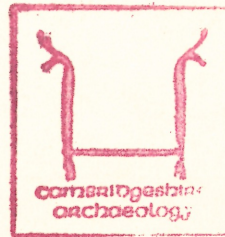
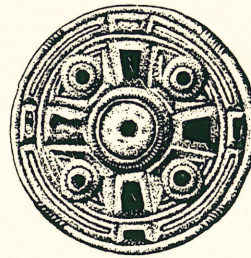


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COUNCIL OF CAMBRIDGESHIRE COUNTY CENTRES  
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Archaeological Field Unit

# Neolithic Activity Near Blaby's Drove, Sutton: An Archaeological Evaluation

J. Last

1997

**Cambridgeshire County Council**

Report No. 131

*Commissioned By R & P Baker Ltd*

**Neolithic Activity Near Blaby's Drove, North Fen, Sutton:  
An Archaeological Evaluation**

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1997

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*Report No 131*

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## **Summary**

*In October and November 1996 the Archaeological Field Unit (AFU) of Cambridgeshire County Council carried out an archaeological evaluation of land near Blaby's Drove, North Fen, Sutton, Cambridgeshire (TL 404/815). The work was commissioned by R & P Baker Ltd on behalf of PJ Lee & Sons, and was undertaken in accordance with a brief designed by the County Archaeology Office.*

*The evaluation area lies in an area of known prehistoric activity, with a series of Bronze Age barrows in the vicinity and an important Neolithic flint scatter site just to the south, all discovered by the Fenland Survey Project. During the Neolithic and Early Bronze Age the gravel terraces on which these sites lie were dry but subsequent peat growth prevented further development of the landscape before the drainage programmes of the 17th century AD.*

*The western part of the evaluation area retains an intact fen sequence, with waterlogged deposits at the base, but across the rest of the area the peat horizons have been lost to wastage and ploughing, which has also brought artefacts into the ploughsoil. Fieldwalking and trial trenching conducted for the present evaluation revealed a low density of worked flint of earlier Neolithic type across the area. A concentration around the trench closest to the known lithic site may mark the periphery of that occupation but in general the finds are seen as an 'off-site' scatter relating to prehistoric exploitation of the landscape. Two trenches contained possible shallow pits and post-holes. Tree-fall features, which occasionally served as artefact traps, were also found and are relevant to understanding the nature of this off-site activity. In addition, the trenches revealed recent agricultural features such as field boundaries and 'claying' pits.*

*Although the proposed development has been designed to avoid the known barrows, consideration should be given to potential dewatering of Neolithic deposits in the vicinity and the severing of the Fenland Survey sites from their landscape context.*

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# NEOLITHIC ACTIVITY NEAR BLABY'S DROVE, NORTH FEN, SUTTON (TL 404 815): AN ARCHAEOLOGICAL EVALUATION

## 1 INTRODUCTION

In the autumn of 1996 the Archaeological Field Unit of Cambridgeshire County Council carried out an archaeological evaluation, by means of fieldwalking and limited linear trenching, in farmland south of Blaby's Drove, North Fen, Sutton (Figs. 1 & 2). The evaluation area consists of some 18.8ha of arable land forming the site of a proposed irrigation lake. The work was commissioned by R & P Baker Ltd on behalf of PJ Lee & Sons, and took place in two stages from 29th October to 8th November and 20th to 29th November 1996, with a Total Station survey of the area carried out on 3rd December.

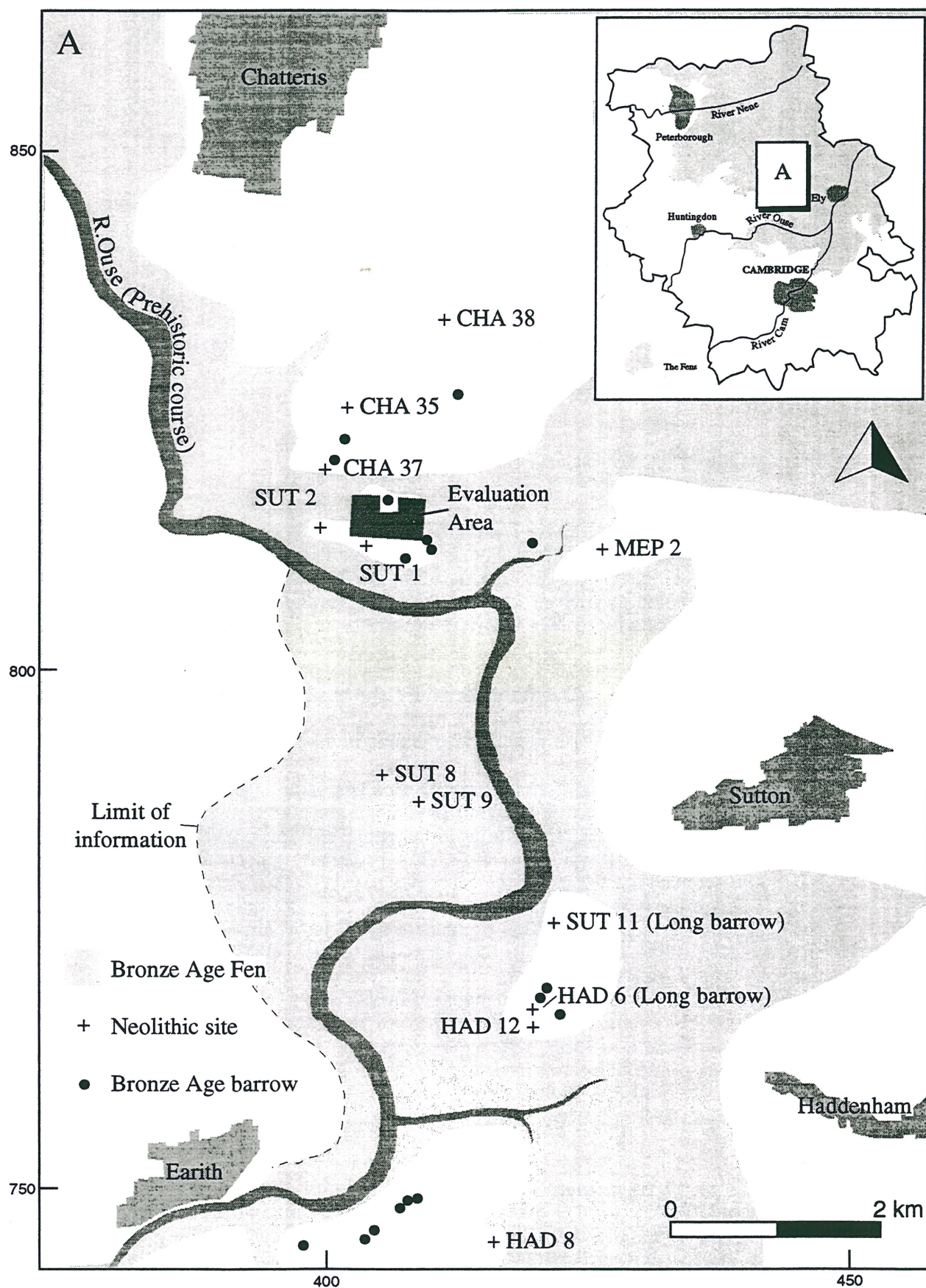
## 2 TOPOGRAPHY, GEOLOGY & LAND USE

The evaluation area (centred on TL 404/815) is located in Sutton parish, across the Hundred Foot Washes from Sutton village and immediately east of the boundary with Chatteris parish. It lies in the north-west corner of a block of arable land bounded by Blaby's Drove to the north, Horseley Fen Middle Drove to the west and Long North Fen Drove to the south. **In plan the evaluation area is U-shaped, with the two arms flanking a piece of land known to contain Bronze Age remains, which has therefore been purposely omitted from the development proposal.** The fields forming the evaluation area were most recently under sugar beet but have a history of deep ploughing for carrot growing, the effects of which were clearly visible in the trial trenches.

The evaluation area lies at about 0.5m OD on a low island of undifferentiated 1st/2nd terrace river gravels above Upper Jurassic clays, and overlooks a palaeochannel of the river Ouse now represented by Hammond's Eau drain, about 750m to the south (Fig. 1). This probably represents the main Neolithic/Bronze Age watercourse. However, Seale (1980, 9) suggests that a roddon which appears to cross Hammond's Eau at right angles to the west of the evaluation area (TL 395/811) represents the Ouse channel contemporary with the deposition, at the end of the Neolithic, of the 'Fen Clay' which seals the basal peat horizon in this area. The southern part of this roddon has not been traced but perhaps the river channel lay further away from the gravel island during the Early Bronze Age than the course of Hammond's Eau implies. The present land surface is level, with heights varying by little more than 1.0m across a distance of 700m, but slopes down towards the west where the edge of the island falls away into the peat fen (Figs. 2 & 3). Periglacial features, such as frost stripes and polygons, are visible as cropmarks across the evaluation area.

Clearance of the river terraces had begun by the mid-4th millennium BC at Haddenham (Waller 1994, 179). In this area waterlogging and peat formation was confined to the river channel itself until the later Neolithic and did not affect the adjacent terraces until after 2500 BC. Throughout the Fens these earliest peat layers, dating variously from the Mesolithic and Neolithic, are known as the basal peat (see Waller 1994, 10-17 for notes on terminology and dating). During the 2nd millennium BC the deposition of marine clastic deposits ('Fen Clays'), which reached their maximum extent c1600-1200 BC, promoted





**Figure 1** Location map, showing evaluation area, Fenland Survey Neolithic and Bronze Age sites and course of prehistoric river Ouse



further peat growth ('upper peat') that gradually enveloped the gravel island and continued until the drainage programmes of the mid-17th century AD. The 'Fen Clay' at Haddenham has been dated archaeologically and by radiocarbon to the post-Neolithic period (Waller 1994, 174).

At Sutton a section off site to the south, recorded in February 1990 during the Fenland Survey Project (Hall n.d.), found fen deposits conforming to the sequence just described, while at the terrace edge the ploughzone lay directly over gravels. Borehole data for the present development suggested that the eastern half of the evaluation area is heavily truncated by ploughing and that peat layers have been lost. This was confirmed by the trial trenching discussed below (section 5). No borehole data were available for the western portion of the area where aerial photographic evidence suggested the possible survival of deeper deposits (Appendix 4) which might have preserved and masked underlying archaeological remains. Trial trenching confirmed the presence of the Flandrian fen sequence in this area.

### 3 ARCHAEOLOGICAL & HISTORICAL BACKGROUND

The fields comprising the evaluation area were walked under good conditions during the Fenland Survey Project, using 30m spaced transects (Hall 1996, 56). This work located a number of flint scatter and upstanding barrow sites, which the proposed development was designed to avoid (Fig. 2), as well as some earlier lithics of Upper Palaeolithic or early Mesolithic date. Surface flint assemblages of Mesolithic/Neolithic date were found immediately to the south of the evaluation area (SUT 1) and some distance further west (SUT 2). Details of the SUT 1 assemblage, which relates to the finds from the present evaluation, are given below (Appendix 3). Figure 1 shows the density of Neolithic settlement on this part of the river terrace, with other flint scatters identified in Chatteris and Mepal. Somewhat further afield, a number of lithic sites are known in the vicinity of the Haddenham monuments (causewayed enclosure and long barrows). It is therefore possible that an enclosure identified to the north of the evaluation area (CHA 38; Hall 1992, 84) represents a monumental focus for the communities represented by the cluster of lithic sites including SUT 1.

Five Bronze Age round barrows were also noted on the gravel island, of which sites SUT 4, 5 and 6 lie south and east of the evaluation area while SUT 7 to the north will be preserved between the two arms of the proposed lake. Aerial photographic appraisal (Appendix 4) identified two areas of probable prehistoric archaeological features (pits, ditches etc.), one close to SUT 7 and the other to the south some 200m east of SUT 1. Two further possible barrows were identified close to the evaluation area, one near SUT 7 and one near SUT 4, and a possible ring-ditch lies within the evaluation area west of SUT 7 (Fig. 2).

During the evaluation SUT 7 was visible as a low gravelly mound just outside the development area while SUT 6 could be seen from the road as a spread of gravel. SUT 4 was under vegetation until the last week of the evaluation but could then be discerned as a gravelly mound. Barrows 4 and 7 were included in the Total Station survey of the site.

