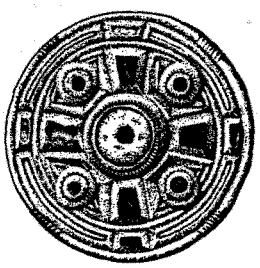

Archaeological Field Unit

An Archaeological Evaluation at the Former Princess of Wales RAF Hospital, Ely

Sarah Hinds

1994

Cambridgeshire County Council

Report No A33

Commissioned By Wilcon Homes Anglia Ltd.

An Archaeological Evaluation at the Former Princess of Wales RAF Hospital, Ely
(TL 548 819)

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Editor Tim Malim
Illustrators: Paul Stevens and Sarah Hinds

Report No A33

Archaeological Field Unit
Cambridgeshire County Council
Fulbourn Community Centre
Haggis Gap, Fulbourn
Cambridgeshire CB2 5HD
Tel (0223) 881614
Fax (0223) 880946

ABSTRACT

In May 1994, the Archaeology Field Unit of Cambridgeshire County Council undertook an archaeological assessment at the site of the former Princess of Wales RAF Hospital, Ely. A series of trenches and small test stations were excavated across the site to test for the presence of archaeological remains. These were located between existing hospital buildings and in open, grassed areas, but were severely restricted by the large number of services across the site. No archaeological features or artefacts were discovered. Building rubble was encountered in many areas and it is likely that any archaeology at the site was disturbed during the construction of the RAF hospital itself.

CONTENTS

1 INTRODUCTION 2

2 TOPOGRAPHY AND GEOLOGY 2

3 BACKGROUND
3.1 Planning Background 4
3.2 Archaeological Background 4

4 METHODOLOGY 5

5 RESULTS
5.1 Geophysical Survey 6
5.2 Excavation 6

6 INTERPRETATION AND CONCLUSIONS 6

7 BIBLIOGRAPHY 7

8 ACKNOWLEDGEMENTS 7

LIST OF FIGURES

Figure 1 Site location map and surrounding archaeological sites 2
Figure 2 Trench and test station locations 3
Figure 3 Location of geophysical survey 13
Figure 4 Data-plot of result of survey 14

LIST OF APPENDICES

1 Summary Of Trenches And Test Stations 8
2 Geophysical Survey 12
3 Glossary Of Archaeological Terms 15

1 INTRODUCTION

A team from the Archaeological Field Unit of Cambridgeshire County Council undertook an archaeological assessment at the former Princess of Wales R.A.F. Hospital, Lynn Road, Ely, in advance of development of housing at the site (*Figure 1:* TL 548 819). The work was carried out on behalf of Wilcon Homes, Anglia Ltd, owners of the site. The County Archaeology Office provided a brief for the work, advising County Planners on archaeological considerations for development. Five test trenches and twenty seven test stations were dug (*Figure 2*). The work was carried out between 3rd and 9th May 1994.

2 TOPOGRAPHY AND GEOLOGY

The underlying geology of the site comprises both Kimmeridge clay, which forms part of the fen 'island' on which the city of Ely is situated, and lower greensand. The surrounding areas also have underlying boulder clay. The site is on level ground just above 20m OD, about 1km north-west of the present course of the River Great Ouse.

The hospital buildings which cover the majority of the site date to this century, before which time the land was probably used for agricultural purposes.

