

**Field System (Extension) in Woodland 3  
Ecclesall Woods, Sheffield  
Archaeological Survey**

December 2006

Prepared for:





# Field System (Extension) in Woodland 3 Ecclesall Woods, Sheffield Archaeological Survey

---

## Non Technical Summary

---

*ASE Ltd* was commissioned to extend the archaeological survey of the field system associated with the hilltop enclosure in Woodland 3 at Ecclesall Woods, Sheffield. The survey was undertaken in December 2005 and constituted part 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. The field system comprised a series of curvilinear and rectilinear enclosures defined by banks of upcast earth and stone. These enclosures were thought to form part of an irregular aggregate field system – a type of field system commonly established during the Iron Age and Romano-British periods. One of the enclosures was built on top of the counterscarp associated with the Iron Age or Romano-British enclosure and was consequently later in date. A series of stone structures, possibly thought to be associated with the sites of former outbuildings, were also identified within the survey area. These structures were built on a different alignment to the curvilinear and rectilinear enclosures and were thought to be associated with a later phase of activity. Extensive evidence of post-mediaeval activity was also identified during the course of the survey, most notably a series of features associated with charcoal burning and white coal production with the woodland.

# Field System (Extension) in Woodland 3, Ecclesall Woods, Sheffield Archaeological Survey

---

Emma Gowans and John Pouncett

---

## Contents

---

<b>1.</b>	<b>Introduction.....</b>	<b>1</b>
1.1.	Location, Geology and Topography.....	1
1.2.	Project Background.....	1
1.3.	Archaeological Background.....	2
1.4.	Previous Work.....	2
<b>2.</b>	<b>Aims and Objectives.....</b>	<b>2</b>
<b>3.</b>	<b>Methodology.....</b>	<b>2</b>
3.1.	Survey Control.....	3
3.2.	Methods Statement.....	3
<b>4.</b>	<b>Results.....</b>	<b>3</b>
4.1.	Field System.....	3
4.2.	Rectilinear Enclosure.....	4
4.3.	Other Features.....	5
<b>5.</b>	<b>Discussion.....</b>	<b>5</b>
<b>6.</b>	<b>Project Archive.....</b>	<b>6</b>
<b>7.</b>	<b>Bibliography.....</b>	<b>6</b>

---

## Figures

---

1. Location Map
2. 2002 Survey
3. Control Network
4. 2005 Survey
5. Integrated Survey



# Field System Extension in Woodland 3 Ecclesall Woods, Sheffield Archaeological Survey

---

## 1. Introduction

---

ASE Ltd was commissioned by the *Friends of Ecclesall Wood* (FEW) to extend the archaeological survey of the field system associated with the hilltop enclosure in Ecclesall Woods. The survey constituted part of a programme of archaeological fieldwork funded by a grant from the *Local Heritage Initiative* (LHI). It was carried out in December 2005.

### 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 solid geology of Ecclesall Woods lies within the Lower Coal Measures and is characterised by a series of sandstones and mudstones (British Geological Survey 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* (Ardron and Rotherham 2001) and a desk-based assessment by the *University of Manchester Archaeological Unit* (Arrowsmith 1999) has gathered a great deal of evidence for the antiquity and preservation of features of archaeological importance in Ecclesall Woods. This evidence was collated with the assistance of a *Millennium Festival Award for All Committees* and a series of priorities were identified for further research (Bevan 2001). These priorities included a detailed survey of the hilltop enclosure and field system in Woodland 3 and a rapid assessment of Q-pits, both of which were carried out as part of a community-based project funded by a grant from the *Local Heritage Initiative* (Gowans and Pouncett 2002, 2003).

Following the success of this project, a second application was submitted to the *Local Heritage Initiative* (LHI) for further work at Ecclesall Woods. This application was successful and a grant was awarded to:

1. Carry out a detailed survey of a second enclosure in Woodland 1;
2. Excavate one or more of the Q-pits included in the rapid assessment;
3. Extend the survey of the field system associated with the hilltop enclosure.

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 relates to the third element of the work.

# Field System (Extension) in Woodland 3, Ecclesall Woods, Sheffield

## Archaeological Survey

---

### 1.3. Archaeological Background

The historical and archaeological significance of Ecclesall Woods is well documented (Hart 1990; Hart 1993). Evidence for prehistoric activity 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.

### 1.4. Previous Work

A complex of earthworks associated with a hilltop enclosure and later field system in Woodland 3 were recorded during the course of an archaeological survey carried out in December 2002 (Gowans and Pouncett 2002). The hilltop enclosure, tentatively thought to be Bronze Age or Iron Age in date, was defined by a continuous bank with an intermittent counterscarp (Figure 2). These earthworks had been partially disturbed where they had cut by modern footpaths. A series of irregular enclosures and platforms 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 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 associated with charcoal burning, white coal production and quarrying.

---

## 2. Aims and Objectives

---

The aims and objectives of the archaeological survey were to extend the detailed topographic survey of the field system associated with the hilltop enclosure in Woodland 3, recording the extent and preservation of any archaeological features and identifying any physical relationships between individual earthworks.