Because the island on which the Neolithic and Bronze Age sites lie was sealed by peat fen after the 2nd millennium BC no finds of later prehistoric, Roman or medieval date have been noted from the area. Only with the cutting of the Old and New Bedford Rivers (in the 1630s and 1650s respectively) was large-scale



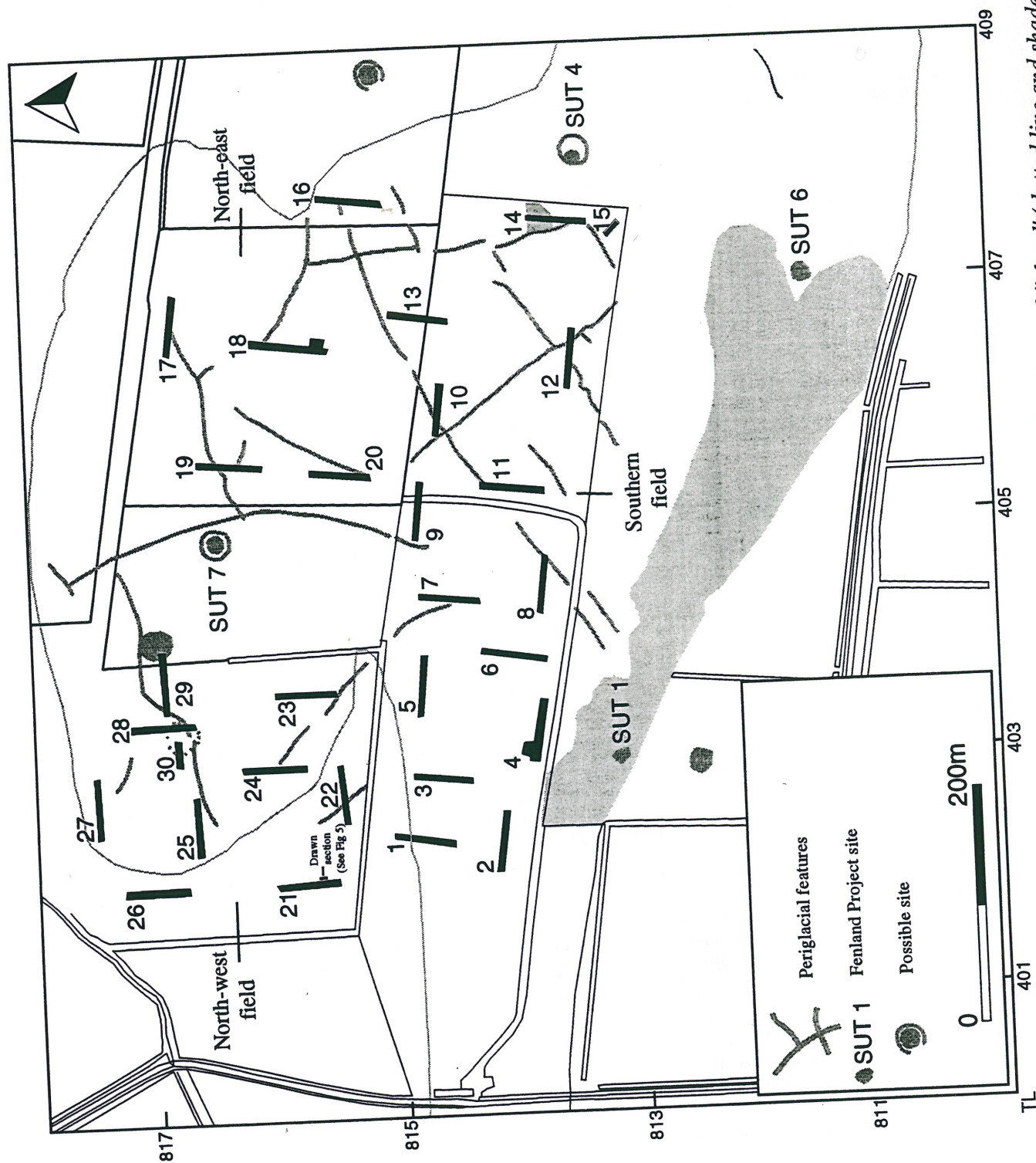


Figure 2 Trench locations showing archaeological sites, cropmarks and edge of gravel 'island' (dotted line and shaded area)



reclamation of the surrounding fen facilitated, including North Fen, which had been known as such from at least 1338 (Reaney 1943, 241). The inclosure of Sutton Fen was initiated during the early 17th century through a dispute between the dean and chapter of Ely and their tenants over rights of common (VCH Cambs. IV, 159). Most of the newly reclaimed Fenland would have been immediately inclosed; the remainder and the highland on which the village sits were inclosed in the mid-19th century.

Hammond's Eau, according to Dugdale, was excavated between 1649 and 1653 (Darby 1983, 76) on the line of an ancient channel of the Ouse. The narrow fields bordering the drain to the south and north (abutting Long North Fen Drove), were probably laid out at this time by Anthony Hammond (Taylor 1973, 196-7) who was involved in the proposal "for drayning of that parte of the great Levell which lyeth betweene Bedford River and Medland Banke" (Reaney 1943, 210). Blaby's Drove is named after the family of Sarah Blaby, who is mentioned in the Bedford Levels Orders of Sewers dating to 1692 (ibid, 241).



*Figure 3 Aerial photograph of evaluation area from south-east, showing limit of fen deposits (left) and soilmarks of barrows SUT 6 (bottom) and 7 (top right)*  
(Photo: Ben Robinson)



## **4 METHODOLOGY**

### **4.1 Desktop survey and aerial photographic assessment**

An initial desktop survey was carried out, including a review of the cartographic evidence for the area and consultation of secondary historical sources, SMR entries and the Fenland Survey archive (Robinson 1996). In addition, an aerial photographic assessment was commissioned, and is reproduced below (Appendix 4). The correspondence between features revealed in the excavation trenches and those visible on aerial photographs is considered by Robinson (below, section 5.4).

### **4.2 Fieldwalking**

The southern and north-western parts of the evaluation area were suitable for systematic fieldwalking at different stages of the evaluation. The southern field had been harvested some time before the project began, harrowed and allowed to weather. Some light weed growth did not greatly affect artefact visibility. This area (of c 9ha) was walked on 29th October. The north-western field was harvested later and lightly ploughed at our request, although the presence of sugar beet debris hindered visibility to some extent. This area (covering c 5ha) was walked on 20th November. Grass and weed growth in the field forming the north-eastern arm of the evaluation area, which had not been under crop, restricted coverage to casual walking although the western edge of the field directly to the east of this one was rapidly walked after the crop there had been lifted.

In the southern field west-east transects 20m apart, lettered A-H from south to north, were walked in 100m stretches, divided into 20m segments and numbered from west to east. The transects were 590m in total length; hence the easternmost segment was only 10m long. Transect H started from 200m E (c TL 4040/8150) only, when the line of the transect moved away from the edge of the field. More intensive collection in boxes was not deemed necessary since no dense scatters were discovered within the transects. All artefacts except obviously modern ones were collected (Appendix 2); the latter included occasional fragments of 20th century porcelain.

In the north-west field north-south transects lettered AA-MM from west to east were laid out, again at 20m intervals and divided into 20m segments (in this area numbered from south to north). Artefact visibility in transect AA was hampered by the presence of deep machine tracks. The northern boundary of the evaluation area is not marked on the ground in any way and may be liable to move, so fieldwalking was continued a little way beyond this.

### **4.3 Trenching**

A total of 30 trial trenches were excavated across the evaluation area, 28 of about 50m in length and two shorter ones, all but Trench 15 laid out on the fieldwalking grids (Fig. 2). The trenches were positioned in order to evaluate the identified flint 'scatters', the possible ring-ditch in the north-west field and a rise in the ground in the south-eastern corner of the evaluation area, which could be related to the suspected barrow mound. The remaining trenches were laid out more or less at random to ensure an even coverage and assess the extent of intact peat horizons.



Linear trenching was utilised, in preference to test-pitting, for its greater likelihood of picking up linear ditches and discrete monuments like barrows, especially in a situation where field boundaries are unstable and the location on the ground of features seen on aerial photographs difficult to establish precisely. In addition, it allowed a more precise view of the extent and changing depths of subsoil deposits and provided a better opportunity of locating and characterising natural features, such as channels and basins, which may have influenced the distribution and survival of archaeological evidence across the site. However, provision was also made for excavating small areas or test-pits and two trenches (4 and 18) were subsequently expanded in this way.

The trenches were carefully excavated in spits down to the top of the natural sand or gravel using a 'cat' machine equipped with a 2m wide toothless ditching bucket. The topsoil and any subsoil or fen deposits were dumped on opposite sides of the trench, allowing the spoil as well as the trench surface to be checked for artefacts and a separation to be made between objects within the ploughsoil and those preserved beneath it. The spoilheaps were allowed to weather, raked and scanned visually to identify any concentrations of flint which could then be sampled and sieved, although in the event no such concentrations were discovered.

Areas of the trenches were cleaned by hoe and shovel as appropriate and any features identified were sample excavated, recorded photographically and drawn in plan and section. The total area trenched was about 3100 sq m, representing almost 2% of the total evaluation area.

## **5 RESULTS & DISCUSSION**

Since the fieldwalking and trenching were integrated as far as possible the results are discussed together, broken down for convenience into three broad areas. Detailed trench descriptions will be found in Appendix 1.

### **5.1 Southern field**

#### **5.1.1 Fieldwalking**

Only 15 struck flints were recovered from the systematic fieldwalking in this area (Appendix 2 and Fig. 4), a couple of these of rather doubtful origin. In addition there was one piece of burnt flint. The low density of finds is well within the range of the background scatter as defined by the Fenland Survey. Work nearby at Chatteris found the number of flints per hectare varied between 2.9 and 25 across a series of fields (Hall 1992, 92-3). With an adjustment for the closer spacing of transects, the assemblage from the southern field at Sutton equates to a value of c 7.5/ha. In contrast, intensive fieldwalking over the SUT 1 site by the Fenland Survey found 174 worked flints in an area of just 0.07ha (Appendix 3). Given the truncated nature of the deposits across much of the evaluation area, with the natural gravel only some 0.5m below the topsoil and a history of deep ploughing, one would expect that any subsoil features would have lost artefacts into the ploughsoil. It therefore seemed unlikely that dense occupation would be found, although minor concentrations of surface finds are visible on the distribution map.

With the exception of three casual finds picked up during the excavations, all the artefacts in the southern field came from west of 300m E (c TL 4050E), and



Figure 4 Distribution of fieldwalking finds



fell into two groups. The first, to the south, including a number of blades, may be outliers of the Neolithic site SUT 1 some 60m south of transect A. The other group lay on the northern edge of the field around G200 (c TL 4040/8150) but could have been associated with upcast from the existing small reservoir in this area. The only burnt flint fragment collected came from the former group. It was a little surprising that there were no finds at all from the area adjacent to the barrow mounds to the east (SUT 4 and 5), although David Hall had discovered only three flints in association with the barrows themselves (Fenland Survey database). The lack of Iron Age or later finds is in accordance with the environmental evidence. Glazed earthenware sherds of 17th-19th century date (post-fen drainage) were recovered from a few spots widely scattered across the field and do not suggest any occupation.

### 5.1.2 Trenches 1 to 7

Trenches 1-7 in the western part of the field were positioned to cover the areas from which flints were recovered during fieldwalking. Those to the north-west (1, 3, 5) revealed a relatively thin band of fen deposits underlying the topsoil. The sequence, which is discussed in more detail below (section 5.3.2), consists of a basal and upper peat layer, each about 0.1m thick, separated by a band of dark grey 'Fen Clay', also 0.1m thick. The upper peat has been partly incorporated into the topsoil through ploughing; the basal peat overlies mixed sandy deposits above the clean gravel. The total depth of the topsoil and subsoil removed in these trenches varied from 0.6-1.0m with the deepest sequence at the north end of Trench 1. The mixed sand underlying the peat was generally left intact since it was noted that a number of struck flints derived from this interface in all three trenches, although no cut features were visible. A total of nine worked pieces and two fragments of burnt flint were recovered from the surfaces and spoilheaps of Trenches 1, 3 and 5.

At the southern end of Trench 1 the fen deposits run out and the gravel rises up to directly underlie the topsoil at a depth of 0.4m. The trenches to the south (2, 4, 6) accordingly lacked the peat and clay layers and were a uniform 0.4m in depth. However, Trenches 2 and 4 also yielded lithics from the base of the topsoil, and the latter revealed a number of small shallow depressions filled with a dark brown silty sand, sometimes containing flecks of charcoal, and cut by plough score-marks which ran along the length of the trench. Two of these depressions (17 and 29) contained lithics while ten more struck flints came from the trench surface outwith features, and a further three from the spoilheap. Subsequently an area measuring c 8 x 7m was opened up on the north side of the trench at the west end and a further nine worked flints were recovered. Initially the features were thought to represent post-holes but many of them, including 17 and 29, were sufficiently irregular and shallow to be merely depressions or undulations in the natural where vestiges of a palaeosol had been preserved. The diffuse 'features' revealed in the northern extension to the trench were certainly of the latter type and the flints from this area derived not from fills but from the underlying/surrounding gravel. The gravel may in fact represent an interface layer resulting from the sorting and settling of heavier inclusions within the palaeosol while the rest of the soil, except where preserved in hollows, has been washed or ploughed away. This would serve to explain also the thin spread of small flint nodules (32) found towards the middle of the trench. A slot through this deposit recovered four worked flints but it appears to be natural in origin.

It is possible that a few of the slightly deeper hollows represent truncated remains of cut features: 21 was an elongated feature 0.75m long and 0.13m deep with near-vertical sides, 25 was a smaller oval feature 0.35m long and 0.12m deep, and 31 was a circular feature 0.27m in diameter and 0.13m deep.



If these are the bases of post-holes or small pits, however, they do not appear to represent structures or any great density of occupation.

Two later features were found in this area, a sub-rectangular, flat-bottomed 'claying' pit (9) in Trench 1, 0.35m deep (see below, section 5.3.2), and a similarly flat-bottomed field boundary ditch (39), reaching 0.30m below the level of machining, running north-south across Trench 2. This was the only such ditch discovered which does not correspond to some degree with existing or mapped boundaries. Neither of these features yielded any finds but both are presumably modern (post-fen drainage).

