

Birmingham University Field Archaeology Unit

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**ARCHAEOLOGICAL INVESTIGATIONS IN THE  
NORTH GARDEN, CASTLE BROMWICH HALL**

by

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# ARCHAEOLOGICAL INVESTIGATIONS IN THE NORTH GARDEN, CASTLE BROMWICH HALL

## INTRODUCTION

An on-going research and restoration project at Castle Bromwich Hall by the Castle Bromwich Hall Gardens Trust (CBHGT) has been in operation for the last five years. The main aim of this project is to re-establish the gardens to their early-18th century state (CBHGT 1992). As a part of this project Birmingham University Field Archaeology Unit (BUFAU) was commissioned to plan and carry out an excavation in the North Garden, Castle Bromwich Hall, in order to provide information to the Trust to enable them to restore the garden to its c. 1740 state. In addition, a trench was dug in the south west garden, adjacent to the music room, prior to building work.

Considerable archaeological and documentary research has been done on the gardens as a whole over the last five years. In the North Garden previous archaeological work has involved a series of small excavations by the Manpower Services Commission between 1985 and 1988. The results from these excavations were consulted, but they were poorly recorded and of little help. In addition, one evaluation trench, 8m x 1m, was dug here in 1991 by Currie and Locock (1992) (Fig 1). Their results have been incorporated into this report.

## THE SITE AND SETTING

The garden today is a walled and grassed rectangular area about 50m x 30m, with a gravel path about 1.5m in width around the outer edges on all sides. A yew hedge containing trees of varying ages lines the west and north wall. Today the garden is planted with two or three trees, about 90 years in age, and clumps of rhododendron bushes. Between the trees sparse turf is present supporting species strongly indicative of acid soil conditions. For example there was much sheep's sorrel (Rumex acetosella) and Polytrichum mosses while in the grass sward bent grasses were abundant, including common bent (Agrostis capillaris).

## RESEARCH AIMS

The research aim of the project was to ascertain the true state of the North Garden in terms of layout, materials used and plants grown in 1740. Documentary research has revealed a plan of the gardens by Henry Beighton dated to 1726 (Fig 2) in which the North Garden design is clearly shown. BUFAU in particular attempted to find whether this garden design was in fact the one used in the North Garden, and, if so, what surviving physical elements of this design could be identified and used to strengthen the authenticity of the restoration programme.

## METHODOLOGY

Two main techniques were used, geophysical survey, followed by excavation by strategically placed trenches.

## **GEOPHYSICAL SURVEY**

The geophysical survey was carried out by Geophysical Surveys of Bradford and their report is included in full below. It has to be said that there was very little correlation between the results of the resistance survey and the findings from the excavation, and extracts from an explanatory letter as to why this may have been so precedes the report. In retrospect, it can be said that if the survey had *not* been carried out, it would never be known whether the technique would yield good information or not. At its best a geophysical survey can trace features under unexcavated surfaces and, for the cost involved, it would have been unwise not to have employed geophysical techniques.

### **The Geophysical Survey; a Postscript by Sue Ovenden**

It is clear that there is little correlation between the results of the resistance survey and your findings. As I stated in the report, while the existing garden is at least 90 years old the bushes have covered varying areas and had recently been cut back. This will have resulted in differential moisture regimes which have confused the results.

Anomaly B was believed to possibly coincide with a path or similar feature because of its high resistance and its location between the Hall and the church. It would seem from your findings that this area of high resistance is due to increased drainage in the area provided by the loose sandy soil.

The path found during excavation has not been clearly detected by the resistance survey. This is probably because of a lack of contrast between the path, comprising stones and sandy soil and the sandy soil surrounding it. Although there is compaction the good drainage provided by sandy soils and the lack of any real difference in composition make it very difficult to detect such a feature.

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## SITE SUMMARY SHEET

93 / 88 Castle Bromwich Hall, North Garden

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NGR: SP 140 899

### Location, topography and geology

Castle Bromwich Hall lies approximately 5 miles northeast of Birmingham city centre, to the south of the M6 motorway. The Hall is situated on a small hill and is now surrounded by housing and roads. The survey area lies within the North Garden of the Hall. This is a walled garden comprising lawned areas, large rhododendron bushes and some mature trees. The garden is located on a small deposit of glacially derived sand. The surrounding geology comprises Triassic Mercian Mudstone.

### Archaeology

Castle Bromwich Hall was built in approximately 1599 while the formal walled gardens were originally developed in the 17th century. Records suggest that the North Garden comprised intricate parterre work and associated features. In the late 18th century the garden was covered with imported topsoil and planted with a simpler scheme. It is believed that there has been little disturbance since this time and a trial excavation in 1991 indicated a good level of preservation. The existing garden is believed to be at least 90 years old.

### Aims of Survey

A resistance survey was undertaken in an attempt to map the location of former flowerbeds, parterre work and other features associated within the formal garden. This survey forms part of an on-going project, which began in 1985, to restore the historic walled gardens at the Hall.

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### Summary of Results \*

The resistance survey has located several anomalies of possible interest some of which may relate to the garden design of the early 18th century. However, disturbance to the ground over the last 200 years, in the form of metal pipes and tree roots has complicated interpretation of the data.

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

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## SURVEY RESULTS

93 / 88 Castle Bromwich, North Garden

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### 1. Survey Areas (Figure 1)

1.1 An area of 50m by 30m was surveyed using the resistance technique taking readings at 0.5m intervals. The location of the survey area is shown in Figure 1 at a scale of 1:1000.

1.2 The survey grid was set out and tied-in by staff of the **Birmingham University Field Archaeology Unit (BUFAU)**.

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### 2. Display

2.1 The results are displayed as dot density plots and grey scale images. These display formats are discussed in the *Technical Information*, at the end of the report.