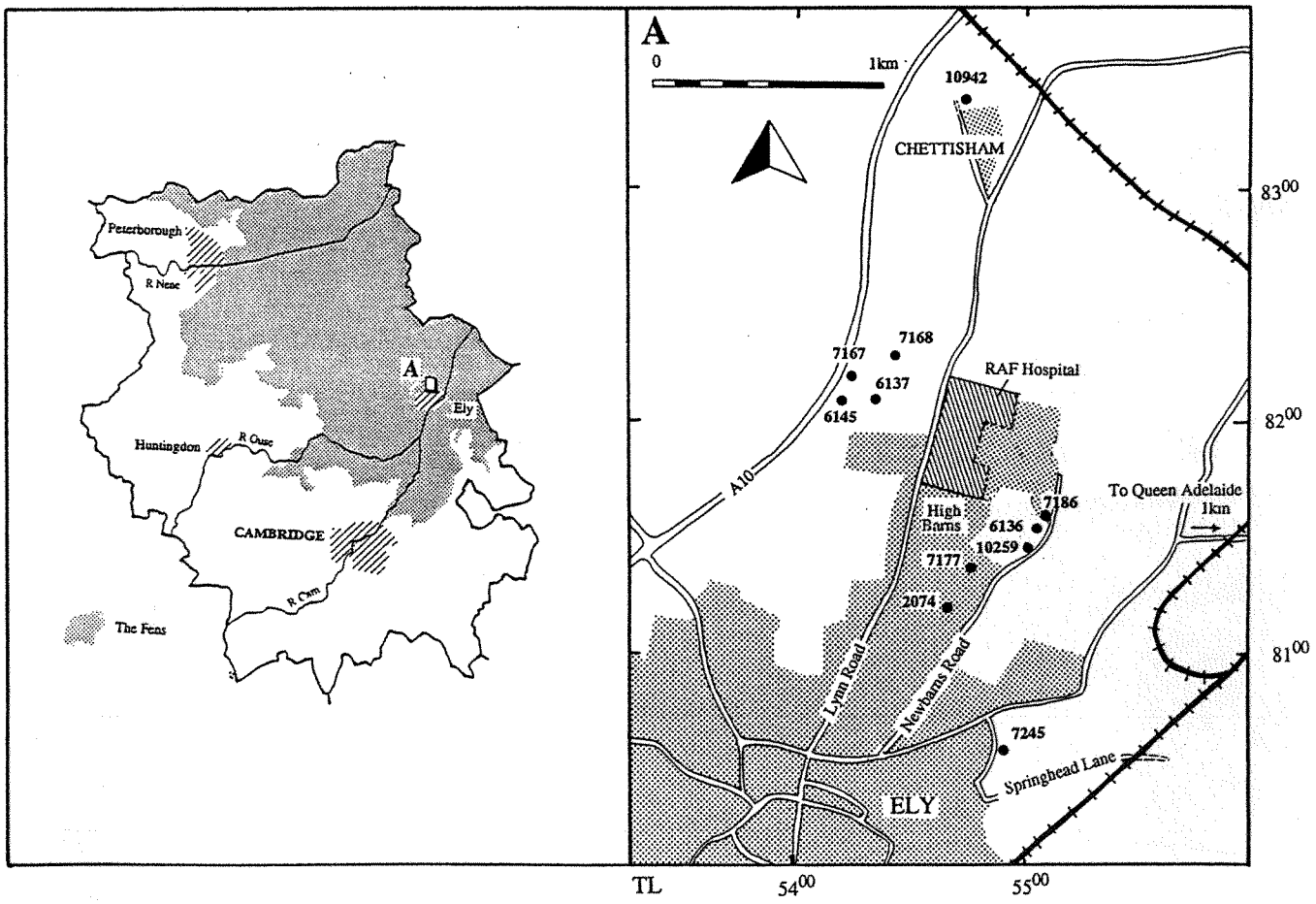

Figure 1 Site location map and surrounding archaeological sites (numbers shown relate to County SMR records)

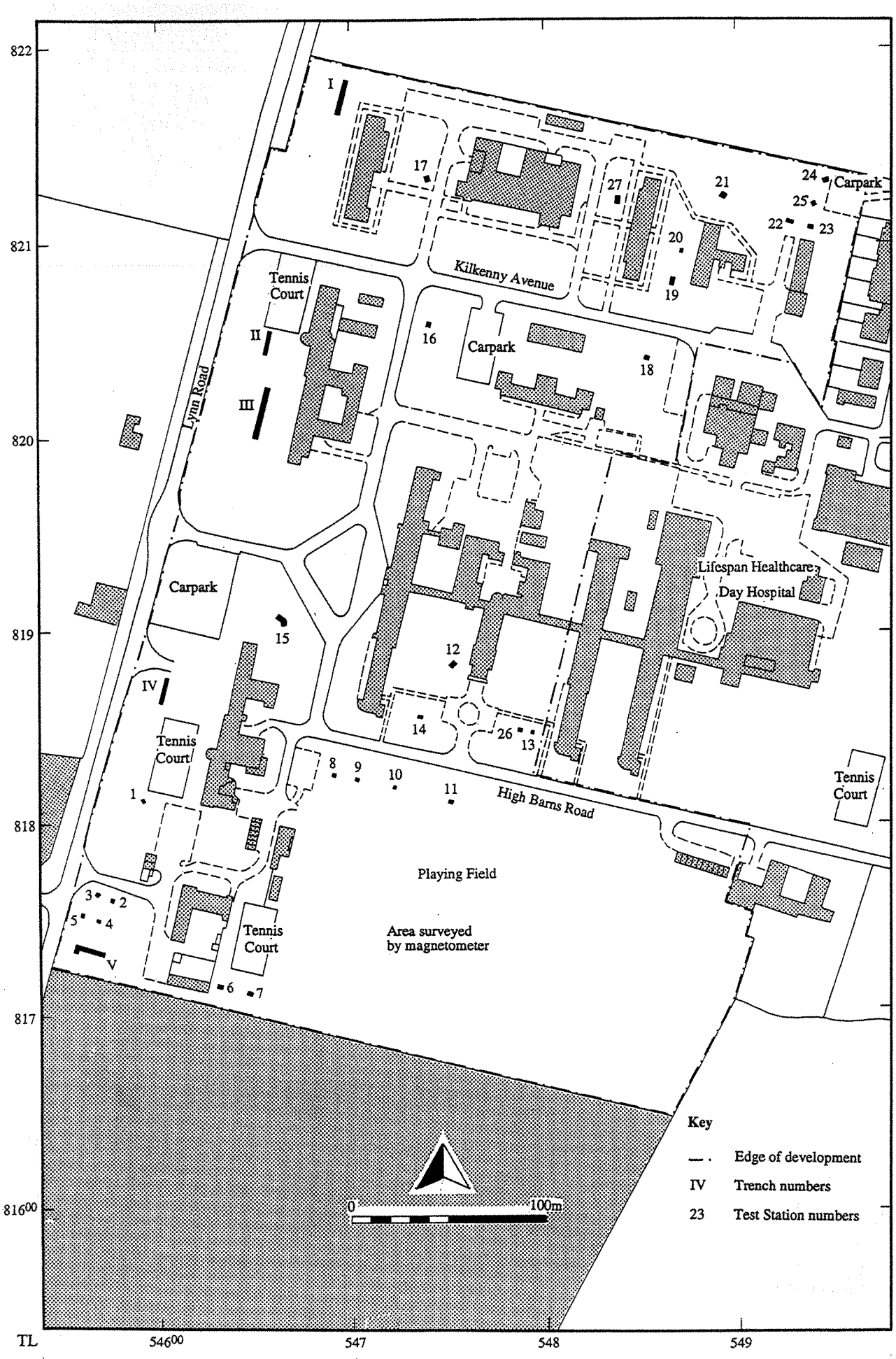

Figure 2 Trench and test station locations

3 BACKGROUND

3.1 **Planning Background**

There are a number of policies that relate to archaeologically sensitive areas. These are as follows:

Department of the Environment Planning Policy Guidance Note 16 (PPG16)

Para. 6 Archaeological remains should be seen as finite and non-renewable resources, in many cases highly fragile and vulnerable to damage and destruction.
Para. 8 Where nationally important remains, whether scheduled or not, and their settings, are affected by proposed development there should be a presumption in favour of their physical preservation.
Para. 13 If physical preservation *in situ* is not feasible, an archaeological excavation for the purposes of 'preservation by record' may be an acceptable alternative. From the archaeological point of view this should be regarded as a second best option.
Para. 25 Requires local planning authorities to request a prospective developer to arrange for an archaeological field evaluation before deciding on a planning application on any site where important archaeological remains may exist. This evaluation may lead to requirements for preservation of all, or parts, of the site, or for further archaeological work.

