No. 463

BIRMINGHAM UNIVERSITY
FIELD ARCHAEOLOGY UNIT

AN ARCHAEOLOGICAL EVALUATION AT BADGER SLADE, CANNOCK CHASE, STAFFORDSHIRE

1997

B.U.F.A.U.

Birmingham University Field Archaeology Unit
Project No. 463
March 1997

An Archaeological Evaluation at Badger Slade, Cannock Chase, Staffordshire 1997

by
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1.0 Summary

An archaeological evaluation of an earthwork enclosure was carried out by Birmingham University Field Archaeology Unit at Badger Slade, Cannock Chase, Staffordshire, during March 1997. Five trial trenches were excavated following a geophysical survey. The enclosure bank and ditch were excavated in two trial trenches and both features were recorded in plan in a third trench. No archaeological features were identified within the enclosure. No datable artifacts were recovered during the evaluation.

2.0 Introduction (Figs. 1 and 2)

This report describes the results of the archaeological evaluation of an earthwork enclosure at Badger Slade, Cannock Chase, Staffordshire (NGR SJ 978153). The site lies within the parish of Teddesley Hay, to the northeast of Pottal Pool gravel quarry. The enclosure is set on an incline within a managed conifer woodland. Spacing between the trees varied from approximately 4m to 10m. The site comprises a 'D'-shaped earthwork enclosure (Staffordshire Sites and Monuments Record No. 40326) defined by a ditch and interior bank enclosing c.2000 square metres. The bank and ditch are ill defined at the southeastern and southwestern corners of the enclosure. At its highest the bank is 1 metre above ground level at the base of the ditch. The site is planted with mature scots pine. The underlying geology of the site is sand and gravel of the Cannock Chase Formation.

Birmingham University Field Archaeology Unit (BUFAU) was commissioned to undertake an archaeological evaluation of the site by Staffordshire County Council prior to gravel extraction, for which permission has already been granted. The site is owned by ARC Central. The evaluation methodology conforms to an Archaeological Brief prepared by the County Archaeological Officer (Staffordshire County Council 1996), and an Archaeological Specification prepared by BUFAU (1997).

3.0 Archaeological Background

The earthwork was apparently identified in the 1750's by Wyatt on an estate map prepared for the Littleton family, now held at Staffordshire County Record Office. The map was annotated as 'Old Encampment' at the location of the earthwork, which suggests this feature had gone out of use no later than the mid 18th century. The function of the earthwork was not known.

4.0 Aims

The objectives of the evaluation were:
(a) to determine the function, date and use of the site;
(b) to assess the quality and significance of archaeological deposits, and in particular to attempt to locate any features internal to the earthwork circuit; and

(c) to provide an informed basis for the formulation of an appropriate mitigation strategy, if appropriate.

5.0 Methodology (Fig. 2)

5.1 Geophysical Survey

A magnetometer survey was undertaken over a gridded area of approximately 2400 square metres, covering the enclosure and its immediate surrounds. Details are provided in Section 6.1 below.

5.2 Trial Trenching

Trial-trenches were positioned to intercept known or suspected geophysical anomalies, to test the above-ground earthworks, and to sample the interior of the enclosure as widely as possible. Trench locations were agreed with Staffordshire County Council before excavation. A total of five trenches were dug, amounting in total to an area of approximately 160 square metres. Overburden was removed by mini-digger, under archaeological supervision to expose the subsoil horizon, or the uppermost horizon of archaeological deposits. The machined surface was then cleaned manually and a representive sample of archaeological features so exposed was excavated. In two of the trenches the ditch and earthwork bank were excavated to natural base.

6.0 The Archaeological Results

6.1 Geophysical Survey by Richard Tabor (Figs. 2 and 3)

The survey comprised a single area of 40m by 60m, aligned approximately north-south, mainly within the enclosure. The topsoil was believed to be shallow, implying greater susceptibility of subsoil features to geophysical survey, although responses on gravels are known to be variable.

A fluxgate gradiometer was selected to undertake the survey, in anticipation of cut features, and to minimise problems due to trees. It was decided to sample at 0.5m intervals along traverses spaced 1m apart. The area of the survey was extended by an area measuring 10m by 40m, to include the southern side of the enclosure. The survey area was divided into six grids, each measuring 20m square, giving 800 recorded readings from each grid. If the geology is suitable, this sampling frequency will locate ditches, walls and thermo-remanent magnetism.

