings Hedges were a uniform creamy-white, with only a handful of small fragments fired white with a light grey interior. The absence of teeth and or enamel along with the small fragment size, and large unidentifiable or miscellaneous group suggests, that the method of firing was efficient or that post cremation crushing had been employed. It is the author's opinion that deliberate crushing of the cremation is unlikely given the relatively large number of fragments over 10mm. Although the majority of the fragments were in the miscellaneous category, they were possible to place in broad generic types dependent upon the morphology of the bone. This highlighted the fact that certain parts of the body were not represented either because they did not survive burning or they were not included when the cremation was collected for burial. It is probable that the larger more visible fragments were gathered in preference to the smaller pieces. From the Kings Hedges Farm cremation there are few fragments of the articular surfaces, flat bones and or bones of the vertebral column. Combined with this are the absence of the smaller bones of the hands and feet many of which have a significant proportion of cortical bone and would be expected to survive burning. In general terms bones from cremations undergo little alteration and survive burial well. The spongy bone may shrink slightly but by and large retains its shape as do the vertebrae. However, the efficiency of firing may have resulted in these bones becoming extremely fragmentary and consequently overlooked on collection.

On cremation bone not only splits and cracks but also distorts and twists, the greater the heat the greater the degree of fragmentation, distortion and splitting. The size of the fragments suggests that the method of firing was efficient resulting in just under 50% of the total weight consisting of fragments under 10mm. The majority of the sample 5.5oz (148grms) (54.2%) were over 10mm although they represent only 15% of the total number of fragments. 2½oz (66grms) (24.2%) was contained in the 5-10mm group and 2oz (59grms) (21.6%) in below 5mm group. The degree of fragmentation is unsurprisingly higher in the 5mm group accounting for 59% of the total number of fragments. Evans (1963) estimates that 1.6kg is the average weight for a cremation, while the overall weight for the Kings Hedges cremation was 10oz (280grms) and is clearly incomplete.

The types of bone fracture varies between fleshed and defleshed cremations. Curved transverse lines, irregular splitting and some warping and splintering as found in this cremation are indicative of fleshed cremations (Baby 1954). The pattern of cracking is also thought to reflect the bone morphology, the majority in the miscellaneous group being longitudinal with curved cross hatching a feature common in long bones (Baby 1954).

#### SUMMARY

The cremated remains uncovered by trial trenching at Kings Hedges Farm are considered to belong to a single individual tentatively aged between adolescence and young adulthood. Very little other information is available due to the fragmentary nature of the cremation. A dental abscess was noted at the base of one of the tooth sockets. The bone does not appear to represent a complete cremation suggesting that burning took place in another location and that the body was later collected for burial. The colour, size, and patterns of cracking of the bone all suggest burning at a high temperature, probably with a free circulation of oxygen in a facility such as a pyre.

## BIBLIOGRAPHY

- Baby, R.S. 1954  
"Hopewell Cremation Practices" Papers in Archaeology, No 1, The Ohio Historical Society.
- Berry A.C. Berry R.J. 1967  
"Epigenetic Variations in the Human Cranium" J. Anatomy 101 (2) 361-379.
- Finnegan M. 1973  
"Non Metric Variations of the Intracranial Skeleton" J. Anatomy 125, 1, pp 23-37.
- Parker S. 1985  
"An Experimental and Comparative Study of Cremation Techniques". M.A. dissertation, University of Sheffield.
- Prashma M.G. 1980  
Translation. "Recommendations for Age & Sex Diagnoses of Skeletons" Journal Human Evolution 517-549.
- Ubelaker D.H. 1974  
"Reconstruction of Demographic Profiles from Ossuray Skeletal Samples: a case study from Tideswater Potomac" Smithsonian Contributions to Anthropology No. Smithsonian Institution Press City of Washington.
- Ubelaker D.H. 1984  
"Human Skeletal Remains: excavation, analysis and interpretation." Manuals Archaeology, No 2; pp 33-36.