Cambridgeshire County Council Structure Plan

Policy P14/12 The local planning authorities will exercise their powers of development control to preserve scheduled ancient monuments and other important archaeological sites in the county.
Policy P14/13 Where there is no over-riding case for the preservation of an archaeological site, opportunities will be sought prior to the granting of planning permission, for excavation and recording of the site.

3.2 **Archaeological Background**

The Cambridgeshire SMR documents several sites in the area surrounding the RAF Hospital, although nothing from the site itself (*Figure 1*). The earliest known material from the area comprises several prehistoric worked flints (SMR 7168, TL 543/824;SMR 7186, TL 552/816).

A Beaker burial, containing the bones of a child, was discovered in association with a ring ditch and other cropmarks by Newbarns Road *c* 0.5km to the south of the hospital site (SMR 6136, TL 5503/8160). A larger Beaker cemetery was discovered at Springhead Lane at the turn of the century (SMR 7245, TL 548/806). Further activity dated to the Bronze Age in the area is indicated by finds made *c* 0.5km to the west of the site, consisting of a small number of sherds and flints close to a complex of undated cropmarks (SMR 6137, TL 5421/8215). Iron Age material was also discovered. Further fragmentary, and undated, cropmarks are recorded nearby, suggesting an area of open settlement and perhaps a rectangular building. One enclosure is angular with a deliberate gap in its north side, the other more circular with internal features (SMR 6145, TL 542/822).

There is little Iron Age material known, although several of the crop marks could be Iron Age in date. A handful of Iron Age sherds were recovered from the High Barns area in a recent excavation, but no associated archaeological features were noted (SMR 10259, TL 5500/8145; Haley 1992). The nearest focus of Iron Age settlement

appears to have been at Littleport, just over 1km north of the site (SMR 10942, TL 547/834). Lynn Road may follow the line of the Cambridge-Littleport Roman road, but there is no direct evidence either to support or refute this. The route was certainly important by the medieval period. There have been few Roman finds in the area. A Romano-British site was identified by field-walking 0.5km west of the hospital (SMR 7167, TL 541/822), and a single Roman sherd was recovered from the High Barns area (SMR 10259a, TL 5500/8145; Haley 1992).

On the north-east outskirts of Ely, at High Barns, an Anglo-Saxon cemetery was discovered in 1959, with finds including bronze brooches, iron shield bosses and a sword, and an iron socketed spearhead (SMR 2074, TL 547/812). This may suggest a pre-seventh century, pre-nucleated Ely settlement in the area, but recent excavations recovered no further Anglo-Saxon material (Haley 1992). Undated cropmarks, now built over, were observed nearby, consisting of three sides of a rectangular enclosure with a curvilinear ditch (SMR 7177, TL 547/814). These may relate to just such an early settlement. Another possible focus for Saxon settlement is the Queen Adelaide area, where there was a mid to late Saxon hithe (Davison 1962, Owen 1993). This was the nearest point on the island to the river before it was canalised around 1200 AD, and there might have been settlement associated with it.

Settlement on the Isle of Ely was rural in character until the thirteenth century, when improvements in river communications aided the growth of the town's commercial activities (Robinson 1993). The hospital site is well away from the main late medieval core of the city of Ely. The nearest medieval settlement was about 2km to the north, at Chettisham. A few medieval sherds have been discovered in fields to the west of the hospital (SMR 7168, TL 543/824). Present field boundaries were certainly defined by 1885 and are shown by the Ordnance Survey map for that year, and the contemporaneous tithe map.

The site of the RAF hospital appears to have seen little use or development prior to the twentieth century. Agriculture is indicated by at least the nineteenth century, but the site lay outside the main centres of settlement on the Isle of Ely.

4 METHODOLOGY

A geophysical survey of the site was undertaken by Bradford Geophysical Surveys in advance of excavation. Due to the density of buildings across the site, and the large number of sub-surface services (not shown on plan), this survey was restricted to the area of the playing field in the southern part of the site (*Figure 2*).

Five trenches were excavated in the western part of the site, between 12 and 26m , and all 1.6 metres wide (*Figure 2*). All but one were parallel to the existing road because of the restricted area available after avoidance of service pipes. Twenty seven test stations were also excavated, all roughly 1.6 x 1.6 metres in size. These were positioned across the site, between buildings and service pipes, in order to sample as wide an area as possible. Four were dug along the northern edge of the playing field in order to test tentative features identified by the geophysical survey (see below). Trenches and test stations were dug using a JCB mechanical excavator, with a 1.6 metre wide toothless ditching bucket. Excavated areas were cleaned by hand and photographed. Records were made of the underlying geology but, in the absence of archaeological features, no further digging was undertaken. Excavation was not permitted by the County Archaeology Office on the area of the playing field, therefore there was no chance to the test the results of the geophysical survey.

5 RESULTS

5.1 Geophysical Survey

Several pit 'type' responses, the corner of a possible enclosure and an area of probably modern rubble were indicated by the geophysical survey of the playing field. The results were very tentative, however, and may have been distorted by the presence of large amounts of iron in the soil, as well as the proximity of several previously unknown service pipes identified by the survey (Appendix 2). The survey has, however, clearly indicated that potential archaeological features exist in this area that can be verified by evaluation excavation at a future date.

5.2 Excavation

No archaeological features or finds were identified in any of the trenches or test stations dug at the hospital. Several areas of modern building rubble were exposed, consisting of concrete, wire, scrap metal and quantities of brick, notably in trench 1, trench 5, test stations 11, 16 to 19 and 22 to 25. That in test station 11 corresponds to the area identified by the geophysical survey. None of the other features tentatively shown by the survey was permitted to be investigated as part of this brief. The underlying geology was dominantly heavy clay silt, with localised patches of almost pure clay and peat-like deposits. Details of the trenches and test stations are given in Appendix 1.

