

JODRELL LABORATORY
Royal Botanical Gardens
Kew
TW9

London Borough of Richmond

An archaeological watching brief report

March 2005



MUSEUM OF LONDON

JODRELL LABORATORY
Royal Botanical Gardens
Kew
TW9

London Borough of Richmond

An archaeological watching brief report

Site Code: JLB05
National Grid Reference: 518956 177324

Project Manager
Author
Graphics

Steward Hoad
Simon Davis
Kenneth Lymer

Museum of London Archaeology Service
© Museum of London 2005
Mortimer Wheeler House, 46 Eagle Wharf Road, London N1
7ED
tel 020 7410 2200 fax 020 7410 2201

Summary (non-technical)

This report presents the results of an archaeological watching brief that was carried out by the Museum of London Archaeology Service (MoLAS) at the site of the proposed Jodrell Laboratory, Royal Botanic Gardens, Kew. John Hargrave on behalf of the Royal Botanic Gardens at Kew commissioned the report from MoLAS.

Following the recommendations of the English Heritage archaeological advisor (GLAAS) for the London Borough of Richmond (Mark Stevenson), an archaeological watching brief was carried out during the proposed programme of groundwork.

The results of the investigation have helped to refine the initial assessment of the archaeological potential of the site. Mechanical excavations within the area of the proposed groundwork and associated enabling works were monitored from the 06.01.05–07.01.05 and from 23.02.05–04.03.05. The scheme comprised a programme of topsoil and subsoil removal and deep mechanical excavation of a large rectangular area within the site to enable the construction of a basement within the proposed building. The works detailed within this report represent part of a programme of groundwork associated with the proposed Jodrell laboratory extension at The Royal Botanical Gardens, Kew.

A number of features associated with the landscaping and drainage of the land at Kew Gardens in the 19th century were recorded at the site. The remains of a 19th century drainage ditch or soak-away and an organic silty waterlain deposit associated with the ditch were recorded within the northeast corner of the basement area. In addition a fragment of brick wall and two brick soak-aways were also recorded within the proposed basement footprint.

Table of Contents

1	Introduction	5
1.1	Site background	5
1.2	The planning and legislative framework	5
1.3	Origin and scope of the report	5
1.4	Aims and objectives	6
2	Topographical and historical background	8
2.1	Geology and Topography	8
2.2	Prehistoric	8
2.3	Roman	8
2.4	Medieval	9
2.5	Post-medieval	9
3	Previous archaeological work at Kew	10
4	The watching brief	12
4.1	Methodology	12
4.2	Results of the watching brief	13
5	Potential of archaeology	18
5.1	Original research aims	18
5.2	Significance of the data	18
6	Publication and archiving	19
7	Conclusions	20
8	Acknowledgements	21
9	Bibliography	21
10	Web based sources	22

11	Cartographic sources	22
12	NMR OASIS archaeological report form	23

Front cover: detail of the Ordnance Survey map of 1851

List of Illustrations

Fig 1 Site location	7
Fig 2 The area of investigation	11
Fig 3 Plan of the archaeological features within the study area	16
Fig 4 Detail of the 1894 Ordnance Survey map showing the first Jodrell laboratory	17
Fig 5 The groundwork in progress	17

List of Tables

Table 1 Approximate level of observed features within basement area	15
---	----

1 Introduction

1.1 Site background

The watching brief took place at the Royal Botanical Gardens, Kew, hereafter known as ‘the site’. The centre of the site is at OS National Grid Reference 518953 177324. The proposed works comprised the removal of topsoil and subsoil deposits from the site area and deep mechanical excavation to allow for the construction of a basement within the footprint of the proposed building (Fig 2). A programme of archaeological monitoring was carried out during the removal of topsoil and where relevant, subsoil deposits from the working areas within the site compound. Archaeological monitoring was also carried out during removal of the upper deposits from within the proposed basement area. The modern ground level immediately adjacent to the site entrance was recorded at a height of *c* 6.20m AOD. The site code is JLB 05.

1.2 The planning and legislative framework

The legislative and planning framework in which the archaeological exercise took place was summarised in the *Method Statement* that formed the project design for the watching brief (see Section 1.2, Hoad 2004)

1.3 Origin and scope of the report

The site lies within a registered historic park or garden as designated by English Heritage (ref GD1825, <http://www.york.ac.uk/depts/arch/landscapes/ukpg/database>).

This report was commissioned by John Hargrave of the Royal Botanical Gardens, Kew and produced by the Museum of London Archaeology Service (MoLAS). The report has been prepared within the terms of the relevant Standard specified by the Institute of Field Archaeologists (IFA, 2001).

The purpose of the watching brief was to determine whether archaeological remains or features were present on the site and, if so, to record the nature and extent of such remains. A number of more site-specific research aims and objectives were established in the preceding *Method Statement* (Hoad 2004), and are outlined in the following section.

The purpose of the present report is to analyse the results of the archaeological work against the original research aims, and to suggest what further work, including analysis or publication (if any), should now take place.