2.2 The data are displayed at a scale of 1:250, with interpretation diagrams at the same scale.

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### 3. General Considerations - Complicating factors

3.1 The presence of large rhododendron bushes has complicated the results of the survey. Firstly, the dense vegetation meant it was not possible to survey through the bushes and as a result there are relatively large areas within the survey where no data could be collected. Secondly, roots from the bushes and trees will have altered the levels of moisture content in the vicinity.

3.2 The original garden was covered in the late 18th century and while the present garden is believed to have changed little over the last hundred years, the bushes have covered varying areas and several drains have been emplaced. As a result there will be variation in the resistance which do not represent the 1740 gardens.

3.3 Due to the close proximity of buildings, walls, and the presence of manhole covers and drains, gradiometry was not a suitable survey technique.

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#### 4. Results

4.1 Two linear low resistance responses running across the site, and indicated by dashed lines on the interpretation diagram, represent buried pipes which correspond with manhole covers in the garden.

4.2 A linear high resistance anomaly (A) in the south of the survey area suggests a wall, possibly leading from the main walls surrounding the Hall.

4.3 There is a broad, diffuse area of high resistance (B) in the south of the survey area, in front of the Hall. This may coincide with a paved area, possibly a continuation of the path leading from the Hall.

4.4 Surrounding anomaly (B) there are several smaller areas of high resistance which may be significant. It is possible that these more discrete responses indicate parts of a more widespread paved area extending from (B) that has been disturbed by roots and later gardening practices. Alternatively these may simply represent natural moisture variations in the topsoil.

4.5 In the west of the survey area there are several broad areas of high resistance (C). The close proximity of these anomalies to bushes suggest that these may simply be due to natural variations in the topsoil.

4.6 There are several low resistance anomalies throughout the area. The areas of low resistance adjacent to the existing bed of rhododendron bushes (D) are most likely to be due to previous bushes that have been recently cut back. Slight depressions in these areas support this interpretation.

4.7 There is a regular pattern of small low resistance anomalies (E) suggesting two tree lines, possibly either side of a path running from the Hall to the church.

4.8 Other low resistance anomalies such as (F) may be of interest. This low response is immediately adjacent to an area of higher resistance which may mark an edge between a former hedge and parterre.

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#### 5. Conclusions

5.1 The resistance survey has been successful in locating several anomalies which may be of interest including a possible wall and other responses which may relate to the formal gardens of the 1700s. However, disturbance to the ground since the gardens were covered over 200 year ago has complicated interpretation of the data.

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**Project Co-ordinator:** J Gater

**Project Assistants:** S Ovenden and A Shields

19th August 1993

**Geophysical Surveys of Bradford**

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## **EXCAVATION**

### **Introduction**

The excavation was carried out in August 1993. It took a period of 3 weeks with a basic team of five archaeologists plus one CBHGT member of staff who drove the CBHGT digger for the excavation throughout this period.

A total of 18 trenches of varying sizes were opened . The position of trenches is shown in Fig 1 . Trench position was selected to examine possible features revealed by the geophysical survey and to transect strategic parts of the garden. For example, the mid-central position (Trench A), the mid-east part of the garden, (Trench H), and the north edge of the garden (Trench L and M). The possible positions of trenches were actually very limited, either by the presence of service trenches or by trees and rhododendron bushes (it was felt that the roots from these would have disturbed the archaeology). In fact, by the end of the excavation, most *possible* areas of the garden that could be examined by excavation had been crossed with a trench.

### **Method of Excavation**

To begin with trenches were dug by hand. When it became obvious that there was an upper sterile layer of more than 0.5m in depth, the overburden was removed by machine, watched at all times by BUFAU staff. When archaeological levels were reached excavation was completed by hand. Recording was done by the use of pre-printed context and feature pro-formas (contexts are soils differentiated from others by colour and texture; features are areas differentiated from surrounding areas by soil texture or colour, these differences being possibly due to human activity) with plans at 1:20 or 1:10 where appropriate . A full photographic record was made. All finds were collected, recorded and examined. Environmental samples for charred seed and plant remains were taken from well-sealed and undisturbed features.

### **The Archaeological Record**

The archaeological record comprises 38 feature cards, 93 context cards, 22 plans and 96 black and white and 97 colour photographs. The archaeological record and full archive is to be deposited with the CBHGT.

## **RESULTS FROM EXCAVATION**

Position of trenches is shown in Fig 1 . Features are prefixed with the letter F. Contexts are described using Munsell Colour Charts (Munsell Color 1990) and Soil Survey terminology (Hodgson 1976) and are given as four figured numbers in the text below. An explanation of terminology is given in Appendix II. In the account below trenches are listed in alphabetical order.

### **TRENCH A**

Trench A was selected in order to examine areas of high and low resistance shown in the geophysical survey (Fig 6). Also it was felt that a central trench should record the maximum amount of information and be able to prove the existence or otherwise of the Beighton design.

The trench was 22m x 2.2m and was excavated to the undisturbed subsoil (the natural), excepting a central part of 3m, not excavated due to the presence of an oak tree, and the westernmost 2.2m which was found to consist of a complex of recent

features cutting into overburden that post-dated the period in question (the 18th century). One of these features was apparently a flag-post.

Trench A presented a sequence of fills that was typical of the south part of the garden and can be seen in Trenches J, K and H. Fig 7 shows the west-facing section of Trench A with this sequence.

