



# THE INVESTIGATION OF AN EARLY-MIDDLE IRON AGE SETTLEMENT AND FIELD SYSTEM AT TOPLER'S HILL

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### **Summary**

*Between 1998 and 2000 Bedfordshire County Archaeology Service (now known as Albion Archaeology) undertook archaeological investigations, in line with PPG16, in advance of the substantial junction improvements on the A1 at Topler's Hill, Bedfordshire. These revealed evidence for an Iron Age settlement and contemporary field system.*

*Although only a small part of the settlement was subject to open area excavation, a considerable amount of information on its origins, extent, layout and internal morphology was recovered. It comprised at least eight interlinked enclosures, possibly representing different family units, each defined by substantial ditches. Only a few Iron Age settlements with a similar layout are known from southern England. Although the southern limit of the settlement was outside the Study Area, its likely extent was at least 0.8ha. Within the interior of the enclosures there was evidence for roundhouses and areas of pitting. Although there was only limited evidence, it is possible that some settlement activity also took place outside the enclosures.*

*The evidence for cereal cultivation and animal husbandry are in keeping with other Iron Age sites in southern England. However, two cattle bones may indicate the presence of a larger breed than normally expected for this period. The nature of the pottery is suggestive of a reliance on local manufacture, possibly undertaken during "slack" periods of the agricultural regime. Cropmarks suggest an arable field system extending over c. 10ha was located to the west of the settlement. A small quantity of domestic debris was recovered from the field boundaries nearest the settlement, suggesting that, at some point, these were also the site of domestic activity. It is likely that animals were grazed mainly in the dry valley to the east of the settlement.*

*Although the evaluation stage of this project utilised a range of archaeological techniques, it is now clear that if undertaken individually they would have provided a very misleading impression on the date and nature of the archaeological remains within the Study Area. Therefore, this article concludes with a critical review of the methodologies and techniques used.*





## 1. INTRODUCTION

In 1998 a decision was taken by the Highways Agency to improve two dangerous road junctions on the A1 at Toppler's Hill, Bedfordshire. The junctions were c. 500m apart leading to the villages of Langford and Edworth

During the preliminary design stage of the junction improvement scheme the County Archaeological Officer (CAO) of Bedfordshire County Council (BCC) advised that the area under consideration was likely to contain archaeological remains. Therefore, in accordance with the guidelines in the Department of the Environment's *Planning Policy Guidance Note 16. Archaeology and Planning* (PPG16) and Mid Beds Local Plan policy BE18 a programme of archaeological works was requested. An evaluation assessed the nature and location of the archaeological remains. Subsequent open area archaeological excavation, in accordance with Mid Beds Local Plan policy, was only undertaken in those areas where remains would be unavoidably destroyed by the road scheme. Bedfordshire County Archaeology Service (renamed Albion Archaeology during the preparation of this report) undertook all archaeological investigations.

This report brings together the evidence from all stages of investigation: non-intrusive evaluation, intrusive evaluation and open area excavation. It presents the evidence for an early-middle Iron Age settlement and contemporary field system. It also critically assesses the methodologies and techniques used during the investigations.

### 1.1 SITE LOCATION AND CONDITIONS (FIGURE 1)

Toppler's Hill is located c. 3.5km S of Biggleswade and 0.5km W of the village of Edworth in SE Bedfordshire. The Study Area, centred on TL 2164/4035, is bisected by the modern A1 dual carriageway.

Topographically the Study Area is located on a low hill (75m OD) overlooking a shallow dry valley to the NE. The underlying geology comprises Boulder Clay overlying Lower Cretaceous Upper Greensand and Gault Clay.

The land had been under arable cultivation before being made available for the road scheme.

### 1.2 ARCHAEOLOGICAL BACKGROUND (FIGURE 1)

The Historic Environment Record (HER) of BCC contains records of all known archaeological sites in Bedfordshire. Prior to the investigations the Study Area was known to contain undated cropmarks (HER 524) to the E of the A1 which itself marked the line of a Roman road (HER 505). Presumed Roman artefacts were discovered in the vicinity during construction work on the Great North Road in the 19<sup>th</sup> century, although no precise location is known.

Within 7km of the Study Area numerous cropmarks suggestive of enclosures and field boundaries are known. Roman pottery within the ploughsoil

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overlying some of these provides the only dating evidence. However, fields 1km to the SW produced early-middle Iron Age as well as Roman pottery. Approximately 8km to the N two hillforts, Caesars Camp and Sandy Lodge, are presumed to be Iron Age in date (Dyer 1971). \* **Arbury Banks to SE**

### 1.3 THE ARCHAEOLOGICAL INVESTIGATIONS (FIGURE 2)

A staged programme of archaeological investigations was undertaken with the results of the earlier stages determining the nature of the next stage. The overall results are presented together as the main section of this report. However, it is worth summarising the variety of archaeological techniques that were used during the evaluation, as the effectiveness of these is explored in greater detail in the discussion (*see below*).

The CAO stipulated the methods and extent of the investigation in a Specification and/or Brief. These, along with the BCAS Project Design and Report for each stage of the archaeological investigation are in the site archive.

#### 1.3.1 Non-intrusive evaluation

The preliminary means of archaeological investigation comprised non-intrusive evaluation. It was deliberately undertaken over a larger area than would ultimately be required for the junction improvements to provide an opportunity to minimise the destruction of archaeological remains. A summary of the results is presented below but full details are contained in the Stage 1 Evaluation Report (BCAS 1998).

##### *Aerial Photographic Analysis*

All aerial photographs held by BCC HER, Cambridge University Collection of Aerial Photographs and the National Library of Air Photographs were examined. Those taken in 1996 proved to be the most productive (Aerofilms 96C/565/1775 and 1776). All aerial photographs revealing cropmarks were rectified, if necessary, and converted to a digital format. Visible cropmarks whatever their perceived origin were then drawn. The resulting plot was compared to modern and historic maps to determine those features of recent origin.

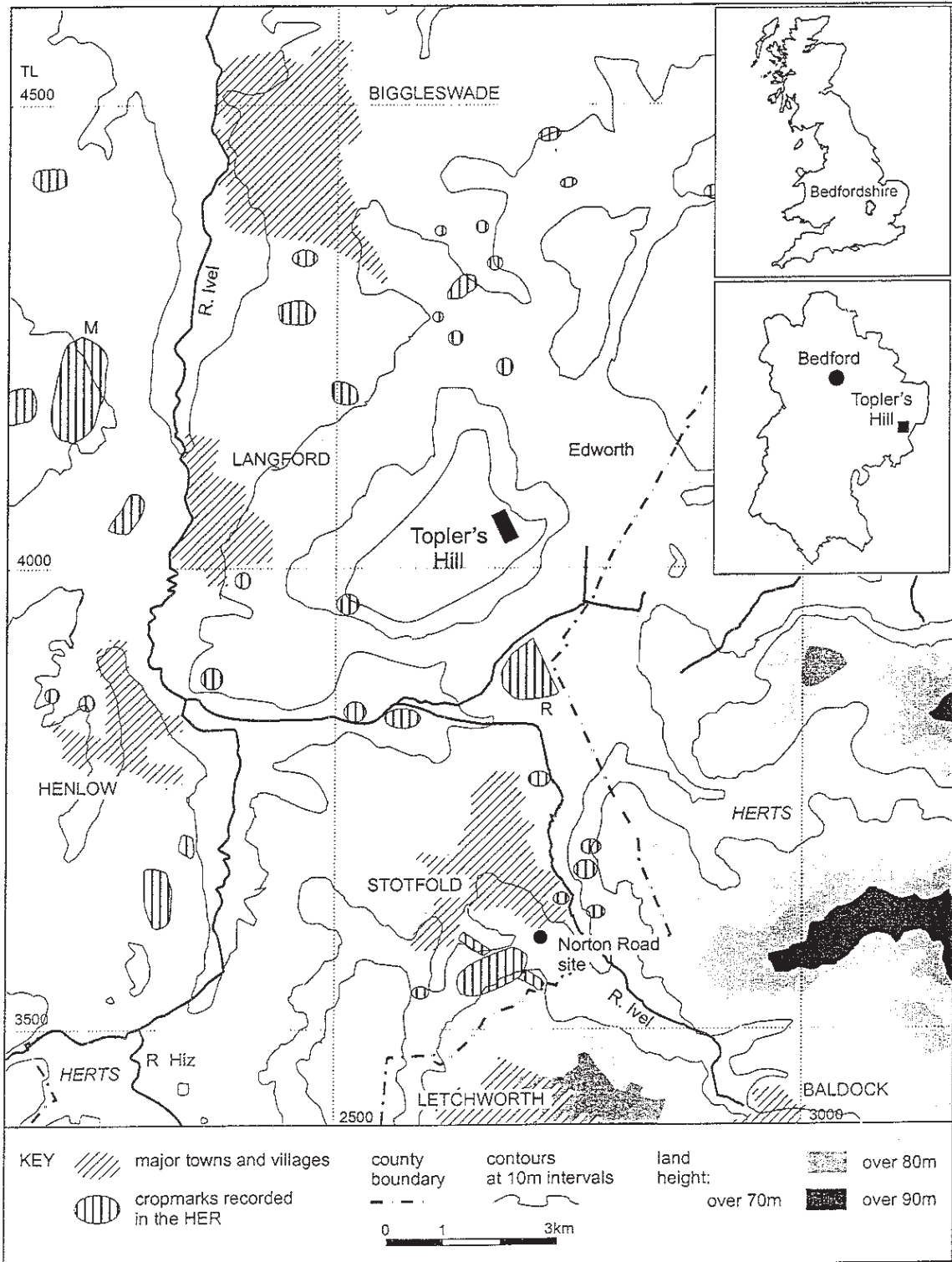
Immediately E of the A1 cropmarks were visible suggesting the presence of three ditched enclosures. Approximately 450 m to the W of the A1 two additional enclosures (L3 and L4) and a probable ditched field system (L1) were identified (Figure 2).

Cropmarks were interpreted as being of geological origin if they exhibited an irregular pattern and were generally lighter in appearance. Unfortunately these shared the same SW-NE alignment as those considered to be part of the early-middle Iron Age field system L1 (*see below*).

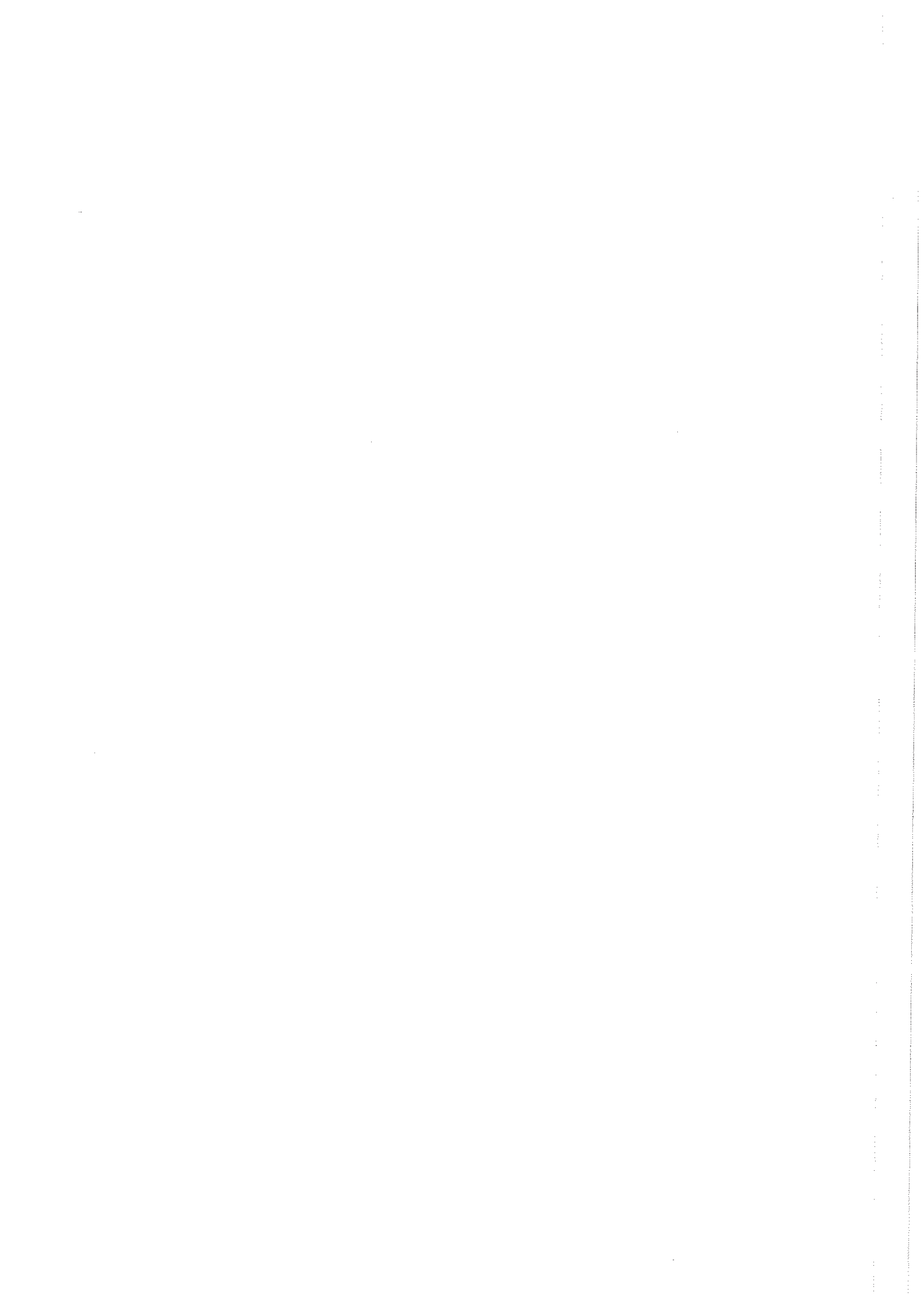
##### *Geophysical Survey*

GSB Prospection carried out a **magnetometry** survey during early August 1998 (GSB Prospection 1998). The entire Study Area was scanned along traverses spaced at intervals of c. 10m. Following discussion of the results

