

A Trench in the Grotto, Wanstead Park

A trench in the rear of the boathouse of the Grotto, Wanstead Park, Wanstead, in the London Borough of Redbridge.

WT-GR:93

LDPEM/ ACWT/ 217

TQ 428748

A Level III Report

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1. Abstract.

The site is located at the Grotto in Wanstead Park, Wanstead. A small trench was excavated in the southern part of the boathouse. This trench produced evidence for the internal arrangements of the entrance at the South of the boathouse, and some evidence for the sequence of construction and remodelling of the structure during its lifetime. The boat house was built first, and an entrance was later driven through the southern wall and clad in re-used stone at a time when the ornate grotto additions were made. The excavation produced little evidence of the fire which is known to have destroyed the building in the later part of the nineteenth century.

2. Report Introduction.

This report is on a trench excavated in the rear of the boathouse of the Grotto in Wanstead Park, Wanstead. It contains three main sections. First is an introduction to the site with a brief description of the methodology used. This is followed by a brief description of the results obtained, discussed in terms of phases, and different periods of building. A matrix, to show the archaeological sequence, is appended, as is a more detailed presentation of the results obtained by the fieldwork.

The site was recorded using a single context planning system, to allow for the stratigraphic analysis of the site. The basic unit of recording is called a context; this refers to the trace left by one single event in the past, such as the cut for a ditch, or the construction of a wall, or the filling in of a pit etc. The archaeological trace is given a number and then a written record is made on a pro-forma sheet, then a plan and/or profile is drawn to scale (usually at 1:20 and 1:10 respectively).

The stratigraphic relationship between contexts are shown in the form of a matrix:

| |
|-----------|
| |
| 1 (fill) |
| |
| 2 (cut) |
| |
| 3 (layer) |
| |

In the above example context no. 1 is a backfill of cut, 2, which is cut through a layer, 3.

Contexts are assigned to groups which represent individual features or groups of features, such as a posthole or a line of postholes, which are part of the same sequential construct. Thus the contexts of a trench will be divided into groups which are numbered, e.g. gp.1.02 would refer to group 2 in trench number 1. The contexts are described, listed within groups, the groups detailed, and the identification numbers of any relevant photographs given. These photographs are held in the archives of the Archaeology and Local History Centre (address listed below). This information can be found in Appendix I.

A level III index is given as Appendix II. This consists of a numerical listing of all context numbers assigned, against each of which is given the numbers of the groups and phases to which that context belongs, and the numbers of any drawings made which include that context. This should enable the Site Archive to be used more easily for cross-referencing and checking. The Site Archive is held by Newham Museum Services at the Archaeology and Local History Centre at 31 Stock Street, Plaistow, London, E13 0BX.

I should like this opportunity to thank The Corporation of London and Mr. J. Kverndal for their help, also Mr. Paul Rice, the Keeper in Wanstead Park for his assistance in providing accommodation and keys for access. Thanks also to the staff on site, Ms. Sarah Harding and Mr. Mark Beasley. Thanks are also due to Graham Reed for the illustrations.

This project was funded by the Corporation of London, negotiated and directed by Dr. F. M. Meddens for Newham Museum Services. On site supervision was carried out by the author.

3. Site Introduction and Methodology.

This report is of the test trench excavated in the rear of the boathouse at the Grotto in Wanstead Park, Wanstead, London Borough of Redbridge (see Fig. 1). The work was

commissioned by the Corporation of London, who own and administer the park, with a view to future consolidation and /or reconstruction of the Grotto.

The Grotto was built probably in the later part of the eighteenth century, and destroyed by fire in 1884. Inside the grotto one of the rooms had a domed roof which had a stained glass roof window, its interior was decorated with pebbles, shell, crystals and mirrors. The floor consisted of a tessellated pavement made of deer bone. Much moulded stone was re-used in the facades facing North and West. A boathouse was part of the building. The ruins have been badly damaged by vandalism in the twentieth century.

