

Hilltop Enclosure and Field System Ecclesall Woods, Sheffield Archaeological Survey

Non-Technical Summary: ASE Ltd was commissioned to carry out an archaeological survey of a hilltop enclosure and field system at Ecclesall Woods, Sheffield. The survey was undertaken in December 2002 and constituted the first stage of a community-based project funded by a Local Heritage Initiative grant. It was carried out by a group of volunteers from the Friends of Ecclesall Woods under the supervision of a consultant archaeologist. Training in recording archaeological earthworks and the use of a total station was delivered during the course of the survey. Not all of the features identified during the course of previous work at Ecclesall Woods could be identified during the course of the survey. Although some fundamental discrepancies were noted, in most instances the full extent of features had merely been obscured by dense ground cover. The detailed plan of the hilltop enclosure and field system produced as part of this survey has greatly improved understanding of the overall structure of the site.

The complex of features identified towards the western extent of the bird sanctuary at Ecclesall Woods during previous surveys comprised two main elements, namely: a hilltop enclosure defined by a curvilinear bank with intermittent counterscarp, and; a series of enclosures that formed part of an irregular aggregate field system. Both the enclosure and the field system were tentatively dated to the Iron Age or Romano-British periods on the basis of their morphology. Furthermore, whilst independent dating evidence is required, the physical relationship between one of the enclosures and the counterscarp bank would appear to suggest that the field system is later than the hilltop enclosure. The earthworks were typically well preserved, except where localised erosion had occurred along the line of modern footpaths. However, the hilltop enclosure and associated field system had been disturbed by later features associated with charcoal burning, white coal production and quarrying.

Hilltop Enclosure and Field System

Ecclesall Woods, Sheffield

Archaeological Survey

Contents

Non-Technical Summary

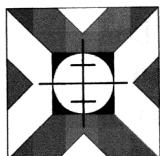
Contents

| | |
|--|---------------|
| 1. Introduction |1 |
| 1.1. Location, Geology and Topography..... |1 |
| 1.2. Project Background..... | |
| 1.3. Archaeological Background |2 |
| 2. Aims and Objectives..... |2 |
| 3. Methodology |3 |
| 3.1. Methods Statement..... |3 |
| 3.2. Survey Control |3 |
| 3.3. Recording System |3 |
| 4. Results |3 |
| 4.1. Hilltop Enclosure |4 |
| 4.2. Field System..... |5 |
| 5. Discussion |7 |
| 5.1. Hilltop Enclosure |7 |
| 5.2. Field System..... |7 |
| 5.3. Later Features |8 |
| 6. Project Archive |8 |
| 7. References..... |9 |

Figure 1. Location Map

Figure 2. Hilltop Enclosure and Field System

Appendix: Control Data



Hilltop Enclosure and Field System Ecclesall Woods, Sheffield Archaeological Survey

1. Introduction

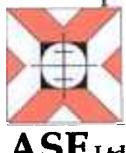
ASE Ltd was commissioned by the Friends of Ecclesall Wood to carry out an archaeological survey of a hilltop enclosure and field system. The survey constituted the first stage of a programme of archaeological fieldwork funded by a grant from the Local Heritage Initiative (LHI). It was carried out in December 2002.

1.1 Location, Geology and Topography

Ecclesall Woods (centred on NGR SK 324 825) are located approximately 1km to the south east of Whirlow, Sheffield, South Yorkshire (Figure 1). The woods are situated on the steep slope above Abbeydale Road South and are cross cut by a series of streams that flow into the River Sheaf. They are comprised of three areas of woodland (Woodlands 1, 2 and 3), separated by Abbey Lane and Whirlow Dale Road, each of which is subdivided into a series of discreet compartments for management purposes (Compartments A to K). The hilltop enclosure and field system is located towards the western extent of Woodland 3 and lies mostly within the limits of the area designated as a Bird Sanctuary (Compartment D). It is situated at the top of the steep slope above Limb Brook, the historic boundary between the Counties of Yorkshire and Derbyshire, at a height of approximately 175mOD. The solid geology of Ecclesall Woods lies within the Lower Coal Measures and is characterised by a series of sandstones and mudstones (BGS 1974). Two coal seams outcrop within the woods: one to the north of Abbey Lane, the other towards the southern extent of the woodland. With the exception of localised deposits of post-glacial alluvium along the course of Limb Brook, the overlying drift geology and soils have not been characterised.

