

Ancient Monuments Laboratory
Report 28/94

REPORT ON GEOPHYSICAL SURVEY AT
WEST ACRE PRIORY, WEST ACRE,
NORFOLK

N Linford

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Summary

The aim of this survey was to aid the interpretation of the remains of the substantial Augustinian Priory at West Acre, Norfolk to assist with the ongoing management of the monument. Whilst the survey revealed a number of potentially significant anomalies the data was of insufficient clarity to enable detailed interpretation or to fully gauge the relationship of these anomalies to the remains of the medieval Priory.

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WEST ACRE PRIORY, Norfolk.

Report on geophysical survey, 1994.

Introduction

The aim of this survey was to investigate the survival of archaeological features associated with the standing remains of the substantial Augustinian Priory of St Mary and All Saints West Acre, Norfolk (NMR 21325), to aid both the interpretation of the site and to assist with the assessment of recent proposals for the development of the site made by the current landowner. The monument comprises a single area containing the monastic precinct, which extends to the north and south of the river Nar valley and is enclosed by the remains of a boundary wall. The development proposals concern the construction of a tennis court immediately NE of the C18th farm house and the digging of a septic tank and associated pipe trenches W of the late medieval barn in the outer court of the monastery.

The site (centred on NGR TF78201497, **Figure 1**) lies over Upper Chalk.

Method

Due to the nature of the site an earth resistance survey was deemed to be the most appropriate technique to identify buried wall footings.

A survey grid divided into 30m squares was established in each of the individual land parcels (**Figure 1, Areas A - D**) with partial squares extending to field boundaries. Readings were then collected with a Geoscan RM15 resistivity meter using the Twin Electrode array with a mobile probe spacing of 0.5m. Readings were logged at 1m intervals along successive parallel traverses separated by 1m intervals and the data was downloaded to a microcomputer in the field. The raw data is presented in both greytone (**Plots A1, B1, C1 and D1**) and traceplot format (**Plots A2, B3, C3 and D3**) and individual data sets have been treated with a contrast enhancing Wallis algorithm (**Plots A3, B2 and C2**: Scollar 1990 p175) or a high pass filter (**Plot A4**: Scollar 1990 p194) where appropriate.

Each data set is accompanied by a graphical summary of anomalies (**Plots A5, B4, C4 and D3**) to assist with the following discussion of the results. Numerals in the text refer to anomalies identified in these diagrams.

Results

Area A survey squares 1-15; Plots A1-5

Despite the presence of the partial standing remains of the church and visible parch mark evidence, there are very few distinguishable linear anomalies within the survey data. Certainly there is little geophysical evidence to support the interpretation of the limited 1927-28 excavations that proposed the plan of a quite substantial church. However, analysis of the raw

data demonstrates the presence of a disturbed area of high resistance (1) possibly indicative of a scatter of building rubble associated with the former ecclesiastical building. It is disappointing to note that two linear parch marks extending EW through square 10 visible during the survey were not replicated within the survey data although other parchmarks produced identifiable high resistance anomalies *eg* (2) and (3).

The survey has successfully identified the course of the original boundary wall (2) to the N and the course of an adjoining wall footing running S from this and appearing to continue into the central amorphous area of high resistance (4). Also of interest is the wide linear low resistance anomaly (5) which has dimensions similar to the visible earthwork ditches associated with the water features to the E. A second less substantial low resistance anomaly (6) is also evident. However, it is not possible to ascertain the significance of either of these anomalies.

Three further linear high resistance anomalies (3), (7) and (8) were identified. It seems likely that (3) and (7) represent the location of buried walls although the precise nature of (8) is unclear.

Area B squares 16-22; Plots B1-4

Activity here appears to be divided by the linear anomaly running NS across the area, visible as a gentle scarp between two ground levels in the field and is comprised of two parallel high resistance anomalies (9). Immediately W of this scarp there appear to be the wall footings of an enclosure (10) respecting the orientation of the former anomaly. It is not possible to determine whether this enclosure is associated with the medieval priory or the remains of the more recent cottage (11) to the W.

The area E of the scarp contains a rectilinear low resistance anomaly (12) adjoining the scarp bank and a curvilinear low resistance anomaly (13) E of the modern road surface (14). There is tentative evidence for the presence of a high resistance rectilinear anomaly (15) crossing (13). However, as with the two isolated high resistance anomalies (16) there is insufficient evidence to amplify any archaeological interpretation.

Area C squares 23-25; Plots C1-4

Although this area contains a number of linear high resistance anomalies (17) and an area of amorphous high resistance (18) their association with the medieval priory is questionable due to the presence of post-war remains to the N and the evidence of a sizeable building marked on recent maps. Possibly of greater archaeological significance is the low resistance linear anomaly (19) running EW across the S of the area.

Area D squares 26-29; Plots D1-3

Square 29 contains a wide linear anomaly (20) possibly indicating a continuation of the earthworks immediately E of this area; however, the definition of this anomaly is obscured by the halo of low resistance surrounding the foundations of the modern cricket pavilion. This latter structure also accounts for the linear low resistance pipe trench (21) crossing square 28 - no doubt supplying services to this building. It is of interest to note the very faint linear anomaly (22) crossing this trench although it is impossible to define any archaeological

significance to this. Squares 26 and 27 contain a number of somewhat amorphous linear low resistance anomalies (23) which would appear to be related to the current/previous access paths to the cricket pitch and pavilion.

Conclusion

Whilst a number of anomalies have been revealed by this survey the precise nature and archaeological significance of the causative sub-surface features is restricted due to considerable variations in the surface topography (Area A) and the debris from the more recent development of the farm. It is unclear whether the exceptionally dry weather prior to the survey has also affected the results by lowering the contrast between high resistance buried features and moisture retaining soil. In particular, it was disappointing to note that some linear parchmarks visible at the time of the survey failed to produce consistent high resistance anomalies. A more complete interpretation of the anomalies identified by this survey may well be extended by trial excavation and in the case of Area A, by accurate topographic survey of the earthwork features.

Surveyed by: M Cole
N Linford

Date of survey: 25-29/7/94

Reported by: M Cole
N Linford

Date of report: 8/8/94

Archaeometry Branch,
Ancient Monuments Laboratory,
English Heritage.

References

- Scollar, I, *et al* 1990 Archaeological Prospecting and Remote Sensing, p175, p349-350, Cambridge.