A Geoscan FM36 fluxgate gradiometer was used for the survey. This instrument has two fluxgate sensors, one set 0.5m above the other. The instrument is designed to be carried at a constant height so that the distance between the lower sensor and the soil does not exceed 0.3m above the ground. Variations in magnetic field between the sensors are measured in nanoTesla at each sampling point within a grid. The depth range is approximately 1m. Data is logged automatically, and later transferred to either hard or floppy disk.

Geoplot 2.01 software was employed. This software facilitates the transfer of data to floppy disk from a data logger, or by manual entry. It is designed to present data in four graphical forms: dot density, shade, pattern and X-Y plots. In general dot density is the preferred format, accompanied by X-Y plots.

Data processing

Prior to the removals of spikes an X-Y plot (not illustrated) indicated only three very localised areas of likely magnetic interference due to the presence of ferrous objects. Consequently, the dot density plot can be considered a good representation of cut and thermo-remanent features in the subsoil. After the exclusion of spikes, the data range is shown to be quite narrow, and the anomalies present fairly weak; this is probably a function of the background geology and the soil conditions. Despite practical difficulties presented by the tree cover, a number of weak or intermittent positive and negative linear anomalies are discernible, as are more generalised areas of weak positive magnetism (Fig. 3).

Results

The linear anomalies reveal at least two distinct alignments (Fig. 3), neither of which can be shown to relate to the enclosure ditch, visible as an earthwork, and which also appears as a positive linear anomaly in the northwestern corner of the geophysical survey area.

The lighter lines on Fig. 3 represent low or negative readings. Data within this low range coincide with an anomaly system aligned southeast to northwest in axis, with another line forming a nearly perpendicular junction with it in the south of the survey area. Possibly associated with this system is a rough square, measuring approximately 20 x 20m, within which there is a trend towards positive readings, suggesting the presence of degraded organic debris, or perhaps fire.

A second system may be represented by two nearly parallel weak positive linears running from northwest to southeast in the southern half of the survey area. Their data ranges suggest similarities to three sides of a slightly better defined rectilinear anomaly in the north half of the survey. These are likely to be ditches.

Just within the northeastern corner of the survey area is an arc of positive anomalies of comparatively high intensity. They could represent pits, but post holes incorporating burnt material have given similar readings on sites which have been excavated subsequently.

A positive anomaly of varying intensity, approximately 25m in length, running north to south does not seem to fit with either system in either character or alignment.

The survey suggests the location of a number of possible features, including possible ditches, small pits or post-holes, and amorphous areas of ?burning.

6.2 Trial Trenching (Fig. 2)

Trench 1 (Not illustrated in detail)

Trench 1 was roughly L-shaped in plan, and measured a total of 20m in length. It was dug to test the northern side of a roughly square shaped geophysical anomaly located in the northeastern corner of the earthwork enclosure, and also to sample further possible anomalies located just inside the northern limit of this square anomaly.

The natural orange sand and gravel (1002) was recorded at a depth of 0.2m below the modern surface. It was sample excavated to a depth of 0.3m, by means of a manually dug sondage. Above layer 1002 was a heavily root disturbed layer of reddish-brown silty gravel-sand (1001), measuring 0.1m in depth, which was sealed by a black humic layer (1000), also measuring 0.1m in depth.

No archaeological features were present in this trench.

Trench 2 (Fig. 4, Plates 1 and 4)

Trench 2 was T-shaped in plan, measuring 17m in length. It was cut to provide a profile of the ditch and inner bank at the northwestern corner of the enclosure, and to test the potential of the bank to be associated with a possible palisade.

The subsoil in this trench comprised a brownish yellow gravel sand (2001). At the southeastern end of the trench the subsoil was sealed by deposits of sands and gravels which made up an earthwork bank (F4), aligned northeast-southwest, and measuring 7m in width, and a maximum of 0.54m in height. The earliest of these bank deposits was a pinkish red brown gravel and sand (2005), 0.44m deep, overlain by a reddish brown gravel-sand (2002), 0.22m deep. This deposit was sealed by a yellowish brown sand (2003), 0.42m deep, overlain by a layer of yellowish brown gravel-sand (2004), 0.24m deep, possibly derived from erosion or slumping along the inner side of the bank. Bank deposit 2005 was also sealed by a layer of reddish-brown gravel-sand (2006), measuring 0.32m in depth. The uppermost horizon of bank F4 (2006) was extensively disturbed by adjacent tree roots. No archaeological features cutting bank F4 could be identified, despite hand-cleaning.