1.2 Project Background

Survey work by Sheffield Hallam University (SHU) and a desk-based assessment by the University of Manchester Archaeological Unit (UMAU) have gathered a great deal of evidence for the antiquity and preservation of features of archaeological importance in Ecclesall Woods. The Friends of Ecclesall Woods (FEW) were awarded a *Millennium Festival Award for All Committees* to enable the collation of this evidence in order to produce material for interpretative and educational purposes. A professional archaeologist was employed to produce a concordance report, comparing the results of the SHU survey and the UMAU desk-based assessment (Bevan 2001). This report made a series of recommendations for the management, monitoring and interpretation of the archaeological features within Ecclesall Woods and highlighted a series of priorities for further research. These priorities included a detailed survey of a hilltop enclosure and field system,



ASE Ltd



FEW



Local Heritage initiative



Ecclesall Woods, Sheffield

and a rapid survey of approximately 100 Q-Pits within the woodland. FEW submitted a successful application to the Local Heritage Initiative for a grant to carry out both of these pieces of work. One of the conditions of the grant was that a significant part of the work would be carried out using volunteers and community involvement. This report outlines the results of the detailed survey of the hilltop enclosure and field system.

1.3. Archaeological Background

The historical and archaeological significance of Ecclesall Woods is well documented (Hart 1990; Hart 1993). Until recently little attempt has been made to draw together documentary sources and archaeological evidence for the antiquity of the woodlands. A walkover survey of the woodlands was carried out by Sheffield Hallam University during the 1980s and 1990s (Ardron and Rotherham 2001). Independently, an archaeological desk-top study was carried out by the University of Manchester Archaeological Unit in order to assess the potential impact of management practices on archaeological features within the woods (Arrowsmith 1999). These surveys identified 768 and 173 sites respectively, including the series of Q-Pits that form the basis of this report. The discrepancy in the number of features identified in each instance reflects the differences in the nature/scope of the projects and the recording strategies that were employed (Bevan 2001).

Evidence for prehistoric activity at Ecclesall Woods includes a Mesolithic scraper (Hart 1993) and an example of cup and ring rock art (Barnatt and Firth 1983). Romano-British activity has been recorded at a number of sites, the most notable of which is a curvilinear earthwork and counterscarp bank forming part of a hilltop enclosure. Ecclesall Woods lie on the former boundary between the Anglo-Saxon kingdoms of Mercia and Northumbria (Parker 1985). Whilst a number of linear earthworks within the woodland have been associated with this boundary, these earthworks are more likely to be associated with the Mediaeval deer park created by Robert de Ecclesall in 1319. Coppice with standards management is thought to have taken place at Ecclesall Woods from the sixteenth century onwards. Features associated with allied industries such as charcoal burning and white coal production have been identified within the woods. Two water mills are also recorded at Ecclesall Woods, one of which was recorded as a lead smelting mill in a document dated 1674 (Crossley 1989). In 1752 Ecclesall Woods were subsumed into the estates of the Marquis of Rockingham. Subsequently, the woods were exploited for their mineral resources and extensive evidence for coal mining and ganister quarrying has been recorded.

2. Aims and Objectives

The aims and objectives of the archaeological survey were to carry out a detailed topographic survey of the hilltop enclosure and its environs,



ASE Ltd



Ecclesall Woods, Sheffield

recording the extent and preservation of any archaeological features and identifying any physical relationships between individual earthworks.

3. Methodology

3.1 Methods Statement

The archaeological survey of the hilltop enclosure and field system at Ecclesall Woods was carried out in accordance with the methodology outlined in the project design (Pouncett 2002) that was prepared in response to a brief generated by the South Yorkshire Archaeology Service (McNeil 2002). It was carried out by a group of community volunteers under the supervision of a consultant archaeologist. Training in both earthwork survey and the use of a total station was provided on the job.

Survey Control

The survey was undertaken at a scale of 1:500 using a Nikon DTM330 total station. It was tied into the Ordnance Datum by means of an open traverse to a fundamental benchmark (STN1) and spot height (STN2) on Ecclesall Road South. Traverse reduction data is attached as an appendix to this report. No significant errors were identified within this data and consequently station co-ordinates were not adjusted. Detail survey was subsequently undertaken from an array of fly stations (STN11, STN12 and STN15).

