

Archaeological Field Unit

## A45: Girton to Stow cum Quy. Field Walking Programme

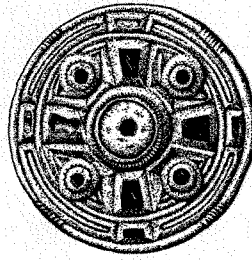
Steve Kemp BA AIFA

1993

**Cambridgeshire County Council**

Report No A23

*Commissioned By Travers Morgan*



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## **SUMMARY**

Fieldwalking was carried out by the Archaeological Field Unit, Cambridgeshire County Council in advance of detailed proposals for the widening of the A45 being submitted.

Fieldwork indicates that the discard of preservable artefacts was largely contained within those areas previously identified as archaeological by cropmarks. The finds associated with these cropmarks indicate intense but spatially restricted Roman activities. However, in addition a number of early and late prehistoric sites were recognised lying in close proximity to the cropmark sites.

The fieldwalking programme has served the objective of defining areas of archaeological interest. This will aid the formulation of adequate proposals for the recording of remains affected by road construction. However, fields not under arable or where access was restricted due to sensitivity of crop have so far not been evaluated. Other more appropriate techniques need to be considered in such areas.

## **1.0 INTRODUCTION**

Following consultations with Travers Morgan and the Department of Transport the Archaeological Field Unit, Cambridgeshire County Council were requested to undertake a programme of field walking along the course of the A45 north of Cambridge. This programme had earlier been recommended by the County Archaeological Office(CAO) (Kemp 1992).

This technique was seen as the most appropriate preliminary response to assess finds distributions and particularly the recognition of sites not previously recorded by the Sites and Monuments Record within the assessment corridor.

## **2.0 BACKGROUND**

### **2.1 Location**

The areas field walked lie on the north side of Cambridge within an easement of about one kilometre either side of the A45 between Girton (TL 415/613) and Stow cum Quy (TL 515/596). The corridor was defined as the potential area of widening or course alteration by Travers Morgan for the original desk-top study (Kemp 1992).

### **2.2 Geological and Topographical Background**

Geology of the area is dominated by gault in the west and chalk in the east, deposits dipping to the south east (ibid.). The River Cam runs between Cambridge and Milton carving channels and depositing 1st, 2nd, 3rd and 4th Terrace gravels over the solid geological deposits. This provides significant soil variation and environmental conditions across the landscape which are likely to affect settlement location.

Within the desk-top assessment much of the area was recorded as river gravels or alluviated. Large areas of which have recently been disturbed by development with little chance of archaeological observation.

Detailed soil mapping during field walking has also highlighted areas of organic soils close to the River Cam which could yield important environmental information related to the activities at Biggen Abbey and the surrounding medieval (and presumably earlier) landscape.

The topography of the area is generally low lying rising to about 24m near Girton. Baits Bite lock lies at 3m OD rising to about 15m OD east of the River Cam.

## **3.0 FIELDWALKING**

### **3.1 Methodology**

Field walking was undertaken within the corridor indicated on Figure 1. Work was usually carried out by one, occasionally two members of the Archaeological Field Unit over the course of two autumn field seasons (November 1992 and October 1993).

Initial field walking (Fields 1-7) was on a strict grid system, collection was by 20 transects with 20m collection units, a field coverage of about 2%. The time taken to set up the grid and walk these areas, together with the paucity of finds recovered and the seasonal deadline led to a re-evaluation of the field walking programme. Later field walking was therefore at the same level (approximately 2%), with collection units by field rather than the 20m collection intervals used initially.