To the northwest of feature F4 and following a similar alignment, was a ditch (F1), 4.80 m wide and 1.20m deep. It had steeply sloping sides, with the outer, northwestern side being slightly steeper, and a rounded base. It was filled with a brown silty sand (2009) and some gravel. To the northwest of feature F1, and extending beyond the southern baulk of the trench was an oval pit (F3), 0.49m x 0.22m x 0.19m deep, with a bowl-shaped profile. It was filled with a greyish brown silty sand (2009) and a few rounded stones.

The subsoil, and features F1 and F4 were sealed by a heavily root disturbed layer of brown silty sand (2007), 0.10-0.20m deep, sealed by a black humic layer (2000), 0.15m deep, forming the modern overburden.

Trench 3 (Fig. 5, Plate 2)

Trench 3 measured 20m in length, and was aligned approximately west-east. It was cut to intercept the earthwork bank and ditch at the southeastern corner of the enclosure, where the above-ground traces of the ditch and bank were slight.

The natural subsoil was a yellow-brown gravel (3005), located at a depth of 0.15m below the modern surface. At the western end of the trench was a band of brownish yellow slightly silty sand with some gravel (3004), measuring 4m in width, which may be interpreted as ditch fill. To the east was a band of orange brown silty gravel sand (3003), measuring 3m in width, which although unexcavated may be interpreted as the base of the internal bank. Deposits 3003 and 3004 were sealed by a layer of greyish brown slightly silty sand (3001), measuring 0.15m in depth, which was extensively disturbed by roots. Above was the modern overburden (3000), consisting of a black humic layer, measuring 0.05-0.13m in depth.

Trench 4 (Fig. 5, Plate 3)

Trench 4 was aligned approximately north-south, and measured 10m in length. It was cut to provide a profile of the bank and ditch on the southern side of the enclosure.

The subsoil (4002) was located at a depth of up to 0.6m below the modern surface. It was sealed by a deposit of slightly reddish brown gravel silt sand (4004), formed a bank (F5), 3.4m in width, and 0.54m in height. To the south of F5 was a ditch (F2), 5.80m wide and 0.53m deep, with a steeply sloping south side and a gently sloping north side with a rounded base. It was filled with a reddish brown gravel sand (4005), overlain by a brown silty sand (4003) containing some gravel. Features F2 and F5 were sealed by a layer of brown silty sand (4001), measuring 0.16m in depth at the southern end of the trench, and 0.5m at the northern end. The modern overburden above here comprised a layer of black humic soil (4000), measuring 0.1-0.13m in depth.

Trench 5 (Not illustrated in detail)

Trench 5 was aligned north-south, and measured 10m in length. It was cut within the interior of the enclosure to intercept a number of geophysical anomalies, tentatively interpreted as ditches or gulleys.

The natural brownish yellow slightly silty sand and gravel (5002) was located at a depth of 0.35m below the modern surface. It was sealed by a layer of brown silty sand (5001), measuring 0.05-0.2m in depth, with much root disturbance, recorded immediately below the modern overburden, here a black humic layer (5000), measuring 0.05-0.15m in depth.

No archaeological features were present in this trench.

No artifacts were found in Trenches 1-5.

7.0 Discussion

The trial trenching failed to locate any archaeological features corresponding to the anomalies located by geophysical survey within the interior of the enclosure. It is possible that extensive root disturbance or variations within the natural sand and gravel subsoil may account for these anomalies. No evidence for structures such as fences or palisades were located at the top of the bank. The single oval feature F3 located just outside, and to the north of the enclosure ditch F1 could possibly be a post hole for a fence.

The function and date of the earthwork are uncertain, although the absence of finds tends to favour an interpretation of the enclosure as being used for animal husbandry rather than as a domestic settlement site. The cartographic evidence suggests a pre mid 18th century date for the enclosure.