---

## 3. Methodology

---

The extension of the archaeological survey of the field system in Woodland 3 was carried out in accordance with the methodology outlined in the project design (Pouncett 2005). 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.

# Field System (Extension) in Woodland 3, Ecclesall Woods, Sheffield

## Archaeological Survey

---

### 3.1. Survey Control

The survey was undertaken at a scale of 1:500 using a Nikon DTM330 total station. A control network was established using an open traverse tied into the previous survey (Figure 3). Traverse reduction data is attached as an appendix to this report (below). 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.

### 3.2. Methods Statement

The survey area (approximately 245m by 210m) was located at the northern end of the bird sanctuary in Woodland 3. It was centred on the area immediately to the east of the hilltop enclosure. 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*. The hachure plot was subsequently exported to *MapInfo Professional 7.5*.

---

## 4. Results

---

### 4.1. Field System

The field system in Woodland 3 is located immediately to the east of the hilltop enclosure. A series of linear earthworks that defined a curvilinear enclosure, two rectilinear enclosures and two platforms were recorded during the course of the previous survey (Gowans and Pouncett 2002). These earthworks appeared to continue to the south and the east. A second survey was consequently carried out in December 2005 in order to record the full extent of the earthworks associated with the field system. Reduced ground cover afforded better visibility than at the time of the 2002 survey.

An enclosure (A1), approximately 30m long and 30m wide, was identified to the south of the curvilinear enclosure recorded during the course of the previous survey. It was defined on two sides by a bank, between 1.75m and 2.75m wide and up to 0.40m high, with moderate sloping sides and a convex top. The internal edge of this bank had been 'masked' by deposits associated with the erosion of the earthwork and the gradual movement of material downslope. To the east, the bank appeared to correspond to the edge of a trackway, the other edge of which was defined by a bank associated with a second enclosure (B2) immediately to the north-east. This trackway, between 3.50m and 4.00m wide, was aligned from north-west to south-east. An interruption, approximately 3.50m wide, was identified midway along the eastern edge of the enclosure. This interruption was tentatively thought to be associated with a charcoal burning platform (D2) immediately to the south. The northern and western edges of the enclosure could not be defined. Part of the northern boundary may have been formed by the southern edge of the curvilinear enclosure recorded during the course of the 2002 survey (*Ibid.*, p.5).

A second enclosure (A2), approximately 0.10ha in size, was identified immediately to the north. The trackway between the two enclosures was recorded as part of the previous survey. In 2002, dense vegetation had obscured the earthworks associated with this trackway. Only modern wheel ruts were visible. The second enclosure was defined on two sides by a continuous bank, between 1.50m and 3.75m wide and up to 0.45m high, with moderate sloping sides. Again, the internal edge of this bank had been 'masked' by deposits associated with the erosion of the earthwork and the gradual movement of material downslope. The northern and western edges of the enclosure were defined by earthworks

## Field System (Extension) in Woodland 3, Ecclesall Woods, Sheffield

### Archaeological Survey

---

associated with the curvilinear enclosure and one of the rectilinear enclosures identified during the course of the 2002 survey (*Ibid.*, pp.4-5).

A low bank (A3), approximately 4.25m wide and 0.30m high, was recorded to the east of the second enclosure. This bank appeared to correspond to a continuation of the earthwork that formed the eastern boundary of the enclosure. It was thought to be associated with a series of further enclosures downslope. The bank could not be traced beyond the edge of the disused trackway or hollow way running along the south-eastern edge of the survey area. A second bank (A4), between 1.00m and 3.25m wide and up to 0.65m high, was identified at the northern end of the survey area. This bank was aligned from north-east to south-west, parallel to the southern boundary of the second enclosure (A2). It could be traced for a distance of approximately 35m. The length of the bank was consistent with the size of the enclosures associated with the field system. It was thought to form the southern boundary of another enclosure. The size and spacing of the enclosures would suggest that earthworks A1 and A4 form part of a row of five enclosures downslope from the hilltop enclosure. Earthworks associated with further enclosures were identified both to the north-west (upslope) and the south-east (downslope).

#### 4.2. Rectilinear Enclosure

A rectilinear enclosure (B1), approximately 10m long and 12m wide, was identified at the north-eastern corner of the survey area. This enclosure was defined on three sides by a bank, between 3.50m and 5.25m wide and up to 0.30m high, with shallow to moderate sloping sides and a convex top. To the east, the enclosure extended beyond the limits of the survey area. The form and construction of this enclosure were comparable to one of the rectilinear enclosures recorded as part of the earlier survey (Gowans and Pouncett 2002, pp.4-5). This enclosure was tentatively interpreted as an outbuilding. A large quantity of stone was recorded both in the immediate vicinity of the rectilinear enclosure and within the fabric of the associated bank.