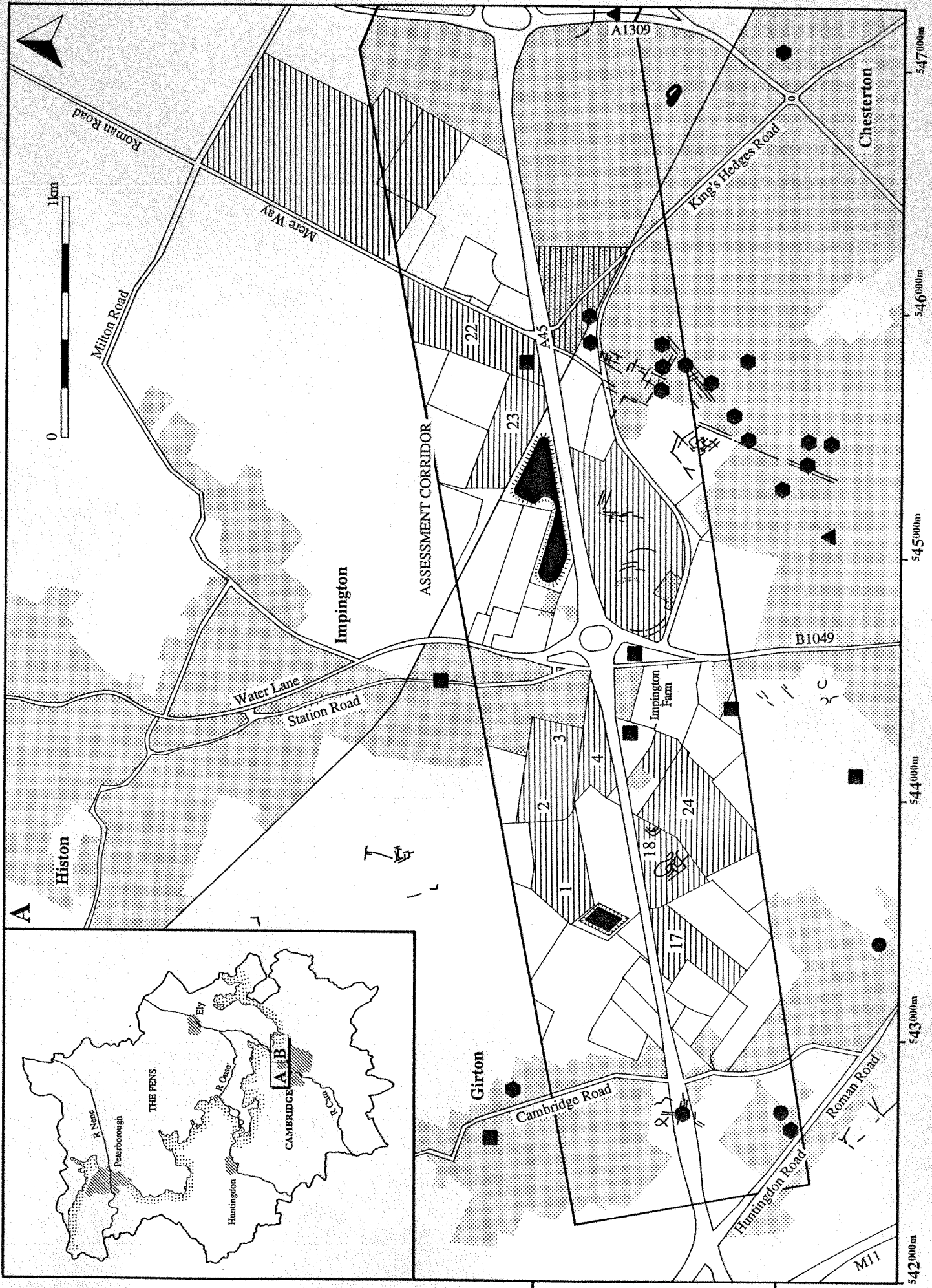


Figure 1 A45: Girton to Milton field walking

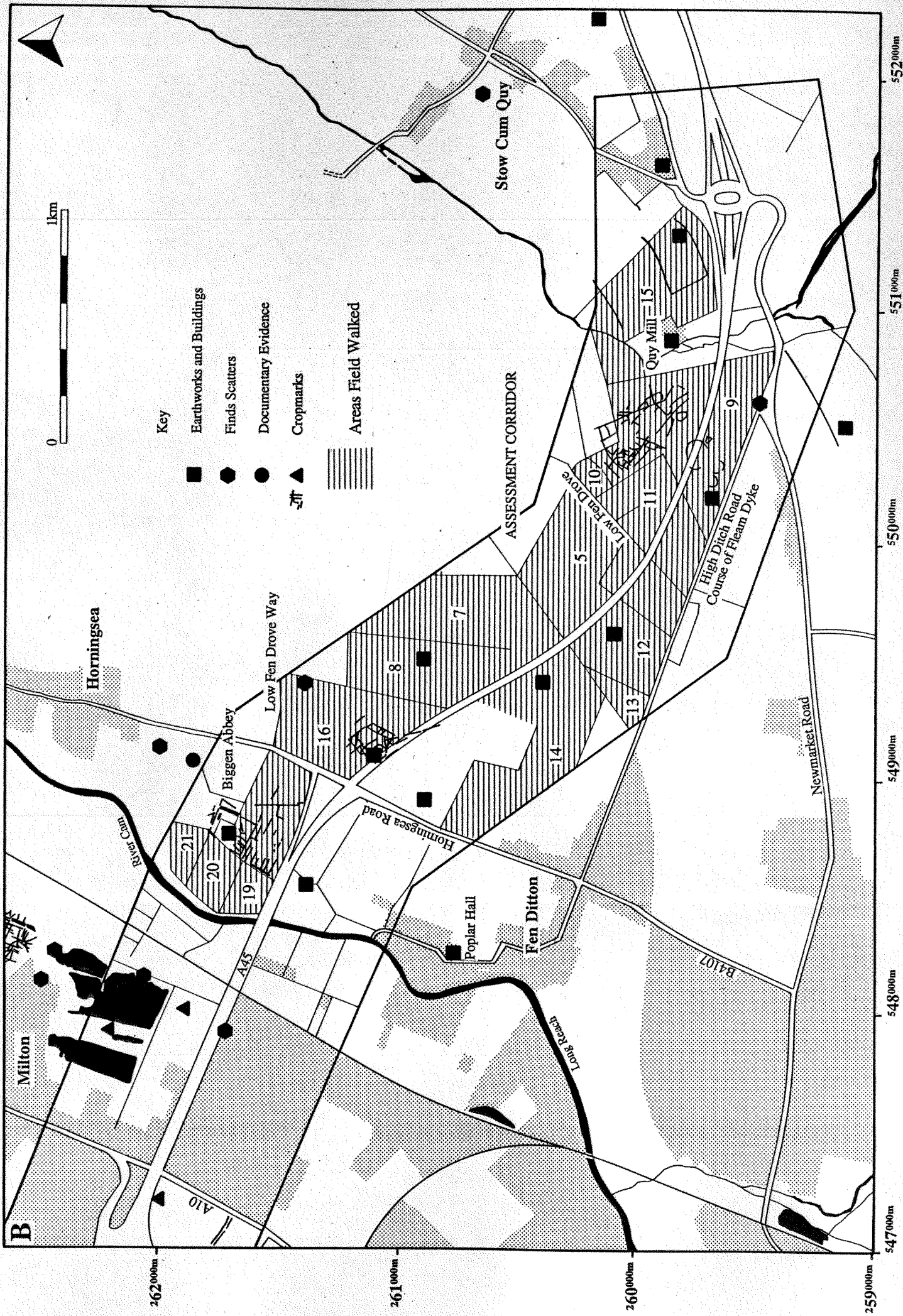


Figure 2. A45: Milton to Stow cum Quy field walking

Finds were recorded on Cambridgeshire County Council recording sheets and pottery collected for analysis. Soil changes, tile, slag etc. were also noted.

All finds and recording sheets are presently archived at the Offices of the Archaeological Field Unit, Cambridgeshire County Council, Fulbourn.

### 3.2 Results

Figure 1 indicates fields walked in recent years by the Archaeological Field Unit Cambridgeshire County Council (Ette 1991, Oetgen 1990), Cambridge Archaeological Unit (Evans 1991) and the Cambridge Archaeological Field Group (CAFG 1986). Numbered field (1-24) indicate areas walked as part of this study, these are referred to in text form below. Other areas were not available due to developed or disturbed land, pasture and cropping regimes (experimental crops).

**Field 1**                      NGR TL 434/619                      Fig 1  
Located to the north of the reservoir Park Farm, Impington.