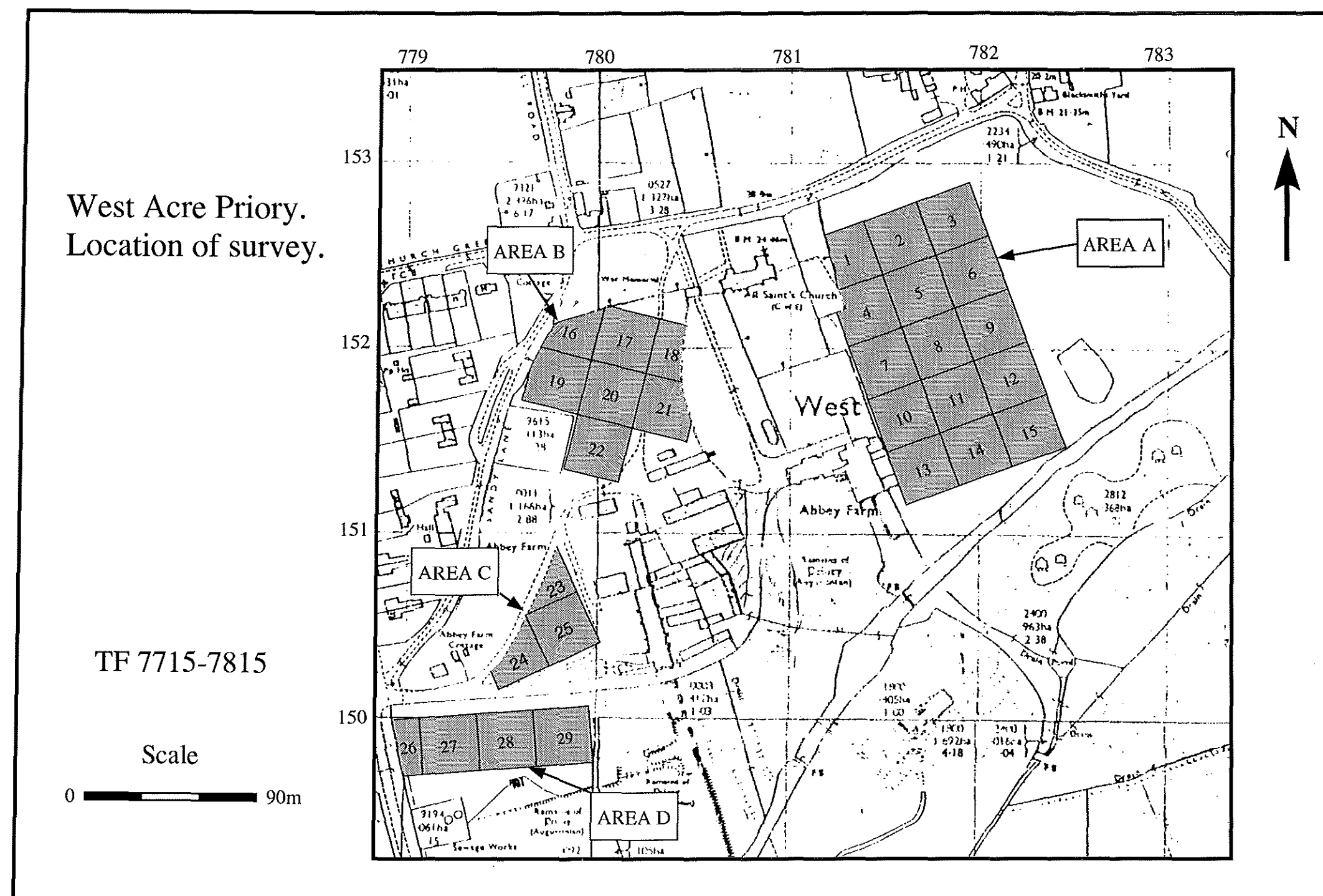


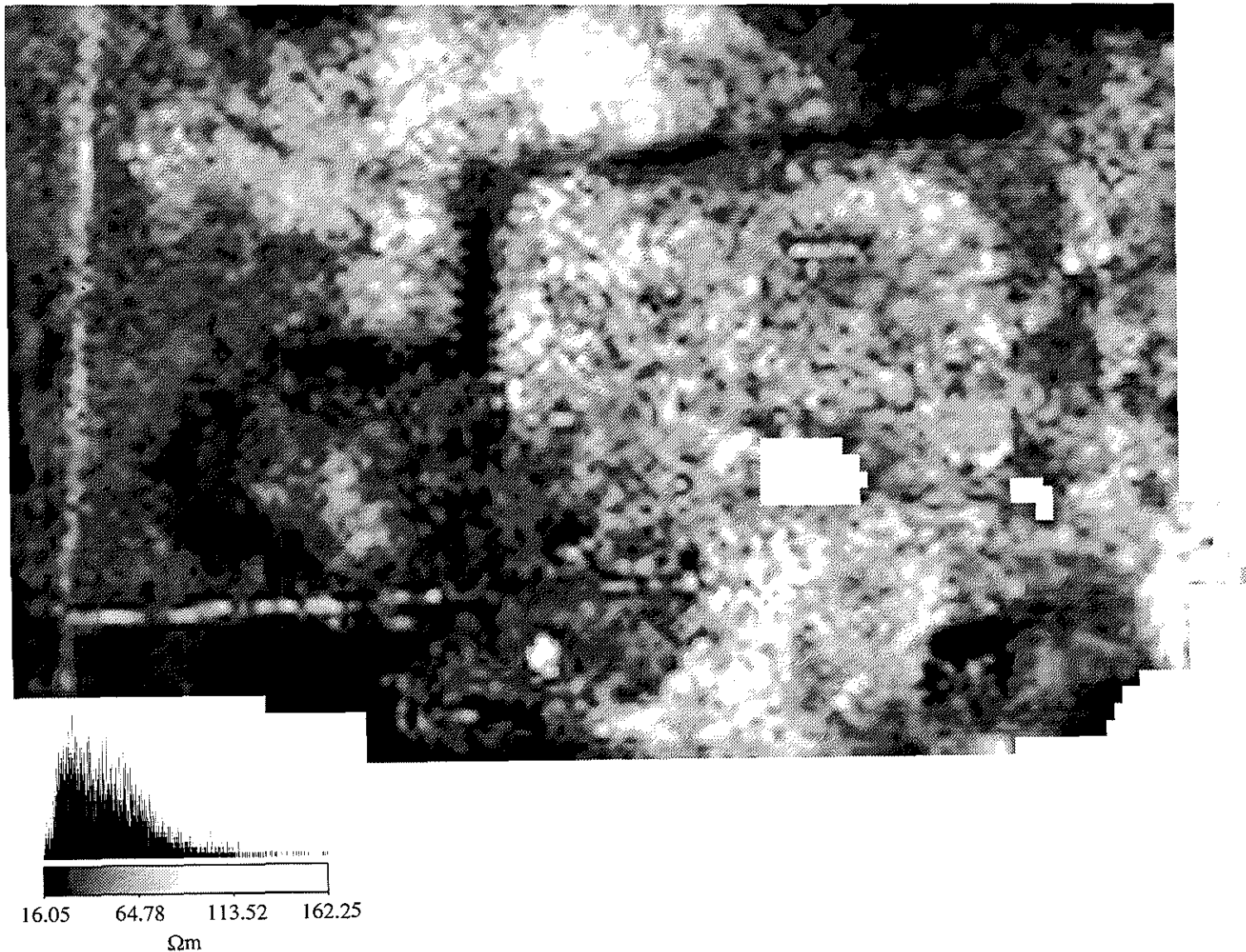
Figure 1; West Acre, location of geophysical survey July 1994.