An L-shaped bank (B2), between 1.5m and 3.25m wide and up to 0.50m high, was identified immediately to the north-west. The eastern limb of this bank was aligned from north north-east to south south-west, perpendicular to the long axis of the rectilinear enclosure. It could be traced for a distance of 10m and did not appear to extend beyond the northern edge of the enclosure. The western limb of the bank was aligned from west north-west to east south-east, parallel to the long axis of the rectilinear enclosure. It could be traced for a distance of approximately 50m. The bank was poorly defined. Typically only one edge was visible at any point along the earthwork. A spur was identified along the northern edge of the bank. This spur was defined by a bank approximately 5.25m wide and up to 0.30m high. It was aligned from north north-east to south south-west, perpendicular to the long axis of the rectilinear enclosure. It could be traced for a distance of 10m, beyond which it returned through 90° and could be traced for a further 6m to the west.

Two parallel banks (B3 and B4), each between 1.25m and 2.50m wide, were recorded approximately 100m to the east of the rectilinear enclosure and L-shaped bank. These banks were poorly defined and survived to a maximum height of 0.20m. They were aligned from east to west, at a slight tangent to the long axis of the rectilinear enclosure, and could be traced for a distance of 50m and 15m respectively. The northernmost bank (B3) appeared to correspond to the alignment of the western limb of the L-shaped bank and may represent a continuation of that feature. A low bank, between 1.75m and 4.25m wide and 0.20m high, was identified immediately to the north. This bank was aligned from north north-east to south south-west and could be traced for a distance of approximately 13m. Its relationship to the two parallel banks is uncertain.

## Field System (Extension) in Woodland 3, Ecclesall Woods, Sheffield

### Archaeological Survey

---

#### 4.3. Other Features

Three Q-pits (C1 to C3) - circular structures thought to be associated with the production of white coal (kiln dried wood) for use in lead smelting – were identified within the survey area. One of the Q-pits (C1) had been cut into the northern end of one of the linear earthworks that formed part of the field system associated with the hilltop enclosure. This Q-pit, approximately 5.00m in diameter and 0.30m deep, had moderate sloping sides and a flat or slightly concave base.

A second Q-pit (C2), approximately 5.00m in diameter and 0.70m deep with moderate sloping sides and a concave base, was identified approximately 95m to the east south-east. This Q-pit was located immediately to the south of the disused trackway or hollow way running along the south-eastern edge of the survey area. It was flanked on both sides by banks of upcast earth. The western bank was elongated and was thought to have merged with an earlier feature, possibly the return of bank A3, cut by the trackway or hollow way. Several Q-Pits within Ecclesall Woods were cut into the edges of earlier boundaries or earthworks (Gowans and Pouncett 2003). A third Q-pit (C3), a conjoined Q-pit, was identified at the south-western corner of the survey area. This Q-pit consisted of two contiguous pits, one 5.75m in diameter and 0.60m deep and the other 6.5m in diameter and 0.40m deep, with moderate sloping sides and a flat or slightly concave base. Both sides of these pits were flanked by banks of upcast earth up to 0.60m high.

Four charcoal burning platforms (D1 to D4) were also recorded within the survey area. Three of these platforms (D1 to D3) were well defined. These platforms were approximately 9m in diameter and were cut into the side of the slope to a depth of up to 0.30m. In each instance, the front edge of the platform was defined by an apron of spoil up to 0.4m high downslope. The fourth platform (D4) was less well defined. Only the apron of spoil remained. One of the charcoal burning platforms (D2) was located at the south-east corner of enclosure A1. An interruption in the eastern boundary of the enclosure boundary was thought to be associated with access to this charcoal burning platform. A low mound of upcast earth (E) was identified approximately 40m to the west. This mound, approximately 9.50m long and 5.25m wide, was thought to be comparatively recent in date.

---

## 5. Discussion

---

The field system associated with the hilltop enclosure in Woodland 3 comprised a series of curvilinear and rectilinear enclosures defined by banks of upcast earth and stone and a series of smaller structures possibly thought to correspond to outbuildings (Figure 5). These features are built on two different alignments and are thought to correspond to at least two separate phases of activity.

The curvilinear and rectilinear enclosures appeared to form part of an irregular aggregate field system; a type of field system commonly established in the British Isles during the Iron Age and Romano-British periods (Ebbatson 1989). Whilst examples of Iron Age and Romano-British field systems are recorded elsewhere within the Sheffield region, for example on the Wharnccliffe-Greno uplands (Butcher 1957, Makepeace 1963), these are different in both form and construction. Further work is needed in order to determine the date of the enclosures in Ecclesall Woods. One of the enclosures associated with the field system was built on top of the counterscarp of the hilltop enclosure. The hilltop enclosure is tentatively thought to be Iron Age or Bronze Age in date.

A row of four enclosures (including A1, A2 and A4) was identified downslope from the hilltop enclosure. The size and spacing of these features would appear to suggest that a fifth enclosure once existed and was either no longer visible or had been destroyed by later

## Field System (Extension) in Woodland 3, Ecclesall Woods, Sheffield

### Archaeological Survey

---

activity. A rectangular enclosure, tentatively thought to be associated with an outbuilding, was identified immediately to the east of the hilltop enclosure during the course of the earlier survey (Gowans and Pouncett 2002). Two similar structures (B1 and B2) were recorded at the eastern extent of the survey area. The form and construction of these structures was also consistent with the former site of a series of outbuildings. A large quantity of surface stone was identified nearby. The date of these structures is uncertain.