### **5.1.3 Trenches 8 to 15**

In the central and eastern part of the evaluation area Trenches 8-13 were generally lacking in finds, which is consistent with the fieldwalking data. Fen deposits were present only in Trench 9 but with a rather different stratigraphy to those further west: a single peat layer, 0.07m thick, overlay a greyish brown deposit, 0.23m thick, above the natural sand. It appears that here only the basal peat survives beneath the ploughsoil. The depth of machining down to the gravel in Trench 9 was 0.70m; elsewhere it varied from 0.60 to 0.35m. Ditches corresponding to known field boundaries ran through Trenches 9 and 13, but no other features were discovered. One struck flint from the spoilheap of Trench 10 was the only find.

Trench 14 lay c 48m west of SUT 4. It and Trench 15 were positioned to investigate two rises in the land surface at the eastern end of the field, the former identified by aerial photographic appraisal (Appendix 4) as possibly artificial, the latter visible on the ground in the extreme south-east corner of the evaluation area. It was considered possible that they represented ploughed-down barrow mounds, although the lack of gravel in the topsoil made this unlikely. In fact they were both of natural origin: there was a rise in the level of the natural of some 0.25m in the centre of Trench 14 and a smaller rise towards the south-east end of Trench 15 combined with a slightly deeper ploughsoil (0.42m at the north-west end, 0.55m at the south-east). The only archaeological features were modern criss-cross ploughmarks in Trench 15, which clearly document the effects of agriculture on the evaluation area.

## **5.2 North-east field**

### **5.2.1 Fieldwalking**

The impossibility of systematic fieldwalking in this area (see above, section 4.1) meant that the trenches were placed randomly around the edges of the field (Trenches 16, 17, 19, 20) and in the centre (18). In the course of walking over the area during the excavation four struck flints were found, three of these in the north-western part of the field near to SUT 7. In addition, walking a 50m strip on the edge of the newly harrowed field immediately east of Trench 16 revealed one retouched piece and one fragment of burnt flint. None of this need imply anything more than the generic background scatter in this part of the Fens (see above, section 5.1.1).

### **5.2.2 Trenches 16 to 20**

Five trenches (16-20) were laid out in the north-eastern field. No intact peat deposits were seen in the trenches here, and the depth of topsoil was around 0.4-0.5m. Trench 16 revealed a field boundary turning a right angle at its southern end. This feature is visible high up in the trench section and clearly



very recent, though not exactly matching the boundaries plotted on the current Ordnance Survey map. All the trenches had a number of irregular features with sandy fills cutting into the gravel. The majority of these are probably natural in origin but a variety of events seem to be represented.

A small circular discoloration at the north end of Trench 16 proved to be a shallow depression (62) with a mid-brown sandy fill, perhaps akin to those seen in Trench 4. An amorphous deposit near the west end of Trench 17 was distinguished from the natural sand by the presence of a slightly darker fill with moderate concentrations of charcoal (35). The lack of well-defined edges suggests a natural origin, probably resulting from tree-root disturbance, but the deposit was sampled for organic remains. A number of features in Trenches 19 and 20 had much clearer edges against the natural gravels in this area and are rather enigmatic, although their irregular shapes in plan and lack of finds other than occasional flecks of charcoal suggest either a periglacial origin or that they are tree-throw features. That sampled in Trench 19 (37) was relatively deep (0.6m below the machining level) and had a uniform yellowish brown sandy fill with irregular gravel lenses within it. These features may nevertheless be part of the area of possible archaeological interest identified from air photographs (Appendix 4).

The most interesting features were in Trench 18. At the southern end of the trench an irregular curvilinear feature (6), probably a tree bole, was seen to contain fragments of prehistoric pottery. It may therefore be indicative of Neolithic clearance, and further features were accordingly investigated within the trench. Cut 11, which was 0.25m deep with vertical sides, perhaps represents a small oval post-hole; it contained one fragment of pot and a single struck flint. A similar, unexcavated feature lay adjacent to it. Features 13 and 15 were empty of finds but their regularity in plan and profile, particularly the circular pit 15, suggests they may be evidence of human activity. All these features were filled with mid-brown silty sand or sandy silt, more similar to the soil from the depressions in Trench 4 than the sandy deposits in Trenches 19 and 20.

As with Trench 4, a small area extension to Trench 18 (c 9 x 8m) was excavated, in this case on the south-east side. It revealed a number of similar features, irregular in plan and with fills of dark or mid-brown sandy silt. One (47, unexcavated) had the characteristic horseshoe shape of a tree-throw feature and was about 2.5m in diameter. It appears to have fallen towards the east, which corresponds with the majority of Fenland 'bog oaks', including the tree-trunks seen in Trench 26 (see below, section 5.3.2). Godwin (1978, 35) attributes this phenomenon to the mean direction of south-westerly gales and it would imply that our tree-throw could well be natural.

Cut 44 had a similar curvilinear shape in plan to feature 6 and an asymmetric profile with one steeper and one shallower side, which is also characteristic of tree-boles. Cut 46 was linear in plan but proved to be irregular in profile and variable in depth. It is also probably of natural origin. No finds were noted from any feature in the trench extension. Again as in Trench 4, the presence of a few features of possible anthropogenic origin is insufficient to suggest occupation, and in this case there are too few finds to indicate the nature of any activity taking place.



## 5.3 North-west field

### 5.3.1 Fieldwalking

As with the fields to the south the number of finds from fieldwalking was small: seven pieces of flint from the part of the field within the evaluation area and a further five just north of this (including one unworked burnt flint). In addition to the lithics, a single piece of prehistoric pot was recovered from the centre of the field. The approximate density of c 6 flints/ha in this area is even lower than to the south and the same conclusions apply (see above, section 5.1.1). The greater extent of fen deposits in the north-west field has undoubtedly had some masking effect, but no lithics were discovered within the trenches during machining or by raking over the trench spoil.

### 5.3.2 Trenches 21 to 30

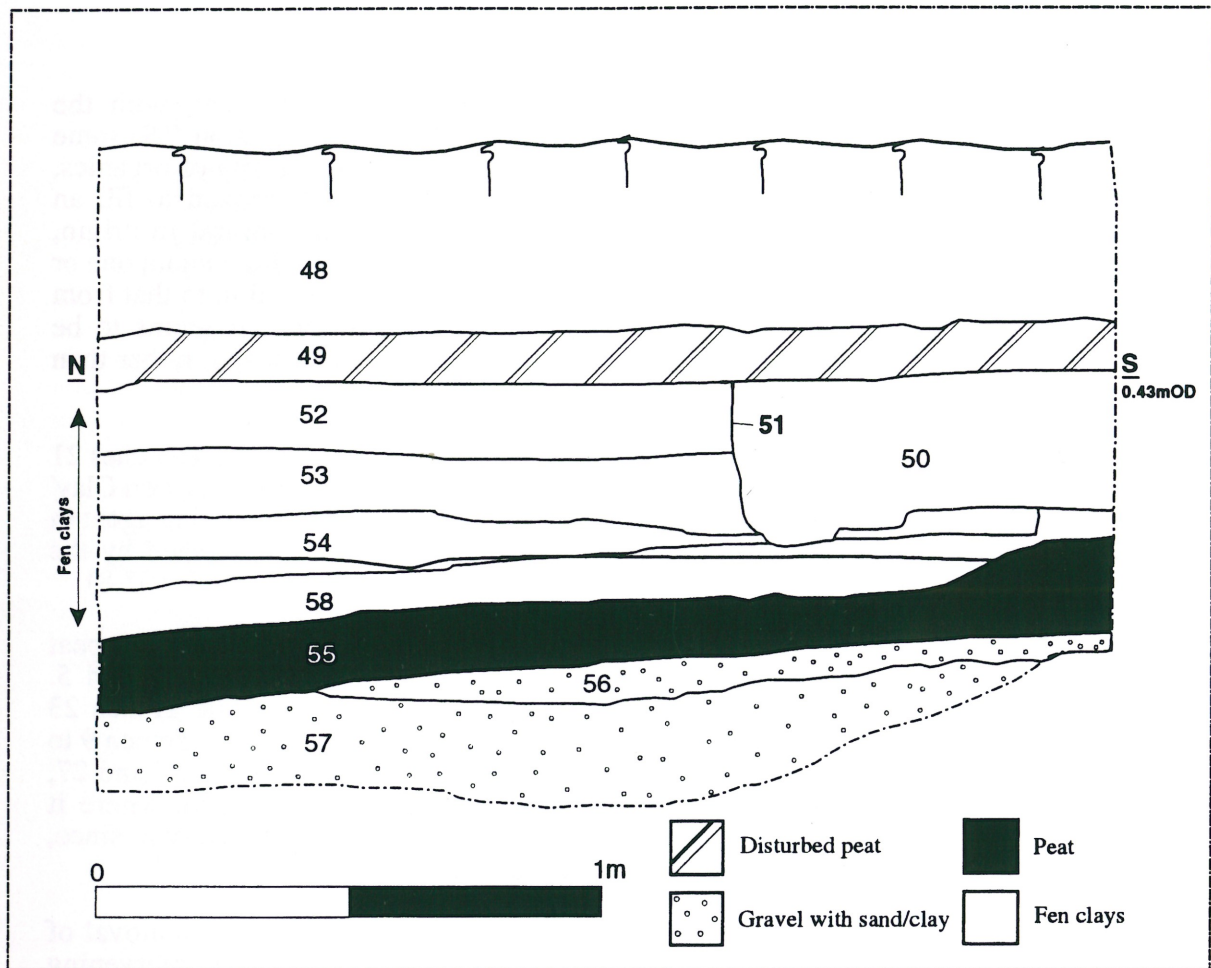
Nevertheless the trenches were laid out in part with an eye to the presence of surface finds, which formed a loose cluster around Trenches 22, 25 and 27. Trenches 28-30 were positioned to try and locate the possible ring-ditch in the north-east corner of the field, while the remainder, running north-south, were aimed at identifying the extent and nature of surviving subsoil deposits.

Perhaps unsurprisingly, given the few surface finds, none of the trenches had any unequivocal prehistoric features within them. Even the tree-throws and periglacial features visible in Trenches 16 to 20 were not seen in this area. The ring-ditch also proved not to exist, as suspected by Palmer, who describes it in the aerial photographic assessment as "an improbable archaeological site" (Appendix 4). However, this judgement is based in part on an assumption that it would have lain off the gravel island. In fact Trenches 28 to 30 lie on a relatively high point, with their bases above OD, although judging where the edge of the dry land would have lain at any particular point in time during the encroachments of the later Neolithic and Bronze Age is pure guesswork. There is no *a priori* reason why a barrow should not have existed here but all that was found was a band of gravel which presumably generated the frost crack cropmark plotted on the aerial photographic interpretation (Appendix 4, fig.1).

The only feature seen in Trenches 28 to 30 was a field boundary at the east end of Trench 29, matching that plotted on the current OS maps but no longer extant on the surface. A disconcerting feature of the evaluation area is the movement or disappearance of all the mapped field boundaries other than those defined by major drainage features. Confidence in trench location would have been difficult to achieve without the control provided by the Total Station survey, which showed that the trenches would have caught the ring-ditch had it existed as plotted.

What the trenches in the north-west field show most clearly is a gradient of truncation of the fen deposits, relating to the effects of ploughing and the natural topography of the gravel island, which is more pronounced than the present contours would suggest. The vertical difference across this field in the level of the pre-Flandrian sands and gravels, as opposed to the modern ground level, was 1.75m, greater than the present fall-off in heights across the whole evaluation area. Trenches 21, 22 and 26, which lie off the island to the south and west, produced the deepest sequences of fen deposits in the evaluation area, although essentially with the same stratigraphy as recorded in Trench 1. There the peat bands and intervening 'Fen Clay' were 0.26m thick in total, while in Trench 22 the equivalent deposits were up to 0.62m thick and in Trench 21 as much as 0.89m. In each case the basal peat was underlain by a mixed sandy





**Figure 5** West-facing section through fen deposits in Trench 21

interface layer of 0.2-0.3m in depth, perhaps the vestige of a palaeosol, above the clean natural gravel.

The profile of Trench 21 is shown in Figure 5. The basal deposits of grey or greenish sand and gravel mixed with silts or clays (57, 56) underlie the basal peat (55), which is described as black or very dark greyish brown with a diffuse lower horizon boundary. In places it is densely packed with waterlogged organic remains, both roots and fragments of twigs and small branches. The clay deposits above (58, 54-52) are dark grey or greyish brown and here they have at least three distinct layers, with the upper horizons more root-disturbed and crumbly in texture than those below. At one point, north of the illustrated profile, a shallow clay-filled channel running east-west across Trench 21 cuts the basal peat. Perhaps this represents a gully or stream flowing off the edge of the island. Above the clay the upper peat (49) is dry and rather powdery, a dark reddish brown colour with red and white mottles perhaps representing the crystallising out of salts. Occasional episodes of deep ploughing appear to have redeposited some of this material without incorporating it fully into the topsoil (48), since here and in Trench 22 it seems to overlie 'claying' pits (e.g. 51) which are not likely to be more than 150 years old, and probably rather less (see below). Towards the north end of Trench 26 the base of the upper peat includes the trunks of two fallen trees, presumably ancient, lying respectively east-west and northeast-southwest across the trench (see above, section 5.2.2).



Archaeological remains were not discovered beneath the peat, with the exception of a curious feature in Trench 22. A linear discoloration (59) some 0.6m wide, with diffuse edges and containing a moderate density of organics, ran north-south across the western end of the trench. It proved to fill an irregular cut (60) up to 0.3m deep. It is most probably natural in origin, perhaps like the charcoal-rich feature (35) in Trench 17, but did contain one or two small and highly degraded scraps of flint-gritted pottery akin to that from the tree-throw feature (6) in Trench 18. Again, however, it seems to be indicative of no more than a Neolithic presence in the landscape, rather than intensive occupation.