Recording System

The survey area corresponded to a linear zone, approximately 125m wide, at the western extent of the bird sanctuary. Where features associated with the boundary of the hilltop enclosure extended beyond the limits of the bird sanctuary they were recorded as far as they could be traced. Earthworks and topographic features within the survey area were recorded by means of a series of readings taken at regular intervals along their length. The survey was downloaded into *FastMap Geosite 2.01* and exported to *AutoCAD LT 2000*. After preliminary checking of the resultant breakline plot, hachures were added to the survey using *CorelDraw 8*.

4. Results

A complex of earthworks associated with a hilltop enclosure and later field system were recorded during the course of the archaeological survey. The hilltop enclosure, tentatively thought to be Bronze Age or Iron Age in date, was defined by a continuous bank (A1) with an intermittent counterscarp (A2). These earthworks had been partially disturbed where they had cut by modern footpaths. A series of irregular enclosures and platforms (B1 to B11) were identified to the east of the hilltop enclosure. One of these enclosures appeared to have been built on top of the counterscarp bank and was therefore thought to be later than the hilltop enclosure. These earthworks appeared to form part of an irregular aggregate field system; a type of field



Ecclesall Woods, Sheffield

system commonly established in the British Isles during the Iron Age and Romano-British periods. Both the hilltop enclosure and the field system had been disturbed by later features.

4.1. Hilltop Enclosure

The hilltop enclosure at Ecclesall Woods is located in a prominent position, confined to the area of higher ground to the south-east of the scarp slope above Limb Brook. It is located within the western extent of the bird sanctuary (Compartment D) within Woodland 3. The enclosure is irregular or elongated sub-circular in form and is aligned from north north-east to south south-west. It is defined by a continuous bank (A1) with an intermittent counterscarp (A2). No contemporary archaeological features were identified in the interior of the enclosure.

The earthen bank defines an enclosure, approximately 100m long and 45m wide, 0.45ha in size. To the north, the enclosure bank is low with shallow to moderate sloping sides and a convex top. This part of the bank measures 4.65m wide and 0.2m high. To the east, only one side of the bank survives and here the earthwork is approximately 3.25m wide and stands to a height of between 0.75m and 0.9m. The western edge of the bank is likely to have been 'masked' by deposits associated with the erosion of the earthwork and the gradual movement of sediment downslope from the interior of the enclosure. Towards the northern extent of the enclosure the bank has a sharp return, which is coincident with a later circular platform (A3) that may have exaggerated the alignment of the bank. This platform was approximately 7m in diameter and was tentatively interpreted as a charcoal hearth. At both the northern and the southern extent of the site, the enclosure bank had been disturbed by localised erosion of along the lines of two modern footpaths.

The visible extent of the counter scarp is confined to the southern extent of the enclosure and can be traced for a distance of up to 55m, beyond which it can only be seen intermittently. However, the continuation of the counter scarp is preserved where it has been reused as part of one of the boundaries of the adjacent field system. It measures 4m in width and 0.6m high and is separated from the bank by a berm approximately 3.7m wide. As with the bank the western edge of the counter scarp is not visible. Evidence for colluviation (indicated by the bank and counter scarp) would suggest that any ditch/gully associated with the bank that defined the enclosure would have silted up. Excavation would be required to determine the presence/absence of such a feature, however material for the construction of the bank would have been obtained locally and it is reasonable to assume that the bank was associated with a 'quarry' ditch.

Whilst it is likely that the hilltop enclosure would have been defined by a univallate earthwork, the ditch noted as part of the Ecclesall Woods Millennium Archaeology and Landscape History Project (Bevan 2001, 24)



Ecclesall Woods, Sheffield

would appear to be associated with later features. At the northern extent of the site, the form of the enclosure boundary has been exaggerated by earthworks associated with the later field system (B5 and B7). At the southern extent of the site, the area between the bank and the counterscarp has been disturbed by post mediaeval quarrying (A4). A diffuse quarry pit, approximately 4m in diameter and 0.15m deep, had been cut into the northern edge of the counterscarp close to the modern footpath that runs along the western edge of the bird sanctuary.

