

ANCIENT MONUMENTS LABORATORY GEOPHYSICS SECTION

REPORT ON RESISTIVITY SURVEY

SURVEY: RICHMOND

DATE: March 1978

Report no. 26/78

1. SITE

OS grid reference: TQ 176747

Field no. -

Location: Retreat Road, Richmond, Surrey

Geology: Boundary of alluvium and gravel river terrace.

Archaeological evidence: The area surveyed forms part of the site of the Medieval and Tudor royal palace and of a 15th C priory.

2. SURVEY

Object: To test for remains of buildings or robbed-out foundation trenches.

(a) Resistivity survey	(i) Area survey	(ii) Traverses
Configuration :	twin electrode :	-
Spacing - probes :	1m :	-
traverses :	1m :	-
Meter :	Martin-Clark :	

(b) Other tests

-

Survey grid measured to: Archaeologist's base line 1m to W of survey area.

Plans/charts enclosed:

1. Unfiltered data, positive plot, 1:200
2. " " negative plot, "
3. Filter radius 3, positive plot, "
4. " " negative plot, "
5. Filter radius 2, positive plot, 1:100, with interpretation
6. " " negative plot, " " "

3. RESULTS

The plots show first the initial readings (plots 1 and 2) and then the results after subtracting the mean of surrounding values at a stated radius from each reading. This filtering process should emphasise local features of width less than that specified and exclude broad variations which are less likely to be archaeological (plots 3-6). For each treatment results are plotted in positive and negative directions to indicate high and low readings respectively. High readings would be the normal response to masonry while low values might be caused by a silted ditch.

The plots of the initial untreated values show lines of high readings at right angles to each other at the top centre of the survey and other high readings at the right hand side (plot 1). A distinct band of low readings is visible to the left of plot 2. These possibly significant features appear slightly more well defined in the filtered plots (3 and 4) and are indicated in red on the final 1:100 scale plots (5 and 6).

A narrower filter was used in plots 5 and 6 than in 3 and 4. This gives improved resolution but at risk of fragmenting continuous features. No clear outline of any building is visible but the features marked are those most likely to represent lengths of walls or foundations. The lines of dashes indicate only the approximate positions of the features and not their actual extent. Other variations in the plot may also be of archaeological origin if remains of buildings are present but they do not form any pattern that would allow interpretation. Isolated anomalies in the readings could be due either to scattered debris from the buildings or to any extraneous disturbance of the site. The line of low readings marked on the negative plot (6) is likely to indicate a ditch 1-2m wide or perhaps a substantial robber trench.

4. CONCLUSIONS

A number of features were detected of a magnitude and extent consistent with the response to be expected from walls or foundations. They do not form any very distinct plan but may represent only the better preserved sections of a building. At least one comparatively well defined ditch is present.