Later features are restricted to claying pits visible in the sections of Trenches 21 and 22 and cut 0.7-0.8m below the present land surface, i.e. into the 'Fen Clay' horizon. These were dug to introduce clay into the topsoil as a binding agent in order to reduce peat erosion (Kemp 1996, 6), a practice established by the 1850's as shrinkage and wastage of the peat took effect (Darby 1983, 187-8).

North and east of Trenches 21 and 22 is a stretch of land where the peat horizons are largely intact but much less deep, as in Trenches 1, 3 and 5. Trenches 24, 25 and 27 have a fen sequence of 0.3 to 0.4m while Trench 23 and the west end of Trench 30 have a single thin peat horizon, as in Trench 9 to the south-east. Rows of claying pits were visible in Trenches 23, 25 and 27, although here they are cut through the thin 'Fen Clay' horizon, where it survives, and into the natural gravels. The reason for this is uncertain since, today at least, these deposits are not a useful binding agent.

In Trenches 28, 29 and 30, in the north-east corner of the field, removal of 0.3m of topsoil revealed the natural gravel and sand without any intervening subsoil deposits. Hence as one moves up onto the gravel island, whether travelling south and east from Trench 1 or north-east from Trenches 21 and 22, the fen deposits become thinner and disappear. Presumably this relates more to the natural topography, over which peat and marine clays would have accumulated differentially, than to local variation in the extent of deep ploughing. On the 'uplands' of the island, where the deposits were thinner, they have been completely removed; in the western part of the evaluation area there was always a greater depth of peat - hence it has not yet been fully truncated by the plough.

#### **5.4 The correlation between aerial photographic and excavated evidence**

*by Ben Robinson*

The appraisal of aerial photographic coverage for the site and the re-plotting of relevant evidence at 1:2500 was undertaken by Rog Palmer and Chris Cox. Composite maps displaying known and possible anthropogenic remains, natural features and soil cover visible from the air were produced (Appendix 4, figs. 1 & 2).

All rectification control points were fixed with less than a 2m error. Drifting field boundaries and in-filled ditches would have presented problems for targeting specific air photographic evidence, were it not for the control provided by the Total Station survey. The presence of redundant boundary ditches within evaluation trenches provides further confirmation of the spatial correlation between the plotted aerial photographic evidence and the location of evaluation trenches.



In the north-west field the suggested edge of the island, or more properly the surviving extent of *in situ* fen deposits, plotted from aerial photographs (Appendix 4, fig. 2) only broadly correlated with the excavated data. The 'island' (Appendix 4, fig. 1) immediately to the south of the evaluation area conformed to a slight plough-eroded rise at the edge of the marked gravel terrace overlooking deeper fen deposits (Fig. 3).

The frost polygons and stripes which had showed so well as positive cropmarks across the site were not readily identified during the evaluation. A band of gravel in Trenches 28 and 29 may conform to one such feature.

The ditch (1.3m wide, 0.35m deep) in Trench 2 and claying pits (c 1m x 1.5m, up to 50 cm deep) across the west portion of the evaluation area were not recorded by aerial photographs. Similar features at Kings Farm, Chatteris (Kemp 1996), had also failed to generate a recorded crop response. There are obvious implications here for the identification of similarly-sized ancient silty peat-filled features from air photographic evidence.

The cropmark ring of dubious quality to the west of SUT 7 did not correspond with any recognisable features in Trenches 28 or 30. The possible mounds to the west of SUT 4 were identified as the plough-eroded tops of natural undulations in the pre-Flandrian sands and gravels. Barrow mounds visible from the ground at the time of evaluation were associated with a much more gravelly soilmark - a distinction which would not have been discernible from aerial photographs.

The 'area of archaeological potential' to the south of SUT 7 (Appendix 4, figs. 1 & 2) comprising features which are too small to be plotted may relate to the features revealed in Trench 18 and elsewhere (section 5.2). Many of these could be attributed to natural processes, such as tree falls, although some had trapped artefacts, and others might have resulted from human activity.

## 5.5 Environmental assessment

*by Duncan Schlee*

The general pattern of deposition revealed in the evaluation trenches shows a gradual rise in the height of the underlying First/Second Terrace gravels of the river Ouse from the west and north-west (where the *in situ* peat and 'Fen Clay' deposits overlying the gravels are deepest) to the south and east (where deposits overlying the higher gravels were presumably thinner and therefore prone to plough attrition and wastage).

As is described and discussed above, the sequence of depositional events revealed in the deeper trenches during the evaluation consists of a 'basal peat' overlain by a sequence of 'Fen Clay' deposits which are in turn overlain by a layer of 'upper peat'. This sequence is consistent with findings from previous archaeological work in the south-central Fens as part of the Fenland Project (Waller 1994). This work has established a sequence for the environmental development and vegetation characteristics of the Fens. This is summarised below, with reference to its likely relevance to the evaluation site. The different environments and their vegetation characteristics represent a progressive continuity, so that the components of each defined environment will include aspects of the preceding and following environment types.

In the Mesolithic and early Neolithic periods, the evaluation area is likely to have been largely dry and heavily wooded. Waterlogged ground and peat



formation were probably confined to the Ouse channel. Pollen analysis suggests that the dominant tree species on this dry land was lime (*Tilia*), with a lesser presence of oak (*Quercus*) and hazel (*Corylus*). The pollen record from Haddenham (Waller 1994, 179) suggests that this woodland was being cleared along the Ouse gravel terraces during the early Neolithic.

As a consequence of rising coastal sea levels, inland freshwater drainage systems were modified, with the result that formerly dry land became waterlogged, promoting peat development along lesser watercourses and relatively low-lying land. This process progressed inland throughout the Neolithic period, creating a sequence of changing environments culminating in the establishment of fen environments.

During this period the gravel rise at Sutton is likely to have formed a low island of dry land adjacent to a paleochannel of the river Ouse which is represented in the present by the line of Hammond's Eau drain, situated in the vicinity about 750m to the south of the evaluation area. A ribbon of 'fen carr' environment, characterised by a dominance of alder (*Alnus*) and willow (*Salix*) is likely to have existed along such watercourses. As water levels rose and peat growth developed, the area of dry land diminished. Archaeological evidence of human activity in the area during the Neolithic became sealed by the encroaching fen and peat development. Analysis of these 'basal peat' deposits has characterised them as a wood peat, consisting of wood fragments and reed (*Phragmites*) tubers. Pollen indicates that whereas in dryer conditions lime was dominant, as water levels rose its abundance declined; oak and hazel persist but alder and willow predominate. The basal peat sequence generally ends with reed (*Phragmites*) rich swamp environment.

Deposition of this basal peat came to an end in the late Neolithic/early Bronze Age when marine inundations resulted in the deposition of a series of silt and clay sediments. This created brackish reed swamp and salt marsh environments characterised by plants such as Sea Wormwood (*Artemisia maritima*), Sea Plantain (*Plantago maritima*), Mud Rush (*Juncus gerardi*) and Sea Rush (*Juncus maritimus*).

Deposition of these clays continued until around the Middle Bronze Age when drainage patterns again altered, encouraging the resumption of peat growth. This continued unabated until the 17th century AD when drainage of the fen for agricultural purposes began. There is no archaeological evidence of human activity in the evaluation area throughout the intervening period.

The conditions prevailing during the Neolithic and Bronze Ages would have provided an environment rich in food resources. The higher ground at Sutton would have formed a good vantage point for exploitation of the surrounding area. The increasing waterlevels and continuing fen development, however, made use of the gravel island no longer viable after this period.

Since drainage of the fen, agricultural activity has generally resulted in the truncation of all the peat and 'Fen Clay' deposits that may have overlain the higher gravels to the east. In the south-west of the evaluation site however, some of the basal peat survives and was found to seal worked flints. The stratigraphic position of these and other worked flint finds suggests that they may once have been associated with a paleosol contemporary with the gravel island ground surface before the encroachment of the basal peats. The only possible surviving evidence for this paleosol was within shallow features beneath the basal peat and containing different fills to the overlying peat. While these were initially thought to be archaeological features they are more likely to be of natural origin. Either way, the soil was hopelessly degraded due to a



combination of relatively dry soil conditions, plough damage and bioturbation. In addition, the fact that this soil sealed worked flint overlying gravels suggests that the bulk of the soil has been lost. Worked flint that would have lain on or within the paleosol has consequently settled to the gravel interface with any vestiges of soil only surviving in the natural hollows.

The deepest series of deposits was recorded in Trench 21 (Fig. 5) in the vicinity of a small stream that appeared to cut through the basal peat layer. Layers below the basal peat contained frequent waterlogged *Phragmites* tubers. These indicate the gradual waterlogging of the ground that led to the subsequent peat development. The basal peat (55), also containing *Phragmites* tubers and wood fragments, is overlain by a peat-rich clay layer (58) possibly representing the start of the deposition of marine sediments. The organic nature of layer 58 is probably derived from the peaty layers beneath. Layer 54 represents a continuation of the clay and silt deposition once the underlying peat had been completely sealed. Layers 52 and 53 indicate the re-establishment of peat development mixed with the underlying clay silts. These layers are heavily root-disturbed, either from the overlying 'upper peat' layer 49 or from the modern ploughsoil. The upper peat and layers 52/53 are very dry and crumbly. Although apparently older wood and reed fragments survive, the whole is heavily disturbed by modern roots. This sequence is consistent with the findings of previous work in the region.

A monolith sample through the sequence of deposits has been taken for inclusion in a regional reference collection, and further micromorphological analysis might be considered. It is, however, questionable whether detailed analysis would add greatly to what is already known about the depositional sequence in the area from the Fenland Project work. Likewise there seems little necessity to undertake pollen analysis of the deposits. The degree of truncation, desiccation and disturbance to the upper peat and possible remnants of paleosol at the site suggest that further analysis would not be productive. A mixed gravelly horizon (56) underlies the basal peat in the waterlogged sections but this is not considered to be a true paleosol. It may be due to root and tuber disturbance from development of the basal peat. Alternatively, the relative depth of the underlying gravels in the west compared to those in the east may suggest that this area was sufficiently wet during much of the Neolithic for activity to be confined only to the higher ground where archaeological evidence of activity is actually present. Micromorphological analysis may help to answer this question.

## **6 THE FINDS**

### **6.1 The lithic assemblage**

Systematic fieldwalking and casual finds provided a total of 44 flints from the surface of the evaluation area (Appendix 2). A further 38 finds came from the excavations (trench surfaces and spoilheaps). Of this overall total of 82 pieces, six were unworked fragments of burnt flint; among the worked assemblage only a single broken blade had been burnt. The industry is based on blades and long flakes (length:width ratio > 2.0), which make up at least 35% of the assemblage, with several incomplete pieces of indeterminate length, some perhaps deliberately snapped. There are also a number of diagnostic pieces of earlier Neolithic type. In general there is a high proportion of retouched pieces and large blades (Fig. 7) compared to core fragments and waste flakes. A significant number (11%) have been secondarily reworked as formal tools while



a further 12% are retouched to some extent. Another 18% have edge damage perhaps indicative of utilisation. Angular nodules with limited evidence of striking make up 7% of the assemblage but formal blade cores are lacking. 41% of pieces had some cortex preserved, although only 5% were primary flakes; 25% had an obvious patina, usually bluish or milky.

There are a number of grey and honey-coloured pieces but most of the lithics are worked on brown flint, presumably of local origin. They are generally well-preserved but have occasionally developed a patina (though to a lesser extent than among the SUT 1 assemblage: see Table 1). This matches the raw material seen patchily within the gravel, although those fragments are generally too small to have produced the long blades prominent within the worked assemblage: of six unbroken long blades with a length:width ratio > 3.5, only one retained some cortex. In addition the relatively low proportion of primary flakes does not suggest the working of small nodules. Edge damage seems quite common, including several pieces from below the peat, so it is perhaps indicative of use rather than post-depositional effects - although disturbance and movement associated with peat formation and marine inundation may also have been significant.