#### Description of Trench A Stratigraphy (Fig 7)

The topsoil (1000) consisted of a thin (0.04m maximum) dark band of black (10YR2/1) humic, stone-free sand that supported sparse grass and mosses, as described above. This overlay a dark brown (10YR4/3), stone-free sand (1001) of pH4.6. A thin band of small, round stones lay directly below this in most areas. Below 1001 was a homogenous layer (1002), 0.4m -0.6m in depth, of yellowish-brown (10YR5/4), loosely-packed loamy sand with 2% rounded small and medium stones, of pH4.4. Towards the lower part of this context the colour became redder, being a reddish brown (5YR4/3). 1002 contained fragments of coal throughout and some pottery, tile and brick fragments. The pottery sherds were coarsewares and yellow wares of the 17th century with one medieval sherd, 13th - 14th century in date. On the east side of the trench 1002 overlay 1015, a layer similar to 1002 but redder (7.5YR4/4) and containing 10% stones of 0.01m-0.04m in size. 1002 and 1015 overlay the "natural", the subsoil (1004) with a merging boundary that was uneven and undulating, not horizontal. The subsoil consisted of yellowish-red (5YR4/6), pure sand with patches of sand containing 5% - 10% clay. When exposed it dried to a hard and brittle surface. A one metre section of 1004 was excavated in the south-east extension of Trench A to a depth of 0.52m. It proved to be a homogenous layer that extended to a depth greater than 0.52m.

#### Interpretation of Trench A Stratigraphy

The dark humic band (1000) is typical of topsoils formed on acid subsoils, where breakdown of organic matter is slow, due to low soil animal populations. The stone-free sand band (1001) has a slightly higher pH than underlying layers. It is too acid to represent a worm-sorted layer and is interpreted as an imported layer, slightly improved by the addition of lime, and used as a base layer for the present day lawn.

1002 and 1015 are interpreted as imported material mixed with underlying layers and represent a destroyed garden horizon. The pH is low, the same as underlying layers, and indicates that this material was locally-derived and not improved for agriculture or horticulture. pH can change, of course, due to leaching, and sandy soils are very susceptible to this; however, the overlying layer was higher, of pH4.6, and 1002 was of considerable depth which would protect it to some extent from the effects of leaching. It is considered therefore that if this had been improved there would have been a slightly higher pH.

1004 was the natural subsoil, a glacially-derived sand that in some areas (see Trench M) contained bands of gravels and stones. The uneven, undulating surface is considered to be a natural phenomenon, the result of slightly differing clay contents and the non-uniform exposure to surface conditions that occurs in natural conditions.

#### Features in Trench A

Trench A contained 10 features. F3, F4 and F8 were located at the west edge of the trench. They were cut from a level just below the turf and therefore post-dated 1002. They contained pottery from the medieval period to the 19th century. They are interpreted as planting pits, post-dating the period of interest.



F2 was a pit, cut into 1002, just to the west of the tree. It contained coal and a considerable quantity of finds, mainly of the 17th century. It is interpreted as a rubbish pit and is of interest due to its position, opposite and near the main north entrance to the Hall. Perhaps it represents a short episode of rubbish dumping, formed at the same time as the layer 1002.

F1 was located in the east part of the trench. It was a large, curving feature, 0.8m to 1.2m in width, stretching across the trench, covered by 1002 but cut into 1015. 1015 is interpreted as a path destruction level of an early garden (see below, Trench H, Interpretation), and therefore F1 post-dates the early-18th century garden. F1 contained a very compacted, sandy silt loam with 2% rounded stones, and was covered by the later overburden (1002). This feature was not a planting trench and is hard to interpret. Perhaps it relates to a machinery base, used in the levelling of an earlier garden?

F9, F10 and F21 were overlain by 1002; they thus pre-dated it and possibly represent the early-18th century garden (Fig 2). F9 and F10 were very similar, shallow but clearly observed features, in line with each other, found 4.4m from the west edge of Trench A. The bases of F9 and F10 were 110.43m OD and 110.48m OD respectively. They are interpreted as planting pits within a straight planting scheme. F21 was a more amorphous feature that spread over a greater distance, the base of this feature being at 110.09m OD.

A south-east extension to trench A was dug in order to examine the evaluation trench of Currie and Locock (1992) and locate the path feature they discuss. This path, F14 (1017), was found. F14 was a reddish-brown (5YR4/4) gravel path, slightly greyer in colour than the underlying natural (1004), consisting of 60% rounded small and medium stones set in sand. The path presented a compacted surface and lay directly over the natural, being about 0.1m deep. The north edge was very clear and straight, running west to east, but the south edge was unexcavated, continuing under the present day path, so at this point the path was more than 1.6m wide. The path slopes slightly from south to north in the part exposed, the south edge being at 110.85m OD and the north at 110.7m OD. One piece of 17th century black ware was recovered from its make-up. The path continues into Trench K and Trench J in similar form and is discussed further under Trench J below.

The path F14 overlies F13, a post-hole type feature, 0.6m in diameter and 0.46m in depth, with a shallow, upper linear extension, c. 1m in length. No finds were retrieved from this, though it contained some degraded bone and charcoal. As this deposit was well sealed by the path it was sieved for charred plant remains. A few vetch seeds and hazel-nut shells were recovered.

### Conclusions

F9 and F10 are planting pits within a linear design. If the Beighton map at the same scale, is overlain over the positions of Trench A and F9 and F10, it can be seen that these features lie just within the central path area of the Beighton map, very near the edging (possibly of shrubs) of the west parterre. It is not impossible that they relate to this shrub edging.

The path feature is discussed in Trench J under Summary of F14/F22/F23 and the Conclusion.

## TRENCH B

This small trench was situated against the north wall west of the main church gate (Fig 1) within the yew hedge. The trees here were 3 to 4 years in age but were planted where an older yew hedge previously grew. The trench was dug in order to locate the presence, or otherwise, of statue bases. An auger survey and study of the Beighton map had indicated that locating a trench in this area could prove successful. Trench B contained three features; F5, a brick structure interpreted as a statue base; F6, a rubble structure east and adjacent to F5; and F7, a planting trench.

F5 is cut into 2005, 2005 therefore predates this feature. 2005 is itself cut by a later feature F7 (2001) a planting trench. As F7 has destroyed evidence of previous features, it is not possible to say whether a planting trench existed before the construction of the statue base F5, though the shape of the underlying context 2005 suggests that there was (Fig 8). 2005 was a dark brown (7.5YR3/4) sand with 2% rounded small and medium stones, containing mortar and brick. The excavator suggested that this related to rubble from the wall construction.