The site lies within the boundaries of Cannock Chase which came into existence in late 13th century (Cantor 1987), as the private hunting ground of the Bishop of Coventry and Lichfield. The principal game hunted was fallow or red deer. The western enclosing bank of the Chase is still an upstanding earthwork, visible at Huntingdon, north of Cannock. There are also references to a 'hay' or enclosure, used to trap deer, within Cannock Forest at Teddesley in the 16th century (Cantor 1962).

The most likely interpretation of the earthwork is as an enclosure or corral for the herding of animals, probably deer, within the Chase in the medieval, or immediate post-medieval period.

8.0 Acknowledgements

The evaluation was carried out by G. Coates, C. Mould, J. Sterenberg and was supervised by L. Jones. The geophysical survey was carried out by R. Tabor with K. Nichol. The illustrations were by N. Dodds and the report was edited by A. Jones who also managed the project. Thanks are also due to C. Welsh and C. Wardle of Staffordshire County Council Archaeology Office, and to Forest Enterprise.

9.0 References

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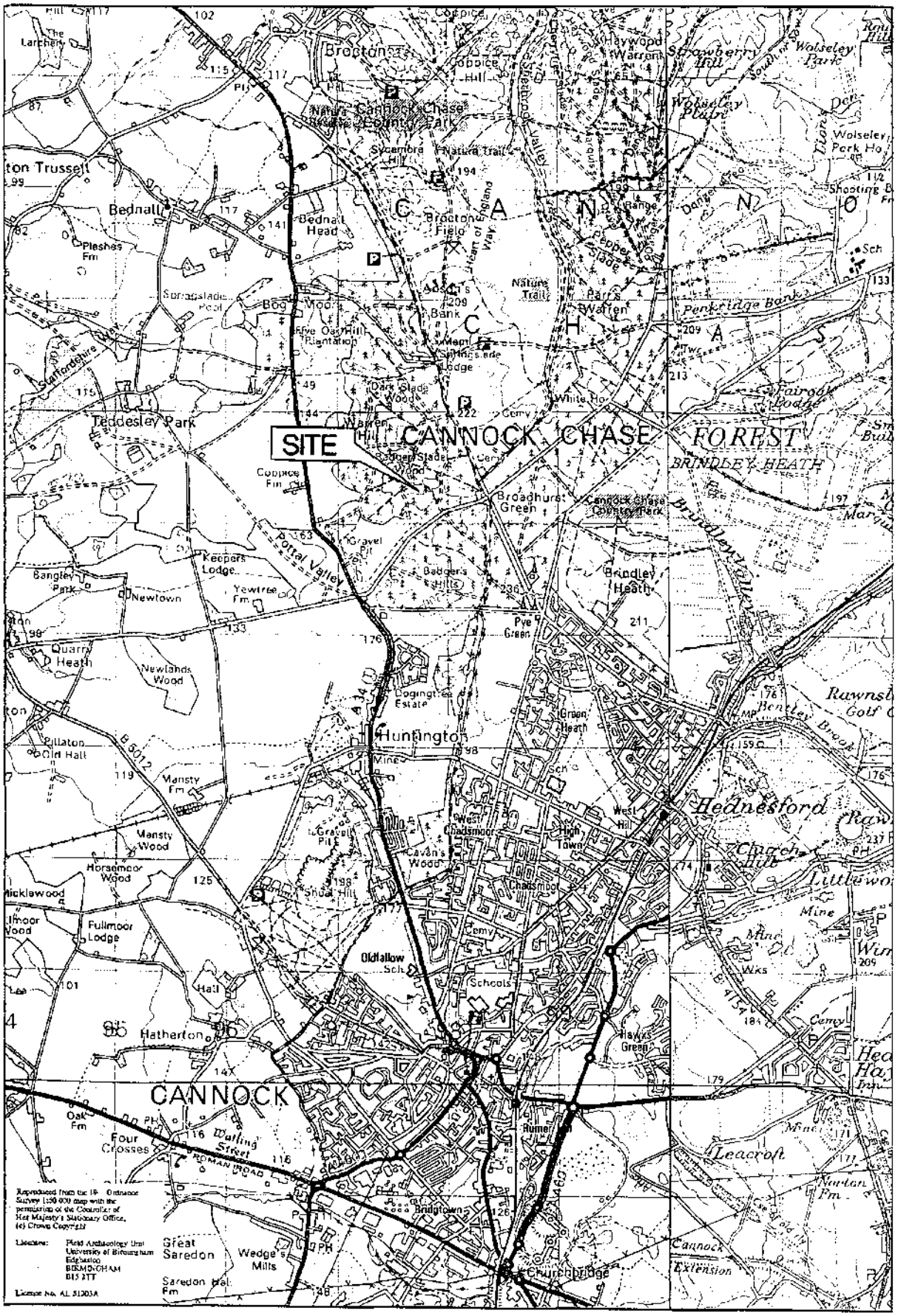
SITE
CANNOCK CHASE FOREST
BRINDLEY HEATH
Brocton
Bednall
Teddesley Park
Broadhurst Green
Brindley Heath
Huntington
Hednesford
CANNOCK
Hatherton
Oldfallow
Four Crosses
Great Saredon
Wedge's Mills
Churchbridge
Leacroft
Cannock Extension
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Fig. 1