Finds include sherds of prehistoric, Roman, medieval and post-medieval pottery. No sites or areas of concentrated activity were defined.

**Field 2**                      NGR TL 435/619                      Fig 1  
Located to the northeast of the reservoir Park Farm Impington and east of Field 1.

Six sherds of pottery were collected. No sites or areas of concentrated activity were defined.

**Field 3**                      NGR TL 440/617                      Fig 1  
Located to the west of Impington and east of Field 2, at Park farm Impington.

Finds include 4 sherds of prehistoric, 2 of Roman and 2 sherds of post-medieval pottery. 26 tile fragments were recorded. The quantity of tile is not spatially discrete and may be as a result of the proximity of the area to Impington.

**Field 4**                      NGR TL 440/619                      Fig 1  
Located to the west of Impington within a field abutting the A45. South-east of Field 3.

Sherds of prehistoric, Roman, Medieval and Post-Medieval date were recovered. 3 flint artefacts were recovered close to the drainage ditch on the northern side of this field.

No sites or areas of artefact concentrations were recognised.

**Field 5**                      NGR TL 499/602                      Fig 2  
34 sherds of Prehistoric, Roman, Medieval and post-Medieval pottery were recovered as well as 204 tile fragments.

No sites or areas of artefact concentrations were recovered. Though a particularly high density of tile of unknown period is recognised across the site compared. This material appears to be evenly spread and may be due to the proximity to the road and disturbances associated road construction rather than an indication of earlier occupation.

**Field 6**                      NGR TL 488/615                      Fig 2  
Located to the south of Biggen Abbey, Biggen Lane and west of the Horningsea Road.

3 sherds of Post-Medieval pottery and 1 Roman were recovered, 71 fragments of tile. The field had few recognisable finds, no sites or areas of artefact concentrations were defined. The field showed marked changes in geology between sandy and clayey marl soils. It would appear that this area has been disturbed in the past as shown by the paucity of all periods of finds and particularly by the aerial photographic plots (Kemp 1992). It is likely that these soil changes result from coprolite mining.

**Field 7**                      NGR TL 495/610                      Fig 2  
Located to the west of the dismantled railway north of the A45.

Fifty four sherds of pottery were recovered. These were mainly of Roman (19) and Medieval (20) date, however 11 sherds of prehistoric pottery were also recovered.



Field 7 shows a marked increase in the number of Prehistoric and Roman finds in comparison with earlier fieldwalking. Material is concentrated in the south west of the field where 75% of the Prehistoric finds and 50% of the Roman material was discovered. Prehistoric artefacts are associated with two discrete areas of burnt flint suggest discrete activity areas possibly associated with settlement. Roman finds may be settlement debris associated with SMR 05324 lying within Field 16 to the west. Whether the site extends this far east or we are seeing the transfer of material by ploughing is unknown; though the present boundary is hedged and likely to be related to enclosure, therefore if the second hypothesis is accepted transfer must have occurred prior to recent mechanised farming practices.

**Field 8**                      NGR TL 497/610                      Fig 2  
Located to the west of Field 7 and east of Field 16.

The majority of finds recovered from this field were Roman (18 sherds). Six medieval, 3 post-medieval and 4 prehistoric sherds of pottery were also collected.

No dense scatters of material were recognised. A high proportion of Roman finds (80%) were found close to the Roman site in Field 16 (SMR 05324). It is likely that these finds concentrations represent a background pattern in response to the proximity to Roman settlement, but may suggest that discard activities extend well beyond the area indicated by the cropmarks.

**Field 9**                      NGR TL 508/597                      Fig 2  
Located between Low Fen Drove, High Ditch Road, Quoy Water and the A45.

No artefacts scatters were recognised even though the area is known to contain cropmarks (SMR 09037) and be close to a series of Anglo-Saxon burials recovered from Fleam Dyke (SMR 06303). However, in recent years the Farmer Mr. E. Edwards recovered a spear head from this field.

**Field 10**                      NGR TL 503/602                      Fig 2  
lies on the eastern side of Low Fen Drove close to the Roman site (SMR 06449) Field 11.

1 piece of medieval pottery was recovered during field walking. There is was no field evidence to indicate the sites proximity to this cropmark Roman site.