4.2. Field System

The field system at Ecclesall Woods is located within the bird sanctuary, to the east of the hilltop enclosure. It is comprised of a series of linear earthworks that defined at least one curvilinear enclosure (B1 to B3), two rectilinear enclosures (B5 and B7) and two possible platforms (B6 and B11). Two of the boundaries associated with these earthworks had been disturbed where 'Q' pits (B4 and B8) had been cut into the earthworks at a later date. A disused trackway (B10), previously identified as part of the field system, was also identified during the course of the survey.

A curvilinear enclosure (B1), approximately 0.14ha in size, was identified to the east of the hilltop enclosure. It was defined on three sides by a bank, between 4.25m and 5.5m wide and up to 0.25m high, with moderate to shallow sloping sides and a rounded top. To the north and the east, one edge of the bank has been partially obscured by movement of sediment downslope. The western edge of the enclosure is poorly defined but appears to have coincided with the counterscarp of the hilltop enclosure. Two linear earthworks (B2 and B3), approximately 3.5m wide and up to 0.7m high, were identified to the north and east of the curvilinear enclosure. These earthworks, although poorly defined, were thought to have been associated with a second much larger enclosure. A 'Q' pit (B4), approximately 4m in diameter and 0.4m deep, had been inserted into the northernmost of these boundaries. It was cut into the south-eastern edge of the earthwork and was defined by a bank of upcast earth between 2m and 2.5m wide. To the north of the 'Q' pit the return of the linear earthwork recorded by Ardron was obscured by holly and could not be identified.

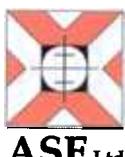
A smaller, rectilinear enclosure (B5) was identified at the north-western corner of the curvilinear enclosure. This enclosure was aligned broadly from east to west and measured 25m long and 20m wide. It was defined on all sides by a bank, between 4m and 4.25m wide and up to 0.5m high, with moderate sloping sides and a rounded top. The bank was interrupted midway along its southern edge - the interruption perhaps corresponding to an entrance. To the west, the enclosure boundary is built on top of the counterscarp of the hilltop enclosure indicating that it is later in date. To the east, a subtle break of slope within the interior of the curvilinear enclosure

Ecclesall Woods, Sheffield

described above may represent a continuation of the enclosure boundary. A rectangular platform (B6), standing to a height of 0.55m high was noted within the interior of the enclosure. This platform, approximately 6m long and 2m wide, was aligned from north to south, parallel to the western edge of the rectilinear enclosure. It could possibly be interpreted as a building platform, however no in situ structural remains were noted during the course of the survey.

A second rectilinear enclosure (B7) was identified towards the eastern extent of the bird sanctuary. It was approximately 32.5m long and 20m wide and was aligned from north-west to south-east. To the north and west, the enclosure was defined by a moderate slope, approximately 2.5m wide and 0.6m high. A 'Q' pit (B8) had been inserted into this slope at the western extent of the enclosure. This pit was approximately 5m in diameter and 0.6m deep and was defined by a bank of upcast earth downslope. To the south, the enclosure was defined by a single course of stones laid end-to-end, thought to correspond to a decayed drystone wall. This alignment could be traced for a distance of up to 25m beyond which it had been truncated by a modern drainage gully approximately 1m wide and 0.1m deep. The eastern edge of the enclosure was poorly defined, however appeared to correspond to the return of one of the linear earthworks (B3) noted above and a second linear earthwork (B9) further to the north. This earthwork, approximately 2.5m wide and 0.4m high, could be traced for a distance of 16m and appeared to continue beyond the limits of the survey area.

The second rectilinear enclosure described above is the northernmost of a row of three parallel enclosures recorded by Sheffield Hallam University (Bevan 2001). Neither of the additional enclosures could be identified in the field. Instead, one appeared to form part of a larger curvilinear enclosure defined by earthworks B2 and B3, while the other appeared to be defined by a relatively modern trackway (B10). This track was defined by a shallow cutting, approximately 3.75m wide and up to 0.2m deep, with moderate sloping sides and a rutted base. It could be traced for a distance of 25m, on an alignment from west north-west to east south-east, before turning northwards for a further 5m. Whilst the enclosures recorded by Sheffield Hallam University could not be verified, the rectilinear enclosure was clearly part of a more extensive complex of earthworks. An irregular earthwork (B11), defined by a bank approximately 5.5m wide and up to 0.5m high, was identified immediately to the east of the rectilinear enclosure. To the east, the internal edge of the earthwork was poorly defined giving the appearance that the bank defined a sub-rectangular platform approximately 12.5m long and 12m wide. To the west, the earthwork has been heavily disturbed where a fallen tree has resulted in the formation of a circular hollow approximately 3m in diameter and 0.25m deep.