A number of post-mediaeval features were identified within the survey area, including four charcoal burning platforms and three Q-Pits. Extensive evidence for charcoal burning and white coal production was recorded in Ecclesall Woods by Sheffield Hallam University (Ardron and Rotherham 2001) and the University of Manchester Archaeological Unit (Arrowsmith 1999). A charcoal burning platform and two further Q-pits were also recorded during the course of the earlier survey (Gowans and Pouncett 2002). Three of the Q-pits were cut into earthworks associated with the field system. Q-Pits were purportedly used for the production of white coal (kiln-dried wood) for use in water powered lead smelting hearths between 1575 and the mid eighteenth century (Jones 2003).

---

## 6. Project Archive

---

The project archive will be lodged with Sheffield City Museum and will comprise:

- Management records and correspondence relating to the survey, including copies of the project design and survey report;
- 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*.

---

## 7. Bibliography

---

ARDRON, P., AND ROTHERHAM, I., 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 FIRTH, P., 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).

BRITISH GEOLOGICAL SURVEY, 1974. Sheffield: Solid and Drift (Nottingham: British Geological Survey).

## Field System (Extension) in Woodland 3, Ecclesall Woods, Sheffield Archaeological 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: Sheffield Trades Historical Society).

EBBATSON, L., 1989. *Irregular Aggregate Field-Systems, Monument Protection Programme* (Swindon: English Heritage).

ENGLISH HERITAGE, 1991. *Managing Archaeological Projects 2* (London: English Heritage).

GOWANS, E., AND POUNCETT, J., 2002. *Hilltop Enclosure and Field System, Ecclesall Woods, Sheffield: Archaeological Survey* (Oxford: Archaeological Survey and Evaluation Ltd).

GOWANS, E., AND POUNCETT, J., 2003. *A Rapid Assessment of Q-Pits, Ecclesall Woods, Sheffield: Archaeological Survey* (Oxford: Archaeological Survey and Evaluation Ltd).

HART, C., 1990. 'The Ancient Woodland of Ecclesall Woods', in D Whiteley (ed.), *The Natural History of Ecclesall Woods* (Sorby Record; Sheffield: Sorby Natural History Society), 27, 2-24.

HART, C., 1993. 'The Ancient Woodland of Ecclesall Woods, Sheffield', in I Rotherham (ed.), *Ancient Woodlands, Their Archaeology and Ecology: A Coincidence of Interest* (Landscape Archaeology and Ecology; Sheffield: Landscape Conservation Forum), 1.

JONES, M., 2003. *Sheffield's Woodland Heritage* (Rotherham: Green Tree with Wildtrack Pub.).

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.

PARKER, M., 1985. 'Ecclesall: A Clue to the Topography of Early Hallamshire', *Transactions of the Hunter Archaeological Society*, 13, 10-23.

POUNCETT, J., 2005. *Field System (Extension) in Woodland 3, Ecclesall Woods, Sheffield: Archaeological Survey. Project Design* (Oxford: Archaeological Survey and Evaluation Ltd).