F5 (Fig 9 and Fig 10) is a brick built structure against the north wall though it does not touch it, there is a gap of 0.04m, which probably represents a pushing away from the wall due to root action. It is a rectangular structure, 1.16m x 0.52m found 0.2m below the present day surface, which today is three courses of bricks deep. The base was at 110.69m OD and the top at 110.89m OD (though it may of course have been higher). The short sides were built of two brick courses while the long side was of one. The central part of F5 was filled with 2003, a dark brown (7.5YR3/3) sand with 2% small and medium rounded stones, with 5% brick, mortar and red sandstone pieces. The only dating evidence was some 17th century pottery found in 2001, the context covering and post-dating the construction of F5. This pottery may, of course, have been residual.

F6 was an unconsolidated rubble structure filled with 2003 (described above), overlain by 2004, a layer similar to 2003 but very rich in brick and mortar pieces (20%), 0.01m to 0.1m in size. It contained one notable tile and mortar piece (Fig 14); a part-circle of a double band of tiles set into mortar, approximately one third of a circle is present (0.38m long, depth 0.14m). The mortar curves out at the base for maximum support, the average thickness of the mortar at the base being 0.09m. The tiles may originally have been completely encased in mortar on the inside of the structure. The tiles have an average width of 0.018m and are the same as the other tiles found on this site.

F7 was a planting trench extending 2.5m from the wall, 0.84m in depth, running (presumably) along the length of the north wall. The contexts dip down (Fig 8) which suggests there was an earlier planting trench pre-dating F5. Over the top of the trench there was a recent mulch, c. 0.1m in depth (2000), overlaying dark brown (7.5YR3/2) humic sandy loams with 5% fragments of brick, tile, mortar and red sandstone pieces (2001, 2003).

### Interpretation of Trench B

The statue base F5 was built after the wall as an addition, and was cut into material containing building rubble. There is a suggestion that there was a planting trench here before the statue bases were built. The rubble structure F6 may relate to the destruction/removal of statues from F5, the circular piece described above being, in fact, some sort of further support for a statue. The planting trench was dug after the statue base, the dark colour and high humus content of its fill indicating that plants have been grown here for sometime.

F5 may be the statue base referred to in Currie and Locock's report (1992 p79 and p83) though in their plan they have located it approximately 10m west of the church gate whereas F5 is 13m to the west. No features were located 10m to the west of the church gate.

### **TRENCH C**

Trench C was dug 2m to the west of Trench B, adjacent to the wall. It was 1.5m x 1.5m and about 0.6m in depth. Similar contexts were recorded as in Trench B, relating to the planting trench, but no archaeological features were found.

### **TRENCH D**

Trench D was a small trench 1.1m x 1.4m and 0.83m deep, dug adjacent to the north wall, east of the church gates, to the base of the wall foundations, at 110.33m OD. This trench allowed the wall construction to be recorded. This trench showed that at the present day ground surface there is a course of bricks set slightly out from the wall, providing a line. Nine course of bricks lie below this, then a thick mortar band and then two more brick course, the bottom course lying directly on the sand. The wall is not built out or reinforced in any way.

Trench D contained five contexts (3000 - 3004). These were humic sandy loams and loamy sands, divided by clear horizontal boundaries. The layer at the base of the wall (3004), into which the wall was cut, was a dark brown (7.5YR4/4), loamy sand with 2% small and medium rounded stones, containing flecks of charcoal, brick and pottery pieces.

#### Interpretation of Trench D

Context 3003, the layer above 3004 (the lowermost level), was very similar to 2002, the base of the planting trench in Trench B and is interpreted as this. Thus the planting trench can be traced the length of the north wall. The wall was dug into a soil altered by human activity, not into the natural.

### **TRENCHES E AND F**

These trenches were located east of Trench D and were of a similar size. They presented a similar range of contexts. No archaeological features were found.

### **TRENCH G**

Trench G was dug to the east of Trench B, in order to locate further statue bases. A statue base (F12), very similar to F5, was found. It was 1.11m long, built of one brick course and 0.5m wide at the west edge and 0.47m at the east edge, the short edges built of two brick courses. Overlying this structure was a mortar and broken sandstone layer.

### **TRENCH H**

Trench H was dug to examine the east part of the garden. Its position would have bisected the mid-central area of the east parterre of the Beighton design, if it was used. The trench was 6.4m x 1m, with an extension on the northern side of 4m x 5m (Fig 1). A service trench ran about 1m north of the northernmost edge and a rhododendron patch was adjacent to the east of the trench; this rhododendron bush

used to extend further into the trench area (O'Grady, pers. comm.). These features restricted the trench size. Trench A was c. 2m from its west edge.

Trench H had two main features, F20 in the south end and F15 in the north extension.

F20 was a clear, steep-sided small, curving ditch, 2.7m from the south end of the trench, extending east to west across the trench. It was 0.5m wide and cut 0.3m into the natural (1004), the base of the feature being at 110.13m OD. The shape resembled that of a cut for a service pipe of about 0.16m in diameter, but no pipe or any artefacts were found. It was overlain by 1002, the destruction layer post-dating the 18th century garden.

F15 (7005) was a path located in the north extension, about 0.3m below the present day surface. The plan and section drawing of this is shown in Fig 12 and Fig 13. The path was very clear. It consisted of medium rounded stones set into the subsoil, here a yellowish red (5YR4/6) sand. The stones were rounded, between 0.01m and 0.1m in size and covered 70% of the surface. The path was about 0.1m thick. It was level (between 110.72m OD and 110.74m OD) but dipped down to create two clear, shaped and curved depressions in the north extension, the depression having diameters of 1.6m with the base being at 110.48m OD (the north-west depression, F38) and 1.9m with the base at 110.6m OD, (the north east depression). These depressions were clearly constructed and formed a part of the path design, they were not a result of subsequent destruction.