Work took place on site from 8/3/93 to 9/3/93 and again on 16/3/93 and 17/3/93. One trench was excavated by hand, initially measuring 3m x 1m x 0.3m, with the sections and bottom of the trench being recorded. The trench was later reopened and taken deeper and wider (2m x 1.5m x 1m approximately) in order to answer questions left unanswered by the initial, and shallower trench.

The trench was located (see Fig. 2) in the southern (rear) half of the boathouse forming the core of the Grotto site. The trench was positioned to take in the eastern side of the entrance in the southern wall of the structure. This with the aim of recovering information about the internal arrangements of the boathouse, the sequence of construction and rebuilds, and the nature of the entrance way at the rear of the boathouse.

The trench was hand-dug, and the sections recorded at a scale of 1:10. An elevation of the wall in the trench was also drawn, as was a plan of the deeper trench (also at 1:10). The deposits visible were recorded stratigraphically, using a single context system, as were the various elements of the standing structures. The standing remains were covered with plastic (as requested by Mr. J. Clare during his visit to site on 17/3/93) and then backfilled.

4. Archaeological Discussion.

The ruins are covered by scrubby vegetation supported by an accumulation of a loose organic loam. This is derived from the collapse and erosion of the earth mounded up against and over the Grotto, and from the decay of vegetation that grew up in the ruins. This overburden also

contains material from the structure of the Grotto and boathouse incorporated when the building was destroyed. This accretion of material is in places nearly 0.5m deep.

The excavation has revealed evidence for the nature and sequence of the construction of the boathouse. This may have implications for the overall structure.

It appears that the boathouse was constructed first. A shallow cut into a natural brickearth contains a raft of brick and mortar rubble on which is built the foundation course of a brick wall. This wall has 12 remaining courses of brick, and is stepped in above the foundation course and above courses 5 and 6. The construction is English bond, and relates to Unit 6 of Phase 1 as identified in the Assessment Report undertaken in 1993 (Beasley, 1993). This wall originally ran the full length of the southern wall of the boathouse cutting the trench east-west (see Fig. 3).

At a later point an entrance was made through the southern wall, with the brick wall being partially demolished, so that only the bottom two courses and rubble layer remain of the foundations. The eastern side of the entrance was built with brick (possibly re-used from the demolition of the brick wall where the entrance was put through). This wall runs south - west for approximately 3m, and is clad with stone, some of which is re-used. This cladding appears to be tied into and therefore contemporary with the entrance way. In the cladding of the wall running south on the east side of the entrance is a possible beam slot, perhaps indicating the provision of a door in the entrance.

Running north from the corner of the wall at the entrance there is a suggestion of a wall footing. This consists of a scatter of brick and stone, including fragments of dressed stone, in a shallow cut in the natural. This extends approximately 1m north before disappearing under the baulk. There is a hint that this feature may have returned or curved round to the west, as if it was originally intended as a platform or step inside the newly created entrance at the rear of the boathouse.

This arrangement is later altered so that the step or platform inside the entrance is demolished, and the corner of the wall at the entrance is supported by a buttress projecting approximately 0.5m into the back of the boathouse. This buttress seems to have been made by leaving the desired length of the demolished step or platform and cutting the exposed face into a curve. The entrance itself appears to have been changed at this time with the building of a cobbled "surface" (see Figs. 3 and 4). This "surface" has a pronounced slope from east to west, with the size of the cobbles diminishing as the slope falls away to the west. There appears to have been a slight slope from south to north, as if this feature sloped down into the boathouse. It is possible that it represents one half of a "V"-shaped surface, with the groove running down into the boathouse. There is enough width in the entrance for the feature to come up at the same angle, but this has not been proven archaeologically. The cobbles are set into a layer of a silty clay, which has been very disturbed by root action, particularly to the eastern side of the entrance way. Although this root action might account for some of the angle of inclination of the cobbled feature, it is felt that it was always meant to have this arrangement. Its purpose is unclear, but may be related to the drawing up of vessels within the boathouse.