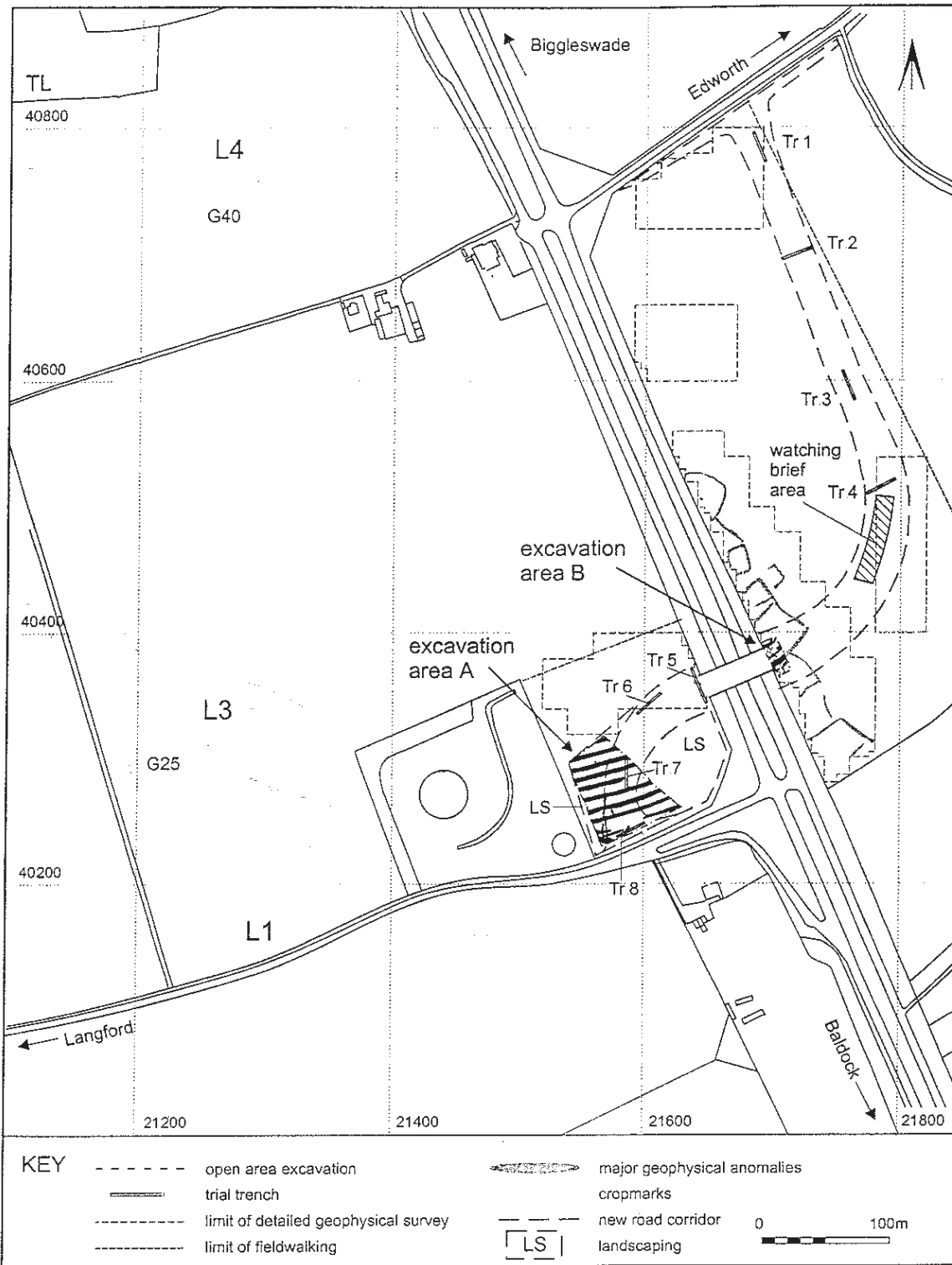
TPH526 Fig 1















between GSB, BCAS and the CAO detailed survey was undertaken in five blocks totalling c 4ha.

The geophysical survey confirmed the location of ditched enclosures to the E of the A1. However, rather than the three enclosures suggested by the cropmarks, up to eight interlinked enclosures were identified, with internal pit- and ditch-type anomalies (Figure 3)

#### *Field Artefact Collection*

Approximately 11ha were subject to field artefact collection. This was undertaken during September 1998, two weeks after ploughing (W of A1) and after harrowing (E of A1). Experienced archaeologists walking 20m apart collected all artefacts within a 1m strip.

The assemblage comprised 86 sherds of pottery (5 late Iron Age, 11 Roman, 23 medieval, 40 post-medieval, and 7 undiagnostic) and 628 fragments of brick/tile (499 late medieval/post-medieval, 22 post-medieval/modern and 107 undiagnostic). In addition 32 pieces of worked flint, 5 fragments of ferrous slag and 1 fragment of rotary quern were recovered.

No significant concentrations of brick and tile were identifiable. The small size of the assemblage of other material makes any perceived concentrations unreliable. However, all but one of the 11 Roman pottery sherds derived from the field to the E of the A1.

### **1.3.2 Intrusive evaluation**

Following discussions between the Highways Agency, the design engineers Thorburn Colquhoun and the CAO, the route of the road and construction method were amended to avoid, where possible, extensive destruction to the archaeological remains located by non-intrusive evaluation. The CAO stipulated that trial trenching was only required within the road corridor where topsoil was to be removed prior to construction. As a result eight trenches (25m or 30m in length) were opened by a JCB in September 1999 and investigated (BCAS 1999).

Only a small number of archaeological features were located. Trial trench 8, adjacent to the Langford Road on the W side of the A1, contained evidence for early-middle Iron Age activity in the form of features and pottery. Trenches 5, 6 and 7, also W of the A1, contained medieval furrows, but no finds. No features or finds were identified in Trenches 1, 2, 3 and 4 to the E of the A1.

### **1.3.3 Mitigation strategy**

#### *Preservation in situ*

The evaluation had identified two areas of archaeological significance: undated enclosures believed to be part of a Roman roadside settlement E of the A1 (BCAS 1999, 18) and late Bronze Age/early-middle Iron Age activity adjacent to the Langford road (BCAS 1999, 17). Where feasible, the impact of the road scheme was minimised. For example, the width of the new road to the E of the A1 was restricted. Its low embankment was designed in such a way

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that it was not necessary to remove topsoil. Where no engineering solution was possible open area excavations were undertaken.

#### *Open area excavations*

Open area excavations were undertaken during September 2000 in two areas. Area A was c 0.4ha in extent and located to the W of the A1. In this area the new road was to be constructed in a cutting with substantial landscaping on either side. Area B was much smaller (30m x 13m). It was located adjacent to the E side of the A1 on the site of the eastern bridge abutments for the new road.

All hand excavation and recording were carried out in accordance with the BCAS *Procedures Manual* (BCAS 2000a). The site recording sequences started during the evaluation were continued. All isolated archaeological features were half **sectioned**. Ditches were subject to segment excavation; those directly associated with settlement were more intensively investigated.

#### *Watching brief*

A 70m stretch of the road corridor to the E of Area B was stripped of topsoil and examined by an archaeologist. No features or finds were identified.

### **1.3.4 Post-excavation methodology**

On completion of the fieldwork, a MAP 2 style assessment of the potential of the site archive for further analysis was produced and submitted in December 2000 (BCAS 2000b). This included an Updated Project Design, which was approved by the CAO and The Highways Agency in March 2001, after which post-excavation analysis commenced.

To maximise the information obtainable from the site, all cropmarks and geophysical anomalies likely to be of archaeological origin were assigned context numbers and incorporated into the structural analysis. A structural hierarchy was then defined. This comprised:

- sub-groups (indivisible unit of interpretation, e.g. the primary fills of the same ditch);
- groups (more interpretative entities, e.g. a building or concentration of pits);
- landscapes (a collection of broadly contemporary and spatially coherent groups, e.g. an enclosure and the activity it contains, or a field system);
- phases (broad, chronological divisions, e.g. early-middle Iron Age)

## **1.4 STRUCTURE AND TERMINOLOGY IN THIS REPORT**

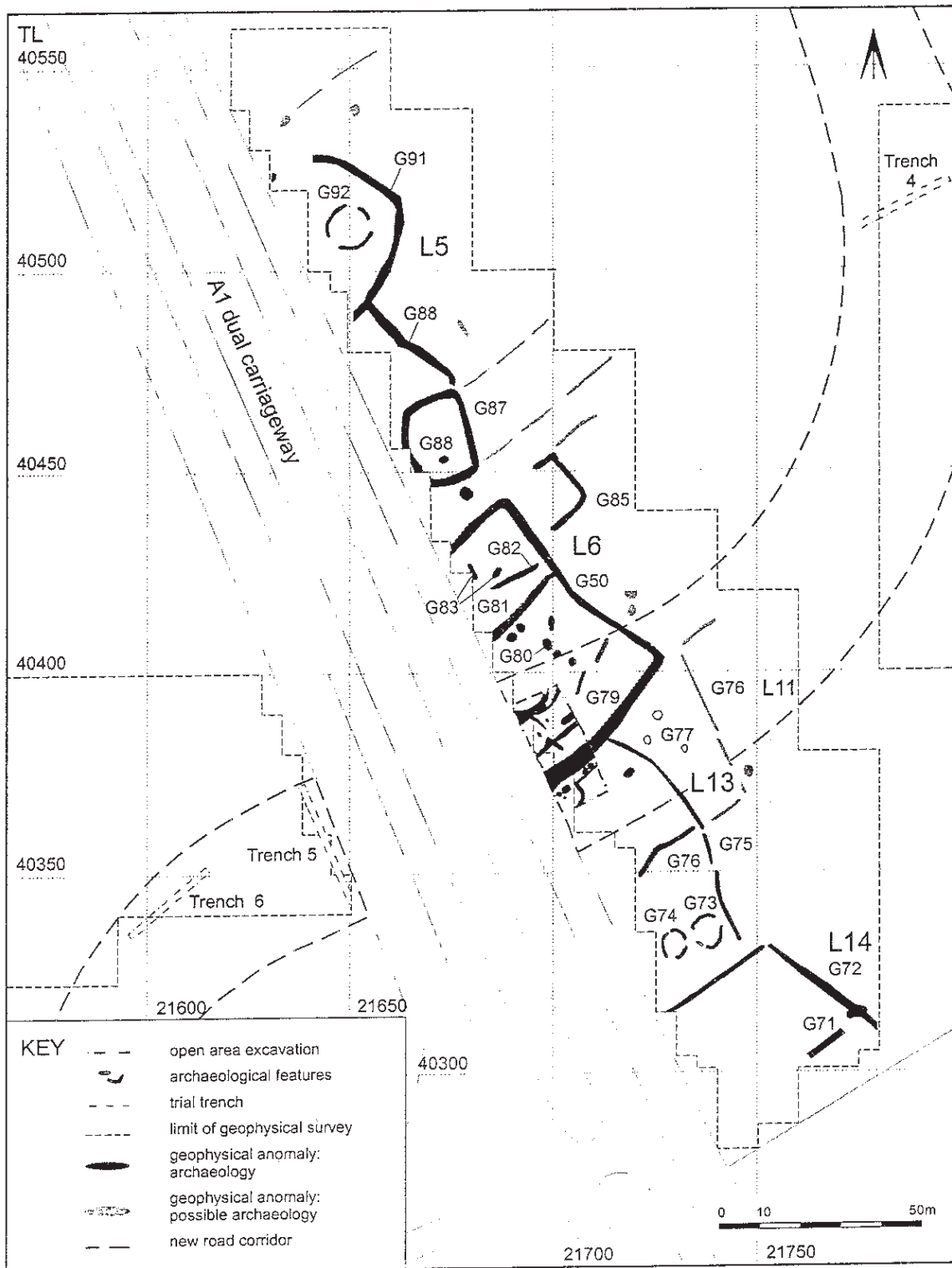
After this introductory section, this report presents the results of the investigations within a chronological framework. The site narrative is arranged by Landscape (L prefix) and Group (G prefix), and where necessary a feature number is provided and labelled on the illustrations (*see above*). Along with describing the archaeological features the site narrative integrates a summary of the artefactual and ecofactual information, which is presented in more detail within individual sections for the various specialisms. The final section of this



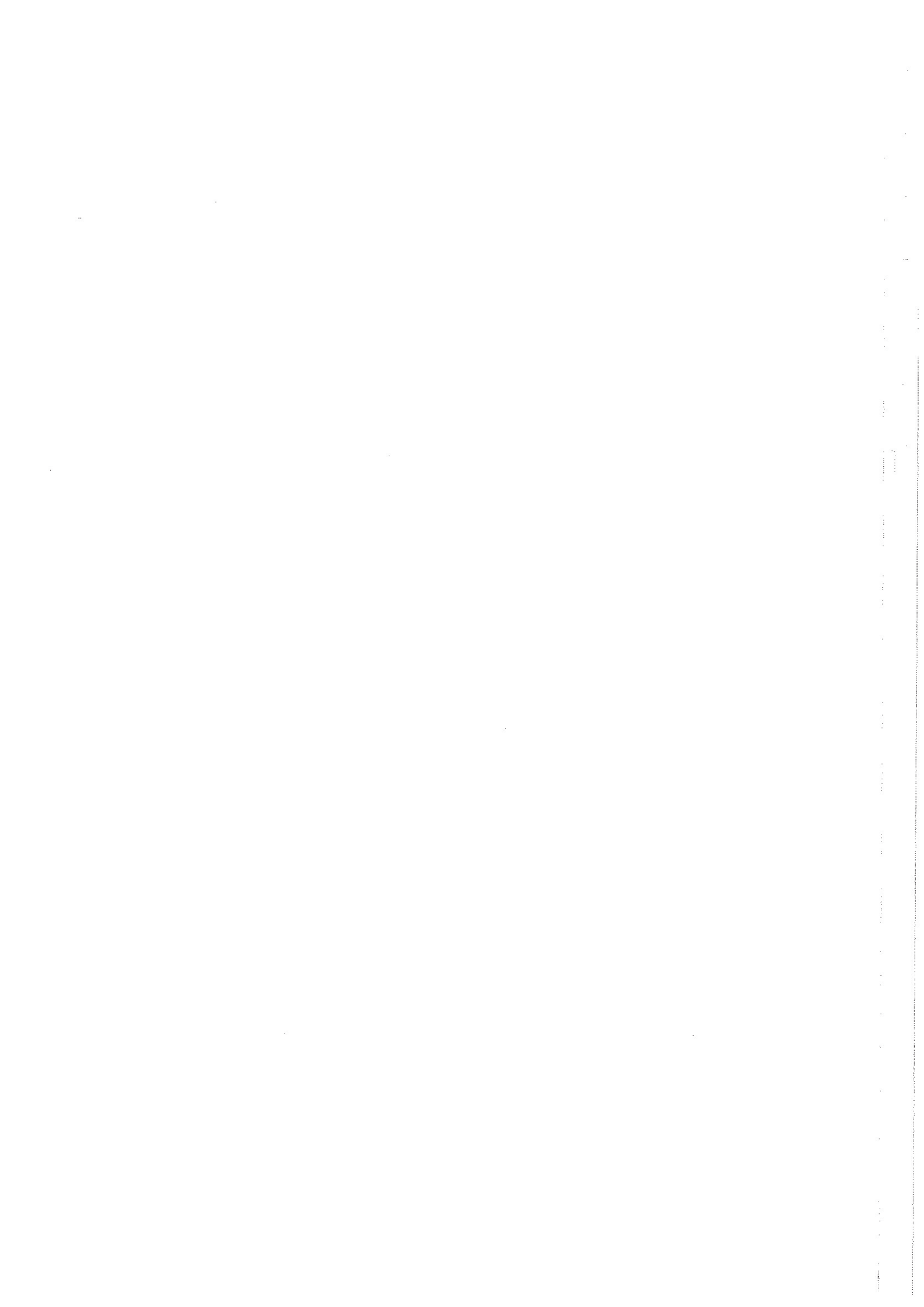
report discusses the results of the investigations and the techniques used during the evaluation stage of the project.