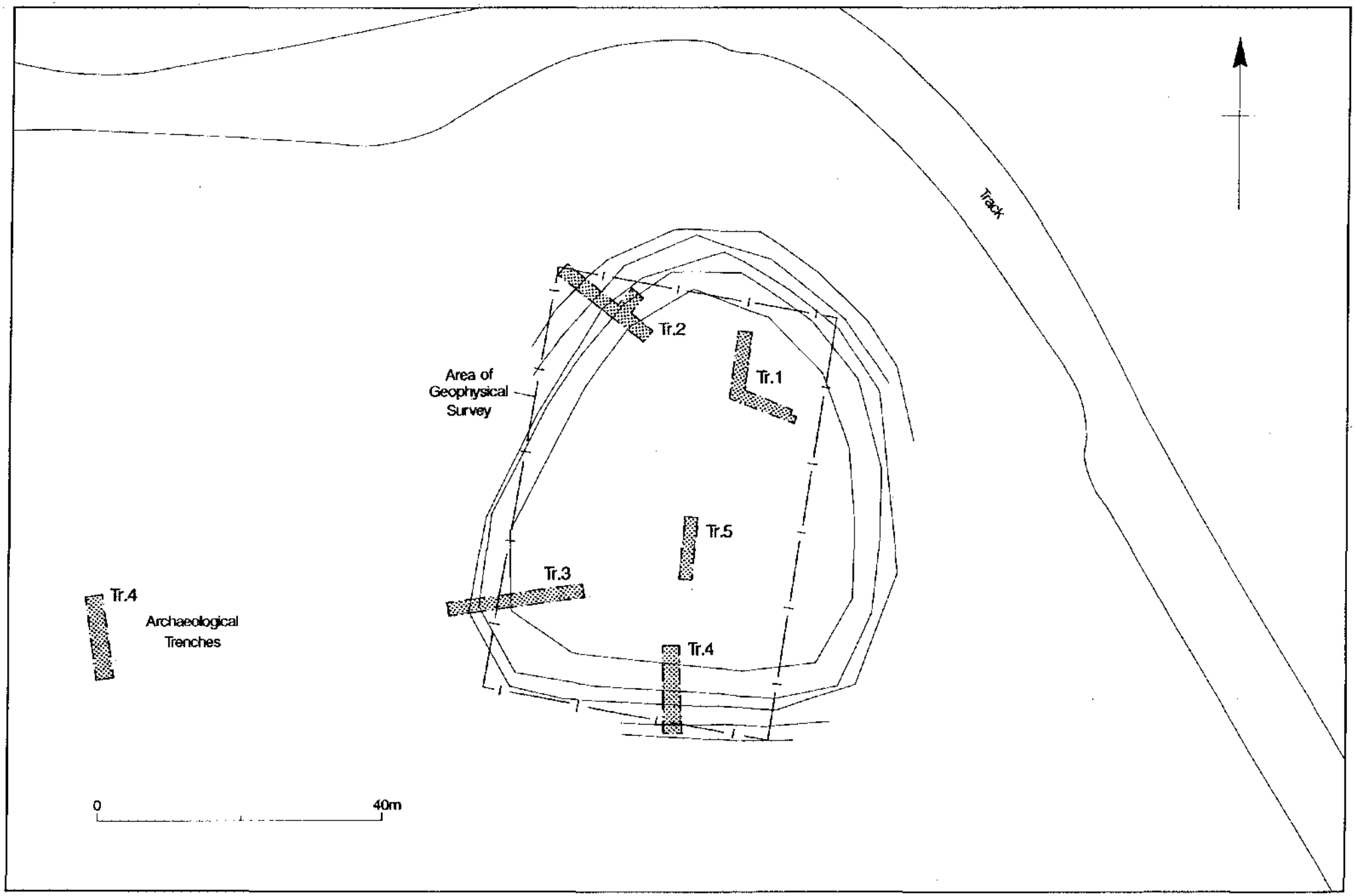
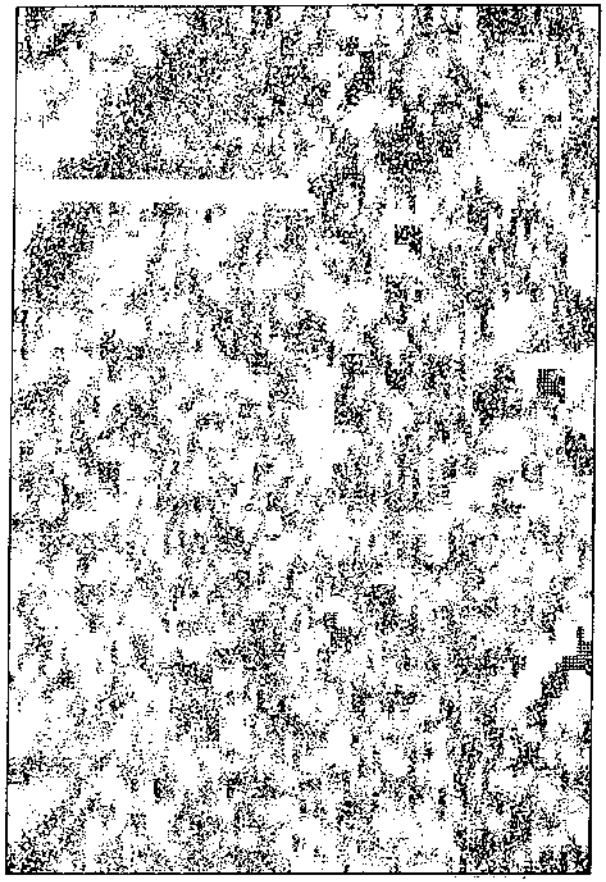