**Field 11**                      NGR TL 505/600                      Fig 2  
Located to the south and east of Field 10 and Low Fen Drove, extending as far as Quoy Water. The field covers the Roman cropmark site SMR 06449. The field was assessed as four areas.

A) Eastern area abutting Low Fen Drove. No finds though the occasional tile fragment was recorded.

B) Northeastern area adjoining Field 10. Four Roman pottery sherds, 5 lithic artefacts including a worked piece of marble were recovered. Occasional fragments of tile and burnt flint were recorded. The cropmark plot indicates this an area of complex cropmarks, however few finds were recovered.

C) Northwestern area adjoining Quoy Water. The far north of the field appears to be disturbed with chalky marl occurring at the surface, with areas of burnt flint surrounding. This could represent industrial activity (lime production) associated with the Roman site, or be of a later date disturbing Roman remains. No finds were recovered.

D) Southwestern portion adjoining the A45. Roman pottery recovered was concentrated within areas of dark soil within the northwestern corner of this area. This area is shown as an area of complex cropmarks on the SMR.

The main discard areas of this site and therefore the areas easiest to recognise through field walking lie at about TL 505/600 where high densities are combined with dark soils and complex cropmarks.

**Field 12**                      NGR TL 496/601                      Fig 2  
Located to the north of High Ditch Road and the southeast and west of the A45 and dismantled railway.

Post-medieval pottery and tile fragments were recovered. No concentrations were recognised.

**Field 13**                      NGR TL 493/600                      Fig 2  
Located between the dismantled railway, High Ditch Road and Field 12.

A few post-medieval sherds were recovered. A concentration of modern tile and Limestone fragments occurs close to the entrance from high ditch road, it is likely that this material has been dumped into the field.

**Field 14** NGR TL 490/604 Fig 2

Located between Fen Ditton and the dismantled railway. The area was divided into four on the basis of relic enclosure field boundaries.

A) Field walking occurred to the south of the Roman cropmark site SMR 05324. Pottery was mainly of Medieval and post-medieval date, however some very abraded Roman sherds were also recovered. No artefact concentrations were recognised. The Roman finds indicate proximity to Roman remains, these are likely to occur on the south side of the A45 extending beyond the area defined by cropmarks as shown by Fields 7 & 8.

B) To the south of A and to the east of the school, Fen Ditton. One flint scraper and a sherd of post-medieval pottery were recovered during fieldwalking.

C) To the east of B. Two sherds of post-medieval pottery and one piece of worked sandstone were recovered.

D) To the east of C adjoining the A45 and dismantled railway. Five sherds of post-medieval pottery and one flint artefact were recovered.

No finds concentrations were recovered during fieldwalking. Occurrence of abraded Roman pottery within the area walked is probably an indication of proximity to remains occurring to the north and associated with SMR 05324.

**Field 15** NGR TL 510/600 Fig 2

Two areas located to the east of Quy Mill and west of Stow cum Quy.

A) North of Quy Mill. Two sherds of medieval and post-medieval pottery were retrieved from the terrace gravels southeast of Quy Water.

B) East and southeast of Quy Mill. One post-medieval sherd was recovered. In the main the soils were gravelly, however to the southern areas where the field dips sharply southwards, degraded chalk is in evidence. This is likely to be the result of ploughing into chalky areas probably exposed during road construction, the terrace appearing to be disrupted at this point. Three linear earthworks on similar alignments to the cropmarks (northwest-southeast aligned) are extant within the field.

No artefact concentrations were recovered during the process of field walking.

**Field 16** NGR TL 493/611 Fig 2

Located to the east of Horningsea Road and south of the Low Fen Drove Way. A cropmark Roman site (05324) lies within this field.

Thirty one sherds of Roman pottery and 3 of medieval/post-medieval sherds were recovered from the field. The majority of the finds were found below (to the south of) an east-west aligned terrace. Chalky soilmarks organised in a dendritic pattern with the main branch aligned east-west indicate disruption to the archaeological site. Roman pottery is concentrated in the darker soils between the chalky strips. Secondary branches are set between 15-20m apart, the organisation though not directly comparable with fields to the south of Biggen Abbey is likely to be an indication of coprolite mining. It is surprising that these features have not been traced on the cropmark plots.