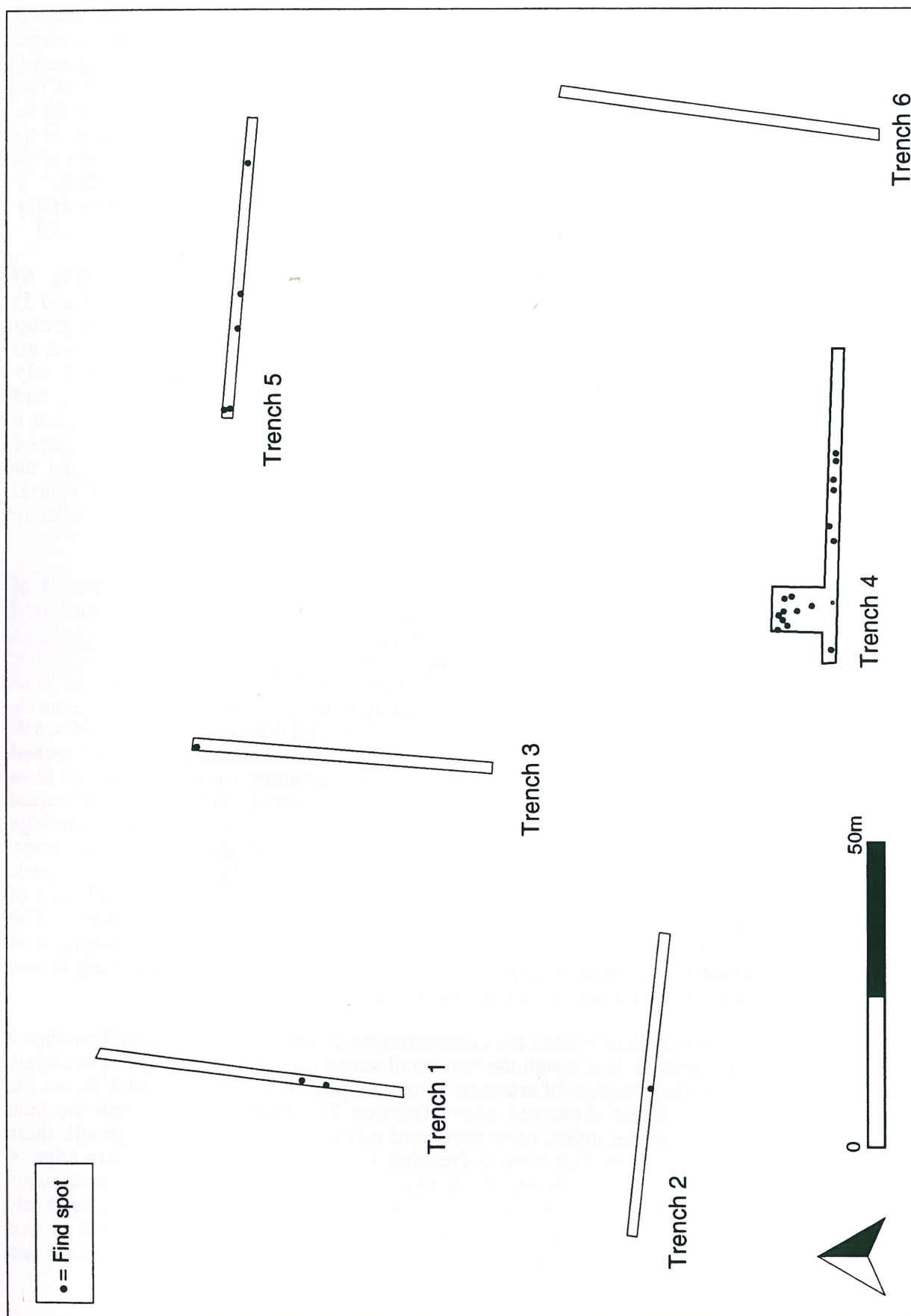
Compared with the finds from SUT 1 (Appendix 3) a number of significant differences may be seen (Table 1). The present assemblage has less burnt flint, slightly more blades, fewer cortical pieces and more secondarily reworked tools, including leaf-shaped arrowheads, a type not represented in the SUT 1 assemblage. The predominance of finished tools and selected blades over debitage and burnt flint implies, along with the low densities, that the present assemblage maps activity within the landscape rather than settlement and production. However, the material collected by the Fenland Survey from the background scatter within the 1km grid square (TL 40/81) does include a large number of informal cores as well as a relatively high proportion of blades, so clearly a variety of activities, including casual knapping, were taking place in the vicinity of SUT 1. Not all of the background scatter across this area need be contemporary, of course, but the number of blades suggests the vast majority is earlier Neolithic.

**Table 1 Comparison of Sutton flint assemblages**

|           | burnt flint   | number of struck flints | patinated | secondary flakes | primary flakes |
|-----------|---------------|-------------------------|-----------|------------------|----------------|
| SUT 1     | 12.9%         | 174                     | 68.3%     | 54.3%            | 1.9%           |
| SUT BD 96 | 7.4%          | 76                      | 25.0%     | 40.8%            | 5.3%           |
| TL 40/81  | 5.7%          | 89                      | 44.1%     | 56.7%            | 6.2%           |
|           | cores/nodules | blades                  | flakes    | retouched        | formal tools   |
| SUT 1     | 3.4%          | 35.7%                   | 49.0%     | 11.4%            | 7.4%           |
| SUT BD 96 | 6.6%          | 38.0%                   | 40.8%     | 21.1%            | 10.5%          |
| TL 40/81  | 15.7%         | 42.6%                   | 44.1%     | 1.1%             | 0              |

(Key: SUT 1 = Fenland Survey site; SUT BD 96 = present evaluation; TL 40/81 = Fenland Survey background scatter from 1km grid square)





**Figure 6** Trenches 1-5: distribution of point-spotted lithic finds



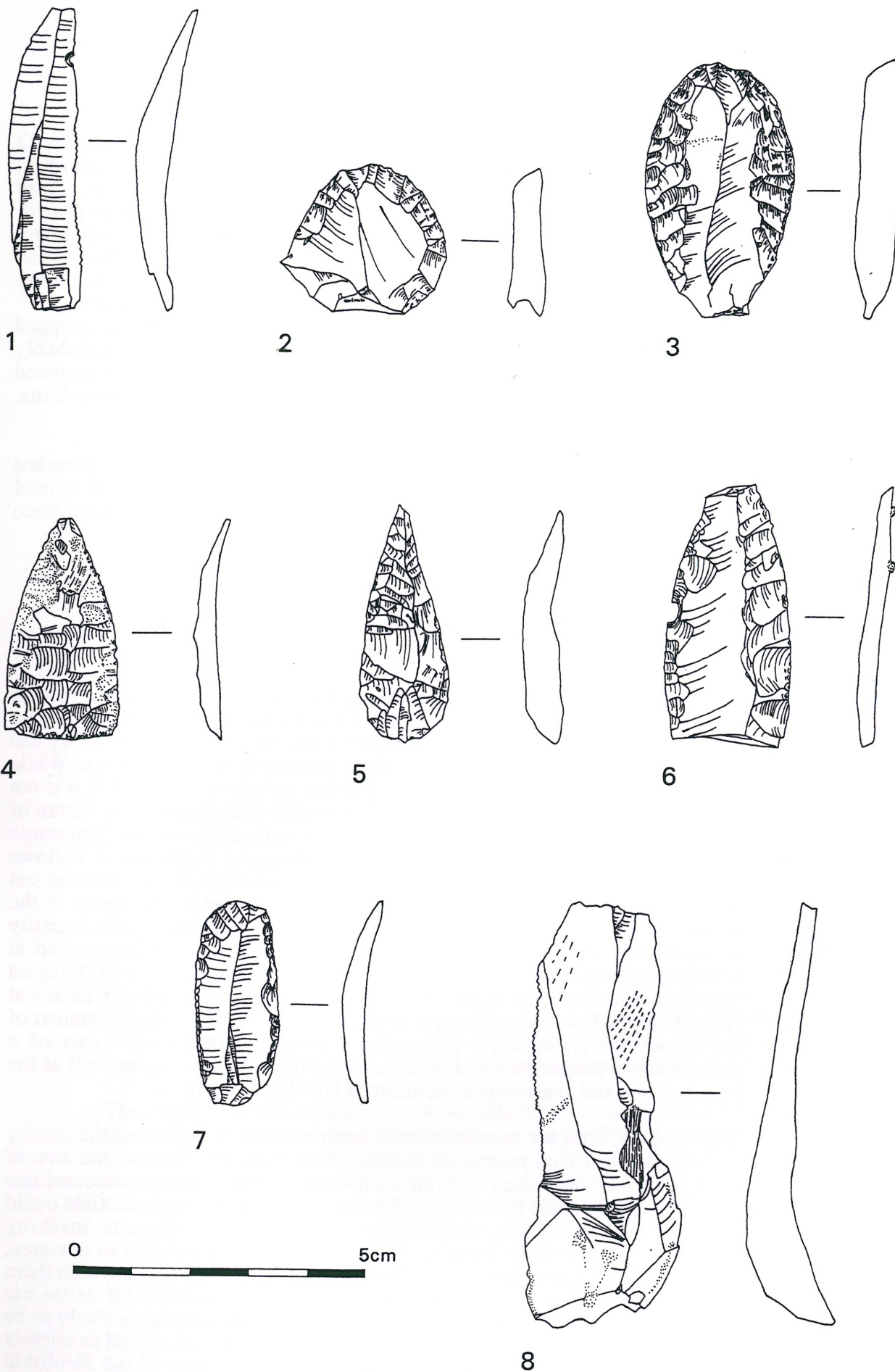
The spatial organisation of activity in the landscape will only be comprehensible from excavation. Despite the uncertainty over how much of the assemblage may be considered *in situ*, the trial trenches provide a higher degree of resolution than fieldwalking. Although concentrated in the south-west of the evaluation area the finds from the trenches generally correspond well with those from fieldwalking. Core fragments and knapping debris are rare in both groups, and the retouched pieces are evenly distributed. However some 60% of the trench assemblage are blades, a higher proportion than for the surface finds, so there may be a later (Bronze Age) component to the latter, especially further away from SUT 1.

At a finer scale the spatial distribution of finds within the trenches (Fig. 6) distinguishes the material beneath the surviving basal peat (Trenches 1, 3 and 5) from that to the south nearer SUT 1 (Trenches 2 and 4). The former group includes two pieces of burnt flint but otherwise comprises only blades and no secondarily flaked tools. The latter is less evenly distributed and clearly focussed on Trench 4, closest to SUT 1, with only one find in Trench 2 and nothing in Trench 6. This group has a mixture of blades and flakes as well as a core and four tools. The retouched pieces (Fig. 7) include two fine leaf-shaped arrowheads from Trenches 2 and 4, one with a squared distal end and no retouch on the ventral surface, the other with a rounded end and limited ventral retouch. One blade-based side-scraper, one knife and one other secondarily flaked piece came from Trench 4.

Despite the lack of unambiguous features in Trench 4, the variety and density of artefacts may represent the edge of the occupation scatter, which if excavated would presumably resolve into a series of clusters relating to successive occupation by small, mobile groups. This is the pattern of earlier Neolithic settlement indicated by fully excavated sites like Hurst Fen, Suffolk (Clark *et al* 1960). The blades scattered more widely to the north may represent general-purpose tools used offsite and frequently lost and discarded. Healy (1984, 99) points out that Neolithic blades often served as implements in the unretouched state. Those with more effort invested in manufacture would presumably have been carefully curated and are more likely to be found in areas of actual occupation. This may explain the difference between the SUT 1 assemblage and that from the present evaluation on one hand, and the background scatter, which generally lacks retouched pieces, on the other. However, two scrapers, one of thumbnail type, came from the surface of the ploughsoil south-east of Trench 5, so this area does not entirely lack secondarily flaked tools. The small assemblage from the north-east end of the evaluation area appears to be of similar type as well: a single bladelet came from post-hole 11 in Trench 18 and a scraper from the surface between Trenches 18 and 19.

In terms of distributions the concentrations of finds and features in Trenches 4 and 5 more or less match the two small scatters picked up during fieldwalking, though the presence of artefacts below the peat in Trenches 1 and 3 shows the masking effect discussed above (section 2). One would assume the peat deposits, where intact, have prevented material reaching the ploughsoil: there were no surface finds around Trenches 1, 3, 21 and 26 on the western edge of the evaluation area, though the last two of these contained no artefacts anyway. On the other hand material has reached the ploughzone around Trenches 5 and 22. If deep ploughing has not penetrated the basal peat, perhaps this concentration reflects earthmoving associated with the small reservoir to the east of these trenches, or the impact of digging claying pits.





*Figure 7 Worked flints from the evaluation area (see Appendix 2)*



## 6.2 Other artefacts

The pottery from features 6 and 11 in Trench 18, and from 60 in Trench 22 proved to be very soft and almost impossible to lift, so little can be said about forms except that one piece appeared to be part of a simple rounded rim. There was no sign of decoration and the fabric was unoxidised and flint-gritted. Examination of the surface finds from the SUT 1 site revealed that several larger pieces of identical fabric were present, including a rolled rim of Plain Bowl type. Hence the pottery from the present evaluation can probably be assigned to the earlier Neolithic, not inconsistent with the date suggested by the lithics.

The only ancient pottery from the surface collection was a fragment of grogged ware with an oxidised exterior from the north-western field. This is probably later than the Neolithic flint-gritted fabrics, but could match two grog-tempered sherds from the Fenland Survey background scatter, possibly from Urns, which may therefore be associated with activity at the barrows.

Waterlogged wood was seen in the basal peat horizons, especially in Trenches 21, 22 and 26, but no worked pieces were noticed. A single decayed animal bone fragment from the surface in the southern field may be prehistoric since bone was found among the SUT 1 and SUT 2 finds scatters.

## 7 CONCLUSIONS & POTENTIAL

The fieldwalking and trial trenching defined two areas of archaeological interest within the evaluation area. The first, in the southern field, covers the two diffuse 'scatters' identified in fieldwalking and has been confirmed by the presence of further lithics at the base of the ploughsoil or peat deposits. While the density of finds in this area is not negligible, especially in Trench 4, it is not as great as the SUT 1 surface scatter to the south. This fact and the nature of the assemblage implies that we are seeing utilisation of the landscape immediately around that settlement, with finds being preserved in hollows beneath the peat blanket or ploughsoil. In the absence of unequivocal cut features or better knowledge of the structure of Neolithic settlement in the region, the nature of the activity is difficult to interpret. However, the intensity of pre-Bronze Age activity on the Ouse terraces has been demonstrated at nearby sites, including a large flint scatter of Mesolithic/Neolithic date "lying on and within pre-Flandrian sands" on the southern edge of the Foulmire terrace at Haddenham, a few kilometres upstream (Waller 1994, 170). In the context of the Ouse valley, the SUT 1 site and present assemblage are part of a contemporary landscape which includes a number of lithic sites as well as the long barrows and causewayed enclosure at Haddenham (Fig. 1).