# Field System (Extension) in Woodland 3 Ecclesall Woods, Sheffield Archaeological Survey

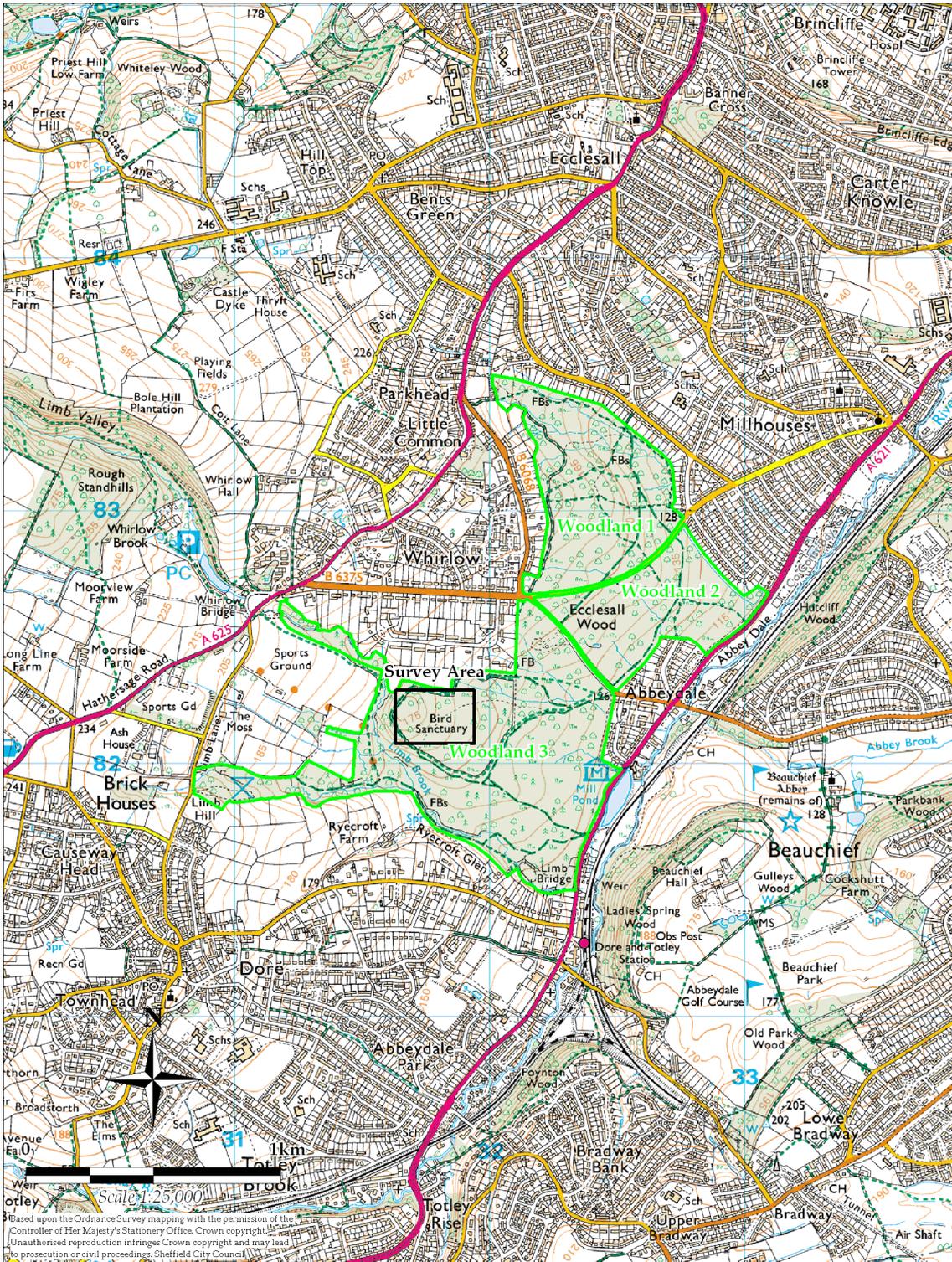


Figure 1. Location Map



# Field System (Extension) in Woodland 3 Ecclesall Woods, Sheffield Archaeological Survey

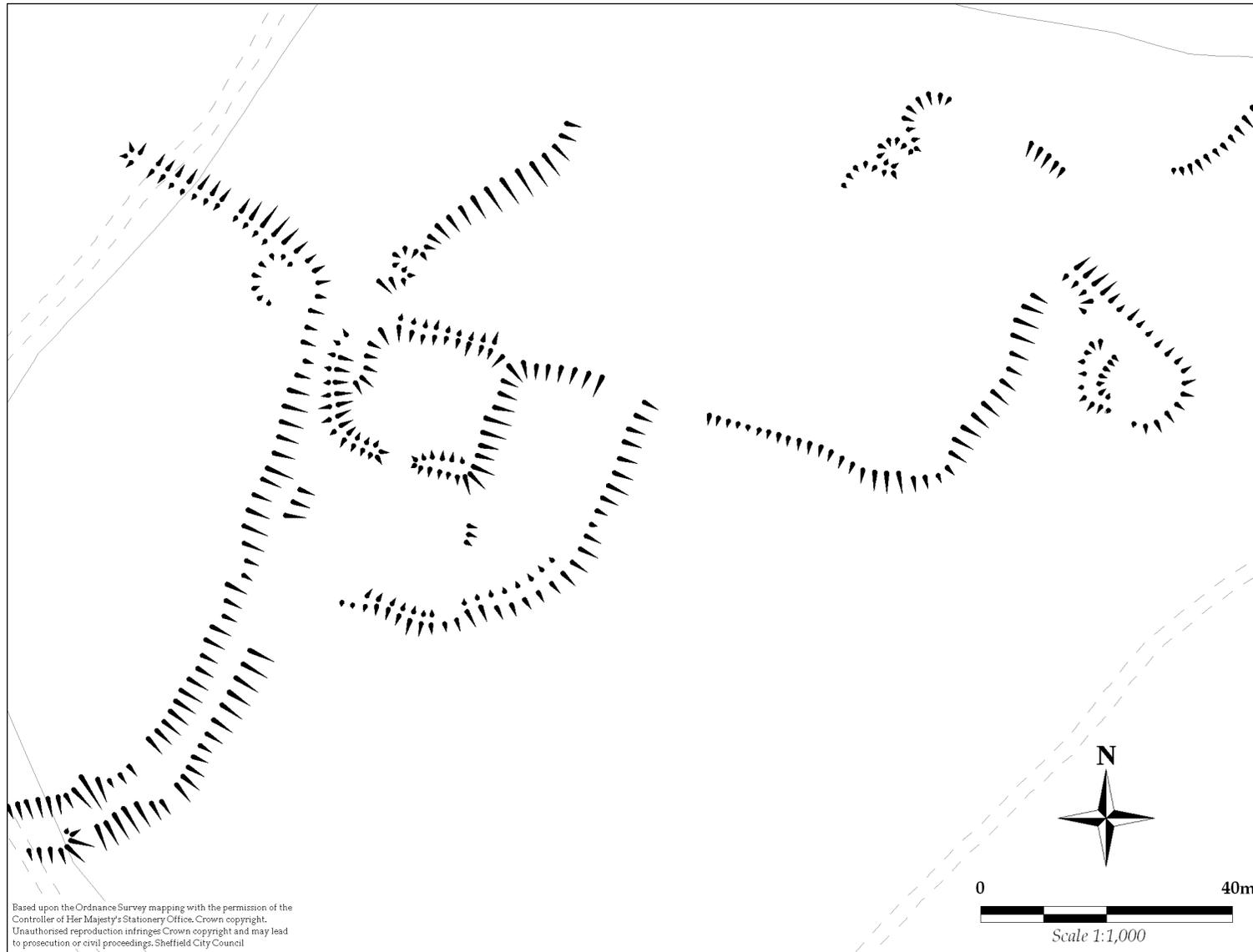