Surveyed by: B. Turton

Reported by: A. Bartlett

For: SW London Unit

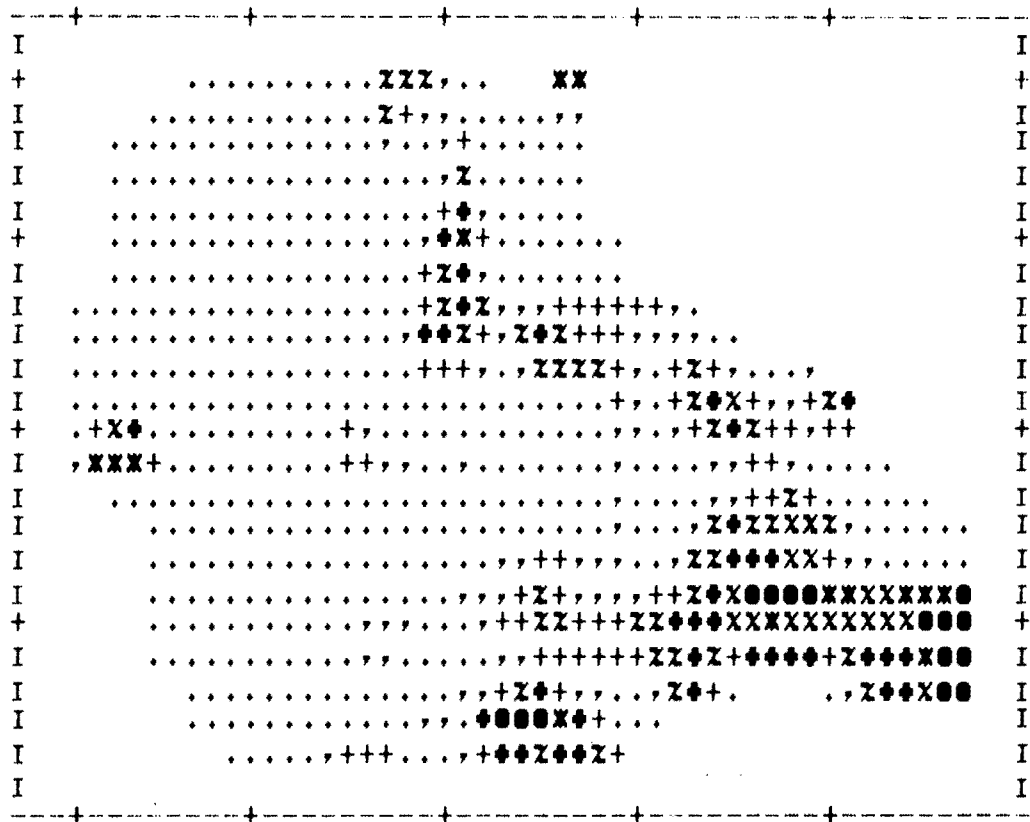
Date of report: 5th June, 1978

Ancient Monuments Laboratory Geophysics Section
Department of the Environment
Fortress House
23 Savile Row
London W1X 2HE

01-734 8010 ext 531

RICHMOND RESISTIVITY SURVEY

FILE: F373



UNFILTERED DATA
 POSITIVE PLOT
 MEAN TO MEAN + 2 ST DEV

PLOT NO. 050

SCALE 1:200

AM LAB 31/05/78

RICHMOND RESISTIVITY SURVEY

FILE: F373

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I                                         I
+      .,XXXZ.....      ..      +
I      ....XXXZ.....      ..      I
I      ....,ZXOX++.....,.....      I
I      ....,XOXZ++.....,.....      I
I      ....,XXXXZ++.....,.....      I
+      ....,XOXZXZXZ+.....+ZX+      +
I      ....,ZXOX++XZ+.....,.....++      I
I      ++,.....,XXXZ,++.....      I
I      ,.....,XOXZXOX+,.....      I
I      +,.....,XXXXXOXOXZ.....      I
I      +...+++XXXXX.....+.....      I
+      .....+XOX+.....,ZX.....      +
I      .....+XZ+.....,ZX+.....      I
I      ++ZXOXOXOX+.....,ZXZ,.....,ZX..      I
I      ZXOXOXOX+,,,,+,.....,XXX+      I
I      XOXOXOXZ,.....      I
I      ZXZXOXOXZ,.....      I
+      +++XOX+.....      +
I      +++ZXOX+,.....      I
I      ,XXXZ,.....      I
I      .,XZ+.....      I
I      XXX+.....      I
I                                         I
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UNFILTERED DATA
 NEGATIVE PLOT
 MEAN TO MEAN + 2 ST DEV

