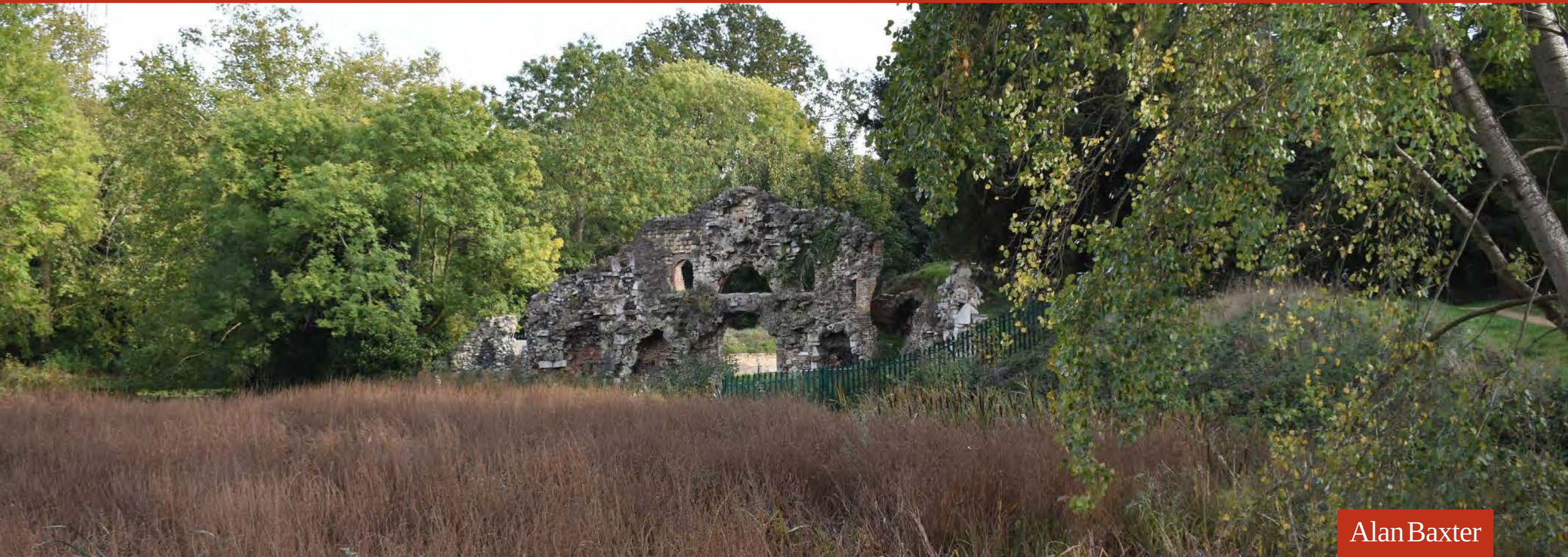
The Grotto, Wanstead Park
Conservation Management Plan
Prepared for City of London Corporation
September 2019



Alan Baxter

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Executive summary

Purpose

The aim of this Conservation Management Plan (CMP) is to help the City Corporation to remove the Grotto from the Heritage at Risk Register and to help determine a successful and sustainable future for the Grotto. It provides a framework for making decisions about the Grotto's future and also sets the direction of travel for emerging proposals. To this end, various options for the future of the Grotto were discussed at the two stakeholder consultation workshops.

The outcome of this consultation was a consensus that the most realistic path for removing the Grotto from the Heritage at Risk Register whilst not precluding a building (whether that is a full or partial restoration or a new build) in the longer-term, would be to restore the façade to its eighteenth-century appearance (as far as possible) and improve its setting. This was considered to be a realistic medium-term ambition which would substantially improve visitors' appreciation of the Grotto's significance.

Context

The CMP should be read in the context of:

- the need to repair the structure and decide on a sustainable future in order to remove the Grotto from Historic England's Heritage at Risk Register
- the designation of Wanstead Park's water bodies as 'high risk' by the Environment Agency in November 2018, which means that statutory remedial works must be undertaken by 2021
- the City of London Corporation's vision for Wanstead Park as a whole, set out in recent documents such as Chris Blandford Associates' 2011 *Conservation Statement* and Ref-F of LDA Design's *Conceptual Options Plan*
- the City Corporation's statutory obligations under the 1878 and 1880 Epping Forest Acts to maintain 'the natural aspect' of the Forest – an aesthetic judgement based on the principles of the picturesque movement – which includes follies designed to enhance the character of the Forest, together with its power to maintain any buildings and ornamental inclosed lands
- the London Borough of Redbridge's proposals for the preservation or enhancement of Wanstead Park set out in the *Wanstead Park Conservation Area Preservation and Enhancement Scheme Supplementary Planning Document* (2007)

Description and history

The Grotto is located on the banks of the Ornamental Water, in the eastern section of Wanstead Park in the London Borough of Redbridge. It is statutorily listed at Grade II and was added to Historic England's Heritage at Risk (HAR) Register in November 2017. The Wanstead Park Grade II* Park and Garden has been on the HAR Register since 2009, together with the Wanstead Park Conservation Area which was added in 2010. The London Borough of Redbridge has also designated the Park a Tier 1 Archaeological Priority Area, a Site of Metropolitan Importance for Nature Conservation and a Conservation Area.

The Grotto was constructed c. 1760–64 by the 2nd Earl Tylney. In 1882 a portion of the Park, including the Grotto, was sold to the City of London Corporation. Only two years after this, the Grotto was severely damaged by a fire, which destroyed the internal rooms and left only the front façade and a few other sections of the building standing. During the twentieth century it was subject to vandalism but various consolidation schemes have been instigated in the last twenty years.

Current condition

A number of condition surveys have been undertaken in the last decade, all of which have concluded that the Grotto is in poor condition with some areas at risk of collapse. This is due primarily to the exposure of the structure to plant growth and weather, the combination of which has resulted in decay and loss of areas of soft, red brickwork which in turn have undermined the structure's overall stability. This has been exacerbated by two further factors. Firstly, the problems associated with the numerous pieces of embedded ironwork and use of very hard cement mortar in previous repairs when compared to the original lime mortar construction. Secondly the inherent weakness of the Grotto's structure which includes many voids and hollows, some designed and some the result of wildlife activity.

Therefore, whilst recent repairs have stabilised certain areas in the short-term, the whole structure will continue to be at risk in the medium to long-term unless works are implemented which protect the structure from the effects of plant growth and weather as well as address the Grotto's inherent structural problems.

Current ecological condition

The Grotto's walls, arches, and alcoves support several crevices and cavities. These provide nest sites for birds such as wren and potentially others such as kingfisher (which nested in the past), pied wagtail, etc. These crevices and cavities also have high potential to support bat roosts of species such as common pipistrelle, soprano pipistrelle, Daubenton's bat, etc.

The recent clearance of vegetation from the land around the Grotto has left disturbed ground which has largely been colonised by ruderal plant species of no significant ecological value. The lake side of the Grotto supports a very small strip of marshy grassland and beyond is a large area of emergent vegetation – these habitats are of some ecological value supporting invertebrates, birds, etc.

Significance

The Grotto is an enigmatic focal point in Wanstead Park, situated at the boundary between the more formal, early eighteenth-century landscape and the more naturalised later eighteenth-century landscape. It is emblematic of the Park's important eighteenth-century phase of landscape design and today, as historically, it is experienced both as an intriguing and surprising incident, alternately obscured and revealed along tours of the Park, as well as reflected in long views across the Ornamental Water.

It is the surviving fabric of the Grotto, rather than its ruined state, which is of heritage significance. Therefore its current condition partially obscures the aesthetic value of the Grotto's historic design. Historically the Grotto housed three uses, a boat dock, a grotto dining/entertainment room and keepers' accommodation. Whilst multi-use landscape buildings were common during the eighteenth-century, this combination of uses housed in a building of rustic style is highly unusual.

As a landscape and waterscape feature the Grotto's overall significance is fundamentally connected to its setting and it is highly sensitive to changes within it. Historically the setting of the Grotto at the edge of a lake and framed by dark, dense, overhanging tree cover would have added to its sense of mystery and magic. However, the recent vegetation clearances and drop in water level mean that the Grotto is currently disconnected from the lake and highly visible in a recent clearing. This change in setting undermines the surprise and mystery of the Grotto and detracts from its overall significance.

Significance plan of the Grotto

Policy recommendations

The policies set out below seek to help the City Corporation achieve their ambition to remove the Grotto from the Heritage at Risk Register and secure its successful, long-term future.

Responsibilities and maintenance

001. The Conservation Management Plan will be formally adopted as policy by the City Corporation as one of the principal sources of guidance in the management of the Grotto

002. The City Surveyors and Epping Forest will be jointly responsible for ensuring the Conservation Management Plan is observed in the management of the Grotto and its policies are implemented

003. The Conservation Management Plan will be used as a tool to actively promote understanding and appreciation of the site's significance among staff, volunteers and contractors working on the Grotto

004. The Conservation Management Plan will be reviewed periodically by the City Corporation, at intervals of no more than five years

005. As part of the Restoration and Maintenance Plan, the City Surveyors and Epping Forest will commission a joint maintenance plan for the Grotto (to take effect following the completion of restoration works) which includes a schedule for both periodic surveys and vegetation maintenance

006. The City Corporation will commission yearly visual surveys that compare the current state of the Grotto to rectified photography in order to track further loss of historic fabric

007. The City Corporation will continue to work closely with Historic England, London Borough of Redbridge and Natural England to ensure both cyclical maintenance and new works take place in a timely manner and with all the necessary consent requirements

008. The City Corporation will look into updating the list entry for the Grotto through Historic England's Enhanced Listing service

009. The City Corporation will regularly review the Grotto's level of heritage and ecological protection to ensure its significance continues to be effectively protected

Structure and surviving fabric

010. The City Corporation will commission a Restoration and Maintenance Plan to specify works to restore the Grotto's façade, repair its structure and assist in its removal from the Heritage at Risk Register

011. The City Corporation will commission trial pit investigations at the locations specified in Richard Griffiths Architects' 2011 report prior to any further work at the Grotto

012. The City Corporation will work with Historic England to investigate a more secure way to store the recovered material on site, including the construction of a temporary structure

013. The City Corporation will commission an archaeological recording exercise to determine each stone's geology and likely historic location (if possible)

Security

014. The City Corporation will review the Grotto's security as part of the Restoration and Maintenance Plan

015. The City Corporation will ensure that future security measures do not, as far as possible, adversely impact visitors' experience of the Grotto in its setting

016. The City Corporation will install CCTV in the vicinity of the Grotto in the short-term to immediately improve the site's security

Accessibility

017. Through the Restoration and Maintenance Plan the City Corporation will explore ways to increase public access to the Grotto, including utilising volunteers, as part of any future works

018. The City Corporation will investigate the surviving foundations of the historic bridge to the bank east of the Grotto and will conduct investigations to determine loading requirements

019. The City Corporation will ensure the new bridge is designed to be 'read' as distinct from the Grotto, with its western end hidden from strategic viewpoints

Interpretation and presentation

020. The City Corporation will explore options to better present the Grotto both as a single structure of significance as well as part of a designed landscape

Ecology

021. The City Corporation will review the ecological impact of any future scheme and will seek a net gain in biodiversity where possible

022. The City Corporation will investigate ways to enhance biodiversity in the vicinity of the Grotto through the introduction and translocation of appropriate, native species as part of any proposed works

023. The City Corporation will take into account the findings of any ecological surveys of the Ornamental Water when making decisions about the Grotto's future management

024. The City Corporation will commission a tree survey to BS5837 of all trees in the immediate setting of the Grotto

025. The City Corporation will commission an ecological survey of the existing vegetation present on the structure of the Grotto in order to better understand its ecological interest

026. Where species of ecological interest are identified, the City Corporation will commit to retaining these where they do not adversely affect the integrity of the Grotto structure

027. If species of nature conservation significance require removal the City Corporation will implement appropriate mitigation measures, in consultation with Natural England

028. The City Corporation will look into introducing, translocating and encouraging appropriate species of wildflowers and ferns where they would not adversely affect the Grotto's structural integrity or its nature conservation interest or that of the adjacent designated area

029. The City Corporation will commission bat dusk emergence and dawn re-entry surveys of the Grotto from June to August to record any current bat roosts

030. The City Corporation will look into creating additional bat roosting features, where this does not conflict with plans for the future of the Grotto, in order to increase the site's ecological significance

031. The City Corporation will commission a nesting bird survey to ascertain which species currently nest within the Grotto structure and where

Immediate setting

032. The City Corporation will review the Grotto's immediate setting as part of the Restoration and Maintenance Plan, which should include a discussion of the merits of reinstating a good cover of trees in the Grotto's immediate vicinity as well as clearing vegetation from significant viewpoints

033. The City Corporation will ensure the relationship between the Ornamental Water and the Grotto is taken into account during the Large Raised Reservoir Works taking place until 2021

034. In the area of the Ornamental Water around the Grotto, the City Corporation will prioritise reinstating the historic water level (which is of heritage significance) over the ecological interest of the current emergent vegetation

035. The City Corporation, as part of the Restoration and Maintenance Plan, will determine the optimum level of the Ornamental Water in the vicinity of the Grotto in terms of its heritage significance

036. The City Corporation will investigate the ecological impact of achieving the optimum level of the Ornamental Water

037. The City Corporation will seek a net gain in biodiversity during work to the Ornamental Lake including the possibility of re-profiling banks to allow marsh and emergent vegetation to re-establish

Wider setting

038. The City Corporation will decide the form, character and use of any potential building behind the Grotto in the context of the wider, future management of Wanstead Park

039. Once the future needs of Wanstead Park are more fully understood, the City Corporation will commission a Feasibility Study to evaluate the financial and operational viability of different potential uses for the Grotto

1.0 Introduction

1.1 Purpose and context

This Conservation Management Plan has been commissioned by the City of London Corporation in order to manage the future of the Grade II listed Grotto at Wanstead Park, located in the London Borough of Redbridge. In November 2017 the Grotto was added to Historic England's Heritage at Risk (HAR) Register. Wanstead Park has been on the HAR Register since 2009, along with the Wanstead Park Conservation Area which was added in 2010.

This Conservation Management Plan provides a comprehensive and interdisciplinary evaluation of the Grotto today, including a summary of existing knowledge about its historical development as well as a consideration of its current condition and ecology. This information was then shared with both internal and external stakeholders, as well as discussed at two workshops, both of which helped to clarify the requirements for removing the Grotto from the Heritage at Risk Register and to outline a successful and realistic medium-term solution for the Grotto's future. A series of recommended policies and an action plan to help the City Corporation to achieve this end are set out in Chapter 5.0 and Chapter 6.0 respectively.

This Plan should be read in conjunction with other documents produced on Wanstead Park as a whole, including Chris Blandford Associates' 2011 *Conservation Statement* and Rev–F of LDA Design's *Conceptual Options Plan* (2018, also known as the *Parkland Plan*), in order to integrate the future of the Grotto into that of the wider Park.

1.2 Methodology and structure

The Plan's structure is derived from the standard template for Conservation Management Plans, adapted to the specific needs of this project. Following this introduction (**Chapter 1.0**), it is therefore organised into six Chapters:

Chapter 2.0 Consultation
This Chapter provides an account of the CMP's consultation process and how this has shaped the content of the final CMP.

Chapter 3.0 Understanding the Grotto
This Chapter sets out a summary of the current knowledge and the historical development of the Grotto in addition to its current management, structural and ecological condition.

Chapter 4.0 Assessment of significance
This Chapter analyses the historic, architectural, ecological and communal value of the Grotto. Identifying this significance enables those considering its future to make informed decisions about management, care and development.

Chapter 5.0 Policy recommendations
This Chapter sets out policy recommendations for the City Corporation to help them remove the Grotto from the Heritage at Risk Register and secure a successful and realistic future of the Grotto in the medium-term, as agreed during consultation.

Chapter 6.0 Action Plan
This Chapter includes approximate costings for the additional studies and reports recommended by policies in the preceding Chapter. This sets out what should be the City Corporation's immediate actions concerning the Grotto.

Sources are included in **Chapter 7.0**.

A selection of supporting information is appended to the Plan including:

Appendix A	National Heritage List Entries for the Grotto and Wanstead Park
Appendix B	Measured survey drawings (produced by James Brennan Associates)
Appendix C	Recent condition surveys: Survey & Design Partnership (2018), Odgers Conservation (2017) and Richard Griffiths Architects (2011)
Appendix D	Richard Griffiths Architects' 2011 Feasibility Study
Appendix E	Plant Survey of the Grotto (Ecoconsult, November 2018)
Appendix F	Search results map from the Historic Environment Record for the site
Appendix G	'The Gardens of Wanstead House' by Dr Sally Jeffrey contained in *The Gardens of Wanstead: Proceedings of a Study Day held at the Temple, Wanstead Park, Greater London, 25th September 1999* by London Parks & Gardens Trust (1999).

1.3 Authors

The interdisciplinary nature of the Plan is a product of the contribution of a variety of leading specialists including:

- Alan Baxter Ltd, as lead consultant and author
- Survey & Design Partnership, for a condition survey of the Grotto
- James Brennan Associates, for a measured survey for the Grotto
- Ecoconsult, for ecology
- Dr Kate Felus, an expert on eighteenth-century landscapes.

1.4 Scope and limitations

The scope of this document relates to the Grotto and its immediate surroundings, as shown in Figure 3. The Grotto's relationship to the wider Wanstead Park will be covered in so much as it relates to the Grotto's historical development and significance.

The archaeological significance of the site will not be described in detail in the Plan. However, the search results map from the Historic Environment Record is included as Appendix F.

It is the nature of existing buildings and structures that details of their construction and development may be hidden or may not be apparent from a visual inspection. The conclusions and any advice contained in this report – particularly relating to dating and nature of the fabric – are based on our research, and on observations and interpretations of what was visible at the time of the site visit. Further research, investigations or opening up works may reveal new information which may require such conclusions and advice to be revised.

1.5 Naming conventions and abbreviations

The Grotto at Wanstead Park has also been referred to as the Boathouse Grotto, in light of its historic use and to distinguish it from an earlier Island Grotto. In this report it will simply be called 'the Grotto' or 'the Grotto at Wanstead Park'.

Archaeological Priority Area	APA
City of London Corporation	City Corporation
Conservation Management Plan	CMP
Epping Forest - City Open Spaces (City of London Corporation)	Epping Forest
Historic Environment Record	HER
London Borough of Redbridge	LB Redbridge/LBR
Rev–F of LDA Design's Conceptual Options Plan for Wanstead Park.	Parkland Plan

1.6 Sources

A large amount of research has already been conducted into Wanstead Park, and the Grotto in particular as one of its earliest surviving features. This report draws on this wealth of knowledge (outlined in Chapter 7.0) and supplements it with additional desktop and archival research. Site visits were conducted for fieldwork in November and December 2018 as well as March 2019.

1.7 Acknowledgements and credits

The City Corporation have given much of their time in communicating with us about the management of the Grotto and provided access both to the site and their records. Dr Sally Jeffrey was also consulted on the history of the Grotto and her work, particularly the Chapter included as Appendix G, has been most useful in writing this Plan.

1.8 City Corporation copyright

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2.0
Consultation

2.1 Introduction

2.1.1 Outline of consultation process

Effective consultation is essential to the preparation of a useful CMP. It both stimulates discussion, fostering new thinking about old problems, and creates a sense of ownership amongst participants. A rigorous and thorough programme of consultation was proposed for this CMP:

- Production of a first (interim) draft
- First stakeholder consultation workshop to discuss the first (interim) draft followed by an opportunity to provide more formal, detailed comments
- Revision of the first draft
- Second stakeholder consultation workshop to discuss the revised draft followed by an opportunity to provide more formal, detailed comments
- Production of the final draft

This process has been very positive and has steered both the content and overall policy direction of the CMP throughout the project. The following Sections offer an overview of this process.

2.1.2 List of stakeholders

The City Corporation

Epping Forest

- Paul Thompson, Superintendent
- Geoff Sinclair, Operations Manager
- Nick Clayden, Safety and Assets Manager
- Sophie Lillington, Heritage and Museums Manager

City Surveyors

- Julian Kverndal, Senior Heritage Estate Officer
- Susana Barreto, Heritage Estate Officer
- Nicholas Welland, Principal Surveyor - Asset Manager

Stakeholders

- Bruce Edgar and Allan Jones, London Borough of Redbridge
- Chris Laine and Verena McCaig, Historic England
- Neil Fuller, Natural England
- Richard Arnopp, Friends of Wanstead Parklands
- David Adshead, The Georgian Group
- Tim Harris, The Wren Group
- Helen Monger, London Parks and Gardens Trust

2.2 Preparation of first (interim) draft

A first (interim) draft of the CMP, including information on the site's historical development and significance was produced for consultation at the first workshop. This included a framework for discussing options for the Grotto's future at the first stakeholder consultation workshop.

2.3 First round of stakeholder consultation

2.3.1 First stakeholder consultation workshop

This first stakeholder consultation workshop was held on 7 January 2019. It was attended by both City Corporation staff as well as representatives from Historic England, The Georgian Group, Friends of Wanstead Parklands and The Wren Group.

This workshop briefly discussed the Grotto's significance before focusing on future options for the Grotto, of which managed ruin, restored façade and fully restored building were the three proposed by the City Corporation in the project brief.

During the course of discussions the consensus that emerged was that despite being the preferred option of many attendees prior to the workshop and specified in the 2011 Conservation Statement the managed ruin option was not feasible because it would not solve the problems of the Grotto's current condition and it would not improve the site's security or public access. In summary, it would not better reveal or enhance the Grotto's significance. Therefore, there was a consensus that some level of restoration or recreation would be most appropriate for the future of the Grotto.

The restoration or reinstatement of a building was briefly discussed. This was viewed positively for its benefit of protecting the surviving structure. However, this is subject to securing suitable funding.

2.3.2 Comments

In addition to the workshop attendees above, the first (interim) draft of the CMP was also circulated to the London Borough of Redbridge, the London Parks and Gardens Trust and Natural England for comments. Out of these consultees all but LB Redbridge and the London Parks and Gardens Trust provided comments. These included:

- Historic England's comments on the minimum expectations it would expect to be met for them to consider removal of the Grotto from the Heritage at Risk Register, which include:
  - The current structure stabilised and consolidated
  - Loose material fully recorded (and preferably used as appropriate)
  - Security addressed
  - Sustainable long term plan for its regular maintenance and conservation implemented
  - Improvement in setting and integration into landscape of Park
- Comments from various stakeholders on the history and significance of the site

Although London Parks and Gardens Trust did not provide comments they stated they are supportive of the project.

2.4 Preparation of second (revised) draft

Following the consultation workshop and subsequent stakeholder comments the draft CMP was substantially reworked to include:

- A more robust assessment of significance
- A complete draft of the policies recommended by the CMP for the Grotto's future. These were arranged into two phases to be discussed at the second workshop: the first to help the City Corporation to remove the Grotto from the Heritage at Risk Register and the second concerning longer-term aspirations for the Grotto in the context of Wanstead Park.

2.5 Second round of stakeholder consultation

2.5.1 Second stakeholder consultation workshop

The second stakeholder consultation workshop was held on 7 March 2019. It was attended by both City Corporation staff as well as representatives from Historic England and Friends of Wanstead Parklands.

The first part of this workshop concerned comments on the revised draft including concerns over the role of an artist in any remaking process and the Grotto's structural stability as well as ideas to finesse the two-phase approach to the CMP's policies. The latter was discussed in detail with four more refined options being presented including stabilisation and consolidation, sufficient protection of the structure to prevent further deterioration, full façade restoration and restoration/reinstatement of a building. This discussion was situated in the wider context of Wanstead Park, in particular the works required to the Large Raised Reservoirs of Wanstead Park (including the Ornamental Water) which have to occur before 2021 as a result of the Environment Agency's 'high risk' designation.

The consensus that emerged from this discussion was that, whilst a building (whether that be a restoration or a new-build) is desirable in the long-term owing to funding and operational realities this option is not likely in the medium-term. However, it was also agreed that no short- to medium-term works should preclude the construction of a building in the future. Having agreed this, the restoration of the façade, so that visitors to the Park could appreciate the front of the Grotto as it was initially intended to be experienced, was selected as the best and most feasible option. It was also discussed that this should be accomplished in phases which should fit in with the 2021 works.

2.5.2 Comments

In addition to the workshop attendees above, the second (revised) draft of the CMP was also circulated to The Georgian Group, The Wren Wildlife and Conservation Group, London Borough of Redbridge and the London Parks and Gardens Trust. However, no comments were received from the additional stakeholders on this draft.

Comments from the workshop attendees included:

- Request for clarification on the Grotto's condition and structural stability
- Reworking of policies to reflect discussions at the workshop, in particular that the Grotto's protection from water ingress and plant growth should be part of works to remove the structure from the Heritage at Risk Register
- Inclusion of an Action Plan to specify next steps and provide ballpark costings

2.6 Preparation of third (final) draft

Following the second consultation workshop and subsequent stakeholder comments the revised draft of the CMP was amended to include a clearer approach to policies with a set direction of travel for the Grotto's future.

3.0
Understanding the Grotto

3.1 Introduction

3.1.1 Location

The Grotto is located in Wanstead Park, south of Wanstead in the London Borough of Redbridge, north-east London (Figure 1). Wanstead Park is one of the southernmost parts of Epping Forest, which is held in trust by the City Corporation (Figure 2).

The Grotto is situated adjacent to a bend in the Ornamental Water, on the eastern edge of Wanstead Public Park (Figure 3).

3.1.2 Ownership

The Grotto is located in Wanstead Public Park, held in trust by the City Corporation. The ownership of the rest of the historic Wanstead Park estate is split between Wanstead Sports Ground Ltd, the Parish of Wanstead and Wanstead Sports Club LLP under lease from LB Redbridge.

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Figure 1: Location plan

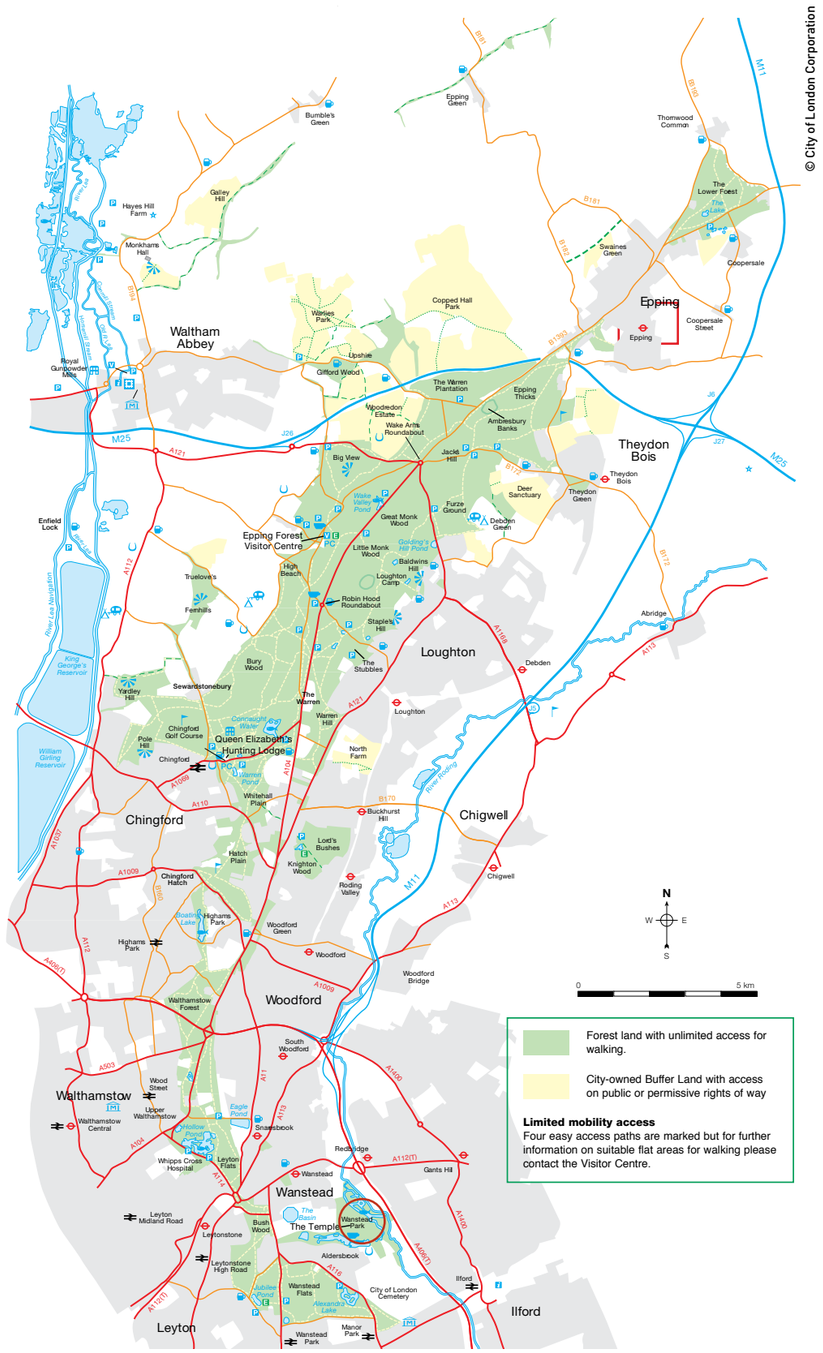
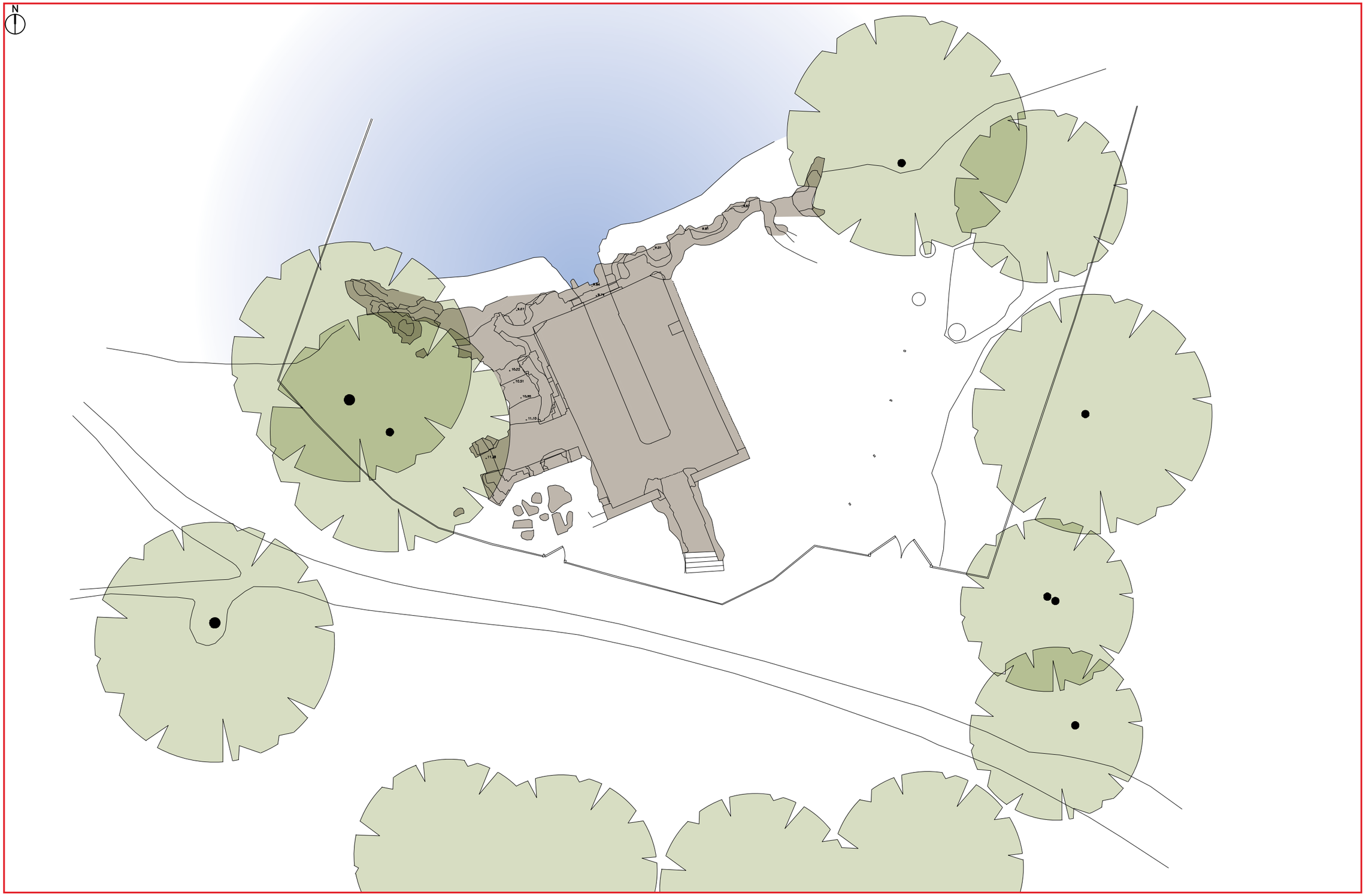


Figure 2: Plan of Epping Forest



©James Brennan Associates and ABA

Figure 3: Site plan (red line indicates the site studied as part of the CMP)

3.1.3 Designations

Heritage

The Grotto was statutorily listed at Grade II in 1954 (list entry no. 1183624). It was added to Historic England's Heritage at Risk Register in November 2017 at the lowest priority (F).

Wanstead Park in which the Grotto sits is a Grade II* registered park and garden (list entry no. 1000194). The Park has been included in Historic England's Heritage at Risk Register since 2009.

Wanstead Park was also designated as a Conservation Area by LB Redbridge in 1970. This conservation area is also included on Historic England's Heritage at Risk Register.

In addition to its other heritage designations, Wanstead Park is also classified as a Tier 1 Archaeological Priority Area (APA), defined as an area

> *which is known, or strongly suspected, to contain a heritage asset of national important (a Scheduled Monument or equivalent); or is otherwise of very high archaeological sensitivity* (LB Redbridge, 2016).

London Borough of Redbridge's (2016) Archaeological Priority Areas Appraisal states that the reason for Wanstead Park's Tier 1 classification is because

> *the park and garden archaeology is a well preserved example of its type and is highly susceptible to damage through modern interventions or alterations. The Park is also Tier 1 because of the archaeological potential to discover well preserved remains associated with a medieval hunting lodge, several post medieval mansions and a Roman villa which could be of national importance.*

In addition, Wanstead Park is surrounded to the east, south and west by three Tier 3 APAs (Figure 4).

Ecology

The Grotto lies in the relatively large biodiverse area of 'Epping Forest South Site of Metropolitan Importance for Nature Conservation' which includes Wanstead Park with its woodland, lakes and grasslands. Sites of Metropolitan Importance for Nature Conservation are the highest level of non-statutory nature conservation designation within London.

The site also lies within a Green Corridor. As stated in the London Borough of Redbridge Biodiversity Action Plan (no date):

> *Green corridors are considered to be important features in the landscape to facilitate the movement of wildlife from one area of habitat to another.*

Other

The Grotto is also located in a Groundwater Source Protection Zone, designated by the Environment Agency.

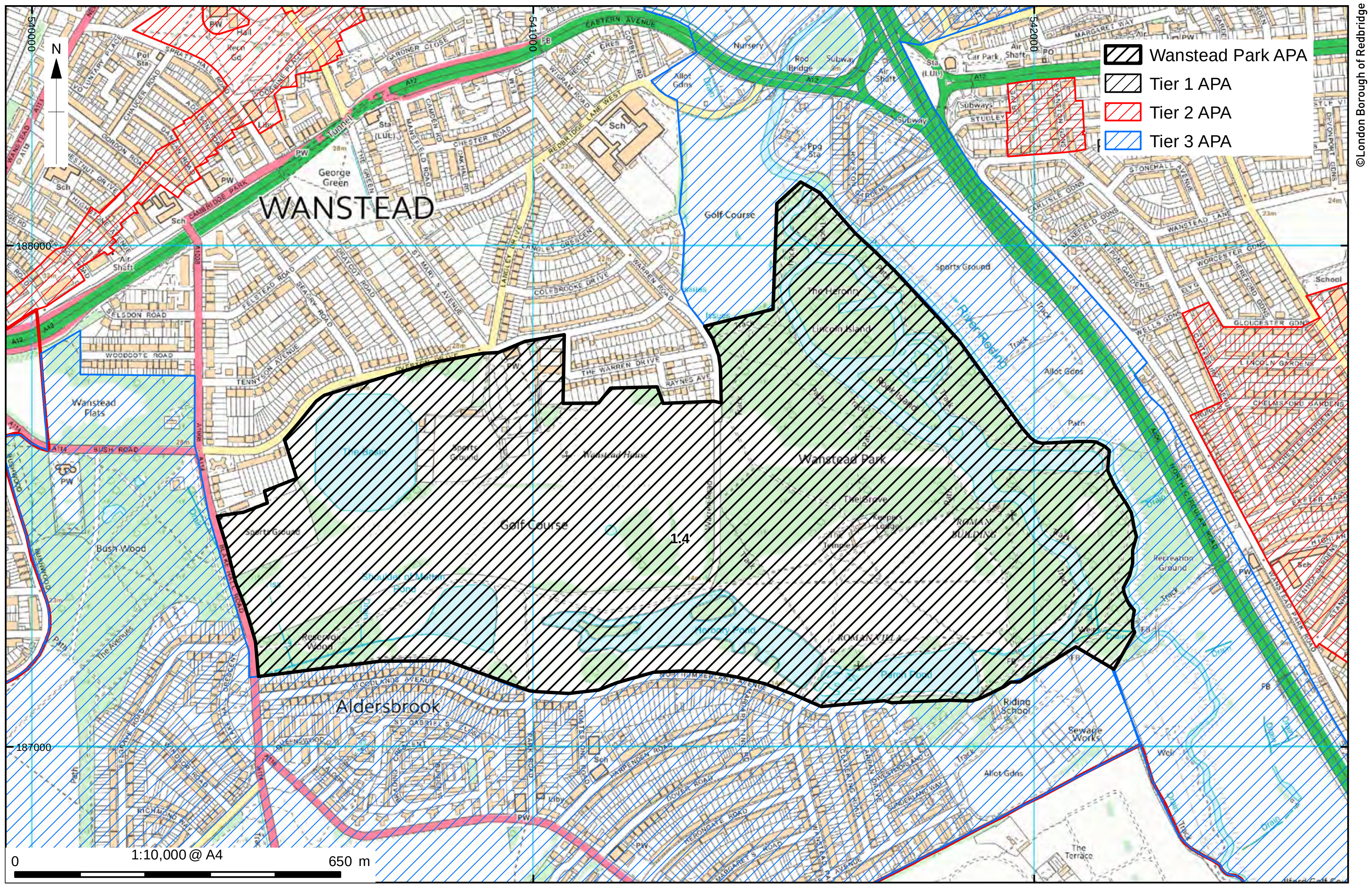


Figure 4: Wanstead Park Archaeological Priority Area (the Conservation Area boundary is similar but also includes some houses to the north-west of the Park

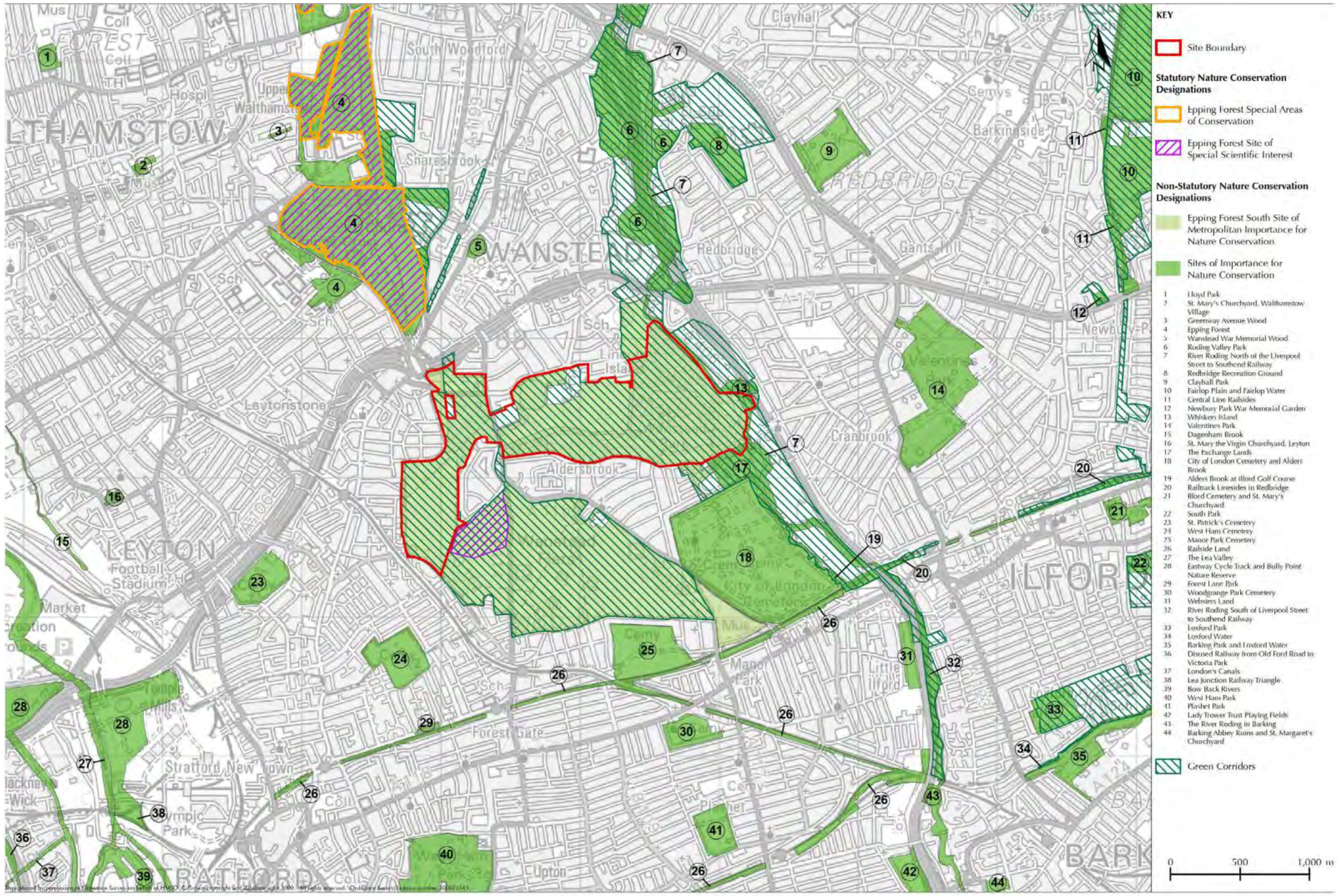


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Figure 5: Ecological designations for Wanstead Park. Red line represents the historic boundary of Wanstead Park

3.2 Summary of historical development

3.2.1 Introduction

The history and development of Wanstead Park, from the earliest times to the present day, has been extensively excavated, researched and written about by many different historians, though important aspects of the development of the historic gardens remain uncertain. This work has already been collated in the form of Chris Blandford Associates' *City of London – Wanstead Park: Conservation Statement* (2011).

It is not the purpose of this report to provide a detailed history of the estate but to focus specifically on the Grotto. To this end, the following Sections provide a summary of the historical development of the Grotto, with references to other sources for more information about the development of the wider estate and the Child/Wellesley family.

One of the most comprehensive accounts of the development of Wanstead Park under the Child/Wellesley family is Dr Sally Jeffrey's *The Gardens of Wanstead House* in *The Gardens of Wanstead: Proceedings of a Study Day held at the Temple, Wanstead Park, Greater London – 25th September 1999,* a copy of which is included in Appendix G.

3.2.2 Early landscape features (to c. 1760)

Sir Josiah Child of the East India Company purchased Wanstead estate for £11,500 in 1673–74. Under his tenure – as well as that of his son Richard (created Viscount Castlemain in 1718 and Early Tylney in 1732) who succeeded to the estate after the former's death in 1699 – a series of major developments were initiated, including the construction of a new house in 1715–22 (to designs by Colen Campbell) and the creation of the existing lake system, fed by the River Roding between 1725 and 1745 (Jeffrey, 1999, p. 24).

A plan of Wanstead Park, drawn up by James Craddock in 1725, shows an extensive bastioned earthwork feature, labelled as 'theatres', on the site of the current Grotto. This is shown surrounded by a planted area and with a small structure at its southern edge, on the site of the existing Grotto adjacent to the Ornamental Water. This structure is shown in Craddock's plan, and also in Charles Catton's 'Bird's eye view of Wanstead Park from the east' c. 1750. However, it is not shown in either of John Rocque's maps of the estate (1735 and 1744–65) and, although some of the earthwork ridges survive and have been identified in archaeological surveys, there is little other evidence for its existence. Therefore, either this structure was only partially built or had a very short existence of *c.* 10 years.

Rocque's 1735 map of the estate shows both the proposed and executed works of this phase of landscape design. One of the views is labelled 'The Island in the Great Lake' and shows a rockwork grotto surrounded by leafy vegetation located on an island in the Great Lake. Although this earlier grotto does not survive, evidence from maps dating from the mid-eighteenth century suggests that both it and the existing Grotto may, for a short period at least, have existed at the same time.

3.2.3 Construction (c. 1760–1781)

Richard's son John (2nd Earl Tylney), inherited Wanstead upon his father's death in 1750. Although he lived abroad almost permanently from 1763 he took a keen interest in the development of the landscape, and during the early years of his tenure undertook several improvements to the grounds, including the construction of two of the Park's most legible surviving landscape features, the Temple and the Grotto (both now listed at Grade II). The Grotto was constructed 1760–64 and, whilst the exact date of the Temple's construction is unknown they appear to be contemporary and were linked by an informal path.

According to James Dugdale's The New British Traveller (1819), the Grotto cost £2,000 exclusive of materials. Subsequent accounts from later in the nineteenth-century (such as an article in the Essex Herald on 23 May 1843) mistakenly report its cost as £20,000, although this exaggerated sum does testify to the fact that it was held to be an impressive example of its type.

The construction chronology of the Grotto has been the subject of several architectural studies and extensive archaeological investigation during the last 20 years. One of the principal reports on the subject, produced by M. Beasley in 1993, puts forward a three-phase chronology for the Grotto's initial construction:

1. 1760–64: the original façade including the east and west flanks and the boat channel.
2. The west wing, including the tunnel and passageway to the south. This is identified as a separate phase to phase one, but it is possible that this phase is contemporary with phase one and represents a distinct phase of the original construction.
3. 1781: the renovation of the work constructed under phase one, including the reconstruction of the main door and semi-circular arch in the main façade. (This date is suggested by Compass Archaeology's 2013 report *Strategic Assessment and Conservation Measures for Wanstead Park*).

This is typical of other grottos such as those at Stowe (constructed c. 1740, romanticised c. 1780) and Painshill (late-eighteenth century).

The first phase of construction appears to have begun around 1760, from a reference to 'rocks for the Grotto' in the family's 1760–62 accounts, and was virtually completed in 1763, when Jérôme Lalande visited Wanstead and makes reference to a 'rock-work grotto where all conceivable curiosities of natural history are assembled' in his diary. Material for the Grotto was imported from many places, with internal decoration provided by the Revered William Borlase, a Cornish antiquarian, naturalist and mineralogist and Fellow of the Royal Society.

A detailed description of the original design, form and use of the Grotto is provided in Dr Sally Jeffrey's chapter on Wanstead Park in Appendix G. Evidence for the Grotto's original form and design (both inside and out) is provided by an 1822 sketch and accompanying description by Charles Heathcote Tatham (a visitor to the Park) as well as a small selection of early photographs. In summary, the Grotto's tunnel entrance, interior decoration and use of mirrors are all typical of other contemporary grottos (see grey box on grottos) and were intended to create an air of theatricality and mystery.

One such account of entertainment at the Grotto is given in Julian Litten's *The English Way of Death: The Common Funeral Since 1450* (1991, p. 104–5) and is reproduced in the grey box Entertainments on the water on page 14. Litten lists Stuart Campbell Adams as the source for the account, which is said to have come from the journal of an Italian noblewoman who spent time at Wanstead House. Adams claims this account was rescued from the Tylney papers by a maid or relative prior to many of the records being burnt. The dubious provenance of the source, coupled with the chronology of Lord Tylney's time in Italy, casts doubt on its veracity. However, it has been reproduced here, heavily caveated, because it offers a flavour of the possible, theatrical uses for the Grotto.

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Figure 6: Undated watercolour of the Grotto

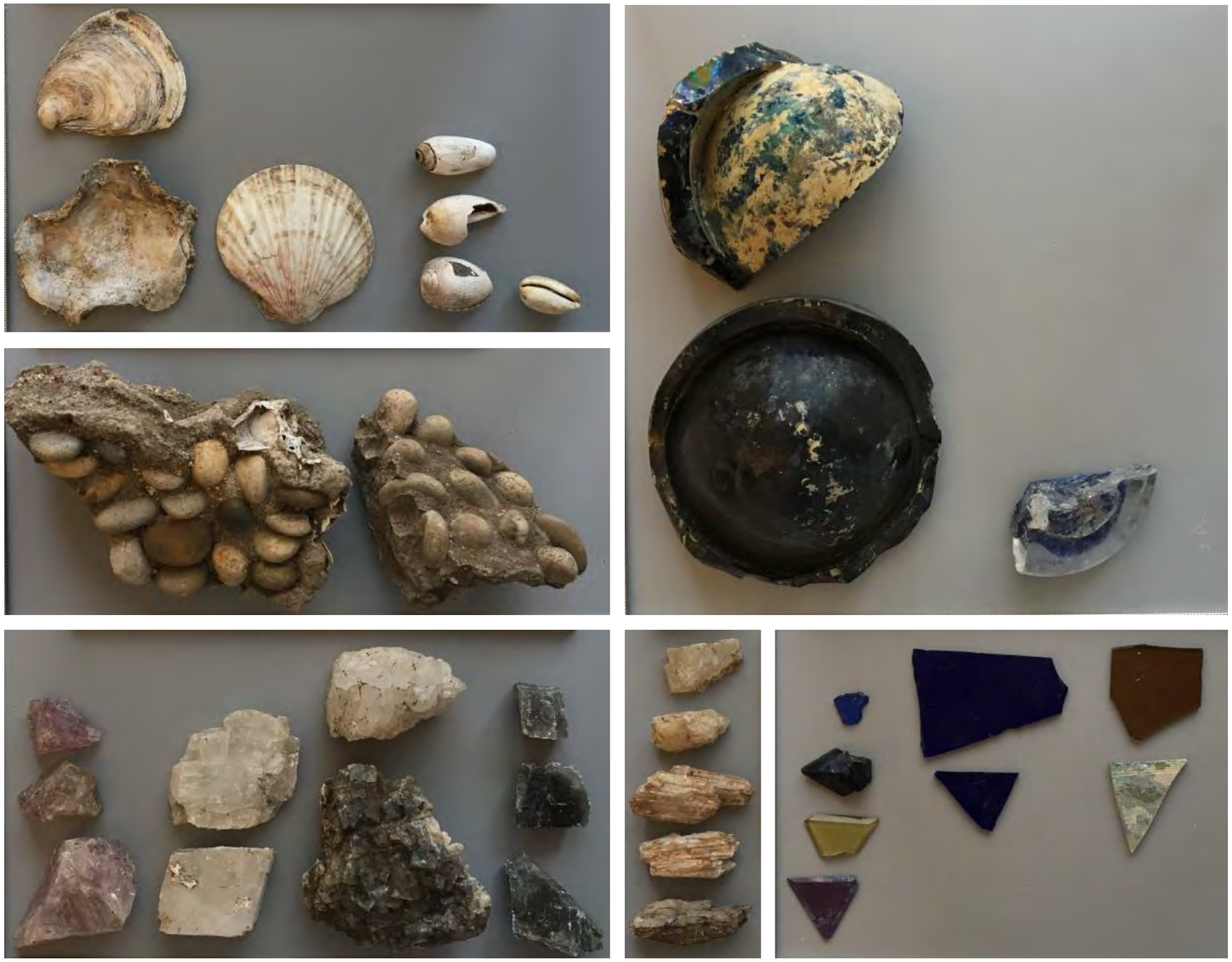

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Figure 7: Decorative material recovered from the Grotto including (from top left): a variety of shells, fragments of pebble floor set in mortar, different types of crystal, bottle ends, spar and triangular pieces of coloured glass with bevelled edges

Entertainments on the water

Many lights appear in the trees and on the water. We are off and have great excitement fishing up treasure (fake) tied to bladders. His Lordship is hailed from the shore by a knight, who we are told is King Arthur, have you the sacrifice my Lord, who answers no, then take my sword and smite the water in front of the grot and see what my wizard has done, take also this dove and when asked, give it to the keeper. Off again to some distance from the grotto, the lights are small and water still, the giant eagle appears and asks, have you the sacrifice, no my Lord answers, so be it and disappears in steam.

His Lordship smites the water with King Arthur's sword, all the company are still, a rumble sucking nose comes in front of the opening of the grotto the water as if boiling and to the horror of all the company both on the water and on the shore scream with fright, appearing as though from the depth of hell arose a ghastly coffin covered with slime and other things. Silence as though relief, when suddenly with a creaking and ghostly groaning the lid slid as if off and up sat a terrible apparition with outstretched hand screeching in a hollow voice, give me my gift with such violence, that some of the company fell into the water and had to be saved, and those on the shore scrambled in allways confusion was everywhere. We allmost fainted with fright and was only stayed from the same fate by the hand of his Lordship, who handed the keeper the dove (fake) the keeper shut its hand and with a gurgling noise vanished with a clang of its lid, and all went pitch. Then the roof of the grotto glowed two times lighting the water and the company a little, nothing was to be seen of the keeper or his coffin, as though it did not happen.

Grottos

History

The earliest grottos date to antiquity and took the form of natural caves at sites of sacred springs in ancient Greece. They became popular in ancient Rome and were resurrected by architects in Renaissance Italy in order to add an air of historical authenticity to their neo-classical villas and gardens (Jackson, 2001). This Roman influence persisted in the design of later, British grottos, including the decidedly Roman oculus present at Stourhead's grotto (Felus, 2016).

Although grottos were constructed in Britain during the seventeenth century, they were at their most popular during the following century. This was driven by wealthy Britons who, having finished their Grand Tour around Europe, returned to their estates with a passion for classical art and architecture. These individuals then used their fortunes to recreate an element of the splendours they had witnessed on their travels at home.

Siting

Landscape features, such as obelisks, temples, ruins, pagodas and Chinese bridges, as well as grottos, were essential landscape devices that enhanced designed views, created a certain mood or added 'interest' to a tour of the grounds (Jackson, 2001). Echoing the association of the earliest grottos with springs, water was a much prized feature in or near a grotto. They were often sited overlooking a lake, near a natural spring or beside a waterfall and were designed to be viewed reflected in the water. In cases where bathing pools were located inside a grotto, there was usually a designed visual link between the bath and the water of the lake, which, when in the bath, appeared practically on a level (Felus, 2016).

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Figure 8: Grade II* grotto at Stowe (constructed c. 1740, romanticised c. 1780)

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Figure 9: Grade II grotto at Old Wardour Castle (1792)

© ABA

Figure 10: Grade II grotto at Painshill Park (late eighteenth century and recently restored)

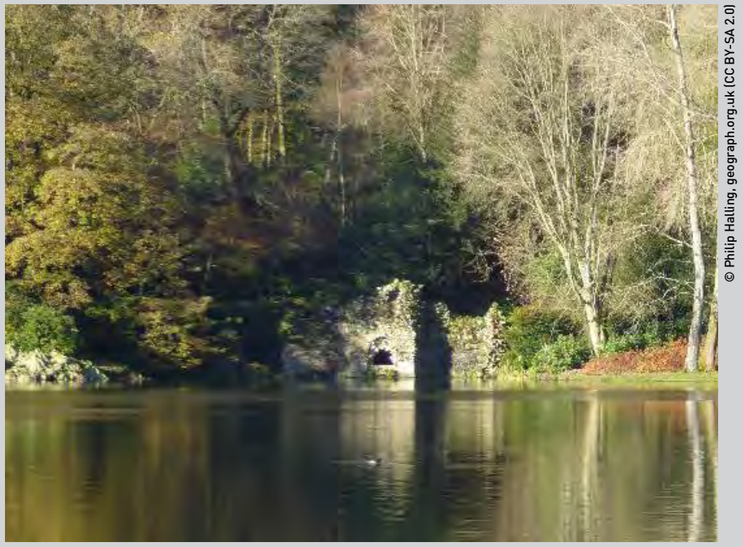

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Figure 11: Grade I grotto at Stourhead (c. 1748, entrance added 1776)

Construction

The underlying structure of grottos was often brick which was then dressed with 'grotesque' rocks or the much-sought-after 'holey' limestone (or '*pierre antediluvienne*'), pinned on with iron pins and stuck in place with lime mortar (Jackson, 2001). The Grotto at Wanstead Park uses a distinctive limestone from the west of England also used at the grotto at Painshill Park, Surrey (1750s) and the shell house at Hampton Court House, Richmond (1760s) (Jackson, 2001).