**Field 17** NGR TL 430/613 Fig 1

Located on National Institute of Agricultural Botany land on the south side of the A45 east of Girton. The field was divided into two areas.

A) Abuts the A45. Five sherds of Roman pottery and Post-Medieval pottery were recovered. The Roman material was very abraded and is unlikely to indicate the presence of intensive discard activities in this field.

B) To the south west of A. Five sherds of Roman and 6 of post-medieval, the Roman material is very abraded.

The large proportion of slag spread across the field and the darkness of the soil could be indicative of industrial activities or more probably night soiling. Ploughing appears to be causing major disturbance to the natural substrate of clay, any archaeological remains in this field are likely to be heavily truncated.

**Field 18** NGR TL 435/614 Fig 1

Located to the east of Field 17 on the south side of the A45. Previously undated cropmarks of SMR 08955 and 08956 occur within this field.

Twenty seven sherds of Roman pottery occur in the centre of the field, this trend is *overlain* by a northwest-southeast band of darker soil containing modern pot and tile. It is possible that the cropmark site is of Roman date, however, Roman sherds are very abraded and may have been imported with the band of dark soil.

**Field 19**                      NGR TL 485/614                      Fig 2  
Located to the southwest of Biggen Abbey, adjacent to the River Cam.

No finds were recovered. Very dark organic soils occur within this field which indicate a wet organic rich environment during recent times. A sub-rectangular mound of chalky soil covers much of the field.

**Field 20**                      NGR TL 496/616                      Fig 2  
Located to the west of Biggen Abbey.

No finds were recovered. A band of gravels occurs on the western side of the house, this may indicate encroachment of the field on the earlier monument by ploughing. Slight earthworks are present around the Abbey appearing to be largely the result of garden activities close to the house.

**Field 21**                      NGR TL 497/617                      Fig 2  
Located to the north west Biggen Abbey.

Four pieces of post-medieval pottery were recovered. Considering the proximity of the field to Roman cropmark sites (SMR 05440 & 05442) the absence of Roman sherds is surprising.

**Field 22**                      NGR TL 456/624                      Fig 1  
Located to the west of Mere Way on the parish boundary between Milton and Impington.

Two tile fragments were found within the field

**Field 23**                      NGR TL 453/622                      Fig 1  
Located to the northeast of the Impington reservoir. No artefact concentrations were recognised.

Two sherds of post-medieval pottery and 5 fragments of tile. No artefact concentrations were recognised.

**Field 24**                      NGR TL446/614                      Fig 1  
Located to the southeast of field 18, on the south side of the A45 near Girton

Four sherds of very abraded Roman pottery probably indicate the fields proximity to the cropmark sites SMR 08956 and 08955, these probably extend into the northwestern side of the field. A significant quantity of post-medieval and modern pottery is located along this northwestern boundary. The linear arrangement and location indicate dumping of this material.

#### **Earthworks**

Two areas of earthworks not previously recognised or reported to the SMR were encountered during recent field visits. Earthworks occur to the east and southwest of Impington Farm these consist of ridge and furrow and ditched field boundaries. Areas of pasture can disguise earlier remains as they are unreceptive to aerial photographic and fieldwalking techniques. The area to the east of Impington Farm and west of Arbury Camp is of particular importance due to its proximity to this Iron Age 'fort', it is recommended that this area be considered for field evaluation including geophysical survey in order to evaluate activities external to this 'fort'.

#### **4.0 DISCUSSION.**

No new artefact scatter sites were recognised during fieldwalking carried out by this Office. Field walking by ourselves and the Cambridge Archaeological Unit at Arbury Camp (Evans 1991) indicates the relative importance of cropmark sites as foci of discard activities within this corridor. Cropmarks at Field 9 & 15 indicate that site recognition by fieldwalking is highly dependent on activity type i.e. pottery discard.

Intensive fieldwalking by the Cambridge Archaeological Field Unit (CAFG 1987) has however indicated the presence of Mesolithic lithic scatter sites along the course of Quy Water (TL 508/601). The distribution of these finds is of sufficient quantity and extent to be recognisable by the sampling strategy employed in this assessment.