The Neolithic presence continues to the north and east of SUT 1 but the density of finds tails off with increasing distance from that site. The second area of interest, centred on Trench 18 in the north-eastern field, was an unexpected one given the lack of finds from the spoilheaps or surface (although the field could not be fully surveyed), despite the absence of fen deposits masking archaeological features. There is clearly no intensive occupation in this area, but the presence of tree boles and a few cut features with artefacts within them indicates further limited Neolithic activity. Positive evidence for deliberate clearance, such as burning, is lacking so these features are just as likely to be the results of natural tree-falls which have from time to time served as artefact traps. Nevertheless such finds help to fill in our picture of the Neolithic landscape.



The flint assemblage from the evaluation area is not large, but it is well-preserved and of high quality. The lithics and the few pottery fragments are entirely consistent with an earlier Neolithic date, as at SUT 1. There is only very limited evidence for post-Neolithic activity, confined to a few flints and a single potsherd not far from SUT 7; no new barrows or other major prehistoric features were located within the evaluation area.

The archaeology revealed in the evaluation area is interesting but limited because the development purposely avoids known sites. However, a record of the area around the Neolithic flint scatter and the barrows is valuable since the lake development will remove the landscape context of these sites. Most interesting in this respect is the south-western corner of the evaluation area (Trench 4) where finds densities below the ploughsoil are highest. This is sufficiently close to SUT 1 to grade in to the occupation scatter related to that site. Because the character of Neolithic settlement in this area can be assumed to be small-scale, mobile and episodic we should not expect a clear boundary between the 'site' and 'off-site' zones. Only by recording the density of finds and features at intervals right across the river gravels, from the Ouse channel (Hammond's Eau) over the SUT 1 focus and up onto the higher terrace forming the evaluation area, would the nature of earlier Neolithic occupation and activity potentially become comprehensible. The proposed development, while not destroying any known sites, removes the potential to understand part of that landscape for a period in prehistory when the 'site' *strictu sensu* is probably not the best model for settlement. It was most likely the Haddenham monuments or the possible enclosure at Chatteris (see above, section 3) which served as communal foci for the household or family groups exploiting the river terraces from locations like SUT 1. Settlement has to be interpreted in terms of the routes and journeys implied by a landscape structured in such a way.

The fen deposits on the western margin of the evaluation area post-date and seal the earlier Neolithic activity and preserve waterlogged deposits. Despite an apparent absence of earlier occupation, these may seal isolated artefacts. Items deposited or discarded in this area are not likely to be encountered during evaluation. In the light of these potential losses sample recording prior to development and monitoring during the development are recommended. The gravel island, isolated by encroaching peat, is relevant only to the later Neolithic/Early Bronze Age landscape, including the barrow mounds, for which no archaeological evidence was found in the present evaluation. It appears that occupation was greatly reduced in this period and the island given over to funerary monuments. By analogy with other areas of Fenland we would not expect intensive settlement in the vicinity of the barrows. Nevertheless such monuments are frequently situated on the basis of detailed considerations of topography and lines of sight, so their landscape context remains relevant.

The environmental evidence is not considered of great significance since the sections revealed in the present trenches confirm the fen sequence known from other investigations in this area of the southern Fenland (Waller 1994, ch. 8). However, evidence relating to the degree of truncation of the peat and 'Fen Clay' horizons is interesting in the light of general Fenland management strategies and the possible impact of the proposed development. Parts of the evaluation area close to SUT 1 (Trenches 2 and 4) have lost their peat blanket to ploughing and SUT 1 itself, by its very visibility, is clearly plough-disturbed. However, this site lies off the island on a lower terrace and may still be waterlogged at lower levels. Dewatering here is one possible consequence of changes in the watertable related to the proposed development, but this cannot be directly assessed within the present evaluation. The barrow mounds, in contrast, lie on higher ground away from the surviving peat blanket and associated waterlogged deposits are not likely to survive.



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## APPENDIX 1: Trench Descriptions

All the trenches measured c 1.9m in width except where stated. Trenches 21 to 30 were orientated on a different grid from Trenches 1 to 20 and are closer to grid north. The difference in angle is c 10° (Fig. 3).

**Trench 1** was 48.5m long and ran north-south. The topsoil measured c 0.60m over a tripartite fen sequence of upper peat (deposit 2: 0.07m thick), 'Fen Clay' (3: 0.11m) and basal peat (4: 0.08m). Between the basal peat and natural gravels was deposit 41, a dark greyish brown silty sand up to 0.15m thick. An east-facing section was drawn, showing this sequence at the north end of the trench. At the south end the peat deposits ran out and the trench was 0.48m deep. The only feature within the trench was a flat-bottomed 'claying' pit (9) measuring 1.1m wide and running into the western section 13m from the south end. It was 0.35m deep and filled with a peaty silt. There were no finds in the excavated portion. Two flints came from the interface between the basal peat and the gravel at the southern end of the trench (Figure 5 and Appendix 2).

**Trench 2** was 48.7m long and ran east-west. The topsoil measured 0.38m deep over the natural. The only feature within the trench, 16m from the east end, was a flat-bottomed field boundary ditch (39) measuring 1.3m wide and running north-south. It was 0.35m deep and filled with a dark brown friable sandy silt. It contained no finds in the excavated portion. One flint came from the base of the ploughsoil in the centre of the trench.

**Trench 3** was 48.2m long and ran north-south. The topsoil measured 0.38m over a fen sequence similar to that in Trench 1 which again ran out towards the south. The trench was 0.74m deep at the north end and 0.50m deep at the south. No features were seen within the trench but one flint came from the interface between the basal peat and the gravel at the north end of the trench.

**Trench 4** was 50.2m long and ran east-west, with an extension measuring 7.1 x 8.1m on the northern side at the west end. The topsoil measured 0.39-0.45m over the natural. A number of features were visible within the western half of the trench, in three small clusters. The features are circular, oval or subrectangular and their fills are described as dark brown silty sands with occasional flecks of charcoal in some cases. Dimensions in plan vary from c 0.25-0.75m and depths from 0.03 to 0.13m. The first (western) cluster contained features 17, which included a struck flint, 19 and two unexcavated. The second contained 21, 23, 25 and 27. The third contained 29, which included a struck flint, 31 and two unexcavated features. A presumably natural spread of small flint nodules (32) c 5m wide and 0.06m thick, in the middle of the trench, was sampled and included four struck flints. A further small oval feature (34) lay adjacent to this. The trench extension contained only very shallow amorphous depressions not considered to be features. Fifteen more worked flints came from the base of the ploughsoil within the trench and the extension, and three from the spoilheap.

**Trench 5** was 48.5m long and ran east-west. The topsoil measured c 0.40m over a fen sequence similar to that in Trench 1. The trench was 0.60-0.68m deep. No features were seen within the trench but six flints came from the interface between the basal peat and the gravel at different points along the trench, and a further three from the spoilheap.

**Trench 6** was 51.5m long and ran north-south. The topsoil measured 0.37m deep over the natural. No features were seen within the trench and no flints were found.

**Trench 7** was 47.5m long and ran north-south. The topsoil measured 0.39m deep over the natural. No features were seen within the trench.

**Trench 8** was 48.0m long and ran east-west. The topsoil measured 0.38m deep over the natural. No features were seen within the trench.

**Trench 9** was 49.3m long and ran east-west. The topsoil measured c 0.35m over a fen sequence comprising a single peat horizon (0.07m thick) and a sandy interface layer (0.23m), which ran out towards the east. The trench was 0.59m deep at the west end and 0.35m deep to the east. The only feature seen within the trench was a field boundary (unexcavated) running north-south, corresponding with that shown on the Ordnance Survey map.

**Trench 10** was 43.7m long and ran east-west. The topsoil measured 0.37m deep over the natural. No features were seen within the trench. One struck flint came from the spoilheap.



**Trench 11** was 50.3m long and ran north-south. The topsoil measured 0.57m deep over the natural. No features were seen within the trench.

**Trench 12** was 47.7m long and ran east-west. The topsoil measured 0.35m deep over the natural. No features were seen within the trench.

**Trench 13** was 49.6m long and ran north-south. The topsoil measured 0.29m deep over the natural at the north end and 0.40m at the south. The only feature seen within the trench was a field boundary (unexcavated) running east-west, corresponding with that shown on the Ordnance Survey map.

**Trench 14** was 45.6m long and ran north-south. The topsoil measured 0.28-0.34m deep over the natural, which rose up in the centre of the trench. No features were seen.

**Trench 15** was 13.5m long and ran north-west to south-east. The topsoil measured 0.42m deep over the natural at the north-west end and 0.55m at the south-east. No features were seen within the trench, other than modern plough score-marks which were cleaned and photographed.

**Trench 16** was 52.3m long and ran north-south. The topsoil measured 0.34m deep over the natural at the north end and 0.60m at the south where a modern field boundary (unexcavated) was visible, running west-east and turning a right angle towards the north. The only other feature seen within the trench was a shallow circular depression (62) which measured 0.40m in diameter and was filled with a brown, slightly silty sand. It lay 5.4m from the northern end of the trench.

**Trench 17** was 48.2m long and ran east-west. The topsoil and a sandy interface measured 0.58-0.61m deep over the natural. The only feature within the trench was an amorphous deposit (35) with diffuse edges, measuring c 1.3m wide and running into the southern section 4m from the west end. It comprised a brown slightly silty sand with moderate densities of charcoal and varied in depth from 0.10 to 0.30m. It is presumed to be of natural origin.

**Trench 18** was 61.7m long and ran north-south, with an extension measuring 8.6 x 9.4m on the eastern side at the south end. The topsoil measured 0.48-0.58m deep over the natural. A number of features were visible within the trench. Cut 6 at the southern end was a curvilinear feature measuring 2.4 x 0.85 x 0.17-0.25m deep and filled with a brown silty sand, typical of all the features in this trench. It contained fragments of pottery. North of this, feature 11 was a small circular cut, possibly a post-hole, 0.25m in diameter and 0.15m deep, containing a struck flint and a potsherd. An unexcavated feature of similar dimensions lay adjacent to it. In the northern half of the trench cut 13 was similar to 6 but smaller, measuring 1.2 x 0.6 x 0.18m, and 15 was a near-circular feature with a regular, rounded base. It measured 0.70 x 0.63m across and 0.20m in depth. Four other irregular features (unexcavated) were also seen in the trench.

The extension included 44, an irregular curvilinear feature like 6 and 13, which measured 1.75 x 0.85 x 0.35m. Cut 46 was a short linear 2.05 x 0.6m and 0.1-0.2m deep. Deposit 47 was the fill of a horseshoe-shaped tree-throw feature (unexcavated) and another example lay by the eastern section. A group of four to five irregular blobs and linears (unexcavated) was visible between 44 and 46 and a further curvilinear feature lay in the south-eastern corner. They are probably also tree-related.

**Trench 19** was 49.7m long and ran north-south. The topsoil measured 0.44m deep over the natural at the north end and 0.56m at the south. About 10m from the south end, an amorphous feature (37) measuring at least 4.4 x 1.1m and 0.60m deep, and filled with a yellowish brown sand containing gravel lenses was excavated. It is considered to be of natural origin. South of this was a possible circular feature (unexcavated) about 1.1m in diameter. A number of similar features (not planned) were visible in the northern part of the trench.

**Trench 20** was 48.4m long and ran north-south. The topsoil measured 0.52m deep over the natural at the north end and 0.66m at the south. A number of irregular features (unexcavated) with sandy fills, similar to those in Trench 19, were seen. These are also considered to be natural in origin.

**Trench 21** was 48.1m long and ran north-south. The topsoil measured 0.36m over a tripartite fen sequence of upper peat (deposit 49: 0.10m thick), 'Fen Clay' (52-54: c 0.45m) and basal peat (55: 0.22m max.). Beneath the basal peat was deposit 56, a greenish-grey sandy silt, overlying the natural sandy clay. A west-facing section was drawn, showing this sequence 15m from the south end of the trench. Also visible in the section was claying pit 51 which was filled with dark reddish brown peat and silt, and which was excavated 0.25m below the topsoil into the clay layer 54. At the northern end



of the trench the peat deposits lay deeper and the depth of machining was 0.98m (the peat was not entirely removed). 9m from the north end a broad, shallow clay-filled gully or channel ran across the trench. No archaeological features were seen beneath the peat.

**Trench 22** was 47.7m long and ran east-west. The topsoil measured 0.25m over a fen sequence similar to that in Trench 21. The depth of machining was 0.58m at the east end and 0.97m at the west end where a section was drawn. Beneath the basal peat at this point (1.5m from the west end) was an amorphous linear feature (60) running north-south and filled with brown sand containing a moderate density of organic remains and a couple of scraps of pottery. Also visible in the section was a claying pit similar to those seen in Trench 21. It was 0.95m in width with undercutting sides and was filled with a mixed organic silty clay. No other features were seen beneath the peat.

**Trench 23** was 49.4m long and ran north-south. The topsoil measured 0.30m deep over the natural gravel. No features were seen within the trench except for a row of claying pits (unexcavated) running into the western section.

**Trench 24** was 47.8m long and ran north-south. The topsoil measured 0.30m deep over a fen sequence of upper peat (0.09m thick), 'Fen Clay' (0.22m) and basal peat (0.12m). No features were seen within the trench.