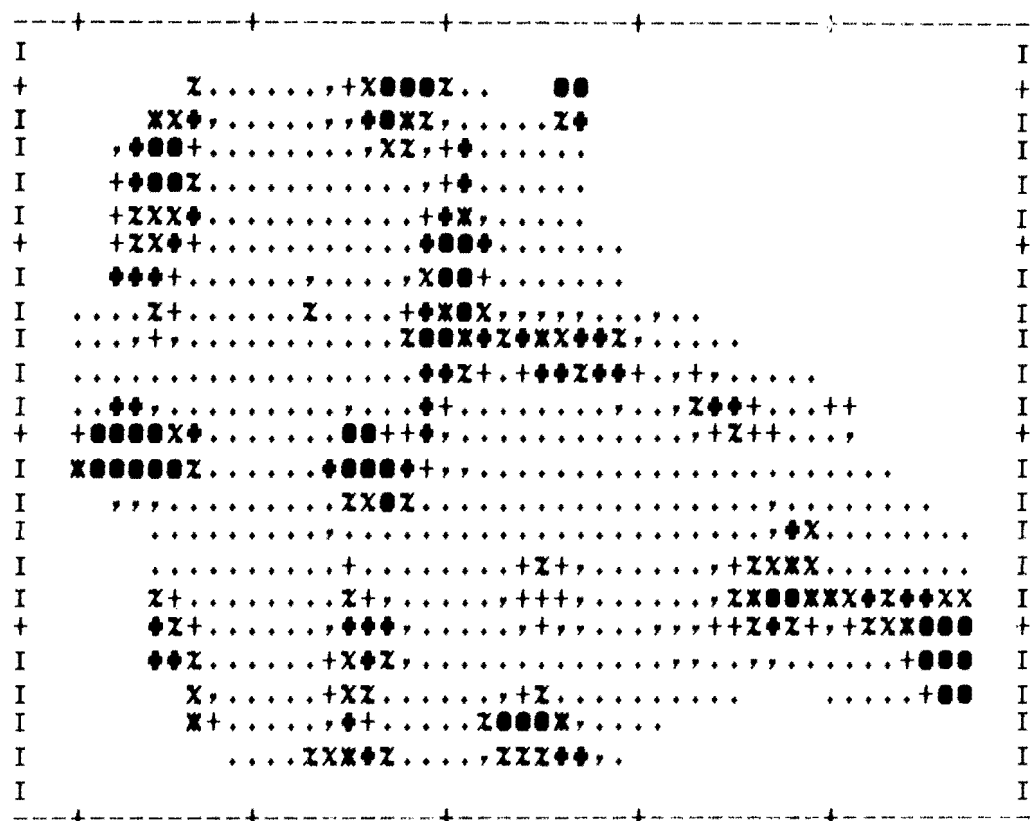
PLOT NO. 051

SCALE 1:200

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RICHMOND RESISTIVITY SURVEY

FILE: G059



FILTER RADIUS 3
 POSITIVE PLOT
 MEAN TO MEAN + 1.5 ST DEV

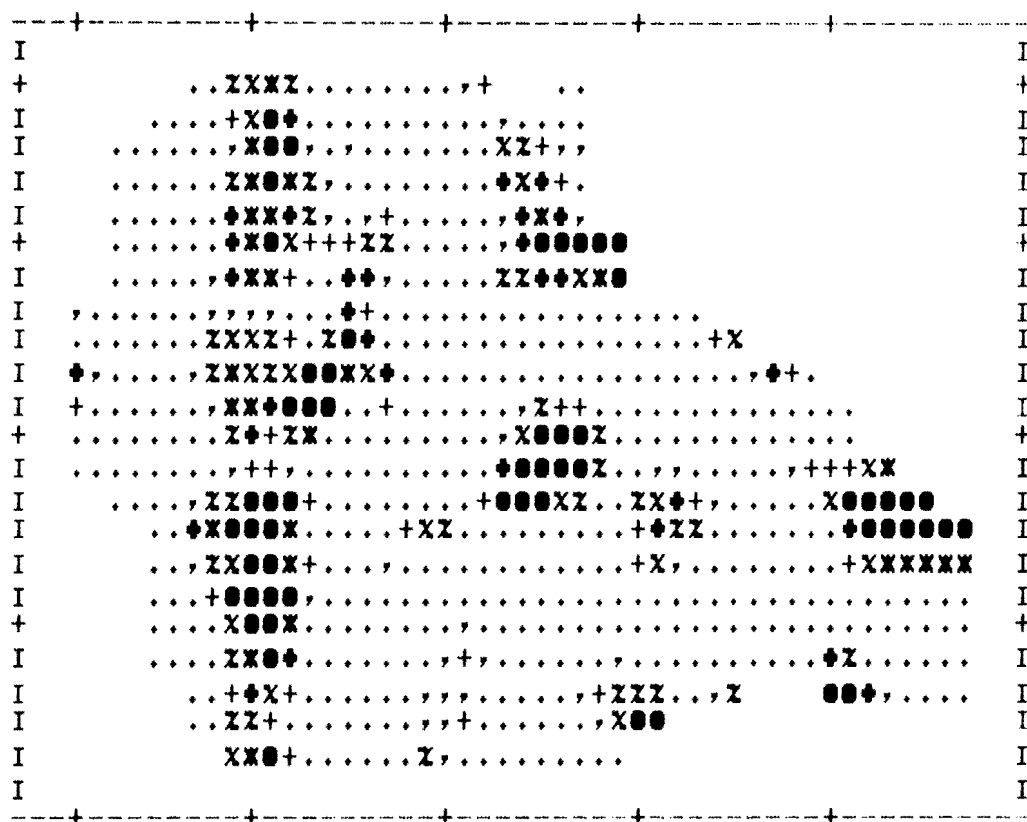
PLOT NO. 049

SCALE 1:200

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RICHMOND RESISTIVITY SURVEY

FILE: F373



FILTER RADIUS 3
 NEGATIVE PLOT
 MEAN TO MEAN + 1.5 ST DEV

PLOT NO. 052

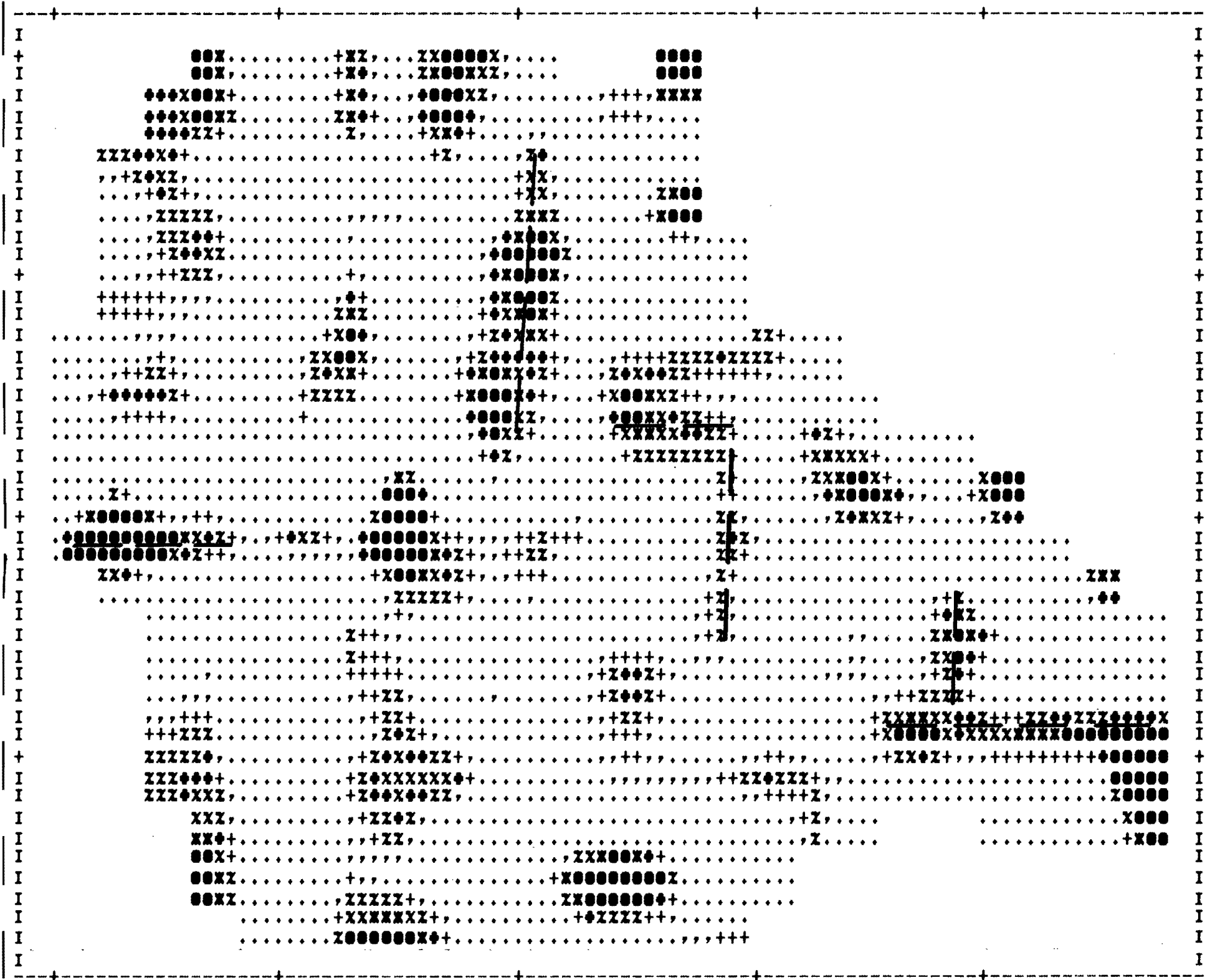
SCALE 1:200

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RICHMOND RESISTIVITY SURVEY

N (APPROX)

FILE: F373



BASE LINE

FILTER RADIUS 2
POSITIVE PLOT
MEAN TO MEAN + 1.5 ST DEV

ANOMALIES

PLOT NO. 053

SCALE 1:100

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RICHMOND RESISTIVITY SURVEY

N (APPROX)

FILE: F373



BASE LINE

FILTER RADIUS 2
 NEGATIVE PLOT
 MEAN TO MEAN + 1.5 ST DEV

————— ANOMALIES

PLOT NO. 054

SCALE 1:100

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