The paucity of finds from around the Abbey (Fields 6, 19, 20 & 21) considering the importance of the house, its relationship with the Bishops of Ely and proximity to Roman remains (SMR 05540, 05442) is surprising. Land disturbance by coprolite mining can only be shown for areas south of Biggen Abbey, however as yet it cannot be proven that these activities have disturbed archaeological remains.

Two previously unknown earthwork sites were recognised during this stage of field work. These lie close to significant archaeological remains and will therefore need to be assessed by an appropriate field techniques.

## 5.0 CONCLUSION

Recognition of archaeology within the corridor by fieldwalking relies on the concentration of discard activities involving preservable artefacts. Fieldwalking indicates that pottery discard activities are largely restricted to cropmark sites of Roman date. Later Prehistoric sites also exist within the corridor defined by burnt flint and pottery lying near to later Roman sites (Field 7). Early prehistoric lithic scatter sites have been recorded by the Cambridge Archaeological Field Unit (CAFG 1987) along the course of Quy Water, the absence of these remains elsewhere could be indicative of the importance of stream channels to economic or social aspects of their perceived landscape.

There is no evidence from this proposal to change the views indicated by the CAO (Kemp 1992) as the cropmark sites are disturbed by ploughing and in cases quarrying. The absence of archaeology to the south of Biggen Abbey provides some leeway for the widening scheme in this area.

The fieldwalking programme has served the objective of defining areas of archaeological interest. This will aid the formulation of adequate proposals for the recording of remains affected by road construction.

## 6.0 RECOMMENDATIONS

Field walking has helped define areas of archaeological interest following the CAO's desk-top study (Kemp 1992). These show the relative importance of cropmark sites in terms of discard patterns; discard areas of later Prehistoric date also appear to be located close to these cropmark sites. Field walking is not the most appropriate technique for all fields particularly areas of pasture, in such cases other techniques should be used to identify areas of archaeological potential.

This technique does however provide a reasonable sample of the corridor allowing this Office to make some provisional assessment of the importance of archaeological remains which are likely to be affected by the proposed development. Sites of particular importance on the western side of the route way (Fig. 1) are cropmark sites of SMR 05720, SMR 08955/6 and the Iron Age camp of Arbury (SMR 08479 & 09530). Earthworks to the west of the Iron Age fort should be evaluated as part of this complex in order to assess the extent of later Prehistoric activities. Of further interest is the Roman Road of Mere Way, attempts should be made to maintain this route way.

In the east (Fig. 2) Biggen Abbey is still of archaeological significance though the evidence presented here suggests that the associated cropmarks are highly indicative of coprolite mining. The cropmark site SMR 05324 is believed to have been disturbed by coprolite mining, however field walking indicates that significant archaeological remains may still exist in this area, probably extending south of the A45. Iron Age remains are located in fields to the east. Archaeological remains were also found in Fields 11 and 12 associated with dark soils often indicative of Roman occupation debris. To the northeast of these remains lie a number significant early Prehistoric flint scatters. On the south side of the A45 in Field 9 cropmarks show a series of Prehistoric remains, no finds were associated with this archaeology. Similar Prehistoric features have been seen extending south of High Ditch Road (P. Sperry per comms). High Ditch Road follows the course of Fleam Dyke, burials are often found in association with this ditch and bank system.

The areas outlined above will require further assessment by appropriate techniques in order to assess the nature, extent and condition of the archaeological resource. In the mean time proposals have been submitted to undertaken geophysical survey of pasture as part of this first stage of field assessment. Trenching should also be considered for areas of shallow disturbance ie orchard areas south of the Milton quarries.

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Archaeological Field Unit  
Fulbourn Community Centre  
Haggis Gap  
Fulbourn  
Cambridge CB1 5HD  
Tel (0223) 881614  
Fax (0223) 881678



**Cambridgeshire**  
**County Council**  
**Archaeology**

The Archaeology Office  
Rural Management  
Department of Property  
Shire Hall, Castle Hill  
Cambridge CB3 0AP  
Tel (0223) 317312  
Fax (0223) 317341