WEST ACRE PRIORY, Norfolk.
Resistivity Survey July 1994.

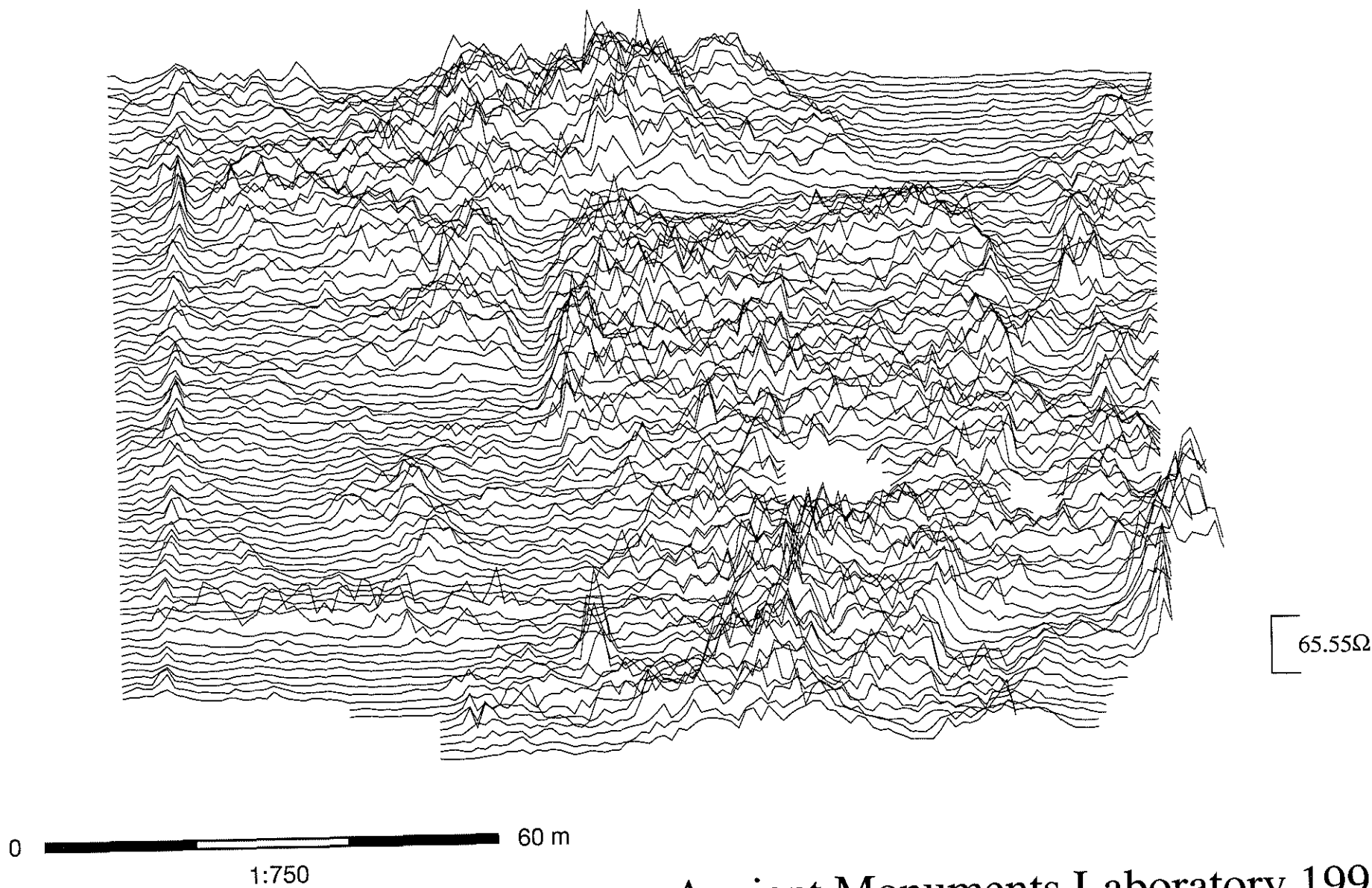
AREA A



A1. Greystone Raw data



A2. Traceplot Raw data

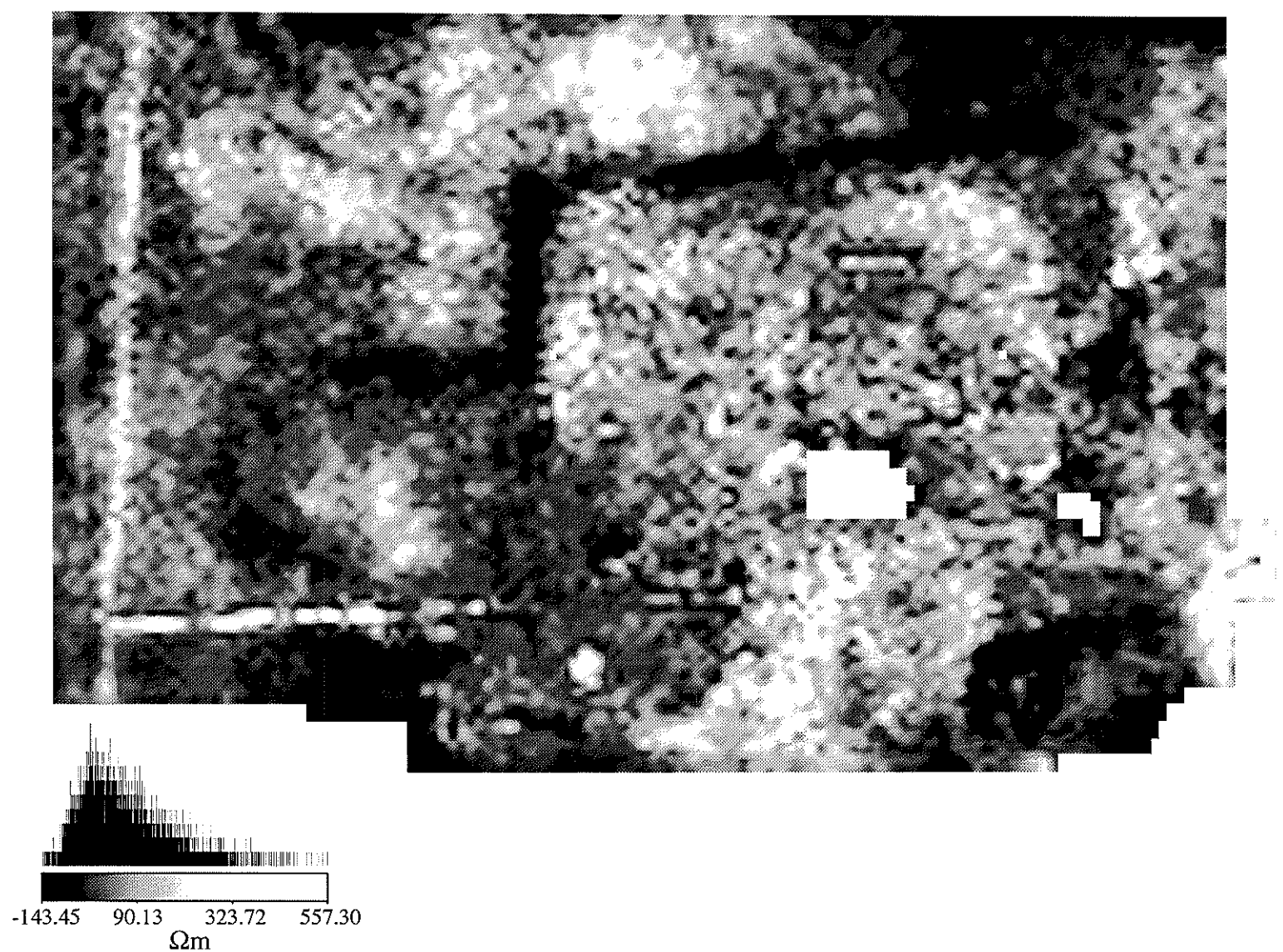


WEST ACRE PRIORY, Norfolk.
Resistivity Survey July 1994.