6 INTERPRETATION AND CONCLUSIONS

The excavations at the RAF Hospital have produced negative evidence. The absence of any archaeological features or material confirms that historic and prehistoric settlement was restricted to other areas of the Isle of Ely. The site lies well to the north of the core of the medieval city, and was also apparently distinct from the late Saxon hithe and possible settlement at Queen Adelaide, and the early Saxon cemetery at High Barns. If there was a pre-seventh century, non-nucleated settlement at Ely, it was evidently elsewhere. As to the possible Roman Road between Cambridge and Littleport, immediately west of the present site, no new information has been obtained. The orientation of the trenches was, however, far from ideal for investigating this feature. Trenches perpendicular to the line of the road would have been preferable if other factors had allowed such an approach.

The wide distribution of building rubble across the site must also not be forgotten. It is probable that, during the extensive building operations for the hospital, any existing archaeology was thoroughly truncated and destroyed, although the lack of any pre-modern material from the site may argue against this.

In summary, no archaeological remains were identified by test excavation at the RAF Hospital, Lynn Road, Ely. No further work is recommended in advance of the proposed development of the site, except in the area of the playing field, if development extends this far, where the results of the geophysical survey will require further investigation.

7 BIBLIOGRAPHY

Davison, B.K. 1962: Ely Castle. *Archaeological Journal 124*, 240-241.

Haley, G. 1992: Ely, High Barns: An archaeological assessment., Cambridgeshire County Council, Report No. 45.

Owen, D. 1993: The Medieval Development of the Town of Ely, The Ely Society, Ely.

Robinson, B.1993: Archaeological resource management strategies: A new framework for development-led archaeology in aowns. MA Dissertation, University of York.

8 ACKNOWLEDGEMENTS

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Appendix 1

Summary of Trenches and Test Stations

Trench I: 17.70m NS x 1.60m EW x 0.60m. No features.
Topsoil: 0.08m
Subsoil: 0.50m. Modern make-up layer, redeposited clay and silt, chalk flecks, numerous roots, building rubble.
Natural: Munsell 10YR 4/6, dark yellowish brown. Heavy clay silt (*c* 70%), compact, homogenous, roots, flint pebbles.
Levels: N top 21.31m, base 20.69m
middle top 21.38m, base 20.83m
S top 21.44m, base 20.84m

Trench II: 12.00m NS x 1.60m EW x 0.60m. No features.
Topsoil: 0.10m
Subsoil: 0.45m. Mid-brown light clay silt, roots and occasional medium pebbles.
Natural: Munsell 10YR 4/6, dark yellowish brown. Heavy clay silt (70%), compact, tree roots, flint pebbles. Patches of almost pure clay (*c* 90%), 10YR 4/2, greyish brown, and lighter clay silt (*c* 60%), 7.5YR 5/6, strong brown.
Levels: N top 21.93m, base 21.32m
middle top 22.00m, base 21.34m
S top 21.97m, base 21.35m

Trench III: 26.60m NS x 1.60m EW x 0.70m. No features.
Topsoil: 0.15m
Subsoil: 0.60m. Mid-brown light clay silt, roots and occasional medium pebbles.
Natural: Munsell 10YR 4/6, dark yellowish brown, heavy, compact clay silt (*c* 75%). Single large patch of very heavy clay silt (*c* 90%), 10YR 6/6 brownish yellow, and three thin EW bands of clay silt (*c* 75%), 10YR 4/3.
Levels: N top 22.16m, base 21.54m
middle top 22.11m, base 21.52m
S top 21.95m, base 21.37m

Trench IV: 13.80m NS x 1.60m EW x 0.80m. No features.
Topsoil: 0.18m
Subsoil: 0.70m. Yellowish brown light clay silt (*c*30%), compact, occasional roots and pebbles.
Natural: Munsell 10YR 5/6, yellowish brown. Heavy clay silt (*c* 70%), compact, homogenous.
Levels: N top 22.04m, base 21.29m
middle top 22.04m, base 21.32m
S top 22.10m, base 21.50m

Trench V: 15.40m EW x 1.6m NS x 0.60m (av.). Extended at west end, 5.40m NS
Trench exposed extensive dump of modern building material, including copper pipes, concrete, bricks, tiles and pieces of metal mixed with redeposited clays and silts. Modern pipe trench also exposed running parallel with road and then turning to east, along line of fence. No excavation undertaken as all features recent.
Topsoil: 0.12m
Subsoil: *c* 0.50 cm. Various colours, mainly 10YR 6/2, light greyish brown with some iron staining. Mixed clay silt.
Natural: Munsell 10YR 6/6, brownish yellow. Compact clay silt (*c* 70%), some iron panning.
Levels: E top 22.86m, base 22.11m
middle top 22.82m, base 22.09m
W top 22.67m, base 22.19m
S top 22.72m, base 22.25m

Test Station 1: 1.50m NS x 1.60m EW x 0.50m. No features.
Topsoil: 0.07m.
Subsoil/natural: homogenous clay silt to base, increasing in percentage of clay from c.10% to *c* 90%. Munsell 7.5YR 4/6 strong brown.
Levels: top (N) 22.19m, base 21.67m

Test Station 2: 1.60m NS x 1.30m EW x 0.60m. No features.
Topsoil: 0.20m.
Subsoil/natural: homogenous clay silt, with iron panning and patches of burnt material. Increasing percentage of clay towards base (*c* 90%), Munsell 7.5YR 4/6 strong brown.
Levels: top (N) 22.57m, base 22.00m

Test Station 3: 1.60m NS x 1.10m EW x 0.80m. No features.
Topsoil: 0.14m
Subsoil/natural: homogenous clay silt, increasing to *c* 80% clay at base. Munsell 10YR 5/6, yellowish brown.
Levels: top (N) 22.54m, base 21.83m

Test Station 4: 1.60m NS x 1.1m EW x 0.55m. No features.
Topsoil: 0.10m
Subsoil: homogenous clay silt, increasing clay content towards base (5-90%). Munsell 10YR 5/6, yellowish brown.
Natural: homogenous clay silt (90% clay). Munsell 10YR 4/4, dark yellowish brown.
Levels: top (N) 2.68m, base 22.19m