Local Heritage *initiative*



Ecclesall Woods, Sheffield

5. Discussion

The complex of earthworks identified by both Sheffield Hallam University and the University of Manchester Archaeology Unit comprises two discrete elements:

- A hilltop enclosure defined by an earthen bank with an intermittent counterscarp;
- A series of smaller enclosures thought to form part of an extensive field system.

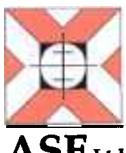
Both of these elements had been disturbed by a series of later features associated with charcoal burning, white coal production and quarrying.

5.1 Hilltop Enclosure

Despite its comparatively small size, the enclosure at Ecclesall Woods is comparable in form to hilltop enclosures constructed and used during the Late Bronze Age and Early Iron Age (Raymond 1988). There are only 25 to 30 recorded hilltop enclosures in England, the majority of which are situated in the regions of Wessex and the Cotswolds. Hilltop enclosures are situated on the top of a hill or plateau and are surrounded by univallate earthworks of relatively slight proportions. Not all enclosures are entirely surrounded by earthworks, but like that at Ecclesall can be open on one side. Whilst no internal features were identified during the course of the survey, post/stakeholes, hearths and small pits are commonly found at such sites. Reconstructed buildings are often square or rectangular in shape and were defined by 4 to 6 postholes that were assumed to have supported/raised granaries. Hilltop enclosures are usually interpreted as stock enclosures or sites where agricultural produce was stored.

5.2 Field System

The series of curvilinear and rectilinear enclosures to the east of the hilltop enclosure appear to form part of an irregular aggregate field system – a collection of contiguous field plots that are irregular in shape and size and are accreted around a focal point-usually a settlement (Ebbatson 1989). Irregular aggregate field systems are defined by network of low curving earthworks, rarely covering an area of more than 10 ha, some of which may have been reused as modern boundary features. Associations with related settlements would appear to suggest that the development of these field systems began in the Bronze Age and continued into the Roman period, however few have been securely dated. One of the enclosures associated with the field system at Ecclesall Woods is built upon the counterscarp bank of an Iron Age or Romano British hilltop enclosure, and is therefore later in date. However, few examples of irregular aggregate field systems have been dated to the Roman period and the distribution of these sites is typically confined to more remote parts of Britain that were largely isolated from Roman influences. Whilst



Ecclesall Woods, Sheffield

examples of Iron Age and Romano-British field systems are recorded elsewhere within the Sheffield region, for example on the Wharncliffe-Greno uplands (Butcher 1957; Makepeace 1963), these are different in both form and construction.

5.3. Later Features

A number of post-mediaeval or industrial features were identified during the course of the survey of the hilltop enclosure and field system at Ecclesall Woods. The most significant of these features were a charcoal hearth and two 'Q' pits - a type of hearth used to produce kiln dried wood (white coal) for the purposes of smelting lead. Extensive evidence for charcoal burning and white coal production was recorded at Ecclesall by Sheffield Hallam University (Ardron and Rotherham 2001) and the University of Manchester Archaeological Unit (Arrowsmith 1999). Localised evidence of quarrying and a disused trackway were also identified during the course of the survey.

6. Project Archive

The project archive, together with that for the Q-pit survey, will be lodged with Sheffield City Museum and will comprise:

- Management records and correspondence relating to the project, including copies of the brief, project design and both survey reports;
- Hard copies of raw and co-ordinate survey data along with breakline plots, hachure plans and details of the control network;
- Primary survey archive materials including sketch plots, GPS readings, record sheets, photographs and measured drawings;

Copies of the survey report will also be supplied to the South Yorkshire Archaeology Service, along with a CD containing the report text and illustrations in industry standard formats e.g. .txt, .doc, .tab and .wor.