Figure 2. 2002 Survey



# Field System (Extension) in Woodland 3 Ecclesall Woods, Sheffield Archaeological Survey

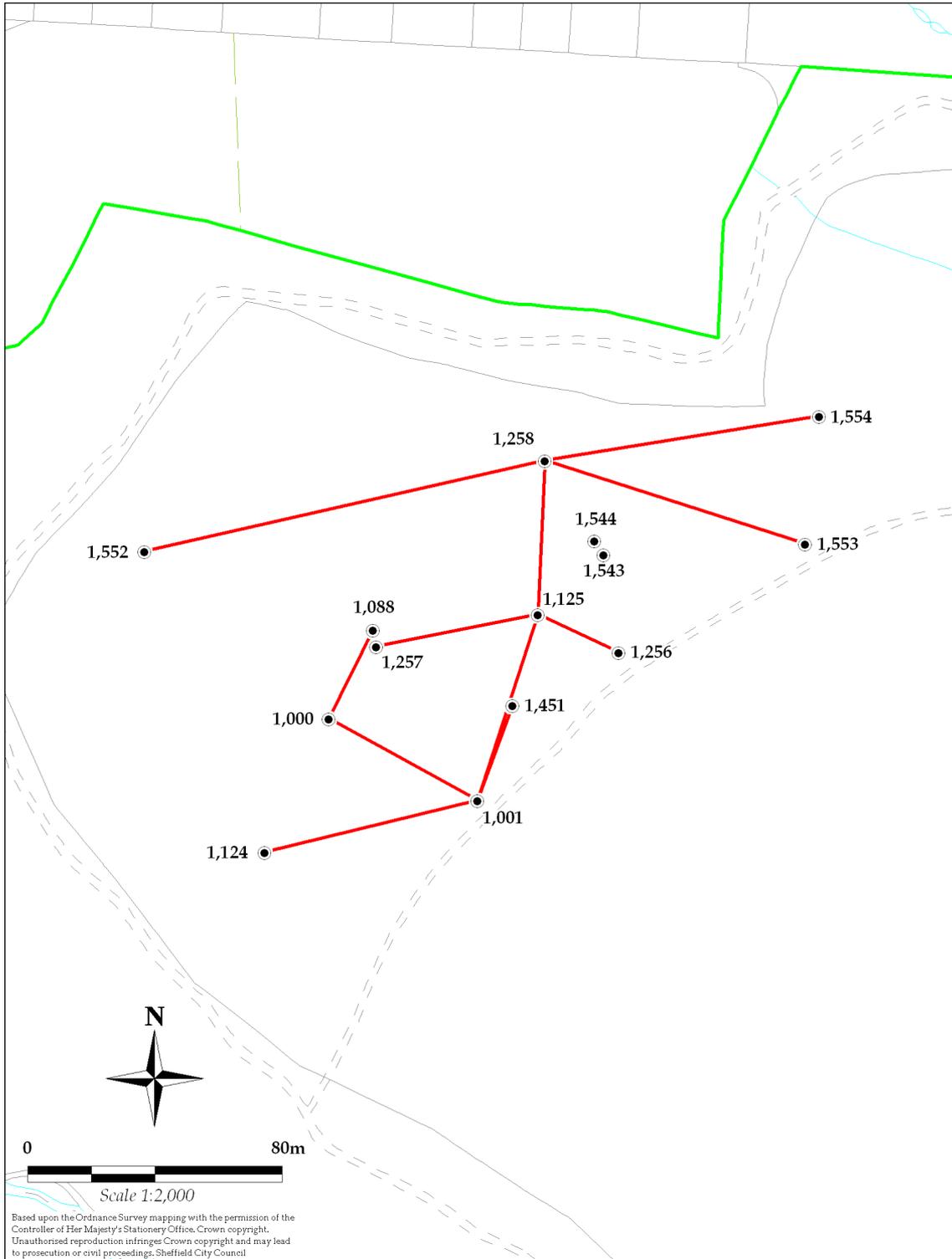


Figure 3. Control Network



Field System (Extension) in Woodland 3  
Ecclesall Woods, Sheffield  
Archaeological Survey