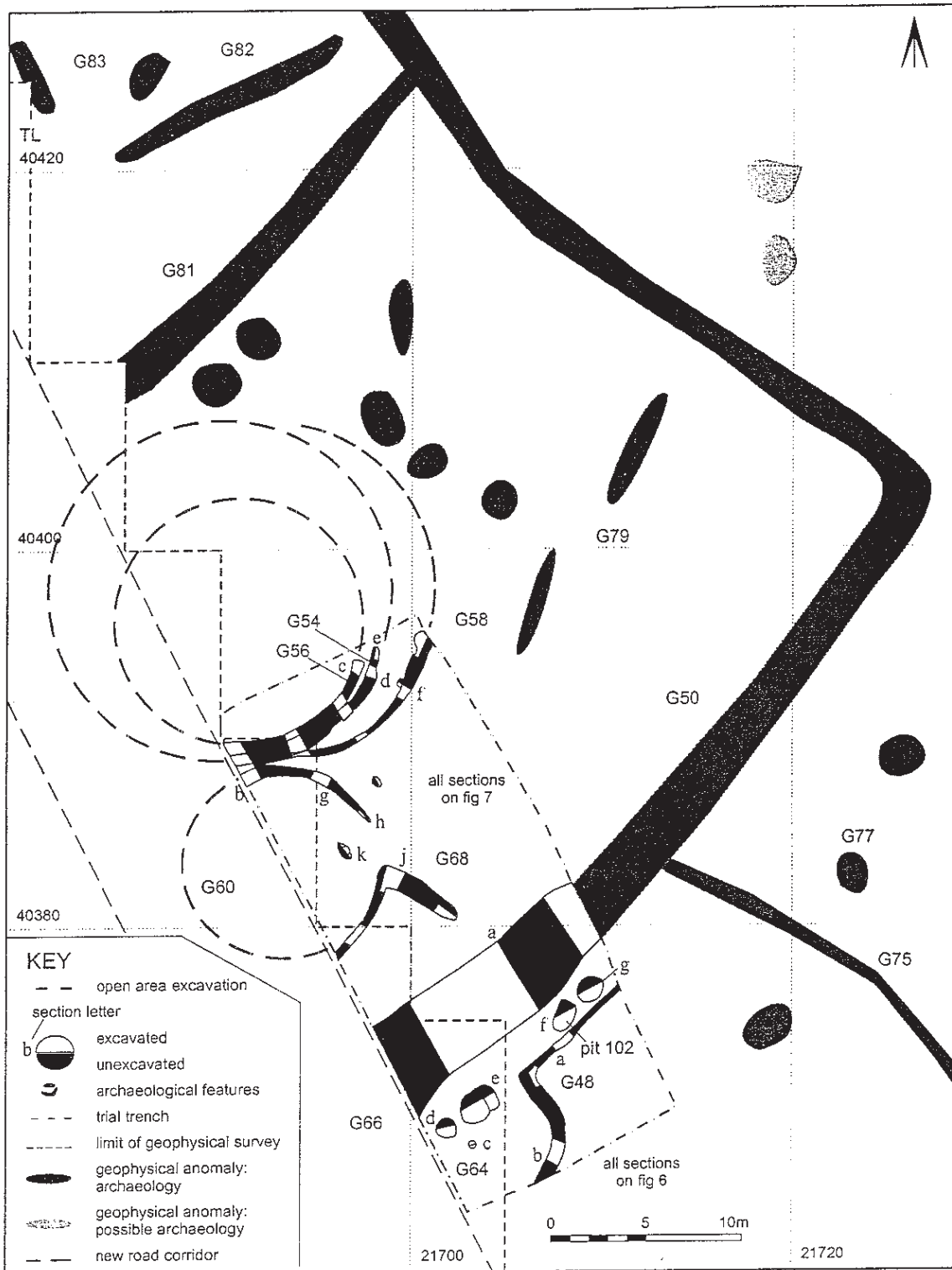
TPH526 fig 4







TPH526 fig.5







## 2. RESULTS OF THE INVESTIGATIONS (ROB EDWARDS AND MIKE LUKE)

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Two major elements of the landscape were identified during the investigations; a settlement and a field system. Unfortunately the restricted nature of the trial excavation and open area excavation makes it impossible to present a detailed phasing sequence. However, early-middle Iron Age pottery was recovered from the excavated parts of both the settlement and field system, suggesting that they were broadly contemporary. Due to the small percentage of the settlement and field system excavated it is always possible that the full chronological complexity is understated in this report.

The results are presented under two main headings: the settlement (E of the A1) and the field system (W of the A1). Any references to pottery refer to early-middle Iron Age pottery, although four groups also contained small quantities of residual late Bronze Age/early Iron Age material (*see below*).

### 2.1 THE SETTLEMENT (FIGURE 4)

This comprised eight interlinked enclosures the majority of which contained some evidence for settlement type activity. The overall alignment of the settlement was NW-SE and it was positioned at the top of land sloping down to the NE. Assuming that the settlement was restricted to the area of the ditched enclosures its N and E limits were identified and its W limit had clearly been destroyed by the A1. However, it probably continues to the S beyond the limit of the Study Area. The known extent of the settlement is c 0.8ha.

The layout of the enclosures suggests that they can, broadly speaking, be divided into four units: southern rectangular L14, L13 and L6 and circular L5. No obvious gaps or entrances in the ditched boundaries were detected within the geophysical survey possibly suggesting these were located on their destroyed W side. Many of the enclosures exhibited evidence for internal subdivisions.

Although the open area excavation was tiny when compared to the rest of the known settlement (5%) it provided valuable information. A number of typical settlement elements (buildings, pits, postholes and boundaries) were identified. This suggested that the geophysical anomalies within the enclosures were also likely to be settlement type features. In addition one of the major enclosure ditches was investigated. This and the other excavated features contained occupation debris including pottery, fired clay, worked flint and animal bone. Over 90% of the pottery dates to the early-middle Iron Age. A similar date is likely for the other enclosures given their interlinked arrangement. The pottery assemblage cannot be closely dated, but it is clear from the intercutting nature of some features that occupation was not confined to a single episode.

The enclosures will now be described from S to N.



### 2.1.1 The southern enclosures L14

This sub rectangular enclosure was the southernmost within the settlement and clearly continued beyond the Study Area. A substantial ditch-like geophysical anomaly G72, which also showed up as a cropmark, enclosed an area of greater than *c.* 1400 m<sup>2</sup>. An additional ditch-type anomaly G71 may represent an internal sub-division. No settlement type anomalies were identified within the enclosure.

#### 2.1.1.1 Enclosure ditch G72

The ditch-type geophysical anomaly was up to *c.* 2.3m wide with no obvious breaks to suggest the location of entranceways.

#### 2.1.1.2 Internal ditch G71

A NE to SW aligned ditch-type anomaly parallel to the N boundary of the enclosure was *c.* 31.5m long and up to *c.* 1.5m wide. It did not appear to continue across the entirety of the enclosure. Unfortunately it was located at the limit of the geophysical survey making further interpretation unreliable.

### 2.1.2 Additional southern enclosures L13 (Figure 5)

Ditch-type anomaly G75 is situated between enclosures to the N and S and thus encloses an area of greater than 2827m<sup>2</sup>. The enclosure appears to have been divided in half by ditch-type anomaly G76.

A small part of the interior of this enclosure adjacent to its N boundary G50 was subject to open area excavation. Minor ditch G48 was parallel to G50 but *c.* 1.7m to the S. In one place its alignment made a dramatic kink to the SW, presumably to avoid a structure or some other activity. Posthole G64 may be the only evidence for this activity. In-between minor ditch G48 and the enclosure ditch G50 was an alignment of five pits G66 (two of which intercut). Evidence for settlement type anomalies elsewhere within the enclosure was restricted to pit-type anomalies G77 to the NE and two possible **pennanular** ditch-type anomalies G73 and G74 to the S. If genuinely representing archaeological features, the latter may indicate the location of two roundhouses.

The fills of the excavated features yielded 10 sherds of pottery (from five vessels weighing 45g). Functional attributes are restricted to a single externally sooted sherd, indicative of the vessel use in a domestic capacity.

#### 2.1.2.1 Enclosure ditch G75

A NW to SE aligned geophysical ditch-type anomaly extending for *c.* 62m and *c.* 1m. A number of breaks were visible but the significance of these is uncertain.

#### 2.1.2.2 Internal ditch G76

A NE to SW aligned ditch-type anomaly, curving slightly but broadly parallel with the enclosure ditches to the N and S. It was *c.* 19m long and *c.* 1m wide. Continuing the alignment of this ditch to the E of the enclosure was a very weak linear anomaly.

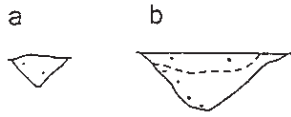
#### 2.1.2.3 Internal boundary G48

A minor ditch investigated within the open area excavation and continuing beyond its limits. It was aligned NE to SW, initially parallel to enclosure ditch G50 before kinking to the S. It was

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Enclosure L13

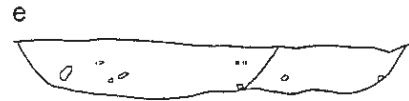
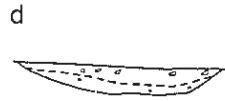
Internal boundary G48

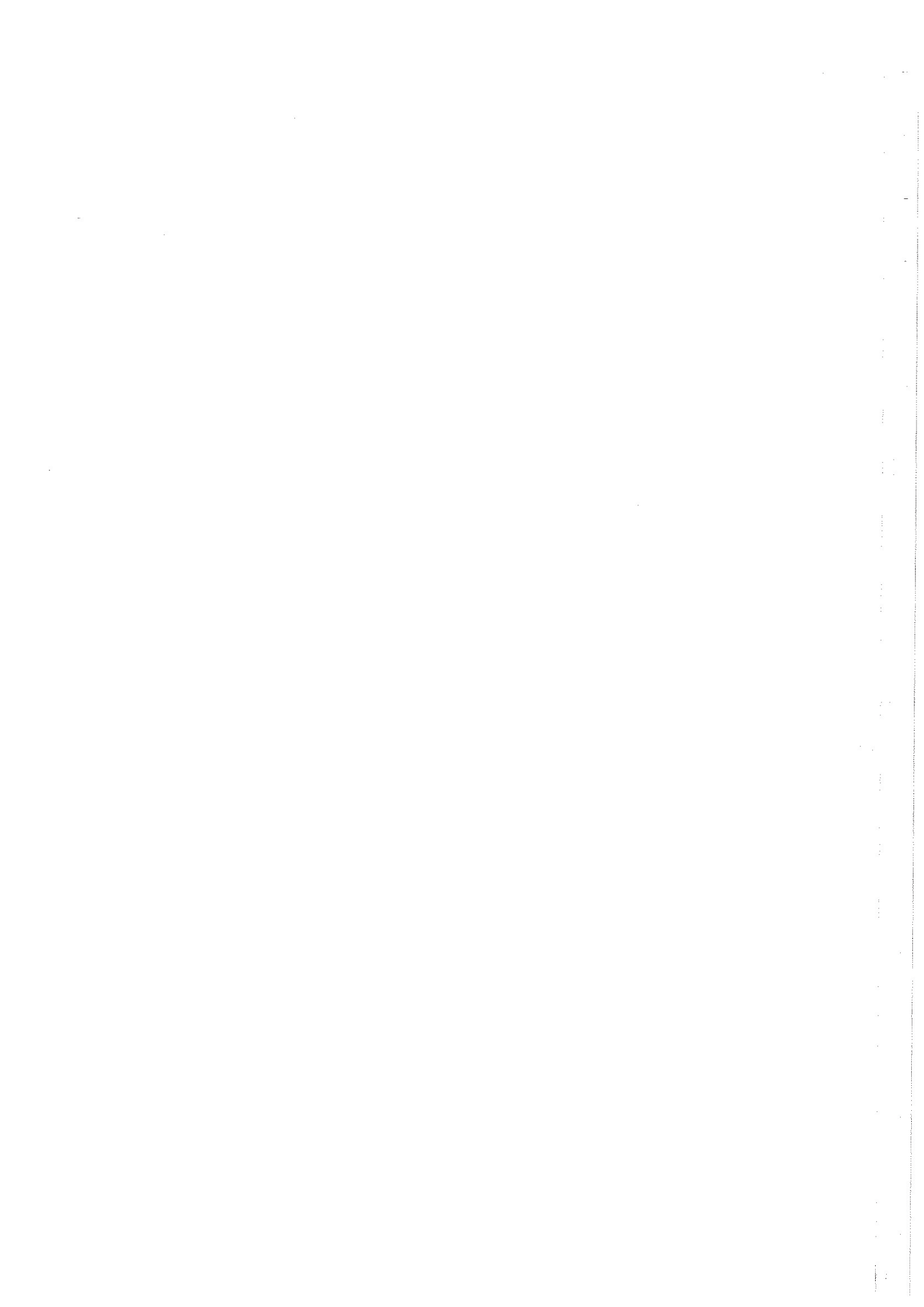


Post hole G64



Pit group G66









up to *c* 0.5 wide and *c* 0.2m deep, generally becoming wider and deeper within the kink to the S (contrast Figure 6a with Figure 6b)

It contained two fills (G49) probably derived from natural processes, but containing three sherds of pottery from the same vessel (weighting only 7g) and 17 fragments of animal bone. Environmental sample 10 contained occasional charcoal and molluscs

#### 2.1.2.4 *Post hole G64*

An isolated circular concave post hole *c* 0.4m in diameter and *c* 0.2m deep. Its fill G65 contained medium sized stones which may have originally been used as packing around the post (Figure 6c)

#### 2.1.2.5 *Pit group G66*

Five sub circular pits with concave sides and flat, irregular or concave bases. They were all under *c* 1.6m in length, between *c* 0.45m and *c* 1.5m in width and under *c* 0.3m deep (Figure 6d-g). Two of the pits were intercutting (Figure 6e), but the others were spaced fairly evenly. A sterile primary fill was identified within only one pit. Their main fills G67 contained seven sherds of pottery (from four vessels, weighing 38g) and eleven fragments of animal bone. Two small fragments of human bone were recovered from pit 102, which also contained two of the seven pottery sherds. Environmental sample 11 from this pit produced occasional cereal grain, chaff and charcoal.