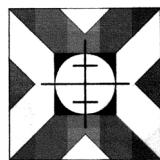
Ecclesall Woods, Sheffield

7

References

- Ardron, P. and I. Rotherham (2001). Ecclesall Woods Millennium Archaeology Project Report. Sheffield, The Centre for Environmental Conservation and Outdoor Leisure, Sheffield Hallam University.
- Arrowsmith, P. (1999). Ecclesall Woods, Sheffield: An Archaeological Desk-top Study. Manchester, University of Manchester Archaeological Unit.
- Barnatt, J. and P. Firth (1983). "A Newly Discovered 'Cup and Ring' Carving in Ecclesall Wood, Sheffield." Derbyshire Archaeological Journal 103: 41-42.
- Bevan, B. (2001). Ecclesall Woods, Sheffield: Concordance and Sampling of Archaeological Surveys by University of Manchester Archaeological 1999 and Sheffield Hallam University 2001. Bakewell, Peak District National Park Archaeology Service.
- BCS (1974). Sheffield: Solid and Drift. Nottingham, British Geological Survey.
- Butcher, L. (1957). "Archaeological Remains on the Wharncliffe-Greno Upland, S. Yorks." Transactions of the Hunter Archaeological Society 7: 30-39.
- Crossley, D. (1989). Water Power on the Sheffield Rivers. Sheffield.
- Ebbatson, L. (1989). Irregular Aggregate Field-Systems, Monument Protection Programme.
- Hart, C. (1990). The Ancient Woodland of Ecclesall Woods. The Natural History of Ecclesall Woods. D. Whiteley. Sheffield, Sorby Natural History Society. 27: 2-24.
- Hart, C. (1993). The Ancient Woodland of Ecclesall Woods, Sheffield. Ancient Woodlands, Their Archaeology and Ecology: A Coincidence of Interest. I. Rotherham. Sheffield, Landscape Conservation Forum. 1.
- Makepeace, G. (1963). "Report on the Romano-British Settlement at Whitley, Wharncliffe Excavated by the Late L.H. Butcher." Transactions of the Hunter Archaeological Society 13: 34-41.
- McNeil, J. (2002). Brief for Archaeological Field Survey. Sheffield, South Yorkshire Archaeology Service.
- Parker, M. (1985). "Ecclesall: A Clue to the Topography of Early Hallamshire." Transactions of the Hunter Archaeological Society 13: 10-23.
- Pouncett, J. (2002). Ecclesall Woods, Sheffield: Archaeological Survey Project Design. Oxford, Archaeological Survey and Evaluation Ltd.
- Raymond, F. (1988). Hilltop Enclosures, Monument Protection Programme.

Ecclesall Woods, Sheffield



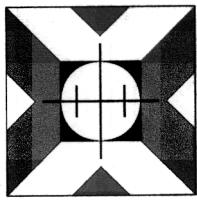
Appendix

Control Data
 Station Co-ordinates

| Station | X | Y | Z | Type |
|---------|------------|------------|---------|------|
| STN1 | 431339.000 | 382750.000 | 202.910 | OSBM |
| STN2 | 431142.089 | 383682.799 | 201.209 | Fly |
| STN3 | 431201.561 | 382680.312 | 201.452 | Fly |
| STN4 | 431100.245 | 382635.959 | 200.931 | Fly |
| STN5 | 431129.393 | 382639.003 | 200.219 | Temp |
| STN6 | 431068.491 | 382607.120 | 201.625 | Fly |
| STN7 | 431339.669 | 382458.276 | 181.979 | Fly |
| STN8 | 431482.580 | 382405.484 | 172.337 | Fly |
| STN9 | 431565.331 | 382347.153 | 164.701 | Fly |
| STN10 | 431578.250 | 382274.231 | 157.678 | Fly |
| STN11 | 431626.244 | 382232.191 | 176.199 | Fly |
| STN12 | 431646.331 | 382167.332 | 171.489 | Fly |
| STN13 | 431667.095 | 382196.166 | 172.414 | Temp |
| STN14 | 431662.130 | 382223.634 | 174.215 | Temp |
| STN15 | 431672.165 | 382247.221 | 174.463 | Fly |