**Trench 25** was 47.2m long and ran east-west. The topsoil measured 0.30m deep over a fen sequence of upper peat (0.15m thick), 'Fen Clay' (0.17m) and basal peat (0.06m). At the east end of the trench only a single peat horizon survived and the depth of machining was 0.40m. No features were seen in the trench except for a series of claying pits c 1m in width, which were cleaned and photographed.

**Trench 26** was 47.6m long and ran north-south. The topsoil measured 0.30m deep over a fen sequence of upper peat (0.07m thick), 'Fen Clay' (0.15m) and basal peat (0.10m) with a sandy interface 0.26m thick underneath. No features were seen within the trench but two tree trunks lay across the trench, respectively 5m and 14m from its north end, in the base of the upper peat.

**Trench 27** was 47.8m long and ran east-west. At the west end the topsoil measured 0.30m deep over a fen sequence of upper peat (0.05m thick), 'Fen Clay' (0.13m) and basal peat (0.10m). To the east only a single peat horizon survived and the depth of machining was 0.45m. No features were seen in the trench except for a series of claying pits.

**Trench 28** was 49.6m long and ran north-south. The topsoil measured 0.30m deep over the natural gravel. No features were seen within the trench.

**Trench 29** was 49.0m long and ran east-west. The topsoil measured 0.30m deep over the natural gravel. No features were seen within the trench except for a field boundary (unexcavated) running north-south 8m from the east end of the trench, corresponding with that shown on the Ordnance Survey map.

**Trench 30** was 18.7m long and ran east-west. The topsoil measured 0.30m deep over the natural gravel with a thin peat horizon present at the western end. No features were seen within the trench.



## APPENDIX 2: Catalogue of Finds

### Fieldwalking

| <i>Co-ordinate</i>   | <i>Type (brown flint unless stated)</i>                                       |
|----------------------|---|
| A20                  | flake on honey-coloured flint   |
| C40                  | blade   |
| B80                  | bone: abraded fragment  |
| C100                 | triangular flake  |
| F100                 | potsherd: post-medieval Cistercian-type dark-glazed body                      |
| G120                 | ?waterlogged wood, probably modern (2 pieces)                                 |
| A180                 | burnt flint fragment; broken blade  |
| B180                 | blade   |
| G180                 | flake or broken blade on grey flint   |
| B200                 | flake on grey flint   |
| B220                 | potsherd: post-medieval glazed body   |
| C220                 | retouched flake   |
| G220                 | ?core fragment  |
| C240                 | faceted flint nodule (?core)  |
| H240                 | flake   |
| G260                 | irregular flake (?ploughstruck)   |
| F280                 | flake   |
| C300                 | retouched square flake or broken blade  |
| D400                 | potsherd: post-medieval glazed rim  |
| BB320                | retouched blade   |
| EE120                | core/nodule   |
| FF100                | flake   |
| FF280                | small blade or flake  |
| GG220                | potsherd in grogged fabric  |
| GG240                | core/nodule   |
| GG300                | potsherd/tile fragment in grogged fabric (?post-medieval)                     |
| GG340                | flake   |
| HH220                | flake or broken blade   |
| HH340                | burnt flint fragment  |
| KK240                | flake   |
| MM340                | coarse flake (heavily patinated)  |
| <i>Casual Finds</i>  |   |
| north of Tr. 2       | flake or broken blade   |
| near B200            | broken blade  |
| near H180            | narrow blade (Fig. 7.1)   |
| south-east of Tr. 5  | 2 scrapers: 1 rounded (Fig. 7.2), 1 combined side- and end-scraper (Fig. 7.3) |
|                      | 1 flake   |
| around H200          | large retouched flake   |
| south-eastern field  | broken blade, burnt   |
| G400                 | burnt flint fragment  |
| A420                 | faceted nodule (?core fragment)   |
| c50m N of H580       | blade   |
| south-east of Tr. 17 | broken blade  |
| betw. Trs. 18 & 19   | crudely flaked endscraper   |
| east of Tr. 19       | thick flake   |
| south of SUT 7       | flake   |
| north of HH300       | broken blade  |



# Excavation

| <i>Trench</i> | <i>Context</i>                 | <i>Small Find<br/>Number</i> | <i>Type</i>                                 |
|---------------|--------------------------------|------------------------------|---|
| 1             | Basal peat/gravel<br>interface | 14                           | blade                                       |
|               |                                | 32                           | blade                                       |
| 2             | Base of ploughsoil             | 1                            | leaf arrowhead (Fig. 7.4)                   |
| 3             | Basal peat/gravel<br>interface | 2                            | broken blade                                |
| 4             | 16                             | 16                           | leaf arrowhead (Fig. 7.5)                   |
| 4             | 28                             | 17                           | flake/blade on grey flint                   |
| 4             | Base of ploughsoil             | 3                            | knife (Fig. 7.6)                            |
|               |                                | 4                            | blade                                       |
|               |                                | 5                            | blade                                       |
|               |                                | 6                            | flake                                       |
|               |                                | 7                            | flake or broken blade                       |
|               |                                | 15                           | flake or broken blade                       |
|               |                                | 18                           | side-scraper (Fig. 7.7)                     |
|               |                                | 19                           | flake                                       |
|               |                                | 20                           | blade                                       |
|               |                                | 21                           | blade                                       |
|               |                                | 23                           | flake                                       |
|               |                                | 24                           | core  |
|               |                                | 25                           | flake                                       |
|               |                                | 26                           | blade                                       |
|               |                                | 27                           | blade on honey-coloured flint               |
|               |                                | 28                           | blade on grey flint                         |
|               |                                | 29                           | blade                                       |
|               |                                | 30                           | flake on grey flint                         |
|               |                                | 31                           | flake                                       |
| 4             | Spoilheap                      |                              | retouched blade                             |
|               |                                |                              | retouched flake                             |
|               |                                |                              | flake                                       |
| 5             | Basal peat/gravel<br>interface | 8                            | blade                                       |
|               |                                | 9                            | blade                                       |
|               |                                | 10                           | blade                                       |
|               |                                | 11                           | burnt flint                                 |
|               |                                | 12                           | blade (Fig. 7.8)                            |
|               |                                | 13                           | burnt flint                                 |
| 5             | Spoilheap                      |                              | large blade                                 |
|               |                                |                              | flake or broken blade                       |
| 10            | Spoilheap                      |                              | thick flake                                 |
| 18            | 5                              |                              | pottery fragments                           |
| 18            | 10                             |                              | small blade                                 |
|               |                                |                              | pottery fragment                            |
| 18            | Spoilheap (subsoil)            |                              | 2 heavily patinated bladelets<br>(?natural) |
| 22            | 59                             |                              | pottery fragments                           |



### APPENDIX 3: Catalogue of Finds from SUT 1 (TL 4030/8131)

2 bone fragments (inc. 1 cattle tooth)

26 fragments of burnt flint (inc. 1 blade core) and 3 burnt stones

174 worked flints:

- 2 rough cores
- 4 blade cores
- 1 scalene triangle
- 5 scrapers
- 2 transverse arrowheads
- 2 obliquely blunted points
- 1 plano-convex knife
- 1 retouched triangular flake
- 1 leaf point
- 20 utilised/retouched flakes
- 32 utilised/retouched blades
- ?103 waste flakes/blades (not all present)

16 potsherds:

- 1 body with coarse fingernail impressions
- 1 ?grogged ?cordon with fingertip impressions
- 1 body with two rows of finger-pinched rustication
- 1 flint-gritted rolled rim of plain bowl and several other fragments.



## **APPENDIX 4: Aerial Photographic Assessment**

**BLABY'S DROVE, NORTH FEN, SUTTON, TL404814,**

**CAMBRIDGESHIRE:**

### **AERIAL PHOTOGRAPHIC ASSESSMENT**

**Rog Palmer MA MIFA and Chris Cox MA MIFA**

#### **INTRODUCTION**

This assessment of aerial photographs was commissioned to examine an area of some 8 hectares (centred TL404814) in order to identify and accurately map archaeological and natural features and thus provide a guide for field evaluation. Mapping was to be at 1:2500.

#### **ARCHAEOLOGICAL AND NATURAL FEATURES FROM AERIAL PHOTOGRAPHS**

In suitable soils, sub-surface archaeological features – including ditches, banks, pits, walls or foundations – may be recorded from the air in different ways in different seasons. In spring and summer, features of natural and anthropogenic origin may show through their effect on crops growing above them. Such indications tend to be at their most visible in ripe cereal crops, in June or July in this part of Britain, although their appearance cannot accurately be predicted and their absence cannot be taken to imply evidence of archaeological absence. In winter months, when the soil is bare or crop cover is thin (when viewed from above), features may show by virtue of their different soils. Upstanding remains are also best recorded in winter months when vegetation is sparse and the low angle of the sun helps pick out slight differences of height and slope.

Natural deposits can cause similar differences in crops and appear as startling colour changes in bare winter soils. On the gravel island of this assessment area we may expect indications of periglacial cracks. These may be mistaken for archaeological ditches. It may be possible to identify the fen edge and old water channels (roddons) on some of the photographs. Both can appear as different coloured soils or may affect the growth of crops and become visible at the same times as archaeological features. The visible edges and extents of such features tend to vary slightly from year to year.

The most informative aerial photographs of archaeological subjects are those resulting from specialist reconnaissance. This activity is usually undertaken by an experienced archaeological observer who will fly at seasons and times of day when optimum results are expected. Oblique photographs, taken using a hand-held camera, are the usual record of such investigation and can be expected to show what the observer thought to be of archaeological relevance. To be able to map accurately from these photographs it is necessary that they have been taken from a sufficient height to include surrounding control information.

Vertical photographs cover the whole of Britain and can provide scenes on a series of dates between (usually) 1946-7 and the present. Unfortunately these vertical surveys are not



necessarily flown at times of year that are best to record the crop and soil responses that may be seen above sub-surface features. Vertical photographs are taken by a camera fixed inside an aircraft and adjusted to take a series of overlapping views that can be examined stereoscopically. They are often of relatively small scale and their interpretation requires higher perceptive powers and a more cautious approach than that necessary for examination of obliques. Use of these small-scale images can also lead to errors of location and size when they are rectified or re-scaled to match a larger map scale.

## PHOTO INTERPRETATION AND MAPPING

### *Photographs examined*

Cover searches were obtained from the Cambridge University Collection of Aerial Photographs (CUCAP), Cambridgeshire Record Office (CRO) and the National Library of Air Photographs (NLAP), Swindon. Photographs included those resulting from specialist archaeological reconnaissance and routine vertical surveys.

Photo interpretation was begun on the Cambridge photographs by Rog Palmer. The information mapped was then compared against photographs at NLAP by Chris Cox (APS, Swindon) and amended as appropriate. Final compilation and drawing was by Chris Cox and Rog Palmer.

Photographs consulted are listed in the Appendix to this report.

### *Base maps*

Base maps at a scale of 1:2500 were provided by the client.

### *Photo interpretation and mapping*

All photographs were examined by eye and under slight (1.5x) magnification, viewing them as stereoscopic pairs when possible. Vertical photographs were also examined stereoscopically using a 1.5x magnification stereoscope. Interpretations were marked on overlays to individual prints following procedures described by Palmer and Cox (1993). All rectification was computer assisted and carried out using AERIAL 4.2 software (Haigh 1993).

AERIAL computes values for error of control point match between the photograph and map. In all rectifications prepared for this assessment these were less than  $\pm 2.0\text{m}$ . Rectified and plotted output at 1:2500 was combined digitally to show features in, and adjacent to, the assessment area. This is reproduced as two figures: a small-scale map (Figure 1) to provide local context, and a 1:2500 extract (Figure 2) which extends just beyond the assessment area.

## COMMENTARY

### *Soils*

The Soil Survey of England and Wales shows the area to be glaciofluvial drift (series 873) with marine alluvium and fen peat (series 851a) immediately south of Long North Fen Drove (SSEW



1983). The Fenland Survey added detail and showed most of the assessment area to lie on a small gravel island which, in prehistoric times, had peat fen on its east and marsh on its west (Hall forthcoming, figure 29).

### *Archaeological features*

By combining the information from several photographs it has been possible to map parts of the edge of the gravel island and the archaeological and natural features which are on, and adjacent to, that high ground. The most visible archaeological features are the ring ditches and surviving mounds of bronze age burial sites which are now much eroded by ploughing. The appearance of some of these sites varies on photographs taken at different times and the figures in this report combine that evidence where necessary. None of the burial sites found by David Hall is within the assessment area, although SUT site 7 (TL40498165) lies between the two lobes of the proposed development. Adjacent to the area, SUT 4 (TL40808135) and SUT 6 (TL40708114) show clearly on several photographs as mounds; SUT 5 (TL40938129) is not visible on the photographs examined.

Interpretation for this assessment suggests a further possible mound at TL40298124 and has identified two less possible ring ditches at TL40328168 and TL40878150, both of which are in the assessment area. The former ring ditch seems to be an improbable archaeological site as both Hall and the air photograph evidence show it to be located off the gravel island. It has been identified on one set of photographs only (RC8-DC series) on which it comprises two crop-marked arcs, each developed in adjacent and differently managed fields. This gives some credibility to the site as an archaeological features as does the presence of a natural crack – which denotes a gravel subsoil – which crosses the ring ditch. The second ring ditch shows as an arc of ditch with an internal mound and has been seen on one set of photographs only (MAL/5669 series). Aerial photographs show no clear evidence for an island edge on its east side, but Hall's map (forthcoming, figure 29) would place it just in the fen. However, it must be noted that the extent of these fen islands fluctuated over time. Hall's map, labelled 'Prehistoric' fixes this change at an undefined point in time within, maybe, a 10,000 year period. Evidence accrued for this assessment suggests that it covered a slightly greater area during the early bronze age.