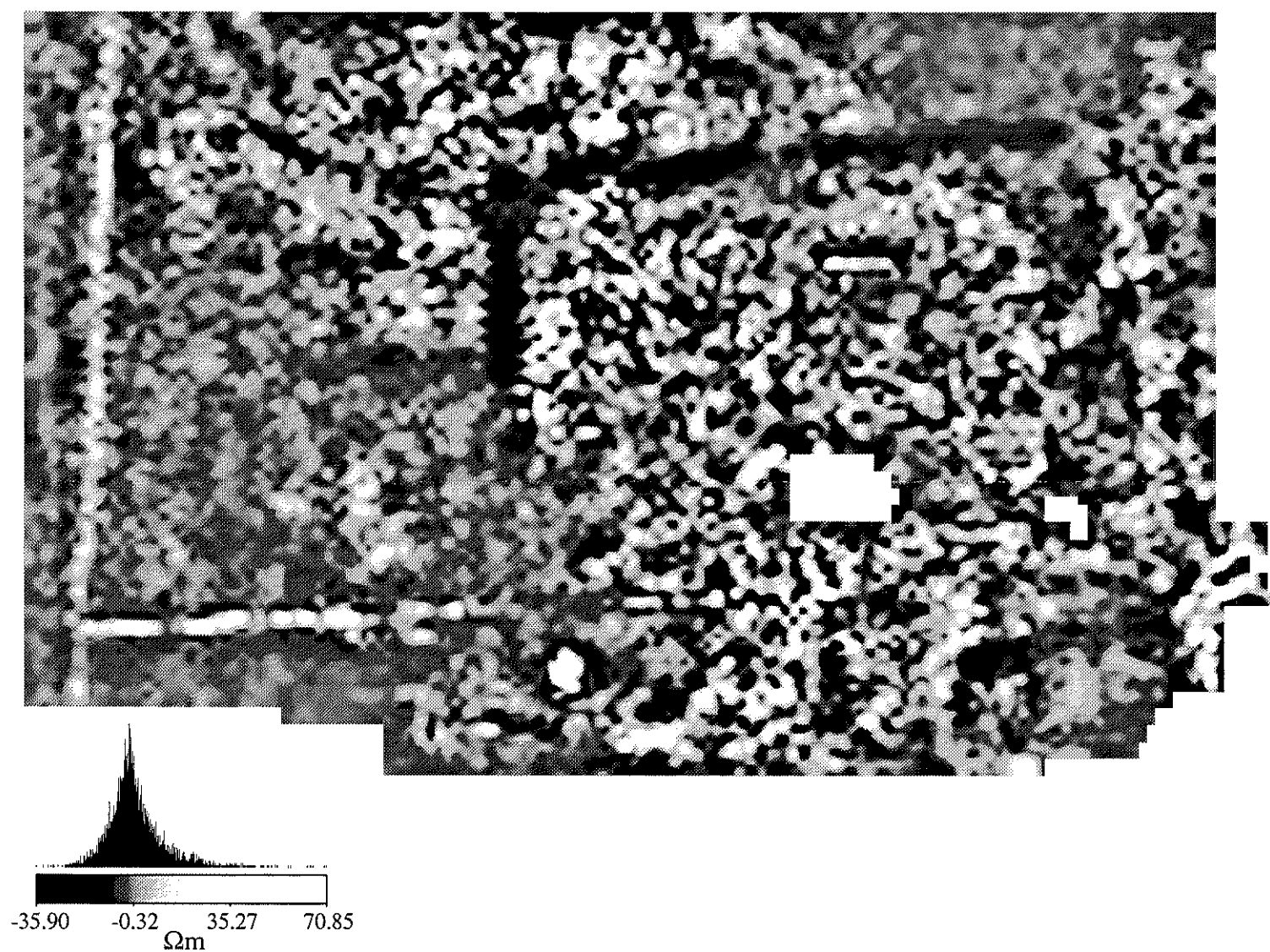
AREA A

z ←

A3. Greytone Contrast Enhanced data



A4. Greytone High Pass filtered data



0 60 m
1:750

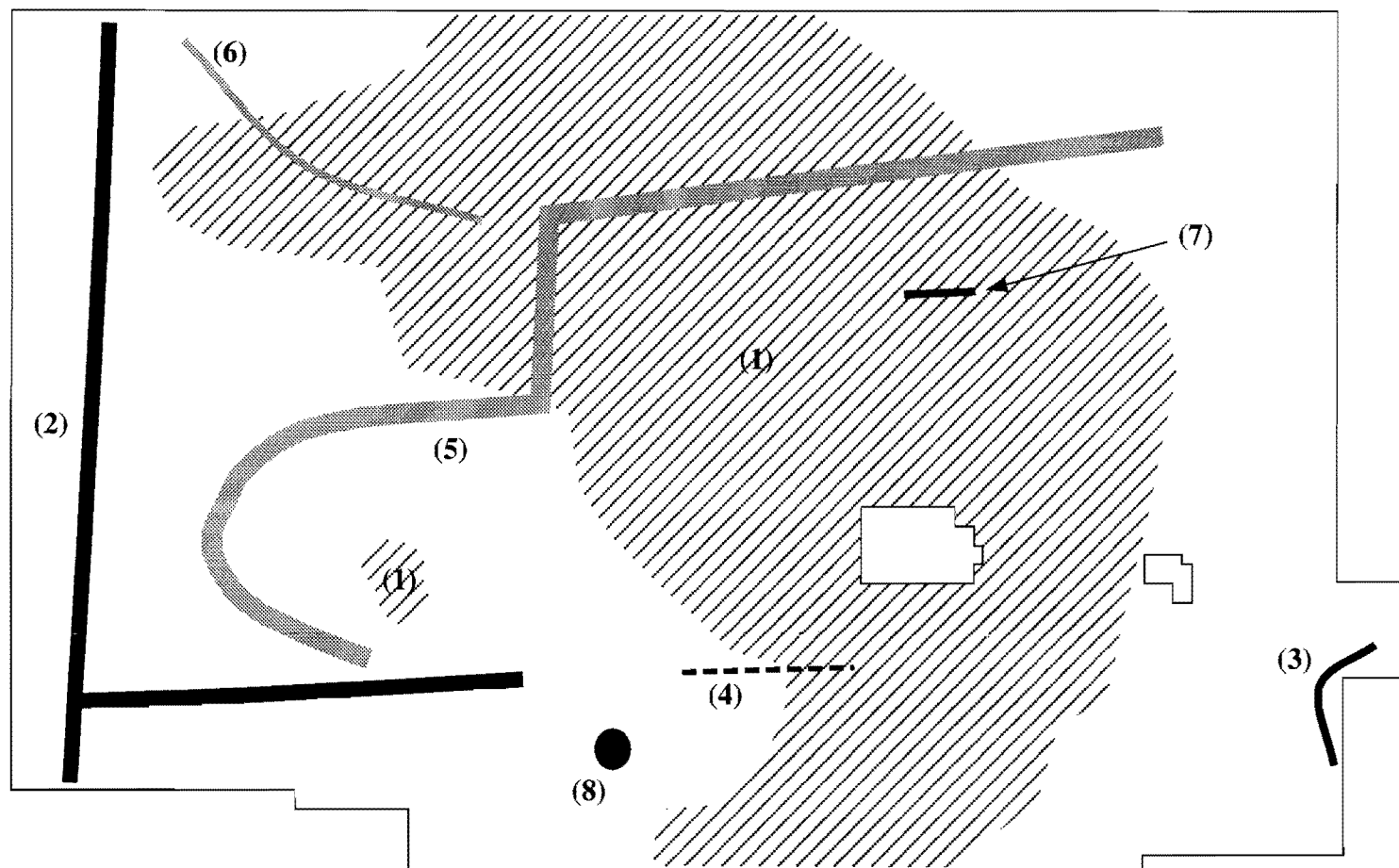
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WEST ACRE PRIORY, Norfolk.
Resistivity Survey July 1994.