Test Station 5: 1.60m NS x 1.00m EW x 0.56m. No features.
Topsoil: 0.07m
Subsoil: mixed clay silt, building rubble including bricks. Munsell 10YR 5/6, dark yellowish brown.
Natural: homogenous clay silt (*c* 80% clay). Munsell 10YR 5/6, dark yellowish brown.
Levels: top (N) 22.78m, base 22.29m

Test Station 6: 1.60m NS x 2.30m EW x 0.43m. No features
Topsoil: 0.13m
Subsoil/natural: slightly mottled clay silt (*c* 75% at base), occasional roots and small pebbles. Munsell 10YR 5.6, yellowish brown.
Levels: top (N) 22.54m, base 22.19m

Test Station 7: 1.60m NS x 1.60m EW x 0.50m. No features.
Topsoil: 0.12m
Subsoil/natural; homogenous clay silt (*c* 80% At base), flint pebbles. Munsell 10YR 5.6, yellowish brown.
Levels: top (N) 22.55, base 22.02m

Test Station 8: 1.60m NS x 1.50m EW x 0.60m. No features.
Topsoil: 0.15m
Subsoil: homogenous clay silt (*c* 30%), Munsell 10YR 4/4, dark yellowish brown. Large flint cobbles *c* 10%.
Natural: homogenous clay silt (*c* 75%), Munsell 10YR 5/6. yellowish brown.
Levels: top (N) 22.49m, base 21.81m

Test Station 9: 1.60m NS x 1.50m EW x 0.55m. No features.
Topsoil: 0.12m
Subsoil: mottled clay silt (*c* 30%), Munsell 10YR 5/6, yellowish brown.
Natural: homogenous clay silt (*c* 80%), Munsell 10YR 4/4, dark yellowish brown.
Levels: top (N) 22.49m, base 21.88m

Test Station 10: 1.60m NS x 1.90m EW x 0.60m. No features.
Topsoil: 0.10m
Subsoil: mottled clay silt (*c* 40%), Munsell 10YR 5/6, dark yellowish brown. Contains layer of large flint cobbles immediately above natural.
Natural: Homogenous clay silt (*c* 80%), Munsell 10YR 5/6, yellowish brown.
Levels: top (N) 22.34m, base 22.75m

Test Station 11: 1.60m NS x 1.80m EW x 0.45m. Not taken all the way down to natural as lay within large dump of modern material, including wire and very large slabs of concrete.
Topsoil: 0.10m
Subsoil: mixed clay silt and modern rubble, Munsell 10YR 3/3, dark brown
Levels: top (N) 22.23m, base 21.91m

Test Station 12: 1.60m NS x 1.60m EW x 0.05m. No features.
Topsoil: 0.07m
Subsoil/natural: homogenous clay silt, increasing in clay content towards base (*c* 30%-75%), flint cobbles below topsoil, Munsell 10YR 6/3, dark yellowish brown.
Levels: top (N) 22.32, base 21.56m

Test Station 13: 1.60m NS x 1.80m EW x 50cm. Halted before natural as revealed electric cable flagging.
Topsoil: 0.05m
Subsoil: homogenous clay silt (*c* 30%), occasional flint pebbles, Munsell 10YR 3/6, dark yellowish brown.
Levels: top (N) 22.29m, base 21.90m

Test Station 14: 1.60m NS x 1.60m EW x 0.90m. No features.
Topsoil: 0.07m
Subsoil/natural: homogenous clay silt, increasing clay content towards base (*c* 20%-80%). Flint cobbles near surface. Munsell 10YR 5/6, dark yellowish brown.
Levels: top (N) 22.46m, base 21.58m

Test Station 15: 2.60m NS x 1.60m EW x 0.70m. Test station was extended to examine area o f mixed silt and gravel. This was shown to be merely a very shallow surface spread of material, probably natural.
Topsoil: 0.14m
Subsoil/natural: homogenous clay silt, increasing clay content towards base (*c* 70%). Munsell 10YR 5/6, yellowish brown.
Levels: top (N) 22.30m, base 21.57m

Test Station 16: 2.00m NS x 1.60m EW x 0.55m. No features.
Topsoil: 0.10m
Subsoil: 0.25m compact clay silt (*c* 40%) with bricks and rubble, Munsell 10YR 6/6 yellowish brown.
Natural: heavy dark peaty clay, Munsell Gley N3/, very dark grey.
Levels: top (N) 21.96m, base 21.46m

Test Station 17: 1.90m NS x 1.60m EW x 0.72m. No features.
Topsoil: 0.12m
Subsoil: clay silt (*c* 30%), Munsell 10YR 6/3, dark yellowish brown, mixed with gravel, rubble, pipe, bits of concrete.
Natural: compact homogenous clay silt (*c* 75%), Munsell 10YR 6/3, dark yellowish brown.
Levels: top (N) 20.87m, base 20.21m

Test Station 18: 1.60m NS x 1.60m EW x 0.55m. No features.
Topsoil: 0.08m
Subsoil: layer of rubble, concrete and mixed clay silts.
Natural: compact peaty clay layer, Munsell Gley N3 very dark grey, mixed with sandy silt, Munsell 10YR 5/6, yellowish brown, and patches of iron panning.
Levels: top (N) 22.52m, base 22.03m

Test Station 19: 3.50m NS x 1.60m EW x 0.50m. No features.
Topsoil: 0.08m
Subsoil: layer of rubble and mixed clay silts.
Natural: compact clay, Munsell Gley 4GY 4/1, dark grey, mixed with clay silt (*c* 75%), Munsell 10YR 6/8, brownish yellow.
Levels: top (N) 1.52m, base 20.83m

Test Station 20: 1.80m NS x 1.60m EW x 0.34m. No features.
Topsoil: 0.06m
Subsoil: mixed rubble, pipe, concrete and topsoil
Natural: compact homogenous peaty clay silt (*c* 50%), Munsell 10YR 4/2, dark greyish brown, with some iron panning and mineral mottling.
Levels: top (N) 21.21m, base 20.92m

Test Station 21: 2.80m NS x 2.10m NS x 0.46m. No features.
Topsoil: 0.08m
Subsoil: layer of rubble and topsoil
Natural: mixture of compact clay silt (*c* 75%), Munsell 10YR 4/2, dark greyish brown, with iron panning and lumps of almost solid clay (*c* 90%), Munsell Gley 4GY 4/1, dark greenish green, and patches of loose sand, Munsell 10YR 6/8, brownish yellow.
Levels: top (N) 21.08m, base 20.68m

Test Station 22: 1.60m NS x 2.10m EW x 0.38m. No features.
Topsoil: 0.15m
Subsoil: rubble and concrete mixed with clay silt (*c* 30%), Munsell 10YR 5/3, dark yellowish brown.
Natural: compact homogenous clay silt (*c* 75%), Munsell 10YR 4/2, dark greyish brown.