Decoration

The insides of grottos were often decorated with shells. The collection of rare and exotic shells was the height of fashion in the eighteenth century and many wealthy grotto-owners spent small fortunes importing exotic shells from around the world for their grottos (Jackson, 2001). Floors were usually decorated with carefully matched pebbles set in mortar and arranged in geometric patterns.

Grottos were intended to be candlelit so bottle-glass, mica chips and other crystalline minerals were also popular elements of internal decoration as they reflected candlelight and added to the magical atmosphere of grottos.

Use

Whilst grottos were constructed for their atmosphere and novelty value they were also actively used in a variety of ways which have been investigated by academics such as Melanie Doderer-Winkler and Kate Felus. For example, Henry Hoare, the owner of Stourhead, enjoyed bathing in a pool in his grotto which, with the constant running of spring water into the bath may have had a mild Jacuzzi-like effect (Felus, 2016, p. 79). Stowe's grotto was the Earl Temple's favourite place for al fresco dining, set as it was in an intimate, steep-sided and wooded valley. For dinner the trees surrounding the grotto would have been hung with lanterns, and for grander occasions musicians would have been stationed on boats on the water (Kate Felus, 2016, p. 153).

© ABA

Figure 12: Limestone and crystals of Painshill Grotto (late eighteenth-century and recently restored)

© City of London Corporation

Figure 13: Photograph of the interior of the Grotto, before the fire in 1884

3.2.4 Decline (1820–1882)

The 2nd Earl Tylney never married and therefore, when he died in 1784, all the family titles became extinct and the ownership of Wanstead Park passed to his sister's son and his heirs.

In 1808 Wanstead was inherited by Catherine Tylney Long, one of the wealthiest heiresses in England. In 1812 she married William Wellesley Pole, nephew of the Duke of Wellington. Over the next six years the couple consulted both Humphry Repton and Lewis Kennedy about improvements to the Park including a bridge connecting the Grotto to the riverbank opposite it to the north-east. However, this bridge only appears on Doyley's c. 1815–16 map of Wanstead Park and it is unclear exactly when it was constructed or when it was demolished. Its foundation survives and was revealed by excavations conducted by MOLA in 1997.

William subsequently ran up huge debts which, with the majority of the couple's money tied up in trusts, they were unable to repay. The couple's financial situation deteriorated sharply and in 1822 an auction was held for the contents of the house and included several pieces from the Grotto, including Three Ostrich Eggs and Other Curiosities (lot 62) and Two large petrified Stones (lot 63) (City Corporation, 1998). These were not the only objects to be taken from the Grotto during this period as Jeffrey (1999, p. 34) also states that the Grotto had to be closed because souvenir hunters 'conveyed away fragments'.

Wanstead House itself was sold in 1823 and demolished in 1825. The grounds, which remained in possession of the family, entered a period of decline, although the Grotto appears to still have been used and enjoyed. An article in the *Essex Standard* (21 September 1838, p. 2) states that the South Essex Horticultural Society held their seasonal exhibition at the Park and that '[t]he fineness of the weather, with the additional attractions of the Park and beautiful Grotto, induced the attendance of a very numerous and highly respectable company of subscribers and visitors'.

3.2.5 Sale (1882)

In 1882 the then owner of Wanstead, Henry Wellesley, 1st Earl Crowley (cousin of William Wellesley Pole), sold 184 acres of the Park to the Corporation of London as the Conservators of Epping Forest and on 1 August 1882 Wanstead Park was opened as a public park.

From contemporary newspaper reports, the Grotto, which could be visited for a sixpence, appears to have been one of the main attractions of the Park. An account of a visit to Wanstead in an article in the *Shoreditch Observer* on 21 July 1883 includes a detailed description of the 'renowned' Grotto with its 'wondrous' rooms.

3.2.6 Destruction (1884)

On the morning of Thursday 20 November 1884 a fire broke out in the cottage (historically keeper's accommodation) part of the Grotto, which had been used as a storeroom since the Corporation took over the Park in 1882. The alarm was raised by a passer-by and the Wanstead fire-brigade arrived quickly but not before the fire had spread to the Grotto itself.

To make matters worse, the fire brigade were forced to draw water from the River Roding (250 yards away) because the lake immediately in front of the Grotto was being cleaned and was empty. By the time the fire was put out the Grotto had been completely destroyed, with only the outside walls and entrance remaining.

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Figure 14: Early photograph of the public entrance to the Grotto

3.2.7 Aftermath (1884–1904)

Contemporary newspaper articles, including the *Essex Newsman* on 29 November 1884, reported that the Grotto was insured for £1,000, a paltry sum compared to £2,000 excluding materials it cost to construct it. Despite this there is some evidence of discussions about whether or not to restore it as the *Chelmsford Chronicle* reported on 27 March 1885 that 'the question of re-construction is still under consideration'.

However, over the following years discussion about restoring the Grotto died down. A satirical article by Captain Cuttle in the *Shoreditch Observer* on 6 April 1889 lampooned the City Corporation for this decision:

> *Just one more word before leaving the Park. "Look at the Grotto," observed the Captain; "since it was burnt out the City people have not taken the trouble to restore it."*
>
> *"No," replied the Boy; "the greedy gormandisers tried to charge the public sixpence to see it; the place was burnt down as a judgement on their rapacity."*

Despite the City' Corporation's decision not to restore the Grotto, it was still 'usually considered one of the attractions of the Park' (*London Evening Standard*, 2 April 1904).

3.2.8 Deterioration (1904–1990)

Following the fire and the decision not to restore to Grotto, a fence was constructed around its southern side, presumably to maintain public safety. A photo from the 1890s shows that this fence was approximately four and a half feet high and consisted of an open iron railing with pointed finials. A gate at the rear of the boat dock is also visible between two square-section, iron columns (City Corporation Archive, reference Stratford Reference Library).

1968–1971
In 1968 the damage to the Grotto attracted the attention of the Wanstead Residents' Society who made representations to the City Corporation. Following this, the City Architect put forward a proposal for the:

- removal of tree and shrub roots;
- support of overhanging arches and other masonry;
- removal and re-bedding of loose masonry;
- capping of wall tops with mortar rendering to throw off water; and,
- raking out defective pointing and re-pointing.

The cost for this work was estimated at £500 and it was undertaken in the summer of 1969. However, during the two weeks that it took place vandals attacked the structure, undoing all the conservators' work. Following this, an additional £750 was requested but there was little enthusiasm to continue with repairs when there was such a dire lack of security.

© James Brennan Associates

Figure 15: Rectified photography of a section of the Grotto, showing the variety of different repairs

This led to the City Corporation petitioning Redbridge Council for permission to demolish the structure in 1969. Redbridge Council pushed strongly for the preservation of the façade and by August 1970 a full set of proposals had been worked up including:

- repairs to the façade;
- the construction of a moat around the surviving structure to protect it against vandals; and,
- a mound to the apex of the façade (with concrete retaining wall) to hide it from the landward side.

However, the cost for this scheme, an estimated £11,000, was considered too expensive so a reduced scheme, with a smaller mound without a retaining wall, was put forward at a cost of £6,000. However by June 1971 the City Corporation had resolved not to take the matter further.

Post-1976
During archaeological investigations in 1993 it was revealed that major renovation and consolidation work was undertaken to the entire structure at some point after 1976 (Beasley, 1993). This date was identified through the fact that photographs taken at this time do not show this work.

The major elements of this phase consisted of the re-building of the top of the main façade with brickwork and stone. It also included the construction of a doorway of random worked stone to the west of the passage.

1982
The problem of the Grotto's condition raised its head again ten years later in 1982 after continued damage and substantial pieces of masonry falling from the ruin. Three options were put forward:

1. Total demolition
2. Reduction of the ruin, consolidation of the remains, and re-fencing
3. Minimum repair to ensure structural integrity, and re-fencing

The City Corporation opted for the third option and repair work, including the rebuilding of the gable fronting the lake, was conducted in 1983. It was at this time that the current galvanised steel fence was installed.

3.2.9 Recent works (1990–present)

Following the works in the early 1980s, the appetite for the Grotto's preservation seems to have increased, perhaps in line with the development of conservation philosophy and guidance over this period. Below is a list of all the reports and work commissioned by the City Corporation since 1990.

Date	Company	Title of report/description of works
1993	Newham Museum Service	A Trench in the Grotto, Wanstead Park
1994	Debois Landscape Survey Group	Wanstead Park: A Survey of the Landscape
1996	Hirst Conservation	Exploratory Excavation as Part of Conservation Work
1996	Flynn & Rothwell	Survey by Flynn & Rothwell of the Ornamental Water including the Grotto
1997–98	MOLA	Archaeological Survey and Evaluation 1997–98
1998	Fullers	• Lifting of masonry • Excavation of dock and front of Grotto • New gate in fence • Repair of dock and causeway surfaces
1999	Nimbus Conservation	Report on Conservation of Sculpture Fragments at Wanstead Park Grotto
1999	London Parks & Gardens Trust	Proceedings of Study Day held at the Temple, Wanstead Park, Greater London
2000	Dr Sally Jeffrey	The Boathouse Grotto, Wanstead Park
2011	Brian Dix	Wanstead Park Project – The Boathouse Grotto
2011	Richard Griffiths Architects	Report on Condition with Recommendations (July, 2011)
2011	Fullers	Consolidation works carried out to front façade
2011	Chris Blandford Associates	Wanstead Park – Conservation Statement
2013	Compass Archaeology	English Heritage – Strategic Assessment and Conservation Measures for Wanstead Park
2016	City Surveyor's Department	Quinquennial Inspection Report
2017	Odgers Conservation	Condition Survey and Conservation Appraisal for the Low Level Standing Remains (Recommendations implemented by Priest Restoration in 2018)
2017	MOLA	Report on a Survey of Stone Masonry
2017	City Corporation	Fence extended into the Ornamental Lake to try to prevent ingress into the Grotto site as a result of low water levels
2018	LDA Design	Wanstead Park – Conceptual Options Plan and Cost Planning Study – Rev F
2018	City Corporation	Removal of dead tree stumps and roots from side walls of the dock

Figure 16: Table of recent works and surveys

3.3 The Grotto today

3.3.1 Management

The management of the Grotto is split between two different branches of the City Corporation which meet periodically to discuss the Grotto at Heritage Liaison Meetings.

The City Surveyor's Department look after the Grotto's structure including producing quinquennial surveys and instigating major works. They have a 20 year budget plan for potential works, which gets reviewed by the City Surveyor's facilities managers, in consultation with the Senior Heritage Estate officer.

The Operations Team at Epping Forest carry out cyclical maintenance of landscape elements of the Grotto and its surroundings, including cutting the grass and spraying the structure with herbicide 2–3 times a year. They are currently in the process of producing a Draft Management Strategy for the Forest which will set out a schedule of routine maintenance for key areas of the forest, including Wanstead Park. This document, a draft of which is to be produced in early 2019, will build on the work and consultation undertaken as part of the preparation of the Parkland Plan.

3.3.2 Condition

A number of condition surveys of the Grotto have been undertaken in the last decade, most recently Richard Griffiths Architects' 2011 Report on Condition with Recommendations and Odgers Conservation's 2017 Condition Survey. An additional condition survey was also undertaken for this CMP in December 2018. These reports state that much of the surviving fabric of the Grotto has been rebuilt or repaired at one time or another.

The main findings of Richard Griffiths Architects on the Grotto's overall condition are reproduced below. These relate to the overall condition of the Grotto in the medium-term and are still relevant today. Following this, the current area-by-area condition of the Grotto is summarised in Figure 17. This draws on information given in both Odgers Conservation's 2017 report and the recent survey conducted in December 2018.

Richard Griffiths Architects' 2011 Report on Condition with Recommendations

This report was undertaken as part of a feasibility study to determine the future of the Grotto, which in turn was part of the wider process of preparing a Conservation Statement for Wanstead Park as a whole. It recommended a series of urgent repairs which were commenced in April 2011. The report's conclusions concerning the Grotto's condition are reproduced below. The full report can be found in Appendix C.

General condition

- The principal wall was found to be in poor, but reasonably stable state and now that temporary works have been completed the worst decay has been arrested. However, it will require major reconstruction work in the medium term to secure its long-term future.
- The brick walls on the west side are in danger of loss and need urgent works to stablise them.
- The walls around the boat dock are under pressure from the higher ground levels behind them and need to be strengthened or rebuilt.

Water levels

- Significant fluctuations in the water level could affect the stability of the structure, both above and below ground.

Foundations

- The nature of the foundations is not known and further investigations are required to determine this.

Structural condition

The general impression is that the main elements of the extant structure are in poor condition and that certain areas remain in danger of collapse. In the medium term the whole structure could be at risk. It is evident from photographs that there has been a significant loss of brickwork on the west side since the previous repairs. The longer these areas are exposed to plant growth and the weather, the greater the likelihood of losses. As the decay of brickwork accelerates, the more vulnerable areas are likely to reach a critical point of irreversible instability in perhaps five to ten years. The previous repairs to the principal wall have stemmed the worst decay, but there is evidence that a number of stones have fallen from the lake elevation since they were carried out. In addition, the structure contains many voids and hollows, some designed and some the result of wildlife activity, so it is inherently weak. The numerous pieces of embedded ironwork and the use of a very hard cement mortar in previous repairs, including wall head capping, will in the longer term create problems with the original lime mortar construction.

Of particular concern are:

- The stability of the arch roof to the 'tunnel path'
- The overhanging brickwork at the extreme west end of the principal wall (now propped)
- The cracked brickwork at the extreme east end of the principal wall (now partly stitched)
- The overall plumbness of the principal wall
- The stability of the detached pier beyond the east end of the principal wall
- The invasive effect of ivy roots, some of them very large, in the mortar joints particularly to the brickwork of the corridor
- The presence of built-in timbers including the decayed timber lintel over the entrance
- The unknown method of fixing the stonework facing to the principal wall, particularly over the central arch
- Corrosion and expansion of built-in metalwork dislodging the stone facing
- The very poor state of the mortar to the walls around the rear of the boat house
- The stability of the retaining walls (e.g. east side of boat house)
- The slump of the paving around the boat dock
- The proximity of trees to the structure – dead ones which may fall on to the structure, or live ones which may endanger it through root growth
- The long term failure of cement mortar cappings, allowing moisture into the structure.

3.3.3 Ecology

The Grotto is now a ruin which has recently been cleared of natural vegetation (i.e. trees, climbers and shrubs) with the exception of a small number of trees within the Grotto fence. Wanstead Park was originally a formal landscape with a man-made landform, lakes and planting. The Park has largely been reclaimed by nature. It has significant ecological value comprising mixed deciduous woodland, acid grassland and lakes. The Park's ecology is well documented on local websites.

The Grotto occupies a very small part of the Park but complements the Park's ecology by providing a different habitat supporting different ecological niches. This habitat is the stone and brick masonry.

The masonry provides a substrate on which a range of plants and animals can live. Woody species (trees, shrubs, climbers) dominated the structure until recently (shading out most other plants) and have been removed. If the structure is kept free of 'woody' vegetation and not sprayed with herbicide, other plants including wild flowers, grasses, ferns, bryophytes and lichens will gradually colonise and increase in abundance and diversity.

The remaining walls, arches and alcoves support several crevices and cavities. These provide nest sites for birds such as wren and potentially others such as kingfisher (which nested in the past), pied wagtail, etc. Nesting birds and their nests are legally protected (kingfisher receives special protection) under UK legislation. These crevices and cavities also have high potential to support bat roosts of species such as common pipistrelle, soprano pipistrelle, Daubenton's bat, etc. All bats and their roosts are legally protected under UK and European legislation.

A small number of trees have been retained within the fence and these include two mature yew *Taxus baccata* to the west side of the Grotto. Other trees include poorly grown sycamore *Acer pseudoplatanus*, hawthorn *Crataegus monogyna* which are of no significant ecological or other value.

The recent clearance of other vegetation from the land around the Grotto has left disturbed ground which has largely been colonised by ruderal plant species of no significant ecological value. The lake side of the Grotto supports a very small strip of marshy grassland and beyond is a large area of emergent vegetation – these habitats are of some ecological value supporting invertebrates, birds, etc. As the lake levels have dropped, the wetland plant communities will have changed and no doubt will continue to change over time to adjust to changing water levels in future and the deposition of silt and leaf litter.

Area	Description	Condition	Comments
A	South side of passageway	Fair	• Horizontal surfaces mortar capped and some pointing carried out in 2017 • Some capping has cracked • Few areas where pointing is deficient and few hollow areas • Older areas of repairs have cracked
B	Western entrance to passageway	Generally sound	• Some areas have been repaired with hard cement mortar and concrete. Cracks around these areas • Timber lintel above the door opening is rotten (although there is anecdotal evidence this may be cladding to a steel or concrete beam) • Voids on east face of wall
C	North side of passageway	Sound	• Plants removed, cracks repaired, small areas of rebuilt brickwork and some repointing carried out in 2017
D	Tunnel	Very sound	• Areas of concrete repairs • Cracks repaired and recently repointed
E	Front elevation (facing boat dock)	Fair, but with deteriorating areas	• Significant areas of soft red brickwork are in very poor condition • Vertical crack along west jamb of large opening to boat dock, with unsupported brickwork at low level • Repointing urgently required at eastern end of the wall and top surface needs to be stabilised
F	Stand-alone section of masonry	Sound	• Limited repairs carried out • Several loose stones at eastern end need to be pointed to secure them
G	Western section	Deteriorating	• Dangerously loose portions of masonry, large crevices, individual loose stones and bricks and plant growth
H	Front elevation (facing the lake)	Good, but with deteriorating areas	• Low-level cracks recently repaired and some crevices filled in • Fissures and areas of loose pointing • Vegetation growth
J	Entrance ramp	Good	• Comprehensively repaired in 2017. Two low retaining walls repaired/ rebuilt and repointed and steps replaced with railway sleepers in 1990s
K	Retaining wall to west of boat dock	Good	• Comprehensively repaired/rebuilt and furnished with tile capping
L	North-west corner of boat dock	Unstable	• Lower parts repaired recently but still deteriorating
M	Retaining wall to east of boat dock	Good	• Rebuilt and capped in 2017 • One small area to south poorly pointed

Figure 17: Summary of the current condition of the Grotto by area

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Figure 18: Areas specified in Odgers Conservation Condition Survey (2017)

4.0
Assessment of significance

4.1 Introduction

Assessing significance is the means by which the cultural importance of a place and its component parts is identified and compared, both absolutely and relatively. The purpose of this is not merely academic, it is essential to effective conservation and management because the identification of elements of high and lower significance, based on a thorough understanding of a site, enables owners and designers to develop proposals that safeguard, respect and where possible enhance the character and cultural values of the site. The assessment identifies areas where no change, or only minimal changes should be considered, as well as those where more intrusive changes might be acceptable and could enrich understanding and appreciation of significance.

Statutory designation is the legal mechanism by which significant historic places are identified in order to protect them. The designations applying to the Grotto are listed in Section 3.1.3. However, it is necessary to go beyond these in order to arrive at a more detailed and broader understanding of significance that considers more than matters archaeological and architectural-historical. Here, this is achieved by applying the criteria set out in Historic England's *Conservation Principles, Policies and Guidance* (2008), a document that has helped to bring a much-needed clarity to the use of the term 'significance.'

Conservation Principles describes four different value groups that contribute to the significance of a place:

Evidential value: derives from the potential of a place to yield primary evidence about the past. It can be natural or man-made and applies particularly to archaeological deposits, but also to other situations where there is no relevant written record;

Historical value: derives from the ways in which past people, events and aspects of life can be connected through a place to the present. A place may illustrate some aspect of the past, and thus helps to interpret the past, or be associated with an important person, event or movement;

Aesthetic value: this may derive from conscious design, including the work of the artist or craftsman; alternatively it maybe the fortuitous outcome of the way a building or place has evolved; and,

Communal value: regardless of their historical or aesthetic value, many places are valued for their symbolic or social role, often as a source of identity to people and communities. This may encompass a spiritual or commemorative role.

In assessing the significance of Grotto an additional value has been identified:

Ecological value: an assessment of the importance of sites, habitats and species. They can be considered significant at a wide range of scales from international to local. Present interest may differ from past and potential interest.

The assessment of significance is usually an amalgam of these different values, and the balance between them will vary from one case to the next. What is important is to demonstrate that all these values have been considered. This is achieved by assessing the significance of the whole site relative to comparable places, and the relative significance of its component parts.

4.1.1 Assessing the significance of the Grotto

The following assessments have been informed by the historical development of the site (summarised in **Chapter 3.0**) as well as site visits and fieldwork assessments. In addition to the different types of interest that contribute to significance, four levels of significance have been identified:

- **Highly significant**: elements of the site that make a major contribution to the Grotto's special interest (i.e. the listed status)
- **Moderately significant**: elements of the site that contribute to special interest
- **Neutral**: elements that make no contribution to the Grotto's special interest but do not detract
- **Detracts**: elements that are considered negative features that obscure or harm the Grotto's significance.

These terms will be used in the following Sections and significance plans.

4.2 Summary statement of significance

The Grotto is an enigmatic focal point in Wanstead Park and, in conjunction with The Temple, is emblematic of its important eighteenth-century phase of landscape design. It is situated at a key historic location within the wider landscape and today marks the boundary between the more formal, early eighteenth-century landscape and the more naturalised later eighteenth-century landscape. Today, as historically, it is experienced both as an intriguing and surprising incident, alternately obscured and revealed along routes of the Park, as well as reflected in long views across the Ornamental Water.

The Grotto's heritage significance derives primarily from its surviving fabric. It was not designed as a ruin and therefore its current condition partially obscures the aesthetic value of the Grotto's initial form and character. Historically the Grotto housed three uses, a boat dock, a grotto dining/ entertainment room and keepers' accommodation. Whilst multi-use landscape buildings were common during the eighteenth-century, this combination of uses housed in a building of rustic style is highly unusual.

As a landscape and waterscape feature the Grotto's overall significance is fundamentally connected to its setting and it is highly sensitive to changes within it. Historically the setting of the Grotto at the edge of a lake and framed by dark, dense, overhanging tree cover would have added to its sense of mystery and magic. However, the recent vegetation clearances and drop in water level mean that the Grotto is currently disconnected from the lake and highly visible due to recent vegetation removal. This change in setting undermines the surprise and mystery of the Grotto and detracts from its overall significance.

4.3 Significance by value

4.3.1 Evidential value

The Grotto offers evidence for one of the ways in which historic landscapes were embellished, as a structure situated purposefully in a highly visible location in order to create interest and/or terminate an important view.

The surviving standing fabric of the Grotto also offers evidence about how this type of structure was constructed, namely from a brick masonry shell with stone fixed to the exterior via iron pins and lime mortar. From a consideration of other grottos (see grey box Grottos – comparative analysis on page 25) this was a common method of construction used at many other grottos.

Therefore although the Grotto has evidential value by nature of its location in a designed landscape and evidence of construction, this is limited by the fact that there are many other, similar examples.

4.3.2 Historic value

The historic value of the Grotto primarily derives from its association with the Child family and the fact that, despite its ruined state, it is one of the few legible reminders of the important mid-eighteenth century phase of landscape design at Wanstead Park, unlike, for example, the earthworks of The Fortification. However, this association is currently undermined by the condition of Wanstead Park, which has been degraded through both the demolition of the historic house and subsequent development pressures on the estate.

The historic interest of the Grotto itself is strengthened by two additional factors. Firstly, by the high level of documentation on both its appearance and use from the time it was built in the 1760s to its destruction in the 1880s. Heathcote Tatham's plans, elevations and sections in particular make the Grotto as well documented as those at Stourhead and Painshill (both drawn in a similar manner by Fredrik Magnus Piper). Secondly, by the group value it has with the Temple, a contemporary structure, which also survives. The juxtaposition of their two contrasting architectural styles – the cool classical and the fantastical rustic – complement each other and add to the significance of each. To a lesser extent, the Grotto also has historic value due to its association with the City Corporation and the history of Epping Forest.

The Grotto also has historic interest as part of the wider eighteenth century craze for grottos, which was inspired by the grottos of the Italian Renaissance seen by young aristocratic men on trips to Italy (the so-called 'Grand Tour'). Even in its current condition, the Grotto at Wanstead is an important part of a group of surviving grottos of a similar date, scale and plan which are also associated with water, including those at Stowe (Bucks), Painshill (Surrey), Fonthill (Wilts), Oatlands (Surrey), Stourhead (Wilts) and St Giles House (Dorset).

Grottos – comparative analysis

Grottos are highly diverse and eclectic in their planform and overall design. In addition, other landscape structures such as boat houses could be 'grotto-ised' in a rustic style such as those at Powerscourt, County Wicklow and Stourhead, Wiltshire.

Relatively few mid-eighteenth-century grottos of the scale of Wanstead's Grotto survive intact and several of the best have been brought back from the brink of dereliction in the last few decades (e.g. Stowe, Painshill, St Giles House etc.). Its closest contemporary in terms of experience, was probably that at Painshill Park in Surrey. This grotto would also have been approached via both lake and land and was covered in the same distinctive limestone. However, this grotto did not house the diversity of uses as that at Wanstead.

One example of a landscape building which did propose to combine three similar uses to those seen at Wanstead's Grotto was Humphry Repton's 1793 unexecuted design for the boathouse at Highams in London Borough of Waltham Forest, which included a boat house at lake level, a fishing pavilion above and keepers' accommodation split over two-storeys to the rear. It is possible, given the fact it was proposed thirty years after Wanstead's Grotto was constructed and the fact that Highams is only four miles from Wanstead Park, that the mix of uses at Wanstead informed the design at Highams, albeit in a classical rather than a rustic style.

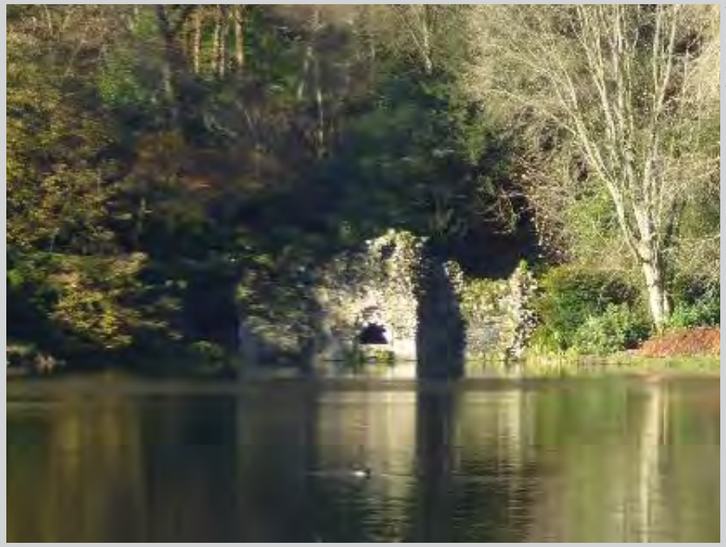

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Figure 19: Grade I grotto at Stourhead (c. 1748, entrance added 1776)

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Figure 20: Grotto (1740) adjacent to Japanese Garden (1908) at Powerscourt

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Figure 21: Grade II rockwork boat house at Stourhead (1794)

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Figure 22: Boat house at Powerscourt (Italianate gardens designed in 1840s)

4.3.3 Aesthetic value

The Grotto's aesthetic value is the cornerstone of its significance as a designed landscape feature. It can be broadly divided into two distinct but interrelated facets; the aesthetic value of the Grotto derived from its role in the wider landscape and the aesthetic value of the design and structure of the Grotto itself. These are discussed separately below.

Role in the landscape

The Grotto site, on the banks of the Ornamental Water, has always been an important point in the landscape. Today it marks the intersection between the remains of the formal, early-eighteenth-century design and the mid-eighteenth-century, more naturalistic incarnation.

Historically the Grotto fulfilled two dual design purposes within the wider landscape design, firstly as an interesting, surprise incident on visitors' journeys around the estate; even in its current ruined state the Grotto remains a visually arresting presence in the landscape. Secondly, as a focal point for views across the Ornamental Water, again a function it still fulfils today. Water had a special significance in the canon of the landscape style as William Gilpin wrote in (1748):

> *Water is of as much Use in a Landskip, as Blood is in a Body; without these two essentials, it is impossible there should be Life in either one or the other.*

Therefore, the Grotto's relationship with the Ornamental Water is of the upmost importance to its overall significance.

As specified in Section 4.3.2, the Grotto also has group aesthetic value with another contemporary structure, the Temple. These represent polar opposites in terms of the style. However, it is this juxtaposition – the cool classical and the fantastical rustic – that enhance the significance of each.

Design

Aside from its role as an eye-catcher in the landscape discussed in the previous Section, the Grotto building also housed three other uses: a boat dock, an upper room for dining and entertainment and keepers' accommodation to the rear. The precise construction sequence for the Grotto, including whether it was envisaged as single building from the start or added to or extended later, is still unclear.

Multi-purpose garden buildings were common during the eighteenth-century. However, the combination of these uses (boat dock, dining/entertaining grotto room and keepers' accommodation) in one building is unusual, particularly when contained in a building decorated in the rustic style.

The aesthetic value of the Grotto itself does not derive from it being a ruin. Indeed, its current condition can be said to partially obscure the aesthetic value of the Grotto's historic design, although the damage wrought by the fire also has limited aesthetic value. Rather, the Grotto's current aesthetic value derives primarily from the surviving legibility of its complex design and unique multi-use.

4.3.4 Communal value

The communal value of Wanstead Park as a whole was investigated in Chris Blandford Associates' (2011) *Conservation Statement*, which concluded that:

- the public park is highly valued as a wild and natural place of great beauty, particularly within a relatively dense urban context;
- people value the access to nature, wildlife and active recreation that the Park provides in addition to the sense of tranquillity and surprise; and,
- there is a strong sense of ownership of the site within the local community, evident in the strength of local community organisations such as the Wanstead Parklands Community Project, the Friends of Wanstead Park and the Wren Conservation Group.

The Grotto, as one of the most recognisable features of Wanstead Park (even in its degraded state), contributes to the communal interest identified above. This is strengthened by the continuity of interest in the Grotto, which was used by the Tylney family and was still being shown to visitors in the later 19th century. This is unusual as by this time the Victorians had cultivated something between indifference to total contempt for relics of the Georgian era.

4.3.5 Ecological value

Wanstead Park is significant at a local (borough) level. It is part of *Epping Forest South Site of Metropolitan Importance for Nature Conservation* which lies in a *Green Corridor*. The Park supports a diverse range of habitats. 'Lowland Mixed Deciduous Woodland', 'Lowland Dry Acid Grassland', 'Mesotrophic Lakes' and 'Ponds' which are UKBAP priority habitats (equivalent to Habitats of Principal Importance listed in the NERC Act, 2006).

The Grotto provides a habitat and ecological niches which are not found elsewhere in the Park. Of particular potential value are crevices and cavities in the walls, arches and alcoves of the Grotto which may support roosts of bats such as common pipistrelle, soprano pipistrelle and the less common Daubenton's bat. These crevices and cavities in the stonework and brickwork have different thermal properties to tree roosts or roosts in buildings around the Park. The proximity of the Grotto to water increases the potential for Daubenton's bats to roost.

If an important roost were present, this could be significant at a local (borough) level. Soprano pipistrelle bats are a United Kingdom Biodiversity Action Plan (UKBAP) priority species (equivalent to Species of Principal Importance under NERC Act, 2006). Bats and their roosts are legally protected under UK and European law. Bats are also regarded as keystone species due to the critical role that they have on the ecosystem. A keystone species is often a dominant predator whose removal allows a prey population to expand and often decreases overall diversity.

Other features of ecological value include nest sites for birds (including kingfisher in the past) and the marshy grassland and large area of emergent vegetation on the lake side of the Grotto.

4.4 Significance by area

4.4.1 Front façade

The façade to the water (front façade) is **highly significant** as the Grotto's primary elevation. The loss of statues and other material, its current degraded condition and the variety of repairs **detracts** from the Grotto's overall significance.

4.4.2 Planform

The historic planform of the Grotto, as shown in Charles Heathcote Tatham's 1822 sketch is still legible and as such is **highly significant**. However, as with the front façade, the condition of the surviving materials **detracts** from the Grotto's overall significance.

4.4.3 Rest of the structure

The remainder of the surviving Grotto structure, particularly materials that are thought to be historic, are **moderately significant**. However, the further loss of material following the fire and a range of different types of repair **detracts** from the Grotto's overall significance.

In some cases, historic elements have been preserved but in unsympathetic ways. For example, whilst the soft, historic material of the boat dock floor survives it is currently protected by geotextile and concrete slabs which **detract** from the Grotto's overall significance.

Figure 23: Significance plan of the Grotto

4.5 Setting

4.5.1 Introduction

The definition of setting given in the National Planning Policy Framework (NPPF) (2018, Annex 2: Glossary) is:

> *The surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance or may be neutral.*

This means that all heritage assets have a setting, separate from the concept of curtilage, character and context. However, the contribution made by the setting to the significance of heritage assets varies considerably and is subject to change over time. Where a setting has been compromised by cumulative change, consideration still needs to be given about the effect of additional change.

Defining the extent, nature and contribution of a heritage asset's setting can be challenging. Historic England offers guidance on this in its Historic Environment Good Practice Advice in Planning Note 3 (Second Edition): The Setting of Heritage Assets (December 2017).

This states that one of the most used expressions of a setting's contribution to the significance of a heritage asset is through views. These can be either static (from a fixed point and with a distinct focus) or dynamic (an evolving view that changes as one moves through a place). They can also encompass a variety of different views of, from across, or including the asset.

However, the setting of a heritage asset encompasses more than just this purely visual impression. It is influenced by other environmental factors such as dust, noise, vibration from other land uses and our understanding of historic relationships between places.

Historic England has divided these additional attributes into two different categories; the asset's physical surroundings and the experience of the asset.

A setting's attributes that relate to physical surroundings include:

- topography
- other heritage assets
- orientation and aspect
- historic materials and surfaces
- openness, enclosure and boundaries
- functional relationships and communications.

A setting's attributes that contribute to the experience of the asset include:

- views from, towards, through, across and including the asset
- intentional intervisibility with other historic features
- visual dominance, prominence or role as a focal point
- tranquillity, remoteness, 'wildness'
- scents and smells
- sense of enclosure, seclusion, intimacy or privacy.

The following Sections outline the contribution of the Grotto's setting its significance, both historically (as it was designed) and today. This is followed by an evaluation of significant views of the asset.

4.5.2 Contribution of the Grotto's immediate surroundings to its significance

Historically

As a structure within a designed landscape, the setting of the Grotto is fundamental to its overall significance. Two elements in particular are of the highest importance: the Grotto's relationship to the lake (discussed in more detail in Section 4.3.3) and the surrounding planting.

Historic maps may offer some evidence for the initial planting design around the Grotto, but, because they cover the entire estate or large parts of it, they often do not show the area in enough detail to be able to determine a certain design approach definitively. However, from the evidence available and from later, early-twentieth-century photos it appears that for most of its history the Grotto was secluded in an area of woodland. This would fit with the setting of many other grottos (see grey box Grottos on page 15), in which the heavily wooded backdrop enhances the rustic, romantic and naturalised architectural style of the grotto itself. A wooded setting also fits with the Grotto's role as a surprising element of interest when touring the landscape (which would be alternately obscured and revealed).

In light of this, the yews around the building – and stumps of lost yews – make a very important contribution to the Grotto's overall significance. Yew was a fairly standard backdrop-forming tree at the time. Its dark foliage helps buildings to stand out and the dense evergreen nature allows concealment from strategic points. The plane trees, concentrated around the water (one just east of the Grotto outside the perimeter fence), also make a very important contribution to the Grotto's overall significance. They appear to be of different dates but the oldest could date from Humphry Repton's alterations to the Park in the mid–1810s.

Today
The Grotto's immediate surroundings have changed throughout the course of its history. There are three main differences, all of which have an impact on the Grotto's overall significance. These are:

1. **Vegetation changes**
   The immediate vicinity south of the Grotto was largely cleared of vegetation *c.* 5–10 years ago. In addition, the vegetation in and around the Grotto has been removed in order to protect its structural integrity. It continues to be treated with herbicide 2–3 times a year.

   The loss of vegetation in the immediate vicinity of the Grotto, in addition to the new clearing to the south, means that the Grotto is more visible, undermining its role as a surprising incident that is alternately obscured, revealed and happened upon when journeying around the Park. The loss of surrounding vegetation has also resulted in a loss of the dark, naturalised backdrop that historically complemented and enhanced the Grotto's mysterious atmosphere. Therefore the current lack of vegetation around the Grotto **detracts** from its overall significance.

2. **Water level**
   As set out in Section 4.3.3, the relationship between the Ornamental Water and the Grotto is of fundamental importance to its overall significance.

   The level of the Ornamental Water has fluctuated both within and between years since it was created. On the whole, however, the water has been near level to the bottom of the Grotto's front façade, meaning it could be viewed reflected in the water in long views across the lake, as intended.

   However, since 2015 the water level has dropped substantially (c. 0.5–1m) and the area in front of the Grotto is now dominated by emergent vegetation. Whilst this is acknowledged to have some ecological interest (see Section 4.3.3), it effectively separates the Ornamental Water from the Grotto, obscuring their relationship. Therefore it **detracts** from the Grotto's overall significance.

3. **Galvanised steel fence**
   A fence appears to have been erected around the Grotto soon after the fire in 1884, in order to protect the structure and secure public safety. This fence appears to have taken various forms over the intervening century, including an iron railing in the late-nineteenth/early-twentieth century, a wooden fence with barbed wire during the mid-twentieth century and the present galvanised steel fence, installed in the early 1980s.

   The current fence, despite being painted green in order to help it blend in with the surrounding vegetation, undermines visitors' appreciation of the Grotto and therefore **detracts** from its overall significance.

4.5.3 Important views

Views are fundamental to the way in which visitors experience landscapes and structures and are therefore an important part of their significance.

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Figure 24: Early-twentieth-century postcard of the Grotto


©ABA
Figure 25: The Grotto in 2018

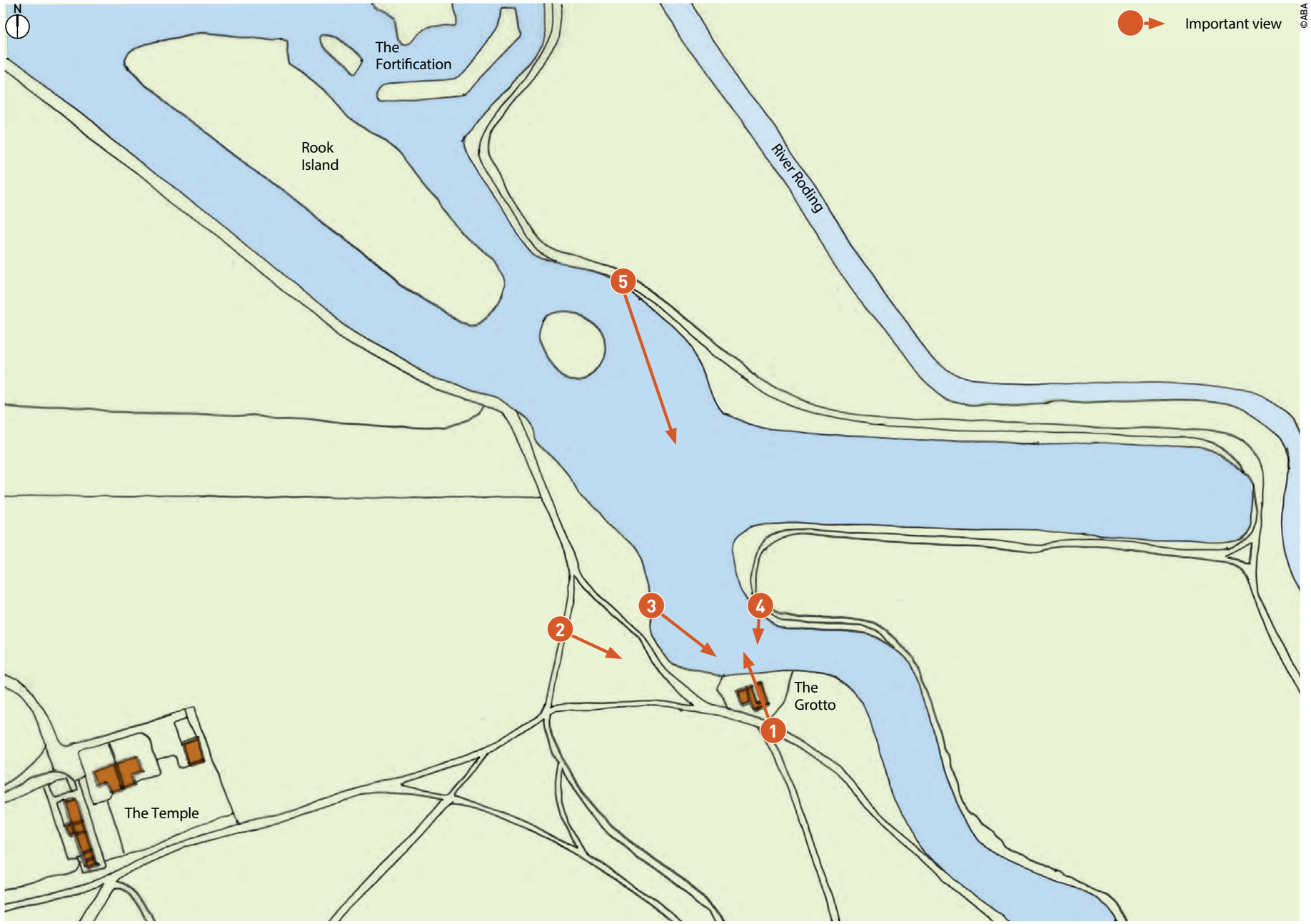

Figure 26: Important views


© ABA

View 1
This view looks north through the rear of the Grotto ruins to the Ornamental Water beyond. It was created purely as the result of the 1884 fire and today it allows visitors to appreciate the Grotto's intimate relationship with the Ornamental Water. This view is gradually revealed or obscured as visitors walk respectively towards or away from the structure on the path to the south. Before the fire, this area would have been the location of the rear of the Grotto building and the privileged views out over the Ornamental Water would have been experienced from the boat dock and the Grotto above.


© ABA

View 2
This view looks east towards the side of the Grotto from the path connecting the Ornamental Water to the Temple. Because of its proximity to the Temple, this is often visitors' first experience of the Grotto. Due to the planting of trees in this area, the Grotto is gradually revealed as visitors walk further northwards along this path.


© ABA

View 3
This view looks south-east towards the front of the Grotto from the eastern bank of the Ornamental Water. It is one of two short-distance, oblique views of the Grotto and, because of its proximity to the Temple, is likely the most familiar view to visitors.


© ABA

View 4
This view looks south-west towards the front of the Grotto from the western bank of the Ornamental Water. This is the second of two short-distance oblique views of the Grotto. However, as this bank is located closer to the Grotto than View 3, this view offers a better viewpoint to appreciate the Grotto's facade.


© ABA

View 5
This long view looks south towards the Grotto from a point on the eastern bank of the Ornamental Water just south of The Fortification. This view demonstrates the glimpse of the Grotto in the distance, which is gradually revealed and obscured, which is experienced by visitors along this route.

5.0
Policy recommendations

5.1 Introduction

The Grotto is at a turning point in its history. It is over a century since it was severely damaged by fire and since then the structure has also suffered from vandalism. The cumulative loss of material undermines current visitors' appreciation of the Grotto's significance; as a result, it was added to Historic England's Heritage at Risk Register in November 2017. In addition to the historic loss of material, various condition surveys commissioned by the City Corporation over the last decade have confirmed that, whilst recent repairs have stabilised certain areas in the short-term, the whole structure will continue to be at risk in the medium to long-term unless works are implemented which protect the structure from the effects of plant growth and weather as well as address the Grotto's inherent structural problems. However, there are many other examples of eighteenth-century grottos that have been brought back from the brink and the City Corporation is dedicated to ensuring a sustainable future for the Grotto.

5.2 The Grotto's future

The aim of this CMP is to help the City Corporation to remove the Grotto from the Heritage at Risk Register and to help determine a successful and sustainable future for the Grotto. It provides a framework for making decisions about the Grotto's future and also sets the direction of travel for emerging proposals. To this end, various options for the future of the Grotto were discussed at the two stakeholder consultation workshops (see Chapter 2.0).

The outcome of this consultation was a consensus that the most realistic path for removing the Grotto from the Heritage at Risk Register whilst not precluding a building (whether that is a full or partial restoration or a new build) in the longer-term, would be to restore the façade to its eighteenth-century appearance (as far as possible). This was considered to be a realistic medium-term ambition which would substantially improve visitors' appreciation of the Grotto's significance.

The policies set out in the following Sections seek to help the City Corporation achieve this ambition to remove the Grotto from the Heritage at Risk Register and secure its successful, long-term future.

5.3 Key priorities

Responsibilities and maintenance: the many different facets of the Grotto's significance and its split management between the City Surveyors and Epping Forest departments of the City Corporation means that careful co-ordination is required in its ongoing management and maintenance.

Structure and surviving fabric: although the direction of travel for the Grotto's future – as a restored façade – has been determined, both the works required to achieve this end and the approach taken needs to be defined further.

Security: one of the main concerns for the City Corporation, now as throughout the twentieth century, is the security. As the Grotto will remain a ruin in the medium-term, some sort of fence or other security measure will be necessary in order to protect the surviving fabric. However, the location and form of these security measures needs to be carefully considered.

Accessibility: ideally the Grotto would be publically accessible but given that it is likely to remain a ruin in the medium-term full public access is likely not possible. However, accessibility makes a large contribution to understanding heritage assets' significance and as such the City Corporation should explore opportunities to enhance public access, including utilising volunteers, where possible.

Interpretation and presentation: the Grotto does not need to be fully restored in order enhance visitors' appreciation of its significance. A well-thought out and creative scheme of interpretation, which places the Grotto in its wider setting and context, would enhance visitors' appreciation of the Grotto's significance.

Ecology: the Grotto has some ecological interest both in its own right and also as a part of Wanstead Park. The fact that the Grotto is a landscape feature means that ecology must be a priority in its future management, a fact reinforced by its current condition as an open ruin. However, careful thought will be needed in order to balance the ecological and heritage significance of the Grotto.

Relationship to the Ornamental Water (immediate setting): the biggest problem facing the City Corporation in relation to the management of Wanstead Park as a whole is the management of its water system. This directly impacts the Grotto, which was designed to be seen and experienced primarily from the water. The fact that there is little appreciation of this relationship today detracts from the Grotto's significance. Other elements of the Grotto's immediate setting, notably planting and views also need to be taken into account.

Relationship to Wanstead Park (wider setting): the Grotto, aside from being a significant structure in its own right, was constructed as part of a designed landscape. This relationship to the wider Park is an important consideration in its future development and management and any scheme for the Grotto should be seen in the context of the wider, future vision for the Park as a whole.

5.4 Responsibilities and maintenance

5.4.1 Implementing the Plan

Risks

- Without high-level endorsement and a collective responsibility for ensuring the plan is used, policies may not be implemented effectively
- If it is not regularly reviewed and updated the plan will quickly go out of date, undermining the relevance of the policies and the plan's credibility as a source of information

Opportunity

- Adoption and implementation of the plan will improve management of the Grotto's significance and awareness of the importance of conserving it

Discussion

This Conservation Management Plan is intended to be an active tool for the long-term management of the Grotto. It will be adopted as one of the primary documents for guiding the future care and preservation of the Grotto and its setting, to establish a coherent and unified approach amongst all parties who participate in its management. Therefore, the Plan should inform all proposals for care or change so that the conservation and enhancement of the site's significance are placed at the heart of all decision-making and all actions. For this to happen, the Plan must be formally adopted as policy by the City Corporation.

In addition, those involved in the Grotto's management – namely the City Surveyors and Epping Forest (City Open Spaces) – have a joint responsibility for ensuring that the Plan and its policies are executed. To help achieve this, an additional agenda item will be added to the currently held Heritage Liaison Meeting between these bodies to discuss and track progress of the implementation of the CMP.

The City Surveyors and Epping Forest will also see to it that those responsible for the management and care of the site are aware of the Conservation Management Plan; understand its purpose, principles and format; and, implement its policies when making decisions and carrying out action. Copies of the Plan (electronic or paper as appropriate) should be made available to all those responsible for the management of the site, and the understanding of history should be used to inform interpretation.

Finally, for the Plan to remain relevant, it also needs to be reviewed regularly and revised as appropriate to take account of new understanding, changing priorities and external influences.

Policies

001. The Conservation Management Plan will be formally adopted as policy by the City Corporation as one of the principal sources of guidance in the management of the Grotto

002. The City Surveyors and Epping Forest will be jointly responsible for ensuring the Conservation Management Plan is observed in the management of the Grotto and its policies are implemented

003. The Conservation Management Plan will be used as a tool to actively promote understanding and appreciation of the site's significance among staff, volunteers and contractors working on the Grotto

004. The Conservation Management Plan will be reviewed periodically by the City Corporation, at intervals of no more than five years

5.4.2 Routine maintenance

Risks

- Without an agreed schedule for maintenance the significant, historic fabric of the Grotto will continue to deteriorate

Opportunity

- Agreeing a set maintenance schedule will allow routine works to the Grotto to be undertaken in a proactive, timely manner that would help to safeguard its historic fabric and overall significance

Discussion

Maintenance encompasses both non-reversible building repairs as well as the strimming of annual vegetation growth on site. Therefore, it falls into the responsibilities of both the City Surveyors and Epping Forest. At the present the only maintenance schedule associated with the Grotto is a 20 year budget plan for potential works, which is reviewed by the City Surveyor's facilities managers, in consultation with the Senior Heritage Estate officer. Activities such as the spraying of herbicide, organised by the Epping Forest office, take place in an ad hoc manner.

As discussed in Chapter 2.0, the CMP consultation reached the consensus that continuing with the 'business as usual' approach and managing the Grotto as a maintained ruin was not feasible. This was due to a combination of the continuing decline of the structure and the lack of improvements in security, interpretation and presentation. Therefore, the immediate focus for the Grotto's future should be on the commissioning and implementation of a Restoration and Maintenance Plan (see Section 5.5.1). This will include immediate works required to stabilise and consolidate the structure. In addition, it will include a maintenance plan for use at the end of these works, encompassing a schedule for both periodic surveys of the Grotto's built fabric and vegetation maintenance, to be agreed in conjunction with the City Surveyors and Epping Forest. As this Plan may take time to commission and produce, the Grotto's existing fabric should be periodically monitored (for example yearly) against the rectified photography in Appendix B in order to record and track further loss of historic fabric.

Policies

005. As part of the Restoration and Maintenance Plan, the City Surveyors and Epping Forest will commission a joint maintenance plan for the Grotto (to take effect following the completion of restoration works) which includes a schedule for both periodic surveys and vegetation maintenance

006. The City Corporation will commission yearly visual surveys that compare the current state of the Grotto to rectified photography in order to track further loss of historic fabric

5.4.3 Statutory controls

Risks

- The need to obtain consent could delay or prevent works to the Grotto, leading to a deterioration of the historic fabric
- The need to obtain consents adds to the cost of administration and management

Opportunities

- An efficient and stream-lined process of consent means that repairs and other works can be carried out in a timely fashion, reducing administration costs, helping forward planning and budgeting as well as minimising the risk to the significance of the site

Discussion

The Grotto is statutorily listed at Grade II and as such work to the structure will require listed building consent. In addition, works may require planning permission and/or species licensing requirements. The City Corporation will continue to work closely with Historic England, London Borough of Redbridge and Natural England to help make sure cyclical maintenance takes place in a timely manner. In addition, the City Corporation will liaise with these bodies at an early stage during any proposed new works to the Grotto in order to ensure the project programme and design adequately takes account of any necessary consent or mitigation requirements.

Policies

007. The City Corporation will continue to work closely with Historic England, London Borough of Redbridge and Natural England to ensure both cyclical maintenance and new works take place in a timely manner and with all the necessary consent requirements

5.4.4 Enhanced Listing

Risks

- The current list entry does not reflect the full history or significance of the Grotto, making it harder for all stakeholders to make decisions about the impact of proposed changes to the site

Opportunities

- Updating the list entry to reflect new knowledge gained from excavations and research will result in a more thorough understanding of the site's significance, making it considerably easier for stakeholders to make decisions about the impact of proposed changes to the site

Discussion

The current list entry for the Grotto dates from when it was initially included in the National Heritage List in 1954. It contains only a very brief and factual description about the structure. No information is offered about the Grotto's history or significance.

The Grotto's list entry can be updated and expanded through Historic England's Enhanced Listing. Following the first workshop on 7 January 2019, Historic England recommended that the City Corporation undertake this as part of the long-term future of the Grotto, to make considering the impact of future proposals easier.

Policies

008. The City Corporation will look into updating the list entry for the Grotto through Historic England's Enhanced Listing service

5.4.5 Level of protection

Risks

- An insufficient level of protection of the Grotto's historical and/or ecological significance could lead to an erosion of its overall significance

Opportunities

- Formal recognition of the Grotto's various strands of significance, codified in designations, would ensure its overall significance is preserved

Discussion

The Grotto, both in itself and as part of Wanstead Park, is currently subject to several designations, concerning both heritage and ecology, outlined in Section 3.1.3. The scope and level of these designations should be reviewed periodically, in addition to any potential new designations, in order to take account of new historical research and changing ecological conditions. This will ensure that the level of protection remains commensurate with the Grotto's assessed level of significance.

Policies

009. The City Corporation will regularly review the Grotto's level of heritage and ecological protection to ensure its significance continues to be effectively protected

5.5 Structure and surviving fabric

5.5.1 The Grotto and the Heritage at Risk Register

Risks

- Without implementing a realistic programme of works the Grotto will continue to degrade and will be characterised as a higher priority on the Heritage at Risk Register

Opportunities

- By implementing works to restore the Grotto's façade and improve its setting, its significance will be better revealed, ultimately leading to its removal from the Heritage at Risk Register

Discussion

As set out in Chapter 2.0, the most realistic approach for the Grotto's medium-term future, which would achieve all of Historic England's minimum requirements for removing the Grotto from the Heritage at Risk Register, is to restore its façade. In order to achieve this, the City Corporation needs to commission a costed Restoration and Maintenance Plan, setting out all of the necessary works, organised in a schedule of discrete work packages, required from now over the next two to seven years. This plan needs to be commissioned in the next few months in order to maximise the efficiencies and funding opportunities presented by the wider mitigation works which will take place as a result of Environment Agency's 'high risk' designation of Wanstead Park's Large Raised Reservoirs.

Policies

010. The City Corporation will commission a Restoration and Maintenance Plan to specify works to restore the Grotto's façade, repair its structure and assist in its removal from the Heritage at Risk Register

5.5.2 Investigating the Grotto's foundations

Risks

- Without a thorough knowledge of the Grotto's foundations works could either cause further damage to the structure or inadequately protect it

Opportunities

- A thorough understanding of the Grotto's foundations would enable engineers and architects to better plan future works

Discussion

The nature and extent of the Grotto's foundations are not known. Richard Griffiths Architects' 2011 Report on Condition with Recommendations recommends a number of trial pit investigations in specific locations, conducted under archaeological observation, in order to establish the depth of the footings. The City Corporation should commission this investigation prior to any further work to the Grotto so that this can be planned more.