AREA A



A5. Summary of Anomalies

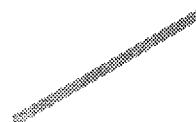


Key

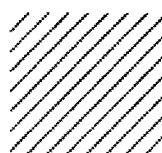
High resistance anomaly



Low resistance anomaly



Amorphous area of High Resistance



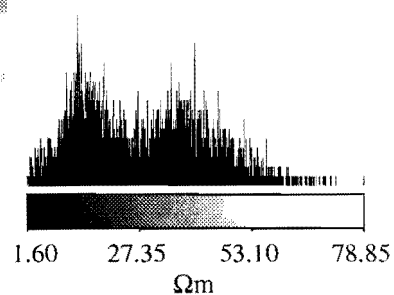
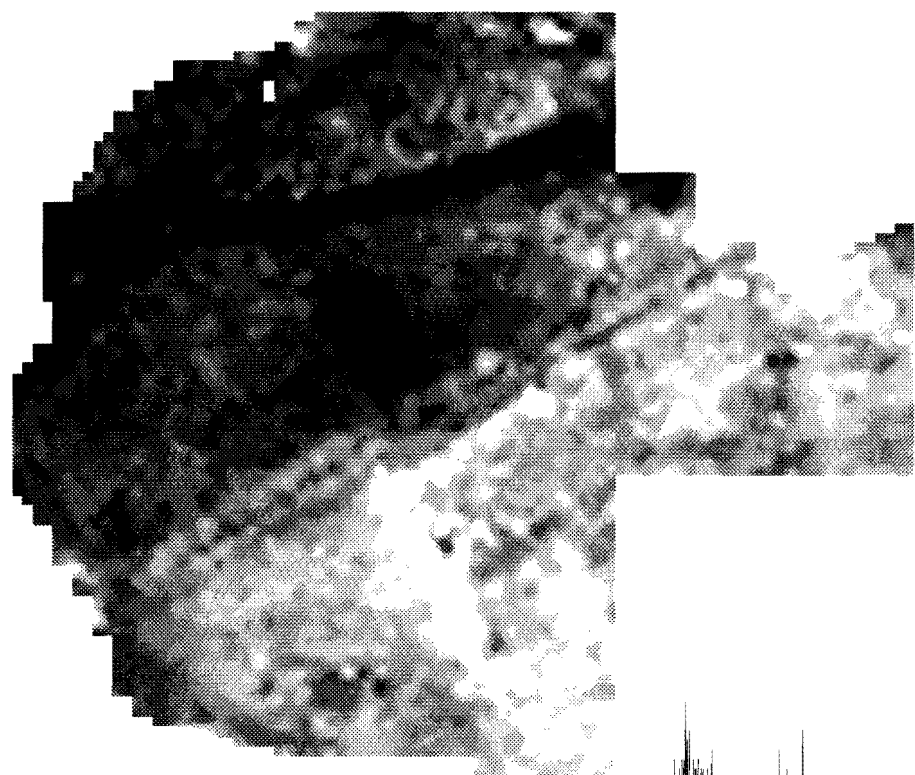
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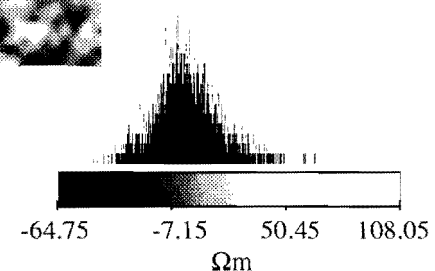
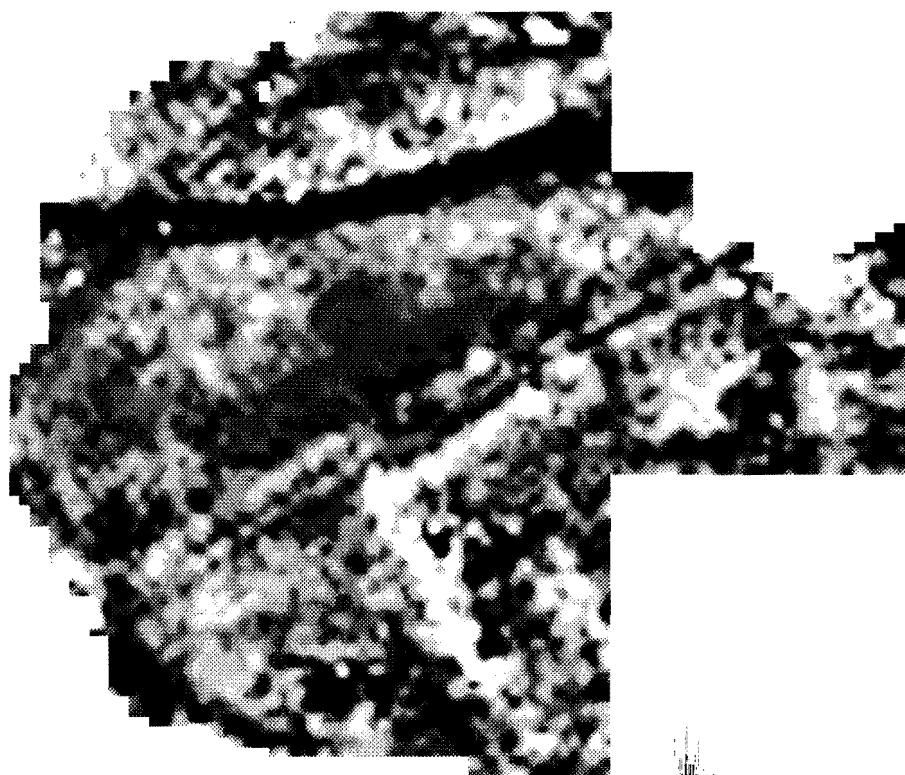
WEST ACRE PRIORY, Norfolk.
Resistivity Survey July 1994.