#### 2.1.2.6 *Pit group G77*

Four isolated geophysical pit-type anomalies, *c* 2.5m in diameter were located within 9m of each other suggesting they may represent a cluster of pits.

#### 2.1.2.7 *Roundhouses G73 and 74*

Two interrupted penannular geophysical ditch-type anomalies, *c* 7m in diameter, *c* 0.6m wide, were located to the S of the enclosure only *c* 1.5m apart. They may represent gullies associated with roundhouses. Although gaps in the anomalies to the N, E and SW were visible they cannot reliably be interpreted as entrances.

### 2.1.3 **The central enclosures L6 (Figure 5)**

This sub rectangular enclosure was defined by a ditch-type geophysical anomaly G50 enclosing an area of greater than *c* 1410 m<sup>2</sup>. No obvious breaks were visible to suggest the location of entranceways. The interior of the enclosure was sub-divided by a ditch-type geophysical anomaly G81. Less pronounced linear anomalies G79 and G82 may represent additional internal boundaries.

A small part of the enclosure adjacent to the S boundary ditch G50 was subject to open area excavation. Penannular drainage gullies suggest the presence of two roundhouses G56 and G60. The gully around the former was recut at least twice G54 and G58. The other was associated with a short deep gully, which may have functioned as a soakaway. Three postholes G62 were located, one of which was truncated by one of the drainage gullies. It is therefore clear that settlement in this area was longer than a single episode. To the N of the excavated area pit-type geophysical anomalies G80 and G83 suggest activity took place elsewhere in the enclosure.

Fills of the excavated features yielded 132 sherds of pottery from 62 vessels (weighting 930g) representing 50% of the overall assemblage. The majority of this was derived from ditch G50 and its fills.



### 2.1.3.1 Enclosure ditch G50

The southern boundary ditch G50 was investigated within the open area excavation. It was *c* 4.3m wide and *c* 1.5m deep, with a U shaped profile, convex sides and a convex base (Figure 7a). The latter was suggestive of recutting although no clear evidence for this was detected in the filling sequence.

It contained primary fills comprised of a yellow brown silty clay with rare small sized stones probably derived from slumping of the sides. This contained six pottery sherds from six vessels (weighing 36g) and two fragments of animal bone. Environmental sample 12 produced occasional cereal grain, chaff, weeds and charcoal. The secondary fills G51 were brown grey silty clays with occasional charcoal flecks and small stones. They included 12 pottery sherds from the same vessel (weighing 71g) and seven fragments of animal bone. Environmental sample 13 produced occasional cereal grain, weeds, charcoal and molluscs. Deposit G52 a grey brown silty clay with occasional small stones represents a period of stabilisation. It contained nine pottery sherds from two vessels (weighing 84g), along with three fragments of animal bone and a small quantity of fired clay.

The tertiary fill G53 was a compact grey brown silty clay with frequent small to medium sized stones and occasional large stones. It also contained significant amounts of domestic refuse (pottery, a core, 5 flint flakes, 54 fragments of animal bone, shell and struck flint) suggesting it may have been deliberately dumped. The pottery comprised 44 sherds from 14 vessels (weighing 242g). The occurrence of three cross-matches in the pottery recovered from secondary and tertiary fills supports the suggestion of deliberate, perhaps rapid, infilling of the ditch, which may have been fairly rapid.

The nature and location of the fills gave no indication of the position, or even presence of a bank. However, the digging of the ditch would have produced a large quantity of material making it very likely that a bank was constructed. Due to the close proximity of pits G66 on the S side of the ditch, it is perhaps more likely that a bank would have been located on the N side.

### 2.1.3.2 Internal divisions G79, G81 and G82

Geophysical linear anomaly G81 probably represents a major sub-division of the enclosure. The function of two intermittent geophysical anomalies G79 and G82 is less clear, although they may indicate further sub-divisions.

### 2.1.3.3 Roundhouse G56

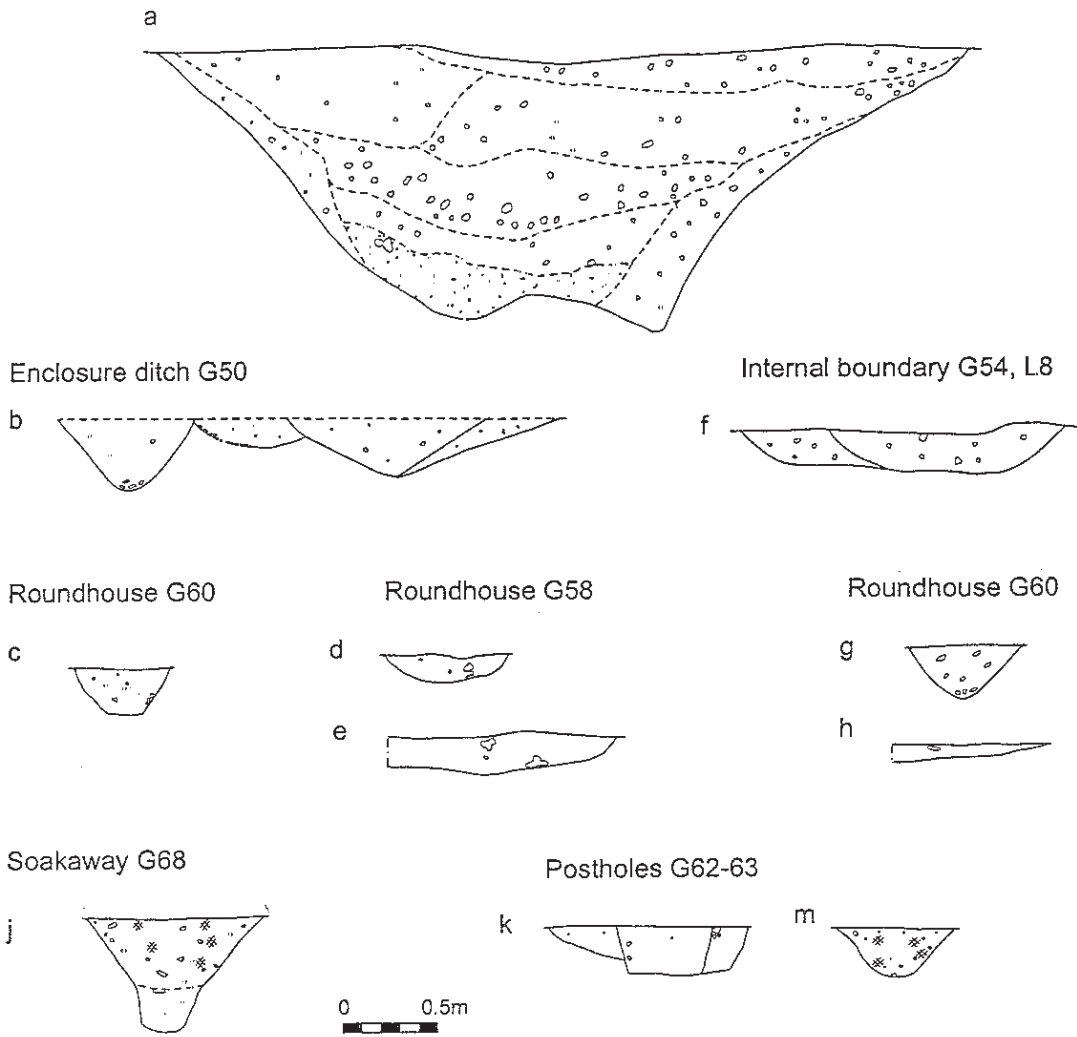
Pennanular ditch G56 in the NW corner of the open area excavation continued beyond the limit of the open area excavation. It had a U shaped profile with a concave base, was between *c* 0.45m and *c* 0.8m wide and under *c* 0.3m deep (Figure 7b and c). It is believed to represent a drainage gully defining a roundhouse with a maximum projected diameter of *c* 13m. It had a square terminal to the NE suggesting an E facing entrance. A primary fill comprising a yellow brown silty clay with occasional charcoal flecks was identified in only one excavated segment.

The main deposit G57 within the gully was a dark grey brown clay silt, with occasional small to medium stones (some burnt) and occasional charcoal and chalk flecks. Domestic debris (pottery and 24 fragments of animal bone) was predominantly derived from the two segments closest to the terminal. For example eight of the ten pottery sherds, all from different vessels (weighing 125g), and 21 of the animal bone fragments were derived from the terminal, despite the hand excavation of three other similarly sized segments. Environmental sample 9 produced occasional cereal grain, weeds and molluscs, but abundant cereal chaff and charcoal.

### 2.1.3.4 Redigging of Roundhouse drainage gully G54 and G58

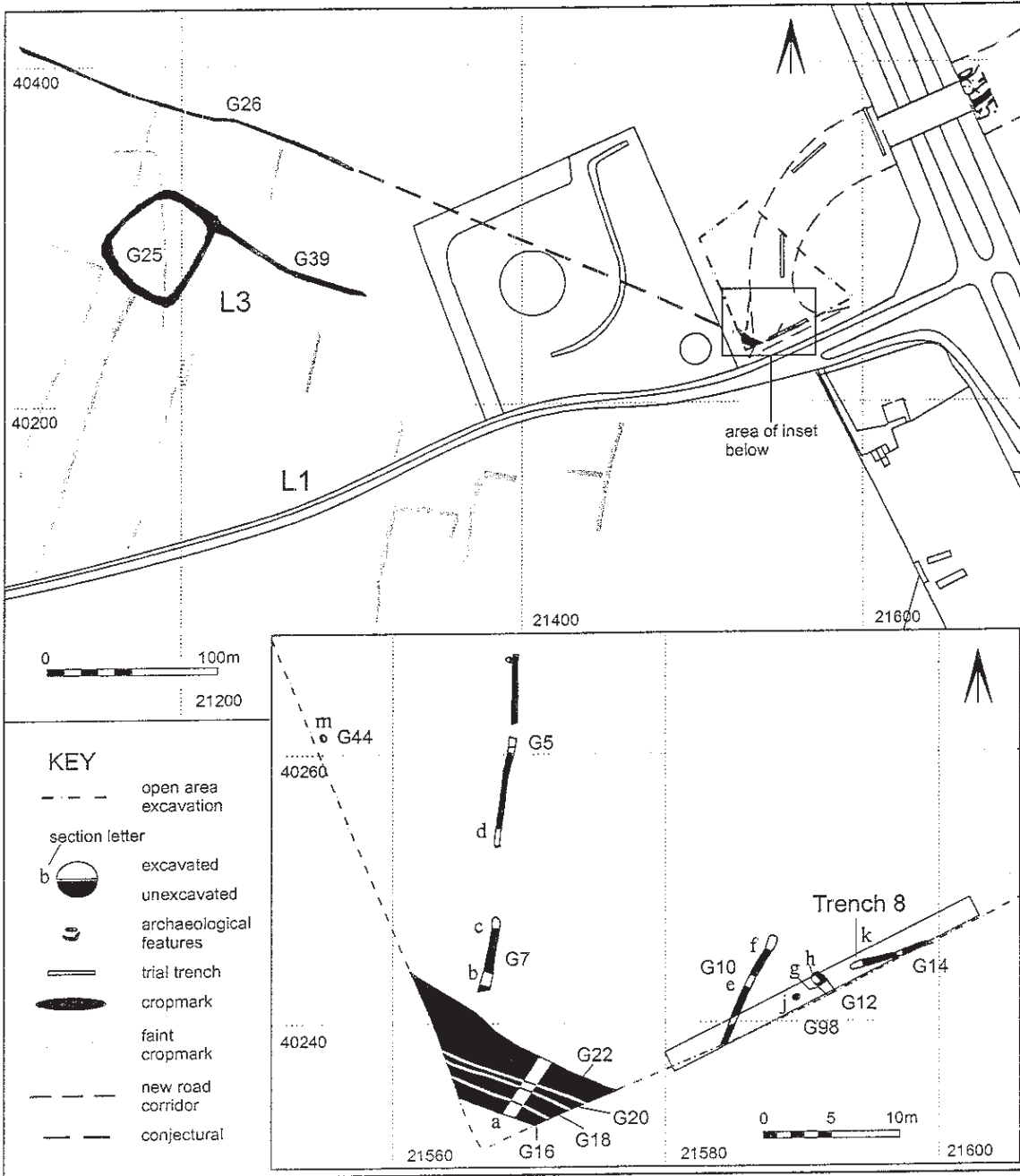
It appears the drainage gully surrounding roundhouse G56 was redug on two occasions, initially as G54 and then G58. These were dug slightly to the S, but on a similar curving alignment. They had concave profiles, occasionally with a flat base, and were under *c* 0.3m deep (Figure 7b, d, e and f). Both were more variable in width than the original gully. G54

TPH526 fig 7





TPH526 fig 8







was mainly *c.* 0.3m but widened to *c.* 1.5m wide at the NE \* **check plan**. However, G58 was between *c.* 0.4m and *c.* 0.9m wide, apparently getting narrower to the NE \* **check plan**. If the roundhouse had been rebuilt along with the recutting of the drainage gully it could have been increased in diameter up to a projected maximum diameter of *c.* 1.8m. Both gullies appear to have terminated to the NE (Figure 7e) suggesting the continuation of the original E-facing roundhouse entrance.