F38 was filled with a clay loam (7009). F38 and F15 in the north part, were overlain by a compacted, path-like material (7008, 7009). Over these contexts, in the extreme north-west corner, was a layer (7004) consisting of 0.1m of sand overlain by small rounded stones, overlain in turn by medium rounded stones. Overlying all these contexts was an archaeologically sterile overburden (7006), about 0.3m in depth, equivalent to 1002 (Trench A) but darker and more organic due to the presence of tree roots. In the north-east of Trench H the path material (F15), though present, was broken up and less distinct, seemingly the result of root disturbance from the adjacent rhododendron bushes. It is therefore not possible to give a real description of the shape of the eastern edge of this feature for what is there today (Fig 12) may not represent the original shape but may be the result of subsequent disturbance. The path was not present to the west (Trench A, west-facing section Fig 7), though context 1015 (the layer below 1002 containing more stones), is possibly its destroyed remnants.

The south-west edge of F15 had a clear and curved edge, bounded by the subsoil (1004). Over this south-west edge was a sandy loam (7013).

The east-facing section drawing of Trench H at the north end (Fig 14) shows 1004 cut sharply to a comparatively deep point, - 110.4m OD, this cut is filled by 1002 the overburden. The subsoil (1004) rises up to 110.66m OD, 1.5m from this point to the south, this cut can also be seen in the west-facing section Trench A (Fig 7).

No datable pottery was recovered.

### Interpretation

F20 is interpreted as a service trench of some kind, either contemporary with or pre-dating the early garden.

The texture of contexts 7009 (in the feature F38) and 7013 are extraordinary in this garden in that they contain >10% clay. They must represent imported material used to improve the soil but have probably accumulated naturally in these slight

depressions from nearby planting pits. 7007 and 7008 may be the altered equivalents of 7004, with 7004 presumably representing a later path, post-dating the early-18th century, that ends inexplicably in the middle of the garden.

The cut of 1004 seen in section drawing Fig 14, shows that at this point the earlier layers were destroyed by digging down, perhaps to remove trees or plants, and subsequently were covered with the layer 1002. This cut can also be seen in the adjacent west-facing section of Trench A (Fig 7).

The path F15 (7005) was a clear feature lying directly over the natural (1004). It is therefore probably the earliest feature to have been made on this piece of ground, though it is not, of course, impossible that earlier features were dug out and removed completely, but at this level (110.72m OD), this is unlikely for if this had been the case the ground surface would have been uncharacteristically high. The depressions in the path F38 and the north-east corner were real, forming a part of the path. The clear south-west edge to F15 was possibly real, i.e., it was constructed in this manner, because it was adjacent and at the same level as the sub-soil (1004); however, this edge occurs near to the destruction point discussed above and so it cannot be certain whether this south-west edge was constructed in this manner or is a result of subsequent destruction.

The path F15 is of a different type to the path F14 in Trench A. It has more and larger stones but is at a similar level (F15 Trench H is 110.72m OD, F14 Trench A is at 110.85m OD the south end, and at 110.70m the north end). Comparison between the two paths is discussed more fully below, under Trench J.

If the design of the map by Beighton, is placed over a map of the position of the trenches dug in this excavation, Trench H falls in the middle of the south central design of the eastern parterre. It can be seen that the path F15 does not match up perfectly to the Beighton plan but there is some resemblance. It is worth bearing in mind that the Beighton plan cannot be an accurate scale drawing and that F15 has been damaged and altered on the eastern edge and completely destroyed on the south edge.

### Conclusions

F15 (7005) represents an early path feature but it cannot be dated. It has a clear shape consisting of a level patch with two curved depressions. The path has a firm surface and attractive appearance and consists of rounded stones embedded in the red sand sub-soil. This path was completely destroyed on its south and west edge by deliberate digging out and was subsequently overlain by 1002. On the east side it has been partially destroyed by root action from rhododendron bushes. Service trenches will have destroyed the northern part. There is nothing from this evidence to show the Beighton layout did not exist here, and indeed there is slight evidence (the depressions in approximately the right place and of the right shape), to suggest that it did.

### **TRENCH I**

Trench I was a small trench, 1m x 1m, dug against the north wall on the extreme west edge adjacent to the stone arch. It contained one feature, F18.

F18 was a rectangular brick structure, 0.56m x 0.37m in size and free standing, roughly built of bricks, three courses deep, and mortar. It was buried in 8000, a dark (5YR3/2) humic loamy sand, and no cut was visible. It was interpreted as a recently buried (within the last 10 years) piece of masonry. Possibly it was found by an earlier MSC excavation and reburied in the same, or a similar, place.

## TRENCH J

Trench J was dug adjacent to, and to the east of, the south-east extension of Trench A in order to trace the path F14. It was 5m x 1.4m with a small section (0.7m in width) being cut down 0.65m into the natural (1004) on the south edge. It contained six features shown in Fig 15 .

F36 was a small pit post-dating 1002, interpreted as a recent planting pit.

F35 was a small pit cut from the surface, interpreted as another recent planting pit.

F33 was a straight-sided feature filled with a dark brown (7.5YR4/3), loamy sand containing pottery, brick and charcoal fragments and patches of the natural sand subsoil (9006). It had a level upper horizon. It cut 9007, the path material underlying the present-day path, and 9007 cuts 1002. F33 therefore is a feature cut after the deposition of 1002.

F34 is a straight-sided feature cutting F33. This contained a dark brown (7.5YR4/3), loamy sand at the base of which was a red sandy layer of harder material of the same colour as the subsoil (1004)

F22 (9000) is a path going east to west across the trench, aligned with F14 in Trench A. The path had a straight edge on the north side and a curving degraded edge on the south. It was 0.75m wide and 0.1m deep and consisted of a compacted brown (7.5YR5/4) sand with 50% (surface area) rounded stones, 0.01m - 0.03m in size, lying directly over the natural. It was at 110.52m OD and was overlain by 1002. On the west edge F22 was cut by 9007 (see above) and by F35 on the east side.