Policies

011. The City Corporation will commission trial pit investigations at the locations specified in Richard Griffiths Architects' 2011 report prior to any further work at the Grotto

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Figure 27: Lead statue of Andromeda, historically located on the Grotto's front facade

5.5.3 Recovered material

Risks

- Without cataloguing and a more secure storage solution the recovered material could be lost or damaged and the opportunity to re-use it in the restoration of the Grotto would be lost

Opportunities

- Re-use of recovered material will reinstate historic fabric and better enhance the Grotto's overall significance

Discussion

Following the fire in 1884, which severely damaged the Grotto, the structure has continued to lose fabric as a result of structural deterioration and vandalism. Some of this fabric has been recovered, particularly from the lake, and is currently stored in the open on site. As a priority, the City Corporation should investigate a more secure way of storing the stones, preferably on site. This could take the form of a temporary, lockable structure.

Following the safe storage of the recovered material, the City Corporation should commission an archaeological recording exercise of all the recovered material. This should include both geological identification and comparison with historic photos in order to ascertain, if possible, their historic location.

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Figure 28: Recovered material currently stored in the open

Policies

012. The City Corporation will work with Historic England to investigate a more secure way to store the recovered material on site, including the construction of a temporary structure

013. The City Corporation will commission an archaeological recording exercise to determine each stone's geology and likely historic location (if possible)

5.6 Security

Risks

- Insufficient or inadequate security could lead to further damage of Grotto's fabric and harm to its overall significance

Opportunities

- Appropriately sited and discreet security would help to protect the Grotto's fabric without obscuring its overall significance

Discussion

The question of security is fundamental to the management of heritage assets because it is essential in order to protect the historic fabric and by extension the site's significance. Most grottos are located in private, secure landscapes and are situated in areas within them that lend themselves naturally to security, such as hollows or depressions. In addition, most grottos have only one or two entrances which can be secured via a locked gate. This is not the case for the Grotto at Wanstead Park which is located in a public park and within that, in a fairly open, flat location. As such, the issue of security has consistently been one of the main management problems throughout its history. This has been exacerbated in recent years by the drop in the level of the Ornamental Water which has allowed people access to the Grotto via the banks.

Up to now, the City Corporation's approach to the Grotto's security has taken the form of three successive types of fencing. The current galvanised steel fence is large and unsightly and detracts from the Grotto's overall significance. However, due to its location in a public park, which is likely to remain open for the foreseeable future, it will always be necessary to have some form of security. The nature of this, including the possibility of creating a ha-ha or moat in addition to different types and locations of fending, should be reviewed as part of the Restoration and Maintenance Plan (see Section 5.5.1). In this great weight should be given to the appreciation of the Grotto within its setting. Ways to improve security in the short-term, such as installing CCTV cameras in the Grotto's vicinity, should be implemented by the City Corporation immediately whilst this longer-term review is undertaken.

Policies

014. The City Corporation will review the Grotto's security as part of the Restoration and Maintenance Plan

015. The City Corporation will ensure that future security measures do not, as far as possible, adversely impact visitors' experience of the Grotto in its setting

016. The City Corporation will install CCTV in the vicinity of the Grotto in the short-term to immediately improve the site's security

5.7 Accessibility

5.7.1 Public access to the Grotto's structure

Risks

- A lack of public access obscures appreciation of the Grotto's significance

Opportunities

- Public access would increase visitors appreciation of the Grotto's significance and that of Wanstead Park as a whole

Discussion

The Grotto is an instantly recognisable feature of Wanstead Park and one of its few surviving and instantly identifiable historic landscape features. The Grotto's visibility in views from points around the Ornamental Water, as well as a long tradition of public access and continuity of interest in Wanstead Park as a whole, accounts for the Grotto's high communal value. However, public access to the Grotto's structure itself was historically low and constrained largely to privileged guests of the Child family and paying visitors in the late-nineteenth century. Since the fire, even this minimal access has been lost through legitimate concerns over the safety of the structure.

Public access, in addition to views, of heritage assets is a substantial public benefit. Therefore, ways of increasing the public's access to the Grotto should be explored as part of any future works, including the Restoration and Maintenance Plan. This could involve the possibility of tours and supervised open days in addition to involving volunteers in the actual works. Implementation of any one of these options will require effective management by the City Corporation in order to ensure that the significance of natural and built assets is not adversely affected. For example, whilst the inclusion of volunteers in any future work is encouraged their involvement will need to be carefully defined and supervised by relevant staff and/or experts.

Policies

017. Through the Restoration and Maintenance Plan the City Corporation will explore ways to increase public access to the Grotto, including utilising volunteers, as part of any future works

5.7.2 Eastern approach and new bridge

Risks

- Lack of access to the bank east of the Grotto means two important views are not experienced by most visitors, undermining their appreciation of the Grotto's overall significance

Opportunities

- A discreet new bridge, giving easier access to the bank east of the Grotto, would improve visitors' appreciation of two important views on this side of the Ornamental water, thereby enhancing its significance

Discussion

During the early nineteenth century a bridge was constructed from the eastern side of the Grotto to the far bank of the Ornamental Water. Although since demolished the foundations survive. This impacts visitors' appreciation of the Grotto as two important views of it from a bank to the east are less accessible.

The Parkland Plan proposes to reinstate a bridge in order to improve access to the eastern side of the Ornamental Water, which is currently underused. Prior to any design development the City Corporation should commission investigations to determine the loading requirements of these foundations in order to decide if these could be reused.

As any proposed bridge is likely to be visible in views of the Grotto, it should be of a discreet design which should not 'read' as part of the Grotto, but be distinctly separate from it. Suggestions for hiding its western end when seen from strategic viewpoints, for example with vegetation, should be explored.

Policies

018. The City Corporation will investigate the surviving foundations of the historic bridge to the bank east of the Grotto and will conduct investigations to determine loading requirements

019. The City Corporation will ensure the new bridge is designed to be 'read' as distinct from the Grotto, with its western end hidden from strategic viewpoints

5.8 Interpretation and presentation

Risks

- A lack of engaging presentation and interpretation fails to fully reveal the Grotto's significance

Opportunities

- A thoughtful and intuitive strategy for interpretation and presentation would help to better reveal the significance of the Grotto and its contribution to Wanstead Park's wider history

Discussion

The way in which heritage assets are presented to visitors and, in turn, how people interpret them, lies at the heart of successful conservation management. An engaging, well-thought out presentation and interpretation strategy is essential for visitors to understand and fully appreciate a site's overall significance.

Although there is currently no set decision about the long-term future of the Grotto, there are many ways in which its interpretation and presentation could be improved. Ideas discussed at the first stakeholder consultation workshop included:

- Marking out the historic footprint of the Grotto
- Explore ways of reinstating elements that recreate a sense of the opulent and eccentric atmosphere of the Grotto
- Providing information boards with information and photographs of the Grotto's history
- Publicising (via leaflet or board) a walk around the circuit of the lake based on the historic route, allowing viewpoints of the Grotto to be better appreciated.
- Provide more benches at significant viewpoints

The City Corporation should explore these, and other, options as part of the Grotto's longer-term management to produce a robust interpretation and presentation strategy for the Grotto. These should be viewed and, where possible, integrated into the wider interpretation and presentation strategies for the rest of Wanstead Park and linked to other contemporary structures, particularly the Temple.

Policies

020. The City Corporation will explore options to better present the Grotto both as a single structure of significance as well as part of a designed landscape

5.9 Ecology

5.9.1 Overall approach

Risks

- Biodiversity is not considered in any long-term strategy for the future of the Grotto, undermining its significance as a landscape feature

Opportunities

- By considering ways to enhance the site's ecology as part of any scheme for its future development, the ecological value of the site at various scales will be preserved and enhanced

Discussion

The Grotto is an historic structure of high heritage value. However, it is also a landscape structure with ecological value both in and of itself and as part of Wanstead Park and the wider designated Green Corridor. Therefore, any scheme for its future must consider its ecological impact and the City Corporation should seek a net gain in biodiversity where possible.

To be successful, the management of the area surrounding the Grotto's structure needs to be practical, low cost and avoid the development of tall ruderal vegetation (such as thistles, willowherbs, nettle etc.) which, although of some ecological value, is unlikely to be appreciated by most visitors. There are two main options:

1. To plant trees and shrubs and introduce plants which live in semi-shade (such as bluebell, primrose, red campion, ferns etc.)
2. To cut the grassland twice a year in early spring and late summer/early autumn, raking off cuttings into heaps and planting a range of suitable wildflowers appropriate to the soil conditions around at the Grotto (such as oxeye daisy, cowslip, knapweed, bird's-foot trefoil etc.)

The preferred option may change in the short-, medium- and long-term depending on the various stages of works to the Grotto. However, throughout any proposed works the City Corporation should seek to introduce a selection of appropriate, locally native species which would help to sustain and enhance biodiversity.

The Grotto is also a waterscape feature and its relationship to the Ornamental Water is fundamental to its significance. The current ecological condition and significance of the Ornamental Water – both in terms of its water quality as well as its flora and fauna – will need to be investigated as part of the wider 2021 Large Raised Reservoir works. The results of these studies, particularly in the vicinity the site, should be taken into account in any proposals for the Grotto's future management.

Policies

021. The City Corporation will review the ecological impact of any future scheme and will seek a net gain in biodiversity where possible

022. The City Corporation will investigate ways to enhance biodiversity in the vicinity of the Grotto through the introduction and translocation of appropriate, native species as part of any proposed works

023. The City Corporation will take into account the findings of any ecological surveys of the Ornamental Water when making decisions about the Grotto's future management

5.9.2 Existing trees

Risks

- A lack of information on the trees in the immediate setting of the Grotto could lead to their mistreatment or removal which would undermine the Grotto's overall significance

Opportunities

- A better understanding of the trees' age and condition would aid the management of the site and enhance its overall significance

Discussion

The immediate setting of the Grotto includes two mature yew *Taxus baccata* trees. Currently little is known about these trees and following the first stakeholder workshop Historic England advised that a tree survey be carried out of the trees in the immediate setting of the Grotto to BS5837 (BSI Standards Publication: Trees in relation to design, demolition and construction – Recommendations, 2012) in order to collect information on the age and health of trees in the area. This would inform analysis of their heritage and nature conservation contribution and guide decisions on retention, management or removal with mitigation if necessary. This should be completed as part of the wider review of the Grotto's immediate setting (see Section 5.3.5).

Policies

024. The City Corporation will commission a tree survey to BS5837 of all trees in the immediate setting of the Grotto

5.9.3 Vegetation on the Grotto

Risks

- Vegetation removal to protect masonry can result in destruction of plants of ecological interest

Opportunities

- By introducing small wildflowers and ferns, where it does not affect the structural integrity of the Grotto, its romantic and natural character would be enhanced, and in turn its overall significance

Discussion

Stone and brick masonry of different aspects can support a range of specialist plants which are adapted to exposed and impoverished conditions. These are of ecological interest. At present, only very small areas support crustose lichens or other plants. This is due to the fact that until very recently the Grotto was covered and shaded by trees, shrubs and ivy, meaning there has not been sufficient time for plants to colonise the structure.

Before works are conducted on the Grotto, the City Corporation should commission an ecological survey of these plants in order to better understand their ecological interest and contribution to the site's significance. Where plants of interest are identified, the City Corporation will commit to retaining these where they do not adversely affect the integrity of the Grotto structure. If removal of species of nature conservation significance is required the City Corporation will commit to mitigation measures, in consultation with Natural England.

The introduction and encouragement of wildflowers, grasses and ferns (including spleenworts) should be considered as part of the restoration of the Grotto and the immediate surroundings, both to increase the naturalised and romantic nature of the Grotto itself as well as enhance the site's overall ecological interest. Species should be selected, sourced and planted in consultation with relevant stakeholders.

Policies

025. The City Corporation will commission an ecological survey of the existing vegetation present on the structure of the Grotto in order to better understand its ecological interest

026. Where species of ecological interest are identified, the City Corporation will commit to retaining these where they do not adversely affect the integrity of the Grotto structure

027. If species of nature conservation significance require removal the City Corporation will implement appropriate mitigation measures, in consultation with Natural England

028. The City Corporation will look into introducing, translocating and encouraging appropriate species of wildflowers and ferns where they would not adversely affect the Grotto's structural integrity or its nature conservation interest or that of the adjacent designated area

5.9.4 Bats

Risks

- Works which disturb bats and/or damage/destroy bat roosts cannot be legally carried out without a Natural England bat mitigation licence

Opportunities

- A bat survey would aid understanding of the ecological interest and potential of the site
- Additional roost sites could be created at the Grotto, increasing its ecological interest

Discussion

Bats are keystone species due to their important role in the ecosystem. Some species are listed as UKBAP priority species and all UK bats are legally protected. They are of high ecological interest and help to maintain insect diversity and abundance.

There is potential for the crevices and cavities within the Grotto to support roosting bats. Where roosts are affected by works, a bat mitigation licence can be obtained to allow those works to legally be carried out whilst retaining or replacing those roost sites in a 'like for like' way.

A range of roosts sites can be created without affecting the integrity or the appearance of the Grotto. Such roost sites could include small cavities within the walls or even a bat cave (with a locked grate which bats could pass through but which would prevent human access) which bats could use for hibernation and also potentially as a maternity roost.

Policies

029. The City Corporation will commission bat dusk emergence and dawn re-entry surveys of the Grotto from June to August to record any current bat roosts

030. The City Corporation will look into creating additional bat roosting features, where this does not conflict with plans for the future of the Grotto, in order to increase the site's ecological significance

5.9.5 Nesting birds

Risks

- Undertaking works which would disturb nesting birds is illegal

Opportunities

- A survey of nesting bird sites at the Grotto would aid understanding of the ecological interest and potential of the site

Discussion

Nesting birds are legally protected in the UK. Small cavities within the masonry of the Grotto may be used by nesting birds such as wren, pied wagtail, grey wagtail, kingfisher, etc. These can also be used as night roosts by small birds and can be particularly important in harsh weather conditions.

There are signs that wrens have nested in the Grotto and a number of other species may also nest. The City Corporation should commission a full survey of these sites in order to better identify the nature and number of nesting sites.

Policies

031. The City Corporation will commission a nesting bird survey to ascertain which species currently nest within the Grotto structure and where

5.10 Immediate setting

5.10.1 Immediate setting

Risks

- The current open setting of the Grotto does not reflect its historic character and undermines its overall significance

Opportunities

- Restoring a more secluded setting to the Grotto will enhance visitors' appreciation of its significance as a landscape feature that is 'discovered' at various points in the historic landscape

Discussion

Evidence from historic maps, paintings and twentieth-century photos show that historically the Grotto was surrounded by trees which provided a secluded setting. In addition, historic photographs from the first half of the twentieth century show the Grotto romantically overshadowed by large trees.

As an element of an eighteenth-century landscape, the Grotto was designed to be partially obscured and revealed at certain points in the landscape in order to cultivate a sense of surprise and delight in visitors. Its current open character detracts from visitors' appreciation of this element of the Grotto's significance. Therefore, as part of the Restoration and Maintenance Plan (see Section 5.5.1) the City Corporation should commission a review the Grotto's current setting, which would identify potential improvements such as reinstating a good cover of trees in the vicinity of the Grotto and clearing vegetation from significant viewpoints. The City Corporation will ensure that any proposed work resulting from this review will comply with nature conservation legislation and planning policies. This may mean implementing avoidance, mitigation or compensation-type approaches as necessary to ensure compliance and environmental sustainability objectives are met.

Policies

032. The City Corporation will review the Grotto's immediate setting as part of the Restoration and Maintenance Plan, which should include a discussion of the merits of reinstating a good cover of trees in the Grotto's immediate vicinity as well as clearing vegetation from significant viewpoints

5.10.2 Relationship with the Ornamental Water

Risks

- Appreciation of the Grotto's significance as a waterside feature will continue to be obscured by the low water level that disconnects the Grotto from the Ornamental Water

Opportunities

- Reinstating a water level adjacent to the Grotto will enhance visitors' appreciation of its significance as a waterside feature

Discussion

In recent years the water level of the Ornamental Water, adjacent to the Grotto, has dropped substantially. This has resulted in a large shallow area of emergent vegetation dominated by Purple loosestrife *Lythrum salicaria*. Although this wetland vegetation is of ecological interest the water level has a fundamental impact on the Grotto's overall significance and its current level considerably detracts from visitors' appreciation of it as a waterscape feature and boathouse.

A detailed plan for the future of Wanstead Park's waterscape is included in the Parkland Plan. This aims to make the lakes sustainable in terms of water supply, ecology, invasive species, habitat provision and heritage. In addition, in January 2018 the Ornamental Water, in conjunction with other Large Raised Reservoirs (designated under the 1975 Reservoirs Act) in Wanstead Park, was designated at 'high risk' of economic damage and/or loss of human life by the Environment Agency. Under the 1975 Act, this means the City Corporation are statutorily obliged to undertake remedial works within the next three years (to 2021).

As part of this project the City Corporation should ensure the relationship between the Grotto and the Ornamental Water, so fundamental to its overall significance, is fully taken into account. This would build on the Parkland Plan which states that the ornamental aspect of the waterscape around the Grotto should take priority over the 'natural' or unmanaged edges and margins. The Ornamental Water's optimum level should be determined in consultation with an historic landscape specialist as part of the Restoration and Maintenance Plan.

Raising the level of the lake will inevitably change the extent and types of wetland habitats (which are nearly always of ecological importance) as well as the various water depths used by different waterfowl (which require different depths to feed). Therefore, it is essential that the impact of any proposed works on both the Grotto and the Ornamental Water's natural conservation significance as a whole are assessed prior to commencement. In deciding on proposals, the City Corporation should seek a net biodiversity gain where possible through measures such as profiling banks where appropriate to create suitable conditions for marsh and emergent habitat to re-establish.

The City Corporation will ensure that any proposed work resulting from this review will comply with nature conservation legislation and planning policies. This may mean implementing avoidance, mitigation or compensation-type approaches as necessary to ensure compliance and environmental sustainability objectives are met.

Policies

033. The City Corporation will ensure the relationship between the Ornamental Water and the Grotto is taken into account during the Large Raised Reservoir Works taking place until 2021

034. In the area of the Ornamental Water around the Grotto, the City Corporation will prioritise reinstating the historic water level (which is of heritage significance) over the ecological interest of the current emergent vegetation

035. The City Corporation, as part of the Restoration and Maintenance Plan, will determine the optimum level of the Ornamental Water in the vicinity of the Grotto in terms of its heritage significance

036. The City Corporation will investigate the ecological impact of achieving the optimum level of the Ornamental Water

037. The City Corporation will seek a net gain in biodiversity during work to the Ornamental Lake including the possibility of re-profiling banks to allow marsh and emergent vegetation to re-establish

5.11 Wider setting

Risks

- Long-term proposals do not acknowledge the Grotto's wider relationship with Wanstead Park, undermining their success and obscuring the Grotto's overall significance

Opportunities

- Developing long-term proposals for the Grotto in conjunction with those for Wanstead Park as a whole means that both sites will have a better chance of a sustainable, successful future

Discussion

Although the Grotto is a significant structure in and of itself, it forms part of the wider site of Wanstead Park. Like the Grotto, the Park is currently on the Heritage at Risk Register and as a result various documents, particularly the Parkland Plan, have been commissioned in recent years which aim to reach a consensus on how best to secure the Park's future.

In light of this, and the 2021 Large Raised Reservoir works, various packages of major works are likely to be implemented across the Park in the next few years. Although, as discussed in Section 5.5.1 proposals for the Grotto should form part of these works in order to maximise efficiencies and funding opportunities, it is realistic to state that the Grotto is not an operational priority in the context of this wider scheme. During the CMP's consultation process, this was the main reason why the construction of a building, whether a full or partial restoration or new build, was deemed unfeasible in the short- to medium-term. However, this consultation process also concluded that in the longer-term a building was desirable, and so no works in the short to medium-term should preclude the construction of such in the future. The use of any such building should be guided by the future needs of Wanstead Park. As these become clearer, a Feasibility Study should be commissioned to evaluate the financial and operational viability of different potential uses, taking into account the Parkland Plan and this CMP, in order to ensure the Grotto's optimum viable use.

Policies

038. The City Corporation will decide the form, character and use of any potential building behind the Grotto in the context of the wider, future management of Wanstead Park

039. Once the future needs of Wanstead Park are more fully understood, the City Corporation will commission a Feasibility Study to evaluate the financial and operational viability of different potential uses for the Grotto

6.0
Action plan

6.1 Introduction

The policies in Chapter 5.0 recommended a number of additional studies and reports which would help the City Corporation remove the Grotto from the Heritage at Risk Register and determine a path towards its successful and sustainable future. During consultation (see Chapter 2.0) a consensus developed that the most realistic path to achieve both these ends would be to restore the façade to its eighteenth-century appearance (as far as possible).

The table presented in this Section provides both costings for the recommended additional studies as well as organising them in order to urgency, from essential to desirable. This provides the City Corporation with a clear picture of the immediate next steps they need to take to achieve their aims for the Grotto. These costs are indicative and based on our experience, industry contacts and current rates. These costs may need to be revised subject to detailed requirements, timescales and other factors.

Work required	Relevant policies	Description	Assumptions	Approximate cost	Urgency
Restoration and maintenance plan	005 010 014 017 032 035	• RIBA Stage 3 design for the restoration of the front (waterside) façade of the Grotto, in line with Policy 009. • Combined team of heritage consultant, architect, landscape specialist and cost consultant • To include: - drawings showing restored façade - drawings showing planting proposals - costings for proposed works - sufficiently detailed schedule of works - information on materials & workmanship - consultation with stakeholder groups • To consider: - design of fence and other security measures - enhanced public access - enhanced interpretation - optimum water level	• No more than three meetings to discuss the development of the Restoration and Maintenance Plan with stakeholders including LB Redbridge, Historic England, Natural England and the Friends of Wanstead Parklands	£35,000	Essential
Structural investigations into the Grotto's foundations and historic bridge (Watching Brief)	011 018	• Prepare a scope for the investigations and a brief project design for the Watching Brief, coordinate tender process • Attend site during the works and record archaeologically trial pits excavated manually by attendants, maximum of 6 trial pits and 2–3 window samples (a day's work) • Direct the excavation of the brick piers as necessary • Prepare a brief note to summarise the findings of the investigations aimed at establishing the extent and shape of the foundations • Undertake an initial assessment of the capacity of the bridge foundations to carry a new bridge structure and prepare a brief summary note	• The site investigations for the Grotto and the bridge will be procured together at the same time as a single piece of work • The foundations to the Grotto and bridge are less than 1.5m deep, and trial pits will not need shoring or dewatering ¬ – we have assumed each trial pit takes one day, with a daily rate of £600. • We have allowed for window sampling to confirm ground conditions below the bridge foundations – we have assumed that one day of sampling will be sufficient.	£20,000	Essential
Installation of CCTV	016	• Installation of two camera IP system with Alarms and Audio challenge including: - Two 4MP IP cameras with IVS Tripwire alarms 128GB SD card will record when movement is detected - One 8 Ohm line level class D amp and one speaker - One custom camera pole 6 m - One 4G router	• A 240 volt power supply is already provided on site	£2,500 £35/ month for one year SIM contract £18 / week monitoring charge	Essential

Work required	Relevant policies	Description	Assumptions	Approximate cost	Urgency
Monitoring loss of historic fabric	006	• Yearly visual examination of the Grotto to identify loss of historic fabric, measured against the baseline of the 2018 rectified photography • Production of a short note of findings	• Only one site visit will be necessary per review • The reviews will be undertaken at yearly intervals during the spring months. This will allow any winter damage to be captured and any recommended works to commence before the next winter.	£2,750 (yearly)	Essential
Feasibility Study	039	• A Feasibility Study to evaluate the operational and financial viability of different potential uses of the Grotto. This can only take place once the future use of Wanstead Park as a whole, and the Grotto's role in it, is more clearly defined.	• TBC	TBC	Essential (long-term)
Archaeological and geological recording of loose material	012 013	• Prepare a project design in accordance with the CIFA guidance on the documentation of archaeological materials and Code of Conduct • Record stones on site archaeologically. The recording will include the creation of a context register, photographs of individual items, measurements and labelling for storage (it is assumed that the City of London will be responsible for storing the stones) • The recording exercise will be supported by the geological examination of the stones, to be outsourced to Pre-construct Archaeology • Examination of documentary evidence to identify former location of individual items on façade, where possible, aimed at helping with the reconstruction of the asset • Production of photographic report to summarise the findings of the investigation, including photographic evidence of each item with a brief interpretive summary. The report will also include a drawing of the former locations of the stones on the façade (where understood) and it will also include the information resulting from the geological analysis of the stones.	• No more than 200 individual items will need to be recorded • The City Corporation will provide some means of secure storage following the assessment	£13,000	Advisable
Ecological surveys	023 025 029 031	• Take account of the findings of any ecological surveys of the Ornamental Water • A survey of existing vegetation on and around the Grotto (higher plants) • A survey of lichens and bryophytes (mosses and liverwort) • Two bat dusk emergence surveys and a dawn re-entry survey • Two nesting bird surveys	• The survey of existing vegetation will take place in summer, on the same day as the bat dusk emergence surveys • The bat dusk emergence surveys can only be undertaken between May and September inclusive, with the optimal months being June to August. • The first nesting bird survey will be undertaken between April and mid-May, immediately prior to the bat dusk emergence survey. • The second nesting bird survey will be undertaken between mid-May and the end of June, immediately prior to bat dusk emergence survey or after dawn survey.	£4,500	Advisable
BS5837 tree survey	024	• Tree survey undertaken in accordance with BS5837: 2012 to review all tree stock within influence of the Grotto. • Provision of a baseline Tree Constraints Plan and accompanying survey schedule, along with a covering note detailing the survey findings, policy and Tree Preservation Order data searches. The document will set out any recommendations for enhancement, vegetation removal or replanting as required to demonstrate betterment and sound conservation enhancements with regard to arboricultural matters.	• Tree survey to include those trees marked on the site plan given in the Conservation Management Plan for the Grotto. • Full site access will be provided for site visits. • Details of any known site hazard will be provided prior to site visits in order to inform a risk assessment. • Only one draft and one final version of the report are required. • No attendance is required at team meetings or consultation events	£2,000	Advisable
Interpretation boards	020	• Design three A0 information boards to display around the Grotto • Printing and delivery of boards to Epping Forest's central office	• No more than three, A0 boards will be required	£8,000	Desirable

7.0 Sources

7.1 Reports

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Chris Blandford Associates, 2011. *Wanstead Park – Conservation Statement*

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Museum of London Archaeology, 2017. *The Grotto, Wanstead Park, London E11 – Report on a survey of stone masonry*

Odgers Conservation, 2017. *The Grotto, Wanstead Park, London - Condition Survey and Conservation Appraisal for the low level standing remains*

Richard Griffiths Architects, 2011. *Wanstead Park, The Grotto - Report on Condition with Recommendations*

7.2 Newspaper articles

Essex Newsman, 29 November 1884, 'Destruction of Wanstead Park Grotto', p. 3.

Essex Standard, 21 September 1838, 'South Essex Horticultural Society', p. 2.

Essex Standard, 23 May 1843, 'South Essex Horticultural Society', p. 3.

London Evening Standard, 2 April 1904, 'The Herons of Wanstead Park', p. 6.

Shoreditch Observer, 21 July 1883, 'A Visit to Wanstead Park', p. 3.

Shoreditch Observer, 6 April 1889, 'Notes by Captain Cuttle', p. 3.

St James's Gazette, 22 November 1884, 'Destruction of Wanstead Park Grotto', p. 12.

7.3 City Corporation Archive

A variety of files including:

- WP6 – Correspondence
- CTU-GRO-2 – Wanstead Grotto
- Chronological Account of the Grotto of Wanstead (February 1998)
- The Journal of Samuel Curwen, loyalist Volume 1, April 1776 [extract]

7.4 Published

Dugdale, J. 1819. *The New British Traveller.*

Felus, K. 2016. *The Secret Life of the Georgian Garden*. London: I. B. Taurus.

Jackson, H., 2001. *Shell Houses and Grottos*. Peterborough: PrintOnDemand-Worldwide.com

Appendix A:
National Heritage List Entries

The Grotto

Overview

Heritage Category: Listed Building

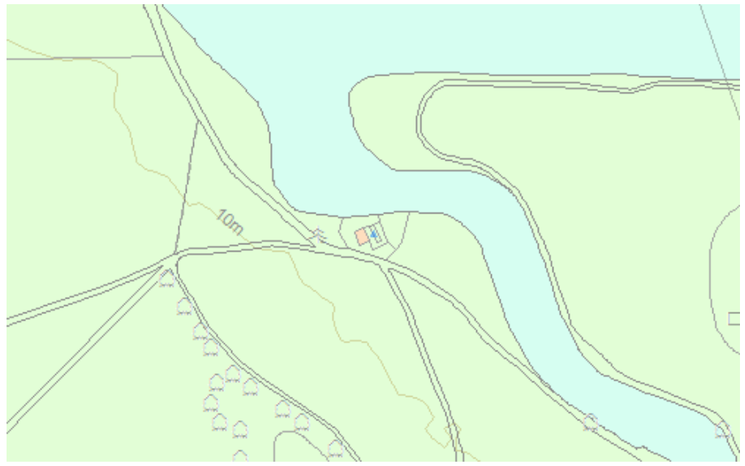
Grade: II

List Entry Number: 1183624

Date first listed: 20-Dec-1954

Statutory Address: THE GROTTO, WANSTEAD PARK E11

Map



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The PDF will be generated from our live systems and may take a few minutes to download depending on how busy our servers are. We apologise for this delay.

This copy shows the entry on 28-Nov-2018 at 11:26:21.

Location

Statutory Address: THE GROTTO, WANSTEAD PARK E11

The building or site itself may lie within the boundary of more than one authority.

County: Greater London Authority

District: Redbridge (London Borough)

National Grid Reference: TQ 41926 87480

Summary

Legacy Record - This information may be included in the List Entry Details.

Reasons for Designation

Legacy Record - This information may be included in the List Entry Details.

History

Legacy Record - This information may be included in the List Entry Details.

Details

WANSTEAD PARK 1. 5027 E11 The Grotto TQ 48 NW 5/18 20.12.54 II GV 2. Circa 1762 (VCH). Large honeycomb rockwork facade of segmental plan, having 7 arches at lake level, and 3 windows above. The structure rises in pediment form.

Listing NGR: TQ4192687480

Legacy

The contents of this record have been generated from a legacy data system.

Legacy System number: 204882

Legacy System: LBS

Sources

Books and journals

Page, W, The Victoria History of the County of London including London within the bars Westminster and Southwark, (1909)

Other

Register of Parks and Gardens of Special Historic Interest in England, Part 17 Greater London

Legal

This building is listed under the Planning (Listed Buildings and Conservation Areas) Act 1990 as amended for its special architectural or historic interest.

End of official listing

Wanstead Park

Overview

Heritage Category: Park and Garden

Grade: II*

List Entry Number: 1000194

Date first listed: 01-Oct-1987

Map

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Location

The building or site itself may lie within the boundary of more than one authority.

County: Greater London Authority

District: Redbridge (London Borough)

Parish: Non Civil Parish

County: Greater London Authority

District: Waltham Forest (London Borough)

Parish: Non Civil Parish

National Grid Reference: TQ4104087270

Summary

Legacy Record - This information may be included in the List Entry Details.

Reasons for Designation

Legacy Record - This information may be included in the List Entry Details.

History

Legacy Record - This information may be included in the List Entry Details.

Details

Remains of formal gardens, landscape park and lakes, the form of which dates mainly from the late C17 to early C19, on the site of a C16 deer park. Developed late C19 as a public park and early C20 as a private golf course, with associated sports facilities.

HISTORIC DEVELOPMENT

In 1545 a deer park was enclosed from the royal hunting forest at Epping, and included a hunting lodge built in 1499. The park included the plateau and the scarp that comprise the present (early C20) park and was bounded to the east by the River Roding. By 1549 the lodge was a ruin and it was replaced by a new house, enlarged in the late C16 by Robert Dudley, Earl of Leicester, who used it to entertain Queen Elizabeth in 1578.

The 300-acre (125ha) estate was purchased by Sir Josiah Child (1630-99) in 1673-4, who had lived there since 1667. Pepys commented that it was a 'fine seat, but an old-fashioned house' (Jeffery 1997). Sir Josiah started a massive programme of garden works, laying out a garden around the old house, with walled gardens of fruit trees, walnut plantations, and tree planting in the park. The structure of the gardens, the initial large-scale use of water, and the pattern of rides and avenues are likely to date from this period. The centrepiece of the avenues to the west was the approach from Leytonstone, and that to the east was the triple avenue along the Long Walk.

Sir Josiah died in 1704 and work was carried on by his son Richard, later Viscount Castlemain, 1718, and Earl Tylney, 1732. The initial work (1706-13) was a development of his father's work and was designed by George London (d 1714). The work included formal parterres, two large canals, a bowling green, wilderness areas, two mounts, clearings and seats, a large orangery, and a banqueting house. The gardens and old house were illustrated in bird's-eye views by Kip c 1713. Shortly afterwards, dramatic changes were made to the house and gardens in the period 1715-35. The old house was demolished and replaced by a Palladian mansion designed by Colen Campbell. The late C17 formal gardens were removed and replaced by a lawn. The Ornamental Water was made with the associated Fortification (a sham fort with battlements and guns on an island). The result of this work is depicted in John Rocque's Plan of the House Gardens Park & Plantations of Wanstead, 1735. A third phase of work was carried out between 1735 and Lord Tylney's death in 1750 (depicted in Rocque's Survey of London, 1744-6). This included irregular paths through the woodland to the east of the house and a series of ponds on the south side of the house (the Square, Perch, Heronry, Formal and Reservoir Ponds, and the Great Lake).

John, second Earl Tylney (d 1784) inherited the estate in 1750 and was responsible for building the Temple and Boathouse Grotto and for producing a less regular and formal landscape. The estate passed to the nephew of the second Earl in 1784 and then, in 1808, to Catherine Tylney Long who married William Wellesley Pole, a nephew of the Duke of Wellington, in 1812. William took the name of Pole Tylney Long Wellesley, and Catherine became Catherine Tylney Long Wellesley. Extensive alterations were carried out on the landscape in the period 1813-18, mostly under the guidance of Humphry Repton (1752-1818) and with planting by Lewis Kennedy. The work included plantations around the lakes, reshaping the Ornamental Water, a parterre to the west of the house, and draining the Reservoir Pond. In 1818 Lewis Kennedy made a report on the design and planting of an American Garden (recorded by J C Loudon (1822) as 'one of the largest ... in the kingdom'). Following the work, Repton described Wanstead as 'one of the most magnificent places in this country'. Unfortunately the extravagance of Catherine's husband resulted in the loss of her fortune and in 1822 the contents of the house were auctioned to satisfy the creditors. The house was demolished and the materials sold in 1824. Catherine died the following year. The parkland was let for grazing, mature trees were felled, and the gardens were neglected.

In 1882 the Corporation of London purchased part of Wanstead Park and it was opened to the public as part of Epping Forest, which includes Bush Wood. The remaining land was retained by Lord Cowley and much of the land on the edges of the park and estate was sold off to developers in the late C19 and early C20. The land at the centre of the park (including the site of the house and gardens) was sold in 1920 and became the Wanstead Golf Club, in which use it remains. The Corporation of London started a programme of replanting in the 1970s but many trees were lost in the 1987 and 1990 storms. In 1992 the Corporation of London initiated a ten-year management plan of their part of the park.

DESCRIPTION

LOCATION, AREA, BOUNDARIES, LANDFORM, SETTING Wanstead Park, c 129ha, is located to the east of Leytonstone, south of Epping Forest and north-west of Ilford, in the London Borough of Redbridge. The public park and the golf course are bounded by Overton Drive to the north-west, Warren Road and Redbridge Lane West to the north-east, the River Roding with the North Circular (A406) to the east, the City of London Cemetery to the south-east, Northumberland Avenue and Woodlands Avenue to the south-west, and Blake Hall Road (A114) to the west. Bush Wood is bounded by Bush Road (A114) to the north, Blake Hall Road and the gardens of the houses on Belgrave Road to the east, Lake House Road to the south-east, Harrow Road (B161) to the south, the east end of Ferndale Road and the gardens of the houses of Montague Road to the south-west, and Bushwood to the north-west. The ground at Wanstead has a slight slope, falling generally from west-north-west to east-south-east, towards the course of the River Roding. The boundaries of the park are marked by a mixture of wooden and metal fences, and open boundaries.

ENTRANCES AND APPROACHES There are pedestrian entrances to the public park from Blake Hall Road to the west, from Warren Road to the north-east, and numerous entrances from the south, including four channelled entrances, direct access from the rear gardens of the houses along Woodlands Avenue, and open access (where no barriers exist) along Northumberland Avenue. There are vehicular access points from Warren Road (which leads to the Temple and Keepers' Lodge), from Park Road to the south-west and from Wanstead Park Avenue to the south-east (to the Keepers' Lodge). The Golf Club is approached from Overton Drive, directly into a car parking area on the north side of the former stable and outhouse courtyard, the buildings of which now form the Clubhouse. A track leads southwards from Overton Drive, down the west side of St Mary's churchyard to the sports ground and the Basin. This track and the one from Warren Road to the Temple existed in the C18 but the remaining access points and paths are largely early C20 ones, associated with the public park. A pair of early C18 Portland stone gate piers (listed grade II*; outside the boundary of the site registered here) stand at the entrance to Overton Drive from Blake Hall Road, marking the former main entrance to Wanstead Park from the west. Access to Bush Wood can be gained from the surrounding roads.

PRINCIPAL BUILDING The early C18 house was demolished in 1824 and not replaced. The site of the house is marked by a large indentation in the ground within the golf course, which runs from c 100m south-south-east to c 250m south-south-east of Wanstead Golf Club House.

To the south of Overton Drive is the north side of a courtyard of late C18 outbuildings (coach house and stables), now the Wanstead Golf Club House (listed grade II; c 50m east of St Mary's with Christ Church). It consists of two-storey brick buildings around the sides, with round-headed archways through to the courtyard from the north and south. Additional one-storey buildings have been added to most sides and a modern (late C20) extension has been added to the south.

Also on Overton Drive and c 50m to the west of Wanstead Golf Club House is St Mary's with Christ Church (listed grade I), completed in 1790. It was built by Thomas Eamwick in a neo-classical style.

GARDENS AND PLEASURE GROUNDS The landscape is divided between the golf course (which itself is in two parts), the public park, and Bush Wood (the last two described under PARK below). The main part of the golf course (c 32ha) lies in the north-west third of the site, and includes the site of the former Wanstead House, gardens and the main C18 entrance from the west. The rest of the course (c 6ha) is divided by Warren Road and lies to the north of Wanstead Park.

Entering the site through the courtyard of Wanstead Golf Club House, a path leads south from the building and then circuits a bowling green (Wanstead Bowls Club) before emerging on to the main part of the golf course, which lies to the south, west and east. Immediately to the west are tennis courts, and a second bowling green with a pavilion, and beyond these to the west is a sports ground, with further tennis courts along the west side and a pavilion to the north (used by Linkside Tennis Club, Wanstead Cricket and Hockey Club and the Lakeside Play Group). Adjoining the tennis courts to the west is the Basin, a large octagonal lake (4.09ha), close to the north boundary of the site. Along the east side of the sports ground is a drive, which leads north onto Overton Drive. To the west of the drive is a car park and to the east the churchyard of St Mary's (c 2ha), with the church at the northern end, surrounded by wrought-iron spear railings (together listed grade II). The churchyard has a collection of early C19 and Victorian monuments, including the memorial to Joseph Wilton RA (1803, listed grade II), in Portland stone and in the form of a Greek aedicule.

The Basin, aligned on an east/west axis, was, up until the early C20, part of the main approach from the west. It was formed in the 1720s and replaced two late C17 semicircular basins with a causeway in between. From the 1720s the carriage drive circuited the Basin to the south and north. Radiating out from the Basin were avenues and rides cut through the surrounding plantations. The west/east axis continued to the east, through the centre of the house and beyond through the gardens and into the pleasure grounds and park.

A further area of sports ground lies on the west side of the golf course, adjoining Blake Hall Road and is entered from there. This includes the pitches for the Blake Hall Sports and Leisure Centre with the Redbridge Rugby Football Club.

The remaining ground is laid out as an 18-hole golf course with tree planting between the holes. The site of the house and the earthwork and archaeological remains of the gardens are within the course. The site of the house is apparent as a large indentation in the ground and to the west of this is the site of Repton's quartered 'Union Jack' parterre (1810s, replacing the late C17 and C18 forecourt), still visible as earthworks. To the south of this is an earthwork bank, which runs west in a straight line from the south side of the house site and then skirts the Basin, levelling off at the south-west edge. This marks the south side of the levelled approach from the west. To the east of the house site are the earthwork remains of the gardens, which in the late C17 consisted of parterres on either side of a garden canal (on the same axis as the Basin, c 500m to the west), with an orangery to the north, and a circular bowling green at the east end of the canal, with a pavilion to the north. In the early C18, the canal and formal gardens were removed and replaced by a lawn linked to the house by a terrace. The C17 walled gardens to the south-east of the house were removed in the mid C18 and replaced by open parkland. To the north of the gardens (mostly outside the boundary of the registered site described here, having been developed for housing in the early C20), were formal pleasure grounds, with a Wilderness, walks, clearings and a small amphitheatre. Throughout the gardens to the east of the house vistas along clearings, terraces or avenues linked the features and provided the framework of the layout. The main axes ran west/east, north/south and along the garden boundaries, and these were linked by lesser vistas and avenues which ran diagonally between them.

Within the golf course there are also the remains of medieval ridge and furrow and Roman antiquities were found in the area in the C18 and C19. The detached part of the golf course to the north-east occupies level ground and is largely open, with areas of mostly C20 tree planting.

PARK The public park, known as Wanstead Park (56ha), wraps around the south and east sides of the main part of the golf course. Wanstead Park includes a chain of lakes which extend along the south and east perimeter, the pleasure grounds, the site of the kitchen garden and much of the park. Until the early C19 the park was much more extensive, including further land to the south, south-west and north, and with extensive rides and ornamental planting over the common land and forest to the north, west and south. After being leased as agricultural land from the 1820s, much of this land was developed for housing in the late C19 and early C20, but areas survive such as Wanstead Flats to the south of the houses in the Aldersbrook area, and George Green (both outside the boundary of the registered park described here).

In the centre of Wanstead Park is the Temple (c 1760s, in present form by 1779, listed grade II), a two-storey building with a four-columned pedimented Tuscan stone portico and lower wings to each side. The Temple is placed on a mound which screens the ground floor from view from the west front, which terminates a vista from Heronry Pond up an avenue (reinstated in the 1990s as a double avenue of sweet chestnut). In the late C18 it was used as a poultry house and by the early C19 as a keeper's lodge with a garden and a pheasantry. On the north side of the enclosure on the east side of the Temple is a building, now known and used as the Keepers' Lodge.

To the north of the Temple is The Grove, which is cut through by the Long Walk, on the same west/east axis as the Basin and the centre of the former house and gardens. The Long Walk is a wide, grassy clearing which leads eastwards down to the late C17 Canal (again on the same west/east axis as the Basin, 1km to the west). The Canal is joined to the Ornamental Water on the west side, the two having been merged in the C18, but juts out as a formal canal to the east. The east end of the Canal adjoins the east boundary of the park. To the north and south of the Long Walk are the North and South Mounts (George London, early C18), visible on Kip and Knyff's view (c 1713). They were later integrated into the less formal mid C18 landscape. They survive as mounds but are now overgrown with trees. The Mounts are marked by yew hedges planted in the 1990s on the lines of the original hedges. The remains of the early C18 Great Amphitheatre lie c 100m north-west of the North Mount and are also marked by a yew hedge.

The Ornamental Water (6.4ha of water and 4ha of island) is an extensive lake set in woodland which runs south-east/north-west for 1km close to the east boundary. The southern end is quite narrow, with a meandering shoreline. This section is divided by the Canal from the northern end which is wider and has three large islands: Rook Island (c 300m north-east of the Temple), with the Fortification island c 30m to the north-east, and Lincoln Island c 30m to the north. At the northernmost point of the Ornamental Water is a pump house which draws water from the River Roding. The River Roding runs c 50-100m to the east of the Ornamental Water (the east boundary of the registered site described here), and is canalised along some sections. On the west shore of the lake, c 70m to the south of the Canal, is the Boathouse Grotto (c 1762, listed grade II), which faces north and acts as a focal point of views across the Ornamental Water. It consisted of a boathouse below and domed chamber above but was severely damaged by a fire in 1884 and now survives only as a shell. The Ornamental Water was made with the associated Fortification (a sham fort with battlements and guns on an island) in the early C18. The fort no longer survives but its island site remains with its bastions. The result of this work is depicted in John Rocque's Plan of the House Gardens Park & Plantations of Wanstead, 1735 and Rocque's Survey of London, 1744-6. In the mid C18 the lake edge was altered to provide a more natural outline, which included merging the Canal into the lake.

Along the south side of the park is a string of lakes, which run from west to east for 1km: Shoulder of Mutton Pond (1.42ha), shaped as its name suggests and with an informal edge; Heronry Pond (3.4ha), a long thin pond lined with concrete and with two large islands; and Perch Pond (2.23ha), a long thin pond with a group of small islands by the Wanstead Park Avenue entrance. Lakes were formed on this site in the early C18 and were altered to approximately their present form in the mid C18. To the west of the Shoulder of Mutton Pond lies Reservoir Wood, on the site of Reservoir Pond, which was formed in the early C18, altered mid C18 and drained by Repton in the early C19. To the west of Reservoir Pond was the early C18 Great Lake (outside the boundary of the registered park here described), which became part of the garden of the C19 Lake House, and was then drained in the early C20 and developed for housing as Blake Hall Crescent, Windsor Road, Richmond Way, Belgrove Road and Lake House Way.

The remaining ground in the park consists of areas of mature woodland (predominantly oak and sycamore - some of the oaks dating from the C17 and C18 - and elm scrub), with large open areas of grassland with scattered trees to the south of the Temple and around the southern ponds, and belts of trees along the southern boundaries. A late C20 cafe stands on the east side of the path between the Heronry Pond and Perch Pond. The C18 design still provides the framework for the footpath system but a network of smaller C20 paths have been laid out in addition.

Bush Wood, c 33ha, lies to the west of the public park, on the far (west) side of Blake Hall Road. It is an oak/hornbeam wood, with a mature canopy, and a number of large C18 sweet chestnuts. The line of the C18 approach from the west is along Bush Road, which cuts through Bush Wood and forms the northern boundary of the site described here. An avenue, known as the Lime Avenue, cuts diagonally across the Wood, south-west to north-east, from Ferndale Road to the south-west across to Blake Hall Road. It was renovated in the late C20 with standard limes and a new copse was planted at the western end. The lime avenue formed the diagonal approach towards the Basin from the south-west, mirroring one from the north-west, now lost due to C20 development.

KITCHEN GARDEN The C17 kitchen gardens were located to the south-east of Wanstead House, immediately north of Heronry Pond. In the mid to late C18 the walled productive gardens were moved to the site of former orchards and vineyards adjacent to the Ornamental Water. No walls or glasshouses survive at either site.

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Maps John Rocque, Plan of the House Gardens Park & Plantations of Wanstead, 1735 [copy in Jeffery 1997] John Rocque, Plan of the Cities of London and Westminster..., 1744-6 John Rocque, Plan of London on the same Scale as that of Paris... 1762 with new improvements 1766 Cruchley¿s New Plan of London and its Environs, 1835

OS Old Series 1" to 1 mile: Sheet 1 1805 OS 25" to 1 mile: 1st edition surveyed 1863 2nd edition published 1893-5 3rd edition published 1915

Description written: January 1999 Amended: March 2000 Register Inspector: CB Edited: May 2000

Legacy

The contents of this record have been generated from a legacy data system.

Legacy System number: 1101

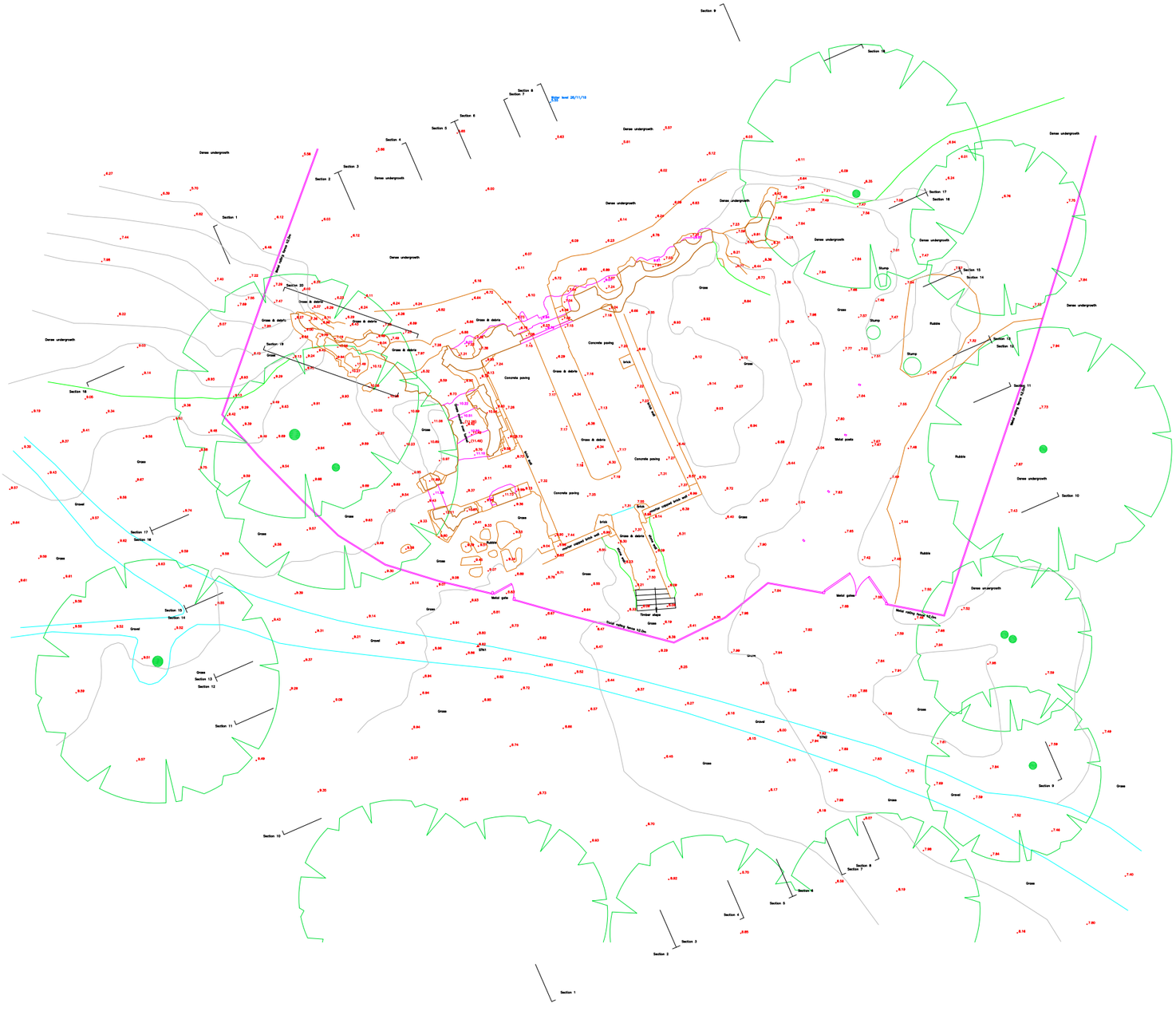
Legacy System: Parks and Gardens

Legal

This garden or other land is registered under the Historic Buildings and Ancient Monuments Act 1953 within the Register of Historic Parks and Gardens by Historic England for its special historic interest.

End of official listing

Appendix B:
Measured survey drawings



Notes:
Drawing units are metres.

- Stair slope arrows point up
- Direction of floor boards
- Direction of roof slope (up)
- 2.06 Floor to Ceiling Height
- AH Arch Height
- SH Arch spring Height

Vertical Datum:
Levels (in metres) are related to Ordnance Survey GPS Datum, Survey Grid is OS GPS.

Notes:
This survey has been carried out to an accuracy consistent with a scale of 1:50.
Drawing units are metres.

Wanstead Grotto, Wanstead Park, London, E11

TOPOGRAPHIC SURVEY

0 2.0 4.0 10.0 20.0 metres

SURVEYED & DRAWN BY:
James Brennan Associates
Chartered Surveyors
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UNIT 6 WARREN HOUSE,
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Architect:
Alan Baxter Ltd
75 Cowcross Street,
London,
EC1M 6EL

Client:
City of London Corporation

Drawing no.	18-088-TOPO
Issue date	DEC 2018
Issue status	-
Scale	1:100@ A1

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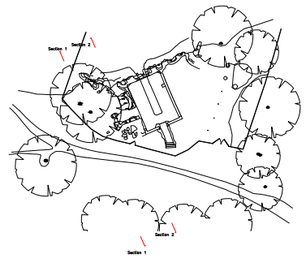

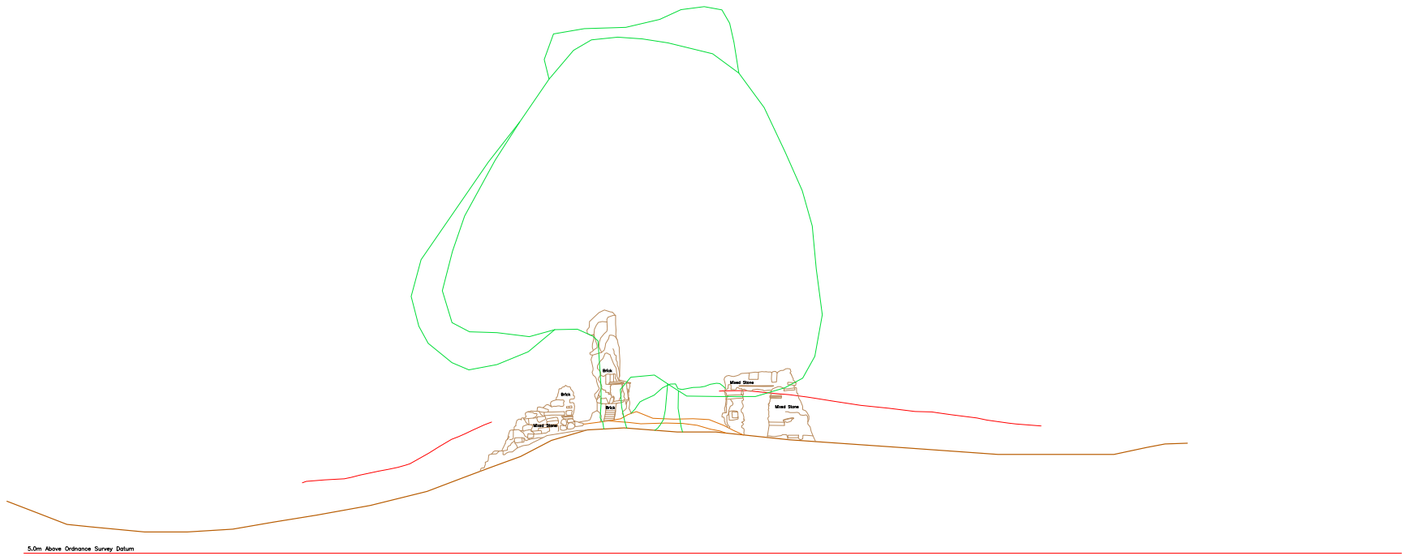

ELEVATION 1

ELEVATION 2

Notes:
Drawing units are metres.

- Stair slope arrows point up
- Direction of floor boards
- Direction of roof slope (up)
- 2.06 Floor to Ceiling Height
- AH Arch Height
- SH Arch spring Height

Vertical Datum:
Levels (in metres) are related to Ordnance Survey GPS Datum. Survey Grid is OS GPS.

Notes:
This survey has been carried out to an accuracy consistent with a scale of 1:50.
Drawing units are millimetres.