Within both gullies the yellow brown silty clay primary fills contained charcoal and burnt clay flecks, but only G54 contained pottery (two sherds from one vessel weighting 43g). This was once again not identifiable in every excavated segment. The upper fills G55 and G59 comprised a dark grey brown silty clay, with occasional small to medium stones, along with flecks of charcoal, chalk and burnt clay. However, there was a greater quantity of domestic debris (pottery and seven fragments of animal bone) within gully G58 than G54. Of the seven pottery sherds from six vessels (weighting 43g) recovered all but one was recovered from the terminal segments despite the hand excavation of three other segments. A core fragment was recovered from G54.

#### 2.1.3.5 Roundhouse G60 with soakaway G68

Pennanular gully G60 continued beyond the excavation area to the W and had a projected diameter of *c.* 10.5m. It was under *c.* 0.3m deep with a U shaped profile, *c.* 0.5m wide (Figure 7g and h) and therefore comparable to the drainage gullies surrounding roundhouse G56. The two ditch terminals on the E side, one with a distinct taper in plan, created an entranceway *c.* 3m wide. The S terminal incorporated a sub rectangular pit G68, *c.* 4.85m long and under *c.* 1.1m wide, which narrowed and deepened to *c.* 0.6m at the south-east.

A grey brown silty clay primary fill was only identified in one of the five excavated gully segments. It contained two sherds from one vessel (weighting 19g). The main fill G61 was a dark brown grey sandy clay with occasional small stones and domestic debris (pottery, 7 fragments of fired clay and 13 fragments of animal bone). The distribution of the 13 sherds (from eight vessels weighting 79g) did not appear to concentrate near the terminals. The filling sequence within pit G68 was similar. The secondary fills G69 and G70 contained a relatively large quantity of domestic debris (pottery, 11 fragments of animal bone and fired clay). The pottery comprised 26 sherds from 12 vessels (weighing 174g).

#### 2.1.3.6 Postholes G62

Three postholes G62, *c.* 4m to *c.* 5m apart, were identified within the excavation area. They were sub-oval to sub-rectangular, with concave or steep sides and flat or concave bases, with diameters between *c.* 0.25m and *c.* 1.1m. They were under *c.* 0.25m deep (Figure 7f, k and m). Posthole 235, situated in the vicinity of the entranceway into roundhouse G60, contained a suggestion of a postpipe comprised of soft dark silty clay surrounded by compact lighter silty clay (Figure 7k). Posthole 246 is truncated by drainage ditch G58 (Figure 7f) clearly demonstrating that these cannot be contemporary. The function of the three postholes is uncertain. They could be unrelated although they do form an approximate SW to NE alignment.

#### 2.1.3.7 Pit Groups G80 and G83

Two groups of geophysical pit type anomalies were identified. Adjacent to possible internal subdivision G81 was a group of six anomalies G80, between *c.* 1.8m and *c.* 3m in diameter. The second group G83 was located to the N of the possible internal subdivision G81 and comprised just two anomalies, between *c.* 2.7m and *c.* 4.2m in diameter.

### 2.1.4 The northern enclosures L5

Three interlinked enclosures are indicated by ditch-type geophysical anomalies. The northern one is sub-circular in plan and represents the N extent of the enclosed settlement. It continues beyond the limit of geophysical survey and encloses an area of **at least *c.* 625 m<sup>2</sup>**. A pennanular geophysical ditch-type anomaly G92 identified within the interior probably defined a

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roundhouse. Approximately 28m to the S was a small sub-rectangular enclosure whose complete plan was revealed by geophysical ditch-type anomaly G87. It had an internal area of **at least 226 m<sup>2</sup>** and contained one pit-type geophysical anomaly G88. Geophysical ditch-type anomaly G88 connected these two enclosures and enclosed an area of **greater than 330m<sup>2</sup>**. No evidence for activity was identified within this enclosure.

#### 2.1.4.1 Enclosure ditch G91

The geophysical ditch-type anomaly G91 was up to c 2.2m wide and continued beyond the limit of the geophysical survey

#### 2.1.4.2 Roundhouse G92

An interrupted penannular ditch-type geophysical anomaly, c 1m wide, is interpreted as a drainage gully surrounding a roundhouse. This would have a diameter of under c 10m. The gaps visible in the anomaly may suggest doorways to the N, E or SW.

#### 2.1.4.3 Enclosure ditch G87

The geophysical ditch-type anomaly G87 was c 1.7m wide and defined a sub-rectangular enclosure with no obvious breaks that could represent entranceways

#### 2.1.4.4 Pit G88

Within in this small enclosure was a geophysical pit type anomaly c 2.2m by c 1.7m.

#### 2.1.4.5 Enclosure ditch G88

Geophysical ditch-type anomaly G88 connected ditches G87 and G91. It was up to c 2.5m wide with no obvious breaks

### 2.1.5 Peripheral activity to the East L11?

The geophysical survey identified ditch and pit-type anomalies suggesting activity also took place to the E of the interlinked enclosures. However, only ditch-type anomaly G85 represented a sufficiently strong response to be convincing as an archaeological feature. If the anomalies adjacent to L13 represented by weaker responses are genuine, they may suggest that this enclosure once extended further E.

#### 2.1.5.1 Enclosure ditch G85

This ditch type geophysical anomaly c 1.1m wide defined a sub-rectangular enclosure covering c 93m<sup>2</sup>. It was situated to the NE of L6 and shared a similar alignment. There appeared to be gaps in both the SE and NW arms adjacent to the L6 enclosure ditch. While these could represent genuine entranceways they may be a response to the very high readings provided by the enclosure ditch G50. No internal anomalies were identified

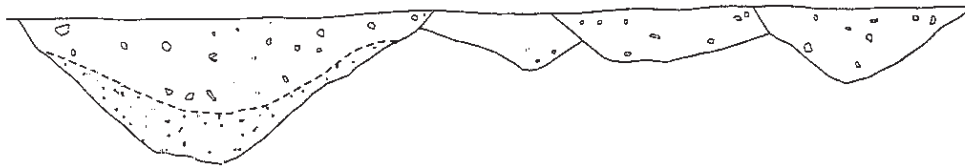
#### 2.1.5.2 Other ditches

The weak ditch-type geophysical anomalies occurred to the SE of L6. One could be the continuation of G76 beyond the limit defined by G75 and weak anomaly G76 appeared to be aligned on the corner of L6. The presence of pits G77 (*see above*) beyond the E limit of L13 may support the interpretation that this enclosure continued to the E.

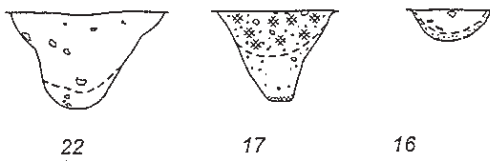
## 2.2 THE FIELD SYSTEM AND ENCLOSURES (FIGURE 8)

A field system mainly identified from aerial photographs and extending over c. 10ha was identified to the W of the settlement. In addition a number of enclosures were identified within it although these may not be contemporary. While it is obviously impossible to date cropmarks, the evidence from the

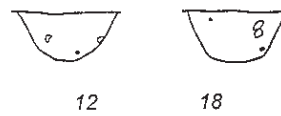
Major boundary ditch G18- 21/ Re-cutting of major boundary ditch G16 and G22



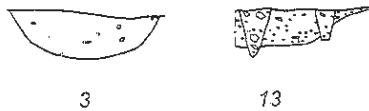
Boundary ditch G5/ G7



Boundary ditch G10



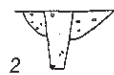
Ditch G12



Postholes G98



Ditch G14



Posthole G44







excavated field boundaries suggests that these, at least, are contemporary with the settlement.

### 2.2.1 Field system L1 near settlement

A series of ditches were located *c.* 170m from the settlement (within open area excavation A). Their layout and relationship with the more extensive cropmarks to the SW suggests they were part of the field system rather than being associated with a settlement.

A major boundary is indicated by a NW-SE ditch G18 which was recut on at least three occasions as G20, G16 and G22). The two latest re-cuts could have been contemporary and formed a double ditched boundary. Aligned perpendicular to this were two alignments of N-S ditches (G5/7 and G10). Towards the S end of the former was a \* **“special/unusual” deposit comprising the base of an Iron Age pottery vessel G9** \* **check out yet again/is this on plan**. Three isolated postholes were also located

Features associated with the field system L1 yielded 82 pottery sherds from 24 vessels weighting 416g, nearly half from **“special deposit”** G9. The ditches G16/18/20/22 of the major boundary only produced 8 pottery sherds from 5 vessels (weighting only 15g), nearly all from environmental samples. The highly fragmented and abraded nature of the assemblage is consistent with a process of natural erosion and gradual infilling. Functional attributes are restricted to a single sherd with external sooting, indicative of vessel use in a domestic capacity.

#### 2.2.1.1 Original major boundary ditch G18

The earliest major boundary ditch was truncated by the later recuts. However, it appears to have been 1.1m wide and up to 0.3m deep with a U-shaped profile. It contained a single fill G19 whose nature was suggestive of gradual silting. Only two minute fragments of pottery were recovered. Environmental sample 7 from this produced occasional cereal grain, chaff and molluscs.

#### 2.2.1.2 Recut G20 of major boundary ditch

This recut was very similar to the original ditch described above in dimensions and profile.

#### 2.2.1.3 Later re-cutting G16 and G22 of major boundary ditch

The latest re-cuts were *c.* 2m apart and therefore could have been contemporary. The southern ditch G16 was 1.2m wide and 0.4m deep with a U-shaped profile. The northern ditch G22 was larger at 2.2m wide and 0.75m deep, but again had a U-shaped profile. Main fill G23 of the N ditch G22 contained a single tiny sherd. Upper fill G24 of S ditch G22 contained five tiny sherds from one vessel. Environmental sample 5 produced occasional cereal grain, charcoal and molluscs. The fills G17 of the S ditch G16 produced a single sherd of pottery and two fragments of animal bone. Environmental sample 6 produced occasional charcoal and molluscs.

#### 2.2.1.4 Boundary ditch G5/G7

Two lengths of ditch on the same N-S alignment were situated to the N of the major boundary ditch. A gap of 5.2m existed between the two lengths with distinct terminals. The relationship with the ditch is uncertain due to disturbance by a furrow and the edge of excavation. Both have U-shaped profiles, but the northern length was *c.* 0.5m wide and up to *c.* 0.2m deep, in contrast to the S length which was *c.* 0.8m wide and *c.* 0.5m deep.



The fills G6 and G8 of both ditches contained occasional stones and charcoal flecks. Environmental samples 4 and 3 were taken from the ditch fills respectively, both containing charcoal but only the latter occasional cereal grain. A single fragment of animal bone was recovered from G8 but no pottery. The charcoal flecks became more evident within the fills to the south of both ditch lengths.

The only pottery recovered from this ditch length was concentrated in deposit G9 close to where ditch G7 would have joined the major boundary ditch. \* **“special”** ? It comprised the base of a vessel in a fine sandy fabric and although only the base survived it appeared to have been deliberately placed. In total 30 sherds from **three** vessels (weighting 218g) were recovered. Associated was a single fragment of animal bone and pottery of a similar fabric. Sealing this was a naturally derived back fill.

#### 2.2.1.5 *Boundary ditch G10*

Approximately 17m SE of ditch G5/7 was a NE-SW ditch, which may have been associated. The ditch clearly terminates to the N within the excavation area and continues beyond the limit of excavation to the S. It had a steep U shaped profile was c. 0.5m wide, and between c. 0.25m and c. 0.45m deep (generally becoming wider and shallower to the NE). The main fill G11 contained occasional burnt stones, 10 fragments of animal bone, pottery and burnt clay. Twenty sherds of pottery from eight vessels (weighting 88g) were recovered but not from the terminal segment. Environmental sample 2 taken from this deposit produced occasional cereal grain and charcoal.

#### 2.2.1.6 *Ditch G12 and G14*

Two additional features G12 and G14, situated adjacent to the excavation area, are likely to be ditches. Both terminated within 4m of the terminal of ditch G10 suggesting an entranceway existed in this area (possibly into a small enclosure attached to the major boundary ditch). They had slightly different profiles and dimensions. The NW-SE ditch G12 was 0.8m wide and 0.2m deep with a concave profile, whereas SW-NE ditch G14 was 0.45m wide and only 0.1m deep with a more asymmetrical profile. Both were filled by deposits G13 and G15, which contained flecks of charcoal and burnt clay (15 fragments in ditch G14). Only fill G13 of G12 contained pottery, 13 sherds from 5 vessels weighting 36g. Environmental sample 8 from this produced occasional cereal grain and molluscs.

#### 2.2.1.7 *Postholes G42, G44 and G98*

The only evidence for activity within the field system other than boundaries were three isolated postholes over 40m apart. Postholes G42 and G44 were located to the N of the excavation area and comprised sub-circular holes c. 0.55m in diameter and 0.1 and 0.4m in depth respectively. Both had U-shaped profiles and no evidence for post packing or postpipe. Their fills contained charcoal flecks and environmental sample 1 from fill G43 (of G42) produced abundant charcoal and occasional cereal grain. Fill G45 (of G44) contained five pottery sherds from one vessel (weighting 28g).

Posthole G98 was located adjacent to ditch G12. It was oval in shape with a diameter of c. 0.5m and had steep sides with a flat base at a depth of 0.15m. Packing material comprised small stones and three sherds of pottery from two vessels (weighting 6g) surrounding a circular postpipe 0.2m in diameter.