The CUCAP oblique, which records SUT 7 very clearly, also suggests very slight traces of a second feature some 700m to its south (TL40488157). This is of unknown origin and does not coincide with any of Hall's artefact scatter sites. It lies outside the present assessment area. However, vertical photograph OS/76128: 173 shows a disturbed area, with suggestions of possible pits and ditches, which were too small to identify clearly from a 1:7500 scale print. This area has thus been flagged as an area of archaeological potential. A similar area was seen on the same photo, situated close to the island edge to the south (centring TL40478125).

A further possible mound (at TL40758137) was identified on vertical photograph number CPE/UK/1938: 4075.

The gravel island is a close outlier of the larger Chatteris-March land mass and, during the bronze age (the most likely date of the burial sites), was separated by not much more than 100m



# AIR PHOTO SERVICES

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## Aerial Photographic Interpretation

Client: Cambridgeshire Archaeology  
Project: North Fen, Cambridgeshire

FIGURE 1

SURVEY BY: RP & CC

DATE: October 1996

SCALE: 1:2500, reduced for illustration

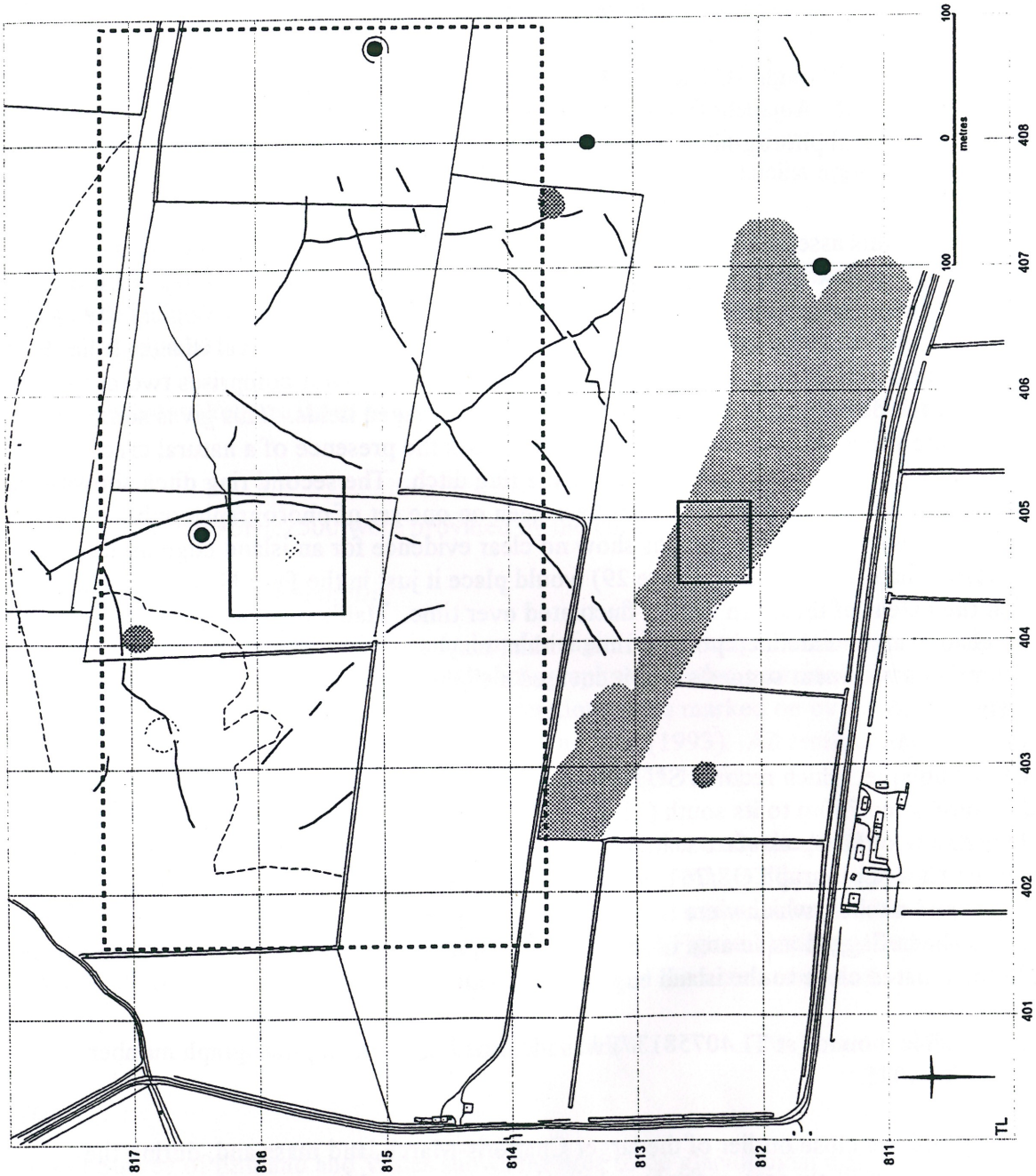
SOURCE: NLAP, CUCAP, CRO

- archaeological ditch
- dubious archaeological ditch
- mound
- possible mound
- frost crack
- area of archaeological potential
- edge of 'island'
- outline of study area, figure 2
- modern boundaries
- island

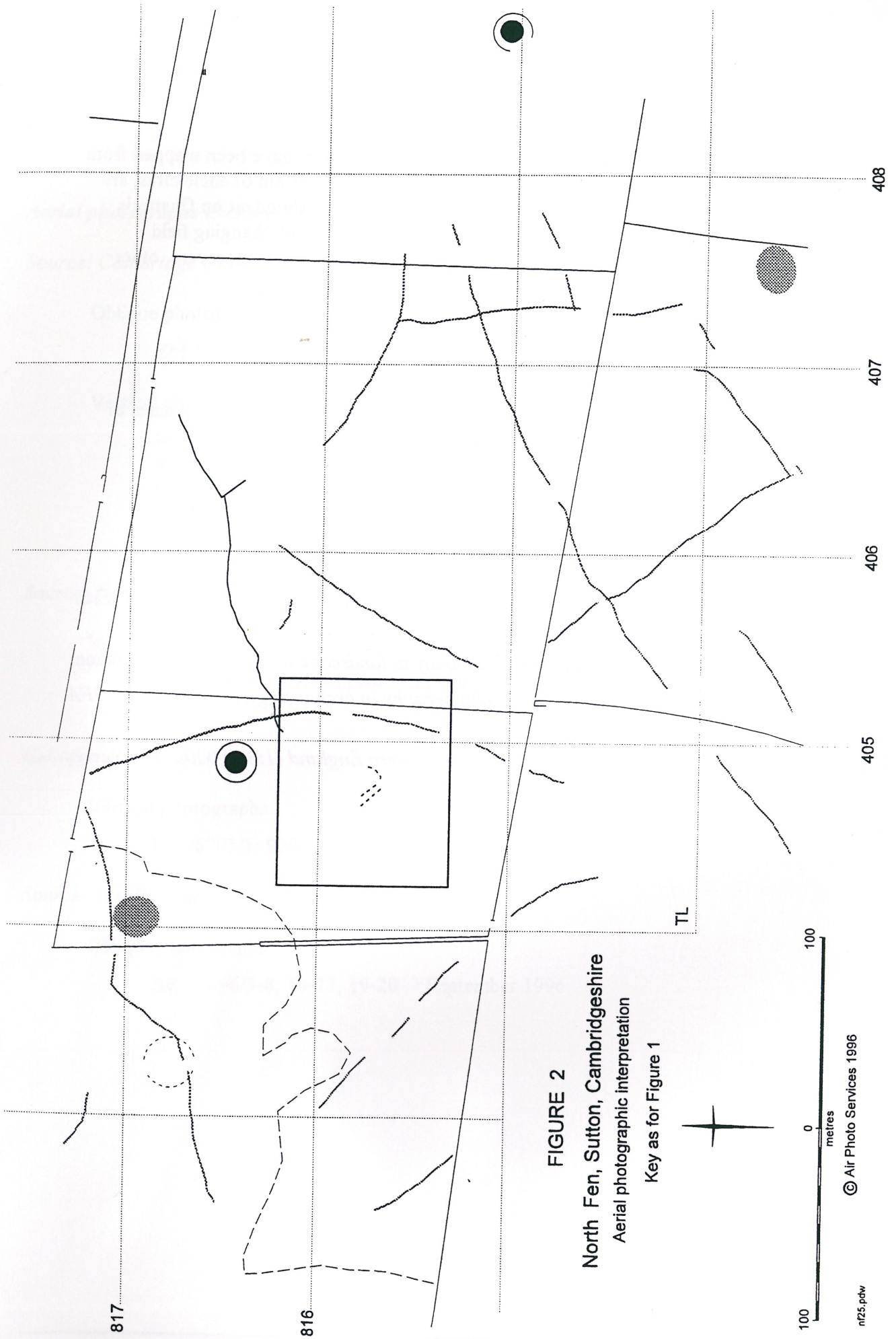
Original photo interpretation and mapping at 1:2500

© Air Photo Services 1996

nfen.pdf







**FIGURE 2**  
**North Fen, Sutton, Cambridgeshire**  
 Aerial photograph interpretation



of peat fen (Hall and Coles 1994, fig 52). A number of linear features have been mapped from the vertical photographs and, although tending to form an irregular system of enclosures, are undoubtedly periglacial cracks of a type common on the gravels and abundant on Chatteris island. Additional cracks have been photographed by Ben Robinson but changing field boundaries do not allow them to be mapped. Unless plough erosion has been severe, other similar features may be visible when the topsoil is stripped.

#### LAND USE

All fields within, and adjacent to, the assessment area have been in arable use on all dates of photography (1946 to 1996).

#### REFERENCES

- Haigh, J.G.B., 1993. A new issue of AERIAL – Version 4.20. *AARGnews* 7, 22-25.
- Hall, D.N., forthcoming. *The Fenland Project, Number 10: The Isle of Ely and Wisbech. East Anglian Archaeol.*
- Hall, D. and Coles, J., 1994. *Fenland Survey: an essay in landscape and persistence.* London.
- Palmer, R. and Cox, C., 1993. *Uses of aerial photography in archaeological evaluations. IFA Technical Paper* 12.
- SSEW, 1983. *Soils of England and Wales: sheet 4: Eastern England (1:250,000).* Soil Survey of England and Wales, Harpenden.



## APPENDIX

### *Aerial photographs examined*

*Source: Cambridge University Collection of Aerial Photographs*

#### Oblique photographs

|       |             |
|-------|-------------|
| ZM 62 | 4 July 1959 |
|-------|-------------|

#### Vertical photographs

|                   |               |         |
|-------------------|---------------|---------|
| RC8-M 176-178     | 4 July 1969   | 1:10000 |
| RC8-DC 75-77      | 12 July 1979  | 1:10000 |
| RC8-EC 149-151    | 24 March 1982 | 1:10000 |
| RC8-EC 237-239    | 24 March 1982 | 1:10000 |
| RC8-KnBL 226, 228 | 14 June 1988  | 1:10000 |

*Source: Cambridgeshire Record Office*

#### Vertical photographs

|                         |                 |         |
|-------------------------|-----------------|---------|
| F21/58/RAF/1337: 0111-4 | 11 January 1954 | 1:10000 |
| MAL/5669: 183-186       | 9 June 1969     | 1:10000 |

*Held by: Air Photo Services*

#### Vertical photographs

|                     |               |         |
|---------------------|---------------|---------|
| FSL/6705/1: 920-921 | 13 March 1967 | 1:10000 |
|---------------------|---------------|---------|

*Source: Ben Robinson, CAFU*

#### Oblique photographs

BR 9/9/96/3-8, 10-17, 19-20 9 September 1996



*Source: National Library of Air Photographs*

**Specialist collection**

TL4081/1-4

10 June 1980

**Vertical collection**

|                       |                  |         |
|-----------------------|------------------|---------|
| 106G/UK/1557: 1072-74 | 7 June 1946      | 1:9800  |
| 106G/UK/1589: 1040-43 | 21 June 1946     | 1:10000 |
| 106G/UK/1634: 1455-58 | 9 July 1946      | 1:10000 |
| CPE/UK/1891: 1357-60  | 10 December 1946 | 1:9840  |
| CPE/UK/1891: 3361-72  | 10 December 1946 | 1:9840  |
| CPE/UK/1938: 4073-76  | 18 January 1947  | 1:9840  |
| CPE/UK/1938: 4138-40  | 18 January 1947  | 1:9840  |
| 58/1337: 112-112      | 11 January 1954  | 1:10000 |
| 543/552               | 12 May 1959      | 1:10400 |
| OS/71498: 30          | 8 September 1961 | 1:7500  |
| FSL/6705: 1920-22     | 13 March 1967    | 1:10560 |
| MAL69056: 183-85      | 9 June 1969      | 1:10500 |
| MAL69056: 194-96      | 9 June 1969      | 1:10500 |
| OS/70177: 15-18       | 4 June 1970      | 1:7500  |
| OS/76128: 117-120     | 2 July 1976      | 1:7500  |
| OS/76128: 170-173     | 2 July 1976      | 1:7500  |
| 39/3150T: 3835-3842   | 26 July 1979     | 1:3300  |

***Most informative photographs***

RC8-M 177  
RC8-DC 76  
TL4081/1-4  
106G/UK/1557: 1073  
OS/76128: 173





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