Wanstead Grotto, Wanstead Park, London, E11

SITE ELEVATIONS

0 2.0 4.0 10.0 20.0 metres

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Client:
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Drawing no.	18-088-EL-01
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Issue status	-
Scale	1:100@ A1

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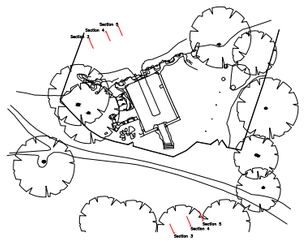
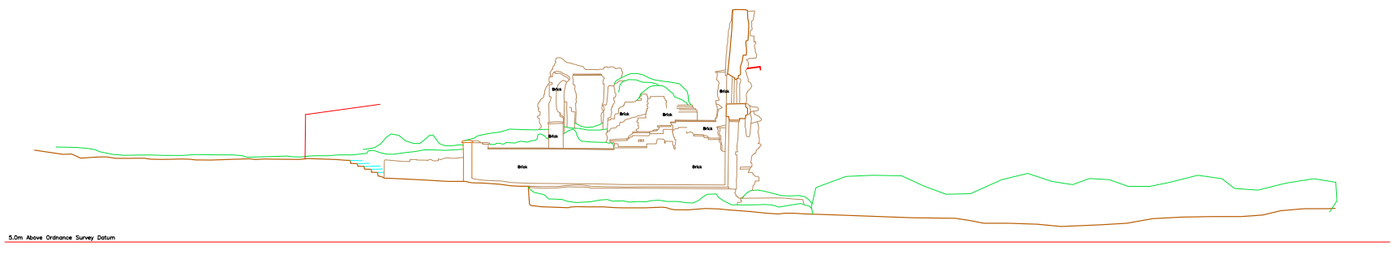


ELEVATION 3

ELEVATION 4



ELEVATION 5

Notes:
Drawing units are metres.

- Stair/ slope arrows point up
- Direction of floor boards
- Direction of roof slope (up)
- 2.06 Floor to Ceiling Height
- AH Arch Height
- SH Arch spring Height

Vertical Datum:
Levels (in metres) are related to Ordnance Survey GPS Datum. Survey Grid is OS GPS.

Notes:
This survey has been carried out to an accuracy consistent with a scale of 1:50.
Drawing units are millimetres.

Wanstead Grotto, Wanstead Park, London, E11

SITE ELEVATIONS

0 2.0 4.0 10.0 20.0 metres

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Drawing no.	18-088-EL-02
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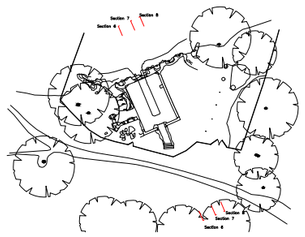
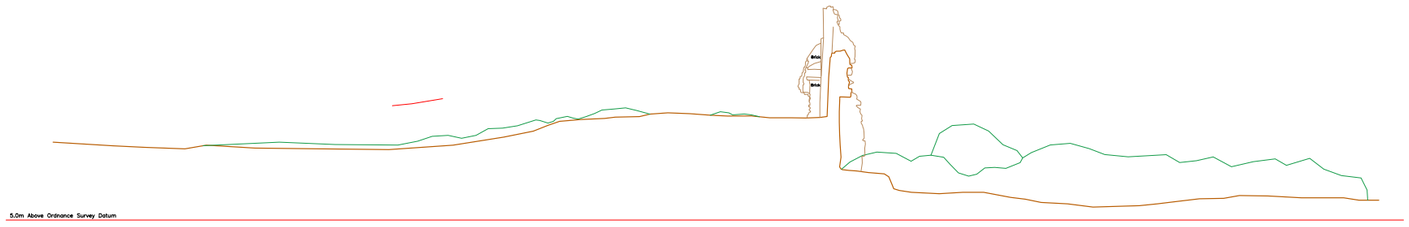


ELEVATION 6

ELEVATION 7



ELEVATION 8

Notes:
Drawing units are metres.

- Stair/ slope arrows point up
- Direction of floor boards
- Direction of roof slope (up)
- 2.06 Floor to Ceiling Height
- AH Arch Height
- SH Arch spring Height

Vertical Datum:
Levels (in metres) are related to Ordnance Survey GPS Datum. Survey Grid is OS GPS.

Notes:
This survey has been carried out to an accuracy consistent with a scale of 1:50.
Drawing units are millimetres.

Wanstead Grotto, Wanstead Park, London, E11

SITE ELEVATIONS

0 2.0 4.0 10.0 20.0 metres

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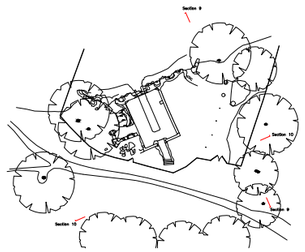
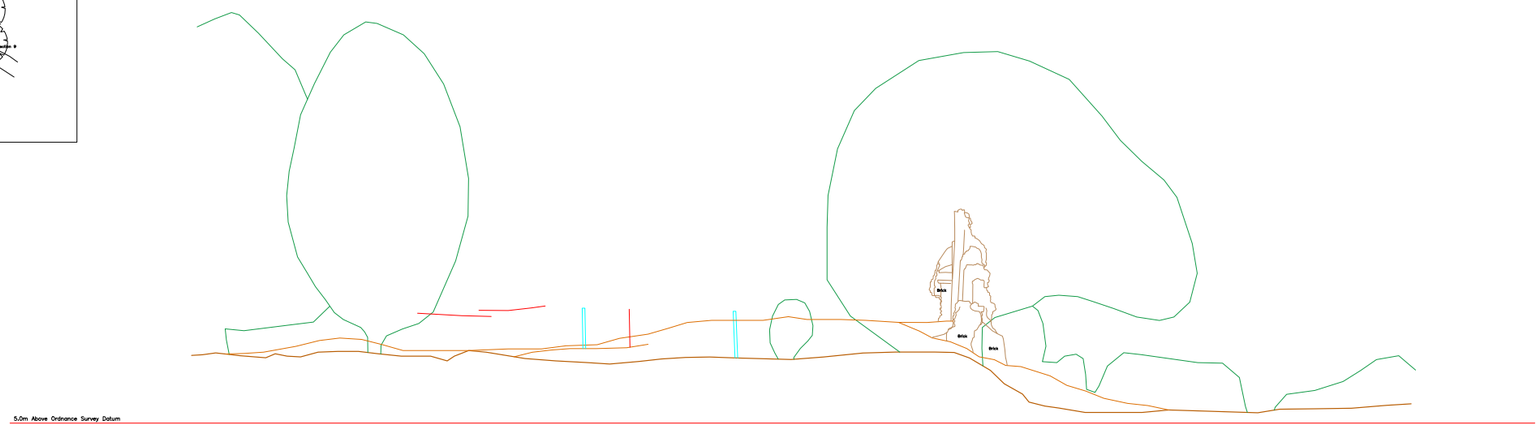
City of London Corporation

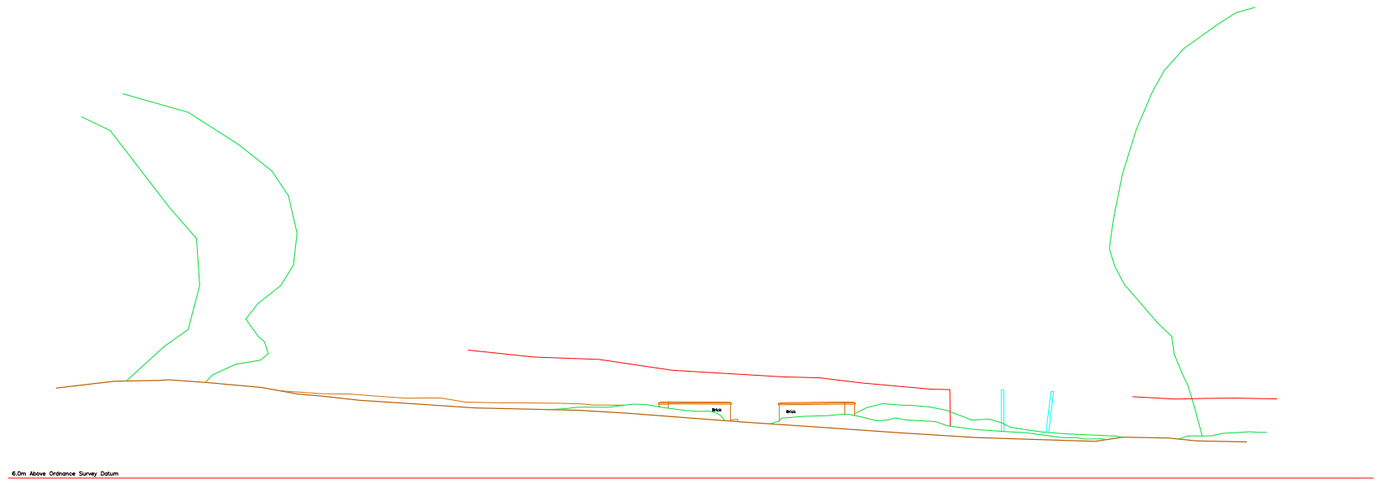
Drawing no.	18-088-EL-03
Issue date	DEC 2018
Issue status	-
Scale	1:100@ A1

Location Plan:





ELEVATION 9



ELEVATION 10

Notes:
Drawing units are metres.

- Stair slope arrows point up
- Direction of floor boards
- Direction of roof slope (up)
- 2.06 Floor to Ceiling Height
- AH Arch Height
- SH Arch spring Height

Vertical Datum:
Levels (in metres) are related to Ordnance Survey GPS Datum. Survey Grid is OS GPS.

Notes:
This survey has been carried out to an accuracy consistent with a scale of 1:50.
Drawing units are millimetres.

Wanstead Grotto, Wanstead Park, London, E11

SITE ELEVATIONS

0 2.0 4.0 10.0 20.0 metres

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Client:
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Drawing no.	18-088-EL-04
Issue date	DEC 2018
Issue status	-
Scale	1:100@ A1

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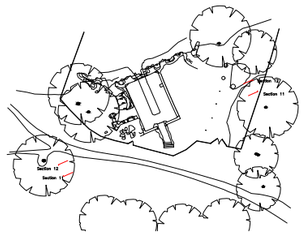
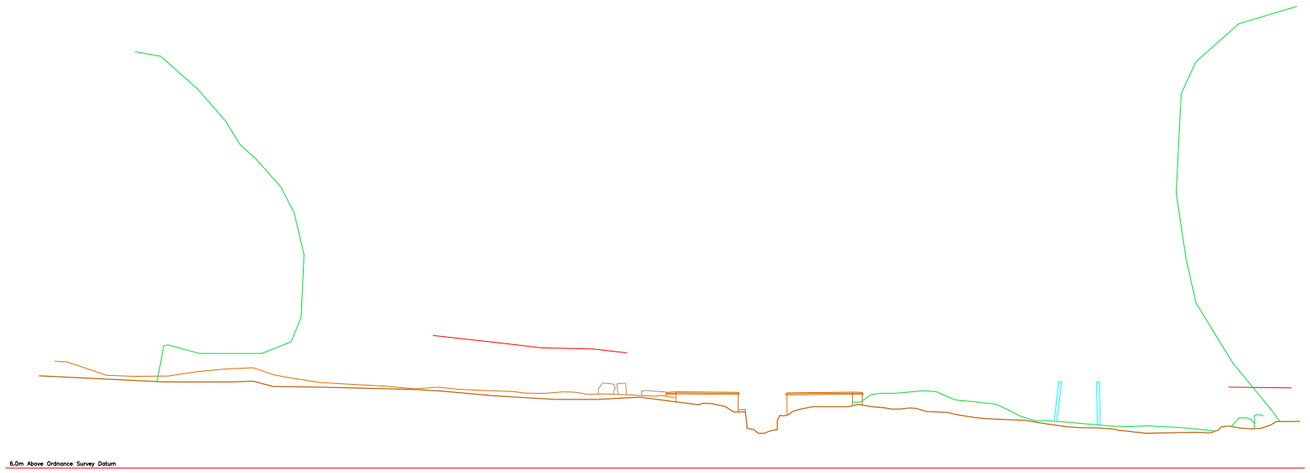
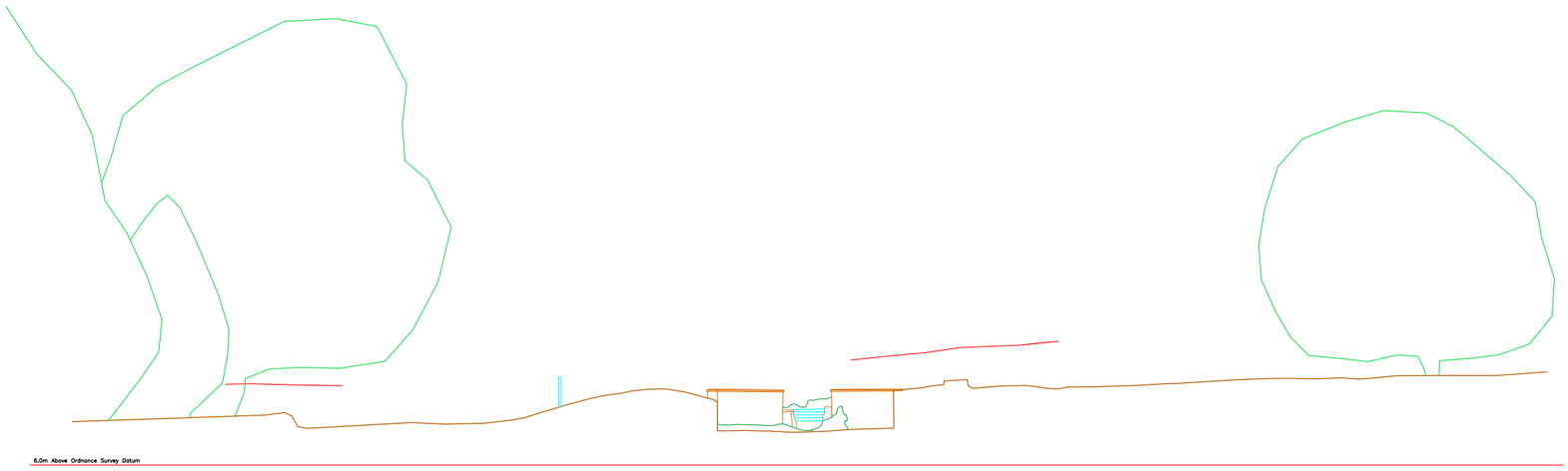




ELEVATION 11



ELEVATION 12

Notes:
Drawing units are metres.

Stair slope arrows point up
Direction of floor boards
Direction of roof slope (up)
2.06 Floor to Ceiling Height
AH Arch Height
SH Arch spring Height

Vertical Datum:
Levels (in metres) are related to Ordnance Survey GPS Datum. Survey Grid is OS GPS.

Notes:
This survey has been carried out to an accuracy consistent with a scale of 1:50.
Drawing units are millimetres.

Wanstead Grotto, Wanstead Park, London, E11

SITE ELEVATIONS

0 2.0 4.0 10.0 20.0 metres

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Drawing no.	18-088-EL-05
Issue date	DEC 2018
Issue status	-
Scale	1:100@ A1

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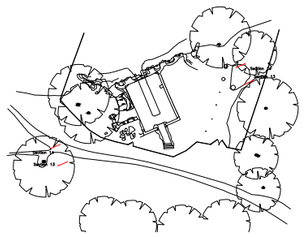

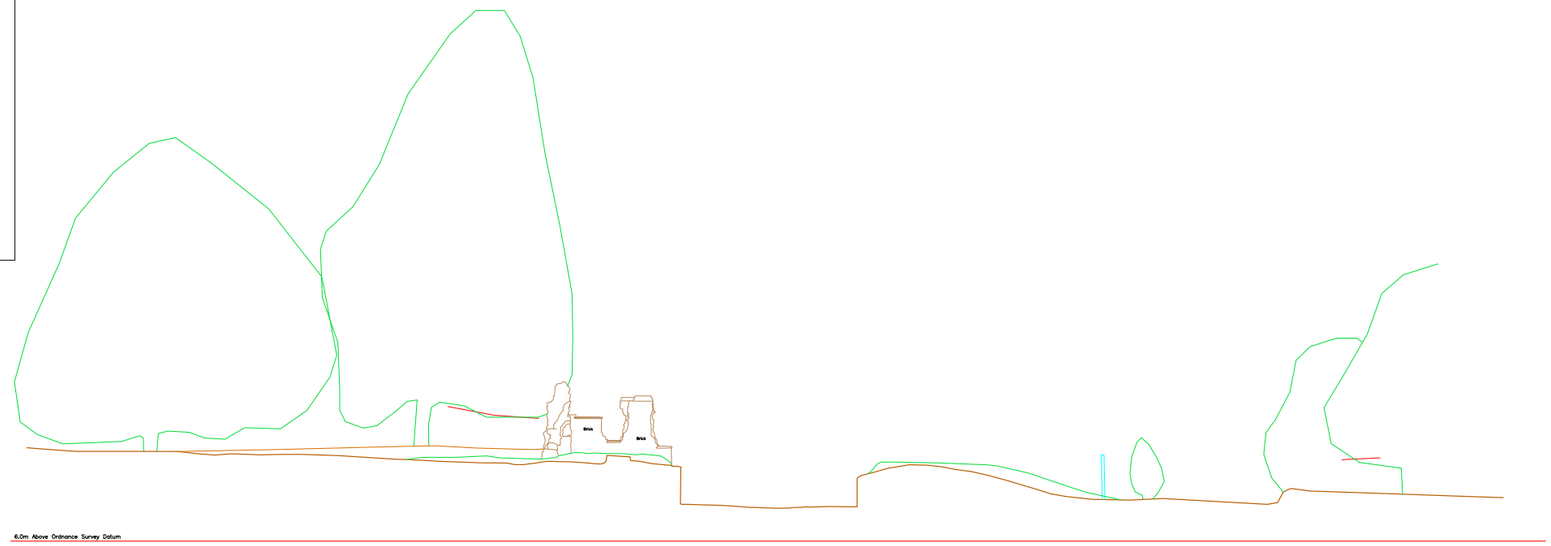

ELEVATION 13

ELEVATION 14

Notes:
Drawing units are metres.

- Stair/ slope arrows point up
- Direction of floor boards
- Direction of roof slope (up)
- 2.06 Floor to Ceiling Height
- AH Arch Height
- SH Arch spring Height

Vertical Datum:
Levels (in metres) are related to Ordnance Survey GPS Datum. Survey Grid is OS GPS.

Notes:
This survey has been carried out to an accuracy consistent with a scale of 1:50.
Drawing units are millimetres.

Wanstead Grotto, Wanstead Park, London, E11

SITE ELEVATIONS

0 2.0 4.0 10.0 20.0 metres

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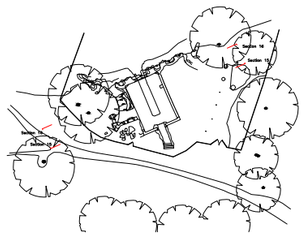
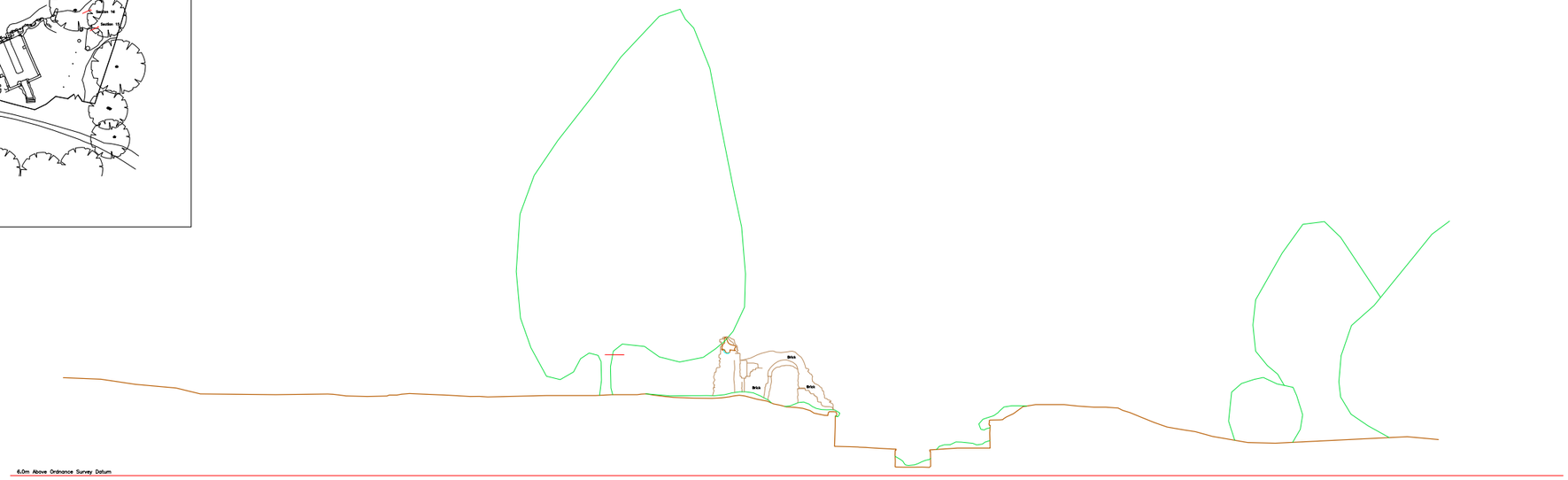
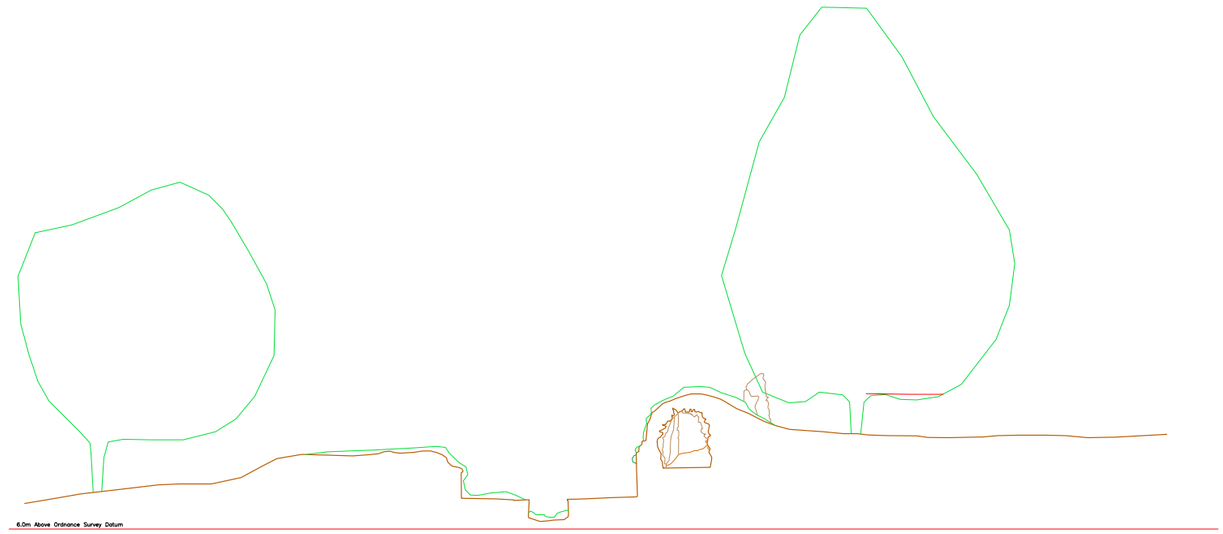
Drawing no.	18-088-EL-06
Issue date	DEC 2018
Issue status	-
Scale	1:100@ A1

Location Plan:





ELEVATION 15



ELEVATION 16

Notes:
Drawing units are metres.

- Stair slope arrows point up
- Direction of floor boards
- Direction of roof slope (up)
- 2.06 Floor to Ceiling Height
- AH Arch Height
- SH Arch spring Height

Vertical Datum:
Levels (in metres) are related to Ordnance Survey GPS Datum. Survey Grid is OS GPS.

Notes:
This survey has been carried out to an accuracy consistent with a scale of 1:50.
Drawing units are millimetres.

Wanstead Grotto, Wanstead Park, London, E11

SITE ELEVATIONS

0 2.0 4.0 10.0 20.0 metres

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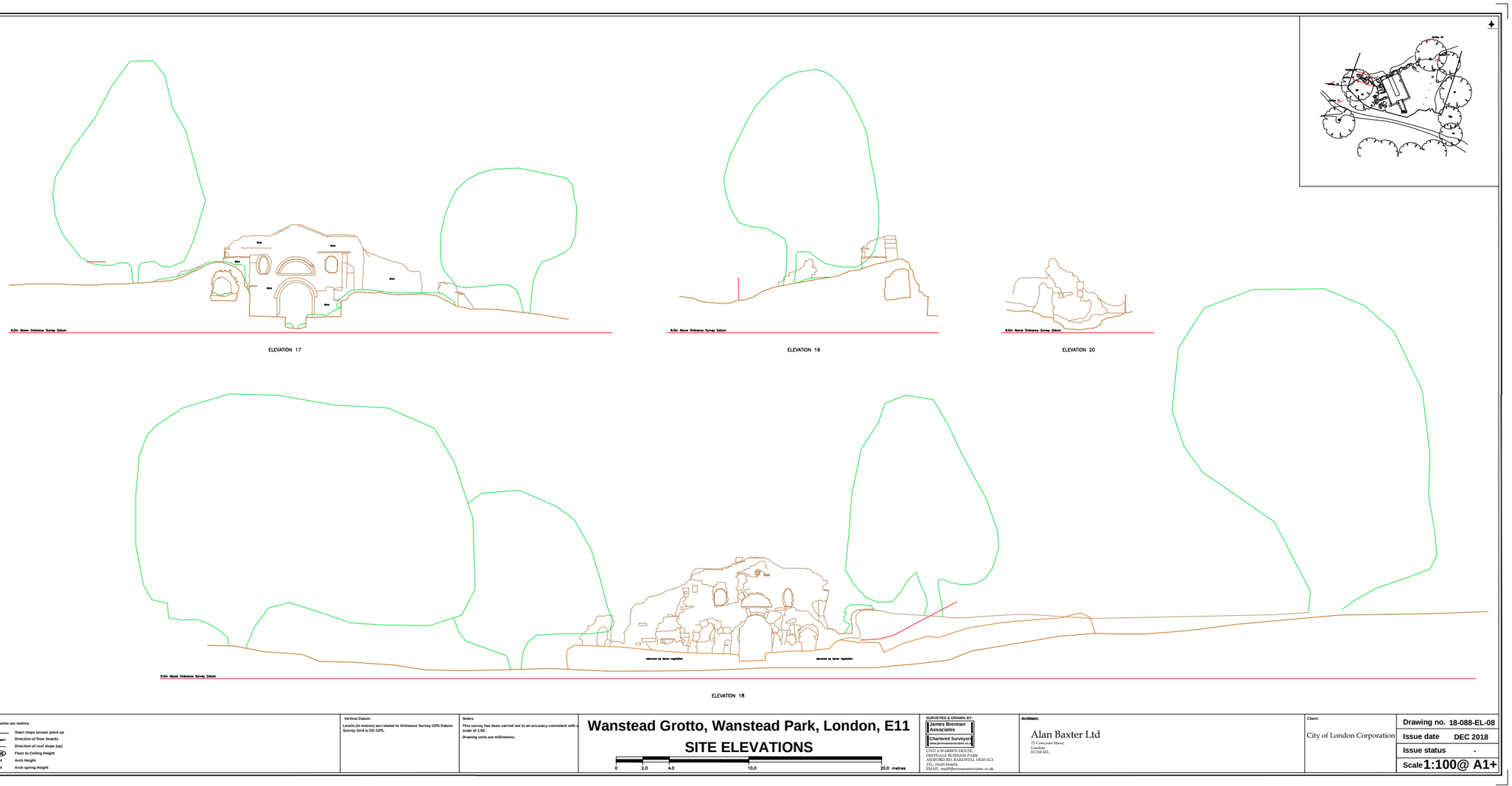
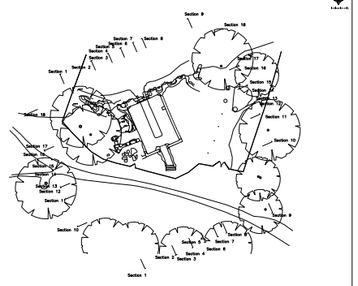
Client:
City of London Corporation

Drawing no.	18-088-EL-07
Issue date	DEC 2018
Issue status	-
Scale	1:100@ A1


ELEVATION 17
ELEVATION 19
ELEVATION 20
ELEVATION 18
Wanstead Grotto, Wanstead Park, London, E11
SITE ELEVATIONS
0 2.0 4.0 10.0 20.0 metres
Alan Baxter Ltd
City of London Corporation
Drawing no. 18-088-EL-08
Issue date DEC 2018
Issue status -
Scale 1:100@ A1+

Location Plan



8.0m Above Ordnance Survey Datum

ELEVATION 1

8.0m Above Ordnance Survey Datum

ELEVATION 2

Notes:
Drawing units are metres.

Stair slope arrows point up
Direction of floor boards
Direction of roof slope (up)
2.06 Floor to Ceiling Height
AH Arch Height
SH Arch spring Height

Vertical Datum:
Levels (in metres) are related to Ordnance Survey GPS Datum, Survey Grid is OS GPS.

Notes:
This survey has been carried out to an accuracy consistent with a scale of 1:50.
Drawing units are millimetres.

Wanstead Grotto, Wanstead Park, London, E11

RECTIFIED ELEVATIONS

0 1.0 2.0 3.0 4.0 metres

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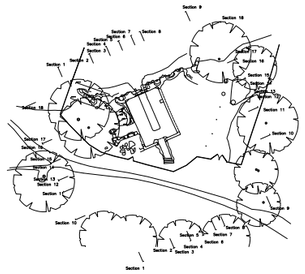
Client:
City of London Corporation

Drawing no. 18-088-R-01
Issue date DEC 2018
Issue status -
Scale 1:20@ A1

Location Plan



6.0m Above Ordnance Survey Datum

ELEVATION 5

Notes:
Drawing units are metres.

- Stair slope arrows point up
- Direction of floor boards
- Direction of roof slope (up)
- 2.06 Floor to Ceiling Height
- AH Arch Height
- SH Arch spring Height

Vertical Datum:
Levels (in metres) are related to Ordnance Survey GPS Datum, Survey Grid is OS GPS.

Notes:
This survey has been carried out to an accuracy consistent with a scale of 1:50.
Drawing units are millimetres.

Wanstead Grotto, Wanstead Park, London, E11

RECTIFIED ELEVATIONS

0 1.0 2.0 3.0 4.0 metres

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Drawing no.	18-088-R-02
Issue date	DEC 2018
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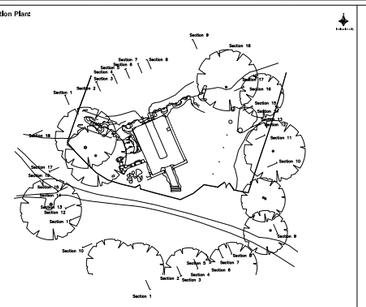
Location Plan



6.0m Above Ordnance Survey Datum

ELEVATION 6

Notes:
Drawing units are metres.

Stair slope arrows point up
Direction of floor boards
Direction of roof slope (up)
2.06 Floor to Ceiling Height
AH Arch Height
SH Arch spring Height

Vertical Datum:
Levels (in metres) are related to Ordnance Survey GPS Datum, Survey Grid is OS GPS.

Notes:
This survey has been carried out to an accuracy consistent with a scale of 1:50.
Drawing units are millimetres.

Wanstead Grotto, Wanstead Park, London, E11

RECTIFIED ELEVATIONS

0 1.0 2.0 3.0 4.0 metres

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Drawing no.	18-088-R-03
Issue date	DEC 2018
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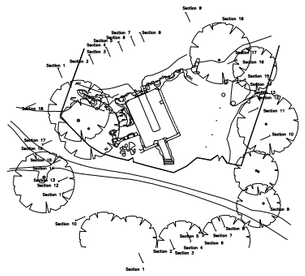
Scale	1:20@ A1

Location Plan



6.0m Above Ordnance Survey Datum

ELEVATION 10

6.0m Above Ordnance Survey Datum

ELEVATION 12

Notes:
Drawing units are metres.

Stair slope arrows point up
Direction of floor boards
Direction of roof slope (up)
2.06 Floor to Ceiling Height
AH Arch Height
SH Arch spring Height

Vertical Datum:
Levels (in metres) are related to Ordnance Survey GPS Datum, Survey Grid is OS GPS.

Notes:
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Wanstead Grotto, Wanstead Park, London, E11

RECTIFIED ELEVATIONS

0 1.0 2.0 3.0 4.0 metres

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Drawing no.	18-088-R-04
Issue date	DEC 2018
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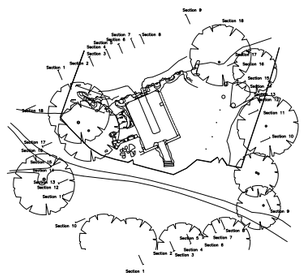
Scale	1:20@ A1

Location Plan



8.0m Above Ordnance Survey Datum

ELEVATION 13

Notes:
Drawing units are metres.

Stair slope arrows point up
Direction of floor boards
Direction of roof slope (up)
2.06 Floor to Ceiling Height
AH Arch Height
SH Arch spring Height

Vertical Datum:
Levels (in metres) are related to Ordnance Survey GPS Datum, Survey Grid is OS GPS.

Notes:
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Drawing units are millimetres.

Wanstead Grotto, Wanstead Park, London, E11
RECTIFIED ELEVATIONS

0 1.0 2.0 3.0 4.0 metres

SURVEYED & DRAWN BY:
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Chartered Surveyors
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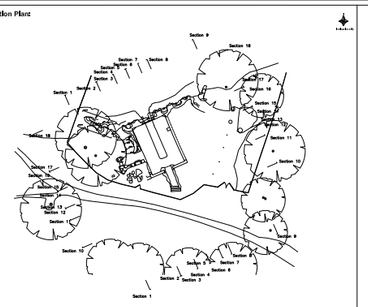
Architect:
Alan Baxter Ltd
75 Cowcross Street,
London,
EC1M 6EL

Client:
City of London Corporation

Drawing no. 18-088-R-05
Issue date DEC 2018
Issue status -
Scale 1:20@ A1

Location Plan



8.0m Above Ordnance Survey Datum

ELEVATION 14

8.0m Above Ordnance Survey Datum

ELEVATION 15

Notes:
Drawing units are metres.

- Stair slope arrows point up
- Direction of floor boards
- Direction of roof slope (up)
- 2.06 Floor to Ceiling Height
- AH Arch Height
- SH Arch spring Height

Vertical Datum:
Levels (in metres) are related to Ordnance Survey GPS Datum, Survey Grid is OS GPS.

Notes:
This survey has been carried out to an accuracy consistent with a scale of 1:50.
Drawing units are millimetres.

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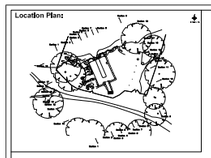
Drawing no.	18-088-R-06
Issue date	DEC 2018
Issue status	-
Scale	1:20@ A1

Location Plan:



6.0m Above Ordnance Survey Datum

ELEVATION 17

Notes:
Drawing units are metres.

Stair slope arrows point up
Direction of floor boards
Direction of roof slope (up)
2.06 Floor to Ceiling Height
AH Arch Height
SH Arch spring Height

Vertical Datum:
Levels (in metres) are related to Ordnance Survey GPS Datum. Survey Grid is OS GPS.

Notes:
This survey has been carried out to an accuracy consistent with a scale of 1:50.
Drawing units are millimetres.

Wanstead Grotto, Wanstead Park, London, E11
RECTIFIED ELEVATIONS

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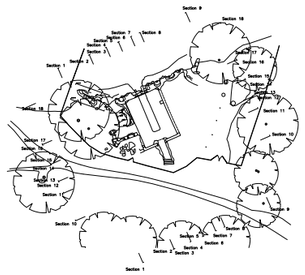
Drawing no.	18-088-R-07
Issue date	DEC 2018
Issue status	-
Scale	1:20@ A1

Location Plan



6.0m Above Ordnance Survey Datum

ELEVATION 17

6.0m Above Ordnance Survey Datum

ELEVATION 18

Notes:
Drawing units are metres.

Stair slope arrows point up
Direction of floor boards
Direction of roof slope (up)
2.06 Floor to Ceiling Height
AH Arch Height
SH Arch spring Height

Vertical Datum:
Levels (in metres) are related to Ordnance Survey GPS Datum, Survey Grid is OS GPS.

Notes:
This survey has been carried out to an accuracy consistent with a scale of 1:50.
Drawing units are millimetres.

Wanstead Grotto, Wanstead Park, London, E11

RECTIFIED ELEVATIONS

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Drawing no.	18-088-R-08
Issue date	DEC 2018
Issue status	-
Scale	1:20@ A1

Location Plan:

6.0m Above Ordnance Survey Datum

ELEVATION 18

Notes:
Drawing units are metres.

Stair slope arrows point up
Direction of floor boards
Direction of roof slope (up)
2.06 Floor to Ceiling Height
AH Arch Height
SH Arch spring Height

Vertical Datum:
Levels (in metres) are related to Ordnance Survey GPS Datum, Survey Grid is OS GPS.

Notes:
This survey has been carried out to an accuracy consistent with a scale of 1:50.
Drawing units are millimetres.

Wanstead Grotto, Wanstead Park, London, E11

RECTIFIED ELEVATIONS

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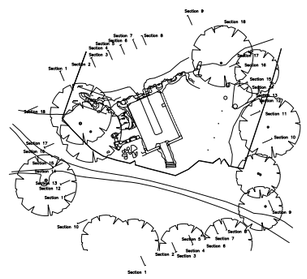
Drawing no.	18-088-R-09
Issue date	DEC 2018
Issue status	-
Scale	1:20@ A1

Location Plan



6.0m Above Ordnance Survey Datum

ELEVATION 20

Notes:
Drawing units are metres.

Stair slope arrows point up
Direction of floor boards
Direction of roof slope (up)
2.06 Floor to Ceiling Height
AH Arch Height
SH Arch spring Height

Vertical Datum:
Levels (in metres) are related to Ordnance Survey GPS Datum, Survey Grid is OS GPS.

Notes:
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Drawing no.	18-088-R-10
Issue date	DEC 2018
Issue status	-
Scale	1:20@ A1

Appendix C: Condition surveys

SURVEY & DESIGN PARTNERSHIP
70 Cowcross Street · London EC1M 6EJ · Tel 020 7639 6255 · mail@surveydesign.co.uk

The Grotto
Wanstead Park

Condition Survey

November / December 2018

INTRODUCTION

The site was visited on 30 November 2018, in cold, dry, sunny weather.

For the sake of simplicity, and to ensure that results can be compared with and traced back to earlier reports, we have decided to retain the zones defined in the report by Odgers Conservation of May 2017. Please refer to the map on page 3 of that report for the definition of zones A to M.

General condition

The condition of the structure was viewed from ground level only. As part of the first stage of maintenance work, we would recommend that scaffolding needs to be erected so that all parts can be viewed from elevated platforms.

As noted in previous reports, the principal wall is in a poor, but reasonably stable state. However, it will require major reconstruction work in the medium term to secure its long-term future. The longer the structure is exposed to plant growth and the weather, the greater the likelihood of losses. As the decay of the brickwork continues, more vulnerable areas are likely to reach a critical point of irreversible instability. The previous repairs to the principal wall have stemmed the worst decay, but the structure contains many voids and hollows, some designed and some the result of wildlife activity, so it is inherently weak.

The numerous pieces of embedded ironwork and the use of a hard cement mortar and concrete in previous repairs, including wall head cappings, will in the longer term create problems in relation to the original lime mortar construction.

A thorough structural survey involving trial holes has been recommended in the past, but has to our knowledge not yet been carried out.

Foundations

The nature of the foundations is not known and further investigations are required to determine this. In a previous report from 2011, the structural engineers suggest excavating trial pits in a number of locations to establish the depth of the footings; this should be done under archaeological observation.

Ground levels

The extent to which present ground levels around the Boathouse Grotto relate to historic levels is not known. Exploration to uncover the historic levels under archaeological supervision would be useful, and would enable a more precise condition survey.

Mortar

Two mortar samples were analysed as part of the 'Report on Condition with Recommendations' by Richard Griffiths Architects of July 2011. The findings need to be taken into account when repairs are carried out.
In recent repairs (especially in Zones A, C, D, K, L and M) a soft lime mortar has been used. This is of course generally the right course of action. But because mortar cappings and large areas of the pointing are subject to continuous or at least frequent rainwater saturation, frost damage has occurred.

Safety

The site and structure are inherently unsafe to access. Adequate safety precautions must be put in place for those entering the site for surveying and maintenance work.

Some of the concerns raised in the Richard Griffiths Architects report still remain, namely:

- The stability of the arched roof to the 'tunnel path'
- The overall plumbness of the principal wall
- The stability of the detached pier beyond the east end of the principal wall
- The presence of built in timbers including the decayed timber lintel over the entrance
- The unknown method of fixing the stonework facing to the principal wall, particularly over the central arch
- Corrosion and expansion of built-in metalwork dislodging the stone facing
- The proximity of trees to the structure - dead ones which may fall on to the structure, or live ones which may endanger it through root growth
- The long term failure of cement mortar cappings, allowing moisture into the structure

ZONE A

This is a substantial brick wall running east - west, with the remnants of window openings. Its original purpose apart from providing access to the tunnel leading down to lake level is not known.
It has been cleared of vegetation, but smaller plants and roots (probably dead) remain and should be carefully removed.

Recently, as recommended by the Odgers Report, horizontal surfaces have been mortar-capped and some pointing has been carried out (using an appropriate soft lime mortar). Also areas of brickwork around the openings appear to have been rebuilt.
Because the original brickwork is quite loose, some of the capping has already cracked and – curiously – top-most surfaces have not been capped, probably because they were difficult to reach, and there wasn't a proper scaffolding. This needs to be remedied urgently, because there is new plant growth in this area, and water can freely penetrate into the structure.

There are areas of brickwork where the pointing is deficient, and a few hollow areas that need to be filled with mortar.

Older areas of sand-and-cement / concrete repairs have cracked and need to be carefully repaired, without disturbing surrounding areas unnecessarily.

On the north-face of the wall, about 20 soft red bricks will need to be replaced.

ZONE B

This section includes the doorway on the west elevation and surrounding masonry with some brick inclusions.
As the Odgers Report points out, areas have been repaired using a hard cement mortar and even concrete. There are cracks surrounding these areas especially on the south and west faces.

The timber lintel above the door opening is now rotten and should be replaced before it collapses.

There are voids on the east face of the wall that need to be filled with mortar.

As in Zone A, top surfaces have not sufficiently been dealt with. Plants need to be removed, and areas of hard cement mortar need to be repaired, plus additional mortar capping put in place.

ZONE C

This represents the entrance to the south side of the tunnel. It is contiguous with Zone B and connects to a large volume of brickwork to the east of the entrance (Zone D).

As recommended in the Odgers Report, plants have been removed, cracks have been repaired, and some repointing has been carried out. Small areas of brickwork have been rebuilt.
But more pointing will need to be done, and soon at least 20 soft red bricks surrounding the opening will need to be replaced.

Condition Survey

ZONE D

This is the tunnel itself, constructed from random masonry. There are areas of concrete repairs.

By dint of its arched construction, the tunnel is stable, but individual stones may well come loose over time.

Cracks have been repaired, and inside the tunnel some repointing has recently been carried out. But more pointing will need to be done in the medium-term.

On-top of the tunnel, smaller plants and weeds, as well as old roots remain. It can be argued that the thin layer of earth and plants protect the tunnel structure, but I would suggest that in the long run, this arrangement is not sustainable – constant ingress of water will damage the structure and endanger the stability of the tunnel by weakening the mortar.
As a minimum, more weathering needs to be carried out, which will require the removal of earth and all plant growth.

ZONE E

This is the elevation of the main two-storey structure that faces the boat dock. It represents the structural brick-built core of the grotto, and will originally have been hidden behind layers of decorative stonework and plaster on the south.
The wall is a 2-brick thick wall (18inch or 450mm thick) with an undulating plan form to provide for decorative alcoves on the lakeside and providing structural strength to an otherwise two-dimensional structure. The abutting walls to the boathouse and passageway originally gave lateral support

The wall is faced with random masonry on the side that faces the lake (Zone H).

A structural engineer's report form 2011 recommends that the structural stability of the wall needs to be established, by excavating trial pits to investigate footings and sub-soil.
At this point, we are not sure whether this work has been carried out, and whether the stability of the wall has been established. But this assessment needs to be completed before any repairs are attempted.

Less than half of the visible brickwork is original 18th century construction. There are significant patches of brickwork at high level where rebuilding has taken place in a mixture of Fletton and common bricks laid in cement mortar, not in character with the original work. A sizeable portion around the elliptical eastern window opening has been rebuilt in non-matching bricks, using a hard cement mortar, and distorting the original shape of the opening (assuming that the two openings originally had the same shape). Other areas have similarly been rebuilt or extensively repaired.

Significant areas of the soft red brickwork are in a very poor condition, and are continuously being weathered away, as witnessed by red powdery residues on the ground. Since the brick wall constitutes the structural core of the wall, large areas will need to be replaced over time. In the short term, about 60 soft red bricks need to be carefully replaced.

There is a vertical crack along the west jamb of the large opening to the boat dock, with unsupported brickwork at low level.

At the eastern end of the wall, repointing is urgently required (about 5m2) and the top surface needs to be stabilised.

ZONE F

This is a freestanding section built of random stones, with a recessed flint-faced niche facing the lake. Originally it was probably connected to the main wall (Zone D) with an arch, remnants of which remain.

Limited repairs have been carried out, but several loose stones at the eastern end need to be pointed in order to secure them. Weeds need to be removed, and the top needs to be capped to protect if from the weather. (Similar to other sections of masonry, this was probably not carried out properly because scaffolding wasn't available.)

ZONE G

The Odgers report describes this as "a confusing collection of masonry. Urgent works were proposed in 2011 but these were not carried out and, as a result, this section has continued to deteriorate…"
Unfortunately this is still the case.
There are dangerously loose portions of masonry, large crevices, individual loose stones and bricks and plant growth.

In the past, repairs have been carried out using concrete, but a thorough overall stabilisation is now required, especially since the wall acts as a retaining structure for the mound behind.

ZONE H

This is the major front elevation of the grotto facing the lake, faced with a mixture of volcanic tuff, Kentish Ragstone, limestone, sandstone and flint. In the niches, flint and a soft red brick have been used.

Condition Survey

As mentioned earlier, a structural engineer's report form 2011 recommends that the structural stability of the wall needs to be established; this will have to be completed before any repairs are attempted.
Low-level cracks have recently been repaired, and some crevices have been filled-in with mortar and tiles. But fissures and areas of loose pointing remain.
The soft red brick in some of the niches will need to be replaced in the medium term.

It was not possible to determine the condition of the wall at high level. We would suggest that a full scaffolding will be required, which will need to be entirely freestanding, with a distance of say 200mm from the wall. Before the scaffolding is erected, the area in front of the wall needs to be cleared of plants. At the same time, stones that have dropped from the wall can be salvaged in order to re-use them in the repairs and / or rebuilding.

As well as checking the integrity of the wall at high level, and the fixing method for the irregular masonry, the scaffolding can also be used for the removal of any plant growth, and for the careful removal of old dead roots that remain embedded in the masonry.

ZONE J

This is the entrance area at the south of the ensemble. It has recently been comprehensively repaired, in accordance with the recommendation in the Odgers Report. The two low retaining walls constructed of random masonry have been repaired / rebuilt and pointed (although a few loose stones remain), and the steps have been replaced with railway sleepers (a curious anachronistic decision, since railways weren't built until nearly a century later).

ZONE K

This is the retaining wall to the west of the boat dock area. In accordance with the recommendations of the Odgers Report, it has been comprehensively repaired / rebuilt to a height of about 1m, and furnished with a tiled capping. It can now be said to be in good condition. However the raising of this wall to a uniform 1m height might not be historically correct - the corridor leading from the main entrance (Zone B) to the tunnel might have also provided direct access to the boat dock with an opening through this wall.

The manner of the rebuilding also appears to us to be in conflict with the original idiosyncratic character of the grotto, particularly in conjunction with the new concrete paving stones that have been laid around the dock that give a municipal feel to the area.

Condition Survey

ZONE L

This is a substantial volume of brickwork raking up from the height of the retaining wall in Zone K. The original function of this structure is not known.
Lower parts of the brick structure have been capped with creasing tiles and mortar, and this appears to have been repaired and added to more recently, using a soft lime mortar. However, the area is still not stable, as evidenced by bricks dropping into the area around the boat dock, although this might have been caused by unauthorised access. i.e. climbing onto the structure.

Again, the uppermost part of this volume of brickwork has not been dealt with, so the brickwork is topped with soil, grass and weeds, and is loose and cracked, with many open joints.
A decision needs to be made how to weather this area, since leaving it uncapped will mean it will continue to deteriorate.
But it is our opinion that the recent mortar repairs and creasing tile copings are negatively affecting the appearance of the structure. A more sensitive method for weathering and securing the brickwork should be found.

ZONE M

This is the retaining wall to the east of the boat dock area, facing the wall Zone K. Similar to that wall, as a response to the recommendation in the Odgers report, this wall has been rebuilt and capped to a height of about 1m. One small area towards the south has been poorly pointed, and will need to be re-done. Other than that, it is in good condition.

THE BOAT DOCK

As already mentioned, the two recently rebuilt retaining walls together with the concrete paving and the low-level walls that line the actual boat dock lend the entire area an inauthentic modern feel.
Future repairs and further rebuilding should be carried out in a fashion that is more in sympathy with the original character of this extraordinary structure.

SUMMARY

The grotto will continue to seriously deteriorate despite maintenance endeavours, because the structure contains a mixture of concrete, very soft brick laid in a soft lime mortar, different forms of masonry, and areas of hard cement mortar repairs. We consider that within a few decades

large parts of the fabric will have crumbled and might be in a dangerous condition. Even now some areas are dangerously unstable and must be protected from unauthorised access.

Already very little of the original 18th century structure remains. Repairs and rebuilt areas now account for more than half of the remaining fabric. It will soon no longer be possible to contend that we are talking about preserving an original 18th century structure – instead, we will be preserving an idiosyncratic feature that will give no indication of its original appearance or purpose. Maintenance in the past has been using methods that ensured some form of stability, but has changed the appearance of the ruin virtually beyond recognition.

THE GROTTO

WANSTEAD PARK

LONDON

CONDITION SURVEY AND CONSERVATION APPRAISAL FOR THE LOW LEVEL STANDING REMAINS

THE GROTTO, WANSTEAD PARK

CONDITION SURVEY AND CONSERVATION APPRAISAL FOR THE LOW LEVEL STANDING REMAINS

BACKGROUND

The Grotto was originally constructed in 1761 as part of the ornamentation of the gardens of Wanstead Manor. It was severely damaged by fire in 1884 only two years after it was acquired by the City of London Corporation. Since then it has essentially been a managed ruin with a number of interventions over the years including programmes of reconstruction.

Most recently there was conservation work to the entrance and retaining wall (zones A – D, K – M; see Fig 1)) in 1990, to the dock area in 1998 and to the main elevations (Zones E, F and H) in 2011. Full details of the history of the Grotto can be found in various documents including *'Wanstead Park – Boathouse Grotto; Feasibility Study into Repair and Re-use',* Richard Griffiths Architects (July 2011) . A video account of the works carried out in 2011 can be found at http://www.wansteadpark.org.uk/arch/stabilising-wansteads-grotto/

As part of the regular maintenance of the standing remains, this report was commissioned by the City of London Surveyor's department with the following brief:

- Carry out a survey of the accessible parts of the remains of the grotto
- Identify works needed to prevent further deterioration including mortar capping, reinstating fallen masonry, soft capping etc
- Identify works needed on health and safety grounds
- Identify areas where a minor rebuild will significantly reduce the deterioration of that area
- Provide illustrated report detailing results of survey, recommendations for repair, outline schedule of works and budget estimate

The site was visited on March 2017 when vegetation was low.

CONDITION SURVEY

For convenience and in order to allow easy identification, the site has been divided into a number of zones (see Fig 1).

Fig 1: outline of the surviving parts of the Grotto showing the zones that have been used in the survey

Zone A:

This is a brick wall with the remnants of window openings at the east end and in the middle. The north elevation has remnants of plaster particularly within the reveals of the arch. It is generally clear of vegetation although some of the substantial - but now dead – ivy roots are pulling material off the wall. Lower plants are becoming established on some horizontal ledges. There is evidence of previous mortar capping but this is mostly deteriorated.

The current condition is fair but there are quite a lot of areas where the mortar is crumbling and if this continues, it will inevitably lead to loss of bricks. Already some bricks on the top surface are loose and there are others on the broken section to the west of the opening (Fig 4), especially on the south side. There is some localised crumbling of bricks themselves. There are loose bricks at the east end adjacent to the void at low level (Fig 5).

Fig 2: north elevation of Zone A

Fig 3: south elevation of zone A

Fig 4: loose bricks on west side of opening of Zone A

Fig 5: east elevation of zone A of showing voids and loose bricks

Zone B:

The section includes the doorway on the west elevation. It is mostly constructed from masonry with some brick inclusions. It appears to have been reconstructed with hard coarse cement mortars used for laying stones and a finer cementitious mortar used for (perhaps later) repointing and flaunching. The buttress of random stones in the SW corner includes bricks and a number of iron bars. There is a timber lintel over the door which has surface rot but still retrains structural integrity

The condition appears generally sound with no obvious signs of current deterioration or imminent collapse. There is one void in the SW buttress that has a loose stone; there are also others voids and fissures in this area. These are not compromising the structure but they provide ideal locations for vegetation to become established. There are some areas of concrete at the north end. A mortar capping has been applied to the top horizontal surface but this has started to deteriorate and some of the capping is now loose (Fig 8).

Fig 6: east elevation of Zone B

Fig 7: west elevation of Zone B – note voids in buttress on the right

Fig 8: detail of top of wall showing decayed mortar capping

Zone C:

This is the brick entrance to the south side of the tunnel. It starts adjacent to Zone B and slopes up over the top of the arch and down to the buttress of the arch on the east side. This area had clearly been infested with substantial ivy growth; this has now been killed but tendrils and roots remain; some of the bricks beneath this residue are loose. There are higher plants (sycamore?) which are well-established on the top surface; these have been cut back but are still alive and new shoots are appearing.

Fig 9: front face of Zone C – note sycamore tree growing on top left

The west side has some original plaster at low level and the high level brickwork has a number of loose bricks. There is a void between the brickwork and the masonry arch; there is some ivy still growing in this void (Fig 10). A large ivy root remains on top of the west side of the arch.

The front face of the arch has previously been consolidated with stainless steel mesh and mortar but this has failed and now hangs down. The underlying brickwork still seems sound. On the west side of the arch, there are some loose bricks on top of the quoin but overall the front face is sound.

Fig 10: Zone C – east jamb of door showing void

Fig 11: Zone C – east section

Zone D:

This is the tunnel constructed from many random facing stones applied onto the brickwork lining which provides the structural integrity. There are a few areas of concrete repairs and in a couple of places, the stones have become dislodged and the brickwork is revealed. The overall condition is very sound with a few sections of loose mortar but these are not a problem.

Zone E:

This is the elevation to the boat dock and was the subject of extensive repair and consolidation works in 2011. These were well carried out, remain intact and have been very successful. The whole of the elevation remains in good condition. There is some ivy and plant growth (Budleia) on the window on the east side of the central arch; the area of brickwork at the bottom of the opening shows slight disruption (Fig 15) but there are no other issues of decay. The mortar capping seems sound.

Fig 12: Tunnel (Zone D) looking north

Fig 13: Tunnel (Zone D) looking south

Fig 14: overall view of Zone E

Fig 15: detail of window opening with ivy and Budleia

Zone F:

This stand-alone section of masonry has a flint arch and is otherwise constructed from random stones. It has been capped with mortar and the section on the east side has been rebuilt. The current condition is sound except for one loose stone at the foot of the extreme east side of the structure. The tile creasing is sound but there is slight deterioration of the mortar capping on the top; there is also some cracking which provides a potential location for vegetation to become established.

Fig 16: Zone F, north elevation

Fig 17: Zone F, south elevation

Zone G:

This area to the west of the main elevation is a confusing collection of masonry. Urgent works were proposed in 2011 but these were not carried out and, as a result, this section has continued to deteriorate. There is still live ivy growth and there is also a large live tree stump at the top of the slope on the west side.

The sloping area on the west side is currently stable but there is some erosion at low level and there are many voids where vegetation has become established. When viewed from the top of the slope (Fig 19), the visible masonry has been heavily capped but remains sound.