### 2.2.2 *Field system L1 to south-west*

A series of faint linear cropmarks were visible on aerial photographs (Aerofilms 96C/565/1775 and 1776). They are usually aligned SW-NE, but a small number are NW-SE.

An integral part of the field is a NW-SE ditch G26, with all the perpendicular boundaries only occurring to the S of this. This boundary would appear to correspond to the major ditched boundary G16/18/20/22 within the excavation.



area and although there is a gap between the two of *c.* 250m it is presumed to be part of the same boundary.

The plan of the field system gives the appearance of “strip” fields, although the boundaries varied between *c.* 22m and *c.* 95m apart and possibly *c.* 100m in length.

A small number of the NE-SW boundaries are parallel and relatively close. While some may be double boundaries or recuts, others for example where the gap is only *c.* 6.5m may be trackways between fields.

### 2.2.3 Enclosures G25 (L3) and G40 (L4)

Two ditched enclosures, both *c.* 400m from the settlement, are indicated by cropmarks on aerial photographs Aerofilms 96C/565/1775 and 1776

Enclosure G25 was sub rectangular in shape enclosing an area of 2788 m<sup>2</sup>. No obvious breaks were identified to suggest an entranceway. Extending from the E side was a linear NW-SE aligned ditch-like cropmark G39 *c.* 130m in length. The position of the enclosure and associated ditch in relation to the field system suggests it is not contemporary. However, they share similar alignments suggesting remnants of the former system may have still been visible.

Only three sides of enclosure G40 were clearly visible and no entranceways were identified. It was probably rectangular in plan enclosing an area of *c.* 6016 m<sup>2</sup>.

## 2.3 LATER ACTIVITY

### 2.3.1 Roman

The only evidence for Roman activity within the Study Area derived artefacts recovered from the field artefact collection. Eleven sherds of Roman pottery and a fragment of rotary quernstone, which may be Roman in date, were collected. However, their distribution within the ploughsoil was not conclusive as to the location of Roman activity.

### 2.3.2 Medieval and post-medieval

A regular pattern of furrows, *c.* 2.5m wide and *c.* 9m apart, was identified in both excavation areas, (see Figure 2). These, and the twenty-three sherds of medieval pottery recovered during field artefact collection, suggest the Study Area was part of the open field system of Edworth during the medieval period.







### 3. THE ARTEFACT ASSEMBLAGE (JACKIE WELLS)

The artefact assemblage derived from the excavation areas and field artefact collection. As the material from the latter is not related to the early-middle Iron Age settlement and field system, it is only briefly summarised and although fabric codes are given these are not published here.

#### 3.1 POTTERY

##### 3.1.1 Introduction and methodology

Pottery fabric types were recorded in accordance with the Bedfordshire Ceramic Type Series (*see* Appendix 1). Quantification included minimum vessel and sherd count, and weight. Due to the **absence of identifiable forms and decoration**, no vessels have been selected for illustration

The open area excavation produced 242 sherds of pottery representing 103 hand-made vessels, weighing 1.5kg. Of these, 22 sherds (43g) derived from the residues of environmental samples. Ninety-one percent of the excavation assemblage dates to the early-middle Iron Age period. The proportions and types of fabrics recovered from excavated features are detailed in Table 1, which provides the structure for the ceramic discussion. Post-Iron Age material (four percent of the assemblage), derived from furrows G3 and modern features, has not been discussed or tabulated.

Field artefact collection produced a further 86 sherds, (751g), ranging in date from the late "Belgic" Iron Age to the post-medieval periods (BCAS 1998, 19). A summary of this material is provided below, but it is not included in the tables or the Type Series (*see* Appendix 1)

Group	Group description	Fabric Type										Med/ p. med	Unid	Total	
		F01B	F03	F04	F16	F19	F28	F29	F30	F35	F				
49	Internal boundary G48						1								1
50	Enclosure ditch G50					1	1		1	3					6
51	Enclosure ditch G50									1					1
52	Enclosure ditch G50				1		1								2
53	Enclosure ditch G50	1			1	1	4		4	3					14
54	Roundhouse G54					1									1
55	Roundhouse G54					1									1
57	Roundhouse G56			1		2				1	6				10
59	Roundhouse G58					2	2			2					6
61	Roundhouse G60					2	3			3					8
67	Pits G66	1				1	1			1					4
68	Soakaway G68 assoc with roundhouse G60									1					1
69	Soakaway G68 assoc with roundhouse G60					2	1			3					6
70	Soakaway G68 assoc. with roundhouse G60					3	2			1					6
9	Special deposit in boundary ditch G7							3							3

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11	Boundary ditch G10			2		2	1	2	1				8	
13	Boundary ditch G12	2				1				2			5	
17	Recut of major boundary ditch G16									1			1	
19	Original major boundary ditch G18										2		2	
23	Recut of major boundary ditch G22							1					1	
24	Recut of major boundary ditch G22									1			1	
45	Posthole G44										1		1	
99	Posthole G98	1								1			2	
4	Furrows G3										3		3	
1	Topsoil					1		2					3	
97	Ungrouped features					4				1			5	
96	Modern intrusions											1	1	
<b>Total</b>		<b>5</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>22</b>	<b>21</b>	<b>1</b>	<b>11</b>	<b>25</b>	<b>9</b>	<b>3</b>	<b>1</b>	<b>103</b>

**Table 1: Pottery assemblage from hand excavation by Group (vessel count)**

### 3.1.2 Condition

The pottery survives in poor to moderate condition. Soil conditions have had a damaging effect on most fabric types, particularly those containing organic material, which are heavily leached. The incidence of abrasion is high, and in many cases, vessel surfaces are totally degraded. In addition, a small quantity of pottery visible within deposits on site proved unrecoverable due to its fragmentary and poor condition.

The incidence of abrasion, low average sherd weight (6g) and vessel:sherd ratio of 1:2 suggest the assemblage was subject to extensive disturbance. Only three features yielded in excess of 100g pottery (terminal of roundhouse ditch G57, Special Deposit G09 and tertiary fills of enclosure ditch G50)

None of the pottery shows evidence for repair or modification, and very few sherds bear attributes relating to use, in the form of sooting, residues or wear marks.

### 3.1.3 Chronological discussion

#### 3.1.3.1 Late Bronze Age/early Iron Age (5% of assemblage)

Five undiagnostic flint tempered vessels (type F01B) constitute the earliest fabrics recovered. One of these was recovered from ditch G12 and two from posthole G98 W of the A1. The other two vessels were recovered from the enclosure ditch G50 and pits G66 E of the A1. Flint tempered vessels are characteristic of the late Bronze age/early Iron age period across southern Britain, declining in use into the early-middle Iron Age.

#### 3.1.3.2 Early-middle Iron Age (91% of assemblage)

##### *Fabric*



This group comprises a consistent assemblage of mainly quartz-rich fabrics. The predominance of the latter may, in part, indicate the greater suitability of these types for the manufacture of an increasing range of Iron Age vessel forms. It also, however, attests the influence of local geology upon pottery manufacture. The fabric types are broadly consistent with those recovered from nearby contemporary settlements at Stotfold, Beds. (4km to the south), and Holwell Quarry, Herts (c 7km to the south-west) (**BCAS in prep**). However, manufacture is likely to have been highly localised. For example the largest fabric group recovered from Topley's Hill is micaceous wares (F35), constituting over 27% of the assemblage (25 vessels). However these are poorly attested across the county to date, with small quantities known from Shillington, Stotfold, Salford and Biddenham (**BCAS in prep**).

Fabrics are generally hard-fired, and uniformly reduced. A few examples have oxidised exterior and reduced interior surfaces, which may have been a deliberate effect, suggesting well controlled firing conditions. No firing faults, in the form of spalling, distortion or cracking were noted.

#### *Form and Decoration*

Diagnostic forms constitute seven percent of the assemblage and comprise round-shouldered vessels with either flat or rounded rims. Bases are generally flat and occasionally pinched out at the circumference. Single examples of a vessel with a lug or handle, and a sherd deriving from a possible storage jar were also recorded. Decoration is restricted to rare examples of fingernail and fingertip ornament, burnishing and incised horizontal or vertical lines, conforming to the regional pattern identified by Knight (1984).

#### **3.1.3.3 Late Iron Age**

Five sherds (weighting 83g) were recovered from field artefact collection. These were in undiagnostic grog (F06), grog and sand (F09) and shell tempered (F07) fabric types. All are highly abraded and the shelly vessels were leached.

#### **3.1.3.4 Roman**

Eleven sherds (weighting 88g) were recovered from field artefact collection. They comprised early Roman greywares (R06), samian (R01), oxidised sand tempered wares (R05) and shell tempered wares (R13). The latter may have been the products of Harrold Lodge Farm kilns (Brown 1994).

#### **3.1.3.5 Medieval**

Twenty-three sherds (weighting 241g) were recovered from field artefact collection. They comprised early medieval sand tempered fabrics (C01, C05 and C59A) and a single shell tempered sherd of developed St Neots-type (B07). Later medieval fabrics comprised oxidised wares (E03). Diagnostic forms included jars with everted rims, bowls and jugs with strap handles.

### **3.2 FIRED/BURNT CLAY**

Twenty amorphous fired and burnt clay fragments weighing 107g were recovered (Table 2). All are sand tempered, and survive in variable condition.

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The majority are hard fired and robust, while a small quantity are friable and powdery. Although none bear diagnostic features, their presence suggests they may derive from features such as roundhouses, or smaller structural elements such as ovens or hearths.

Group	Description	Quantity
52	Enclosure ditch G50	1:21
61	Roundhouse G60	7:51
70	Roundhouse pit G68	1:2
15	Ditch G14	11:33
		<b>20:107</b>

**Table 2: Incidence of fired and burnt clay (fragment/weight)**

### 3.3 QUERNSTONE

A single fragment (weighting 44g) of continental lava stone, likely to derive from a rotary quern was recovered from field artefact collection. The use of this material throughout both the Roman and medieval periods is well attested (\* ref).

### 3.4 STRUCK FLINT

Seven struck flints were recovered (total weight 96g). These comprise four waste flakes, two core fragments and an end-and-side scraper. Despite the occurrence of some pieces in features containing early-middle Iron Age pottery (Table 3), the small size and nature of the flint assemblage suggest it would not contribute to the debate on the use of flint in the Iron Age (Young and Humphrey 1999).

Group	Description	Quantity	Description	Pottery
55	Roundhouse G54	1:19	Core fragment	✓
53	Enclosure ditch G50	5:39	Flakes and core fragment	✓
1	Ploughsoil	1:38	Scraper	
		<b>7:96</b>		

**Table 3: Incidence of flint (fragment/weight)**

Thirty-two pieces of struck flint (weighting 400g) were also recovered from field artefact collection. The majority of these were debitage. Core products comprise flakes, including retouched and possible core rejuvenation flakes. The presence of multi-platform flake cores and waste flakes struck with a hard hammer suggest a late Neolithic /early Bronze Age date for the assemblage. Tools were restricted to a probable scraper and piercer. A single blade suggests an earlier component.



## 4. THE ECOFACTS

### 4.1 ANIMAL BONE (ELLEN HAMBLETON)

#### 4.1.1 Introduction

All animal bones recovered from the excavation were examined as part of the assessment process. The small size of the assemblage severely limits potential for analyses to provide meaningful and reliable conclusions concerning the role of animal species at the site. The fragmentation and surface erosion of the bone has undoubtedly resulted in loss of ageing, metrical, butchery and gnawing data as well as resulting in a high proportion of unidentifiable material, which has further reduced the potential information available from analysis of this small assemblage. The assemblage had little potential for analysis beyond that already undertaken as part of this assessment. The following discussion is based on the assessment report. This is stored with the site archive and includes a text report, a database and spreadsheet.

#### 4.1.2 Species

A total of 165 animal bone fragments were recovered, 37% of which were identified to species. A further 45 small fragments of bone were recovered from sieved environmental samples, only two of which (sheep/goat tooth fragments) were identified to species.

Species present include cattle, sheep/goat, horse and pig (Table 4). The assemblage is too small to provide reliable information concerning the relative economic importance of different species at the site and any conclusions drawn must be treated with caution. However, the lack of wild species and the predominance of cattle and sheep/goat, which are present in relatively equal numbers, is a pattern that falls within the range of variation seen in other Iron Age settlement assemblages from the East Midlands and Eastern England (Hambleton 1999). A broadly similar pattern of abundance among the main domestic species can be seen in the Iron Age assemblage from Wilby Way, Wellingborough (Maltby *in prep*). However, assemblages from several other Iron Age sites in the region such as Pennyland (Holmes 1993), Hartigans (Burnett 1993) and Wavendon (Dobney and Jaques 1996) exhibit considerably higher percentages of cattle than were found at Topley's Hill.

Species	Total no. fragments	%
Cattle	30	49%
Sheep/Goat	28	46%
Horse	2	3%
Pig	1	2%
Unidentified	104	
<b>Total</b>	<b>165</b>	

**Table 4: Animal bone count by species**

The largest assemblage derived, perhaps not surprisingly, from the largest feature, enclosure ditch G50. The total assemblage from this feature included sheep/goat (15 fragments), cattle (7 fragments) and horse (1 fragment). The





higher proportion of sheep/goat compared to cattle remains is in contrast to the pattern seen in the overall assemblage, however this need not be significant as such small samples are subject to bias. It should be noted that these fragment counts include seven loose teeth of sheep/goat from tertiary fill G53, which would account for the apparent high abundance of sheep/goat from this feature.

The availability of additional information in the form of measurements and epiphyseal fusion and toothwear ageing data (Table 5) was severely limited due to the small size and fragmentary nature of the sample

Species	No. fragments with fusion data	No. mandibles with teeth	No. measurable fragments
Cattle	12	1	4
Sheep/goat	2	4	1
Horse	1		1
<b>Totals</b>	<b>15</b>	<b>5</b>	<b>6</b>

**Table 5: Abundance of available ageing and metrical data**

#### 4.1.3 Provenance

The majority of the animal bone derived from settlement features E of the A1, with only 16 animal bone fragments from the field system to the W (Table 6). Very little faunal material was recovered from pits and the bulk of material came from ditch fills, in particular large enclosure ditch G50. Secondary and tertiary fills contained the majority of the bone. Two cattle limb bones from the drainage gully around roundhouse G56 are unusual because they are larger than the otherwise small size of Iron Age cattle from the rest of the assemblage. They appear to indicate the presence of a larger breed, which would normally be suggestive of a slightly later date.