The cobbles may have extended into the boathouse, forming an interior shelving surface. However, it is apparent from the exposed remains that the surface (if that is what it is) has

been badly damaged, possibly deliberately. It only remained against the western section of the trench throughout the trench's 3m length, except in the most southerly 0.8m. Cobbles were observed in the overlying loamy soil, particularly to the east of the trench, around and to the east of the buttress where they occur frequently but in a random distribution, in a soil below a layer representing tumble from the walls after the destruction of the building.

The excavation produced no evidence beyond this for the internal arrangement of the boathouse. The presumed brickearth natural seems to slope into the basin, mixed with clay and again very disturbed by root action under the cobbles (where they survived). The relationships are not clear in the northern end of the trench. Brick appears in the western section stratified under the cobbles and set in silt-clay, between 1.5m and 2m into the boathouse from the entrance in the southern wall, and brick appears at a similar depth in the eastern section, but no structure is apparent.

As discussed above, all the recovered features were covered by a variable depth of overburden. This includes layers of mortar and brick fragments close to the walls, with the main topsoil containing considerable quantities of tumbled brick and stone, and modern rubbish has also been incorporated into this deposit. Immediately above the cobbles in the southern end of the trench was a thin layer of gravel, and above this were small patches of a very ashy sandy silt. The topsoil also contained a small quantity of charcoal flecks. The latter was the only evidence which may relate to the fire which destroyed the structure in 1884.

5. Summary and Conclusions.

The trench excavated in the rear of the boathouse in the Grotto in Wanstead Park produced evidence for the sequence of the construction of the boathouse, and some details of the arrangements for the entrance seen in the southern wall of that structure.

The boathouse appears to have been originally a separate brick-built structure, with no entrance in its southern wall. This may have been built at the same time that the lake was created. No details of the internal arrangements of the boathouse are known archaeologically from this initial phase of construction.

Subsequently, an entrance was made in the southern wall, with a brick return running south from the entrance on either side. These visible faces were clad with stone at this time. This period of rebuilding may relate to the conversion of this site into the Grotto, as the decorative structures were added to the shell of the original boathouse. Internally, a wall footing of stone and brick may belong to the same phase. This may have been for a step or platform inside and at the rear of the boathouse.

The next episode of remodelling sees the demolition of the platform inside the entrance at the southern end of the boathouse, leaving short buttresses created from the remains of the platform. Between the buttresses on either side of the entrance, a cobbled feature is added. From the side of the entrance that was excavated (the east side), it appears that the cobbles slope down to the west, to the middle of the entrance. There is also a noticeable slope from south to north into the boathouse. The entrance is wide enough for the cobbles to slope back up on the western side, forming a groove sloping down into the boathouse. The purpose of this arrangement is not clear, nor is the extent of the cobble spread.

Above these features was a layer of soil mixed with tumbled material from the walls, including some considerable sections of brick wall, and large amounts of stone, some of it dressed as with that used in the cladding and the wall-footing. Little evidence which may relate to the fire that destroyed the building was found. Small patches of ashy material were located near the base of the overburden, and in the occasional charcoal flecks present throughout the topsoil.

The topsoil which has accumulated includes modern rubbish, and is largely derived from the decay of vegetation which has grown up over the ruins in the last hundred years. The vegetation supported by this soil ranges from mature trees to nettles, brambles, ivy creepers, and saplings of various species. The ground cover had grown back quite strongly since the Grotto was stripped in 1993. The roots of the mature trees have made some impact on the survival of the standing and subsurface remains.

Whilst the results of this trench have answered some questions about the building's construction, many more questions have been posed. The function and extent of the cobbled feature in the entrance in the southern wall of the boathouse need to be established. There is little information on which to make any observations concerning the internal arrangements, for example whether or not there was a dock or if boats were drawn up on a shelving "beach" or even if there was any water in the boathouse. If there was a water filled basin, its size, depth and construction remain to be discovered. Little evidence for the destruction of the building by fire has been recovered; closer investigation of any burnt material or layers not yet identified may reveal information about the rooms above the boatshed.

6. Bibliography.

Beasley, M. (1993) “Wanstead Park, The Grotto. Assessment Phase 1. Level III Assessment Report”

Appendix I Results by Groups.