In the central area (facing east), although the masonry has a haphazard appearance, it remains mostly sound although much of the area is obscured by ivy so detailed investigation was difficult. There is one massive root system at the top but this may have been killed off; there appears to be a fissure in the masonry associated with this root (Fig 20) although this may have been part of the original design. There is one section in the middle that has detached and there is a loose brick on the front face; there may be more behind the web of roots.

The eastern section (including the area over the arch to the tunnel, Fig 21) has a number of large live well-established trees and one of these has caused a substantial vertical crack. There is some powdering of mortar at low level just to the east of the crack. At high level, there is quite a lot of loose material but there is also erosion of the clay soil on the top of the masonry; this is evident particularly at the top of the arch. This has led to water ingress into the masonry and, as a consequence, there are a number of loose bricks.

Much of the top of this section has a naturally developed soft capping of grass and lower plants. This has been broken down by the growth of higher plants (shrubs, trees) and by the erosion around the edges.

Fig 18: Zone G – north elevation (west section)

Fig 19: Zone G – south elevation from top of mound

Fig 20: Zone G – east facing section with fissure

Fig 21: Zone G – north elevation (east section)

Zone H:

This is the major front elevation of the grotto and was the subject of a substantial programme of repair and conservation in 2011. The works have been successful and, as a result there is little ongoing decay. There is some ivy growth around the western window opening and there are lower plants established in other localised areas. There is some powdering of brick and mortar within the niches at low level; this is due to local environment and the higher ground level at the back rather than as a result of any defect.

There is a higher plant (Budleia – see Zone E)) established in the cill of the eastern window; this will cause further damage unless removed. A bramble has become established to the east of the springing of the central arch and there is some vegetation on the top of the wall adjacent to the capping.

Fig 22: overall view of Zone H

There is powdering of brick and mortar within the eastern niche and some small sections of loose material at low level (Fig 23); these do not constitute a hazard. The eastern return also has some areas of loose brick and stone.

Fig 23: Zone H - detail of niche at east end

Zone J:

The entrance steps consist of timber treads between low-level stone walls that were probably constructed with mortar but most of it has been washed away; the walls retain the earth bank behind. On the east side, there are some loose blocks, some of them quite large. One stone at the south end has fallen out completely. On the west side there is significant bulging of the wall and some quite large loose sections of masonry. At the north end, attempts have been made to provide stability by the crude application of cementitious mortar (Fig 25). There are other loose stones adjacent to the brick wall (zone K).

Fig 24: Zone J – east side

Fig 25: Zone J – west side

Zone K:

This brick wall stands about 1 metre high and consists of an inner and outer skin. It has been extensively colonized by vegetation and has many loose bricks from both skins. Bricks continue to become dislodged. There is one vertical crack towards the centre at the junction with zone L.

Fig 26: Zone K

Zone L:

This is a large raking wall of brick construction. The lower section has been substantially capped with creasing tiles and mortar in 2011 and this has been generally successful although some of the capping mortar has cracked. Although the lower section of the wall is generally sound, the upper section of the wall is less sound with a number of whole and part bricks that are loose or dislodged; many of them are kept in place by the mat of (now dead) ivy. There is a significant fissure parallel with the front face due to substantial root growth (Fig 28); this root has been killed but its effects have not been treated. Although the area appears generally stable, there is evidence of recent fall of bricks so some consolidation of the whole of the upper area is required.

Fig 27: Zone L with tile creasing

Fig 28: detail of brickwork showing separation of front face due to root growth

Zone M:

This brick wall stands throughout its length at a fairly consistent level of approximately 1 metre. The top few course are disrupted over the entire length with bricks either loos or missing. As a result the bank behind the wall is giving way in places. There is some animal burrowing activity at the north end along with some vertical cracking.

Fig 29: Zone M

SUMMARY CONSIDERATIONS AND RECOMMENDATIONS FOR REPAIR

The standing remains of the Grotto have been subject to a number of interventions and it is certain that much of what now exists has been rebuilt at some stage or another. The structures suffer from three main causes of decay:

Vegetation: The comparatively wild parkland environment inevitably allows vegetation to become established. There have been a number of recent programmes of clearance (see Figs 30 and 31) and currently there is a maintenance regime in place to try and keep on top of the problem.

Fig 30: Zone H in 2015

Fig 31: Zone H in 2005

Despite this, vegetation continues to be the most damaging cause of deterioration. This happens in a number of ways:

- existing higher plants (shrubs and trees) continuing to grow with roots penetrating deeper into the fabric and causing major stresses and fissures
- new higher plants (especially elder and buddleia) seeding in small cracks in the fabric
- ivy can be a problem either through new growth or, even when cut back, attempts to remove the web of roots can cause disruption to masonry

Mortar failure: The original construction mortar and recent repair mortars have been based on lime binders. This is as it should be but they are susceptible to frost damage particularly on horizontal surfaces (e.g. masonry over door of Zone B) or in permanently damp environments (e.g. retaining walls in Zone K – M). Once the mortars have lost their binding strength, elements of masonry and brickwork will become loose.

Use of the site: Although the site is currently fenced off, the lake is drained down because of invasive species of aquatic weed in the upper lake. As a result, access to the site is quite easy from the lakeside and there is evidence that people have been walking over the site and causing elements of masonry and brickwork to become loose (especially in Zone A and the pathway that has become established through the door of Zone B and into the dock area via the top of the wall in Zone K). Animals are also responsible for some disruption o the masonry as evidenced by the burrowing in the Zone M wall.

The prime purpose of any works undertaken must be to ensure that the site is safe and secure and that further deterioration is minimised. This is best accomplished by addressing the causes such as removing vegetation but it is also possible to reduce decay in the future by undertaking preventive conservation;

this includes regular targeted maintenance. In this case, the use of soft capping in suitable areas will help to prevent vegetation growth and allow better control of water ingress into the fabric. This treatment is best suited to larger flatter areas; it is not appropriate for thinner sections of wall with steep slopes.

One of the biggest problems over the years is that as any element of masonry/brickwork becomes dislodged, it loses its context and is just added to the pile of salvaged material that is stored on one side of the site. This is clearly not a sustainable way forward as there will just be a continuing depletion of the fabric. It is therefore imperative that steps are taken to reintegrate any loose or fallen areas as soon as they occur.

Fig 32: accumulated fallen masonry materials (stone and brick) stored on the site

The following outline schedule of works has been developed by considering the requirements for each zone of the site. They have then been categorized according to the report brief.

OUTLINE SCHEDULE OF WORKS

Drawings where included are indicative only and do not necessarily show all the area or all the repairs

Zone A:

A1 Lift off, clean off and re-set loose bricks (60 No)

A2 Install salvaged bricks in voids and other vulnerable areas to provide support and effective water shedding (20 No)

A3 Apply mortar capping on horizontal surfaces

Zone B:

B1 Remove mortar capping above door and lay slate capping to allow water run-off

B2 Using salvaged masonry and mortar, fill voids in buttress (allow 6 No mostly at low level)

Zone C:

C1 Remove remaining ivy roots taking care not to dislodge underlying bricks

C2 Using appropriate brush killer or copper nails into each stem, kill off all sycamore roots

C3 Lift off, clean off and re-set loose bricks (20 No)

C4 Provide mortar flaunching to ensure effective rainwater run-off

C5 Flush out and fill fissures (1 linear m)

C6 Flush out, deep pack and fill void between brick and zone B

C7 Apply soft capping to upper horizontal surface including whole area of raised ground flanked by zones G, C and L (see http://www.geog.ox.ac.uk/research/landscape/rubble/swc/swc-report.pdf (pages 51 - 56) for methodology)

Zone D:

- No work required

Zone E:

E1 Remove ivy and Budleia from eastern opening

E2 Flush out and fill any cracks in cill area

E3 Allow to lay tile creasing on cill of eastern opening

Zone F:

- No work required

Zone G

G1 Clear off vegetation taking care not to disrupt masonry

G2 Cut back and remove as far as possible the root systems of 5 No trees; using appropriate brush killer or copper nails into each stem, kill off any roots that cannot be removed

G3 Cut back and treat other shrubs from upper horizontal surface

G4 Consolidate front edge of masonry especially around arch (allow to re-set 20 No bricks)

G5 Apply soft capping to upper horizontal surface including whole area of raised ground flanked by zones G, C and L (see http://www.geog.ox.ac.uk/research/landscape/rubble/swc/swc-report.pdf (pages 51 - 56) for methodology)

G6 Flush out, deep pack and fill any fissures that become apparent once vegetation has been cleared

Zone H:

H1 Remove higher plant from eastern window cill (see E1)

H2 Flush out and fill any cracks in cill area (see E2)

H3 Provide tile creasing for eastern window cill (see E3)

H4 Cut back and remove or treat other higher plants (brambles, etc)

H5 Remove and re-set loose stones and bricks from eastern return (10 No)

H6 Apply mortar capping to eastern return area to ensure water run-off

Zone J:

J1 Using planning frame, record location of existing stones

J2 Mark, dismantle and set aside stones of walls on both sides

J3 Excavate sufficiently to provide sound base of well compacted hardcore (150mm deep); archaeological watching brief may be necessary

J4 Rebuild stones in original location incorporating (as required) additional stones from pile of salvaged stone retained on site

Zone K:

K1 Carefully cut back and remove all vegetation

K2 Remove and set aside all loose bricks (approx. 100 No)

K3 Reconstruct removed bricks to form wall to follow profile of existing (allow 3 sq.m. reconstruction in all)

K4 Allow to introduce tile creasing to exposed ledges to ensure effective run-off (total area 2 sq.m)

K5 Lay soft capping over top horizontal face (see http://www.geog.ox.ac.uk/research/landscape/rubble/swc/swc-report.pdf (pages 51 - 56) for methodology)

Zone L:

L1 Remove remaining ivy and other roots taking care not to dislodge underlying bricks

L2 Lift off, clean off and re-set loose bricks (100 No)

L3 Introduce new creased tiles capping on south end (2 No locations)

L4 Flush out, deep pack and fill fissures

L5 Remove cracked flaunching at lower level and replace

L6 Apply soft capping to upper horizontal surface including whole area of raised ground flanked by zones G, C and L (see http://www.geog.ox.ac.uk/research/landscape/rubble/swc/swc-report.pdf (pages 51 - 56) for methodology)

Zone M:

M1 Take down, clean off and set aside bricks along the whole length to four courses beneath the top

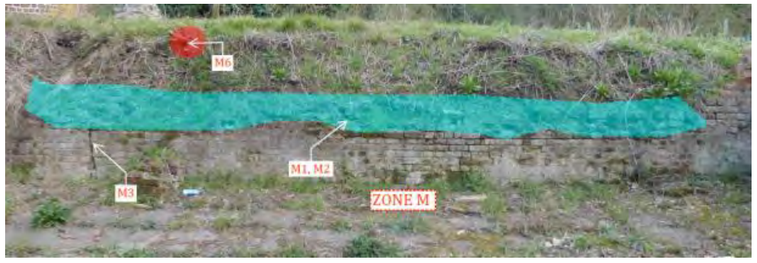
M2 Re-set bricks incorporating (as required) additional bricks from pile of salvaged material retained on site; finished wall can have variable height

M3 Flush out and fill fissures at north end

M4 Apply tile creasing to top horizontal surface; this should be set slightly proud of brick wall beneath

M5 Lay soft capping over top horizontal face

M6 Remove or treat all higher plants from bank behind brick wall



CATEGORIES OF REPAIR AND BUDGET ESTIMATE

The original brief required the works to be divided as follows:

- Identify works needed to prevent further deterioration including mortar capping, reinstating fallen masonry, soft capping etc
- Identify works needed on health and safety grounds
- Identify areas where a minor rebuild will significantly reduce the deterioration of that area

This has proved a difficult division to make and it would seem inappropriate to do a certain amount of work on one area without doing all that is required. However it is apparent that there are no significant structural issues that require works to be done on heath and safety grounds. It could be argued that any loose material poses some sort of risk either from tripping or potential use as a missile but, given that the public are excluded from the area, these considerations are not thought to be relevant.

The division between the other two categories is a hard one to make. Reinstating fallen masonry is to carry out minor rebuilding and it is not part of these proposals to recreate already missing areas. The divisions below therefore are based on need and priority. They also assume that maintenance - and particularly cutting back of vegetation – is continuing.

Priority A - URGENT **Budget estimate** **£18000**

Zones A, C, G, L to include the soft capping to the top of the mound flanked by Zones C, G and L. This approximates to the area that was intended to be carried out in 2011 although the works never took place

Priority B – NECESSARY **Budget estimate** **£10000**

Zones J, K and M

Priority C – DESIRABLE **Budget estimate** **£8000**

Zones B, E, F and H

David Odgers

May 2017

RICHARD GRIFFITHS ARCHITECTS

Wanstead Park
Boathouse Grotto

Report on Condition with Recommendations
July 2011

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RICHARD GRIFFITHS ARCHITECTS

1.0 EXECUTIVE SUMMARY

We have been commissioned by the City of London Corporation to look at the condition and future of the ruined Boathouse Grotto on the shore of the long water in Wanstead Park. The ruin was until recently very over grown, although it has now been cleared sufficiently to make an assessment of its condition. It is clear that it has been through cycles of neglect and repair, followed by further neglect, since it was severely damaged by fire in the 1880's. It is therefore essential to find a long term sustainable future for the site, as part an overall strategy for the park, to avoid further damage to what remains and the associated health and safety risks this could pose, and also to avoid the waste of resources involved in the cyclical pattern of repair and neglect. A long term strategy for the site must be put in place to remove the Boathouse Grotto from the Heritage at Risk Register (HAR). Engaging with stakeholders seems essential through the CMP process and beyond. Out of this we see a vision for a repaired and partially restored Boathouse Grotto, with an element of new building, returning it to an active role in the park and therefore protected and secured for the future. This report is aimed to be the first step in this process. It recommends both short term urgent repairs to secure the structure and a programme of major repairs and reconstruction within the next five years. It should be read in conjunction with the relevant sections of the Draft Conservation Statement and the structural engineering report (see Appendices).

2.0 INTRODUCTION

Commission

Following an approach by James Clare, Historic Buildings Architect at the City of London, now retired, Richard Griffiths Architects (RGA) were briefed on 16 December 2010 by Peter Wilkinson project manager of the Epping Forest group acting for the Corporation of London, who own and manage Wanstead Park **(Works Order Ref 447705 dated 10.01.2011).** Nicholas Sommerville has represented the City Surveyor's Department and project managed the survey and emergency works.

Purpose of report

RGA have been asked to carry out the following tasks in conjunction with the structural engineer, Stuart Tappin of Stand Consulting Engineers, quantity surveyor, Stephen Scammell of Sawyer and Fisher, and Brian Dix, the Corporation's archaeological advisor for this project:

1. Report on the condition of the Grotto and make recommendations for its repair
2. Produce submissions on the Grotto as part of the Conservation Statement currently being prepared by Chris Blandford Associates
3. Carry out a feasibility study into the future of the Grotto in the context of the Park.

This report has been prepared by John Woodcock and comprises the first item in this list. A preliminary draft was issued in February 2011 and this final report has been complied after the structure was inspected from a scaffold at close quarters.

Urgent repairs were carried out between May and July 2011 and a record of the work instructed is included in the appendices for future reference.

Location

The Boathouse Grotto is situated at grid reference TQ4195 8748 in the London Borough of Redbridge, London E11. It lies on the southern shore of the Ornamental Water which is an artificial lake in the valley of the river Roding at the eastern edge of Wanstead Park. The park is surrounded by suburban residential development but links the open spaces of Wanstead Flats to the south and Epping Forest to the north along the Roding valley.

Statutory protection
The Boathouse Grotto is a Grade II Listed Building and Wanstead Park is designated as Grade II* in the English Heritage *Register of Parks and Gardens of Special Historic Interest.*

Outline history and description
The Boathouse Grotto was a feature in Wanstead Park, an extensive landscape garden on the eastern edge of London developed in the 18th Century by John 2nd Earl Tylney. It was a two storied structure, with a shell and mineral decorated upper floor room overlooking the lake and a boat house below. There was a garden on the east side and from 1818 an adjacent bridge over the lake. It is best seen from the opposite bank of the lake or from the adjacent shore to the west, where the elevation of decorative stones formed an artificial cliff face with a cave-like entrance for the boats and various recesses and features. The landward side was originally disguised by landscape mounds and climbing plants. It is approached on a track from the Temple, another landscape feature, which has recently been converted to offices, a museum and function rooms.

The building was severely damaged by fire in 1884, only two years after the park was acquired by the City of London Corporation for public recreation and opened to the public. It became ruinous, but was apparently repaired on a number of occasions and finally in March 1997. Since then it has been allowed to become thoroughly overgrown by ivy and saplings, such that English Heritage entered it on their Heritage at Risk Register (HAR) in 2009. However, the City of London wishes to build on the success of the Temple restoration and return the Boathouse Grotto to a role in the landscape of the park.

For a further explanation of the history of the site see the Conservation Statement.

Archaeology
Initial archaeological investigations were carried out from the 1950's to 1970's by the Wanstead Historical Society under Mr J Elsden Tuffs. Items uncovered during this exercise are on display in The Temple. Various reports and investigations were carried out in the 1990's, culminating in an excavation of the boat dock and water front causeway by the Museum of London Archaeological Service (MoLAS) in 1997- 8. MoLAS also produced a digital survey following their work, establishing the historical water level from the original outfall of the lake.

Research
There are a certain number of historical documents and photographs available to assist with analysis of the structure. An article by Mike Collins in *Follies Magazine* (autumn 2007, Pp.6- 11) summarizes the history and reproduces early illustrations and descriptions. One of the key documents is a sketch drawing showing plans, a section and elevations of the Boat House Grotto in its completed form by Charles Heathcote Tatham dating from June 1822, at the time of an auction of the contents. A water colour by Basil Holmes and a series of photographs also show the interiors and exterior before the fire. The historical evidence is however incomplete; other drawings and further historic photographs of the building and the surrounding landscape design, if they exist, would greatly inform conservation decisions and such research should be made a priority together with analysis of the surviving fabric.

Survey information
A digital measured survey of the Boathouse Grotto was made by MoLAS in 1997 and is reproduced as a plan in their report of October 1999 (see Appendices). There is a sketch elevation of the inside face of the Grotto wall, however, survey elevations have not been plotted. A further set of plans appear to show both extant fabric and archaeological reconstructions of the lost original elements. These drawings need to be amplified by a full laser measured survey, including all elevations, in sufficient detail to allow a more thorough condition survey to be carried out. They would also be

required for scheduling work and maintaining a record of repairs when completed. If further clearance of the site is undertaken this would best be done before the new survey. A series of sections through the principal elevation would assist the structural engineer to assess the plumbness and therefore the stability of the wall.

Survey Visits
The remains of the Grotto were visited by the consultant team between December 2010 and February 2011. A further inspection was made from scaffolding in April 2011. Once cleared of ivy and saplings the structure was surveyed and its Condition Survey prepared. Once urgent repairs had been commenced, visits were made to discuss progress of the work.

3.0 DESCRIPTION OF STRUCTURE

The ruins of the Boathouse Grotto consist of a substantial brick wall, approx 15m (50') long, embellished with a variety of decorative stones and flints on the side facing the lake. A central archway gives access to the narrow rectangular boat dock, which is surrounded by the low perimeter wall of the former boathouse. This is a rectangular space approx 9.5m x 6.5m (30' x 21') internally. The principal wall extends to east and west of the boathouse with 'out-riggers' at the extreme ends. To the west of the boathouse are the remains of a brick entrance passage at first floor level and vaulted passage leading down to the lake side. Significant areas of the masonry have been lost and other areas been repaired in cement mortar. Patches have been rebuilt using different bricks and stones or reconstructed reusing materials. It is therefore difficult to determine the original form of certain areas. A thorough measured survey and archaeological analysis is therefore required to inform the repair strategy.

The extant structure is of soft red brickwork laid in a lime mortar (or apparently dry laid in the boat dock). The principal elevation consists of a two-brick (18in/450mm) thick wall in header bond faced on the lake side in a variety of second hand stonework to provide the rustic appearance. Many of the stones are of a substantial size and project beyond the face of the wall. The central part is of two storey height with a semi-circular headed archway approximately 2.7m (9') wide spanning the dock entrance and a further semi-circular opening above flanked by two smaller (original) elliptical window openings. The wall extends to the east, where it forms a retaining wall to higher ground behind. It has an undulating plan form, providing recesses facing the lake. There is a detached pier of masonry to the east. To the west is a separate section of the stonework wall is partly buried in the bank.

Between this section of wall and the west side of the boat dock is an arched tunnel structure in brickwork and stone spanning a rising path which connects to a first floor corridor. Parts of the first floor brick corridor structure survive, evidently having a barrel vaulted ceiling. The entrance doorway consists of a flat-headed opening spanned by a timber lintel and appears to have been substantially reconstructed. A photograph taken of the archaeological explorations probably in the 1960's shows a greater extent of the structure surviving to the passage with a temporary flat roof over the vault and the remains of plastered finishes inside.

The walls around the boat dock have been reduced to less than half the original ground floor ceiling height (approximately 900-1200mm (3'- 4') extant) and are bonded by a very week sandy mortar. The ground level on all sides is banked up much higher than this; as a consequence, the east wall is leaning and has been buttressed.

4.0 CONDITION

General condition

The remains of the Boathouse Grotto were visited by the consultant team on 15 December 2010 and found to be completely overgrown with ivy, with many saplings having taken root in the structure. Sections of brick walls were standing beneath the undergrowth, notably the grotto elevation facing the lake. The boat basin could be seen and accessed. After an initial clearance of ivy and cutting saplings, the structure could then be seen sufficiently to undertaken a preliminary survey on 12th and 19th January 2011. However, in view of health and safety considerations, many areas could only be viewed from a distance.

Preliminary proposals were made for urgent repairs to the surviving structure, and these were commenced in April 2011. The condition of the structure was reviewed in more detail from a fixed scaffold during April and May. The principal wall was found to be in poor, but reasonably stable state and now that temporary works have been completed, the worst decay has been arrested. However, it will require major reconstruction work in the medium term to secure its long-term future. A thorough stone-by-stone survey and assessment will be necessary as part of any programme of repair, to include the numerous loose stones on the site, which has been stacked together on the east side of the compound. The brick walls on the west side are in danger of loss and need urgent works to stabilize them. The walls around the boat dock are under pressure from the higher ground levels behind them and need to be strengthened or rebuilt.

Location and approach

The Grotto lies on the south bank of the Ornamental Water at one of its meanders just south of the axis of the former house. The principal elevation faces North West across the water and the boat dock is orientated at right angles to this. Thus it is designed to be viewed from across the water to the North West and north east, but is approached from an unmade track immediately to the south. The extent of the original curtilage and the layout of the surrounding landscape is not currently known, although Tatham's sketches suggest it was largely hidden by rocks and vegetation, with a small paved forecourt in front of the west entrance. Repton recommended enlarging the 'Grotto Garden' in 1813, thereby providing proof of such a feature. He also proposed two walks through the park leading to the Grotto. A bridge was built in 1818 and landed to the east of the Grotto. The ground immediately around the structure is uneven and banked up on the west and east sides, which may reflect the original landscape scheme and/or may conceal demolition materials.

Water level

We understand that the water level of the long water and therefore in the boat dock, can vary considerably with seasonal conditions and due to flood control measures in the river Rodding. Photographs taken at the time of previous works in the 1990's suggest that the water level was lowered to allow work to be carried out on the Boathouse Grotto; areas of rocks strewn in the water in front of the grotto can be seen. The MoLAS archaeological team in 1998 determined that the historic water level in the lake, and therefore the boat dock was 6.67m OD. That was 7cm (70mm or 2 3/4 in.) below the level of the pavement of the causeway in front of the Boathouse Grotto wall. This is marked on their drawings, but it is difficult to establish if it accords with current level of the water because of the extent of obscuring vegetation and the unevenness of the paving.

Significant fluctuations in the water level could affect the stability of the structure, both above and below ground, as well as the appearance of the grotto from the lake. It would therefore be advantageous to introduce measures designed to maintain the level of the lake at its historic level and protect the Boathouse Grotto from significant changes. It may be that a local weir could be introduced across the lake in the vicinity of the Grotto.

Foundations

The nature of the foundations is not known and further investigations are required to determine this. MoLAS recorded exposing the top of the footings to the Boathouse wall immediately to the east of the north arch at a height of 6.95 OD (MoLAS, 1999, P.10). The structural engineer suggests excavating trial pits in a number of locations to establish the depth of the footings (see Appendices); this should be done under archaeological observation.

Ground levels

The extent to which present ground levels around the Boathouse Grotto relate to historic levels is not known either. Tatham's drawings suggest that the ground was banked up to the east and west sides hiding the external walls. Exploration to uncover the historic levels will require archaeological supervision and recording, so as to avoid damage to fragile archaeological strata, such as evidence of paths or planting. It may also expose abutting structures. It might be advisable to clear debris and top soil down to a base level (e.g. historic ground level if this can be determined), under archaeological supervision before carrying out the measured survey. The structural engineer is concerned not to undermine any of the walls, so the work to reduce levels will need to be done carefully. However, some reduction of the ground pressure against the boat dock walls would be beneficial.

Structural condition

Initial comments from the structural engineer are included in the appendices. The general impression is that the main elements of the extant structure are in poor condition and that certain areas remain in danger of collapse. In the medium term the whole structure could be at risk. It is evident from photographs that there has been a significant loss of brickwork on the west side since the previous repairs. The longer these areas are exposed to plant growth and the weather, the greater the likelihood of losses. As the decay of the brickwork accelerates, the more vulnerable areas are likely to reach a critical point of irreversible instability in perhaps in 5-10 years. The previous repairs to the principal wall have stemmed the worst decay, but there is evidence that a number of stones have fallen from the lake elevation since they were carried out. In addition, the structure contains many voids and hollows, some designed and some the result of wildlife activity, so it is inherently weak. The numerous pieces of embedded ironwork and the use of a very hard cement mortar in previous repairs, including wall head capping, will in the longer term create problems with the original lime mortar construction.

Of particular concern are:

- The stability of the arched roof to the 'tunnel path'
- The overhanging brickwork at the extreme west end of the principal wall (now propped)
- The cracked brickwork at the extreme east end of the principal wall (now partly stitched)
- The overall plumbness of the principal wall
- The stability of the detached pier beyond the east end of the principal wall
- The invasive effect of ivy roots, some of them very large, in the mortar joints particularly to the brickwork of the corridor
- The presence of built in timbers including the decayed timber lintel over the entrance
- The unknown method of fixing the stonework facing to the principal wall, particularly over the central arch
- Corrosion and expansion of built-in metalwork dislodging the stone facing
- The very poor state of the mortar to the walls around the rear of the boat house
- The stability of the retaining walls (e.g. east side of boat house)
- The slump of the paving around the boat dock
- The proximity of trees to the structure- dead ones which may fall on to the structure, or live ones which may endanger it through root growth
- The long term failure of cement mortar cappings, allowing moisture into the structure

Safety
The site is inherently unsafe to access. Adequate safety precautions must be put into place for those entering the site for surveying and maintenance work. The security fence excludes the public from the site and this must be maintained until any repair works are complete and the structure is made safe. The City is responsible for health and safety issues on the site and is advised to appoint a CDM Coordinator for the project.

Security
The Boathouse Grotto is surrounded by a steel security fence and also much overgrown, but this evidently does not deter all intruders. The line of the fence does not appear to relate to any historic curtliage and new security measures, including CCTV should be considered as part of any repair or redevelopment project. Making the structure more visible from the paths, where it can be observed by wardens, may help. The plant and tree growth around the Grotto does not appear to be of historic interest, except for the two cedars to the west, being of recent growth and could be cleared.

Wildlife
The park is an important habitat for wildlife and this will be assessed in the Conservation Statement. Within the park each area has its own micro climate and local habitat. Since it has been left derelict, the Boathouse Grotto has been colonized by a variety of species. There is evidence of a Kingfisher's nest in the sandy soil above the archway on the west side of the structure. There are many voids and hollows which may also be suitable for other species. Kingfishers are a protected species, but there is no record of the site being used in recent years. Other species of bird, as well as plants (snowdrops, ornamental Mock Orange) and butterflies have been noted. The building works will therefore need to be sensitive to these wildlife issues. A substitute nesting box for the Kingfishers could be built into the structure. A new landscape design should seek to reinstate habitats.

Former bridge
A bridge spanned the lake immediately to the east of the Boathouse Grotto from c.1818 and its abutments can be seen on the north bank. It may have landed at the end of a flight of steps and an arched opening at the east end of the principal elevation. Further research and archaeological investigations on site are required to establish the form of the bridge and its exact location.

5.0 STRUCTURE IN DETAIL

Brickwork
The walls are constructed of a soft red brick laid in lime mortar. The bricks are of good quality and well bonded where they survive undisturbed. The principal elevation is a 2-brick thick wall (18in. or 450mm) with an undulating plan form to provide for decorative alcoves on the lake side and to provide structural strength to an otherwise 2-dimensional structure. The abutting walls to the boat house and passageway originally provided lateral support, and their ragged-ends can clearly be seen bonded into the structure. The surviving wall on the east side of the boat house is acting as a retaining wall and this has cracked the brickwork in a number of places. The remnant of a later buttress can be seen above the paving. The return sections of wall at the south end of the Boathouse have been rebuilt in a much poorer mortar. There are significant patches of brickwork at high level on the principal elevation where rebuilding has taken place in a mixture of fletton and common bricks and cement mortar, not in character with the original work. The brickwork has cracked vertically at the junctions between the principal walls and the abutting walls. The rear elevation to the east of the boat house has vertical cracks relating to the curve of the wall. At the extreme end a group of cracks may relate to tree root action. Cracks at the west end of the wall and the overhang of the surviving brickwork at high level indicated this area is unstable and it has been propped with brick piers (May 2011). The brickwork piers which survive as remains of the first floor corridor are fragile because the

mortar joints have been invaded by ivy roots. In contrast the doorway has been rebuilt in a very hard cement mortar. However, the built-in timber lintel is decaying and could cause instability.

Stonework
There is a great variety of stone types present at the Boathouse Grotto, both built-into the rock wall and lying loose on the site. These include:

- Limestone 'sponge stone' which has frequent hollows forming a rusticated appearance and may be from a number of geological strata and quarries;
- Large pieces of 'pudding stone' conglomerate probably locally sourced;
- A significant number of dressed and moulded limestone pieces from another site/s including carved capitals, sections of cornice and mouldings;
- Pieces of a grey-veined polished marble;
- Flints, some of them large;
- Stones with a glazed finish;
- Bath stone, which is evidently of a later date being uniformly dressed.

A thorough survey of stone types including geological identification needs to be undertaken. A stone-by-stone measured survey will be necessary first. The survey should include the loose stones on the site.

The carved and moulded stones may have come from the demolition of the former Wanstead Manor House. The marble may be a gift from George Scott of Woolston Hall, Essex (Collins, 2007, P.8), but this needs further research. The stones which are built into the principal wall structure appear to be significantly larger than the visible part, so as to anchor them. In one location the rear portion of two stones is visible in the back of the wall. They may also be held by iron cramps and this will require further investigation. It is not clear how the stones above central arch are secured or if they were re-fixed when the backing brickwork was rebuilt. Judging from a photograph at the time of 1997-8 works, a great number of stones were reset in the higher parts of the elevation at this date. There is a large section at high level towards the east end of the wall which has been rebuilt and refaced in coursed Bath rubble stone and this is out of character with the original work.

Mortar
The principal wall of the Grotto was originally constructed in a good quality lime mortar, with black inclusions giving it a distinctive 'speckled' appearance. There are variations in the content of ash in the mortar in some areas of the principal wall but it is not clear if this represents different phases of work because the mortar is otherwise very similar. The corridors and areas on the west side appear to have been constructed in a similar mix. As commented above the low level walls around the boat house are later and use a very weak yellow sandy mortar which is powdering.

Two samples of mortar from the principal wall and one from the corridor wall were sent to a laboratory for analysis. The three samples were considered to be very similar or the same mortar with additional kiln ash in one. The test result from the corridor wall sample is included as an appendix.

The various types of mortar should be replicated in the repairs instead of the cement previously used. Lime mortars will accommodate movement in the structure, whereas hard cement mortars will tend to crack. An hydraulic lime mortar which does not match the original has been used in the emergency repairs this year, but it is recommended that a lime putty or feebly hydraulic lime mortar, matching more closely the original, is used in any consolidation or reconstruction work. It is essential that lime mortars are protected properly during the curing period if they are to be effective.

The cement mortars used latterly will be detrimental to the brick and stonework in the long-term, releasing salts into the structure, which are an agent of decay in both brick and limestone, and concentrating decay in the softer original work. The extent to which previous repairs can or should be undone and renewed in lime mortar was considered at the time of the detailed survey and is discussed below. The archaeological recording and analysis will help to inform this decision making.

Metalwork

There is a significant amount of wrought iron work, presumably original, built in to the structure. This consists of:

- Large straps with hooked ends – one is visible near the apex of the wall;
- Pintel hinges to the central arch;
- A projecting spike above the central arch;
- A large number of slag 'nodules' between and behind the stones.

Rusting of this metalwork is an agent of decay, exerting pressure on the surrounding masonry and loosening stones from the face of the wall. Exposing and treating this metalwork is therefore an important objective of any repairs programme.

The origin of the slag 'nodules' is uncertain. They might be imported bi-products from the newly expanding iron smelting industry in the mid 18th Century. However, the shape of the ironwork appears to mirror that of the surrounding stones, suggesting that it may have been poured molten into structure. A further theory is that the heat of the fire in 1884 may have melted the conventional cramps and ties built into the structure. The rusticated appearance of the 'nodules' and their careful integration into the pattern of the stonework does suggest that they were part of the original design. This being the case, their retention and careful treatment will be important.

6.0 RECONSTRUCTION

Evidence of lost elements

The drawings produced in 1997- 8 (see Appendices) reconstruct the lost elements of the Boathouse Grotto indicated on the 1822 sketch i.e. the upper floor rooms and corridor, the roof profile and skylight. There is a level of interpretation in these drawings and there are many unresolved points, particularly about the layout of the service areas. However, the records of the 1997- 8 excavations corroborate the evidence of the historic photographs, drawings and descriptions. The historic layout of the curtilage and landscaping are at present largely unknown. The approach and entry to the building can be deduced in general terms from Tatham's drawings and photographs.

The lake-facing elevation has been significantly reconstructed at high level, but there are numerous areas including the interiors of the niches where decorative stones and sculpture are missing, leaving an impression in the mortar behind. The stone edge to the water front causeway and the pavement of the boathouse was uncovered by MoLAS in 1997- 8 and this is shown on early photographs and the survey drawing, but they are now covered in vegetation. At the east and west ends, passageways lead up from the water's edge and the ragged ends of the brickwork suggest arched openings or other enclosures.

On its inside face, the principal wall has scars made by the former abutments of the flank walls with 45˚ corbelled springers in the two corners of the boat house. There is much evidence of repairs, notably to the arched openings and at high level. A line of disturbance at approx. 1.95-2.00m (7'4-7'6) above the paving level indicates the former floor level, which cut across the arch of the boat opening. Built-in iron pintels indicate that there were once inward-opening gates. The western of the

two side windows has enough of the original rubbed brickwork in place to suggest an original elliptical opening, where as the other has been rebuilt in a much distorted form.

Standing brickwork survives to indicate the form of the arched first floor corridors. Although the lintel and stonework above the entrance are clearly rebuilt, the springing of an arched opening can be detected on the north side, if indistinctly.

The overall impression is that enough survives to verify the general form, configuration and dimensions of the building, however significant details remain unresolved. In particular none of the roof structure survives, apart from the arched 'tunnel' passage. The appearance to the landward side of the building and its curtilage are only indicated in very general terms on the 1822 sketches. The interiors, including measurements and paving patterns are also shown at a small scale and on photographs. A high degree of speculative reconstruction would therefore be required to rebuild the Boathouse Grotto as a facsimile.

7.0 RECOMMENDATIONS

Generally

The following recommendations are ranked in order of priority to help the City of London plan and fund the necessary repair and reconstruction work. The immediate items were commenced in April 2011 and should be completed within the next six months. We recommend that the immediate repair work is negotiated with a suitably experienced conservation contractor. The medium term consolidation work will require schedules of work to be drawn-up from scaffolding and marked on measured surveys. The work may need Listed Building Consent, therefore it is more realistic for this to be undertaken in a subsequent year. An appraisal of the future options for the site needs to be brought forward over the next two years in parallel with the repairs, so that a long term sustainable strategy can be in place within 5 years. This is the subject of the feasibility study prepared in parallel with this report. All repair works should be carried out by experienced conservators or conservation contractors under the supervision on an accredited conservation Architect and should be fully documented. An archaeological watching brief and record will be required, preceded by a desk top assessment and perhaps site evaluation/s.

Approvals

Repair work on a like-for-like basis does not need listed building consent. However, removing material to lower ground levels, additional temporary supports or any reconstruction would need consent. Given the sensitivity of the site and its potential 'at risk' status, consultation with the conservation officer at an early stage would be advisable. Likewise, although the building is Grade II, the park is a Grade II* landscape, and English Heritage may therefore wish to be involved in the approval process.

Health and safety

A CDM Coordinator should be appointed immediately to fulfil the City's legal obligations to ensure that work, including surveys and investigations, are carried out safely. The Boathouse Grotto is an inherently unsafe site, both because of the condition of the structure and the surrounding ground, but also the presence of water. Contractors, including archaeologists and surveyors, will have to prepare method statements to show how they are to carry out their tasks safely. An access scaffold will be necessary for us to carry out a detailed survey with the structural engineer prior to scheduling the work; a budget cost is included in the appendices.

7.1 IMMEDIATE ACTION – CLEARANCE AND PROTECTION (within 6 months)

Site clearance

- Remove to storage loose stones: stones; provide a covered storage shelter or container on site within compound area on temporary base on geotextile membrane;
- Record loose stones and catalogue by archaeologists with a view to reusing them;
- Remove top soil from site (maximum 300mm depth) under archaeological observation and cart away to another part of the Park (down to existing geotextile membrane);
- Remove further soil to reduce levels immediately behind retaining walls to boat house under archaeological observation (±300mm); this item is PROVISIONAL and dependant upon prior archaeological evaluation;
- Cut and poison all remaining ivy and saplings stems;
- Grub-out sapling roots under archaeological observation – this may disturb areas of masonry, which should be set aside for rebuilding immediately after.

Archaeological investigation

- Archaeologists to carry out initial evaluation to determine original levels and surface materials around perimeter of Grotto and at thresholds etc;
- Remove further surface material in agreed areas (see marked up plan) to expose and record original floor surfaces or ground levels and evidence of surrounding landscape;
- Structural engineers advice to be taken as to extent of removal adjacent to walls;
- Cover in geotextile protection and lay temporary hoggin surface over when complete.

Structural investigation

- Undertake structural trail holes and backfill under archaeological observation to uncover footings in 3no. locations shown on structural engineer's drawing – These could coincide with removal of sapling roots.

Measured Survey

- Commission laser measured survey to enhance existing MoLAS survey, including stone-by-stone elevation of principal elevation and reflected ceiling plan of tunnel vault; check verticality of walls; include topographical survey of immediate surrounding landscape; to be carried out after archaeological reduction of levels but before scheduling consolidation works (see Appendices).

Access Scaffold

- Erect scaffold both sides of principal wall with lifts at 2m height for surveying and light works; lakeside to be cantilevered over water and restrained by scaffold in boat dock to contractors design; provide platforms around outlying walls (see Appendix).

Structural stability

- Prop overhanging area at west end of principal wall as shown on structural engineer's drawing 283/ SK2 using brickwork and slate packers; carry out from scaffold;
- Stitch cracks at east end of wall as shown on structural engineer's drawing 283/ SK2 using stainless steel helical bars and fill cracks with mortar (see Appendix).

Protection

- Re-bed loose bricks and re-point top 2-3 courses of walls;
- 'Soft cap' walls with lime mortar and tile creasing;
- Remove ivy and provide further temporary propping to vulnerable areas on lakeside.

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7.2 SHORT TERM ACTION – CONSOLIDATION (within 2 years)

Survey and Schedule

- Carry out from scaffold access detailed conditions survey and schedule of work to be marked up on survey drawings for all areas of structure.

Research

- Carry out further historical research and collate information to establish thorough knowledge base for repair works.

Consolidation Works

- Draw up schedules and specifications;
- Seek tenders;
- Survey scaffold could be left in place or new scaffold erected depending upon programme;
- Building contract to include consolidation works to all brickwork, paving and stonework
- Remove all roots and rebuild locally;
- Remove, de-rust and refix built-in metalwork;
- Dismantle and reconstruct unstable areas of brickwork in matching mortar;
- Refix and re-bed loose or detached stones using stainless steel cramps and ties
- Reform copings with tile creasings or coping stones;
- Reform red rubber openings to principal elevation;
- Consolidate and provide supporting ties for arched tunnel to structural engineer's detail
- Stitch further cracks with helical stainless steel bars and point-in;
- Lift and bed new York stone paving to boathouse floor and waterfront causeway.

Recording

- Archaeological record of work completed to aid future reconstruction/repairs and deposited in public archives;
- Cataloguing and recording of loose stones by archaeologist; analysis of survey fabric and historic photographs to determine how much of the rockwork is in its original location;
- Updating measured survey after works;
- Exhibition for benefit of public.

Security

- Install power and CAT 5 supplies for CCTV cameras;
- Improve physical security and patrols of site;
- Clear more undergrowth.

Maintenance

- Put in place continuing annual maintenance programme for landscape and ruins
- Put in place quinquennial inspection and repair cycle for building/s and ruins.

7.3 MEDIUM TERM ACTION – OPTIONS APPRASIAL FOR FUTURE DEVELOPMENT (within 3 years)

See Feasibility Study into development of site. These should be developed in parallel with the repair works, including business planning and fund-raising, in order to work towards a long term future for the site.

7.4 LONG TERM ACTION – IMPLEMENTATION OF DEVELOPMENT (within 5 years)

Implement preferred option to make site more assessable, to restore the setting and landscape, and to provide for a sustainable future with a new function.

APPENDICES

1. Registered Park and Garden map (English Heritage)
2. Text of Listing (London Borough of Redbridge)
3. Survey Drawings (1997)
4. Drawing with Reconstruction of historic layout (MoLAS 1998)
5. RGA Survey Drawings with notes on condition
6. Initial Structural Engineering Comments
7. Structural Engineer's Drawings with notes on condition
8. Structural Engineer's Drawings showing Urgent Repairs May 2011
9. Schedule of Urgent Repair work Rev A May 2011
10. RGA Drawings showing Urgent Repairs May 2011
11. Indicative Budget for Emergency Repairs
12. Scaffolding proposal
13. Digital Measured Survey Proposal
14. Plan marked up with extent of Measured Survey
15. Archaeological Investigation Proposal from MoLAS
16. Plan marked up with possible scope of Archaeological Work
17. Comments from Brian Dix on Archaeology
18. Report on Mortar Analysis
19. Photographs

Appendix D: Richard Griffiths Architects' 2011 Feasibility Study

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Wanstead Park
Boathouse Grotto

Feasibility Study into Repair and Reuse
July 2011

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RICHARD GRIFFITHS ARCHITECTS

CONTENTS

1.0 EXECUTIVE SUMMARY

We have been commissioned by the City of London Corporation to look at the history, condition and future of the ruined Boathouse Grotto on the shore of the Ornamental Water in Wanstead Park and this report forms the third part of this commission. The ruin was until recently very over grown but clearance and repairs have now commenced. It has been through cycles of neglect and repair followed by further neglect since it was severely damaged by fire in the 1880's. The objective of this study is to find a long term sustainable future for the site, as part of an overall strategy for the park. It establishes that further neglect or demolition are not viable options and promotes a vision which returns the site to an active role in the park and therefore protects and secures it for the future. A radical approach now needs to be taken at this juncture. The repaired and/or restored Boathouse Grotto, perhaps with an element of new building, will have a new function and be publically accessible. Three different approaches to 'revalorization' of the building and its surrounding landscape are proposed. These options are not mutually exclusive and need to be investigated in more detail before a favoured approach can be adopted. A wide variety of new uses might be feasible in the restored grotto or new building and these also need to tested further through a more detailed study and through consultation. Engaging with stakeholders as part of the evaluation process is essential and this begun with an exhibition and public consultation for the park as a whole in February 2011. This report should be read in conjunction with the relevant sections of the Draft Conservation Statement and our Condition Survey report. The attached appendices include reports by the structural engineer and quantity surveyor on the three options.

2.0 INTRODUCTION

Commission

Following an approach by James Clare, Historic Buildings Architect at the City of London, now retired, Richard Griffiths Architects (RGA) were briefed on 16 December 2010 by Peter Wilkinson, Project Manager of the Epping Forest group acting for the City of London, who own and manage Wanstead Park (Works Order Ref 447705 dated 10.01.2011). Nicholas Sommerville, has represented the City Surveyor's Department and project managed this study.

Purpose of report

RGA have been asked to carry out the following tasks in conjunction with the structural engineer, Stuart Tappin of Stand Consulting Engineers, quantity surveyor, Stephen Scammell of Sawyer and Fisher, and assisted by Brian Dix, the City's archaeological advisor for this project:

1. Report on the condition of the Grotto and make recommendations for its repair
2. Produce submissions on the Grotto as part of the Conservation Statement currently being prepared by Chris Blandford Associates including display panels.
3. Carry out a feasibility study into the future of the Grotto in the context of the Park.

This report comprises the third item in this list and includes the three approaches developed for the Conservation Statement and public consultation exhibition (item 2). The Introduction section draws upon the Conditions survey report, but does not reproduce the full text.

Location

The Boathouse Grotto is situated at grid reference TQ4195 8748 in the London Borough of Redbridge, London E11. It lies on the southern shore of the Ornamental Water which is an artificial lake in the valley of the river Roding at the eastern edge of Wanstead Park. The park is surrounded by suburban residential development but links the open spaces of Wanstead Flats to the south and Epping Forest to the north along the Roding valley.

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Statutory protection

The Boathouse Grotto is a Grade II Listed Building and Wanstead Park is designated as Grade II* in the English Heritage *Register of Parks and Gardens of Special Historic Interest.*

Outline description and history

The Manor of Wanstead, a former hunting lodge of Henry VII and Henry VIII, was purchased by Josiah Child, 1st Baron Wanstead, in 1673- 4. He developed extensive formal gardens around the old manor house, including the lakes along its eastern edge. From 1715 to 1722 his son, Richard Child, 1st Earl Tylney, built a great neo-Palladian house designed by Colen Cambell and formal landscape garden recorded by John Rocque. From 1750 his son John Tylney, 2nd Earl redeveloped the gardens in the fashionable informal landscape manner and a later earl employed Repton to remodel the park in 1814, including enlarging the Grotto garden and laying out paths. The Boathouse Grotto was built in c.1761 as part of the ornamentation of the Park. Stones, coral, minerals and sea shells were procured and donated by friends of the second Earl. It was used as a boathouse and as a setting for macabre dramatic presentations and fire work displays. An adjacent bridge constructed at the suggestion of Lewis Kennedy in 1818 allowed spectators to cross to the other bank of the lake.

The building was severely damaged by fire in 1884, only two years after the park had been acquired by the City of London Corporation for public recreation and opened to the public. It became ruinous, but was apparently repaired on a number of occasions and finally in March 1997. Since then it has been allowed to become thoroughly overgrown by ivy and saplings, such that English Heritage entered it on their Heritage at Risk Register (HAR) in 2009. However, the City of London wish to build on the success of the Temple restoration and return the Boathouse Grotto to a role in the landscape of the park.

For a further explanation of the history of the site see the Draft Conservation Statement.

Archaeology

Initial archaeological investigations were carried out from the 1950's to 1970's by the Wanstead Local History Society under Mr J Elsden Tuffs. Items uncovered during this exercise are on display in The Temple. Various reports and investigations were carried out in the 1990's, culminating in an excavation of the boat dock and water front causeway by the Museum of London Archaeological Service (MoLAS) in 1997- 8. MoLAS also produced a digital survey following their work, establishing the historical water level from the original outfall of the lake.

Research

Historical research is currently being carried out as part of the Conservation Statement commissioned by the City of London from Chris Blandford Associates. More information is needed on the historical development of the Boathouse Grotto, in particular, to inform this feasibility study. An article by Mike Collins in *Follies Magazine* (Autumn 2007, Pp.6- 11) summarizes the history and reproduces early illustrations and descriptions. One of the key documents is a sketch drawing showing plans, a section and elevations of the Boat House Grotto in its completed form by Charles Heathcote Tatham dating from June 1822, at the time of an auction of the contents. A water colour by Basil Holmes (see cover illustration) and a series of photographs also show the interiors and exterior before the fire. The historical evidence is however incomplete; other drawings and further historic photographs of the building and the surrounding landscape design, if they exist, would greatly inform conservation decisions and such research should be made a priority together with analysis of the surviving fabric.

Condition
The remains of the Grotto were visited by the consultant team between December 2010 and February 2011. Further inspections were made from scaffolding in April and May 2011, once cleared of ivy and saplings, and a Condition Survey prepared. Sections of the brick walls remain standing, notably the grotto elevation facing the lake, which is embellished with a variety of stones. The boat basin lies behind the wall and is surrounded by low walls in poor condition. To the west are the remains of brick vaulted corridors at a higher level, which originally led from the forecourt into the grotto and down to the lake side.

Preliminary proposals were made for urgent repair of the surviving structure, and these commenced in April 2011. The condition of the structure was also reviewed from a fixed scaffold in April and May 2011. It was concluded that the principal wall will be in a reasonably stable state when the temporary works had been completed, however, it will require major reconstruction work in the medium term to secure its long-term future. A thorough stone-by-stone measured survey and archaeological assessment will be necessary as part of any programme of repair, to include the numerous loose stones on the site, which have now been stacked on a base to one side of the compound. The brick walls on the west side are in danger of further loss and need urgent works to stabilize them. The walls around the boat dock are under pressure from the higher ground levels behind them and need to be strengthened or rebuilt.

3.0 APPROACHES TO FABRIC REPAIR

'Revalorization'
The Draft Conservation Statement includes reference to three different approaches to the historic fabric of the Boathouse Grotto:

1. Abandonment
2. Maintain as a ruin
3. 'Revalorization'

The three options presented in this report are all variations of 'revalorization' This is a concept whereby an historic building or other historic asset, such as the Boathouse Grotto, is given a viable and sustainable future by reinterpreting, representing, reconstructing and /or reusing it in some way which recognises and enhances its historical and other values. In other words, 'giving it a new lease of life'. The options given below all propose a capital investment in the site now, which will enable public enjoyment, to justify the necessary continued maintenance costs and possibly to generate revenue.

Abandonment
The reason for perusing 'revalorization' rather than either abandonment or demolition, is that both these alternatives come with a cost, but have limited public benefit. In fact in the case of demolition they would cause a serious loss of public amenity; not only the loss of an important feature in the historic landscape, but also, by running counter to local and national planning and historic buildings policies. Demolition would involve short term expenditure to level and re-landscape the site and remove any residual health and safety risks. Abandoning the ruin to natural decay would involve both immediate and on-going costs to secure the site, because of the increasing health and safety risks associated with the deteriorating state of the structure. Above all, abandonment is likely to be unpopular and would send out a negative message about the City's approach to historic buildings and Wanstead Park in particular. Demolition would require listed building and conservation area consents, which might be unlikely to be forthcoming. Abandonment would leave the Boathouse Grotto on the HAR Register and run the risk of enforcement action to insist on repairs.

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Repairing as a ruin
Repairing the remains of the Boathouse Grotto as a ruin is the most conservative approach to the historical asset, but it would need to become a continuing process. Photographs taken over the last 50 years or so show the degree to which decay has caused loss of the surviving fabric during this period. Added to this the various programmes of repair carried out during this time, have been carried out in a manner which would not now be deemed as good conservation practice: for instance, using cement mortars and non-matching stones or reusing materials such as decorative stones, apparently without authenticity and without keeping records of the work. This means that as time passes the ruin looses some of its historic and cultural value, as well as being physically reduced. The rapid establishment of samplings rooted in the structure since the 1997- 8 repairs shows that without annual control of vegetation growth, decay of the structure would be rapid. Further sections of masonry would become unstable and require ever more structural intervention if they were to survive. Ongoing maintenance as well as a cycle of 5- yearly (quinquennial) inspections and repair works is therefore essential.

Structural issues
Sections of the surviving structure of the Boathouse Grotto are in a fragile condition, other areas are subject to deterioration. The principal elevation is significantly out of plumb. There are a great number of voids where the weather can penetrate and large ivy roots are established in the joints. There is much built-in metalwork which is an agent of decay. Sections of the main elevation have had emergency work carried out recently which will postpone further decay, but a comprehensive programme of repair to the structure will provide greater structural stability in the longer term. Much of the brickwork in other areas is eroded or potentially unstable particularly on the west side and around the boathouse, where consolidation is urgently required. Any new building could be used to provide bracing and support to the surviving walls, whereas any programme of repairs alone would still leave the extant structure vulnerable to further decay and losses.

Authenticity
As referred to above, there is a question as to archaeological authenticity of the surviving remains of the Boathouse Grotto due to the extent to which original fabric has been lost and the methods adopted in successive phases of repair. The first essential step in understanding the ruin in more detail, is for a stone-by-stone measured survey and from this an archaeological record of the extant standing structure and loose stones. With this evidence it will then be possible to devise a repair strategy. The key issues to agree are:

- The extent of dismantling and reconstruction (including reversing earlier repairs);
- The extent to which stones can be authentically reinstated;
- The extent to which materials can be reused without archaeological evidence of location;
- The structural methods to be adopted (ties and reinforcement);
- The treatment of embedded metalwork (*insitu* or removal).

Continued piece-meal repair will ensure the survival of the structure in some form and providing it is more regular (quinquennially) and a record is kept, this would be a good conservative approach to adopt. At the other end of the spectrum, an attempt could be made to reconstruct the original elevation based upon historical evidence and analysis of the surviving fabric. A composite approach is likely to be most successful, based upon an agreed strategy.

Reversibility
The three option A, B and C take distinct approaches to the surviving fabric of the Boathouse Grotto. Option A accepts the ruin as it is, repaired and maintained; the interventions are intended to be 'reversible'; i.e. they could be removed and made good with minimal effect on the standing remains or archaeology. The piled footings would inevitably be retained underground, but could be covered.

Option C also accepts 'repair as a ruin' as the basic treatment for the remains, however the new building within it involves a greater level of intervention, including the rebuilding of the walls around the Boathouse. It is therefore theoretically 'reversible', but in practice would leave a greater mark on the surviving structure.

Option B is at the opposite end of the spectrum to 'A', involving the rebuilding of the structure. Much of the surviving fabric would need to be dismantled and rebuilt from the footings, particularly around the Boathouse in order to support the new superstructure. This would be entirely 'irreversible'. Furthermore, the repair of the lake side elevation will involve significant dismantling and rebuilding. Therefore, even with archaeological recording the restored Boathouse Grotto would be substantially a new building. However, the benefits of the new building may be considered to out way the negative impact on the archaeological remains

Landscape
The Boathouse Grotto is an important feature in the lake side landscape of Wanstead Park. Its immediate landscaped surroundings are therefore as significant as the building itself. It is clear from surviving illustrations, such as the watercolour by Basil Holmes, that the present pattern of planting, paths and ground configuration is not as originally designed. Further archaeological investigations are required to verify the earlier landscape layout. However, from descriptions it appears there was a small paved forecourt in front of the entrance on the west side and a landscape garden on the east side of the boathouse, surrounded by tall elm trees, and with willow trees on the shoreline. Paths through the park lead to the grotto and the bridge over the lake landed immediately to the east. In any repair or restoration of the Boathouse Grotto, reinstating the landscape surroundings will be important. The landscape design also has the potential to be used for security, by defining protected spaces around the building.

M& E Services
The City have laid two ducts and a water pipe to the Grotto site from the Temple. An electrical cable has been pulled through one duct and the other could be used for CCTV. There is no mains drainage near the site, so a cess tank, filtration or composting installation might be required. The proximity to the lake may prove difficult because pollution of the water courses must be avoided.

Conclusion
Expenditure on the Boathouse Grotto is required both immediately and over time, whichever approach is pursued. 'Revalorization' postulates ways in which this expenditure can be used constructively and sustainably for the public benefit.