## PROCEDURE

The cremated bone was initially sorted into three categories according to the size of the fragments using 10mm, and 5mm sieves giving fragments of bone over 10mm, between 10 & 5mm, and under 5mm. This was used to give a quick but accurate method of establishing the degree of fragmentation by weighing each category.

The material from each group was then sorted into identifiable fragments and the minimum number of individuals, age at death, sex and occasionally pathological conditions determined from the identified bones and sockets of the teeth, where present. Details of colour, cracking and warping were also given.

### Minimum Number of Individuals

The presence of more than one individual would be noted if there is a duplication of a particular bone fragment, and or, there appeared to be a wide variation in the age at death between different fragments of the bone.

### Determination of Age at Death and Sex of the Individual

The methods used to estimate the age at death and sex of the individual in cremated remains are essentially those used in inhumations but the overall fragment size imposes its own restrictions. The criteria employed followed the recommendations published in the Journal of Human Evolution (1980).

The estimation of age relies heavily on the development of the dentition (Ubelaker 1978) and on the appearance and the fusion of the long bone epiphyses. The age categories employed tend also to be broader than those used for inhumations, the following age groups were therefore used:-

Infant	0 - 2 years
Child	2 - 12 years
Adolescent	12 - 18 Years
Adult	18 years +

The estimation of sex depends on the differences in size and muscularity between the male and female and the adaptation of the female for childbearing. The sexing of cremated bone is extremely problematic due to the fragmentary nature of the material and frequently the absence of diagnostic bones of the body.

### Dentition

The dentition was recorded in the following manner:-

Upper Jaw																				
Right	8	7	6	5	4	3	2	1												
	8	7	6	5	4	3	2	1												
	1	2	3	4	5	6	7	8												
	1	2	3	4	5	6	7	8												

Lower jaw loss after death (post-mortem).

### Non Metric Traits and Pathological Lesions

The consistantly small size of fragments made identification of non metrical traits, abnormalities and pathological lesions almost impossible. Non metrical traits and epigenetic variations, descriptions of minor morphological difference in the skeleton were recorded according to Berry and Berry (1967) and Finnegan (1978).

### Appearance of the Bone

The colour, size and weight of fragments were recorded, along with the types of cracking, splitting and warping of the bone. These were used in an attempt to establish the conditions and efficiency of firing.

## **APPENDIX 3**

### **CAPITAL FROM KINGS HEDGES.**

The capital is a variant on the corinthian order for a pilaster; the latter evidenced by the semi circular plan and slight remains of the return into the wall face on the right side. This side also contains the acanthus leaf decoration with the least erosion. The general form is very deeply moulded, in particular under the crown of the leaf; whilst the central rib projects as far forward as the leaflets at the base. These are formed at right angles to the rib with 2 drill holes and a flat symmetrical three-part form. The leaflets above these must have been carved in the round.

There are the remains of the springing of a volute of 2 caveto mouldings to the outer face and the stems of a floret or central volute.

On the underside are a patch of white lime putty with many flecks of burnt material in it and a central socket at the rear.

The stone may be from the Ketton quarries (worked from Roman times until the middle of the last century).

The eccentric bold simple forms not conforming to any of the 'correct' classical precedents suggest a provincial mason working from their own imagination and/or a very basic pattern book.

A 17th century funerary monument or a pilaster to a doorcase seem appropriate to its size, whilst provincial Roman work for a building of some importance may be possible.

Further research on the stylistic peculiarities, the precise source of the stone and analysis of the lime putty are needed.