Phase 1

This phase consists of group 1.01 and represents the lowest and presumably earliest deposits investigated.

Group 1.01

Heights above O.D.
in metres
max. - min.

|
11

|
9
|

- (11) layer; orange silt-clay, occasional pebbles, brick and mortar fragments. 7.10 - 6.98
(9) layer; orange-brown silt-clay, moderate amounts of sub-round small stones. 6.83 - 6.73

Photographs. B/W - 1 1.2.3.4.5. C/S - 1 1.2.3.4.5.
 - 2 1.2.3.4. - 2 1.2.3.4.

Discussion

This phase consists of a layer of an apparently “natural” silt-clay or brickearth, containing moderate amounts of small sub-rounded stones. Above this is a layer of similar silt-clay, again a brickearth, containing similar stony material and also small amounts of brick and mortar fragments, which may have found its way into this deposit when the brick wall was erected.

Phase 2

This phase consists of group 1.02, and represents the initial building of the boathouse in the eighteenth century.

|
4
|
15
|
16
|

- (4) Structure; red brick wall, English bond, 12 courses surviving, lime mortar 7.87 - 6.545
(15) structure; brick and mortar rubble platform. 6.71 -
(16) cut; linear, shallow, flat bottomed, unexcavated. 6.64 -

Photographs B/W 1 1.2.3.4.5. C/S 1 1.2.3.4.5.
 2. 1.2.3.4. 2. 1.2.3.4.

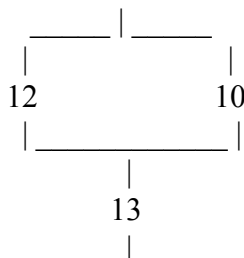
Discussion

This phase represents the construction of the boathouse in brick. A shallow cut (16) was filled with a platform of brick and mortar rubble (15) on which the foundation course was laid. Including the foundation course, the wall (4) stands 12 courses high in the trench, and much higher in other parts of the structure. The bricks are mortared with a light grey lime mortar, and built in English bond. The wall steps in above the foundation course and then above the fifth and sixth courses. The second and third steps may possibly have had a secondary function in supporting a platform or stage inside the boathouse, but no explicit evidence was found to prove this.

Phase 3

This phase consists of group 1.03, and represents a phase of rebuilding or remodelling of the original boathouse structure.

Group 1.03.



- (12) structure; pieces of stone, some dressed, and brick laid at random 6.81 - 6.715
(10) fill; grey to brown silt-clay, brick and mortar frags, sub-round pebbles. -
(13) cut; linear ? shallow, flat-bottomed, unexcavated. -

Photographs. B/W 1 1.2.3.4.5. C/S 1 1.2.3.4.
 2 1.2.3.4. 2. 1.2.3.4.

Discussion

This group represents a rebuilding or remodelling of the boathouse. A hole was made in the southern wall in order to make an entrance way. (13) represents a shallow cut containing a wall footing (12) consisting of large flat fragments of stone, some of which are dressed, and brick. (10) is mixed in with this wall-footing, and is comprised of a slit-clay with brick and mortar fragments mixed in. It appears as if (12) supported a wall or platform inside the entrance, with (10) being a fill behind the stone dressing.

Phase 4

This consists of groups 1.04 and 1.05, and represents a further episode of rebuilding and remodelling.

Group 1.04

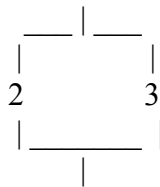


- (7) structure; cobbles of varying sizes, largest higher and to east. 7.15 - 6.86
(8) layer; orange-brown to grey clay, very root disturbed. 6.98 - 6.77

Photographs. B/W 2 5.6.7.8.9.10.11.12. C/S 2 5.6.7.8.9.10.11.12.

This group represents a feature comprising a layer of cobbles set in clay. The cobbles slope down from east to west in the entrance at the south of the boathouse, and appear to slope from south to north into the building. This layer is partially disturbed so that its full extent cannot be seen. The southern section is 0.7m x 0.6m, with only a thin spread of cobble down the length of the western side of the trench. The cobbles are set into a layer of a very rooty clay; the root action may have lifted the cobbles in the east of the trench (adjacent to (3) the stone cladding in gp.1.05), but it is apparent that the cobbles were deliberately set so as to give this half- V shaped profile.