AREA B

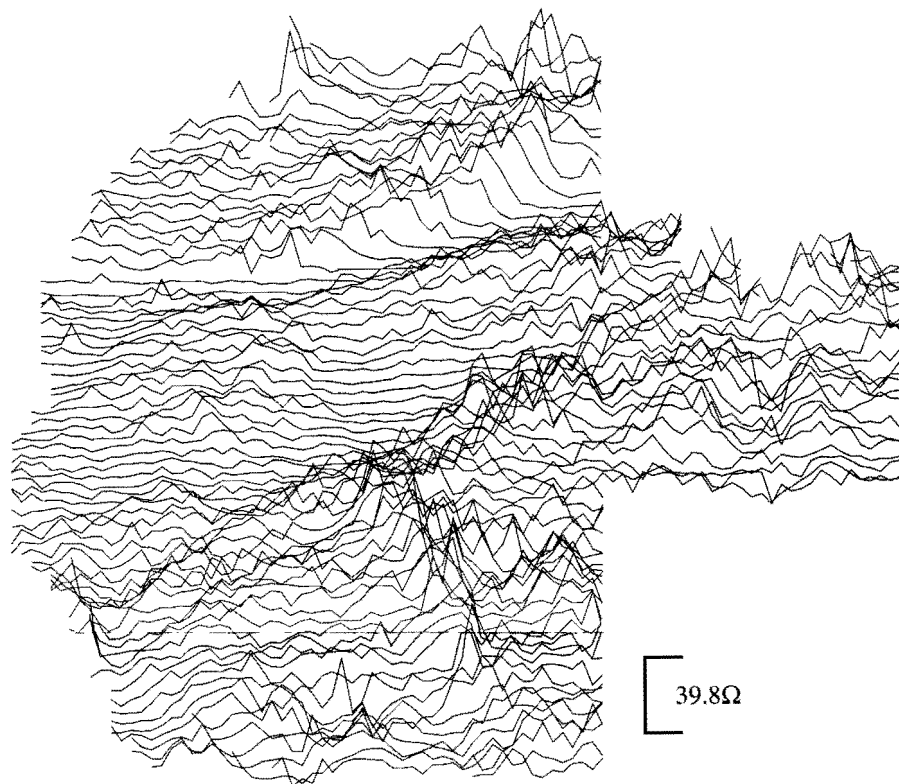
B1. Greytone Raw data



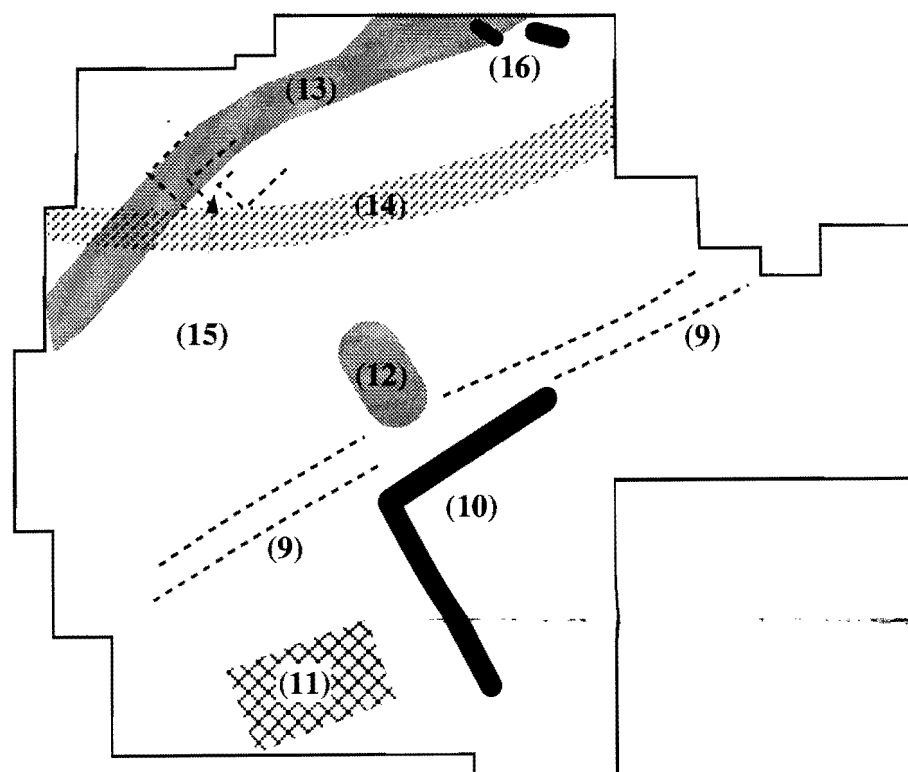
B2. Greytone Filtered data



B3. Traceplot Raw data

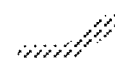


B4. Summary of anomalies



Key

Modern Trackway



High resistance anomaly



Low resistance anomaly



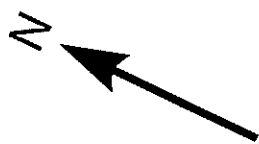
Location of former Building



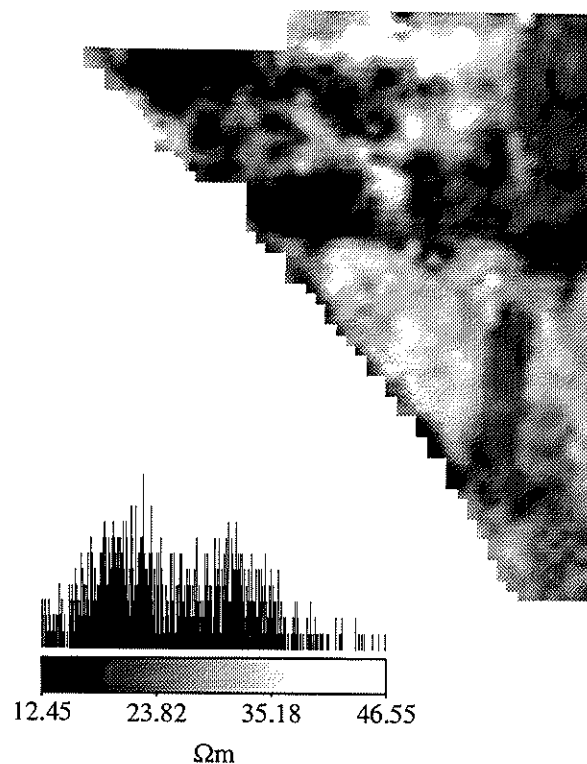
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WEST ACRE PRIORY, Norfolk.
Resistivity Survey July 1994.