The paths F22 and F23 were cut and divided by 9007 and F35.

F23 was a path, 0.4m south of F22, made of compacted brown (7.5YR5/4) sand with 20% (surface area) rounded stones, 0.01m - 0.06m in size. It was at 110.72m OD and overlain by 9007.

### Interpretation

F33 is interpreted as a levelling and destruction layer of a straight-sided feature that post dated the destruction layer 1002. F34 is interpreted as a later planting pit, post-dating F33.

F22 and F23 are probably the same feature, divided and destroyed by later path levels (9007) and by F35. This must be the same path seen in Trench A and the path is further traced in Trench K (10,003, below) where the vestiges of it can be clearly seen on the same alignment. It has a sharp straight and clear edge on the north side, though the path curves slightly to the south-east on the north edge. The south side extends indefinitely under the present day path. Currie and Locock (1992) found that the western edge of the gravel path ended with a straight edge aligned slightly east of north and adjacent to a shallow pit cut into the natural. They suggested that this pit, and others on the same alignment, were planting pits, probably contemporary with the path, and they do not consider that the path was cut and destroyed by these pits, though this interpretation cannot be ruled out. The eastern edge was not found.

### Summary of the Path F14/F22/F23

A path, 0.1m at least in depth, overlying the natural was found. It had a different appearance to the path F15 in Trench H, being made of smaller finer stones but at the same level, 110.72m OD. This is 0.03m higher than the base of the statue surrounds (F5) and 0.39m higher than the wall foundation on the east length of the wall (at 110.33m OD). The path runs west to east indefinitely with a clear and straight north edge and possibly ends with a series of planting pits on the west edge. It is overlain by the destruction layer 1002 and the later path material 9007. There is no sign at all of a north to south path. The section drawing (Fig 15) does show F22 cut by 1002. It is curious, however, that if a north-south path was destroyed in this manner, there should be such a straight edge; it is also curious that this path, lying on the natural, is at the same level as the path F15, also on the natural.

### Conclusions

The earlier levels of the garden higher than F22/F23 (at 110.72m OD), have been destroyed and covered by 1002.

Several hypotheses can be proposed to explain the existence of the path F14/F22/F23:

This path represents an early garden feature, a path that extends out slightly in the area in front of the hall and then bends back under the present-day path and continues in a straight line to the east. In this case the Beighton plan does not give a true representation of the early garden design.

An earlier path existed, consisting of the same, or other materials, on the same or another alignment. This was subsequently dug out down to the natural and F14/F22/F23 was subsequently built. If this was the case, such a feature would have been at a higher level than the F15 path in Trench H.

A later and slightly higher path existed, overlying F14/F22/F23, consisting of the same, or other, materials. This was dug out subsequently. If this was the case such a path would have been at a higher level than the F15 path in Trench H.

F22/F23 represents an early garden feature that originally extended north to south across the central part of the garden (as in the Beighton drawing); this was destroyed by digging out *with a straight edge* and covering with 1002. The west to east path remained because it was at a slightly different level. The majority of the west to east path was also largely destroyed by the later path material (9007).

A central path existed (as in the Beighton drawing) but it was of a different construction and made of different materials to the F14/F22/F23 path.

The last four hypotheses do not refute the existence of the Beighton layout. It is left to the reader to decide on their likelihood.

### **TRENCH K**

This trench was 0.8m to the east of Trench J and was dug to trace the path F14/F22/F23. It was 1.6m x 2.74m and contained two main features, F25 and F23.

F25 was a straight sided deep feature, 0.6m x c. 0.6m (one side was not excavated as it extended beyond the trench) and 0.82m deep, the base being at 109.98m OD. It underlay the present-day path but cut 10,010, the hardcore underlying the

present-day path and cut F23, the early path. It is therefore interpreted as a later feature, post-dating the present-day path design, used to support a large structure of some undefined kind.

F23 has been discussed above in Trench J.

## **TRENCH L**

A different sequence was found in the two trenches dug in the north part of the garden, Trench L and Trench M.

Trench L, 5.4m x 1m, was dug from the planting trench against the wall, across the present-day path and into the lawn.

### The Basic Stratigraphy With Interpretation

The south edge of the trench was dug 1.3m below the surface (to 110m OD) into the subsoil. The subsoil here (11000) was a red (2.5YR4/6) sand with sorted, horizontally-lain, small and medium rounded stones in bands. The upper part was compacted and the pH at 5.1 was higher than the pure sand subsoil elsewhere (1004). The C horizon of the soil (11001) began at 110.46m OD. Above this (between 110.7m to 110.84m OD) was a dark brown (7.5YR4/4), sandy silt loam (11002) with pH5.0 and a subangular blocky soil structure. It contains more clay than elsewhere in the garden and has a higher pH. It is at much the same level as the path feature F15, in Trench H.

This subsoil was coarser-textured than elsewhere, with larger, water-lain, glacially-derived stones. 11002 is interpreted as an 'improved' buried soil; some clay has been added, and possibly represents an early garden stage. This is further discussed in 'Interpretation' Trench M (below).

Overlying the buried soil (11002) is 11003, a dark brown (7.5YR4/4), loamy sand with 10% small and medium rounded stones containing charcoal, interpreted as a dumping layer that has undergone some degree of soil formation, i.e., it has been *in situ* for a period of time (possibly c. 100 years). East of this, at the same level, is 11006, a stone (60%) and sand layer. This is interpreted as a dumping level of hardcore underlying the present-day path.

### The Features

Cut into 11006 and 11003 are three features, all traced into Trench M, 7m to the east.

F30 (11009 11004) was a planting trench, seen in Trench F nearby, adjacent to the wall, and thus it is nearly 3m in width. It is cut into the hardcore underlying the present-day path (11006). The upper 0.03m of the path (11006) was redder in colour and of a finer texture than the underlying layer, and probably represents the most recent surface. The path has a camber, sloping north to south and is edged with F28, a crudely constructed soak-away. Immediately to the south of this and the present-day path is F29, a clearly cut feature, 1m in width, going west to east across the trench to 0.3m below the present-day topsoil.