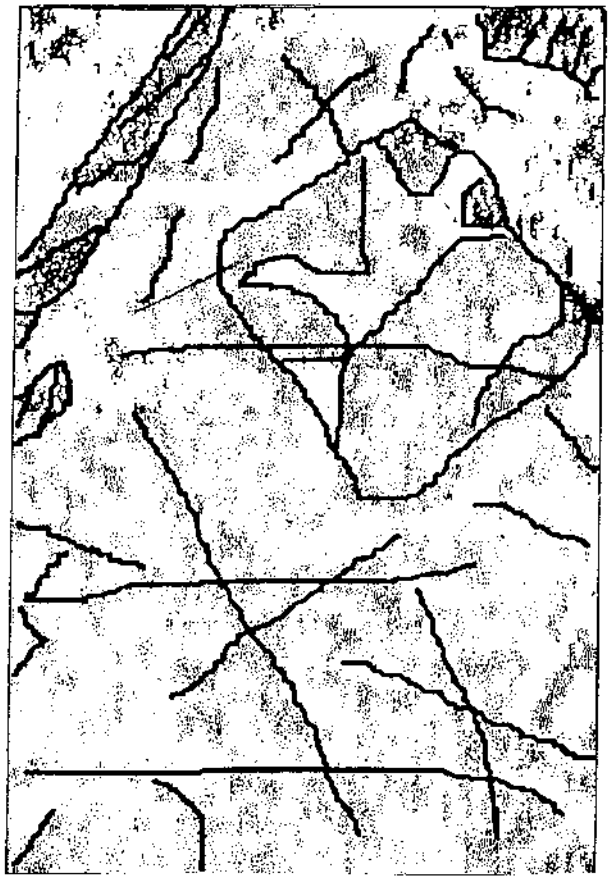

