SURVEY RESULTS

99 / 82 Greenwich Park

1. Survey Area

1.1 Both resistance (0.76ha) and gradiometer (0.79ha) surveys were carried out in overlapping areas of the site. The resistance survey was carried out in one area, but the part adjacent to the site of the Roman building, Area R1, has been highlighted in the text of the report. Gradiometry was carried in two areas, G1 and G2. The location of the survey areas is shown in Figure 1 at a scale of 1:1250.

1.2 The survey grid was set out by **GSB Prospection** and tied in using a GPS recording system by staff of **English Heritage**.

2. Display

2.1 The results are displayed as X-Y traces, dot density plots and grey scale images. These display formats are discussed in the *Technical Information* section, at the end of the text.

2.2 Figure 2a is a summary interpretation of the results of the resistance survey superimposed on the site location plan at a scale of 1:1250. Figure 2b shows the results of the gradiometer survey at the same scale.

2.3 Figures 3 to 6 are data plots and an interpretation diagram of the resistance survey results. Figures 7 to 10 show the results and interpretation of the gradiometer survey. Except for Figure 4, which displays a variety of processed data plots of the resistance data at 1:1250, the results are presented at a scale of 1:625.

2.4 Figure 5 displays the results of the southernmost part of the resistance survey area, Area R1, which corresponds to the site of the Roman building and excavations.

2.5 Letters in parentheses in the text of the report refer to anomalies highlighted in the relevant interpretation diagram.

3. General Considerations - Complicating Factors

3.1 In general, the ground conditions were good for survey. There was a short grass cover, and a number of trees present within the survey areas, which represented only minor obstacles.

3.2 The soils and geology provided a major problem for resistance survey. The free draining sand and gravel soils produced extremes in recorded resistance levels over small distances and short periods of time. In these circumstances, the variations produced by any archaeology that might be present will be obscured.

3.3 The resistance survey was carried out in wet weather after a long dry period some two weeks before the recording of the **Time Team** program. These conditions have had a significant affect on the results. The ground was found to be too dry for resistance survey during the actual period of filming because it was impossible to insert probes into the ground.

4. Results of Resistance Survey

4.1 The results show a considerable variation in resistance levels with the highest readings being confined to the western part of the survey area. The high resistance anomaly (A) is thought to represent natural gravel deposits in the base of a hollow. This hollow has been described as part of a possible route through the park and it is thought that the high resistance may be a road surface (Pattison, 1994).

4.2 To the north of anomaly (A) is a region of 'noise' that coincides with a group of young trees. The readings in this area are thought to represent disturbance caused by the removal and replacement of dead or fallen trees.

4.3 Anomaly (B) is thought to represent high resistance caused by near surface gravel and topographic effects on soil moisture levels. A group of high resistance anomalies (C) in the east of the survey area is likely to have been produced by the presence of trees and disturbance caused by the installation of a pipe.

4.4 A series of linear anomalies is visible in the data, one group running southeast-northwest and a second aligned southwest-northeast. There is no clear interpretation for these trends; they may represent past ridge and furrow cultivation, the effects of landscaping, ancient boundaries, natural variations or a combination of the above.

4.5 No anomalies are apparent in the data that might indicate the course of a Roman road.

Area R1

4.6 Further processing of the results in this area was attempted to help define anomalies produced by possible building remains that might be present in this area.

4.7 Area R1 represents the southernmost part of the survey area and coincides with the site of the Roman building remains. No clear building plans are visible in the results, but a series of linear trends has been noted within which slightly lower resistance values have been recorded. There are hints of rectangular structures, anomalies (D) and (E), that could suggest possible building remains. The linear trends (D) coincide with a high resistance anomaly that has well-defined edges, supporting the possibility that buildings are present. These anomalies were targeted during the **Time Team** programme.

4.8 Walls and a floor surface were uncovered in the vicinity of (D) while rubble, robber trenches and a major ditch were found to coincide with (E). However, the excavated remains did not coincide with the postulated position of walls suggested by the survey results. The ditch was excavated immediately to the south of (E) and lies within an area of high resistance values; ditches would be expected to produce a low resistance anomaly. This feature, thought to represent a boundary enclosing the Roman site, was not detected by resistance survey. This probably occurred because it had effectively drained the moisture from the ground surface that might have produced a low resistance response. Clearly, the results are complex and no explanation is available that can account for all of the inconsistencies.

4.9 The differences in the resistance readings probably represents surface moisture variations prevailing during the wet conditions at the time of the survey. Moisture may have accumulated within the sands and gravels. Some may be natural while others have been produced by foundation trenches, robbing and landscaping. Therefore, the linear trends recorded during the resistance survey do not represent the edges of walls but the edges of 'cuts', of one sort or another, into natural deposits.