4.0 APPROACHES TO USE OF THE SITE

Need for activity
The problem with the Boathouse Grotto is neglect and the consequential vandalism and risks to public health and safety. Opening up the site and providing for activities there would return the building to an important role in the park. This would justify the capital cost of repairs and restoration works, as well as the continuing expenditure on maintenance of both the building and the landscape. A wide range of possible activities have been considered, each with its own opportunities, as well as draw backs. Some are discussed below.

Exhibition/ display
A room could be made available for relocating the exhibition from the Temple and enlarging it to include more historical background, as well as the results of the archaeological work carried out as part of the repair and restoration of the Boathouse Grotto. This would require only a simple interior, as long as it could be made secure at night. However, without a staff presence all day, the exhibition

might be vulnerable to vandalism and there would be insurance considerations (see note below on sculpture gallery). The original boat house could be restored below the exhibition space and visited under supervision.

Education facility
To function as an educational facility, the Boathouse Grotto would need to be linked to other facilities, such as toilets and cloak rooms, so it might be that an additional new building is required adjacent to it. If the grotto room were restored inside, or a contemporary reinterpretation was created, this could provide an education resource as an on-going project for local schools. It could be a valid basis for teaching the social and economic history of the 18th century, as well as geology, and if it were tailored to the National Curriculum, could be a fee-earning enterprise.

Wildlife centre
A facility to allow the public to learn about the wildlife of the park and watch the birds on the lake from the upper windows would be relatively simple to provide. The facility could be an unheated space which could be self-maintained, with the wardens visiting occasionally during the day. Such facilities have been created successfully in other parks and nature reserves.

Sculpture gallery
A full height space under a simple roof behind the grotto wall could provide a setting for local artists as well as visiting sculpture exhibitions. A large space could attract large works, but might have a limited appeal. A well planned and regular programme of events would need to be organized and well-advertised, in order to keep the gallery in use. Staff would be required for security whenever the gallery was open and CCTV or similar security at other times. If the gallery were to be used for visiting exhibitions it would need a higher degree of security and environmental control to satisfy insurance requirements.

Boathouse
The original function of the building could be restored. A punt-like boat (possibly a reconstruction of an 18th Century boat) could be kept in the dock for pleasure trips at weekends in the summer. This would need to be carefully supervised because of the health and safety risks associated with the proximity to the lake. Alternatively it could be a store for a working boat used by staff for maintenance of the lake.

Water sports
Converting the site into a small water sports centre, such as a canoe club, is an attractive idea, but there are serious health and safety as well as environmental issues. The boat dock could be reconstructed to accommodate canoes and a club house room created above. A separate block may be required for toilets and changing rooms.

Café
There is a real need for a larger and higher quality café with indoor seating in the park. One opportunity might be to create one in the Boathouse Grotto. Although there is already some provision for mains services, there may be difficulties in providing drainage and access for delivery vehicles. The upper room would provide a good vantage point. However, it is thought better to build the café further along the shore of the lake, so that the grotto elevation could be viewed from there, in its landscape setting. A new building could then be located where services, drainage and delivery access are easier.

Holiday accommodation:
A full restoration of the Boathouse Grotto could provide interesting accommodation for holiday use, such as that run by the Landmark Trust, Vivat Trust or National Trust. There would need to be mains services and car access to the site and an area of private space delineated from the park. This proposal could generate income, but may be difficult to arrange within the terms of the City's standing regulations for leaseholders. The building would need to be available for public access on regular occasions each year to justify public investment in the restoration.

5.0 OPTION A:

An accessible ruin (see Drawing no.497B/ D01)
This option accepts 'repair as a ruin' as the basic approach to the remains of the building as described above. However, with re-landscaping and sensitive physical interventions, it brings people onto the site to enjoy and benefit from the Boathouse Grotto. This could be done in a more or less temporary manner, allowing either of the other two options to be pursued in the longer term. It is a well tried approach taken by English Heritage at many of its sites, yet brought up to date with a more contemporary built form.

An accessible pedestrian route is proposed through the site connecting two viewing areas on either bank of the lake via a high level walkway across the boathouse and a reconstruction of the historic bridge across the lake. The proposal could be combined with a shore side café to the northwest giving views of the grotto elevation. The design of the elevated walkway and bridge is kept simple, with two parallel steel beams supported on engineered piled foundations. A timber deck spans between these beams with steel balustrades and timber handrails, reinterpreting the wrought iron bridges of the 18th and early 19th Centuries. The walkway would broaden out to form a viewing gallery above the boathouse dock, with views out through the original four openings in the lakeside elevation.

6.0 OPTION B:

Restored (see Drawing no.497B/ D02)
This option is at the opposite end of the conservation spectrum to option A and attempts a full restoration of the building and its surrounding landscape as shown on Tatham's sketch and later photographs. Historically authentic materials would be used in the reconstruction, for example handmade bricks and lime mortar, lath and lime plaster finishes internally. Decorative stones would be reincorporated, following careful analysis by archaeologists of the standing remains and loose stones. A new tiled roof and timber framed lantern to the grotto would again follow Tatham's drawing. The rear elevations would be clad with trellises for climbing vegetation as shown on his drawings. The openings to the lake will be reconstructed based upon evidence of the surviving rubbed brick surrounds and fitted with glazing and shutters.

The extent to which the interiors are reconstructed would depend upon the budget and their proposed function. The main grotto room on the first floor could be reconstructed based upon the evidence of surviving photographs and other historic examples. Alternatively, a contemporary reinterpretation could be created using samples reflecting current scientific understanding. This might involve local schools in a live project. The ancillary rooms need not be restored or accessible to the public, but could provide accommodation for staff as a presence on site to assist with security.

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7.0 OPTION C:

A new building behind the existing façade (see Drawing no.497B/ D03)
This option proposes a contemporary structure within the footprint of the ruined Boathouse Grotto, which would provide accommodation for a new function. It is hoped that bringing activity on to the site will improve security. A variety of functions have been suggested including sculpture gallery, wildlife exhibition space and observation platform, education room, meeting room or water sports clubhouse. The drawing shows an upper room for such a function, above the boathouse, which would be refurbished as a home for a maintenance boat or a pleasure boat for summer use. The proposed building uses an economic form of construction with a steel frame and timber cladding above the reconstructed brick walls of the ground floor. The entrance would be through the original doorway and corridor, with a new timber clad porch within it. The interiors could be a basic unheated envelope or could be upgraded to an insulated and heated interior, depending on budget and usage.

8.0 DEVELOPMENT STRATEGY

The following is an outline of the next steps to develop the feasibility study ideas into a real project and to implement them within the next five years, thus securing the future of the Boathouse Grotto.

Medium term action – options appraisal
Develop the ideas in this study to the stage whereby a decision can be made on the preferred option, approvals obtained and funding put in place.

- Develop 3 options to RIBA Stage C, including outline structural design and budget;
- Consultations with stakeholders and statutory authorities;
- Ecological impact study;
- Archaeological impact assessment;
- Sustainability assessment;
- Security assessment;
- Health and Safety assessment;
- Fund raising approaches;
- Initial business planning.

Design and approval

- Develop preferred option to RIBA Stage D detailed design;
- Submit for Listed Building Consent;
- Submit for Building Control approval if required
- Detailed cost estimate.

Project planning and development

- Funding agreements;
- Finalised business plan;
- Procurement plan;
- Project programme;
- Maintenance plan and budget.

Long term action – Implementation of Development (within 5 years)
Implement preferred option and provide for future maintenance;

- Develop designs to tender stage information;
- Seek tenders for new construction and landscaping as single or separate packages;
- Health and Safety plan;
- Implement in single contract or phases to suit budget and project programme;
- Archaeological observation and record of works;
- Establish management and maintenance regimes for the site.

Structural Engineering
The appendices include a report and sketch drawings by the structural engineer for each of the three proposals.

Cost
The appendices include a report form the quantity surveyors on the cost of each option. At this early stage in the design process assumptions have been made, particularly on the extent of fitting out and reconstruction of the interiors. These costs can be refined at later stages in the design process.

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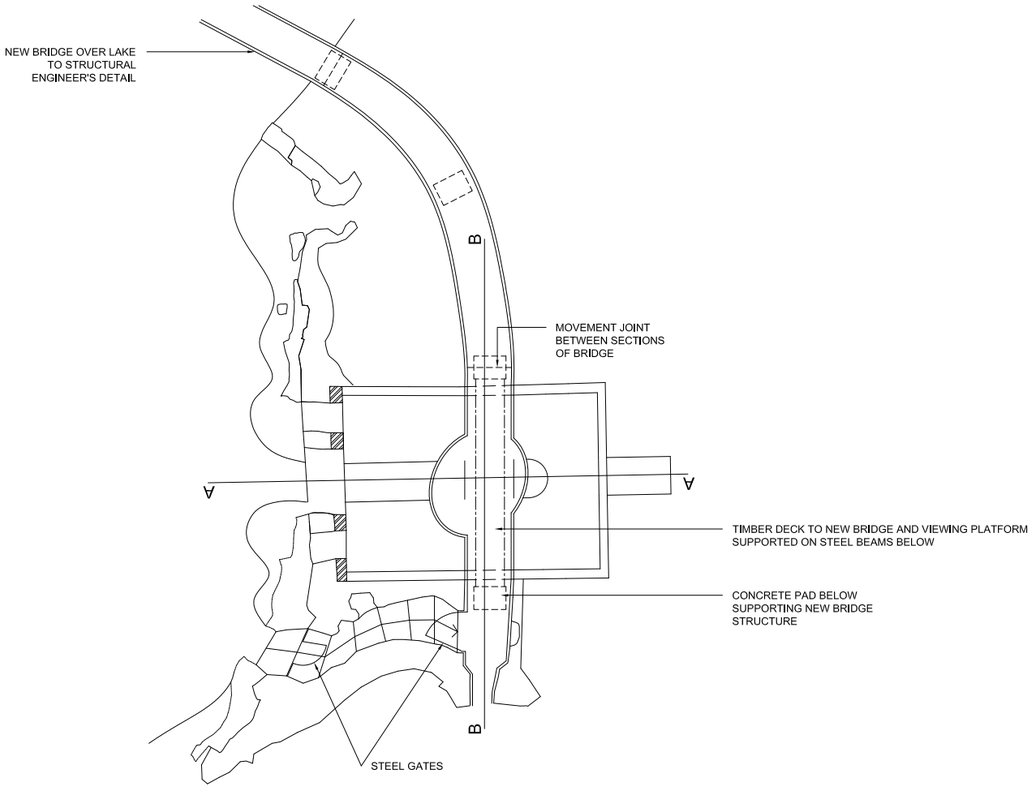
Programme
An Outline Project Programme is included in the appendices, assuming an early start is made to define a favoured option and finance the development. This is spread over a four year period, but it is possible that it could be achieved more quickly. It is unlikely that completing the options appraisal and project planning process will take less than six months, in parallel to the archaeological site investigation and measured survey recommended in the condition survey report. The design development and approvals stages are likely to take up to 12 months. Clearly the length of time needed for consultation and decision making will affect the programme.

This means that tenders would be sought at the earliest in 2013, in preparation for a start of construction on site in summer 2013. The construction period is likely to be 9-12 months depending upon which option is pursued. The repairs to the existing structure need to be carried out during the 'lime season' between end of March and end of September; they may be split into two stages, firstly dealing with major structural works in preparation for the new construction work, with a second phase in the following season. Archaeological analysis of the existing fabric and recording of the work will be an important component in the project and will need to be factored into the programme.

APPENDICES

1. Site plan (English Heritage Listing)
2. Text of Listing (London Borough of Redbridge)
3. Survey Drawings (1997)
4. Drawings showing reconstruction (MoLAS, 1998)
5. RGA Drawings of Options A, B & C
6. Structural Engineer's Report
7. Structural Engineer's Drawings
8. Geostructural Solutions
9. Budget Estimate
10. Outline Project Programme



01 D.01 GROUND FLOOR PLAN
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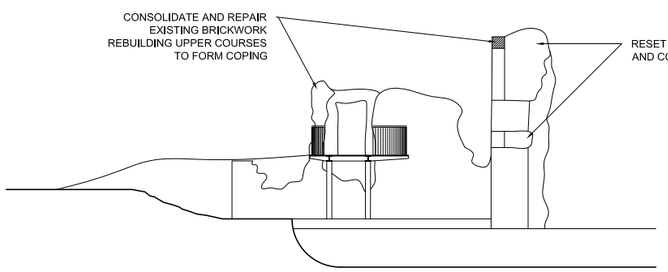

02 D.01 SECTION A - A
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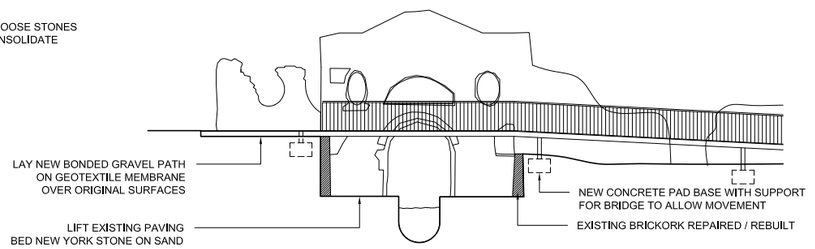

03 D.01 SECTION B - B
SCALE 1:200

04 D.01 EXAMPLE OF STEEL BRIDGE STRUCTURE

DO NOT SCALE FROM THIS DRAWING

DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER ARCHITECTS AND ENGINEER'S CONTRACT DRAWING & SPECIFICATIONS.
ANY DISCREPANCIES MUST BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IMMEDIATELY.
THE CONTRACTOR MUST VERIFY ALL DIMENSIONS BY SITE MEASUREMENT BEFORE ORDERING MATERIALS OR MANUFACTURING COMPONENTS.
SUBSTITUTE MATERIALS & PRODUCTS TO THOSE NAMED WILL BE ACCEPTABLE IF PROVEN TO BE OF EQUAL OR HIGHER PERFORMANCE AND NOT IN CONFLICT WITH OTHER ELEMENTS.

NOTES
WRITE NOTES SPECIFIC TO THIS DRAWING & REFERENCES TO OTHER ARCHITECTS' / ENGINEERS' DRAWINGS WITHIN THIS MTEXT BOX

0 5m

FOR INFORMATION

JOB TITLE
Wanstead Park
The Boathouse Grotto
DRAWING TITLE
Option A - An accessible ruin
Plans & Section

JOB No	DRAWING	REV
497 B	D.01	
DRAWN BY	SCALE (AT A3)	DATE
PR	1:200	Feb 2011

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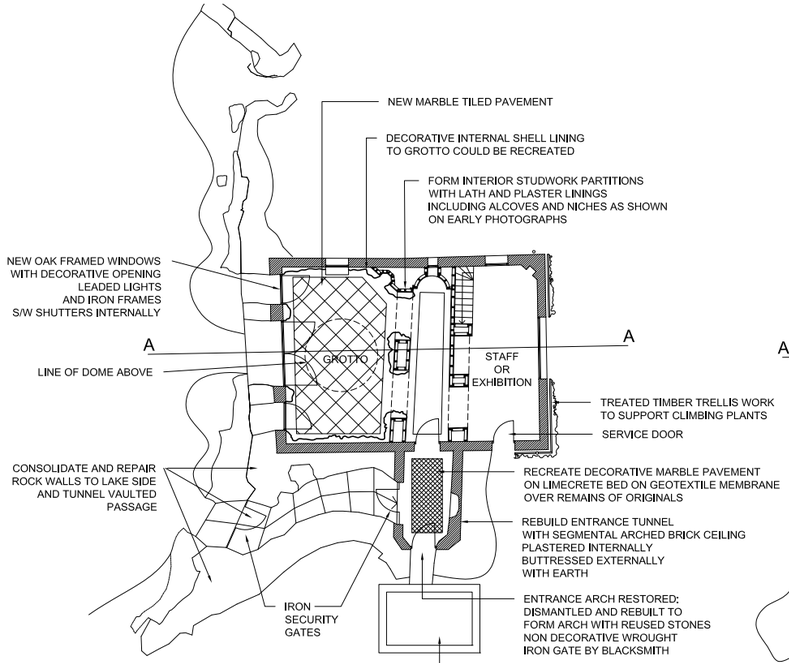
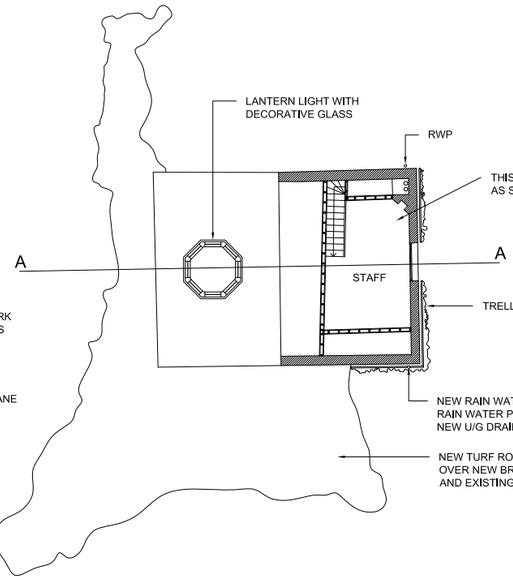
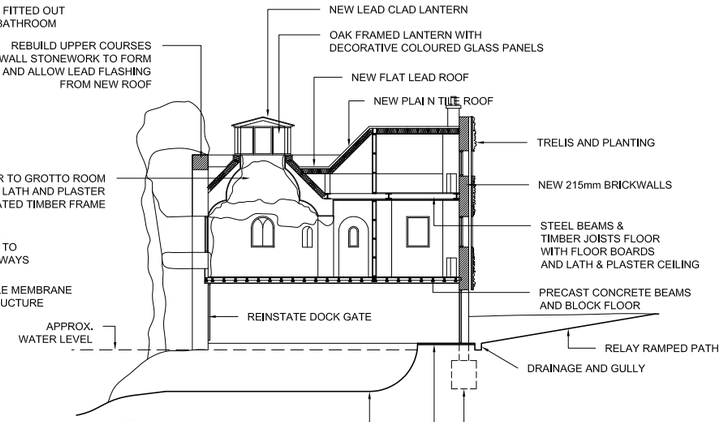


02 D.02 FIRST FLOOR PLAN
SCALE 1:200



02 D.02 ATTIC PLAN
SCALE 1:200



05 D.02 SECTION A - A
SCALE 1:200

DO NOT SCALE FROM THIS DRAWING

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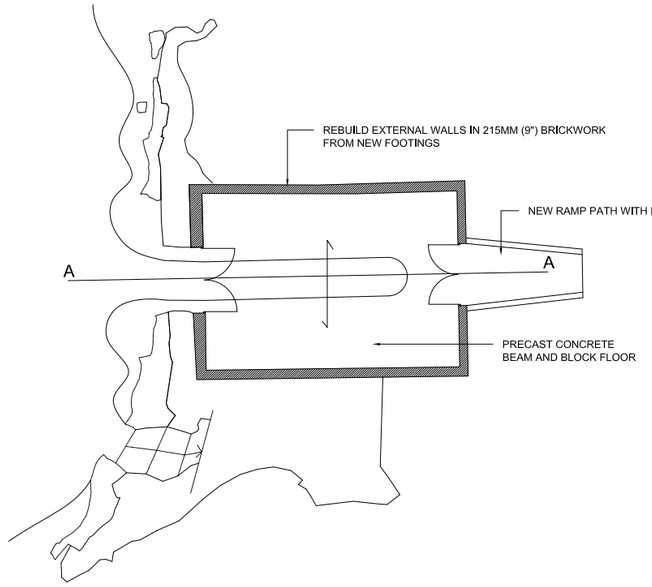
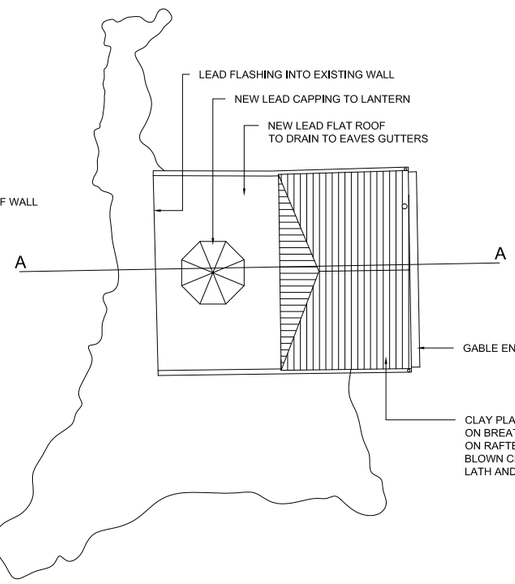
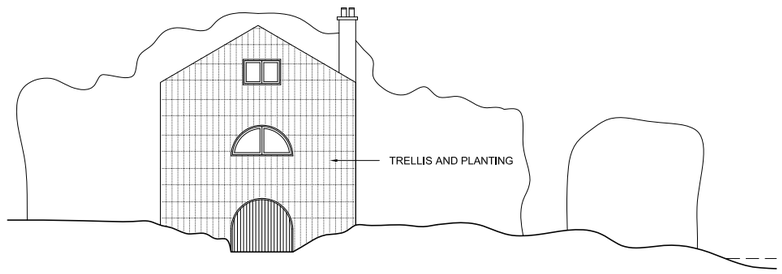


01 D.02 GROUND FLOOR PLAN
SCALE 1:200



04 D.02 ROOF PLAN
SCALE 1:200



06 D.02 REAR ELEVATION
SCALE 1:200

0 5m

ALTERNATIVES:
- BASIC REBUILD AS NON RESIDENTIAL WITH OR WITHOUT RECREATED INTERIOR
- UPGRADED VERSION TO BE FITTED OUT AS RESIDENTIAL UNIT. FULLY INSULATEDSTRUCTURE HEATING, KITCHEN AND BATHROOM (NOT SHOWN)

FOR INFORMATION

JOB TITLE
Wanstead Park
The Boathouse Grotto
DRAWING TITLE
Option B - Restored Building
Plans & Section

JOB NO	DWG NO	REV
497 B	D.02	
DRAWN BY	SCALE AT A3	DATE
PR	1:200	Feb 2011

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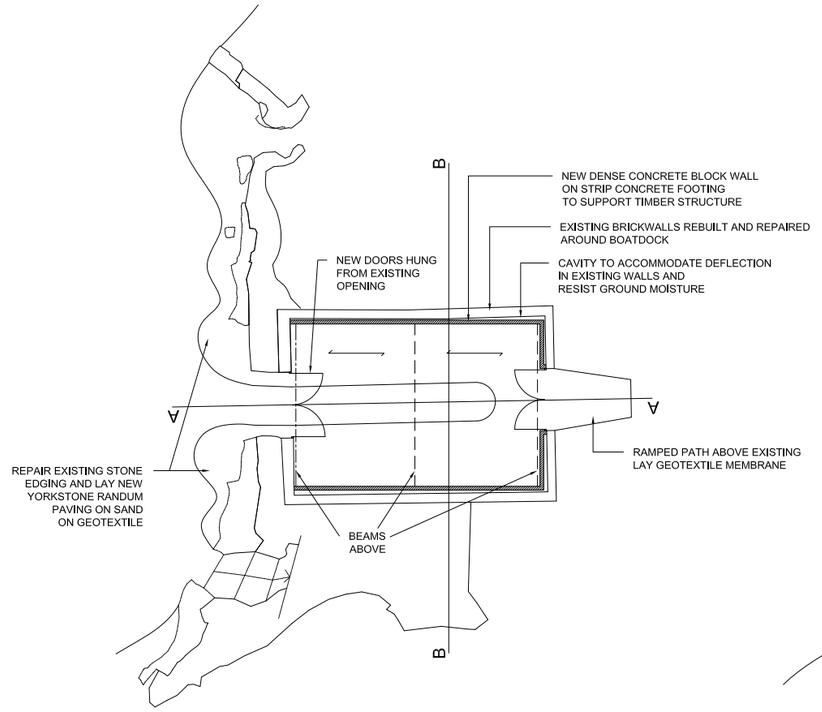
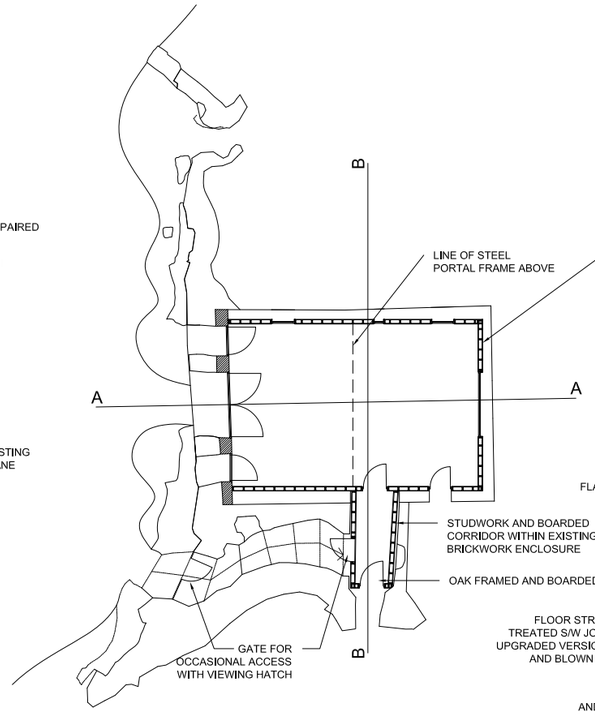
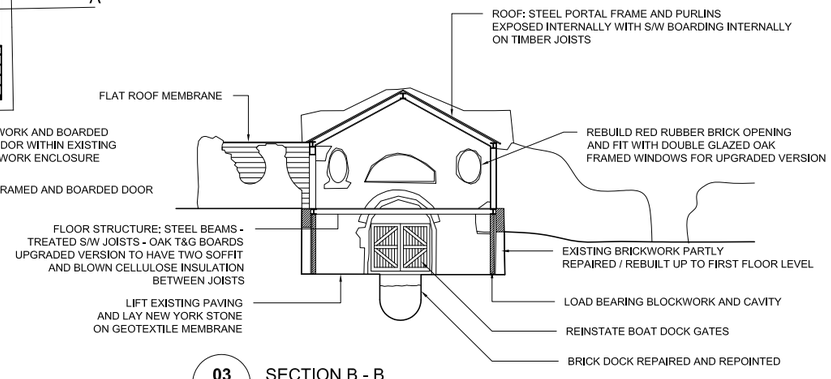


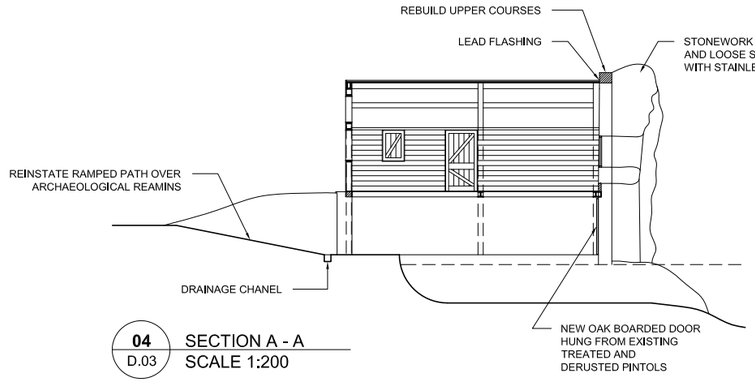
01 D.03 GROUND FLOOR PLAN
SCALE 1:200



02 D.03 FIRST FLOOR PLAN
SCALE 1:200



03 D.03 SECTION B - B
SCALE 1:200



04 D.03 SECTION A - A
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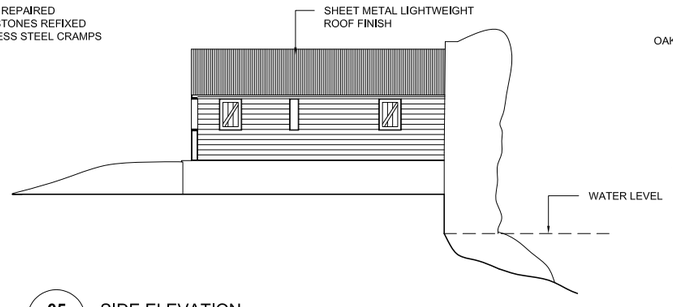
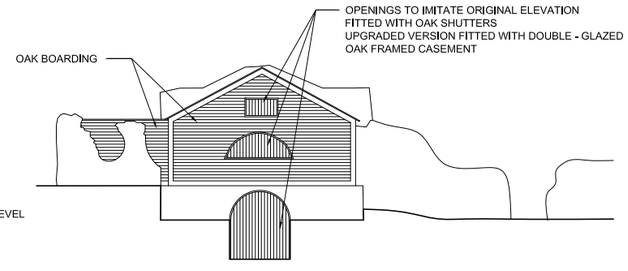


05 D.03 SIDE ELEVATION
SCALE 1:200



06 D.03 REAR ELEVATION
SCALE 1:200

0 5m

NOTE:

BASIC VERSION: unheated enclosure with shutters and without insulation
UPGRADED VERSION: fully insulated with glazed windows and heating

FOR INFORMATION

JOB TITLE
Wanstead Park
The Boathouse Grotto
DRAWING TITLE
Option C - New Building behing existing facade
Plans & Section

JOB NO	DWG NO	REV
497 B	D.03	
DRAWN BY	SCALE (AT A3)	DATE
PR	1:200	Feb 2011

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Wanstead Park
Boathouse Grotto

Indicative Feasibility Study Estimate of Budget Costs

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Sawyer & Fisher
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Epsom Surrey
KT19 9AB

Stand Consulting Engineers
133 Foundling Court
London
WC1N 1QF

		Cost
Immediate stabilisation to grotto and survey works to remaining structures (see attached)		£52,500
Option 'A'	Maintain the Boathouse Grotto as an accessible ruin. This would involve a new elevated walkway (which will be reversible) and viewing platform, connecting to a reconstructed bridge over the Ornamental Waters.	£500,000-650,000
Option 'B'	Restoring the Boathouse Grotto to its original form. This would be in preparation for a new use (such as a museum, education centre, gallery space, holiday accommodation), potentially with a reconstructed boat house beneath.	£1.00-1.50million
Option 'C'	Creating a new building behind the existing façade of the Boathouse Grotto. This would be a modern timber structure attached to the existing facade, and could be used as a bird observation point, meeting room, education centre or gallery/exhibition space (including potentially for sculpture and community arts).	£0.50-0.75million
Café	New café with lakeside seating near to the Boathouse Grotto	£400,00-500,000

Notes:

(1) Excludes:

(i) VAT
(ii) Professional Fees
(iii) Local Authority Fees
(iv) Either project or overall Client contingency
(v) Client project direct cost

(2) These costs are preliminary budget estimates at RIBA 'Stage B' – i.e before outline designs have been developed or a measured survey available. They are intended for general guidance not for budgeting or grant applications. Therefore obviously these figures are only a rough indication of costs and must be treated with serious caution because they have been provided without the benefit of any scaled drawings, brief and specification, and without the benefit of reviewing the repairs to listed walls/structures on site. Each option needs to be developed to RIBA 'Stage C' before realistic estimates can be prepared based upon a set of measured scaled drawings, plans and sections of proposed repairs and new structures.

(3) The project budgets include allowances for landscaping and archaeological recording

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WANSTEAD PARK
GROTTO
INDICATIVE BUDGET FOR SHORT TERM EMERGENCY TEMPORARY REPAIRS, STABILISATIONS AND INVESTIGATION

				£
A	Site clearance including provision for storage and containers			16800
B	Archaeological clearance			8000
C	Stability, propping overhang			1000
D	Further investigation, trail holes			1000
E	Protection, protect top of grotto wall			
	Scaffold access (both sides) (as per Chelsea Scaffolding Access Ltd's quote) assume 8 week hire period	7300		
	Remove ivy, protect with soft capping and temporary propping and niches on water front elevation and emergency repairs	5000		
		12300		12300
F	Measured survey			7500
			£	46600
	Contingency Sum		10%	4660
			£	51260
		say	£	52500

Notes
1 Excludes VAT/professional fees
2 Assume any excavated material deposited within park
3 As per Richard Griffiths Architects' Report

1593.03.00.001/works 1 14/02/2011

Appendix E:
Plant survey of the Grotto (Ecoconsult, November 2018)

An extended phase 1 habitat survey was carried out of land within the fenced area around the Grotto on 22 November 2018.

The site was divided into the following areas:

1. The Grotto structure
2. The disturbed ground south of the Grotto
3. The grassland on the lakeside of the Grotto
4. Marshy grassland near the lakeside
5. Emergent vegetation in the lake in front of the Grotto
6. The two mature yew trees
7. The group of trees to the northwest of the Grotto.

1. The Grotto structure
The Grotto supports stone and brick masonry which has recently been cleared of woody vegetation. There is at present little non-woody vegetation on the masonry with limited amounts of crustose lichens but now more of the structure is exposed to the light, more plants will start to colonise.

The structure supports several crevices and cavities which could potentially support bat species. If present, bats would be of high ecological significance in the Grotto. Bats and their roosts are legally protected under UK and European legislation. No evidence of bats was located on the survey but bats are difficult to find and their droppings can soon disappear. Presence or absence can be assessed through summer dusk emergence or dawn re-entry surveys. If works are proposed which could affect bats, e.g. repairs, bat survey must first to carried out, appropriate mitigation designed and a Natural England mitigation licence obtained prior to the start of works.

2. The disturbed ground south of the Grotto
Woody vegetation (trees and shrubs) have been removed which has left disturbed bare ground which has been colonised by ruderal species. This will remain as tall ruderal habitat if it is not managed.

3. The grassland on the lakeside of the Grotto
There is a narrow strip of species-poor grassland which grades into marshy grassland towards the lake margin. Species recorded are listed below.

Scientific name	Common name	Abundance*
Anisantha sterilis	Barren brome	F
Brachypodium sylvaticum	Wood false-brome	F
Picris echioides	Bristly ox-tongue	F
Holcus lanatus	Yorkshire fog	LA
Geranium robertianum	Herb Robert	LF
Epilobium parviflorum	Hoary willowherb	O
Galium aparine	Cleavers	O
Geum urbanum	Wood avens	O
Hedera helix	Common ivy	O
Lolium perenne	Perennial rye-grass	O
Ranunculus repens	Creeping buttercup	O
Urtica dioica	Common nettle	O
Rubus fruticosus agg.	Bramble agg.	R

*D=Dominant; A=Abundant; F=Frequent; O=Occasional; R=Rare; L=Locally

4. Tall herb near the lakeside
The wetter ground towards the lake supports a tall herb community with more wetland species such as pendulous sedge *Carex pendula*, purple loosestrife *Lythrum salicaria*, gipsywort *Lycopus europaeus*, reed canary-grass *Phalaris arundinacea* and bittersweet *Solanum dulcamara*. Wetland vegetation is ecologically more important than the species-poor grassland and ruderal habitat in the rest of the site. Species recorded are listed below.

Scientific name	Common name	Abundance*
Carex pendula	Pendulous sedge	F
Lythrum salicaria	Purple loosestrife	F
Agrostis stolonifera	Creeping bent	LA
Juncus effusus	Soft rush	LA
Tussilago farfara	Coltsfoot	LA
Urtica dioica	Common nettle	LA
Cirsium arvense	Creeping thistle	O
Ranunculus repens	Creeping buttercup	O
Alliaria petiolata	Garlic mustard	R
Lycopus europaeus	Gipsywort	R
Phalaris arundinacea	Reed canary-grass	R
Rumex conglomeratus	Clustered dock	R
Rumex obtusifolius	Broad-leaved dock	R
Solanum dulcamara	Bittersweet	R

*D=Dominant; A=Abundant; F=Frequent; O=Occasional; R=Rare; L=Locally

5. Emergent vegetation in the lake in front of the Grotto
There is now a large shallow area of the lake in front of the Grotto supporting emergent vegetation. This is dominated by Purple loosestrife *Lythrum salicaria*. Wetland vegetation is ecologically important. Species recorded are listed below. All tree species listed below are saplings.

Scientific name	Common name	Abundance*
Lythrum salicaria	Purple loosestrife	D
Lemna minor	Common duckweed	LA
Juncus effusus	Soft rush	O
Salix caprea	Goat willow	O
Salix cinerea	Grey willow	O
Sparganium erectum	Bur-reed	O
Carex pendula	Pendulous sedge	R
Epilobium hirsutum	Great willowherb	R
Iris pseudacorus	Yellow flag	R
Lycopus europaeus	Gipsywort	R
Mentha aquatica	Water mint	R
Phalaris arundinacea	Reed canary-grass	R
Populus sp.	A Poplar species	R
Ranunculus sceleratus	Celery-leaved buttercup	R
Typha latifolia	Common reedmace	R
Picris echioides	Bristly ox-tongue	R
Carex remota	Remote sedge	R-LF

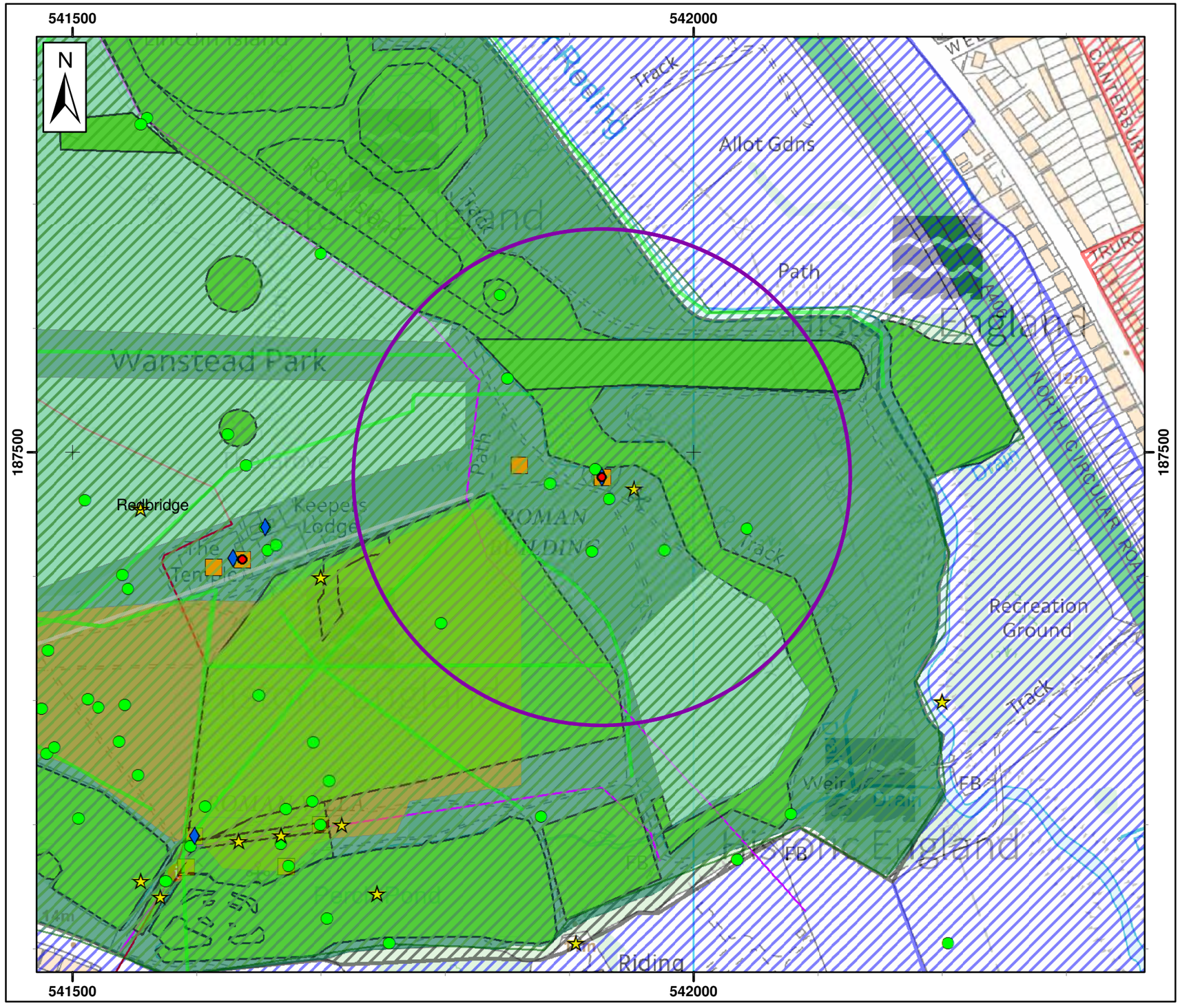
*D=Dominant; A=Abundant; F=Frequent; O=Occasional; R=Rare; L=Locally

6. The two mature yew trees
The two mature yew *Taxus baccata* trees have diameters of 42.5cm and 59cm. They are in fair to good condition. They have low to negligible bat roosting potential. The larger of the two is leaning towards the Grotto. The ground flora below is dominated by Common ivy *Hedera helix*. Two fungi were present - Lawyer's wig *Coprinus comatus and* a parasol mushroom *Macrolepiata* sp.

7. The group of trees to the northwest of the Grotto.
This group of young poorly formed trees include one Ash *Fraxinus excelsior*, three Sycamore *Acer pseudoplatanus*, and one Hawthorn *Crataegus monogyna*. The ash has 4 stems (23cm, 28cm, 30cm and 70cm). The thick-stemmed ivy and large cavity at the base mean that this tree has medium bat roosting potential and appropriate checks for bats needs to be made prior to any work to this tree. The other trees have diameters ranging from 11cm to 19cm and have no significant ecological or other value.

© ABA
Target notes and Grotto fence

Appendix F:
HER search results map



GLHER Report 14551
The Grotto, Wanstead Park
TQ 41926 87480
Radius 200m

5 December 2018

- Archaeology
- Archaeological Find Spot
- Building / Listed Building
- TDP & TAS
- Maritime Archaeology
- Registered Parks & Gardens
- Scheduled Ancient Monuments
- World Heritage Sites
- Archaeological Priority Area
- Event Location
- Event Location (Not fully recorded on the GLHER database)
- Requested Search Area

Scale (at A4): 1:4,000

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Notes:
Any Listed Building information shown on this map extract is provided solely to indicate the location of the listed building(s) and does not attempt to indicate the curtilage or the full extent of the listing(s). Any archaeological priority area(s) shown on this map extract are those used by the Historic England archaeological advisors and there may be minor differences when compared to the relevant borough UDP or LDF.

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Appendix G: Dr Sally Jeffrey 'The Gardens of Wanstead Park' (1999)

The Gardens of Wanstead House

Sally Jeffery

Introduction

The park and gardens of Wanstead House in Essex were among the largest and most spectacular in the country, evolving gradually from the late seventeenth century plantations of trees and fishponds, through elaborate parterres, long canals, mounts and mazes by George London in the early eighteenth century, to a vast lake system and more relaxed woodland walks with garden buildings, and finishing with improvements by Repton and Kennedy at the opening of the nineteenth century. However, they have been relatively little studied until recently[1] and still deserve to be better known. This situation stems from the fact that the very grand mansion house at the centre of the estate was sold and demolished in the second decade of the nineteenth century, the timber was felled and the garden design disappeared under scrub and undergrowth. A little like the great gardens at Canons, the Wanstead gardens declined and slept, but were not destroyed. Their framework survives in what is still an open space, and can be rediscovered by observation and research. The major part of the old pleasure gardens is in the ownership of the Corporation of London, which acquired 140 acres and opened them to the public in 1882, while the site of the house itself and its immediate surroundings and approach from the west is occupied by Wanstead Golf Club, which purchased the land in 1920. This article is an expanded version of a lecture given in September 1999 at the Temple at Wanstead Park for the London Historic Parks and Gardens Trust and it aims to put on record the research undertaken to date for the Corporation of London, while recognising that further work will undoubtedly reveal more information in the future.

Sir Josiah Child

The Wanstead estate was enclosed early in the sixteenth century when it came into royal ownership and the house then existing was large enough to function as a hunting lodge. It was reported to be 'in great ruin' in 1549 and was said to have been rebuilt or largely so by Lord Rich, Edward VI's Lord Chancellor, who occupied it at the time, and then improved by Robert Dudley, Earl of Leicester, who entertained Queen Elizabeth there in 1578. The extent of the estate fluctuated as land changed hands, but about 300 acres of land and the house were reputedly sold for £11,500 in 1673-4 to Sir Josiah Child, who had been living there since at least 1668. The appearance of the old house was recorded by Knyff and Kip just before it was

[1] The house has been more studied than the grounds, but recent literature on the park and gardens includes the account in the *Victoria County History of Essex* volume 6, 1973; Ian Dunlop and Fiske Kimball, 'The Gardens of Wanstead House, Essex, Surviving Remnants of a Famous Georgian Domain', *Country Life*, July 28, 1950, pp. 294-298; Survey for the Corporation of London by John Phibbs and the Debois Landscape Survey Group, the Royal Commission on the Historical Monuments of England and the Institute of Advanced Architectural Studies, York, 1990; John Harris, 'Wanstead's Compelling Vista', *Country Life*, August 22, 1991, pp. 60-61; and Sally Jeffery, 'Wanstead House and Gardens in the Eighteenth Century', in *The Later Eighteenth Century Great House*, proceedings of a conference at the Department for Continuing Education, University of Oxford, January 1997, of which this publication is a greatly expanded version.

demolished; it is shown as a large irregular many-gabled courtyard building which had evidently grown over the years. It was one of the largest houses in Essex with 40 hearths.[2]

Sir Josiah Child (1630-1699) was the son of a merchant, and began his career as a merchant's apprentice. His portrait (attributed to John Riley) survives in the National Portrait Gallery, London (*fig. 1*). He was established in Portsmouth by about 1655 as a victualler to the Navy, and became mayor of the city. Later he moved to London and was connected with the East India Company as a director, and later as Deputy Governor and Governor, making a legendary fortune. According to Macaulay, he had an income of £20,000 a year.[3] He was MP for Petersfield, Dartmouth and Ludlow and received a baronetcy in 1678. Although the East India Company had become known for its Whig associations, Child supported the Crown as a Tory when it was politic to do so and great political scheming took place. His writings included *A Treatise on the East India Trade* under the pseudonym 'Philopatris', 1681, and *A New Discourse on Trade*, 1693.[4] Because of its role in importing manufactured silks and dyed and printed textiles, the Company was much reviled by the weavers of Spitalfields. In March 1697, they marched on Wanstead 'and threatned Sir Josia Childs house; but the guards watching them narrowly, and the presse masters carrying several young fellows on board that were going to join them, caused them to disperse'.[5] Such threats may have caused him and his family to feel that they needed a house which afforded better protection. Sir Josiah is commemorated by a large memorial in Wanstead parish church.

He lived in the old house and made new plantations around it which were sufficiently extensive and expensive to be noteworthy. John Evelyn, writing in his diary for 16 March 1683, comments, not without malice:

> I went to see Sir Josiah Child's prodigious Cost in planting of Walnut trees, about his seate, & making fish-ponds, for many miles in Circuite, in Eping-forest, in a Cursed & barren spot; as commonly these over growne & suddenly monied men for the most part seate themselves: He from an ordinary Merchants Apprentice, & managements of the E. India Comp: Stock, being arived to an Estate of ('tis said) 200000 pounds.[6]

A more detailed account of Sir Josiah's work is given in 'A Short Account of Several Gardens near London . . . in . . . December 1691', which tells of the large plantations of walnuts and other trees which were 'much more worth seeing than his gardens, which are but indifferent'. He is reported to have had fruit trees in his enclosures, and vast numbers of elms, ashes and other trees planted in rows in Epping Forest. 'Before his outgate . . . are two large fish-ponds . . . and in the middle of each a house . . .They are said to be well stocked with fish, and so they had need to be if they cost him five thousand pounds, as it is said they did; as also that his plantations cost twice as much.'[7]

[2] *Victoria County History*, op. cit., and Geo. Tasker,'Wanstead: its Manor and Palace', *Essex Review*, volume vii, 1898, p. 220.
[3] Thomas Babington Macaulay, *The History of England from the Accession of James the Second,* edited by Sir Charles Firth, volume 5, 1914, p. 2096.
[4] The library at Wanstead included 'Child on Trade', noted in the 1822 sale catalogue of the contents of Wanstead House under 'books' as lot 551, p. 309. A number of copies of this sale catalogue are known, including one at the National Art Library, Victoria & Albert Museum, 23.J and another at Ilford Reference Library. See also Denis Keeling, *Wanstead House: The Owners and their Books*, Wanstead Historical Society, 1994.
[5] Quoted in William Foster, *The East India House*, 1924, p. 73.
[6] *The Diary of John Evelyn*, E. S. de Beer (editor), Oxford, 1955, volume 4, pp. 305-6.
[7] J. Gibson, 'A short Account of several Gardens near London, with remarks on some particulars wherein they excel, or are deficient, upon a View of them in December 1691', in *Archaeologia*, volume XII, 1796, pp. 186-7.

One further early account survives in a poem published in 1702 entitled *Leighton-Stone-Air.*[8] This refers to Wanstead as 'a pleasant Villa in the Forest near Leighton Stone made very delicious by the New Plantations Sir Josiah Child has honoured it with' and mentions 'Chestnut-Avenues' and 'vaulted Grotts', which are explained somewhat enigmatically in a footnote as 'Grotts: Chestnuts and Abel-trees [*Populus alba,* white poplar] most delightfully planted round 2 vast Fish-ponds on the Forrest, projecting their beauty in the Water'.

There is no visual record of just this early stage of the garden, but Leonard Knyff and Johannes Kip made four views, which appeared in their *Supplément du Nouveau Théâtre de la Grande Bretagne* of 1728. They must date from about 1713, just before the old house was taken down. The view to the west shows the 'enclosures' or walled garden south of the house planted with regular rows of fruit trees, the 'outgate' with gatehouse to one side, of which the gate piers survive, and the grand approach avenue running between two ornamental ponds, each with an island containing a small building and stocked with fish (*fig. 2*). Other ponds are visible in the walled garden. Most impressive are the extensive plantings of avenues of trees outside the gates of the house to the west stretching out almost as far as the eye could see. The elderly survivors from this period are sweet chestnuts on cross avenues in the Bushwood area, but different species may have been used for different avenues, including perhaps the walnuts, elms and ashes mentioned above. Avenues to the east were equally impressive (*fig. 3*). The large double avenue on the main axis also shown by Knyff and Kip was planted with an unknown but short-lived species, since it seems to have disappeared by 1725.[9] This represents Sir Josiah's work.

The Child family was extensive, but Sir Josiah was apparently not closely related to the banking Child, Sir Francis, who was Lord Mayor in 1698-9 and purchased Osterley Park in 1713,[10] nor to the John Child who was President of the East India Company's factory at Surat.[11] Sir Josiah was married three times, and had eight children, of whom six survived beyond infancy: three sons and three daughters. The daughters married well, especially Rebecca, whose husband was Marquess of Worcester and later Duke of Beaufort. When Josiah died in 1699, only two sons remained. One was Josiah, his first-born child, and the other Richard, his last-born. Josiah, the second baronet, died in 1704, but had already leased Wanstead and Stonehall for 90 years from 1699 to his half-brother.[12] Thus Sir Richard Child, third baronet, created Viscount Castlemain in 1718 and Earl Tylney in 1732, was seated at Wanstead for fifty years, until his death in 1750, and to him are due the major developments of both house and gardens.

[8] British Library 11626.h.13(6). This is signed 'JHMA'.
[9] Plan by James Cradock dated 1725, Essex Records Office, D/DCw P7. In the later painting attributed to Charles Catton the Elder: Wanstead House from the Orange Tree Garden, of which the location is unknown, young trees planted behind clipped hedges are shown in this location.
[10] Francis Child of Osterley was the son of Robert of Headington, Wiltshire. F.G. Hilton Price, *A Handbook of London Bankers*, Leadenhall Press, 1890-1, pp. 30-37. However, Sir Richard Child, Sir Josiah's son, did keep an account at Child's Bank. See the section on the bowling green below.
[11] See Robert Williams, 'Vanbrugh's India and his Mausolea for England', in Christopher Ridgway and Robert Williams (editors), *Sir John Vanbrugh and Landscape Architecture in Baroque England 1690-1730*, Sutton, 2000, p. 116.
[12] *Victoria County History*, op. cit., quoting a document in the Essex Records Office, D/DCw T3C/128.

The Work of George London for Sir Richard Child

Daniel Defoe[13] tells us how 'Sir Josiah Child, as it were prepar'd [Wanstead] in his Life for the Design of his Son . . . by adding to the Advantage of its Situation innumberable rows of Trees, planted in curious Order for Avenues and Visto's, to the House, all leading up to the Place where the old House stood, as to a Center.' He continues: 'In the Place adjoining, his Lordship, while he was yet Sir Richard Child only, and some Years before he began the Foundation of his New House, laid out the most delicious as well as the most spacious pieces of Ground for Gardens that is to be seen in this part of England.'

Sir Richard Child could have begun adding to his father's design from 1699, and probably did begin planning it, but there is no mention of any change before 1702, and the major works seem to have been carried out after that date. This fits well with Defoe's account of the garden being made before 1718 when Child was created Viscount Castlemain and before his new house was begun in about 1715. According to Stephen Switzer, writing in 1718,[14] the work was begun in 1706 and was carried out by George London as one of his 'last undertakings'. Switzer compared the work favourably to that at Blenheim and stated that it was a 'Design worthy of an English Baronet and equal to the greatest French Peer'. An anonymous poem about Wanstead gardens, entitled *Flora Triumphans*, dated 1712/13, refers to the canal, the plantations, the flower and fruit gardens, the two mounts and the 'venerable pile' of the old house. This must therefore mark the date when the enrichment of the garden was nearing completion and Sir Richard was about to turn his attention to a new house.[15]

The gardens close to the house were essentially formal and regular in style with a long central axis. The view to the west, which illustrates Sir Josiah's plantations, also tells us about the impressive undertakings of his son. Apart from the avenues and twin ponds already referred to, the engraving shows the gates and gate-piers (which survive), with the monogram of Sir Richard, marking the main approach avenue to the house, and large statues on plinths at the rond-points where the avenues crossed. John Macky published a description in 1722[16] which included this account:

> You come up to this Palace from the Village of Wanstead by an Avenue of above half a Mile long, from which run nine other smaller Avenues into the Forest, with each a Statue on a Pedestal as big as the Life. I must allow, that in Holland, Statues at the end of an Avenue, where the Country is entirely flat, fix the View. But here, where you have always a rising Ground, or a Village at some great distance to finish your View in, I think the Statues confine and obstruct it.

The statues do not appear on later plans, and must have been removed quite rapidly.

The views to both east and west show the old house and its outbuildings and the parish church further north, and the gardens stretching away to the east. These seem to have remained more or less as seen by Knyff until about 1730, since in addition to Macky and Defoe, there is a detailed account by a visiting Frenchman, Pierre Jacques Fougeroux, apparently written in 1728.[17]

[13] Daniel Defoe, *Tour thro' the Whole Island of Great Britain*, volume 1, London 1724, pp. 137-8.
[14] *Ichnographia Rustica,* 1718, volume 1, p. 84.
[15] *Flora Triumphans: Wanstead Garden. An Heroick Poem most Humbly Address't To the Honourable Sir Richard Child, Bar.* Anon. 1712/13. The date of 21 January is written in manuscript beside the year. Simon Wartnaby first drew my attention to this poem.
[16] John Macky, *A Journey through England in Familiar Letters*, second edition, London, 1922, pp. 19-24.
[17] He visited in 1728, and described his impressions in a series of letters. Two almost identical manuscripts

From these sources we can form a picture of the central smooth canal with an octagonal end and high jet of water and the oval bowling green behind. Water was an important and fashionable element of these gardens, with the long canals on the central axis leading to comparisons with Versailles, but flowers, shrubs and topiary were also important. On either side of the canal were parterres of grass cutwork (the 'parterre decoupez' described by the visiting Frenchman in 1728),[18] with elaborate scrolled designs containing gilded lead urns, plants in pots (possibly citrus trees), and yews clipped into cones and spheres, or mushroom shapes, according to the Frenchman. Yews are the only clipped trees he identified, but it would have been usual to include both yews and hollies in such a location. The walks around the house and in the parterres were constructed of small pebbles and gravel (perhaps a kind of binding gravel), which was rolled to give a hard dry surface for walking. Flowers are only visible in borders around this parterre.