Group Description	Cow	Sheep/goat	Pig	Horse	Unid.	Total
8 Boundary ditch G7	1	0	0	0	0	1
9 "Special" deposit	1	0	0	0	0	1
11 Boundary ditch G10	2	0	0	0	8	10
17 Recut of major boundary ditch G17	1	0	0	0	1	2
23 Recut of major boundary ditch G23	2	0	0	0	0	2
49 Internal boundary G48	4	2	0	0	11	17
50 Enclosure ditch G50	0	2	0	0	0	2
51 Enclosure ditch G50	2	0	0	1	4	7
52 Enclosure ditch G50	1	0	0	0	2	3
53 Enclosure ditch G50	4	15	0	0	35	54
57 Roundhouse G56	8	3	1	0	12	24
59 Roundhouse G58	1	1	0	0	5	7
61 Roundhouse G60	0	3	0	1	9	13
67 Pits G66	2	1	0	0	8	11
69 Soakaway G68 assoc. with roundhouse G60	1	0	0	0	1	2
70 Soakaway G68 assoc. with roundhouse G60	0	1	0	0	8	9
						165



**Table 6: Animal species by Group (number of fragments)**

#### 4.2 HUMAN BONE (ELLEN HAMBLETON)

Two fragments of human bone were recovered from a fill G67 of pit 102, one of the pits G66 adjacent to major enclosure ditch G50. Preservation was very poor with considerable erosion and loss of surface detail. The bones were identified as shaft fragments from a left humerus. Although the fragments did not join they almost certainly come from the same bone. The bone provided no reliable ageing information but the size is comparable to that of an adult or late adolescent individual. It is not uncommon to find occasional fragments of disarticulated human remains within pits and ditches on British Iron Age settlement sites (Cunliffe 1991, 505).

#### 4.3 CHARRED PLANT REMAINS (RUTH PELLING)

##### 4.3.1 Introduction

Very few deposits exhibited evidence onsite of any potential to preserve charred plant remains. However, 14 samples were taken from a range of feature types and spatial locations. Any charred seeds or chaff were provisionally identified and an approximation of abundance was made as part of the assessment stage of the project. Detailed analysis was not carried out, as it was not likely to extend the species list.

##### 4.3.2 Methodology

The volume of deposits processed was small, ranging from 6 to 10 litres for each sample. Samples were processed by bulk water flotation and flots collected onto 500µm mesh sieves. Dried flots were then scanned under a binocular microscope at magnification of x10 to x20.

##### 4.3.3 Results

The samples all produced small flots, generally around 5ml in volume, but up to 20ml. The flots contained moderate quantities of modern rootlets. The results of the assessment are presented in Table 7.

Cereal grain was recorded in 11 samples, while chaff and weed seeds were noted in three. In most cases the number of items estimated is low (less than 10 for each category). Sample 9 (roundhouse drainage gully fill G57) produced a slightly greater amount of chaff with up to 20 *Triticum spelta* (spelt wheat) glume bases. Cereal grains noted included *Triticum spelta* and *Hordeum vulgare* (barley). Occasional asymmetric *Hordeum vulgare* grains indicate the presence of six-row variety. The weed category included *Rumex* sp. (docks) seeds, small seeded Gramineae (grass) and a single *Arrhenatherum elatius* (false oat-grass) tuber in sample 9. *Triticum spelta* and *Hordeum vulgare* were the principal cereal species recorded from Iron Age samples at Biddenham Loop (BCAS in prep) and also form the basis of the cereal economy for much of southern and central England during this period.

Sample	Group	Description	Cereal grain	Cereal chaff	Weeds	Charcoal	Other
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1	43 Posthole G42	+	-	-	++	Roots
2	11 Boundary ditch G10	+	-	-	+	Roots
3	8 Boundary ditch G7	+	-	-	+	Roots
4	6 Boundary ditch G5	-	-	-	+	Roots
5	24 Recut G22 of major boundary ditch upper fill	+	-	-	+	Molluscs
6	17 Recut G16 of major boundary ditch	-	-	-	+	Molluscs
7	19 Original major boundary ditch G18	+	+	-	-	Molluscs
8	13 Ditch G12	+	-	-	-	Molluscs
9	57 Roundhouse G56	+	++	+	++	Molluscs
10	49 Internal boundary G48	-	-	-	+	Molluscs
11	67 Pits G66	+	+	-	+	Roots
12	50 Enclosure ditch G50	+	+	+	+	-
13	51 Enclosure ditch G50	+	-	+	+	Molluscs
14	97 Unassigned feature	+	-	-	-	-

**Table 7: Results of the environmental samples**

Charcoal was present, usually in small quantities in 11 samples. *Quercus* sp. (oak) was most commonly identified while occasional fragments of Pomoideae (apple, hawthorn etc) were also provisionally identified.

#### 4.4 MOLLUSCS (RUTH PELLING ? OR WAS IT MARK ROBINSON?)

Mollusc shells, mostly of dry-ground open country species are present in seven samples. *Trichia hispida* gp, *Vallonia costata* and *V. excentrica* are very numerous in sample 13 (settlement enclosure ditch G50), suggesting dry open conditions. However, there is also a slight presence of *Anisus leucostoma* and *Lymnaea truncatula*, which were perhaps associated with temporary puddles of stagnant water in the ditch bottom. Sample 5 (major field boundary ditch G22) contains a somewhat different dry ground open country fauna in which *Pupilla muscorum* and *Vallonia excentrica* predominate. Molluscs of shaded habitats are sparse in all the samples.





## 5. DISCUSSION

The results of the open area excavations, despite their small extent, when combined with the results of the non-intrusive evaluation contribute to the debate on the origins and nature of the early-middle Iron Age landscape. The discussion on the chronological aspects of the investigation is followed by a review of the success of the different investigative techniques utilised.

### 5.1 EARLIER ACTIVITY

Thirty-two struck flints were recovered from the field artefact collection and seven from the open area excavation. Many of these had been struck by a hard hammer, which may suggest a late Neolithic/early Bronze Age date for the assemblage. However, the use of flint during the Iron Age is a debated topic (**Gardiner** 1993, 458; **Pollard** 1996, 108-109; **Robins** 1996, 269-70; **Young and Humphrey** 1999). Their distribution within the ploughsoil was fairly evenly spread showing no concentration towards the early-middle Iron Age enclosures. Despite the occurrence of flint in features containing early-middle Iron Age pottery, the small size and nature of the flint assemblage suggest it would not contribute to the debate on the use of flint in the Iron Age.

A small quantity of flint tempered pottery was recovered from both the settlement and the field system. This type of pottery is characteristic of the late Bronze Age/early Iron Age across southern Britain (\* ref), for example at Biddenham Loop (**BCAS in prep**). This pottery was found in association with later pottery fabrics and, although exhibiting no signs of abrasion, is presumed to be residual. It does however suggest that an earlier settlement may have existed in the vicinity. Settlements of this period are still relatively rare within Bedfordshire and are often identified solely by stray finds. This is in part because they are difficult to detect. They are often unenclosed, with activity remains dispersed over a large area and lacking a large quantity of domestic debris for example **Yarl's Wood (this volume)** and **Biddenham Loop (BCAS in prep)**. Noticeable exceptions in the county include **Salford (BCAS in prep)** and \*\*\*.

### 5.2 EARLY-MIDDLE IRON AGE SETTLEMENT AND FIELD SYSTEM (700BC-200BC)

A previously unknown early-middle Iron Age settlement and field system has been located at **Topler's Hill**, a localised area of high ground (c. \*\*m OD). Although archaeological attention has been largely focussed on the gravel terraces, there is increasing evidence, in Bedfordshire at least, that land further from the river valleys was also settled.

The relationship between the settlement and the field system could not be established in detail, although it is clear that they were on different alignments. There was also some evidence in the form of domestic debris within ditches and isolated postholes that other types of activity may also have occurred within the field system. Similar pottery was recovered from features within the settlement and field system suggesting they are contemporary.



### 5.2.1 The settlement

The origins of the settlement are difficult to determine, in part due to the restrictive extent of open area excavation. It is possible that, given the presence of earlier pottery, the settlement developed from earlier occupation of the hilltop. The continuation of occupation between these periods was identified at Salford and Biddenham Loop (**both BCAS in prep**), along with Bancroft (Williams and Zeepvat 1994, \*\*) and Fenny Lock (Ford and Taylor 2001), both Milton Keynes, but is still generally rare

Geophysical survey has demonstrated that the settlement comprised a series of ditched enclosures extending over at least *c.* 0.8ha. Many of these enclosures contained buildings and pits, suggestive of domestic activity. Without trial or open area excavation outside the enclosures it is unclear if and what kind of activities were undertaken beyond them. It is clear that at some settlements, for example Pennyland, Milton Keynes (Williams 1993, **Fig 5 on p8**) and Twywell, Northants (Jackson 1976, **Fig 3 on p35**), activity was not restricted solely within enclosures.

#### 5.2.1.1 The enclosures

No exact parallels exist for the arrangement of eight interlinked enclosures aligned NW-SE. The majority of enclosed settlements during this period comprise a single or occasionally two enclosures (*see* Cunliffe 1991, **Fig 12.11 on p230 and Fig 12.14 on p235**). Perhaps the closest (both in form and distance) parallel comprises an arrangement of approximately seven interlinked enclosures at Hinksley Road, Flitwick, Beds (Luke 1999, **Fig 5 on p49**). However, these enclosures are much smaller and only one contained evidence of domestic occupation (*ibid* 82).

The layout, different shapes and areas of the Topler's Hill enclosures suggest that they are not all contemporary. Broadly speaking they can be divided into four units. It is possible that these represent the earliest enclosures which, at a later date, were linked by ditches resulting in the creation of additional enclosures.

The geophysical survey suggested that the enclosure boundaries comprised wide ditches. This was confirmed by excavation where the enclosure ditch G50 was *c.* 4.3m wide and *c.* 1.5m deep. It was clearly substantial and slightly bigger than the main ditch surrounding the settlement enclosure at Hinksley Road, Flitwick (Luke 1999, **fig 6 on 51**). It would seem inevitable that the large quantity of material excavated from this and other ditches would have been utilised to construct an adjacent bank. However, there is no evidence for the location of this based on the nature of the ditch fills. Assuming that the pits adjacent to the S side of the ditch were contemporary, it could not be located on this side. There is a gap of *c.* 2.3m to the N, between the enclosure ditch and the possible soakaway pit G68 (*see* later), suggesting that this space could have been the location of a bank. This might explain why the soakaway did not continue up to the side of the ditch.



Many of the enclosures exhibited evidence for sub-divisions in the form of internal ditch-type geophysical anomalies. The location of an entrance into any of the enclosures was not conclusively established. While these may have been located on the destroyed western side, it is equally possible that small entrance gaps in the ditches may not have been detected by geophysical survey.

Within the excavation area ditch G48 is situated only *c.* 2m from the main enclosure ditch G50 and parallel to it. This would appear to be a peculiar arrangement and might imply that the two ditches are not contemporary. It is unfortunate that the nature of the pottery assemblage means that the assemblage from enclosure ditch G50 could only be broadly dated to the early-middle Iron Age. It is therefore impossible to determine a more precise date for the enclosure construction, how long they functioned and whether all adjacent activity was contemporary. However, the absence of any evidence within the ditch fill for a deliberately levelled bank and the way most geophysical and excavated features appear to respect the enclosure ditches suggests that they continued to function during the life of the settlement.

### 5.2.1.2 *Internal activity*

Evidence for activity within the enclosures comprised roundhouses, pits (from geophysical survey and excavation) and postholes (only from excavation).

Evidence for five roundhouses in the form of pennanular ditches was located in three enclosures. Two of these were within the open area excavation and are therefore known in greater detail. The ditches had projected diameters of between *c.* 13m and 18m, comparable to roundhouses G105 and G109 at Hinksley Road, Flitwick (Luke 1999, 51). No evidence survived within the Topley's Hill buildings to indicate the location of the walls or internal activity. Both ditches had gaps on the E side suggesting this was the location of the entrance, a common feature of Iron Age roundhouses (Oswald 1997). The ditch surrounding the N roundhouse had been redug on at least two occasions but this does not necessarily mean the entire house was rebuilt. One of the roundhouses had an elongated pit at the ditch terminal. This may have functioned as a soakaway leading water away from the house. Elsewhere pits in similar proximity to roundhouses have been interpreted as functioning as water tanks, quarries and even latrines. The latter was suggested for House 3 at Mingies Ditch, (Allen and Robinson 1993, 49).

Clusters of large pit-like geophysical anomalies occurred in three enclosures. Based on the size of the anomalies these are large and could have functioned as storage pits (Cunliffe 1991, 375-376). Within the excavation area five shallow pits were located in an alignment parallel to but adjacent to enclosure boundary ditch G50. Although their function is uncertain their profile and shallow depth would suggest they were not suitable for storage. Given their peripheral location within the enclosure they may have been dug as quarries in an area where no other activity was taking place. However, their fills contained only a relatively small quantity of domestic debris, surprising given that if they had been dug as quarries, they are likely to have been left open thus allowing domestic debris to accumulate.



One of the pits contained two fragments of a human left humerus. Settlements of this period often produce what superficially appears to be the 'casual' treatment of dead bodies especially skull fragments (Wilson 1981, 130-131)

Domestic debris recovered from the settlement-type features mainly comprised small quantities of pottery, fired and burnt clay, animal bones and charred plant remains. The assemblage is unremarkable although it is worth noting that the majority derived, perhaps unsurprisingly from enclosure ditch G50. Significant concentrations were also noted towards one of the terminals of the drainage ditch defining Roundhouse G56, but not of the others. The majority of the fired/burnt clay derived from the ditches associated with the roundhouses supporting their domestic function.

### 5.2.1.3 *Economy*

The charred plant remains suggested that the cereal economy of the settlement was in keeping with other Iron Age sites in Central and Southern England including the farmsteads at Biddenham Loop (**BCAS in prep**). Although large scale agricultural activity is not suggested by the samples, given the small number and volume of these the results may be misleading. The remains are likely to have derived from background scatters of cereal processing waste and damaged grain, which has been distributed in deposits across the site.