Test Station 23: 1.60m NS x 1.60m EW x 0.58m. No features.
Topsoil: 0.08m
Subsoil: layer of mixed topsoil and rubble, to 0.50m below surface. Overlies compact clay silt (*c* 30%), Munsell 7YR 4/8, strong brown.
Natural: compact clay silt (*c* 75%), Munsell 10YR 4/2, dark greyish brown, with mineral leaching.
Levels: top (N) 20.96m, base 20.40m

Test Station 24: 1.60m NS x 1.70m EW x 0.64m. No features.
Topsoil: 0.16m
Subsoil: mixed clay silt (*c* 30%), Munsell 10YR 5/6, yellowish brown, flint cobbles and gravel. Overlying and mixed with dump of modern rubble, concrete, wires, gravel.
Natural: compact homogenous clay silt (*c* 75%), Munsell 10YR 4/2, dark greyish brown.
Levels: top (N) 20.67m, base 20.07m

Test Station 25: 1.60m NS x 1.40m EW x 0.50m. No features.
Topsoil: 0.15m
Subsoil: rubble layer mixed with clay silt, Munsell 10YR 5/6, dark yellowish brown.
Natural: compact homogenous clay silt (*c* 74%), Munsell 10YR 4/2, dark greyish brown.

Test Station 26: 1.60m NS x 1.00m EW x 1.10m. No features.
Topsoil: 0.05m
Subsoil: Fairly compact clay silt (*c* 20%), Munsell 10YR 4/4, dark yellowish brown, 10% medium-large flint cobbles.
Natural: (at 0.80m from surface), sandy silt (0-5% clay), Munsell 7.5YR 4/4, brown, fading into increasingly sandy deposits, Munsell 10YR 5/8, yellowish brown.

Test Station 27: 1.80m NS x 1.60m EW x 0.50m. No features.
Topsoil: 0.18m
Subsoil: modern rubble, gravel and concrete mixed with yellowish brown clay silt.
Natural: compact clay silt (*c* 60%), Munsell 6.5YR 5/6 strong brown, with patches of iron panning.
Levels: top (N) 20.79m, base 20.40m

Appendix 2

Geophysical Survey

Project Co-ordinator: D. Shiel
Project Assistants: L Harvey, N Nemcek and A Shields

An area of 1.5ha was surveyed to investigate the area of the playing field immediately to the south of the hospital complex (*Figure 3*). *Figure 4* shows the data plot of the results. Other areas of the hospital site were considered unsuitable for geophysical survey because of the proximity of buildings and the large number of known service pipes.

Magnetic readings were logged at 0.5m intervals along one axis in 1m traverses, using a fluxgate gradiometer (Geoscan FM36) comprising two fluxgates mounted vertically apart, at a distance of 500mm. The gradiometer is carried by hand, with the bottom sensor approximately 100 to 300mm from the ground surface. At each survey station, the difference in the magnetic field between the two fluxgates is conventionally measured nanoTesla (nT) or gamma. Generally features up to 1m deep may be detected by this method.

In the survey area of the playing field, widespread magnetic disturbance was recorded, caused by gas and sewer mains and associated manhole covers. The number and layout of the pipes were not apparent until the survey was carried out. Other sources of interference were also recorded, including cable trenches and modern building debris. A scatter of small scale ferrous responses were detected throughout the area, which will have further masked responses from archaeological features.

A magnetically weak 'L' shaped ditch type response was recorded in the western part of the survey that may be of archaeological interest. It is possible that it is the corner of an enclosure of the sort detected as cropmarks on aerial photographs and usually considered to be Iron Age or Romano-British in date. A similarly weak linear response orientated approximately north-west to south-east may be the remains of a former boundary. Several pit anomalies were also detected. Due to the high frequency of ferrous responses in the survey, however, a modern origin for these is likely. The interpretation of these anomalies is tentative, due to the low level of response and the substantial disturbance encountered within the survey. They at least indicate that archaeology may survive within the application area.