There was no sign of path material except a small patch of red subsoil south of and at the base of, F29 (Fig 16). This was at the same level (111.07m OD) as the path F31, seen in Trench M, described below.



### Interpretation

The features F29, F28 and F30 all post-date the buried soil 11002, the dumping levels 11003 and 11006 and the lay-out of the present-day path. They are further discussed in Trench M (below).

### **TRENCH M**

Trench M, 2m x 3m in size, was dug 7m to the east of Trench L.

### Stratigraphy

A similar sequence of contexts was found as in Trench L, described above. There was a hardcore path material 12005 (equivalent to 11006 above) and a dumping level 12002 (equivalent to 11003 above). Within 12002, in the south-west corner, was a white-grey sand (12001), mixed by root action into bands. It was not natural to the area. It is impossible to say whether this originated from lower layers (and was thus an early deposit) or upper layers (and was therefore a more recent deposition). The buried soil was not seen, however, the subsoil rises up in this area and F37 (the equivalent to F29 above), cut down to the subsoil, destroying previous layers.

### The Features

The trench had similar features as Trench L (above) but F37 (the equivalent to F29 described above) had been recut by F32, a similar feature. This trench also had a path feature (F31) similar in type to F15, in Trench H.

F31 was a path of yellowish-red (5YR4/6) sand with 50% rounded stones, 0.02m to 0.07m in size, lying immediately over the natural. It was at 111.07m OD, though the surface was uneven. It was cut and broken by the present-day path (12005) and features F37 and F32. The west edge was straight and aligned south west but it is not possible to say whether this was a real or destroyed edge. It was level with the natural (1004) which suggests it was real, but the path was very broken up by the later features F37 and the path (12005). If F31 the path was laid on an uneven surface and was itself of greater depth than seen today, an edge level with the natural could still be a dug-out destroyed edge.

### Interpretation

The features F28, F37/F32 (the equivalent of F29 in Trench L) are linear features, running west to east, adjacent to the present-day path. They are later features, post-dating the early garden. F28 is a soak-away, to drain the slope of the present-day path; F37/F32 represent a later, linear planting border, adjacent to the path. F31 represents an earlier path, similar in type to F15 in Trench H, though it is slightly higher. It has been destroyed by F37 and the present-day path 12002.

The buried soil 11002 in Trench H was at the same level as F15, the path feature in Trench L and both lie on the natural, it is therefore reasonable to suppose that they are contemporary and represent an early garden. However, a path material similar to F15 was found in Trench M, but at a slightly higher level (by 0.35m) also on the natural, indicating there *was* a path here which had been dug out. It is possible then that a path existed at c. 111.07m OD in Trench L, this was dug out and replaced by soil (11002) and later by the present-day path and a planting border. The small patch of subsoil at 111.07m OD in the east-facing section of Trench L (Fig 16) is slight evidence to support this theory.

## Conclusions

There is nothing to deny that F31 represents a path, in the position shown in the Beighton drawing, that was subsequently destroyed by digging out and covering with an overburden.

## **TRENCH N**

A small trench was dug adjacent to the west wall to trace the history of the west path, and to search for possible statues, shown in the Beighton plan as column symbols (these column symbols were not found on the North wall in the appropriate places, see above).

Trench N was a small trench 3.4m x 1m. This trench uncovered a small brick structure, one brick course deep, modern and relating to the building on the other side of the wall at this point. A shallow (0.14m) path 1.34m wide of red sand and small stones, ran immediately adjacent to the wall north to south, just below the surface soil. The same deep feature (F24) found in Trench O described below, with the same sequence of fills was found, beginning 1.34m from the wall.

## **TRENCH O**

Trench O was dug north of Trench N, it was contained one main feature F 24. F24 was a deep, sharp-sided ditch, the bottom of which was 1.24m below the present-day surface (at 109.38m OD), about 4.4m in width. This feature was probably the service trench found by the geophysical survey, but was very much larger than expected, extending west of the grid. It ran straight north to south, under the present-day path. It was filled with a dark brown (7.5YR3/2), humic loamy sand (1018 1019) containing post-medieval tile, with many large roots from the yew hedge growing today. It was cut in the centre by F26, a straight-sided feature containing a ceramic, 0.17m diameter dark purple/grey pipe.

## Interpretation

F24 is a large feature, pre-dating F26, the service trench. The finds, size of roots, and structure and organic matter content of the soil suggest it was infilled about 100 to 200 years ago. It is suggested that this trench was dug to remove large bushes, perhaps a yew hedge. The feature may mark the earlier west boundary of the North Garden. The service trench is probably late-19th century in date and was dug subsequently, through F24.

## Conclusions

F24 and F26 will have destroyed all evidence of earlier features on the west wall. The statues of the Beighton drawing may have existed, but they cannot be found by archaeological methods. It is suggested that as the column symbols were not located on the north wall, whereas the round symbols were, these column symbols did not exist as below ground structures and were lighter statues.

## DISCUSSION AND RECOMMENDATIONS

Some features of an early garden were located. Statue bases against the north wall, built subsequent to the wall, were revealed in the approximate positions as those shown in the Beighton plan.

### The Statue Bases

Four statue bases were located. One was excavated fully - F5, one partially - F12, and two were excavated enough to establish the edges and therefore the size of the structure (F16 and F17) (positions shown in Fig 1). 17th century pottery overlay the F5 statue base. No features were found in the intervening spaces, though they were sought, by digging trenches in the appropriate place; one (Trench C) was dug to a depth of 0.6m. The Beighton map shows four round symbols on the west side of the wall with three column symbols in the intervening spaces. The brick structures located are in the positions of the round symbols and it is suggested that these represent statue bases, while the intervening spaces, represented by the column symbols in the Beighton map, if they existed, must have been slighter structures, ones that rested only on the ground surface.