Station Misclosures

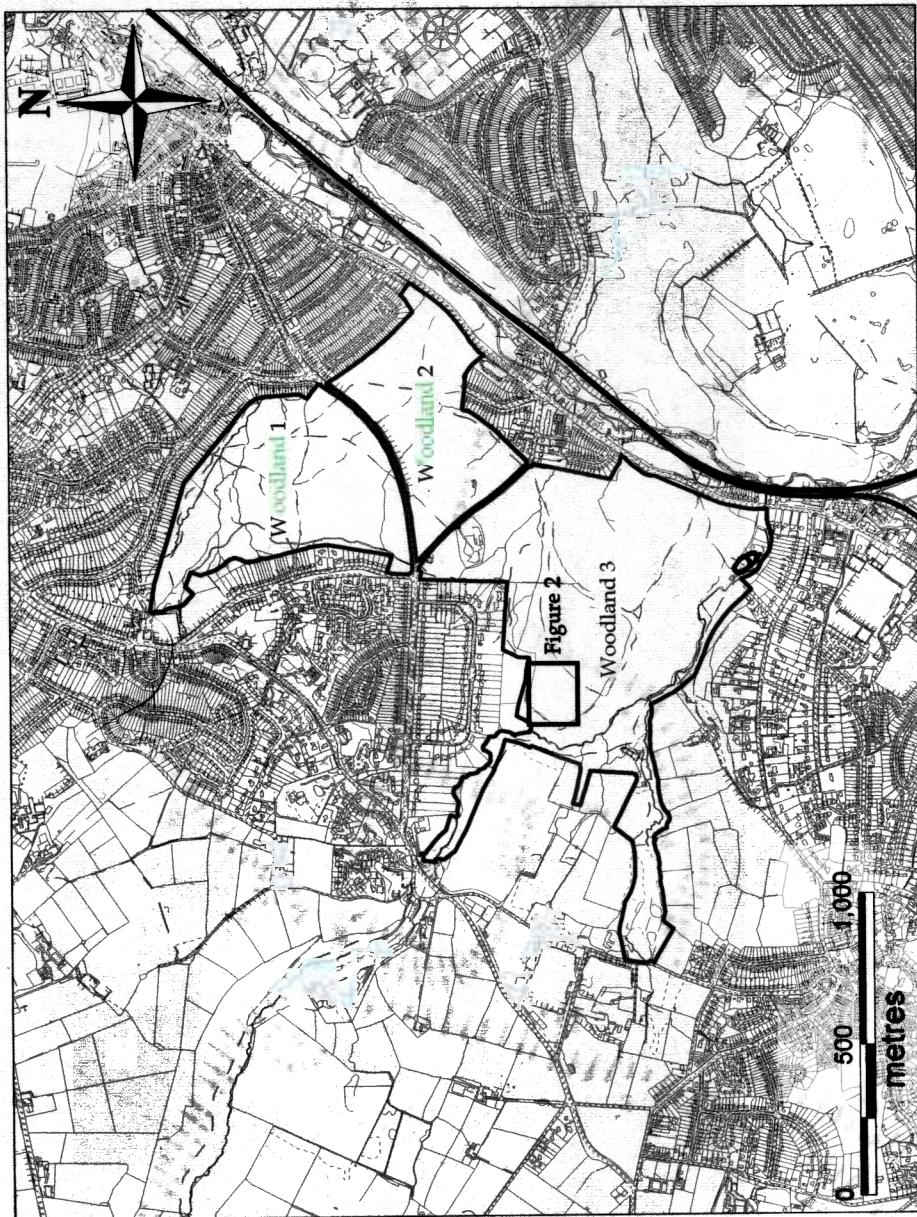
| Station | X | Y | Z | Type |
|---------|--------|--------|--------|---------|
| STN1 | - | - | - | Fixed |
| STN2 | - | - | - | Fixed |
| STN3 | - | - | - | 2 Point |
| STN4 | 0.004 | 0.005 | 0.004 | Float |
| STN5 | - | - | - | Unused |
| STN6 | -0.001 | -0.001 | 0.002 | Float |
| STN7 | -0.027 | 0.015 | -0.001 | Float |
| STN8 | 0.038 | -0.014 | -0.003 | Float |
| STN9 | 0.006 | -0.004 | -0.003 | Float |
| STN10 | -0.003 | 0.015 | 0.002 | Float |
| STN11 | 0.002 | -0.002 | 0.023 | Float |
| STN12 | -0.001 | 0.003 | 0.007 | Float |
| STN13 | - | - | - | Unused |
| STN14 | - | - | - | Unused |
| STN15 | 0.003 | -0.005 | 0.008 | Float |

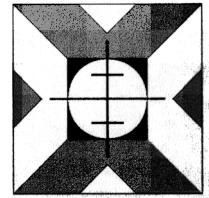


Ecclesall Woods

Figure 1

Location Map





Ecclesall Woods
Figure 2.
Hilltop Enclosure and
Field System