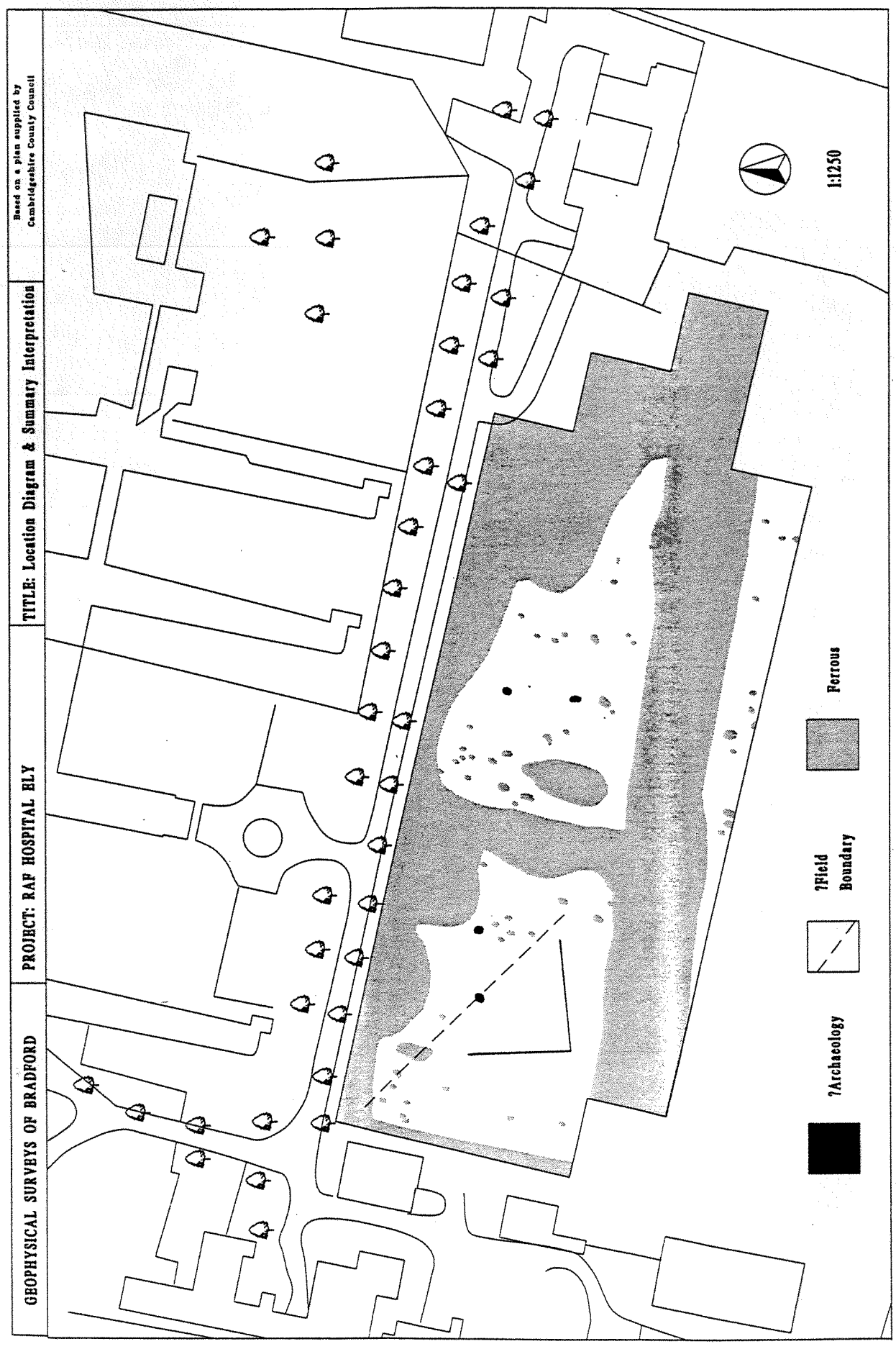

Figure 3 Location of geophysical survey

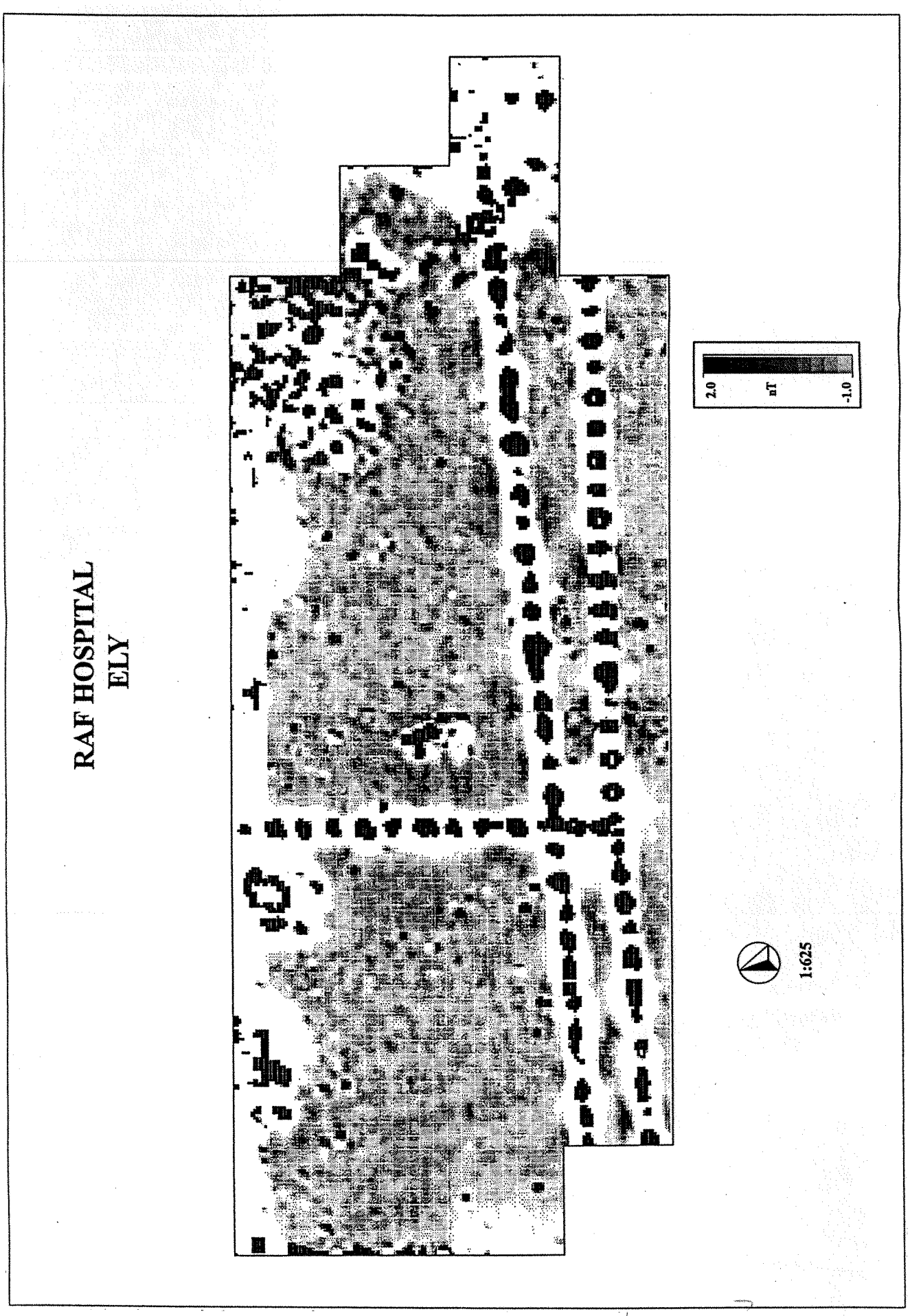

Figure 4 Data-plot of result of survey

What does it mean?