To the east and flanking the bowling green were further parterres where the divisions were geometric and edged with low hedges, with pools and statues at their centres. These divisions evidently contained flowering plants, but it is impossible to determine from the engravings what they may have been. Beyond were large wildernesses planted with trees and shrubs on either side of a grassed avenue bordered with triple rows of trees and flanked with a pair of mazes and a pair of mounts with spiralling paths leading to small buildings. Apart from straight avenues traversing the wildernesses diagonally, there were smaller curving, slightly meandering walks which led to clearings or cabinets. These wildernesses were closer to the newly fashionable 'forest gardens' than to the traditional form of wilderness and extended not only to the east but to the north as well. The grassed eastern avenue led to another long canal. To the south were the orchards, kitchen gardens and fishponds.

The two views to the north in fact form one continuous panorama and are more detailed (*fig. 4*). They show the raised grass terrace walk overlooking the parterres and canal with a greenhouse set beside it and terminated by a banqueting house. Large wildernesses to the north had openings of various shapes, including circles, squares and ovals, with pools, statues and mazes. According to the Frenchman, the divisions were bounded by 'green walls' or clipped hedges (not as beautiful nor as thick as the tall clipped hedges or 'charmilles' to be seen in France) of variegated Phillyrea[19] and bay or laurel, with flowering shrubs within, and the walks were grassed. Macky calls the terrace a 'fine green Walk which ends in a Banqueting-house: From whence you have four fine Views . . .' He further describes the 'Variety of high-edged Walks, affording delicious Visto's' behind the green house, in one of which 'there is a Vase erected in a Circle'.

survive, one in the National Art Library, Victoria & Albert Museum, MS 86 NN 2, and the other (which gives the Frenchman's name), in a private collection. I am very grateful to David Coke for information on this matter. It has been suggested that Fougeroux visited earlier than 1728 (perhaps c.1725), and that the manuscript was copied later. (John Harris, *The Palladian Revival: Lord Burlington, His Villa and Garden at Chiswick*, Yale University Press/ Royal Academy 1994, p. 80, and conversation with John Harris, August 2000.)

[18] A 'parterre after ye English Manner', according to John James's 1712 translation into English of Dezallier d'Argenville's *La Théorie et Pratique du Jardinage* (published in France in 1709).

[19] The Frenchman calls this 'filaria'. *Phillyrea latifolia L.* was used at Hampton Court, and 'Phillyrays' were recorded at Blenheim. See Jan Woudstra, 'The Planting of the Privy Garden' in Simon Thurley (editor), 'The King's Privy Garden at Hampton Court Palace 1689-1995', *Apollo*, 1995.

The Greenhouse

Both the pavilion and the greenhouse have been convincingly attributed by John Harris to William Talman.[20] Colen Campbell, who published a plate of the greenhouse in the first volume of *Vitruvius Britannicus* of 1715, says simply that it was designed not by himself, but 'by another Hand'. Talman and London worked together elsewhere, and it is very likely that Richard Child's ambitious schemes for Wanstead included Talman's participation in the garden buildings. Defoe says that 'The Green-House is an excellent Building fit to entertain a Prince; 'tis furnish'd with Stoves and artificial Places for Heat from an Apartment in which is a Bagnio, and other Conveniences, which render it both useful and pleasant.' Campbell's plan shows this apartment, at the west end of the building, with steps leading into two baths (perhaps one cold and one hot), with niches above and between them, probably tiled (*fig. 5*). He also indicates the position of a bed in the adjoining room, which has a fireplace, as does the small apartment at the other end. One of these may have been the panelled apartment described by the Frenchman, decorated with prints. As built, these lower wings of the greenhouse were given elaborate gables, according to the views by Kip and Knyff and Rocque's view of 1735, and the Frenchman tells us that the building was of brick (*fig. 6*). In the poem *Flora Triumphans*, the anonymous writer speaks of 'A Golden Range of flaming Phenix Nests' cresting the roof.[21] Since there are no other visible chimneystacks, it is tempting to think that they served this purpose and could be seen in cold weather with smoke rising from their beds of ashes. Macky mentions that this building was 'finely adorn'd with Statues'. The Frenchman comments that the orangery had a pretty façade in brick, and inside the central room was intended to contain exotic plants which might need protection from the elements. It had a panelled interior with staging for shrubs and plants such as palms and aloes, although he says the oranges were mediocre. That Child used the greenhouse for exotics is confirmed in the poem by references to Flora preparing 'A safe Protection for her nearest Care, Her foreign Favourites (no British Race) . . . Orig'nals from a warmer Southern Smile/ Too hardly naturaliz'd to our bleak Soyl . . . Hither the kind retiring Flora calls/ Her verdant Nurs'ry to their Fortress Walls.'

The Bowling Green

The oval bowling green at the end of the first canal is clearly shown by Knyff and Kip, with a narrow band of planting round the edge with small pyramids and spheres in topiary and a broad walk bordered by low enclosing clipped hedges and wrought-iron railings towards the grass avenue beyond (*fig. 7*). There were four pavilions or arbours made of trellis or ironwork, with seats for spectators. Statues were set in semicircles of clipped hedges between the pavilions. Macky refers to 'Grotto's and Seats, with antique Statues between each Seat' and an iron 'Ballustrade' which separated the bowling green from the long walk, while the Frenchman referred to large iron 'grilles'. These were certainly magnificent, and may have been supplied by Jean Tijou, the French metalworker who worked at Hampton Court and elsewhere. There are payments to Tijou recorded in Richard Child's bank account in 1703, which total £180. Such an amount is very small compared to the sums which would have been charged for such large panels of ironwork,[22] and indeed could refer to something else, but they do confirm that Tijou was involved at Wanstead in one way or another.[23] In view of Richard Child's ambitious schemes for Wanstead, it seems

[20] John Harris, *William Talman Maverick Architect*, George Allen and Unwin, 1982, p. 45.

[21] *Flora Triumphans*, op. cit. p. 12.

[22] Tijou charged £2,160. 2s. 0d. for the 12 panels in the Fountain Garden at Hampton Court.

[23] The payments are from an account which was held at Child's Bank in the name of Sir Richard Child:

unlikely that he would have accepted second best for anything, and it should therefore be no surprise to find Tijou's name mentioned, especially in conjunction with London and Talman.

The bowling green with its ironwork was dismantled between 1728 when the Frenchman saw it and 1735 when Rocque made his plan of the gardens. The ironwork panels, whether by Tijou or not, could hardly have been thrown away. Were they used elsewhere on the estate? The present entrance to Wanstead Golf Club, which occupies the old service buildings of Wanstead House, has some handsome ironwork at its gates which might possibly be related (*fig. 8*).

The Statues

There were large numbers of statues on the buildings, as well as many statues and other garden ornaments in the formal gardens, around the bowling green and in approach avenues, as can be seen in the engravings of Kip and as mentioned by visitors such as Macky. When the gardens were dismantled, they too may have been placed elsewhere in the grounds; some of them survived until the sale of 1822, when they were dispersed.

The most easily identifiable sculpture is at the head of the canal just below the terrace along the house. This appears to be a blackamoor figure, perhaps holding a sundial (*fig. 9*). A similar looking figure still survives at Melbourne Hall, Derbyshire, where it is one of a pair in lead consisting of an 'Indian Slave' and a 'Black Moor', both holding urns, for which John Nost was paid thirty pounds in November 1705.[24] The Wanstead figure may well have been carved in stone since no expense appears to have been spared.[25]

One of the chief sources of inspiration for the sculpture must have been the gardens of Versailles, which contained so many statues and fountains based on classical themes and stories like Aesop's fables. One example is the figure of a monkey mounted on a goat, which appears beside the bowling green at Wanstead (*fig. 10*). A similar group was present in the Labyrinth at Versailles. The statuary is discussed further in the section on sculpture at the Grotto.

Hercules and Omphale

Two over-life-size statues which can be identified were the Hercules and Omphale on either side of the entrance to the front courtyard of Wanstead House. The earliest references to them are from 1722, when the house was nearing completion. George Vertue, in his notebooks, recorded a marble statue of Hercules six foot high finely done in marble for 'Lord Castleman' by 'Delvo' and a statue of Omphale by 'Schemakers' made at the same time.[26] These were two pieces in white marble, one by Laurent Delvaux and the other by Peter Scheemakers, for which Pierre Denis Plumier had made sketches before he died.[27] Presumably they were always intended to flank the

February 15, 1702/3, payment of £30 to 'Ino Tisjou'; July 20, 1703, payment of £150 to 'Ino Tijou'. These ledgers are now in the archives of the Royal Bank of Scotland, to whom I am grateful for access.

[24] A receipt dated 16 November 1705 is at the house.

[25] Similar figures in both lead and stone survive elsewhere, dating from the 1730s and 1740s. See John Davis, *Antique Garden Ornament*, Antique Collectors' Club, 1991, p. 49.

[26] Vertue Notebooks, *Walpole Society*, volume 18, 1930, p. 101.

[27] Victoria & Albert Museum, D 1062-1887. I am indebted to Dr Ingrid Roscoe for information from her thesis. See her article 'Peter Scheemakers', in *Walpole Society*, volume 66, 1999, pp. 282-3.

entrance, but there is no view of them until the engraving of Wanstead prepared for Morant's *History of Essex* of 1768 (*fig. 11*). Here, and in later views,[28] they are shown on stone plinths terminating the two short, low lengths of what was apparently decorative ironwork enclosing the west end of the forecourt (*fig. 12*). They continued to stand there throughout the eighteenth century, and were described in *The Ambulator* of 1774 thus: 'On each side as you approach the house, are two marble statues of Hercules and Venus, with obelisks and vases alternately placed . . .' William Angus, in *Seats of the Nobility and Gentry in Great Britain and Wales*, of 1787, corrects this identification by stating: 'In the Avenue leading from the grand Front of the House to Leytonstone is a circular Piece of Water, which seems equal to the length of the House. On each side, as we approach the House, is a marble Statue; that on the left Hercules, the other Omphale.'

Hercules figures frequently in sculptural programmes, representing great virtue and strength. However, if shown with a distaff, as here, he appears as one of a pair with Omphale, Queen of Lidia, who enslaved him and for whom he laboured at spinning and other household chores.[29] Presumably he also played the tambourine he holds here. The companion piece would have shown Omphale holding Hercules' club and dressed in his lion's skin. This was a somewhat curious choice, but may have been inspired by the example of Versailles, where there was a pair of terms with these subjects in the Parterre des Fleurs.

These two statues remained at Wanstead until the sale of 1822, when they were both attributed to Delvaux in the sale catalogue (page 118, lots 267 and 268), and sold for £21 10s. 6d. and £17 6s. 6d. respectively. The Hercules is now in the gardens of Waddesdon Manor (*fig. 13*).[30] The post-sale history of the Omphale is unknown.

Urns and Vases

A number of impressive urns and vases which ornamented the formal gardens and the house at Wanstead survived at least until 1822 and were sold. 'A pair of handsome lead Vases, with eagle ornaments on the tops, on stone pedestals' were noted as in the American Garden, and a total of eight stone and three lead vases were listed.[31] It is tempting to try to match some of these to the vases shown in the Knyff and Kip engravings on the parterres and in the clearings of the wildernesses.

At the time of the sale in 1822 there were four spectacular marble urns in the Great Hall of Wanstead House at the centre of the entrance front. The sale catalogue correctly gives them as two by Scheemakers and two by Delvaux, describing one as a 'VERY SPLENDID MEDICIAN SHAPED VASE, 4 FEET 6 INCHES HIGH, OF STATUARY MARBLE, FINELY SCULPTURED IN HIGH RELIEF', and giving an approximate subject for each.[32] They were based on similar vases in the Parterre de Latona at Versailles, which were in turn based on the antique Medici and Borghese vases.[33] The four were sold for eighty-four pounds

[28] Walter Harrison, *A New and Universal History, Description and Survey of the Cities of London and Westminster*, 1775, opposite p. 577.

[29] For a contemporary account, see Joseph Spence, *Polymetis*, 1747.

[30] Terence Hodgkinson, *The James A. de Rothschild Collection at Waddesdon Manor: Sculpture*, National Trust/ Office du Livre, 1970, pp. 208-9.

[31] Sale catalogue, 1822, lots 270-273 and 274-276, p. 118.

[32] Sale catalogue, 1822, lots 369-372, pp. 124-5.

[33] Ingrid Roscoe, *op. cit.*

at the sale, and were later acquired for Anglesey Abbey, where they are placed out of doors. It is not known whether they were originally placed outside in the gardens at Wanstead, for they were not recorded in the hall until about 1800.[34]

The Mounts

The poem of 1713[35] specifically refers in a footnote to the two mounts 'now raising' with an 'artful spiral Circle round'. Since the mounts were towards the outer limits of the garden at that time, they were among the later features to be constructed. They appear on Knyff and Kip's views with spiral paths and small buildings on top, on either side of the main grassy avenue. The small temples which crowned them are shown in greater detail by Rocque on his plan of 1735, presumably unchanged (*fig. 14*). These two mounts are among the features which survive today in a rather eroded condition and covered with a growth of trees and scrub.

Visitors to the Garden

Pierre Jacques Fougeroux and his companions went out to Wanstead from London, leaving by Aldgate and taking the Whitechapel road, passing Bow village and turning off there from the main road.[36] They evidently had no difficulty in gaining admittance to the grounds, like many other tourists, and in fact they visited a number of houses and gardens during the Frenchman's stay. He was in the habit of making very crude plans of the places he saw, and made one for Wanstead, but they may have been done from memory, and their inaccuracies render them very misleading. For Wanstead, the views of Knyff and Kip are much more reliable. What is more instructive, apart from the detailed description, is the interest Fougeroux took in the way the gardens were kept and particularly the maintenance of the lawns. These were rolled regularly by horse-drawn stone rollers and were kept fresh by the temperate climate. Much as he admired the lawns, however, he thought that there was too much grass and that the gardens would benefit from more variety.[37] The range of visitors was great, from those invited by Child to those who came simply to see the sights. The author of *Flora Triumphans* describes (no doubt with a certain amount of poetic exaggeration) how Wanstead attracted crowds arriving daily from London. 'Nay from the Pallace to the Cott, whole Trains/ Down from Proud Quality, to humble Swains/ Like all equal Homagers resort.' Defoe also commented that the gardens were 'so much the Admiration of the Public, that it has been the general Diversion of the Citizens to go out to see them, till the Crouds grew so great that his Lordship was obliged to restrain the shewing them to particular and stated Times.'[38] When the Reverend Shaw visited in 1788, his party was admitted to the gardens and the interior of the house, which was only shown on a Saturday;[39] and Mrs Caroline Lybbe Powys, visiting in 1781, was taken to see Wanstead House ('reckon'd one of the finest houses in the kingdom') by her cousin, who lived at Leytonstone, apparently with as much ease as we might go country-house visiting today.[40]

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[34] *The Ambulator*, ninth edition, 1800, p. 228.
[35] *Flora Triumphans*, op. cit.
[36] See p. 5, note 17.
[37] Description derived from the author's translation of the French.
[38] Defoe, *op. cit.*
[39] John Pinkerton, *A General Collection of the Best and Most Interesting Voyages and Travels in all Parts of the World*, volume 2, 1808, p. 179.
[40] *Passages from the Diaries of Mrs Philip Lybbe Powys of Hardwick House, Oxon., A.D. 1756 to 1808*, Emily J. Climenson (editor), 1899, pp. 205-6.

There were special tickets for the visitors. (The sale catalogue of 1822 listed copper plates with engraved borders for printing tickets.)[41]

Sir Richard Child's New House

Child's new house was commissioned from Colen Campbell, who used it as an opportunity to burnish his reputation and to explore the idea of using the antique form of the temple in domestic architecture. At Wanstead he incorporated the temple form as the central part of a palatial house.

His designs for Wanstead House were prominently displayed in *Vitruvius Britannicus*, and there is a drawing, signed by Campbell and dated 1713, which shows the plan of the main floor and the west elevation of the first design.[42] Contacts between Sir Richard and Campbell must have begun before the publication of the first volume in 1715, and it would be interesting to know more of the relationship between client and architect. The first design, published in plan and elevation, was not executed, and was less innovative than that carried out. Campbell says of it: 'This was intended for Wanstead . . . A most charming situation, where are the Noblest Gardens now in the Kingdom.'

He illustrates his second design, which is close to that executed, in three drawings: elevation, section, and plan. Campbell here made his famous claim about Wanstead: 'the front, adorned with a just Hexastyle' was 'the first yet practised in this manner in the Kingdom'. It had a giant Corinthian order, three feet in diameter, a pediment busy with sculpture, figures on the parapet and a prominent cupola. The rustic ground floor was designed fifteen foot high to give the state rooms on the first floor 'a Prospect to these excellent Gardens'. The approach was from the entrance court up stairs each side to the portico.

The cupola was omitted in execution, and the pediments on both sides were ornamented by the arms of the newly ennobled Child. He was created Baron of Newtown, County Donegal, and Viscount Castlemain, County Kerry on 24 April 1718. The crest was an eagle with wings expanded and with a snake entwined around its neck, and the supporters were similarly eagles with snakes. The third design, published by Campbell in volume three of 1725, shows the final form of the house, but with only a simple cartouche and ribbons in the pediment, and with the addition of new corner towers, designed, he says on the plate, in 1721 (*fig. 15*). In the text they are dated 1720. This final embellishment was never constructed, but the dates give an indication that the work was then nearing completion. A good view of the entrance front of the house in 1781 is given by George Robertson and James Fittler (*fig. 16*).

Campbell does not illustrate the garden front of the house, which is consequently much less well known. The temple front there was pilastered, and the windows of the first floor had rusticated surrounds, as at Houghton, more suitable to the country-facing façade of the building, as seen in the view of 1781 by George Robertson and William Lowry (*fig. 17*). The curving steps shown on Campbell's plan were apparently changed in execution to resemble those at the front, but by the

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[41] Page 35, lot 31.
[42] The designs were published as follows: volume 1, 1715, plates 21, 22, first design, plan and west front; volume 1, 1715, plates 23, 24-5, 26, 27, second design, plan, west front, section, plan and elevation of the greenhouse 'design'd by another hand'; volume 3, 1725, plates 39-40, west front of second design with new towers, dated 1721 on the plate and 1720 in the notes. The Campbell drawing is in the RIBA Drawings Collection. See John Harris, *Catalogue of the Drawings Collection of the Royal Institute of British Architects*, 1973, p. 16 (under Colen Campbell).

time the house was demolished in 1823-5 these had been removed and replaced by a small terrace above three small ground floor areas.

The Interior of the House

A description of the interior of the house and its contents can be compiled from a number of sources, which reveal both the arrangement of the apartments and the high fashion and richness of the furnishings and fittings. The authors used here are Colen Campbell himself, in *Vitruvius Britannicus*, volumes one and two; John Macky;[43] Arthur Young,[44] who paid a visit and corresponded with Earl Tylney; John Pinkerton, recording a visit by the Reverend Shaw;[45] *The Ambulator;*[46] and William Gilpin (*fig. 18*).[47] Plans made by John Buckler in 1823[48] show the arrangement of the ground and first floor rooms at the time of the sale, and can be compared to Campbell's plan of 1725.

Macky described it in 1723 as a long body of a house measuring 260 feet, consisting of two storeys, the ground for the family and the upper storey for the rooms of state. The ground floor was entered by a gate under the staircase, and had at its centre a stone lobby supported by fourteen columns, with four apartments of five rooms each. Lord Castlemain's apartment to the right of the door consisted of a parlour with French prints, marble tables and a marble chimney piece, an antechamber with gold and blue brocade, velvet brocaded chairs, marble tables and chimneypiece, a bedchamber and dressing room of crimson damask, and a large closet. The apartment on the right fronting the garden was Lady Castlemain's, and the corresponding apartment to the left was for the entertainment of their friends.

Young, writing in 1772, described the noble arcade under the hall, from which led a common dining parlour, and a breakfast room in the manner of a print room, with prints pasted on a pale yellow coloured paper, with engraved borders, and 'all dispos'd in a manner which displays great taste'. The prints were 'of the very best masters, and the ornaments elegant'.

The plan drawn by Buckler in 1823 just before the house was demolished shows two apartments on the south side, and the north side devoted to rooms for the house steward, the butler, the housekeeper and the 'upper part of the kitchen', which was vaulted and must have occupied space in the cellar also.

Macky did not describe the state storey because it was not complete when he visited, but he noted that the hall and salon were to be finely painted. Pehr Kalm visited in 1748, and described the interiors in a general way as very magnificent, with tapestries, paintings, costly tables, crystal lustres, gilded furniture, statues, 'and what varieties the East and West Indies can supply'. Pinkerton, who published the visit of the Reverend S. Shaw of Queen's College, Cambridge in

[43] *Op. cit.*
[44] Arthur Young, *A Six Weeks Tour, through the Southern Counties of England & Wales*, third edition, 1772, pp. 229-233.
[45] *Op. cit.*
[46] *Op. cit.*
[47] William Gilpin, *Observations on several parts of the counties of Cambridge, Norfolk, Suffolk, and Essex, also on several parts of North Wales; relative chiefly to Picturesque Beauty*, 1809. The tour, which included Essex, was made in 1769.
[48] John Buckler, British Library, Add MS 36362, ff.115 and 116.

1788, also emphasised the elegance and splendour of the interiors, the paintings and the tapestries. Other descriptions of the first floor commence with the hall. The doorcases were 'plain, but little carved, though in a good stile' and the chimneypiece was 'heavy'.[49] The ceiling was painted by Kent with Morning, Noon, Evening, and Night. A medallion over the entrance door held a portrait of Colen Campbell, and Kent's portrait hung within. On the walls were Roman histories by Cassali: Coriolanus, Porsenna, and Pompey taking leave of his family; two Antique Statues and four vases stood in the room.[50] A chandelier 'surmounted by a magnificent Spread Eagle destroying a snake on a rock' made reference to the family arms.[51]

There were four state bedchambers with four sets of rooms leading to them and at the north end 'a decent Chappel', according to Campbell, about which no more is heard. These apartments could be used in different ways according to the entertainment, and various routes around the first floor were possible for visitors and guests. William Gilpin was particularly struck by the convenience of the arrangement whereby the apartments communicated in one grand enfilade, 'but yet each, by the addition of a back stair, becomes a separate apartment'.[52] At the south end Lord Castlemain intended 'a handsome Library', but it was built as a long gallery or ballroom running the whole depth of the house on the south side, which was shown in Hogarth's 'Assembly at Wanstead', 1729-31.[53]

The assembly room was described in 1800 as not a 'flimsy parade of modern folly', but with furniture 'elegantly embossed' and gilded, and gilded ornaments of all kinds 'in the taste of that period'.[54] However, Young in 1772 said, 'I should remark that the gilding being all on brown is by no means set off with such lustre as if on lighter colours.' This was the room remarked upon particularly by the Reverend Shaw. 'The gallery or ball-room, which occupies one end of the house, is superlatively magnificent, its dimensions are 75 by 27, and proportionably high. The furniture, &c. is richly gilt and embossed; the tapestry, story of Telemachus, inimitable'.[55] Everyone remarked on the extensive gilding and the tapestries with the story of Telemachus and Calypso and the battles of Alexander. Over the chimneypiece was a painting of Portia, wife of Brutus, by Schalken.[56]

Young says that 'Wanstead, upon the whole, is one of the noblest houses in England. The magnificence of having four state bed-chambers, with complete apartments to them; and the ball-room are superior to any thing of the kind in Houghton, Holkam, Blenheim, or Wilton: But each of those houses are superior to this in other particulars: and to form a complete palace, something must be taken from all. In respect of elegance, Wanstead is second to Holkam.'

A painting by Nollekens dated 1740 of a family in an interior[57] is traditionally said to show a Wanstead interior, but cannot do so accurately since there were apparently no Venetian windows in

[49] Young.
[50] *Ambulator*.
[51] Tasker, 1898, volume VII, p. 219, from Pinkerton, 1808, *op. cit.*, p.179.
[52] Gilpin, *op. cit.*, p. 3.
[53] In the collection of the Philadelphia Museum of Art. It was noted in the sale catalogue of 1822 as item 171, p. 111, 'A View of the Interior of the Ballroom of Wanstead House with a numerous assemblage of ladies and gentlemen'.
[54] George Cooke, *Topographical and Statistical Description of the County of Essex*, c. 1800, p. 127.
[55] Pinkerton, p. 178.
[56] Young.
[57] In a private collection. Illustrated in colour in *Rococo. Art and Design in Hogarth's England*, Trefoil Books/ V & A, 1984, plate XVII and catalogue entry B3.

the house as built. There exist, however, three paintings (discussed later) of the house and grounds which show non-existent wings with such windows, so it is possible that this was painted in the same manner to show a proposed interior.

Walpole wrote to Richard Bentley on 17 July 1755 that he had dined at Wanstead:

> Many years have passed since I saw it. The disposition of the house and the prospect are better than I expected, and very fine: the garden, which they tell you cost as much as the house, that is £100,000 ... is wretched; the furniture fine, but totally without taste: such continencies and incontinencies of Scipio and Alexander, by I don't know whom! such flame-coloured gods and goddesses by Kent! such family-pieces, by - I believe the late Earl himself, for they are as ugly as the children that he really begot! The whole great apartment is of oak, finely carved, unpainted, and has a charming effect. The present Earl is the most generous creature in the world; in the first chamber I entered he offered me four marble tables that lay in cases about the room.[58]

This criticism of the family taste was echoed by Gilpin,[59] who disliked the paintings and commented waspishly that 'paltry copies from great masters take from the dignity of a noble mansion. If the ancestry of such a house had been many years in the possession of it, it may be supposed that they might have collected a few original pictures. If nothing of that kind is found in it, the possessors of the house may be supposed to be an upstart race.'

Much work was done on the interior in the early nineteenth century, when the house was being prepared for the coming of age of Miss Long, the young heiress who was to inherit it, and after her marriage in 1812 complete redecoration was undertaken. 'Mr Wellesley Long Pole, they say, is fitting up Wanstead House in a style of magnificence exceeding even Carlton House. The whole of the interior will present one uniform blaze of burnished gold.'[60] This was to celebrate the baptism of his small son and in preparation for a grand fête for the Duke of Wellington.

Wanstead as built was Campbell's first important work and was to be recognised as a great house throughout its existence. Defoe, like other visitors, thought that the house eclipsed all others in the vicinity. Citizens of London had built a number of fine seats round about, 'but the Lustre seems to be entirely swallow'd up in the magnificent Palace of the Lord Castlemain . . . The Building is all of Portland Stone in the Front, which makes it look extremely Glorious and Magnificent at a distance; it being the particular property of that Stone . . . to grow Whiter and Whiter the longer it stands in the open Air.'[61]

A coach house and stable courtyard were constructed to the north of the house, and survive in part with modifications as the premises of the Wanstead Golf Club, with low pantiled ranges and wrought-iron gate piers.

It was apparently intended to build offices each side of the house, linked by quadrant walls. These are seen in two or three views dated up to about 1740,[62] and Macky, in 1723, wrote that between

[58] *The Yale Edition of Horace Walpole's Correspondence*, W.S. Lewis (editor), volume 35, 1973, p. 238.
[59] *Op. cit.*, p. 5.
[60] Hiram Stead, *Materials for the History of Wanstead House 1650-1900* [title page: *Some Account of Wanstead House in Essex collected between 1897 & 1907 by Hiram Stead (late of Forest Gate) Comprising the earliest printed descriptions, views, notices &c; its Occupants; and its fortunes, and the Village of Wanstead*], Stratford Local Studies Library, E/WAN/728.83; c.1912, Local History Library, Stratford, p. 71, unattributed cutting dated 1814.
[61] Defoe, *op. cit.*
[62] In particular, the view of house and wings on Rocque's plan of 1735.

the 'Bason and the Palace is a spacious Area, on each side of which the Offices are to be built; but the Foundations of them are not yet laid'. Morant, who published his history of the county in 1768, wrote that the house 'was intended to be made still more magnificent, by Wings, raised with colonades answering to the grandeur of the front',[63] but they were apparently never built, and Arthur Young lamented their lack in 1772: 'What a building would it be, were the wings added according to the first design.'[64]

Pehr Kalm, writing in 1748, stated that 'My Lord Tilney had laid out so much on all this [his house and gardens] that he has barely as much left that he can in some sort support his state, or maintain . . . what he has here erected. This was evident both with the house and garden, which had not been fully completed, because the owner's resources did not allow him to incur further expense.'[65] In 1823, the house was stated to have cost more than £360,000,[66] and Walpole in 1755 had said that the garden had cost £100,000.[67]

The Forecourt

Although the wings were not constructed, the courtyard must have been pretty spectacular and apparently unlike others. The old house as shown by Knyff and Kip had railings separating the courtyard from the approach avenue, with an oval piece of turf before the house and a carriage sweep round it. This was replaced by a deep rectangle of grass surrounded by low walls, probably of stone, with alternate obelisks topped by lamps and urns. At the west end, away from the house, was a ha-ha occupying most of the width of the forecourt, and on either side of this elaborate ironwork railings of the same height as the side walls, with pairs of gates. These gave entry to two broad drives which ran across the grass down each side of the forecourt and turned to run along the entrance front of the house. The level of the central area between the drives was slightly lowered to create a sunk lawn. Visitors could thus have driven or ridden up to the steps and entered either the rustic storey or the *piano nobile*. It is unclear exactly how or when this evolved. The statues of Hercules and Omphale were made in the 1720s and we would expect the walls and obelisks to have been erected at the same time, but in fact there are no early views, and a different plan to accommodate the wings is shown by Rocque and in a painting attributed to Catton (*fig. 19*).[68] The final arrangement can be seen particularly well in an undated plan with an Italian scale, published in Morant's *History and Antiquities of the County of Essex*, 1768, volume one. This engraving exists as a separate and earlier print (bound into a copy of *Vitruvius Britannicus* in the Royal Academy collection), which is identical except that the statues are not shown. No other view shows the ha-ha, but the carpet of grass, the drives and the obelisks and urns can be seen in later engravings, and the walls, ironwork and sunk lawn were painted by Repton in 1816.[69]

[63] Philip Morant, *The History and Antiquities of the County of Essex*, volume 1, p. 30.
[64] Arthur Young, *op. cit.*
[65] Peter Kalm, *Kalm's Account of his Visit to England on his Way to America in 1748*, translated by Joseph Lucas, 1892.
[66] *Annual Register*, 1823, p. 65.
[67] Walpole, *op. cit.*
[68] The painting is of the Great Octagon Basin and is in a private collection.
[69] Humphry Repton, *Fragments on the Theory and Practice of Landscape Gardening*, Fragment 26, illustration with flap down.

Astronomical Observations at Wanstead

The parish church of St Mary was situated very close to the house, and the Child family used it and were commemorated there when they died. A particularly magnificent monument was erected to Sir Josiah. The rector from 1707 was James Pound, a former chaplain to the East India Company, who was certainly known to the Childs from his service at Fort St. George. His interests were directed to astronomy, and he made a number of noteworthy observations of eclipses from Wanstead through his fifteen-foot telescope. Furthermore, with the support of Sir Isaac Newton he borrowed Huygens's famous 123-foot glass from the Royal Society, mounted it on a column known as the maypole removed from outside St Mary-le-Strand in London, and proceeded to more interesting observations, particularly of Saturn and Jupiter. His work was continued by his nephew, James Bradley, who also lived at Wanstead.[70]

The church Pound knew was the one visible on the Knyff and Kip views, but with the appointment of Dr Samuel Glasse as rector of Wanstead in 1786, plans were made for rebuilding, and this was carried out to the designs of Thomas Hardwick in 1787-90.

Changes to the Gardens circa 1725 and the New Watercourses

The setting for the new house continued to undergo change during the remainder of the eighteenth century and the beginning of the nineteenth. The gardens created by George London and shown by Kip and Knyff were virtually unchanged when Macky visited before 1722, but alterations were already afoot in 1725. As we might expect, the changes planned soon after the completion of the new house tended towards a softening of the formal grounds surrounding it, while still including very elaborate man-made features such as amphitheatres and mock-fortifications.

Of prime importance were the new pieces of water, which were eventually to stretch in a string along the southern and eastern edges of the gardens from the basin in the west to the canal and the diverted River Roding in the east. The exact dates when all the waterways were created are not recorded, and the work must have taken many years and thousands of man-hours of work between about 1725 and 1745.

The only noteworthy change carried out by 1722 and reported by Macky was the creation of a single octagonal basin by joining the two ponds beside the western approach. This, says Macky, was 'a Bason of Water of near half a Mile in Circumference, on which my Lord keeps a Gondola for his Pleasure'. This basin survives on the land owned by Wanstead Golf Club and local people have stated that there is still a causeway across it about five feet below the surface.[71]

The basin is clearly shown in the painting attributed to Charles Catton the Elder (c.1728-1798),[72] which records the road bordered by trees around it, and the well-ordered young plantations in quincunx groves on either side of the approach (*fig.19*). These works were carried out and may be

[70] See entry in *The Dictionary of National Biography*; Henry King, *The History of the Telescope*, pp. 63-4; Graham Dixton and Patricia Wilkinson, *The Parish of Wanstead*, 1990.
[71] James Berry and Alan Cornish, *The Lake System of Wanstead Park & the Mystery of the Heronry Pond*, March 1978, typescript report, p. 11.
[72] John Harris, *The Artist and the Country House from the Fifteenth Century to the Present Day*, Sotheby's, 1995, p. 91.

20. James Craddock: Plan of Wanstead Park. Essex Record Office D/DCW P7.

seen on later plans, but the wings, as noted above, were not. Repton later commented on the plantations which had grown up to block the view. 'This wood was originally intended to have been kept low, but it has now outgrown its intention.'[73] Octagonal basins were in fashion following the creation of the gardens at Versailles, and Wanstead's elongated example at the front of the house echoed the earlier one at the back, attached to the long canal.

Leading up to the most distant canal was a long channel of water to the east of the wilderness garden, which probably ended with the mill ('moulin') or engine referred to by the visiting Frenchman in 1728. This was probably water-powered and seems to have served to pump water up to the house. It perhaps fell into disuse when the system of watercourses became more complex, as this spot was later labelled by Rocque 'The Old Engine House' on his 1745 map. The River Roding fed the canals and can be seen flowing further to the east and round the top of the straight canal.

A plan by James Cradock in Essex Record Office[74] shows some of the changes towards more informal pieces of water, which were apparently in hand by 1725 or were about to be made (*fig. 20*). They consisted of channels and islands to the north and south of the eastern straight canal at the bottom of the slope, made by extending and serpentining the watercourses already in existence. Changes were also made around the canal itself. It was originally a long rectangular shape flanked by twin rows of trees. Cradock shows water surrounding this on three sides so that it appears as a canal standing within a larger canal with a shaped end. He marks in red a series of unnamed buildings: one later referred to as the 'Gardener's House' or 'Old Engine House', near the canal,[75] another on a bastioned island to the north, which became known as 'the fortifications', and a third connected with an extensive bastioned earthwork, in an area with vineyards, orchards and groves and labelled as 'Theatres', to its south. Nearly all of these features were shown on later maps more or less in the form indicated by Cradock, which confirms that they were indeed carried out. The only exception is the grassed theatre or earthwork. Its existence is suggested by surviving ridges visible on the archaeological survey, but if it was constructed it cannot have been there for long, for it was unrecorded later.

Another painting attributed to Charles Catton and now owned by Newham Museum Services, which was apparently at Wanstead until the 1822 sale, takes a bird's eye view from the east, and shows the ring of water running round the grounds (*fig. 21*). In the foreground is the straight canal with its two lines of trees on raised banks and water flowing around it, and the grassy avenue rising towards the distant house, which appears a brilliant white in the sunlight, as Defoe said it did. Here can also be seen the buildings marked by Cradock: the fortification, the gardener's house and the grassed theatre beside the water, which, if and when it existed, must have made a convenient landing place for boats. It is interesting to note in this connection that a somewhat similar stepped grass theatre terminated the river at Chiswick House prior to the construction of Kent's cascade.[76]

The series of lakes to the south of the estate appear to have been formed by damming a stream which ran west-east into the River Roding.[77] They were named (from west to east) 'The Great Lake', 'The Reservoir', 'The Horse Field Pond' and 'The Serpentine Ponds' by Rocque

[73] Humphry Repton, *Fragments on the Theory and Practice of Landscape Gardening*, 1816, p. 136.
[74] James Cradock. Plan of Wanstead Park, 1725. Essex Record Office, D/DCW P7.
[75] Marked on Rocque's plan of 1735 and map of 1744-6 respectively with these names.
[76] Shown on Rocque's plan of Chiswick of 1736. I am grateful to Brian Dix for discussions on this subject.
[77] See Berry and Cornish, *op. cit.*

in 1744-6. Cradock's plan does not cover the whole area of the grounds to the south and west, nor the house itself, so it is unclear from this whether these lakes to the south were in existence in 1725. They are first shown on Rocque's plan of 1735, perhaps in the form in which they were then planned, and subsequently on his map of 1744-6 in what became their final shapes (*figs 22, 23*). Apart from minor alterations, they remained thus until Repton made changes in about 1816. The outer line of waterways around the eastern canal seems to have undergone some erosion a little earlier. By 1779[78] the outer line of water only existed in part to the north and east of the canal, and the twin lines of trees were no longer complete by about 1815.[79]

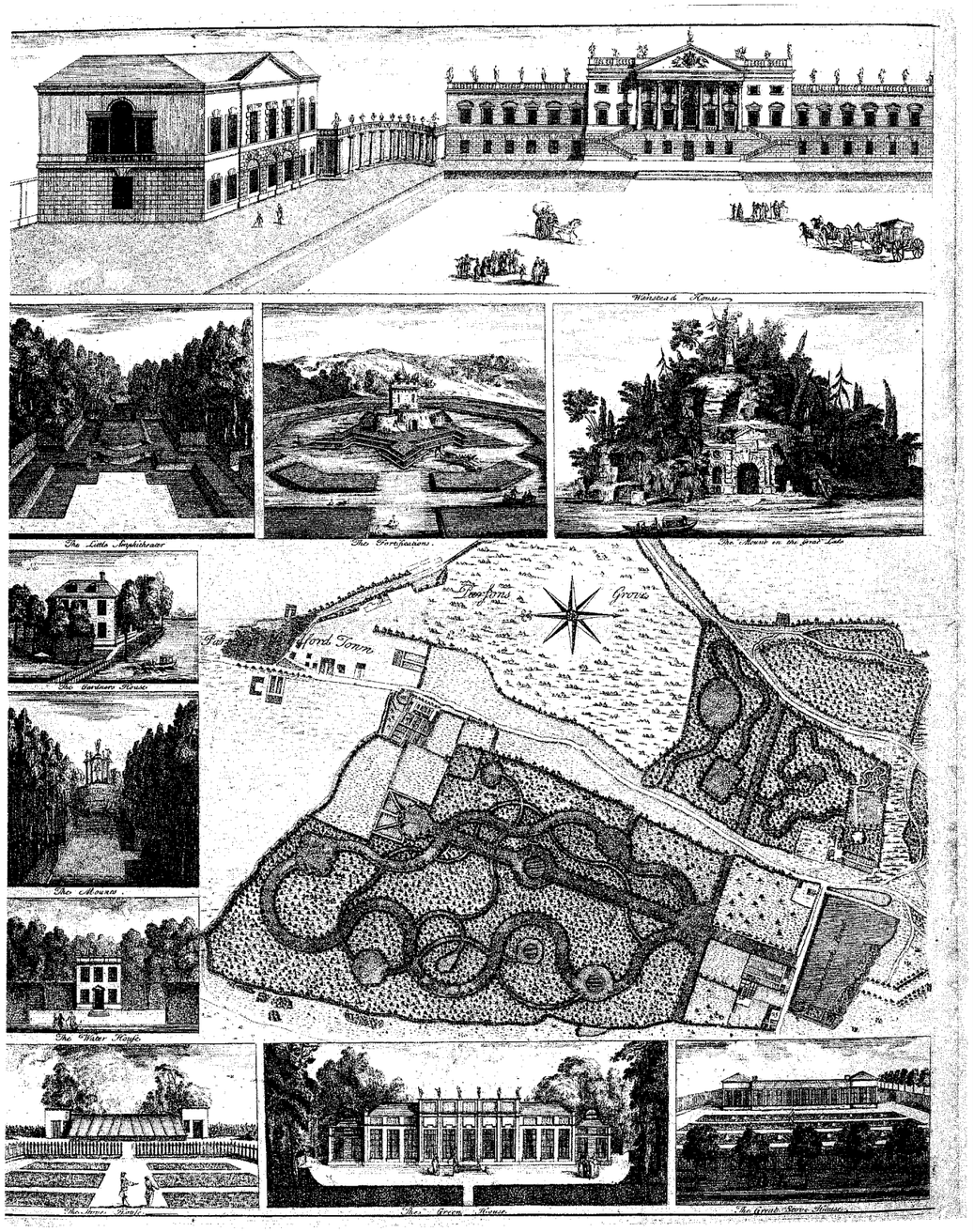
The creation of the lakes was a major undertaking, but a particularly fashionable feature in the transformation of the gardens. Pehr Kalm's account includes the comment that Lord Tylney's difficulty was

> that there was no water; but money could cure all such things. Where, previous to that time there was scarcely anything but a ditch with a little water in it, we now saw a large flowing river, all made with art and human labour. He had had dug about the whole place many ponds, *dammar*, of which one and another resembled a little lake, so that the one which lies in front of the windows of the mansion, and is all artificially made, is so large that they can sail to and fro on it with large boats. [80]

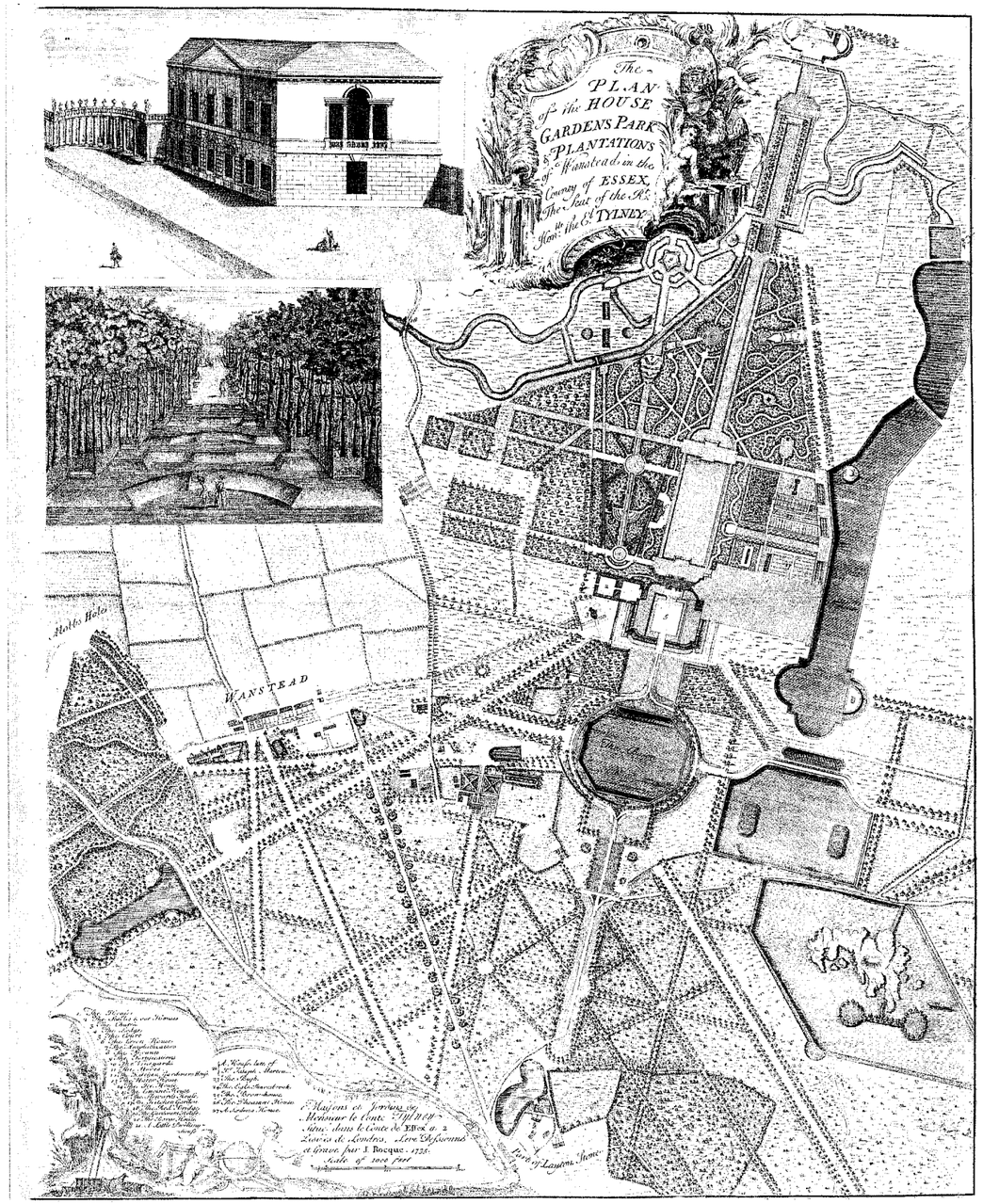
Adam Holt

The man in charge of the early hydraulic engineering schemes may have been Adam Holt (d.1750),[81] referred to in 1715 as the 'surveyor of the works' responsible for the destruction of a Roman pavement discovered at Wanstead Park by 'digging holes through it, for planting an avenue of Trees'.[82] He is a shadowy figure, about whose work at Wanstead little is known except that he was recorded as 'Sir Richard Child's Gardiner' at Wanstead in 1713, when he had labourers in the field of an unidentified Quaker to make a canal and a kitchen garden,[83] and that he probably had a nursery in the area, first at Leytonstone and later at Wanstead .[84] He certainly made a survey of John Letheiullier's estate at Aldersbrook in 1723,[85] so seems to have had contacts in the neighbourhood. His may have been a local family who were involved in the estate at Wanstead, since there are frequent references to a Thomas Holt in the bank account of Sir Richard Child from 1702-7.[86] These are extremely difficult to interpret, as only names are given, but large sums of money were involved, and it could be that Thomas Holt was acting as some kind of agent for Child during the making of the gardens. Thomas or Adam Holt may have ingeniously managed to bring water to Wanstead to feed the Basin and eventually the other lakes by channelling it from the

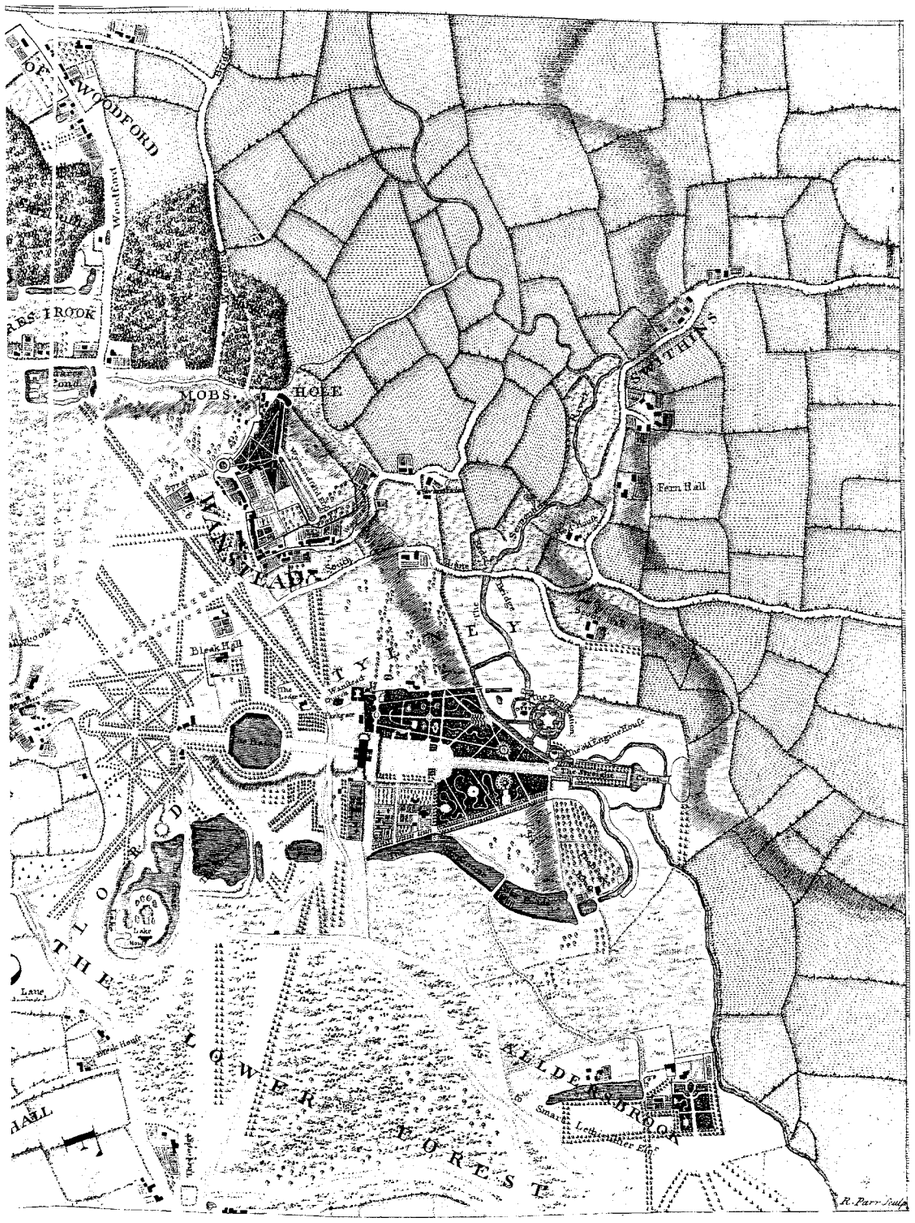
[78] L. Searles, *A Survey of Wanstead Park in Essex the Seat of the Rt Honble Earl Tilney*, ERO D/DCw P59.
[79] Plan of Wanstead Park, ERO D/DCw P61.
[80] *Op. cit.*, p. 175.
[81] Fiona Cowell, 'Adam Holt (1691?-1750), Gardener: His Work at Coopersale House, Essex', *Garden History*, volume 26, no.2, pp. 214-217; John Harvey, *Early Nurserymen*, Phillimore, 1974, p. 81.
[82] Letter from Smart Lethieullier to Dr Charles Lyttelton, British Library Add MS 6183, f.80, read to the Society of Antiquaries November 27 1746, and published in *Archaeologia*, volume 1, p. 73.
[83] W.R. Powell (editor), *Victoria County History of Essex*, volume 6, 1973, p. 325, and Fiona Cowell, *op. cit.*
[84] Cowell, *op. cit.* and Harvey, *op. cit.*, p. 87.
[85] Essex Record Office, D/DSA 150.
[86] Held at Child's Bank in the name of Sir Richard Child. The ledgers are now in the archives of the Royal Bank of Scotland.



22. John Rocque: Plan of the House, Gardens, Park and Plantations of Wanstead in the County of Essex, 1735. (In two sections.) Part one.



22. John Rocque: Plan of the House, Garden, Park and Plantations of Wanstead in the County of Essex, 1735. (In two sections.) Part two.



23. John Rocque: Detail of Wanstead from *An Exact Survey of the City's of London, Westminster Ye Borough of Southwark and the Country near ten miles round,* 1744-6.

Snaresbrook area into an artificial ditch known as the 'River Holt', which followed the contours of the land.[87]

The avenue reported to have been planted under Holt in 1715 can probably be identified with the long double avenue of sweet chestnuts running from the end of the straight canal to the new Serpentine Pond, and clearly shown both by Rocque in 1735 and in the painting of Wanstead from the east discussed above. It provided a link and a vista from one waterway to another, and also framed the view of London on the horizon.

John Rocque's Plan of 1735 and after

When John Rocque made his 'Plan of the House Gardens Park & Plantations of Wanstead in the County of Essex, The Seat of the Rt. Honble. the El. Tylney' in 1735 he showed the full extent of a series of grandiose proposals, some of which were executed and some not. Fortunately, Rocque also included Wanstead on his 1744-6 map of London and its Environs (*fig. 23*).[88] While the 1735 plan shows many projects, Rocque's 1744-6 map records what had actually happened up to that date. This plan of London, which conveniently just squeezes Wanstead into the north-east corner sheet, shows the water features as constructed, with the names used at the time.

Richard Child had taken the surname Tylney when his wife inherited the estates of her maternal grandfather, Francis Tylney of Rotherwick, near Basingstoke. He had subsequently been elevated to an earldom in January 1732 and had then taken the title of Earl Tylney in the Irish peerage. By an Act of Parliament of 1734, his eldest son and his heirs were permitted to bear the name of Tylney. He was evidently ambitious, and there were very ambitious plans afoot for both house and gardens, some of them extremely expensive and never to be realised, such as the wings proposed to surround the sunk forecourt. The major proposals for change began, as noted above, in about 1725, when Cradock made his plan. The latest description yet found of the formal garden close to the house with its canal, parterres, and bowling green and its statues, urns and wrought-iron railings, was the Frenchman's written in 1728. This formal garden had probably been taken away by, or soon after, 1735 and replaced with a great sunk lawn as shown by Rocque.

The new lawn is shown even better in another painting of Wanstead House from the Orange Tree Garden attributed to Catton the Elder, which must date from about 1740 (*fig. 24*). It was sold in the Spencer-Churchill sale of 1965 and its present whereabouts are unknown.[89] This view was taken from the woodland garden on the east, looking across the orange tree garden, which would have been just behind the green-house, or orangery. The painter illustrates the lawn in use as a huge bowling green dominated by the old orangery still in its raised position on the northern side, in front of which an orange-tree 'theatre' was formed by the trees placed out in their tubs.

Rocque also indicates the arrival of meandering walks in the woodland gardens running down beside the grass avenue to the straight canal and the waterways around it, and the construction of two amphitheatres, one overlooking a vista towards the fortification and one leading to the

[87] James Berry and Alan Cornish, *op. cit.*, p. 12.
[88] *An Exact Survey of the City's of London, Westminster ye Borough of Southwark and the Country near ten miles round begun in 1741 & ended in 1745 by John Rocque Land Surveyor & Engrav'd by Richard Parr,* in 16 sheets.
[89] Any information on its present location would be welcomed by the author.

southern mount. The amphitheatres were built, the mounts were retained, and much of this layout was executed.

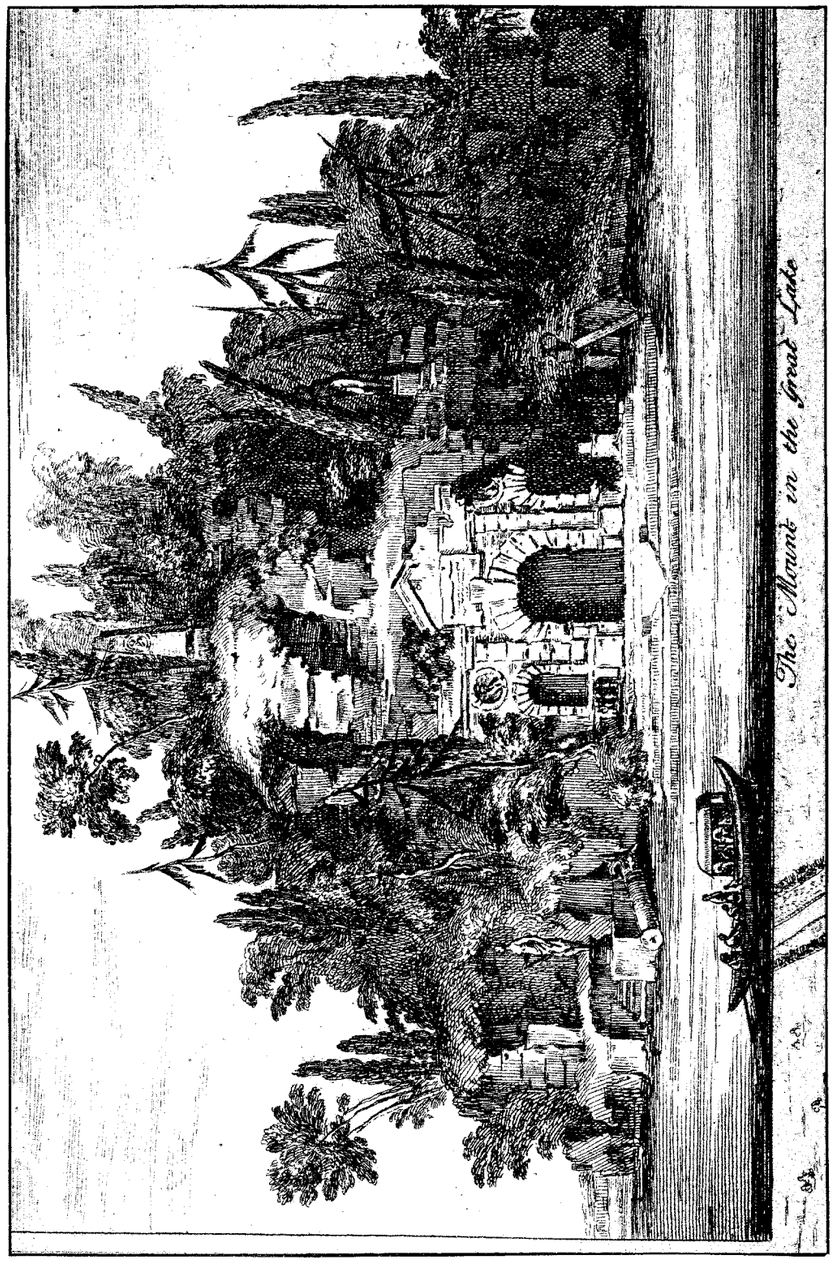
However, the famous island in the shape of the British Isles is not shown on any subsequent plan, and the extensive waterways to the south of the house were much less formal in execution. The island-grotto on the mount in the Great Lake is also something of a puzzle. It is clearly shown on the 1735 plan and it is included on Rocque's later plan of the 1740s (*fig. 25*). However, no description of it has been discovered and there is no subsequent evidence of it, although the island continues to be shown on plans. More of this later.