Group 1.05



(2) Structure; brick and mortar wall, tied into(3). Eastern part of buttress. 7.29 - 7.04

(3) structure; Stone and mortar wall, tied into(2). Western part of buttress
and wall cladding. 7.34 - 7.19

| | | | | | | |
|-------------|-----|---|--------------|-----|---|--------------|
| Photographs | B/W | 1 | 6.7.8.9.10. | C/S | 1 | 6.7.8.9.10. |
| | | 2 | 13.14.15.16. | | 2 | 13.14.15.16. |

This group represents a buttress butted onto the brick wall (4) on either side of the entrance in the southern wall of the boathouse. The cladding (3) extends south along the remodelled wall of the entrance, and is composed of fragments of stone including dressed stone. The brick constitutes the eastern half of the buttress, that side not visible from the outside of the building. The buttress is 0.6m north -south and approximately 0.5m east-west. It survives to a height of approximately 0.7m. It may belong to the previous phase, where it may have formed part of the facing or construction of the internal “platform” supported on the wall-footing (13) in group 1.03. It has been included here because it is in this period of rebuilding that the constituent parts are modelled into a buttress.

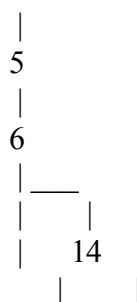
Discussion

This phase represents another rebuilding or remodelling of the southern entrance to the boathouse. The “platform” inside the entrance (see group 1.03) was largely demolished except for the ends butting the brick wall (4); these ends were cut into curved faced buttresses ((2) and (3)). In the entrance a cobbled structure was built; this seems to slope from east to west down to the middle of the entrance, and from south to north into the building. This structure in profile looks like half of a V; there is room in the entrance for it to have risen up at a similar angle to meet the western side. The cobbles are set against (3), and do not underlie the wall at the entrance. The purpose of this grooved cobbled structure is not known.

Phase 5.

This phase consists of group 1.06, and represents the destruction or abandonment of the building.

Group 1.06



(5) layer; pale brown silt-loam with a lot of mortar and brick. Some charcoal. 7.33 - 7.20

(6) layer; dark brown silt-loam with frequent brick and mortar, some charcoal in ashy patches. 7.15 - 7.11

(14) layer ; grey gravel. 6.95 - 6.78

| | | | | |
|-------------|-------|------------|-------|------------|
| Photographs | B/W 1 | 1.2.3.4.5. | C/S 1 | 1.2.3.4.5. |
| | 2 | 1.2.3.4. | 2 | 1.2.3.4. |

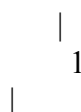
Discussion

This phase represents the accumulation of overburden after the destruction and abandonment of this building . Layer (14) is a thin covering of gravel, mainly found over the cobbles where they still exist, but with some visible in the eastern section stratified above the underlying presumed “natural” brickearth. Across the southern half of the trench is a layer of a silty-loam (6) containing a significant amount of mortar and brick fragments with some isolated patches of grey ashy material and charcoal fragments. This may represent a build up of soil after the fire which destroyed the building, with a few traces of the burnt material from the fire incorporated into this soil. In the southern half of the trench, above this layer, a layer of silty-loam including a great deal of mortar and brick fragments was found. This is probably the result of material from the collapsing ruins being incorporated into the deposit.

Phase 6

This consists of group 1.07, and represents the build-up of the topsoil.