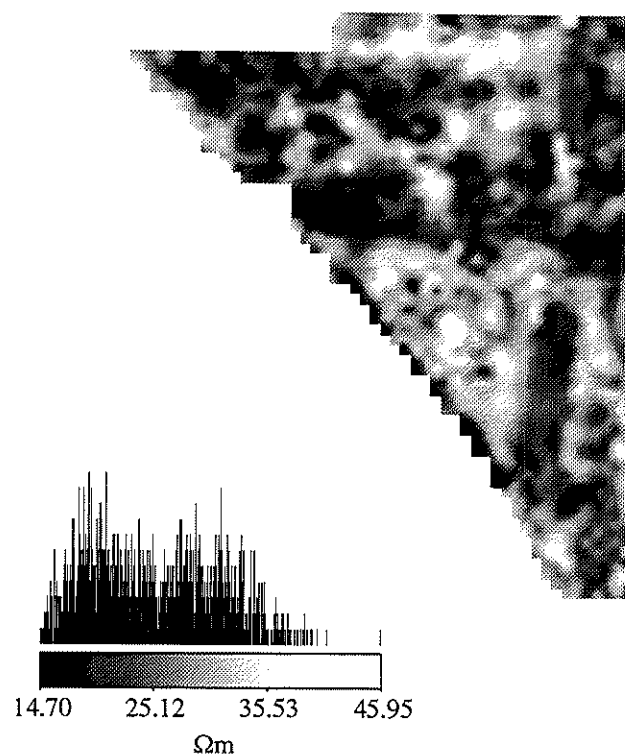
AREA C



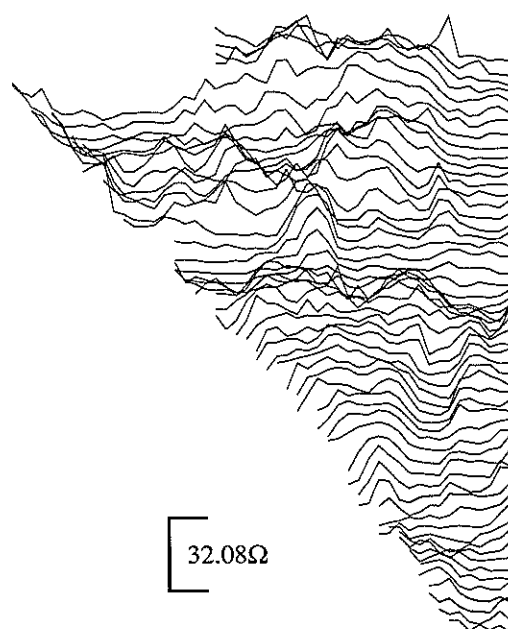
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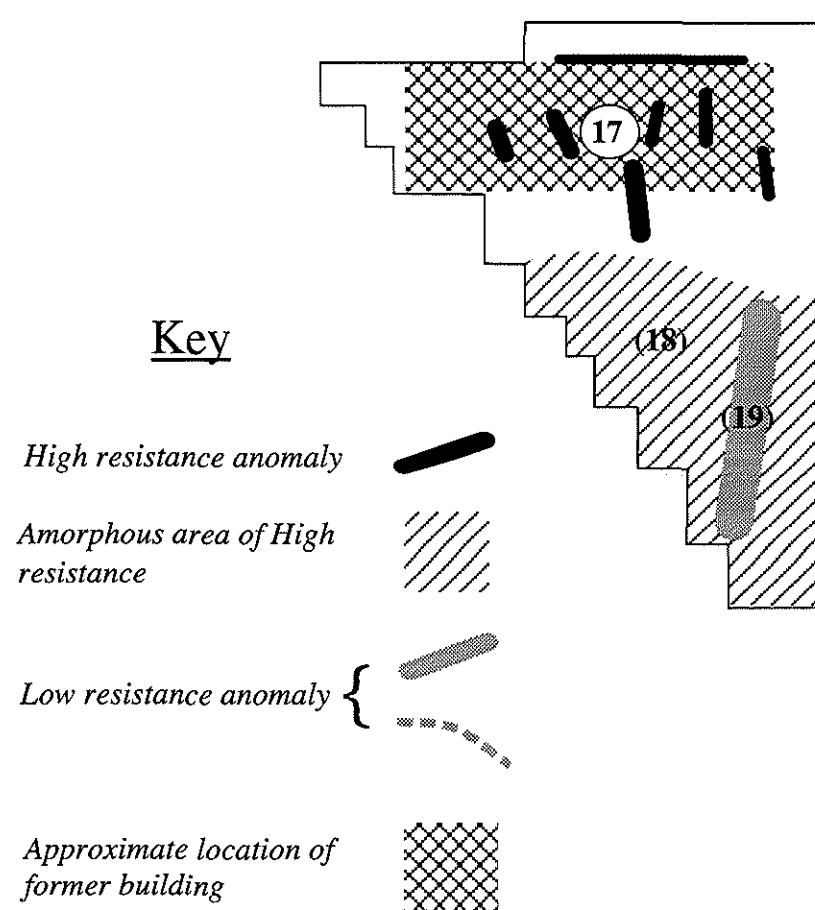
C2. Greytone Filtered data



C3. Traceplot Raw data



C4. Summary of anomalies



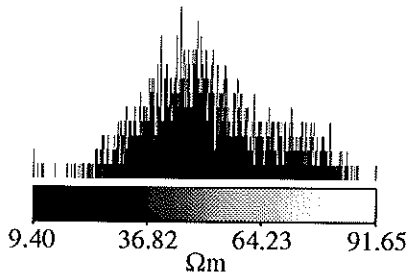
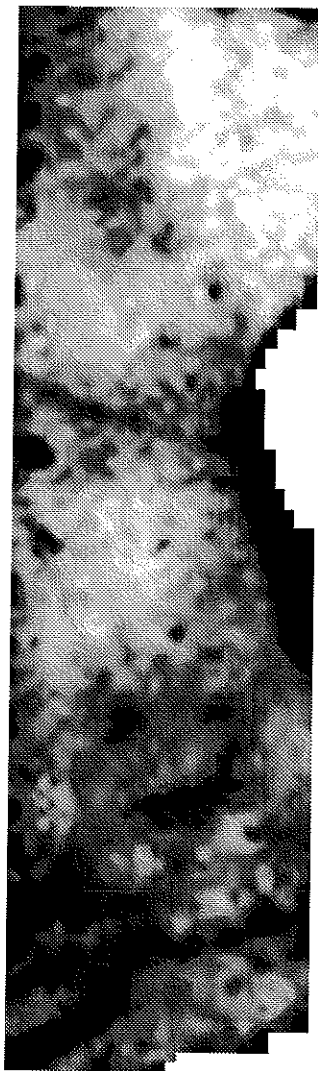