The excavated statue bases varied slightly in size. They were, from the west:

F16	1.34m x 0.69m
F5	1.16m x 0.52m
F12	1.11m x 0.47m and 0.5m
F17	1.19m x 0.62m

They were built in the same manner, with one course of bricks on the long edge, and two courses on the short edge. The western-most base (F16) was 3.3m from the stone arch in the north wall, the others were 5.2m, 4.2m and 4.5m apart; the last, F17, was 2m from the alcove by the gates.

Dating evidence cannot pinpoint the period of construction or destruction, it can only tell us that it was some time after the 17th century.

The statue bases were all covered by mortar and sandstone rubble. This suggests they supported a sandstone structure, held on by a mortar cement that necessitated chipping and breaking the mortar support and lower levels of the sandstone structure in order to remove them.

### The East Stretch of the North Wall

It was felt that if one statue base was located in a position calculated from the Beighton map and from the spacings calculated from the statue bases found on the west side of the wall, this would establish that statue bases were also positioned on the east side of the wall, as would be expected. F19 was located in this calculated position. It was a brick rubble and degraded sandstone structure, 0.2m - 0.4m below the present day surface. It was not excavated further, nor was further work done this side of the wall as it was not felt to be necessary.

### Conclusions

It is reasonable to suppose that the east stretch of the wall was the same as the west.

Archaeological evidence cannot contradict the Beighton plan; it does in fact strongly suggest that the Beighton design was the one used on the north wall.

### Paths and Other Features

The remains of three early paths were also found. One F15, (Trench H) bears some resemblance to the Beighton plan; another, F31 (Trench M), is too badly damaged to provide conclusive proof of any kind. The third (F14 in Trench A and F22/F23 in Trenches J and K), goes west to east and does not comply with the Beighton plan. Two planting pits (F9 and F10) may also relate to the Beighton map, though they are not in the exact position.

### Subsequent History of the Garden

The majority of an early garden has been destroyed by digging out and overlaying with locally derived dump material (1002), containing 17th and 18th century artefacts, which dates this destruction to the 18th century or later. The western part of the garden has been destroyed by a large ditch. This possibly marks the place where a large hedge was removed, some 200 years ago. After the destruction of the garden a roughly constructed path was laid west to east along the north edge and the south edge of the garden. At one time the north path was edged on either side by planting beds. A shallow path also ran through the central part of the garden (see Trench H). The south part of the garden also bears evidence to several recent planting features, some opposite the main entrance to the house, and to the presence of more substantial late features (F25, Trench K, and the 'flag-post' in Trench A). The present-day lawn was planted on a prepared sandy, stone-free surface.

In the light of the early garden destruction revealed by this excavation it is unlikely that further archaeological work would reveal more information to help CBHGT with the reconstruction.

### **TRENCH SG1**

An evaluation trench (SG1) 22m x 1.5m and 0.75m deep was dug in the Slip Garden in the south west of the Hall grounds, near to the music room covering the area from the road entrance to three large trees. Heavy machinery will be brought into the garden from the Birmingham road to the point of the three trees, in order that restoration work can be carried out to the music room building. This work might have destroyed underlying archaeological layers, so an evaluation trench was dug along the entire length of the piece of ground in question. The trench contained two contexts, a topsoil and an underlying loamy sand (1023) containing coarseware pottery of the late 18th century, brick, tile and glass. No archaeological features were found. It was therefore concluded that the building work in this area would not destroy any archaeological evidence.

### **ENVIRONMENTAL EVIDENCE**

Bone did not survive in these acid, sandy soils, and only fragments of degraded unidentifiable pieces were recovered.

Three features only were considered to be well enough sealed to provide uncontaminated (from later overlying layers) charred plant remains. These were F9, F10 and F13, all in Trench A and all were sampled. F9 and F10 in fact contained no plant remains. F13, the pre-path feature, contained some vetch seeds (*Vicia* spp.) and hazel nut shell (*Corylus avellanus*) (Lisa Moffett, pers. comm.). Vetch plants are not acid soil types and do not grow in the garden today, though

hazels do, but generally, there is little further that can be said about such a small sample.

## **THE ARTEFACT REPORT**

### **The Pottery, by L Bevan, with specialist comments by S Ratkai**

With the exception of four sherds of Medieval coarseware and one sherd of a "Martincamp" flask, the pottery assemblage of 96 sherds is predominantly post-Medieval in date.

The assemblage otherwise comprises 53 sherds of coarseware vessels, many with brown glazes, 9 sherds of yellow glazed earthenwares, 3 Blackware sherds, including a simple rim, 1 sherd of buff, mottled ware and 16 creamware sherds, as well as 9 sherds of flowerpot. The date range is from the 16th to the 19th century, with the majority of sherds dating to the 17th-to-early-18th century, apart from the creamwares, which are late-18th/19th century in date.

Interesting in the collection are 9 sherds of post-Medieval flowerpot, eight of which come from the same vessel (Fig 17). This ornamental vessel has a flattened, slightly everted rim, with a diameter of 28mm and a row of raised "pie-crust" at the shoulder, distinguished by the superimposition of stamp-impressed decoration in a series of squares. An 18th/19th century date is suggested in the absence of published parallels.

### **Tile and Brick, by L Bevan**

Large quantities of brick and tile were recovered. This material was scanned for 'form' pieces, revealing only the possible statue base from 2003, Trench B. All brick and tile were retained but no further action was deemed necessary due to the unstratified nature of the material and absence of identifiable pieces.

### **The Glass, by L Bevan**

The glass comprised 40 fragments, 20 of which were window glass and 19 from light and dark green wine bottles of probably 19th century date..

Unusual in the collection is a "prunt" of pale green glass (Fig 18). Such decorative roundels were applied to glass vessels, possibly chamber pots or storage vessels, during the early-17th century (see for instance, Margeston 1993, Fig 75: 712)

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