Track
Tr.2
Tr.1
Area of
Geophysical
Survey
Tr.5
Tr.3
Tr.4
Tr.4
Archaeological
Trenches
0
40m

Fig. 2



Geophysical Survey Dot-Density Plot



Interpretation

0 40m

Fig. 3

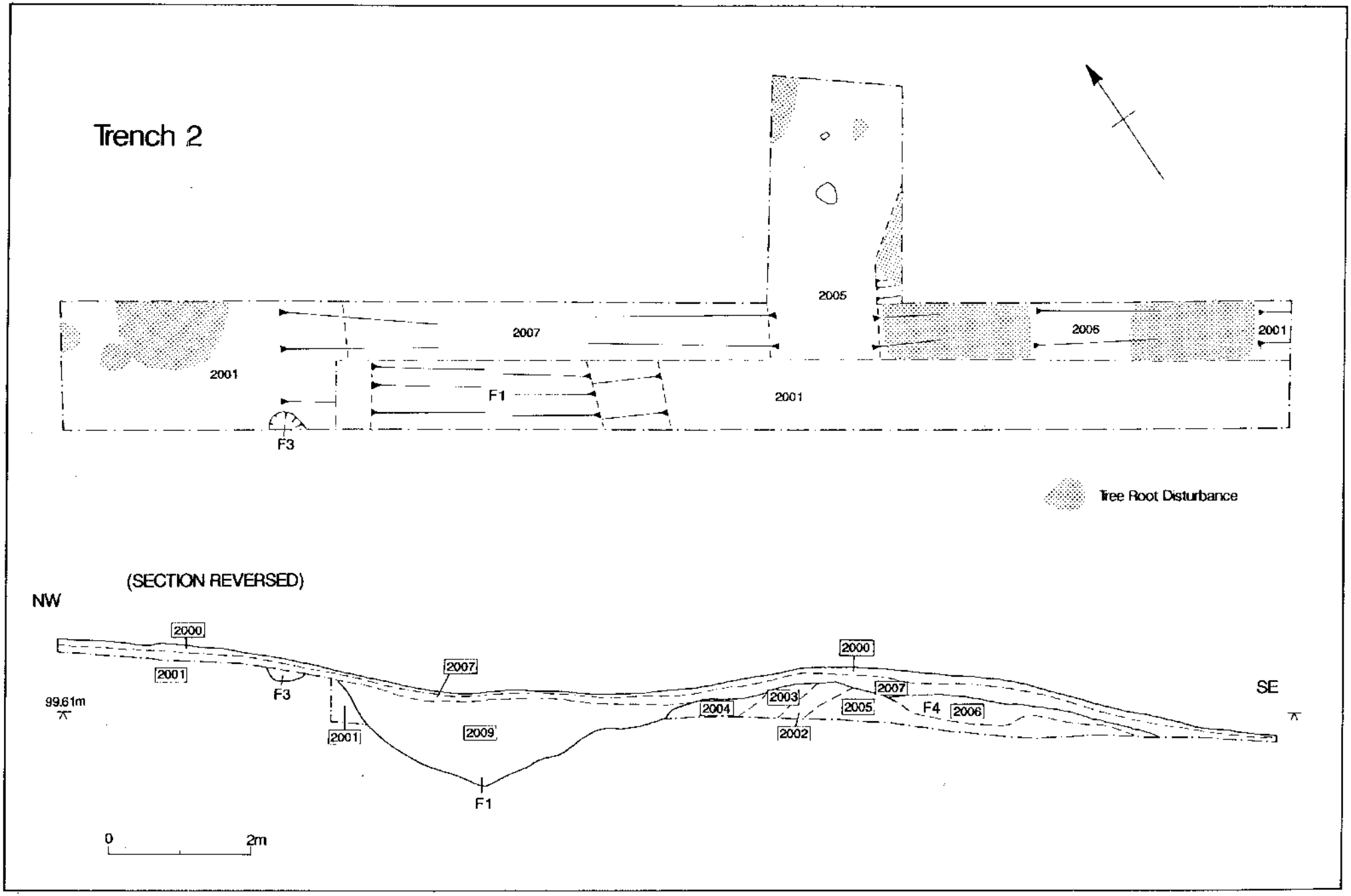

Trench 2
2005
2007
2006
2001
2001
F1
2001
F3
Tree Root Disturbance
(SECTION REVERSED)
NW
2000
2001
F3
2007
99.61m
2001
2009
F1
2000
2007
2003
2004
2005
F4
2006
2002
SE
0
2m