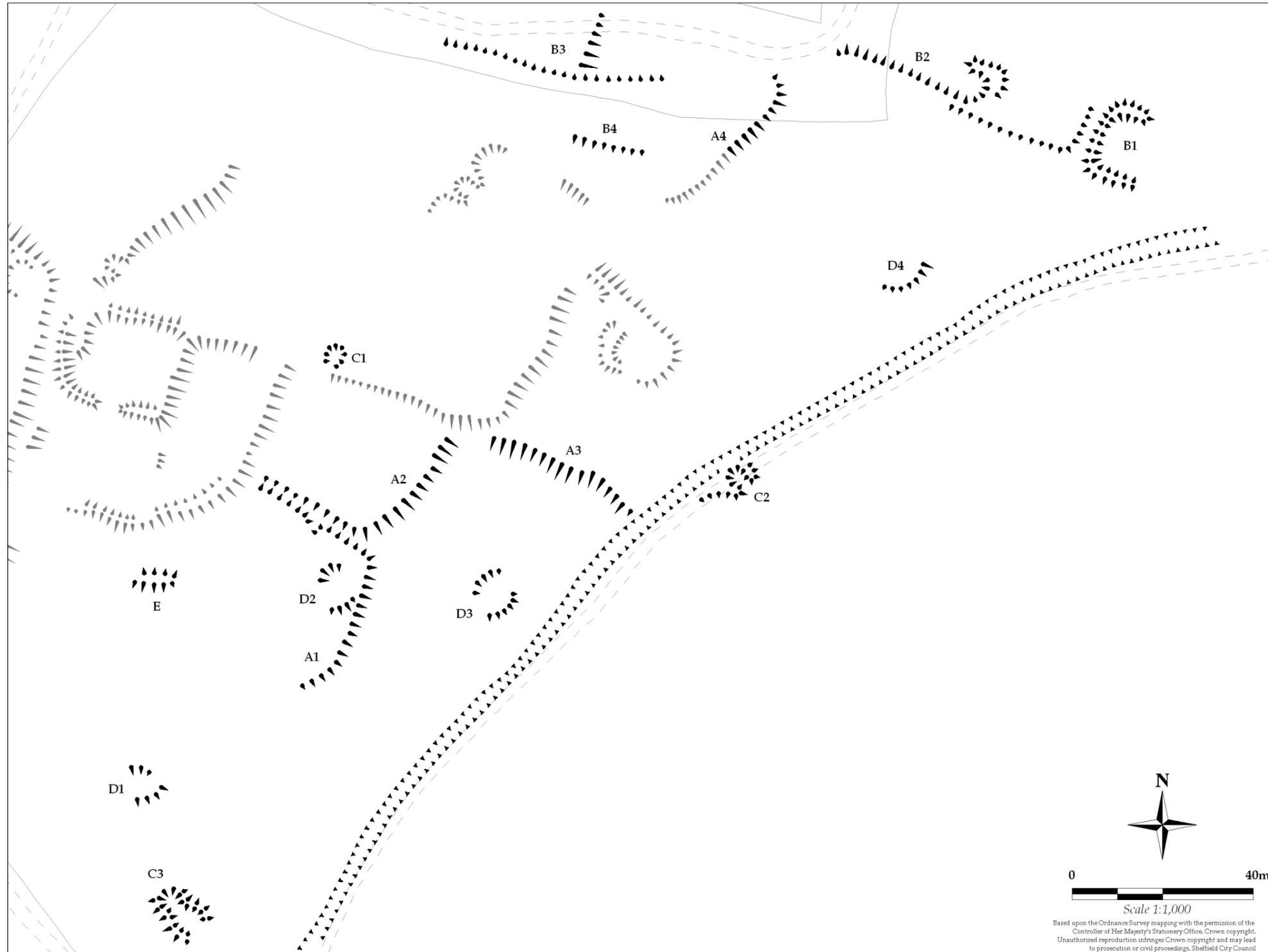


Figure 4. 2005 Survey



# Field System (Extension) in Woodland 3 Ecclesall Woods, Sheffield Archaeological Survey

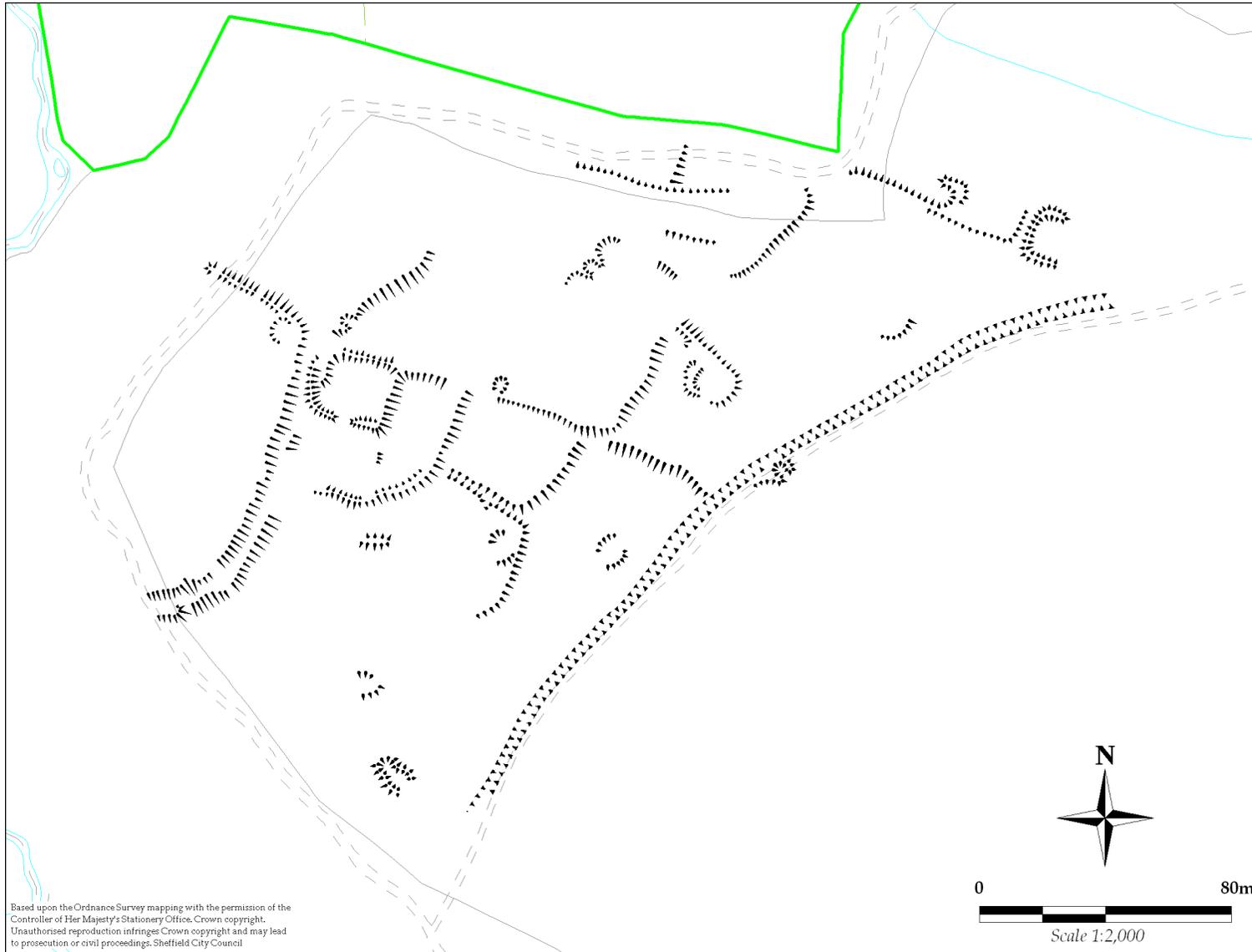


Figure 5. Integrated Survey



# Field System (Extension) in Woodland 3 Ecclesall Woods, Sheffield Archaeological Survey

---

## Appendix

---

### Control Data

#### Station Coordinates

Station	X	Y	Z	Type
1000	431726.491	382168.434	166.977	Fly
1001	431773.166	382142.521	162.066	Fly
1088	431740.407	382196.527	167.582	Fly
1124	431706.282	382126.014	165.264	Fly
1125	431792.149	382201.421	165.130	Fly
1256	431817.526	382189.507	162.718	Fly
1257	431741.292	382191.356	167.338	Fly
1258	431794.398	382250.228	166.817	Fly
1451	431784.253	382172.594	163.403	Fly
1543	431812.939	382220.401	165.147	Temp
1544	431810.046	382224.896	165.328	Temp
1552	431668.453	382221.509	173.599	Fly
1553	431876.258	382223.900	161.541	Fly
1554	431880.675	382264.346	162.662	Fly

#### Station Misclosures

Station	dX	dY	dZ	Type
1000	-	-	-	Float
1001	0.000	-0.006	-0.102	Float
1088	0.003	0.000	-0.102	Float
1124	-0.024	0.026	-0.071	Float
1125	0.047	0.009	-0.074	Float
1256	-0.001	0.008	-0.087	Float
1257	-0.010	0.011	-0.108	Float
1258	-0.009	-0.004	-0.094	Float
1451	0.051	0.008	-0.086	Float
1543	-	-	-	Unused
1544	-	-	-	Unused
1552	-	-	-	Unused
1553	-0.003	0.014	-0.066	Float
1554	-0.030	0.038	-0.079	Float