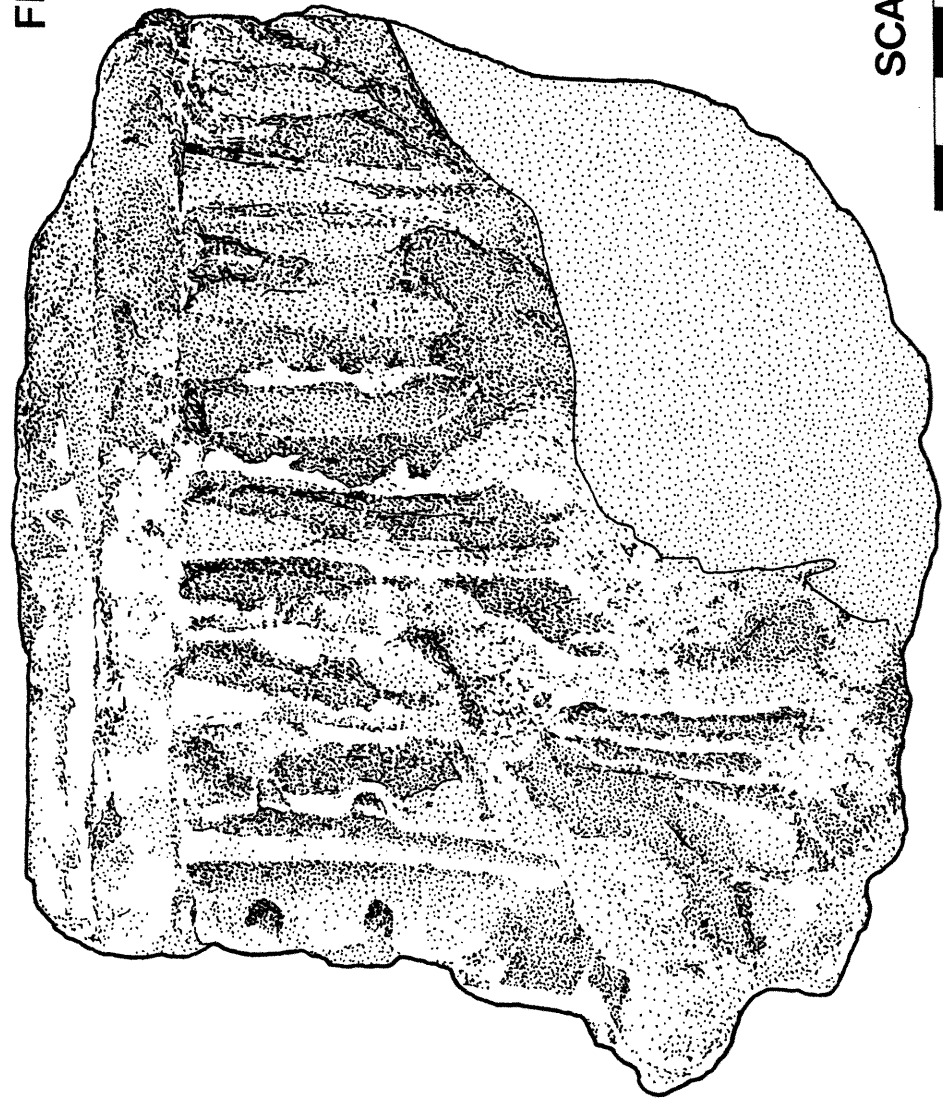
Chris Godfrey

Conservation Officer

Cambridgeshire County Council



FIG.10



SCALE 1:2



## ACKNOWLEDGEMENTS

The Archaeology Section acknowledge the generous funding provided by Cambridgeshire County Council Property Department and wish to thank Chris Burton and Patrick Joyce (County Farms Section) for providing assistance and access to the site.

The author particularly wishes to thank Simon Bray and Ben Robinson who helped undertake the field evaluation and for their assistance in preparation of the figures and reconstruction of the pottery forms, Gavin Lucas for his initial background historical research, and Twigs Way for advice on deer parks. Specialist reports were compiled by Chris Going(pottery), Francis Lee(human bone) and Chris Godfrey (carved stone capital).

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