4.10 Within the area enclosed by railings a curving linear anomaly (F) has been recorded that may relate to part of a Roman wall or the edge of an excavation. This area has undergone considerable disturbance from the removal of trees, landscaping and excavations. Therefore, though anomaly (F) may be of archaeological interest it could have been produced by this disturbance. Building remains and rubble were recorded in this area during the **Time Team** excavations.

4.11 Several high resistance anomalies are also indicated on the interpretation diagram that are considered to be natural in origin and relate to subsurface variations in the geology. Anomaly (G) is thought to relate to a natural channel recorded in the 1978-9 excavations (Patterson, 1994).

5. Results of Gradiometer Survey

5.1 The gradiometer survey results are characterised by bands of varying magnetic response. In the western part of Area G1, near the Roman building, there are obvious regions of disturbance that are ferrous and probably modern in origin. It is noticeable that there is a higher level of magnetic background response in the vicinity of the Roman site. This may be of archaeological significance and represent magnetically enhanced material from disturbed features, though it could equally relate to modern debris.

5.2 In the centre of Area G1 a number of pit type anomalies, short ditch lengths and linear trends have been recorded. They could indicate actual features or pockets of enhanced material that have been disturbed by ploughing. It is possible that these responses represent remains of activity outside the Roman period.

5.3 Ferrous disturbance in the eastern part of Area G1 is due to the presence of a large pipe.

5.4 Area G2 was positioned to sample a magnetically quiet area in the northern part of the study area. Two linear anomalies have been recorded that coincide with resistance responses. Although an archaeological interpretation cannot be dismissed, it is likely that these responses relate to natural soil variations.

5.5 A number of small-scale ferrous type responses have been recorded in both survey areas. Although they are likely to be modern in origin, some may have been produced by iron artefacts of archaeological interest.

6. Conclusions

6.1 The resistance survey is considered to have detected variations in the underlying soils and geology. Linear trends suggesting rectangular structures are discernible in the data and these were thought to be archaeologically significant. Walls, rubble and robber trenches were uncovered during subsequent excavations, but the relationship between the detected anomalies and the features uncovered is far from clear.

6.2 The gradiometer survey detected pit type anomalies and short ditch lengths mainly to the east of the Roman site. However, no recognisable archaeological pattern is visible in the data and the anomalies may represent disturbance to archaeological deposits and features dating from non-Roman periods.

6.3 There is no evidence in the data from either survey technique to suggest the presence of a Roman road.

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Reference:

GSB., 1994 — Report on the Geophysical Survey at *Greenwich Park, 94/12*. GSB Prospection 1994. Unpublished report.

Pattison, P., 1994 — *Specification for Geophysical Survey*. Royal Parks Project:- Greenwich Park RCHME. Unpublished report, 1994

SITE SUMMARY SHEET

99 / 82 Greenwich Park

NGR: TQ 3929 7742

Location, topography and geology

Greenwich Park is situated close to the south bank of the River Thames, immediately to the south of the National Maritime Museum, approximately 6 miles east-south-east of the centre of London. The survey occupied a level area of parkland to the south-west of the Maze Hill Gate. There are steep downhill slopes to the west of the survey area. The geology consists of River Terrace deposits and is primarily sands and pebble beds. In some places these deposits are cemented by fossil or siliceous material into conglomerate.

Archaeology

A small piece of tesserated paving enclosed by iron railings marks the site of a Roman building first excavated in 1902 and 1903. The excavations uncovered three floor surfaces and a collection of rich finds, including decorated Samian ware, coins and inscriptions. However, the purpose and extent of the building were not determined and the finds were not fully recorded. Excavations were carried out in 1926 and between 1978 and 1979 to confirm the presence of buildings, though landscaping and the removal of trees had disturbed the archaeological deposits. A resistance survey carried out in 1994, in the vicinity of the excavations, detected few anomalies of archaeological significance (GSB, 1994).

Aims of Survey

The survey formed part of a **Time Team** programme for **Channel 4** television. It was aimed at determining the precise purpose of the Roman building, placing it in a wider context within the Roman landscape and aiding future management by assessing the condition of the surviving remains. In addition, the survey was carried out to locate the course of the Roman road running to London, through Greenwich Park from the channel coast.

Summary of Results *

The resistance survey recorded a complex pattern of anomalies that was thought largely to represent variations in the soils and geology. Although no clear building plans emerged from the data, a number of linear trends that suggested rectangular structures were visible, and these were thought to have archaeological potential. These anomalies were targeted by excavations, and walls, rubble and robber trenches were uncovered. Low resistance was recorded in the vicinity of the site excavated in the 1900's, but no significant anomalies were detected. The gradiometer survey detected a number of pit type anomalies and short ditch lengths that are thought to be of archaeological interest. However, no recognisable archaeological pattern is visible in the data.

The surveys did not provide any evidence to suggest the presence of a Roman road.

*** It is essential that this summary is read in conjunction with the detailed results of the survey.**

List of Figures