Appendix 3

Glossary Of Archaeological Terms

Anglo-Saxon The period dating between the withdrawal of the Roman legions in 410 and the Norman invasion of 1066. Within this period several ethnic groups from northern Europe vied for control of the British Isles, including the Angles, Saxons, Jutes, Danes, and Norwegians. The latter two groups are collectively known as the Vikings and became involved in British politics from the eighth century, later than the others. The Vikings were successful in occupying a large part of the north and Midlands of England, before providing a King (Cnut) for the whole of England. For most of this time England was divided up into several kingdoms until Saxon resistance to Viking incursions led to the unification of England under Aethelstan and Alfred.

Artefact Any object made by people. Generally, this word is used for finds such as pottery, stone tools, or metal objects, but it can be used in a much wider context in that the landscape we have today is a product of human activity and is thus an artefact itself.

Croft A small enclosed piece of land, usually arable but sometimes pasture, attached to a rural property (toft).

Deserted Medieval Village (DMV) For various reasons medieval settlements were sometimes abandoned or shifted in location. Earthworks of the old village can often be seen showing the position of house platforms, crofts, lanes, fields and ponds.

Earthworks Archaeological features that are still extant above the ground as banks and ditches, platforms, roads, ponds, canals, etc. They were either constructed of soil or became covered by it later, leaving the archaeology showing in relief.

Enclosures: An area defined by a continuous surrounding ditch. These may be enclosures around human settlements, fields, or paddocks for stock. Rectilinear enclosures are ones with straight sides and corners, whilst curvilinear enclosures are ones with rounded sides.

Holloway: A track that has been hollowed out by long usage.

Iron Age. Prehistoric period c. 700 BC - AD 43 when iron was used extensively for tools and weapons. The period traditionally ends with the Roman invasions of AD 43 but in fact there was a considerable time of adjustment after this date when the Iron Age way of life continued with little change from Roman influence.

Medieval. Historic period that begins with William the Conqueror's invasion in 1066. Post-Medieval is generally considered to date from 1500.

Midden. A heap or stratum of refuse (broken pots and tools, ashes, food remains etc.) normally found on the site of an ancient settlement.

Moated Site or 'Moat' A particular class of monument from the medieval period. Most 'moats' represent the former site o a 'Manor House' with a partial or complete moat dug around it. 'Moat' building is believed to have been more of a 12th - 13th century fashion statement than an actual attempt to defend a settlement site.

Modern The period since modern industrialisation, roughly corresponding to 1800 onwards.

Motte An early medieval fortification in the form of a flat-topped mound. A motte would usually be expected to have possessed a stockaded enclosure on top of the mound, and would often have been accompanied by a defended enclosure known as a bailey.

Natural The local subsoil that is unaltered, in nature and location, by human action.

Palaeosol. A preserved soil which does not owe its origin to the existing land surface.

Penannular. In the form of a complete circle, except for a single break in the ring.

Pit alignment. A line of pits, usually dated to the Iron Age or Roman period. They are thought to be a native means of boundary marking. The pits do not often have rubbish in them and so are not thought to be rubbish pits.

Posthole. A hole dug to receive a post. They can also result from driving posts into the ground. The latter, however, do not have distinct fills such as packing and a post pipe. A post pipe is the fill of a posthole which formed in the place of a removed post.

Post-Medieval This period is generally considered to date from 1500, and is not used for dates after about 1800.

Ridge and Furrow. Medieval cultivation techniques led to a phenomenon of corrugated fields. Strips of land were allotted to individuals and a furrow was left between one person's strip and the next, leading to a corrugated ridge and furrow effect. Ridge and furrow shows up as cropmarks on air photographs and more rarely as earthworks in pasture fields.

Rolled. A measure of how worn the edge of worked flint is, when transported by streams the flint rolls downstream and the edges wear. The degree of rolling can indicate how far the piece has been transported.

Roman. Historic period AD 43 - 410 when much of Britain was part of the Roman empire. The term Romano-British is now widely used to describe the people of this period, as few were Roman themselves, but they were a provincial manifestation of the empire developing in a unique way. AD 410 was the date the legions were withdrawn, but the Romano-British culture continued for some time into the 5th century in tandem with Anglo-Saxon migration.

Stakehole As *posthole*, but corresponding to a smaller piece of wood, usually from an insubstantial structure.

Stratigraphy: Order and relative position of strata. Deposits in archaeological sites will be layered one on top of another, with the highest layer being the latest being the latest deposits, thus giving a chronological relationship to the layers and the artefacts within them. Features (such as ditches, pits, or walls) cut through these layers will obviously date to later events, and will in turn contain their own discrete sequence of deposits. On the other hand features that have been covered by layers are obviously earlier than the deposition of those layers that seal them.

Thermoluminescence: A technique for dating fired clay, based on the fact that flaws in the lattice of any crystal will trap alpha particles, produced by radiation, which on heating will be released in the form of light. The quantity of light emitted will depend on three factors - the number of flaws in the crystal, the strength of the radioactivity to which it was exposed, and the duration of exposure. The second can be measured directly from the sample, and the first by retesting the sample after exposure to a radioactive source of known strength. These will allow the all-important third factor, the time since the crystal was last heated, to be calculated.

Toft A medieval rural house site, usually accompanied by a *croft*.

Cambridgeshire
County Council

Archaeology

The Archaeological Field Unit
Fulbourn Community Centre
Haggis Gap
Fulbourn
Cambridge CB1 5HD
Tel (0223) 881614
Fax (0223) 880946