Fig. 4

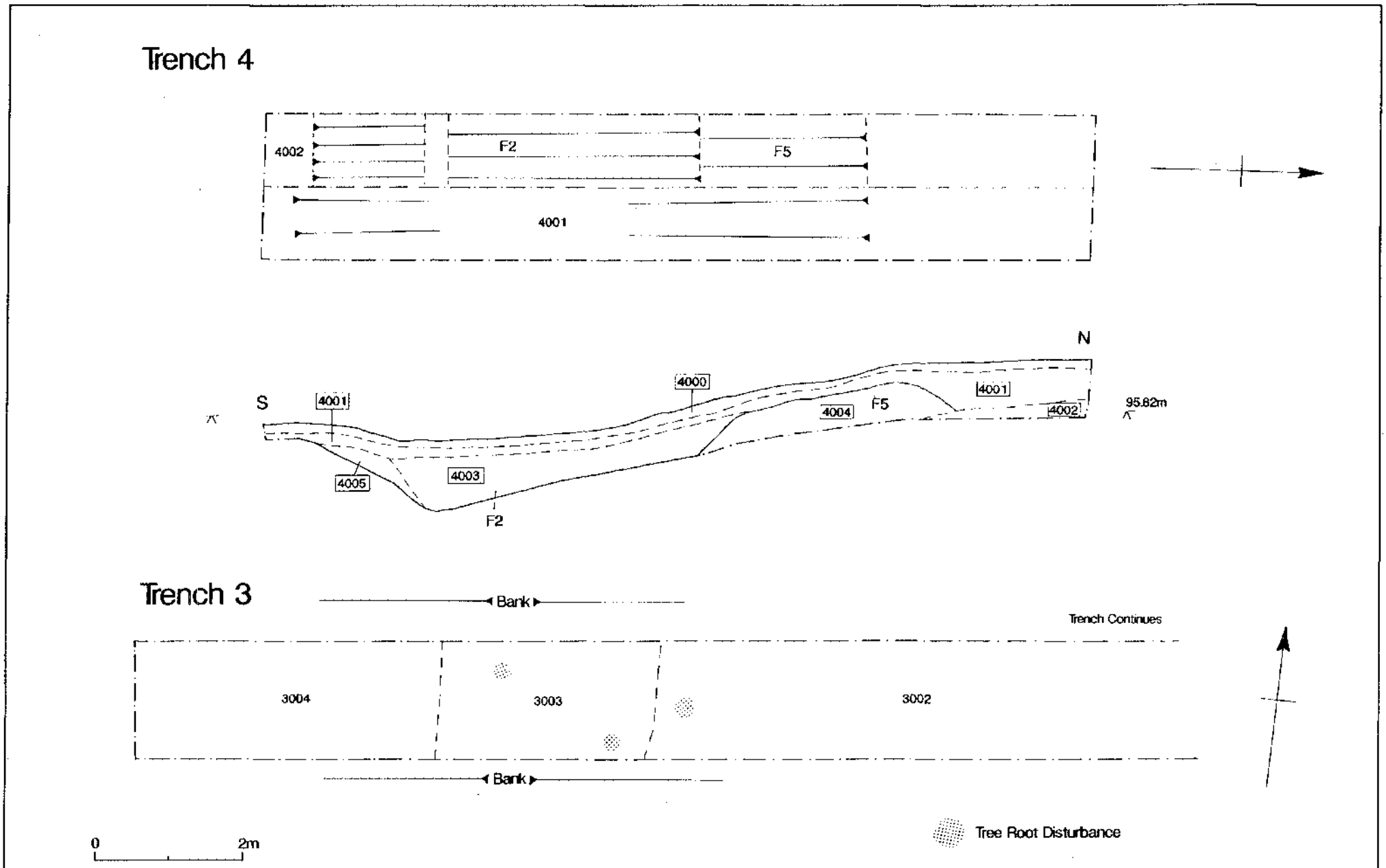

Trench 4
4002
F2
F5
4001
N
S
4001
4000
4001
4004
F5
4002
95.82m
4005
4003
F2
Trench 3
Bank
Trench Continues
3004
3003
3002
Bank
0
2m
Tree Root Disturbance

Fig. 5