Work went on over a long period of time, and continued after Rocque had made his plan. Smart Letheuillier, Tylney's neighbour to the south, was a great observer of what went on. In a letter of 27 September 1746 he wrote that 'Ld: Tylney having this Summer made Considerable Alteration in his Park' had disturbed the spot where the Roman pavement had previously been discovered, which was now 'totally changed'.[90]

William Kent at Wanstead

Several commentators mention the presence of Kent at Wanstead to paint the ceilings. The hall was decorated with the Times of Day, and was richly gilded, and 'the pencil of Kent has also adorned several of these ceilings',[91] among them the Saloon.[92] Lord Castlemain also commissioned a full-length portrait of Kent by William Aikman for the hall,[93] which appeared in the sale catalogue (page 124, lot 365) as 'A Portrait of Kent the Artist, who painted many of the ceilings, and gave designs for the interior decorations of Wanstead House'. The dates of 1722, when the Hercules and Omphale were made, and 1723, when Macky reported that the upper storey was to be finely painted, are an indication of the time when Kent might have been present at Wanstead. He was of course to become a very talented garden designer, and this was the moment when he had renewed his acquaintance with Lord Burlington and was working for him at Burlington House. Work at Chiswick soon followed. It is tempting to suggest that he took an interest in the magnificent plans for the Wanstead gardens. Unfortunately, no word of documentation has been found to attach his name firmly to any part of the garden design. However, some of the features shown on Rocque's 1735 plan, particularly the view of the house and wings, the grotto island and others illustrated in the margins, have a flavour of his work, as John Harris has remarked, and Kent should be noted as the possible author of them.[94]

[90] Letter to Dr. Charles Lyttelton in British Library, MS Stowe 752, f.13v. It was published in *Archaeologia*, volume 1, pp. 73-4.
[91] Pinkerton, p. 178.
[92] 'The Saloon is a fine room well finished in stucco, the roof painted by Kent (a very indifferent piece of work) and the ornaments above gilded.' Comment by Sir John Clerk of Penicuick, who visited in 1727, quoted in J. Fleming, *Robert Adam and his Circle*, 1978, p. 24.
[93] Noted by Vertue, *Walpole Society*, volume XXII, p. 24 as 'Mr. Kent his picture at length done by Mr Eckman & plac'd up in the hall of my Lord Castlemaines in Essex where he has painted much for his Lordship.'
[94] John Harris, 'The Artinatural Style', in *The Rococo in England*, Georgian Group Symposium Proceedings, edited by Charles Hind, V & A 1986, pp. 18-19.



25. 'The Mount in the Great Lake' or the Island Grotto, as shown by Rocque, 1735.

The Fortification and the Pleasure Boats

The Fortification was illustrated by Rocque on his 1735 plan as one of the marginal views (*fig. 26*). It had angled bastions with three steps up to the platform, which appears to be grassed. The fort itself was perhaps a not very substantial construction, belying its appearance. It was certainly never intended to defend against anything other than mock attacks. The superstructure has disappeared, but its island site remains with the distinctively-shaped bastions. The battlemented tower might have been modelled on the romantic pile of Vanbrugh Castle, Greenwich, designed by Vanbrugh for himself as a castle in miniature and built from 1718, or the mock fortification walls at Castle Howard, also by Vanbrugh, under construction from 1719 to 1725; while the bastions are similar in shape to those used at Tilbury Fort, Essex, built between 1670 and 1683, whose form was adopted for the bastions of the garden at Grimsthorpe by Stephen Switzer. If we accept that the Cradock plan shows what was being constructed in 1725, then this makes the fortification at Wanstead one of the earliest mock forts of this period, and at the forefront of this fashion for fortified elements in gardens.[95]

Such a feature was recorded at West Wycombe Park in 1754, together with various vessels kept on the lake there. The Dashwoods of West Wycombe were, like the Childs, a family of East India and Turkey merchants. They had owned property in Wanstead, and it is interesting that a copy of Rocque's survey plan of Wanstead with the fortification was in the Dashwood collection. A drawing of a fort, attributed by Anne Purchas to Jolivet,[96] is also in the collection. Mock battles could be dangerously realistic. The captain of the snow,[97] the largest ship in the West Wycombe fleet, was reported on one occasion to have 'received damage from the wadding of a gun which occasion'd him to spit blood and so put an end to the battle.' An engraving by William Woollett after William Hannan of 1757 conjures up the pastoral atmosphere of the lake scenery when battles were not in progress, with a sailing ship anchored peacefully and a gondola party landing on the island. At Newstead Abbey there were also mock naval battles on the lake, and Walpole in 1760 reported on 'two silly forts' built there in 1749 by the fifth Lord Byron, followed by a castle facade for the kennel and stable building beside the lake. The battery at Newstead survives but Folly Castle, built in 1749 on the island, has now gone. The fort at Wanstead must have been used in this way.[98]

Entertainments of this kind had been known in Roman times as *naumachia*, and were revived in the Renaissance, when numerous water festivities were held. For example, at the Palazzo Pitti in Florence the courtyard behind the palace was specially flooded to celebrate the marriage of Ferdinando I and Christine of Lorraine in 1589. Eighteen Christian galleons were seen to besiege a Turkish castle on that occasion. In England, such water entertainments became popular in the Tudor period. The famous waterworks at Elvetham, created for the entertainment given by Lord Hertford for Queen Elizabeth I in 1591, involved a specially-dug lake in the shape of a crescent moon. The entertainment was highly emblematic, with the lake representing the Queen as Cynthia the moon goddess, Neptune's Fort on one island the forces of England, and a snail mount on

[95] See Robert Williams, 'Fortified Gardens', in Christopher Ridgway and Robert Williams (editors), *Sir John Vanbrugh and Landscape Architecture in Baroque England 1690-1730*, Sutton, 2000.
[96] Anne Purchas, 'Maurice-Louis Jolivet's drawings at West Wycombe Park', *Architectural History*, volume 37, 1994, catalogue 3.
[97] A snow is a small sailing vessel.
[98] Gervase Jackson-Stops, 'The West Wycombe Landscape I', *Country Life*, June 20 1974, p. 1619; Rosalys Coope, 'Newstead Abbey in the Eighteenth Century', *Transactions of the Thoroton Society of Nottinghamshire*, 1979, p. 57. I am grateful to Rosalys Coope and Anne Purchas for discussions on Newstead Abbey and West Wycombe Park.

another the evil forces of Spain. Cannon and numerous vessels driven by both oar and sail took part in the mock battle with its victorious outcome for Neptune's Fort and the Queen.[99]

There are no known written descriptions of the fort at Wanstead, nor of its use, but Rocque clearly illustrates a rowing boat with a canopy at one end moving away from the fortification island, which surely played its part in the summertime entertainments of both the first and second Earls Tylney (*fig. 27*). Since the Child family had such close involvement with the East India Company, perhaps they re-enacted sea battles between their ships and pirate vessels wishing to acquire their valuable cargoes. There are a number of references to pleasure boats. Macky said that Lord Castlemain kept a Gondola on the basin for his pleasure,[100] and Kalm was presumably referring to the basin when he described the lake in front of the house where they sailed 'to and fro … with large boats' in 1748.[101] The second earl acquired a new boat in 1760 and could not wait to try it out. He wrote to his brother that he was 'very impatient to see a new vessell that is just come to Wanstead, and really the prettiest that ever was built. We purpose to try it this afternoon.'[102] Whether this was destined for the basin or one of the other lakes is not known. In the 1822 Sale Catalogue, under the heading 'Arch and Lakes', six vessels were listed:

70 AN EXCELLENT WELL BUILT FOUR-OARED PLEASURE BOAT with sails, oars, boat-hook, &c.
71 A capital two-oared Ditto, oars, &c.
72 A Ditto
73 A large Fishing Punt
74 Two India Canoes

There were also, interestingly:

75 *A handsome round Fishing House,* with thatched roof, and seats inside
76 Three rustic Elbow Seats
77 Two fine Swans
78 Three Ditto

All of these grotto items were marked as sold back to Wellesley at the sale.[103]

The Second Earl Tylney

John, second Earl Tylney, succeeded to his father's estates in 1750. He was the younger son, his elder brother having died of smallpox. He never married, and increasingly spent his time away from Wanstead, travelling extensively and collecting art treasures. Robert Harvey described him as an 'unhappy man who could not resist the temptations & instigations of a passion, contrary to reason, & at which nature shudders', and a willing exile from his country. He lived almost permanently abroad from the early 1770s, based at his house near the Carmine in Florence, which was considered fine and boasted a print room with yellow paper. He usually wintered in Naples, where

[99] See Jean O'Neill, 'Diversions on the Water', *Country Life,* August 1, 1985, pp. 332-334, and Roy Strong, *The Renaissance Garden in England*, Thames & Hudson, 1979, pp. 125-6.
[100] Macky, 1723, *op. cit.*
[101] Kalm, 1748, *op. cit.*, p. 175.
[102] Letter from Lord Tylney to his brother Sir Robert Long at Draycot, 28 July 1760. Redbridge Central Library, archives.
[103] In the copy of the catalogue at Ilford Library.

he died in 1784.[104] However, in the earlier years of his ownership of Wanstead he was sometimes present and was busy entertaining and beautifying the grounds. Horace Walpole visited and dined in 1755, the Duke of York was given supper and a ball at Wanstead in 1760,[105] and in 1764 'their Majesties in a post-chariot, escorted by a small party . . . went to the seat of Earl Tilney on Epping-forest, and after staying there near two hours, took an airing about the forest . . .'[106] Smart Letheiullier, the observant neighbour at Aldersbrook, nevertheless reported sadly in the summer of 1751 that 'The social amuzements of this Neighbourhood are much Chang'd, for instead of being the Gayest & most Cheerfull spot perhaps to be found in any Country, we are become as retired as if we were in Yorkshire. Tylney you know is gon abroad . . .'[107] He was only 'a little at Wanstead' in the summer of 1756, before going to Bath and then London.[108] In 1759 he was carrying out work on the great basin in front of the house, and had been making considerable improvements. Letheiullier reported again: 'After a six weeks run at Tunbridge which he preferred to Home my good Neighbour is return'd to Wanstead, there are still considerable improvements made since I saw you there last Christmas & I hope that innocent pleasure will steal still more & more upon him. He has executed the Grand Project of emptying the Great Bason before the house, it was judiciously executed by the help of a Syphon – without cutting the Bank, or doing any other damage. There was a vast resort of Company and the Day was very joyous but the disappointmt. with regard to the Fish was very great, there being not more than 100 Brace of Carp taken out & those lank & thin . . .'[109] However, by 1775 Walter Harrison was writing 'The present lord has resided many years in Italy, nor is there any prospect of his returning to England . . .'[110]

The changes which he brought about in the gardens must therefore be dated in the 1750s and 60s, when he was quite often at Wanstead and entertaining illustrious visitors. Two garden buildings in particular are associated with the second Earl, and both apparently date from the 1760s or thereabouts. These are the Temple and the Boathouse-Grotto.

The Temple

Earl Tylney was in Florence in 1753, when the young architect William Chambers was also there.[111] While in Florence, Chambers designed a small garden temple in the Doric order, which he subsequently dedicated to the Earl in his Treatise, with the note in the text that it was 'proposed to be executed in his Lordship's gardens at Wanstead' (*fig. 28*).[112] This suggests that the Earl was at

[104] See John Ingamells, *A Dictionary of British and Irish Travellers in Italy 1701-1800*, Yale UP, 1997, pp. 959-960. Tylney, however, continued to maintain a presence at Wanstead for longer than this reference implies.
[105] Letter from Lord Tylney to his brother, Sir Robert Long, of 11 June 1760. Redbridge Central Library archives.
[106] Hiram Stead, *op. cit.*, cutting from unidentified source, dated 1764.
[107] Smart Letheiullier to Dr Charles Lyttelton, 20 August 1751. British Library, Stowe MS 752, f.54v.
[108] Smart Letheiullier to Dr Charles Lyttelton, 19 October 1756, British Library, Stowe MS 752, f.90r.
[109] Smart Letheiullier to Dr Charles Lyttelton, 25 September 1759, British Library, Stowe MS 752, f.102v.
[110] Walter Harrison, *A New and Universal History, Description and Survey of the Cities of London and Westminster*, 1775, p. 577.
[111] Andrew Wilton & Ilaria Bignamini (editors), *The Grand Tour: The Lure of Italy in the Eighteenth Century*, Tate Gallery exhibition catalogue, 1996, p. 234; John Harris & Michael Snodin (editors), *Sir William Chambers*, Courtauld Institute Gallery exhibition catalogue, 1996, pp. 2, 199. Frank Salmon, 'British Architects and the Florentine Academy, 1753-1794', *Mitteilungen des Kunsthistorischen Institutes in Florenz*, volume 34, 1990, part 1/2, pp. 201-202, sets out the sources for the dating of Chambers' stay in Florence.
[112] William Chambers, *A Treatise on the Decorative Part of Civil Architecture*. The plate first appeared in the first

that time considering such an addition to his gardens, and although this design was not, as far as we know, carried out, a garden temple was constructed as the focus of the avenue which ran from the Serpentine Ponds to the Straight Canal. The architect of the Temple is at present unknown.[113]

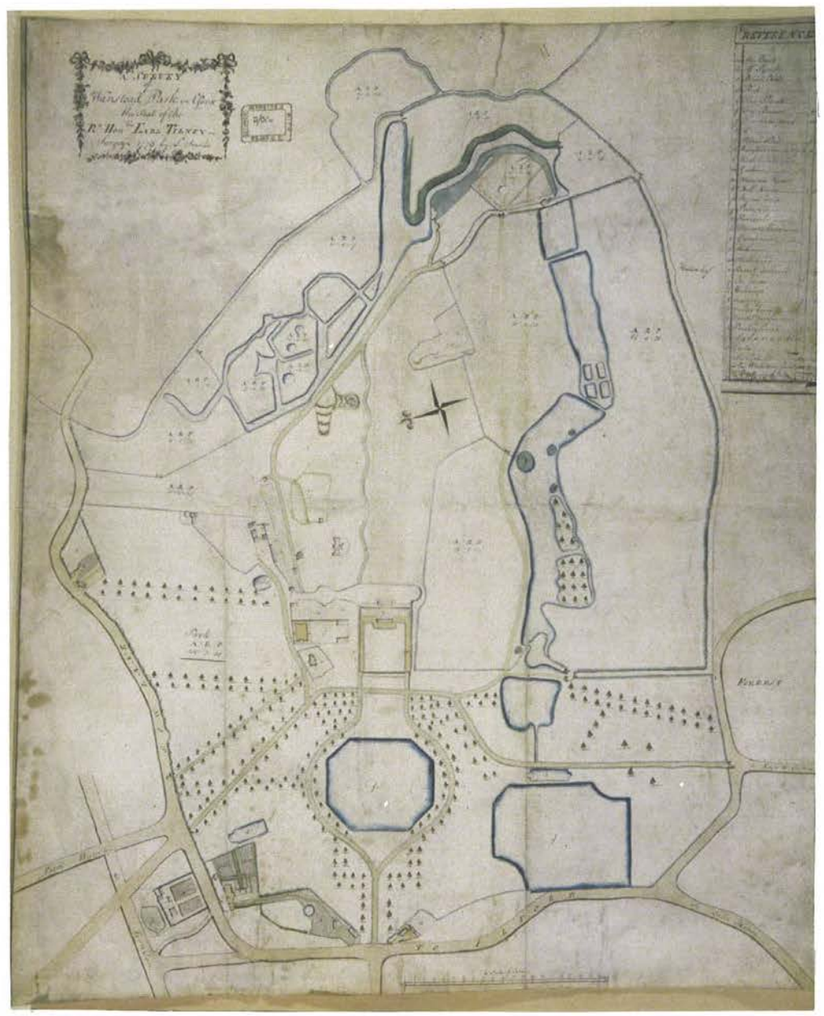
Very little is known for certain of the early history of the Temple - a name which has only been recorded since the late nineteenth century. It did not exist in 1744 when Rocque surveyed the area, but it does appear on a map of 1779 (*fig. 29*).[114] The building appears on the 1779 plan, where it is called a 'Poultry House', with a pond behind it and what could be sheds or outhouses behind that. By 1815 it was in use as a 'Keeper's Lodge, Pheasantry etc.'. These are modest-sounding names for such a place, but there are examples to be found elsewhere of buildings of classical form used for similar purposes. At Lord Burlington's Chiswick Villa, for example, a small plain building ornamented with a pair of classical niches was used as a Deer House, but also served to furnish the landscape elegantly. Robert Adam made a design for a classical pheasant house for Kedleston in 1759. The Temple at Wanstead is built on artificially raised ground so that the centre of the lower storey is invisible from the front, and the ground floor areas are approached from the back (*fig. 30*). The wings are not contemporary and must have been added soon after.[115] The porticoed central section was clearly intended as a feature of the landscape at the end of an avenue of trees and could have been used during garden entertainments, while the discreetly hidden lower storey was used by keepers and the outbuildings for poultry or pheasants. The Temple was built across the existing avenue of trees, to which it provided a visual stop, and it was linked to the other new structure, the boathouse-grotto, by an informal path.

The Boathouse Grotto

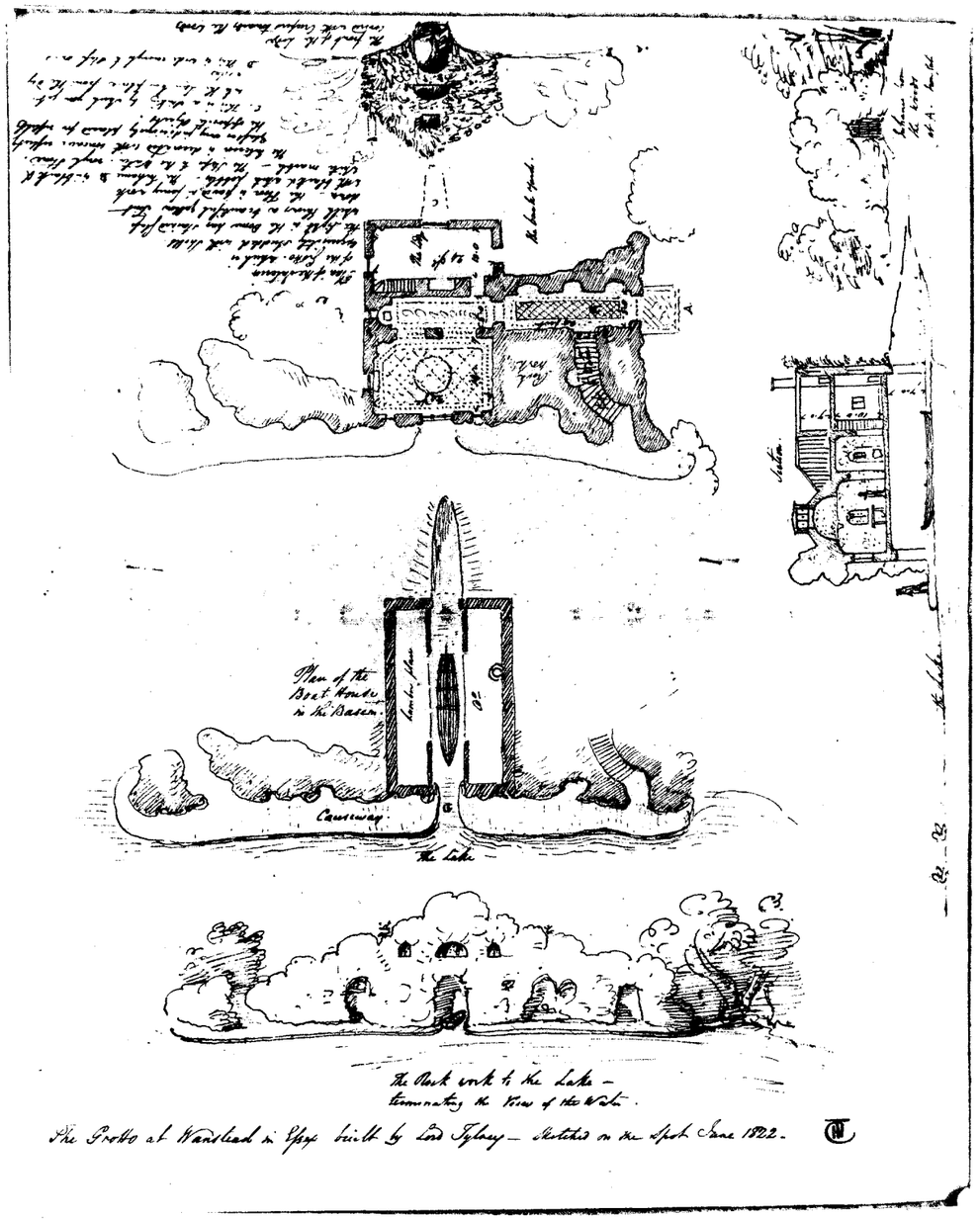
Although, as noted above, there is no surviving description of the island grotto illustrated by Rocque, there are a number of reports dating from the early 1760s of another grotto at Wanstead - the boathouse grotto. An 'Inscription for the Grotto in Earl Tilney's Garden at Wanstead' was written in 1764, and in another report of the same year it is stated that '. . . the Earl of Halifax, together with the French Embassador, and twelve or fourteen other Noblemen of distinction, went to view the seat of the Right Hon. Earl Tilney, and the gardens, with the curious grotto at the bottom of them.'[116]

The form of this building echoed to some extent that of the island grotto, and it is possible that the first was taken down to supply material for the second. This survived relatively intact until a fire of 1884, after which it continued to be used as a boathouse. Only the ruined shell now remains, but a sketch by Charles Heathcote Tatham as well as descriptions and early photographs partly record its

edition of 1759, but the text reference as quoted here is from the third edition of 1791, p. 136.
[113] The only possible, and rather insubstantial, clue is a payment of £25 in March 1762 to a 'Mr. Vardy' on 11 March 1761 from Earl Tylney's bank account at Hoare's Bank, Ledger 58/440, which may refer to the architect John Vardy. He was a close colleague of William Kent, who worked for the first Earl Tylney. Vardy is not a very common name, but without even a first name, this is an extremely tenuous attribution.
[114] L. Searles, *A Survey of Wanstead Park in Essex the Seat of the Rt Honble Earl Tilney*, ERO D/DCw P59.
[115] During work to the Temple in 1997, exterior penny-struck pointing was found inside the roof space on what must have been an outside wall at one time. The wings at that level must therefore have been built after the main building. This may mean that only the lower storey of the wings was contemporary with the original building and a second storey was added later, or that the Temple was built without wings.
[116] Hiram Stead, *op. cit.*



29. L. Searles: A Survey of Wanstead Park, 1779. Essex Record Office, D/DCw P59.



31. Charles Heathcote Tatham: A sketch of the grotto at Wanstead, 1822. Private collection.

appearance inside and out (*fig. 31*).[117] Before its construction, the River Roding must have been canalised, so that the lake was no longer part of it and its level could be controlled. This is shown on Searles' plan of 1779, which also shows that the shape of the water here had been modified and made more natural to complement the grotto.

The boathouse-grotto was under construction in the early 1760s. There is a record of 'sending rocks for the grotto' to Earl Tylney, and 'Gift of a pillar out of the Hall at Woolston to Earl Tylney' in a set of accounts of 1760-2,[118] and the building appears on the plan of 1779. The structure was later reported to have cost two thousand pounds, with much more spent on the decoration.[119] It was mentioned in a letter of 1764, which implied that it was complete and that extensive plantations were being made at Wanstead.

I find they are going on with the plantations, the Gardiner told me they had drawn above a thousand plants of shrubbs and of yr own plantations, but there were 2000 more had been bought. I went to the Grotto & it was very neat about it. Tom had hired a man just before to dig it up and clean it.[120]

Facing north on the serpentining course of the River Roding and acting as a focal point in it was a rough façade suggesting a mysterious and ancient rocky dwelling. The ground floor had an open central arch flanked by a niche and an arch each side, and above were windows with a hint of the Gothic style. Below this along the lakeside ran a short causeway paved with pebbles and stones (*fig. 32*). The facade was decorated with various fragments of carved stone and other artefacts. Stone 'Full of Holes like Honeycombs' was used at Pope's Grotto, and was found at Wanstead, as well as other varieties. The eagle of the family coat of arms surmounted the whole. An undated cutting referring to the grotto states that 'upon the apex of its arch there is still the Eagle and the Snake'.[121]

The building consisted of a boathouse below, with access from the lake and a space for storage and for the repair and tarring of boats, and a domed top-lit chamber above, entered by a passage from the side, or from steps by the lakeside. Behind this was a lodge for a keeper facing towards the woods and covered with creeping plants. Archaeological reports have suggested that the single-storey boathouse was built first, followed by the upper storey containing the grotto chamber and lodge. The boathouse was also accessible from the rear side by an arch through which the lake could be glimpsed.

Entrance to the grotto could be gained up a flight of rough stone steps from the lake shore or through an iron gate at the side leading to a passage clad in rockwork and paved with black and white marble, with what appeared to be an altar or sarcophagus at its far end.

[117] Sketch by Charles Heathcote Tatham, 1822, in a private collection. See John Harris, 'Wanstead's Compelling Vista', *Country Life*, August 22, 1991, pp. 60-61.
[118] Essex Record Office, D/DU 546/2. An antiquary's notebook kept by Alfred Savill of Chigwell Hall.
[119] Robert Havell, *A Series of Picturesque Views of Noblemen's and Gentlemen's Seats with Historical and Descriptive Accounts of each Subject*, 1823. By 1882, Edward Walford in *Greater London: A Narrative of its History, its People and its Places*, volume 1, p. 479, was quoting the sum of £40,000 as having been paid for the grotto, but he added that 'it is to be hoped that this is an exaggeration'.
[120] Letter to Earl Tylney dated 25 February 1764 from Draycot. Redbridge Central Library, Ilford, archives. The plantations could have been anywhere, but planting did take place as a backdrop to the Temple at about this time.
[121] Stead, *op. cit.* Fragments of this bird were found at the Grotto.

The main room was crowned by an octagonal lantern with eight squares of stained glass of a 'beautiful yellow tint' and was provided with two convex mirrors and two plates of mirror glass 'very judiciously placed for reflecting the opposite objects'.[122] These included curiosities such as ostrich eggs, 'petrified stones', and terracotta and wax figures.[123] Furniture listed in the 1822 sale catalogue was appropriately rustic, and included two Chinese bamboo chairs.[124] A rustic table is seen below the window in a photograph of the interior before the 1884 fire (*fig. 33*).

Alexander Pope, in creating his famous grotto at Twickenham, and embellishing it after 1740, had introduced natural curiosities such as minerals, shells, fossils and even real stalactites, which set the fashion for such things. Real stalactites were difficult to acquire, but white satiny spar in long narrow flakes was a favourite material for covering the walls and roofs of eighteenth century grottoes in imitation of the stalactite effect. It caught the light and glittered, and the linear formation of the flakes lent itself to the creation of stalactitic forms.

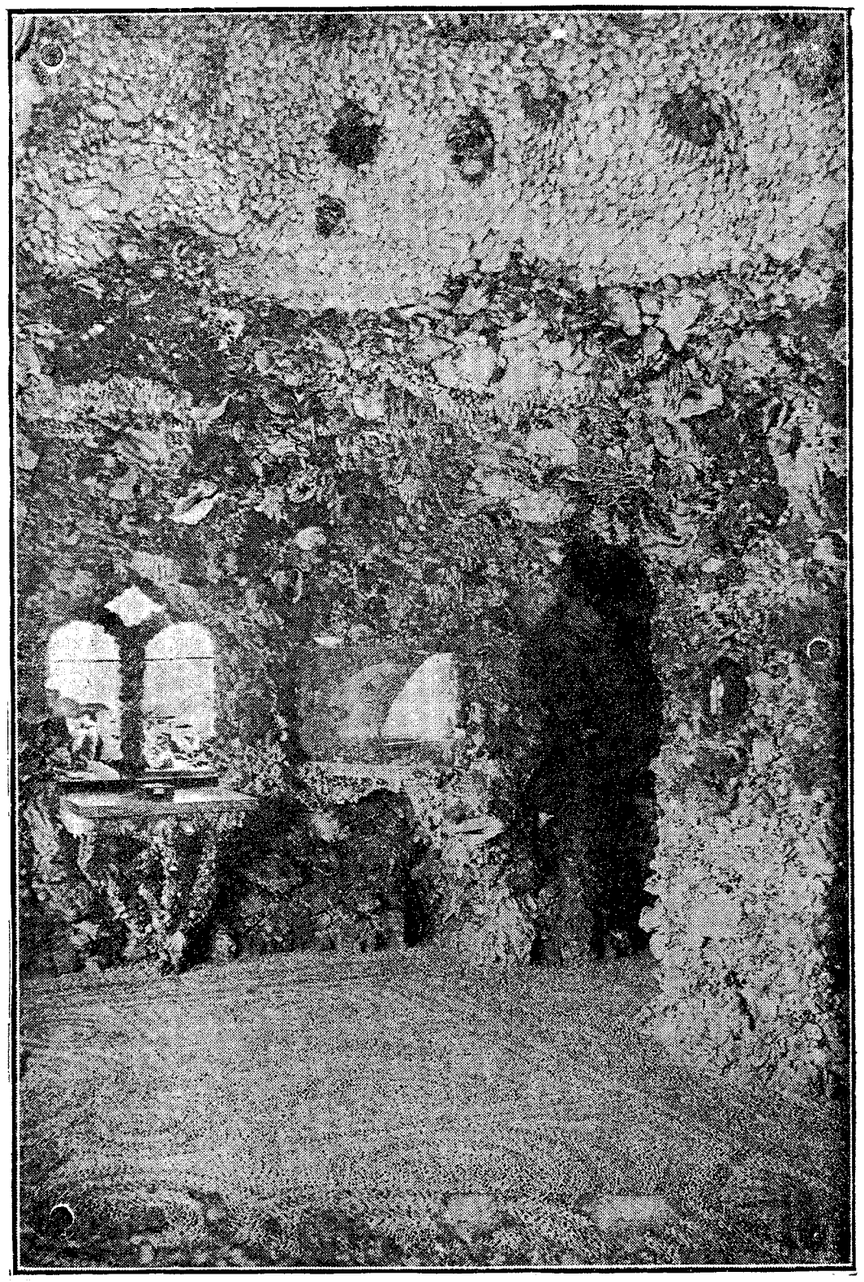
The roof and walls of the main chamber at Wanstead were decorated not only with spar, but with a variety of large oyster, barnacle and *Haliotos* shells, worked flints, misshapen glazed ceramic pieces, brightly-coloured waste glass, coral fragments, minerals to reflect the light and other curiosities such as carved stones and antiquities. The floor of the main chamber was paved with black and white pebbles set in patterns of squares and circles. The story that the knuckle bones of deer were used as paving inside or outside seems to be apocryphal.[125]

An early description was written in April 1776 by Samuel Curwen, the American loyalist,[126] who noticed the 'very odd and uncommon' gate 'made of a scythe, hedge shears, dung forks, reap hooks, &c'. He then described the 'grotto': 'formed of earth, stone stumps &c excavated . . . into a room about 15 feet in diameter', with a concave roof and 'balcony of glass windows forming a skylight', the roof and walls covered with 'Shells, stones petrifyed substances', the flooring of 'small pebbles not bigger than the top of one's thumb of a variety of colours and figures'; and commented upon the keeper's apartment, 'a beautiful little room or rooms', one 'lined with irregularly laid stones as if dug out of a mine'.

Even before the fire, the grotto was partially denuded of its ornament. During the sale, in 1822, it had to be closed because souvenir-hunters 'conveyed away fragments'.[127] This process went on over the years, but was accelerated after the fire of 1884, which reduced the grotto to a shell and caused the collapse of the main chamber into the boat dock below. However, before that, the Corporation of London opened the Grotto to visitors, and a keeper looked after it.
architectural bits and pieces. Pieces of carved capital, acanthus leaf, and terracotta and stone urns have come to light, which must have become detached and fallen into the water over a number of years. There were also two pieces of the Bathstone eagle which had ornamented the top of the façade, and is just discernible in an old photograph.

[122] From the notes on a sketch of the grotto by Charles Heathcote Tatham, dated June 1822. Private collection.
[123] Items 62, 63, 55 and 56, page 387 of the 1822 Sale Catalogue.
[124] Items 47, 49, 50 and 51, page 386.
[125] J. Elsden Tuffs in 'The Grotto, Wanstead Park', an occasional paper, no.4 1970, of the Wanstead Local History Society, states that he found the knuckle bones of deer in front of the entrance, but although sections of pebble paving have been found recently during archaeological work, no trace of bones has reappeared.
[126] John Harris in 'Wanstead's Compelling Vista', *Country Life*, August 22, 1991, p. 62.
[127] Stead, *op. cit.*

32. (a) The causeway by the lake at the Boathouse-Grotto in 1998.
(b) The boat dock at the grotto, as revealed and consolidated in 1998.



33. A photograph of the grotto chamber before the fire of 1884 by G.W. Dunn of Woodford. From Oliver Dawson, *The Story of Wanstead Park*, 1894.

Sculpture at the Grotto

During work on the grotto in the winter of 1998, while the level of water in the lake was lowered, fragments of stone were visible in the water. These were removed to the bank and a number of sculptures were revealed. Many of the smaller pieces of moulded and carved stone and terracotta came from the façade of the grotto, which was decorated with a variety of rocks, minerals and Large fragments of carved stone figures probably came from the formal garden, although it is difficult to relate them to anything shown in the engravings or items in the sale catalogue. All were badly damaged and difficult to identify but appear to be parts of massive over-life-size figures. They are of Portland stone, and show high quality carving detail. One seems to be part of a crouching figure with head turned back and is possibly a slave or captive figure, or part of a group of wrestlers. The very active and contorted pose is reminiscent of Claude David's 'Prometheus' or 'Vulcan',[128] although the scale is very much larger. Another is clearly the torso of a figure of Andromeda, with chain and padlock visible.

There is no record that they were ever displayed at the grotto, although they may have been shown like fragments of antique statues. One possible explanation for their presence near the grotto might be that they were removed from the great canal garden when it was obliterated from the landscape and were in too damaged a state to be placed elsewhere or sold, and so were thrown into the lake. There are, of course, many other possible scenarios. I hope that further information will come to light.

There is a further twist to the story of statues at the Grotto. Early photographs from around the turn of the nineteenth century show that there were two figures on the façade. These are identifiable as Andromeda and an Allegory of Winter.[129] This Andromeda, however, is not the stone figure recovered from the lake. She is smaller, and the photograph shows that she has a hollow right arm suggesting that she was made of lead. This has recently been confirmed by the discovery of the statue in a private collection. It is similar in pose to the lead Andromeda by John Van Nost the Elder made for the garden at Melbourne Hall, Derbyshire, where she was complemented by Perseus on the other side of the main axis.[130] Both of these subjects were popular in the eighteenth century and both probably derived ultimately from statues at Versailles. A large Perseus and Andromeda group was made for the gardens to the designs of Pierre Puget in 1684.[131] An Allegory of Winter by François Girardon was executed in 1675-86. Was there originally a Perseus to rescue the Andromeda? Were the Wanstead figures purchased originally for the formal gardens,[132] or acquired for the grotto in the 1760s, or added later? [133]

Entertainments on the Water

The grotto was just one part of the elaborate permanent scenery at Wanstead against which entertainments were presented. There are very few direct references, but the following description is so exciting that it almost compensates for the lack of others.

[128] From Narford Hall, Norfolk, now at the V & A.
[129] It is similar in pose to the stone statue in the garden at Saumarez Manor, Guernsey.
[130] John Nost charged £45 for the pair on 16 November 1705. Documents at Melbourne Hall.
[131] Now in the Louvre.
[132] John Van Nost the Elder, or his shop, could have supplied the figure at that time. See Sheila O'Connell, 'The Nosts: a revision of the family history', *Burlington Magazine*, volume 129, December 1987, pp. 802-6.
[133] I am grateful to Malcolm Baker for discussing the sculpture with me.

Many lights appear in the trees and on the water. We are off and have great excitement fishing up treasure (fake) tied to bladders. His Lordship is hailed from the shore by a knight, who we are told is King Arthur, have you the sacrifice my Lord, who answers no, then take my sword and smite the water in front of the grot and see what my wizard has done, take also this dove and when asked, give it to the keeper. Off again to some distance from the grotto, the lights are small and water still, the giant eagle appears and asks, have you the sacrifice, no my Lord answers, so be it and disappears in steam. His Lordship smites the water with King Arthur's sword, all the company are still, a rumble sucking noise comes in front of the opening of the grotto the water as if boiling and to the horror of all the company both on the water and on the shore scream with fright, appearing as though from the depth of hell arose a ghastly coffin covered with slime and other things. Silence as though relief, when suddenly with a creaking and ghostly groaning the lid slid as if off and up sat a terrible apparition with outstretched hand screeching in a hollow voice, give me my gift with such violence, that some of the company fell into the water and had to be saved, and those on the shore scrambled in allways confusion was everywhere. We allmost fainted with fright and was only stayed from the same fate by the hand of his Lordship, who handed the keeper the dove (fake) the keeper shut its hand and with a gurgling noise vanished with a clang of its lid, and all went pitch. Then the roof of the grotto glowed two times lighting the water and the company a little, nothing was to be seen of the keeper or his coffin, as though it did not happen.

This extraordinary entertainment reputedly took place in 1768 and was witnessed by an Italian noblewoman staying at Wanstead House at the time, who is said to have recorded it in her journals.[134]

After the building of the Temple and the boathouse-grotto in the 1760s, Earl Tylney was not much at Wanstead. On his death unmarried in 1784, his fortune and estate, including Wanstead, passed to his sister's son, Sir James Long of Draycot, Wiltshire, who died ten years later. Wanstead then passed to Sir James Long's young son, and on his death in 1805, to his daughter, Catherine Tylney Long, then a minor. Wanstead was meanwhile let to the Prince of Condé, in exile from France.

Catherine Long and William Wellesley Pole

Catherine Long was destined to be one of the wealthiest women in the kingdom on reaching her majority, and had numerous suitors, including, it was rumoured, the Duke of Clarence, who was turned down. Amid great festivities she came of age in 1808, and Wanstead was prepared to receive her. In 1812, she married William Wellesley Pole, nephew of Sir Arthur Wellesley (who later became the Duke of Wellington). William took the name of Pole Tylney Long Wellesley, and Catherine became Catherine Tylney Long Wellesley.

The house was extravagantly redecorated for festivities on the birth of their son and for a fête to welcome the Duke of Wellington in 1814, and it may well have been prior to this occasion that they began to consider changes to the grounds. They consulted both Humphry Repton and Lewis Kennedy in the period 1813-1818, which resulted in large plantations of trees, the draining of the Reservoir, and the formation of an American Garden.

[134] See Julian Litten, *The English Way of Death, The Common Funeral Since 1450*, Robert Hale, 1991, pp. 104-105. The description has not been checked, since I have so far failed to locate Stuart Campbell-Adams, who provided the information to Julian Litten. Any information on this source would be gratefully received.

Repton at Wanstead

Wanstead is not mentioned by name, but in his *Fragments on the Theory and Practice of Landscape Gardening*[135] Repton refers to 'a place near the capital', and provides an illustration with a flap from which Wanstead may be identified (*figs 34, 35*). Confirmation is provided by Robert Havell, writing in 1823, who reported that the area near the house had been 'lately laid out and adorned as a rich parterre, or flower garden; and as it has been executed to the designs of Mr. Repton, we have every reason to anticipate a tasteful and beautiful result . . .'[136] Repton refers to having been recently consulted, and there is evidence that his association began about three years earlier, in 1813. His first visit was made in April 1813, followed by his report in September of that year.[137] To his chagrin, this remained unbound,[138] although he had hoped that it would have been shown off to influential members of the Wellesley family, and was included in the 1822 sale catalogue[139] as a portfolio of 'Repton's Drawings of Plans for Improving the Grounds at Wanstead House, (15)'. A copy of Repton's *Observations on the Theory and Practice of Landscape Gardening* of 1803 was also in the library at Wanstead.[140]

His report is carefully worded. It represents a statement of views which he knew might not be particularly welcome and it is interesting because it is a mirror of the admiration with which the grand layout of Wanstead, although considered old-fashioned, was still regarded. Because the original layout was etched so strongly on the landscape, he had to consider how, if at all, to accommodate any modernisation, and how to blend the old and the new - a problem no less difficult in considering present-day conservation of the garden at Wanstead:

> the original plan of this Place must ever (be) strongly traced in many parts . . . and it is impossible to be quite obliterated in conformity with modern styles. It is therefore an object worthy of consideration, whether the original, or a more recent style, be advisable; and how far both may be admitted, without the incongruous mixture of two things so opposite, that they cannot be blended in one rational plan.

He did not recommend sweeping changes. He said: 'It would be absurd in this place to conform to the modern style, of placing the house in the centre of its domain, from which every thing is banished, but the beasts of the forest.' Instead, he suggested that it should be treated according to its character of a 'splendid Palace' in the vicinity of the metropolis, like Versailles, Potsdam or Kensington. He considered the gate opening directly into the forecourt as the 'dressed limit' of such palaces, and he proposed for this area at Wanstead 'the richness of a symmetrical parterre', which would be 'more consonant than a square area of lawn, too small to be fed by flocks and herds, and too large to be considered a bowling-green'. This would be visible from the main first-floor rooms like a 'rich carpet spread under the eye in perfect harmony with the vases and obelisks'. He also suggested a 'clipped fence' to retain privacy. Buckler's view of the house taken

[135] Published in 1816, Fragment XXVI, pp. 129-36.
[136] Robert Havell, *A Series of Picturesque Views of Noblemen's and Gentlemen's Seats with Historical and Descriptive Accounts of each Subject*, 1823.
[137] See Stephen Daniels, *Humphry Repton: Landscape Gardening and the Geography of Georgian England*, Yale UP 1999, p. 251, quoting a letter of Humphry Repton to William Repton of 24 April 1813, Huntington Library, San Marino, California, HM40892.
[138] Letter from Humphry Repton to William Tylney Long Pole Wellesley of 22 September 1813, Beinecke Library, Yale University.
[139] Under Books, lot 447, p. 298.
[140] Under Books, lot 371, p. 292.

in 1823[141] only suggests this feature, but it was executed and the main lines of the parterre are still visible as ridges on the ground (*fig. 36*).

Repton then turned his attention to the wider landscape, including the distant views of London and the dome of St Paul's. These had been visible when the gardens were first planted, but had become obscured by the growth of the trees which he proposed to cut down in order to reveal the lakes and the longer view.

He commented that because the surroundings were relatively flat, the area depended on 'the wood and the water' for its effect, but there was little except formal regularly-spaced woodland in the park and the pieces of water were exposed and looked unnatural, with naked banks. This could be improved by clothing them 'very amply'. The survey of 1990[142] revealed that a great deal of planting was done at this time around the lakes, which made for a more private landscape and increasingly 'furnished' views from the house as the trees grew.

Repton's method for furnishing pleasing clumps of trees and improving views incorporating woodland was shown in two sketches by him[143] and can be very well illustrated in practice at Wanstead. He maintained that the beauty of groups of trees depended on their being planted two or three close together so that their trunks would lean outwards and their branches intermingle. This could be achieved by two or more being planted in the same hole, after having their roots cut to enable them to be brought nearer together. In addition, he often employed lower bushes to give a more furnished appearance, and if these were thorns, as they often were, they would serve as 'nurses' in protecting young trees from animals. Beeches planted in this way survive at Wanstead in areas close to the lakes as Repton recommended. There are also similar plantings of oaks, one of which has a girth of 406 centimetres (about thirteen feet four inches), with about ten trees in the hole.

John Doyley's plan of Wanstead of 1815-16[144] shows the Repton parterre clearly, as well as the lake, the grotto island and the other large island on the south-west of the lake, together with new plantings near the water (*fig. 37*). The Reservoir was filled in, probably on his advice, since it is here shown as a field.

Lewis Kennedy

The final episode in the story of the changes to the gardens by the descendents of Josiah Child came in 1818. John Claudius Loudon in his *Encyclopaedia of Gardening* of 1822 noted that the then owner of Wanstead had 'made great improvements; erected extensive hot-houses in the kitchen-garden, and formed one of the largest American gardens in the kingdom, from designs by Lewis Kennedy, Esq.'. It is not quite clear whether all these improvements are attributable to Kennedy, nor exactly where they were. However, it is clear that Kennedy was responsible for the design of the American Gardens, and his *Notitiae*[145] give the date of 1818 for this.

[141] British Library, Add MS 36362, ff.114-118.
[142] Survey for the Corporation of London by Debois Landscape Survey Group, the Royal Commission on the Historical Monuments of England and the Institute of Advanced Architectural Studies, York, 1990.
[143] Humphry Repton, *Observations on the Theory and Practice of Landscape Gardening*, 1803, pp. 47-48.
[144] ERO D/Dcy P2A.
[145] Private collection.

37. John Doyley: Plan of Wanstead, c.1815-16. Essex Record Office D/Dcy P2A. This shows the Repton parterre in front of the house and the roughly oval American garden slightly to the north-east.

THE GARDENS OF WANSTEAD

Lewis Kennedy[146] developed a flourishing career as a landscape gardener in the early nineteenth century, submitting his proposals to his clients in the form of green morocco-bound volumes containing a descriptive hand-written text, a few monochrome sketches and larger watercolours illustrating his ideas. He generally suggested a wide variety of effects and came to specialise in flower gardens. His 'green book' for Wanstead was in the 1822 sale catalogue as lot 407 on page 295, under the title *Notitiae, with illustrative Sketches for American Garden at Wanstead, by Kennedy, original Drawings, &c. most sumptuously bound in green morocco*.
The *Notitiae* introduce Kennedy's ideas very circumspectly. He clearly feels that Wanstead is old-fashioned, but he praises the 'abilities of some of our first masters for Gardening and Architecture' who helped to form the landscape and comments that the 'original style' of the gardens has been preserved. He finds this to be in the 'regular and symmetrical fashion', and proposes something more related to 'nature's free growths'.

He reported that the trees and shrubs in the existing American garden were flourishing, which indicated that the ground was not 'improper'. American gardens required acid soil to accommodate the specimen trees and shrubs from the American continent. Kennedy's plan indicates his ideas for the new area, which would provide a long arbour walk, winding paths, alcoves and seats, a covered walk and a semicircular Italian Garden bordered by a trellised seat and a rock garden.

This principal feature, which he calls, on his watercolour sketch, the 'Rock Italian Garden', would be semicircular in shape, bordered by rockwork and with flower beds in the centre. He had designed something similar for the garden at Chiswick Villa in 1814. The flower beds would be planted with a succession of hardy flowers of low growth, such as pinks, stocks, lilies, iris, and so on, with some small shrubs like daphnes and ericas. The crevices between the rocks were to be filled with plants, such as sedums, wallflowers and plants that grow in rocky situations. Kennedy says that it would be more appropriate to have streamlets of water flowing from vases on the rocks, but concludes that 'in our frozen regions' this would not be practical. He recommends a rustic alcove for the Rock Garden, which would be covered with climbing plants to hang in festoons.

One of the other main features was to be the 'Sinarium' and pheasantries. The Sinarium was for plants requiring heat in winter, which was believed to be the case with camellias, tree peonies, magnolias, nandina and China roses. This would have a pheasantry at each end. The building could be totally removed in summer, leaving the plants in the ground.

John Doyley's plan of 1815-16, already referred to, clearly shows where this American Garden was situated (*fig. 37*). It appears as an island of more intense cultivation to the north of the grassed walk behind the house, circled and crossed by paths. At the time of the sale in 1822, it contained a pair of lead vases with eagle ornaments and a pair of stone pedestals with sculptured tablets. There was also a stone pedestal with a 'curious antique Egyptian stone ornament on the top, sculptured in hieroglyphics'.[147] This was apparently a pyramidion[148] from the tomb of Princess Tia, one of the sisters of Ramesses II. It had been in the collection of Smart Letheiullier, who had bequeathed it to the British Museum, but it did not arrive there and was reported to be in the garden of Sir James

[146] Jan Woudstra, 'Lewis Kennedy, landscape gardener, and his work at Buckhurst Park', *Apollo*, 1992, pp. 215-221.
[147] Sale catalogue, page 118, lot 279, which was not sold.
[148] Pyramidal portion forming the apex of an obelisk.

Tylney Long where it was seen by the Danish scholar, Georg Zoega. Smart Lethieullier may have given the pyramidion to Earl Tylney, who shared his interest in collecting.[149]

The Sale and Demolition of Wanstead House

Catherine and William did not enjoy Wanstead for long, for their financial situation quickly deteriorated until it was out of control. Amid allegations of unbridled extravagance and scandal, the contents of the house were put up for auction in 1822 to satisfy Wellesley's creditors. The sale attracted great crowds and was like a fair, with entry by catalogue, which gave free access to every part of the house. 'Every description of vehicle has been put in requisition, and immense crowds of elegantly dressed females have daily visited the house and grounds', read a newspaper report.[150]

The house itself was sold in 1823, again at auction, for £10,000, the purchaser being bound to clear everything away down to the foundations by Lady Day 1825. The purchasers were Messrs Stannard and Athow of Norwich, with de Carle, Wright and Coleman, also of Norwich. It was announced that they intended to sell everything by lots, and they were reported to have sold a pair of marble chimneypieces for 300 guineas before they left the saleroom.[151]

When the demolition of the house was in progress and later 'a good many memorials came into the possession of residents in the villas of the neighbourhood', as one report puts it.[152] A number of items went to Wanstead House, Cambridge, including a handsome doorcase, a white marble chimneypiece, a wrought-iron stair balustrade, and items of panelling. The rooms from which they came have not yet been identified. The following have been identified as originating or possibly originating in Wanstead House and gardens: a library table in the manner of Kent, now at Chatsworth (lot 26 in the sale catalogue); a giltwood and gesso suite of furniture attributed to James Moore, known as the Wanstead Suite, c.1720;[153] two chimneypieces in the great hall at Chillingham Castle, Northumberland, which were brought in by Sir Jeffrey Wyatville in 1828;[154] four Corinthian capitals and entablature of the portico at Hendon Hall, Hendon, which was described in Keane's *Beauties of Middlesex*, 1850, as having a carriage front 'adorned with pillars and enriched capitals, brought from Wanstead House' (possibly bought by Samuel Ware, an architect, who owned the Hall by 1828, and may have acquired other artefacts from Wanstead such as balustrading, urns and obelisks);[155] ebony chairs said to have gone to Lord Macdonald of the Isles, according to Hiram Stead;[156] an obelisk at The Warren, Loughton, which may have come from the forecourt; two very large stone capitals and two ball finials, as well as some other stone fragments, at Snaresbrook House, Woodford Road, Snaresbrook (which may or may not have some connection with Wanstead House itself, or the Green House, which was in fact taken down in 1799); and a large ball finial at The Temple,

[149] Information received from Julian Litten and Professor Geoffrey Martin, quoting Zoega, *De origine et usu obeliscorum*, Rome 1797.
[150] Stead, *op. cit.*
[151] Stead, *op. cit.*; RCHME *City of Cambridge*, 1959, part 2, pp. 371-2.
[152] Stead, *op. cit.*
[153] An armchair was shown at *In the Public Eye*, an exhibition at the Fitzwilliam Museum, Cambridge, 1999, item 50. The location of the suite is unknown.
[154] See Pevsner, Grundy, McCombie, Ryder, Welfare, *The Buildings of Northumberland*, 1992, p. 229.
[155] See Bridget Cherry and Nikolaus Pevsner, *The Buildings of England: London 4: North*, Penguin, 1998, pp. 164-5; information from Georgina Green.
[156] *Op. cit.*

Wanstead Park. Fragments of carved stone were reported in the neighbourhood early this century, and some relics in the park itself, used as stepping-stones across the stream connecting the lakes. It remains to be seen what these clues will reveal.[157]

After the demolition of the house, the grounds entered a period of neglect. Some of the timber was felled and sold and the land was used for grazing. Wanstead Park remained in the ownership of the Wellesley family. The acquisition of part of it in 1882 by the Corporation of London as the Conservators of Epping Forest both protected it as an open space and inaugurated a new era for it as a public park. Part was retained by Earl Cowley and then after consideration for speculative housing was sold in 1920 for a golf course.

Conservation at Wanstead Park

Although the features of the historic landscape are not far to seek (they are well preserved as earthworks, with the remnants of old plantings), Wanstead Park has now acquired a particular character of its own, which is very different from even its early nineteenth century form. It is much appreciated as a nature reserve, and the woods and lakes have a wildness which has encroached on the landscape of the past. Dutch Elm Disease and old age have destroyed many trees, as have severe storms.

The Corporation of London commissioned an extensive survey of the park in 1990 from Debois Landscape Survey (*fig. 38*).[158] A phased Management Plan of conservation and improvement has now been commenced. It is not intended to change the present character of the area, but to conserve and enhance those features of the historic landscape which survive and restore others, and to safeguard and extend the ecological richness of the park, with the aim of increasing the public's enjoyment. For example, the mounts and amphitheatres are being cleared of scrub and invasive roots and their yew hedges replanted, overgrown paths and vistas are being cleared and re-cut, a partly-surviving avenue of lime trees in the outpark and other remnants of avenues are being repaired, and the double avenue of sweet chestnuts leading from the Temple to the Heronry Pond (the present name for the westernmost of Rocque's Serpentine Lakes) has been replanted. The second stage of repair and refurbishment of the Temple was completed early in 1997, and the boathouse-grotto is being maintained as a ruin by regular consolidation.

The deterioration of the Heronry Pond has long been a matter of concern to local residents and the Corporation. It is hoped to overcome the problem of severe leaking by installing a water pumping system, which will replenish the Heronry Pond and benefit the other lakes as well. Repair work there is envisaged in the future, to restore the water and the islands. Perhaps the island-grotto there will one day give up its mystery.

This publication is presented as research in progress, and concentrates on the eighteenth century history of the estate. The material on the demise of Wanstead is quite extensive, and I have not yet

[157] Baggs, 'The After-Life of Wanstead', *Georgian Group Journal*, volume VI, 1996, pp. 131-133. Hiram Stead includes an unattributed clipping with the comment: 'It is evident, too, that when the demolition of the Great House was in process, or in the period of subsequent neglect and decay, a good many memorials came into the possession of the residents in the villas of the neighbourhood . . .'
[158] See above, note 1.

had an opportunity to examine all the documents relating to it. There remain numerous questions, particularly about the authorship of the garden designs in the era of the first and second Earls Tylney. I should welcome any further information on all aspects of the history of Wanstead House and gardens.

Finally, I should like to acknowledge with thanks the work of previous scholars, and two in particular who have made considerable contributions to the Wanstead story: John Harris, who has written several times about both house and garden and has been generous in sharing information, and John Phibbs, whose report to the Corporation of London provided the basis for my own research. My thanks also go to colleagues at the Corporation of London, who have encouraged this work and shared information with me, especially Bill Row, James Clare, Julian Kverndal and Tricia Moxey.

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Issued 13 September 2019

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