Group 1.07



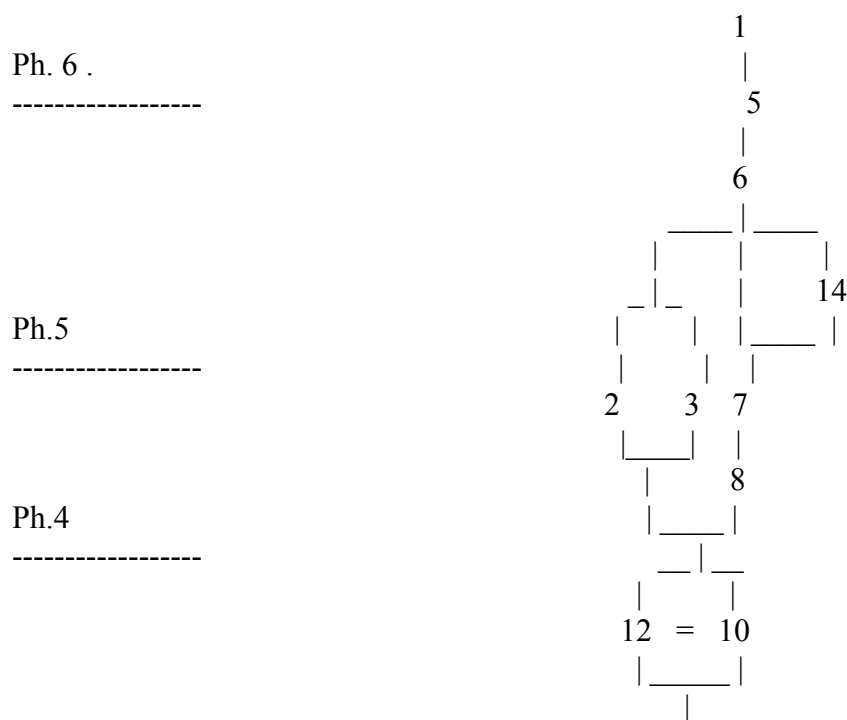
(1) layer; dark grey-brown loam, frequent mortar and rubble. 7.45 - 6.94

| | | | | |
|-------------|-------|------------|-------|------------|
| Photographs | B/W 1 | 1.2.3.4.5. | C/S 1 | 1.2.3.4.5. |
| | 2. | 1.2.3.4. | 2 | 1.2.3.4. |

Discussion

This phase represents the build-up of topsoil. The topsoil is a loam with a high humic content derived from the decay of the vegetation that has grown in the ruins. It also contains some charcoal fragments, and a large amount of building material, which has tumbled from the walls and been incorporated into this layer . This layer has also incorporated much modern rubbish.

Appendix II Site Matrix.



| | | |
|-------|----|---|
| Ph.3 | 13 | - |
| ----- | | |
| | 4 | |
| | | |
| Ph.2 | 15 | |
| | | |
| ----- | 16 | |
| | | |
| Ph.1 | 11 | |
| | | |
| | 9 | |

Appendix III Level III Index.

| Context no. | Trench no. | Plan no. | Section no. | Group no. | Phase no. |
|----------------|---------------|-------------|----------------|--------------|--------------|
| 1. | 1 | | 1.2. | 1.07 | 6 |
| 2. | 1 | 2. | 3. | 1.05 | 4 |
| 3. | 1 | 2. | 2.3. | 1.05 | 4 |
| 4. | 1 | 2. | 3. | 1.02 | 2 |
| 5. | 1 | | 1. | 1.06 | 5 |
| 6. | 1 | | 1. | 1.06 | 5 |
| 7. | 1 | 2. | 2.3. | 1.04 | 4 |
| 8. | 1 | | 3. | 1.04 | 4 |
| 9. | 1 | 2. | 2.3. | 1.01 | 1 |
| 10. | 1 | 2. | | 1.03 | 3 |
| 11. | 1 | 2. | 1.3. | 1.01 | 1 |
| 12. | 1 | 2. | 2.3. | 1.03 | 3 |
| 13. | 1 | 2. | | 1.03 | 3 |
| 14. | 1 | | 1.2. | 1.06 | 5 |
| 15. | 1 | 2. | 2.3. | 1.02 | 2 |
| 16. | 1 | 2. | 3. | 1.02 | 2 |

Illustrations.

Above; view of Trench 1, looking North into the boathouse.

Below; view of Trench 1, looking East, showing rear wall (brick) and entrance wall (stone).

Above; detail - cobbled “surface” from above.

Below; detail - cobbled “surface” (context no. 7) from North.