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WEST ACRE PRIORY, NORFOLK.
Resistivity survey July 1994

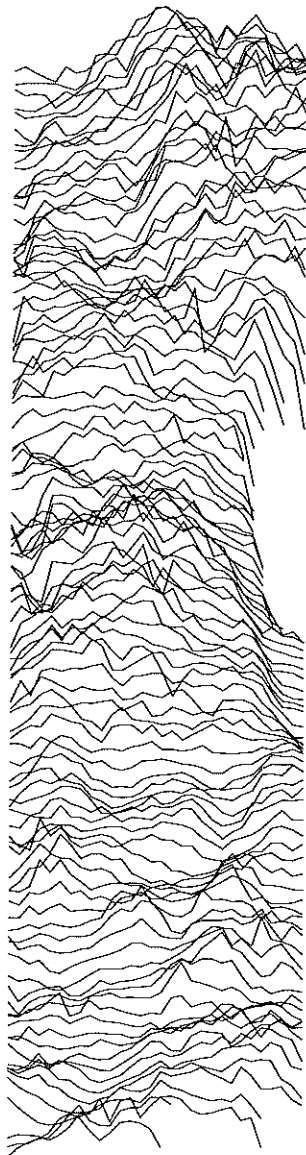
AREA D



D1. Greystone Raw data

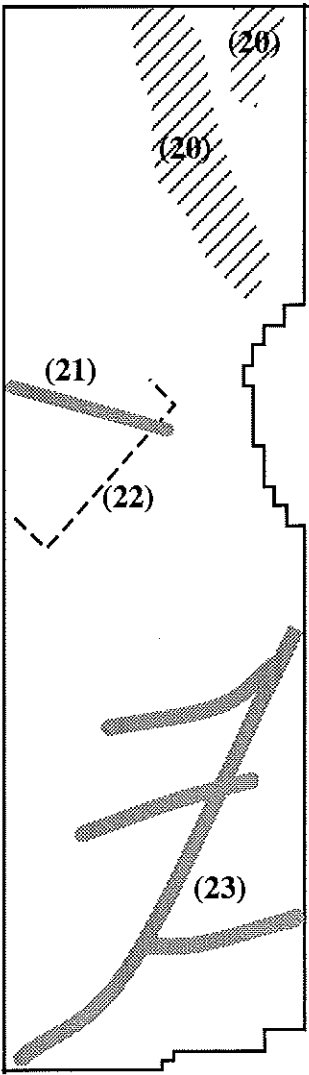


D2. Traceplot Raw data



37.5Ωm

D3. Summary of Anomalies



- Key
- High resistance anomaly
 - Low resistance anomaly
 - Tentative anomaly