The animal bone assemblage is also too small to provide reliable information concerning the relative economic importance of different species. The predominance of cattle and sheep/goat, which are present in relatively equal numbers, is a pattern that has been seen in other Iron Age settlement assemblages from the East Midlands and Eastern England (Hambleton 1999). Two cattle limb bones from roundhouse G56 are large may indicate the presence of a larger breed which would normally be suggestive of a slightly later date. Horse and pig bones were also present in small number but no wild species were identified.

The manufacture of pottery during this period is believed to have been highly localised (\* ref). The largest fabric type constituting over a quarter of the assemblage are micaceous wares, a type that is poorly attested across the county to date, suggesting the local geology had a significant bearing upon pottery manufacture. Therefore it is likely kilns were established in the vicinity of the settlement although no firing faults, in the form of spalling, distortion or cracking were noted.

## 5.2.2 **The field system**

A field system extending over *c.* 10ha was identified to the W of the settlement. The fields seemed to have been laid out perpendicular, but to the S of a NW-SE ditched boundary, which had been redug, on a number of occasions. The excavated part of this boundary suggested that it was contemporary with the settlement. The plan of the fields gave a "strip" appearance in places only *c.* 22m wide and *c.* 100m in length. It is likely that





the fields were utilised for arable cultivation with the grazing of animals occurring mainly in the dry valley to the E of the settlement

The status of the domestic debris recovered from the excavation area within the field system is uncertain. It may reflect the proximity of the settlement to the E, although it is possible that it was deposited during short term activity within the field system.

### 5.2.3 The wider landscape

Within a c. 7km radius of Topler's Hill a large number of cropmarks have been identified. These appear to represent enclosures (usually single) and field systems. Many are apparently concentrated in discrete areas. Although it has generally been assumed they are late Iron Age or Roman in date few have produced artefacts. Although only one has produced early Iron Age pottery (HER \*\*\*), the possibility remains that many of these may be of a similar date.

Approximately 4km to the S at Stotfold an enclosed early-middle Iron Age farmstead comprising a single roundhouse with associated pits and a post-built structure, possibly **earlier** field system (**BCAS in prep**). Slightly further away on the higher ridges to the N and S are the hillforts at Caesars Camp and Sandy Lodge (Dyer 1971).

## 5.3 LATE IRON AGE ACTIVITY

The small quantity of late Iron Age pottery (five sherds) derived from field artefact collection. However, no pottery of this period was recovered from excavated features and the nature of any occupation is therefore uncertain.

## 5.4 ROMAN ACTIVITY

Prior to open area excavation the discovery of Roman material (pottery sherds and a quernstone) during field artefact collection had led to the conclusion that the enclosures were part of a Roman roadside settlement. However, no material of this date was found within the areas of open excavation, which included one of the enclosure ditches, thus disproving this theory.

The distribution of Roman artefacts within the ploughsoil exhibited no concentrations and the proximity of a major settlement, possibly a villa c. 1.5km to the S (HER \*\*) may explain this material. For example Roman material was found within the ploughsoil over 2km from a villa at Maddle Farm, Berkshire (Gaffney and Tingle 1989, \*pg ref). Alternatively, given the location of Topler's Hill halfway between the settlements at Baldock and Sandy, it is still tempting to suggest that some kind of Roman activity may have taken place, but clearly outside the excavated areas.

## 5.5 MEDIEVAL

The 23 medieval pottery sherds were concentrated towards the S of the field E of the A1 and none were recovered from excavated features. The proximity of these finds to HER 2848 suggests an association with the medieval settlement (Hall 1991).



## 5.6 CRITICAL REVIEW OF THE METHODOLOGIES AND TECHNIQUES USED DURING THE INVESTIGATIONS

The various methods of archaeological investigation utilised at Toppler's Hill are briefly reviewed in this section. If any one of the techniques had been undertaken in isolation it would have given very different results to those described

### 5.6.1 Aerial photograph analysis

It is well known that aerial photographs can reveal evidence for past human activity in the form of cropmarks. Although there had been reports of finds in the vicinity of Toppler's Hill it was the cropmarks revealing some of the settlement enclosures that provided the first accurate archaeological data. In addition cropmarks also indicated the presence of a field system and isolated enclosures in the vicinity.

A small number of the settlement enclosures were visible for the first time on the 1996 aerial photographs despite earlier photographs being taken at the same time of year (and therefore presumably same stage of crop growth). Their occurrence in 1996 probably reflects a greater soil moisture deficit in that year resulting in buried archaeological features having more of an influence on growing crops. A change to a more sensitive crop or deeper ploughing may also have contributed. The "window" of time within which cropmarks sometimes occur can be extremely narrow and the 1996 photographs just happened to be taken at the most suitable time. \* ref Wilson?

The fact that only some of the ditched enclosures were visible as cropmarks is interesting. This may be a reflection of their size (width and depth) or the nature of their filling material.

The field immediately to the W of the A1 had never revealed cropmarks despite the presence of ditches in the excavation area. This is likely to be a reflection that this field is in different ownership and therefore the crops are planted within a different agricultural regime to those E of the A1. Wilson states 'in evaluating cropmarks a fundamental rule is not to rely on negative evidence'. This is because when cropmarks are visible the probable causes can be inferred, but when absent no inference can be made without additional information on the nature of the land (including depth and stratigraphy) and crop regime. The small dimension of the underlying ditches would probably make them less likely to affect the growth of a crop. However, one might have expected the major boundary ditch in the SW corner of the excavation to show up, especially as it does further to the W. Its absence is almost certainly a reflection of its position in the corner of the modern field where agricultural machinery would have been constantly turning and therefore affected the crops in this area anyway.

To the W of the A1 there were a large number of cropmarks, whose diffuse and irregular edges suggested a possible geological cause. It is unfortunate that these shared the same alignment as cropmarks more likely to be of human origin inevitably leading to some confusion in identification. A similar



situation at Hinksley Road, Flitwick, prevented the identification of an Iron Age settlement enclosure based on cropmark evidence alone (Luke 1999, 46)

### 5.6.2 Geophysical survey

The geophysical survey undertaken comprised magnetic susceptibility. This detects variations (anomalies) between topsoils, subsoils and the underlying natural strata and thus should make it possible to detect buried ditches and pits (Clark 1990). The areas of the site that potential archaeological anomalies were detected during scanning (rapid walkover with machines) were subject to detailed survey

Ditch-type anomalies coincided with the position of the cropmarks indicating the settlement enclosures. However, a greater number of ditch-type anomalies were detected than suggested by the cropmarks. The geophysical survey had indicated a far more extensive and interlinked enclosure system. In addition ditch- and pit-type anomalies were identified within the interior of the enclosures suggesting many of these were utilised for domestic activity. These anomalies had probably not shown up as cropmarks because of their size (shallow and narrow)

Several pennanular arrangements of ditch-type anomalies were identified leading to the suggestion that these represented drainage ditches surrounding roundhouses. However, the two roundhouses within the excavation area were not clearly visible as geophysical anomalies. This in part is probably due to their location on the edge of the survey area in proximity to the field boundary.

Despite the presence of ditches W of the A1 no significant anomalies were located during scanning. This is probably, in the main, a reflection of their size (shallow and narrow), but the ditches of the major boundary to the SW were more substantial. It is likely that their sterile infilling, along with the presence of a wire fence and overhead cables around the perimeter of the field would have made these undetectable.

### 5.6.3 Field artefact collection

The presence of artefacts within ploughsoil, when their location is recorded accurately, is often indicative of an underlying archaeological site (\*ref). The proximity of these scatters to cropmarks or geophysical anomalies is commonly used as a means of dating underlying remains, for example at Maddle Farm, Berks (Gaffney and Tingle 1989). It was therefore unfortunate that field artefact collection only produced a small number of pre-medieval finds. Elsewhere sites dated by a small number of artefacts collected from ploughsoil have with later excavation been accurate, for example Maxey East, \* location (Pryor *et al* 1985). At this site six Iron Age sherds were recovered from an area of cropmark and geophysical anomalies which the excavation of produced 900 sherds. A similar situation occurred at Biddenham Loop, Beds. where only six sherds of Iron Age and \*\* sherds of Roman were collected from an area which when subject to excavation produced \*\* sherds and \*\* sherds (respectively)



A number of factors may affect the presence of pottery within the ploughsoil. It is often presumed that certain fabrics are more vulnerable to destruction. For example, grog and shell-tempered fabrics that dominated Iron Age pottery could have been destroyed not just by the plough but by acids in the ploughsoil. Conditions for artefact collection will also affect the success of recovery of material within the ploughsoil. The conditions at the time of the Topley's Hill collection appeared to be nearly ideal and were only undertaken with the CAO's approval. The fields had been ploughed (and one harrowed) \*\* weeks previously, meaning that any clods of earth containing artefacts would have been broken by agricultural and rain. At the time of the collection, the light was good with little shadow.

Despite this, on present evidence, the field collected Roman and medieval artefacts appears to have no association with the underlying Iron Age settlement for which there was no evidence based on field collection. One factor that may have affected collection was the requirement of the Brief to collect all artefacts, including post-medieval brick/tile. The identification of this material (a stipulation of the Brief) may have obscured the presence of earlier material. In future, it may therefore be more appropriate to undertake two episodes of collection: one concentrating on tile/brick and a second on other material.

It is clear that 'a site cannot be characterised by field survey (i.e. field artefact collection) alone' (Pryor *et al* 1985, ref \*\*).

#### 5.6.4 Trial excavation

The trial trenches were opened only within the road corridor that was to be subject of topsoil removal ahead of construction works. It located an area of late Bronze Age/early Iron Age activity on the W side of the A1. This had not been detected by the other means of investigation. To the E of the A1, the trial trenching confirmed the absence of archaeological remains away from the settlement.

#### 5.6.5 Summary

It is clear from the review of the investigative techniques used at Topley's Hill that, in the main, the staged evaluation approach was highly effective. If any of the stages had been undertaken in isolation, a very different picture of the archaeological remains would have been produced.

It is perhaps unfortunate that no trial trenching was undertaken within the settlement area. This would surely have made a significant contribution to the understanding of the settlement. However, the evaluation was undertaken under the auspices of PPG16 and the Local Plan. It was therefore inevitably focussed on the impact of the development rather than on archaeological research agendas.

One of the objectives of the evaluation was to determine the extent of any archaeological remains, and this was achieved. As a result of this, the Highways Agency were able to minimise the destruction caused to an early-





middle Iron Age settlement, thus largely preserving it *in situ*, an objective to PPG16.





## 6. SUMMARY/CONCLUSIONS

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*All BCAS projects are under the overall management of Drew Shotliff.*





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## Appendix 1 Pottery Type Series

Fabrics are summarised below in chronological order, using type codes and common names in accordance with the Bedfordshire Ceramic Type Series, currently held by Albion Archaeology. Full fabric descriptions are given only for those types not previously published. Bracketed figures after each fabric type denote a percentage of the total excavated assemblage.

### Type F01B Fine Flint (5%)

Fabric - hard fired, rough fabric with variable orange-brown to grey surfaces and core. Occasionally reduced throughout. Contains abundant, well-sorted angular flint 0.5-1.5mm, sparse well-sorted fine sub-rounded quartz and red and black iron ore.

Forms - undiagnostic hand made vessels, one with fingernail impressions.

### Type F03 Grog and sand (1%)

Fabric - described by Slowikowski (2000, 61).

Forms - large jar or storage jar.

### Type F04 Organic (2%)

Fabric - described by Slowikowski (2000, 62).

Forms - undiagnostic hand made vessels.

### Type F16 Coarse Shell (2%)

Fabric - described by Slowikowski (2000, 63).

Forms - undiagnostic hand made vessels, one with fingertip impressions.

### Type F19 Sand and organic (22%)

Fabric - described by Slowikowski (2000, 63).

Forms - round shouldered, flat rimmed burnished vessels, with fingertip impressions and vertical or horizontal incised parallel lines.

### Type F28 Fine Sand (21%)

Fabric - Hard-medium fired, sandy or occasionally harsh to feel with even fracture. Colour varies; can be dark-grey throughout, or have mid brown or reddish brown surfaces. Contains abundant, well-sorted, rounded or sub-rounded, clear or milky-white quartz 0.1-0.4mm (occasionally up to 0.8mm); sparse, well-sorted, rounded, black and red iron ore 0.2-0.5mm. Additionally matrix may contain sparse, greenish glauconite inclusions 0.1-0.2mm.

Forms - flat rimmed vessel, lugged or handled vessel, vertical or horizontal incised parallel linear decoration and burnished sherd with dimple and arc ?La Tene style ornament.

### Type F29 Coarse sand (1%)

Fabric - Hard-medium fired, harsh to feel with uneven fracture. Colour variable; may be dark grey throughout, or may have mid-brown or reddish brown surfaces. Contains abundant, moderate-poorly-sorted, rounded or sub-rounded, clear or milky-white quartz 0.5-1mm (occasionally very coarse-up to 3.5mm); sparse, well-sorted, rounded, black and red iron ore 0.2-0.5mm. Additionally matrix may contain sparse, greenish glauconite inclusions 0.1-0.2mm.

Forms - undiagnostic hand made vessels.

### Type F30 Sand and calcareous inclusions (9%)

Fabric - Medium-hard fired, sandy to feel with even fracture. Typically reddish-brown surfaces and dark grey core, although may be dark grey or brown throughout. Contains abundant, well-sorted, rounded or sub-rounded, clear or milky-white quartz 0.2-0.4mm; well-sorted rounded calcareous inclusions 0.4-0.7mm. May also contain sparse quantities of fine black or red iron ore.

Forms - undiagnostic hand made vessels.

### Type F35 Micaceous (25%)

Fabric - fairly hard fired with smooth surfaces, reduced dark grey-black throughout. Characterised by the presence of abundant fine white mica, particularly visible on the external surface. Contains abundant, well-sorted sub-rounded fine quartz, 0.1-0.5mm, and rare elongated voids, up to 1.5mm in size, where organic matter has burnt out.



Forms - round shouldered, flat and rounded rim vessels, flat base, burnished and incised vertical linear decoration