1.4 Aims and objectives

The following research aims and objectives were established in the *Method Statement* for the watching brief (Section 2.2):

The limited nature of the proposed works and the watching brief upon them makes it unreasonable to establish many specific archaeological research objectives. The archaeological brief is essentially limited to establishing where, if at all, archaeological deposits may survive (presence/absence). Recording where necessary, and ensuring that the proposed groundworks do not involve the destruction of any archaeological deposits of national significance. Nevertheless, in addition, a few research questions can be outlined:

What was the nature and level of natural topography?

What are the earliest deposits identified?

What are the latest deposits identified?

All research is undertaken within the priorities established in the Museum of London's *A research framework for London Archaeology*, (MoLAS 2002)

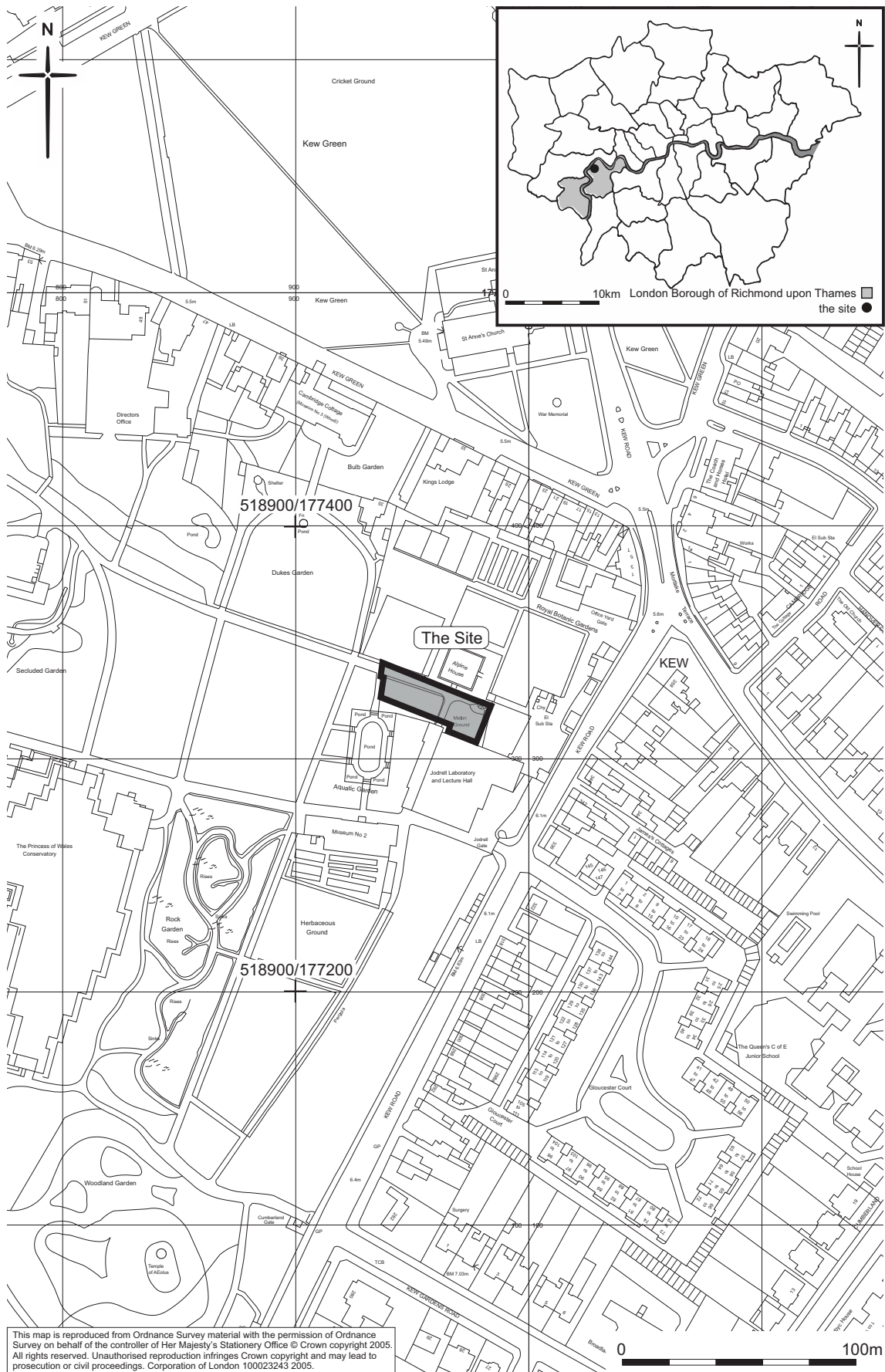


Fig 1 Site location

2 Topographical and historical background

2.1 Geology and Topography

Greater London occupies part of the Thames Basin, a broad syncline of chalk filled in the centre with Tertiary sands and clays. In most of London, this Tertiary series of bedrock consists of London Clay. Above the bedrock lie the Pleistocene (Quaternary) fluvial deposits of the River Thames arranged in gravel terraces that are occasionally interspersed with bands of clean and coarse sands. These terraces represent the remains of former floodplains of the river, the highest being the oldest with each terrace becoming progressively younger down the valley side. The natural gravel terraces slope gradually down to the north towards the river.

The Geological Survey of 1994 demonstrates that the study site lies within the Thames Basin. At its closest point (Kew Bridge), the site is situated approximately 480 metres to the south of the River Thames and as such is located directly over the Kempton Park gravels (British Geological Survey, mapsheet 270).

The contemporary ground level within the central part of the site is *c* 6.20m AOD.

2.2 Prehistoric

A considerable number of prehistoric artefacts have been found in the surrounding area. A previous evaluation on the site (site code RGB 90) in 1990 produced struck flints recovered from within the natural alluvial sands. Further flint tools have been recovered to the north of the site nearer to the Thames foreshore. A Mesolithic handaxe was recovered from the south side of Kew Bridge and a Palaeolithic handaxe was recently recovered from Kew Green.

2.3 Roman

There is evidence for Roman rural settlement and agricultural activity scattered along the banks of the Thames in this area. A number of field ditches were recorded during excavations at Mortlake High Street for example, that provide evidence for farming (Roycroft 1996) and presumably settlement in the nearby vicinity.

The Roman road network appears to indicate that Kew's Thames-side location was important. The Roman road between Silchester and London ran several miles north of the Thames and connected with the river only at the posting stations at Brentford and Staines. As Kew is located beside Brentford Ford (the furthest point downstream at which people could regularly cross the Thames on foot) it is likely that the presence of the posting station and the Roman road at Brentford would have had a significant influence on the Kew area. There is a widespread belief that Caesar crossed the Thames here, during the Roman Invasion of Britain. No evidence to confirm or refute this suggestion has ever been found. However, the strategically, economically and

socially important crossing at Brentford ensured the continued relevance of the Kew area throughout the Roman and early medieval periods.

2.4 Medieval

Kew is not mentioned in the Domesday Book. In the 11th century, it was a hamlet associated with the manor of Kingston, and it was not until 1769 that it was finally separated from the Royal manor by an act of parliament. The earliest reference to Kew is in the 13th century Roll of the Royal Manor of Henry VII. It was from the 14th and 15th centuries that Kew expanded in response to the conversion of the manor house at Shene into a palace by Edward III. The first known documentary reference to Shene is in the AD951 will of Theodred, Bishop of London. By the 12th century, Shene, which included both Richmond and Kew, was one of the four chapelries dependant on the Minster at Kingston-on-Thames, and this relationship continued until 1769.

2.5 Post-medieval

The history of the development of Kew began in the 16th and 17th centuries. Historic sources show that Kew Field (the origins of the estate at Kew) was once a single large strip-farmed field that began to change gradually, from around 1600 into a more regular system of enclosed fields. Prior to this, between 1500 and 1550, the house of Kew Park had been built into Kew Field's northeast corner and its estate extended from there.

By 1558 all the free land between the modern Brentford Gate and the future site of the Dutch House was held by just one man, Sir Robert Dudley. The many small houses were neglected and destroyed, leaving only one large house on the estate. This was named Kew Farm. During the early 16th century the estate at Kew belonged to Sir Arthur Gorges until his death in 1625 when the Estate was passed on to his son, Sir Arthur Gorges II (Cloake 1996, 79).

In the years of 1634 and 1636 Sir Arthur Gorges II sold the entire estate to Richard Bennett. During the Civil War, Bennett on the pretence of having debts, made a quick exit to the West Country and his house at Kew was let until 1648 when Bennet returned, during which time the Estate had expanded and now included a number of barns, stables, orchards and grounds. Bennett died in 1655 and the Kew estate passed to his daughter, Dorothy. She married Sir Henry Capel, and it was the Capel family who developed the first famous gardens in Kew Park (ibid).

The Jodrell Laboratory is where plant anatomy, cytogenetics, and other laboratory-based research is carried out. The first Jodrell laboratory was erected in 1876 after a generous donation from Mr T. J. Phillips-Jodrell, after whom the building was named. The original building was demolished in 1963 and a new laboratory was opened in 1965, allowing Physiology and Biochemistry sections to be established. Today, Jodrell Laboratory staff and students concentrate on plant families or groups of plants, with economic importance or particular biological interest. There is also collaboration in research and conservation based on selected world areas of important biodiversity wealth (information taken from <http://www.rbgekew.org.uk/>).

3 Previous archaeological work at Kew

A limited amount of formal archaeological investigation has been undertaken at Kew. This includes a full architectural survey of Kew Palace (the Dutch House) by J. Foyle from 1996-1999. In addition, the Oxford Archaeological Unit carried out building survey on Queen Charlotte's Cottage and some limited observation of features revealed in new drains to the east (OAU 1998).

Informal investigation by members of Royal Botanic Gardens staff has, however, revealed various areas of archaeological potential. Horticultural work in the Dutch House garden during the 1970s revealed a number of potential middens, containing possible boiler ash spoil, 19th century domestic artefacts and late 18th – early 19th century ceramics, including creamware.

A watching brief of engineers test-pits in 1997 (LNK97) on the Lower Nurseries site by MoLAS revealed, beneath the modern gravel path, garden soil, a possible weathered soil horizon and a possible demolition layer.

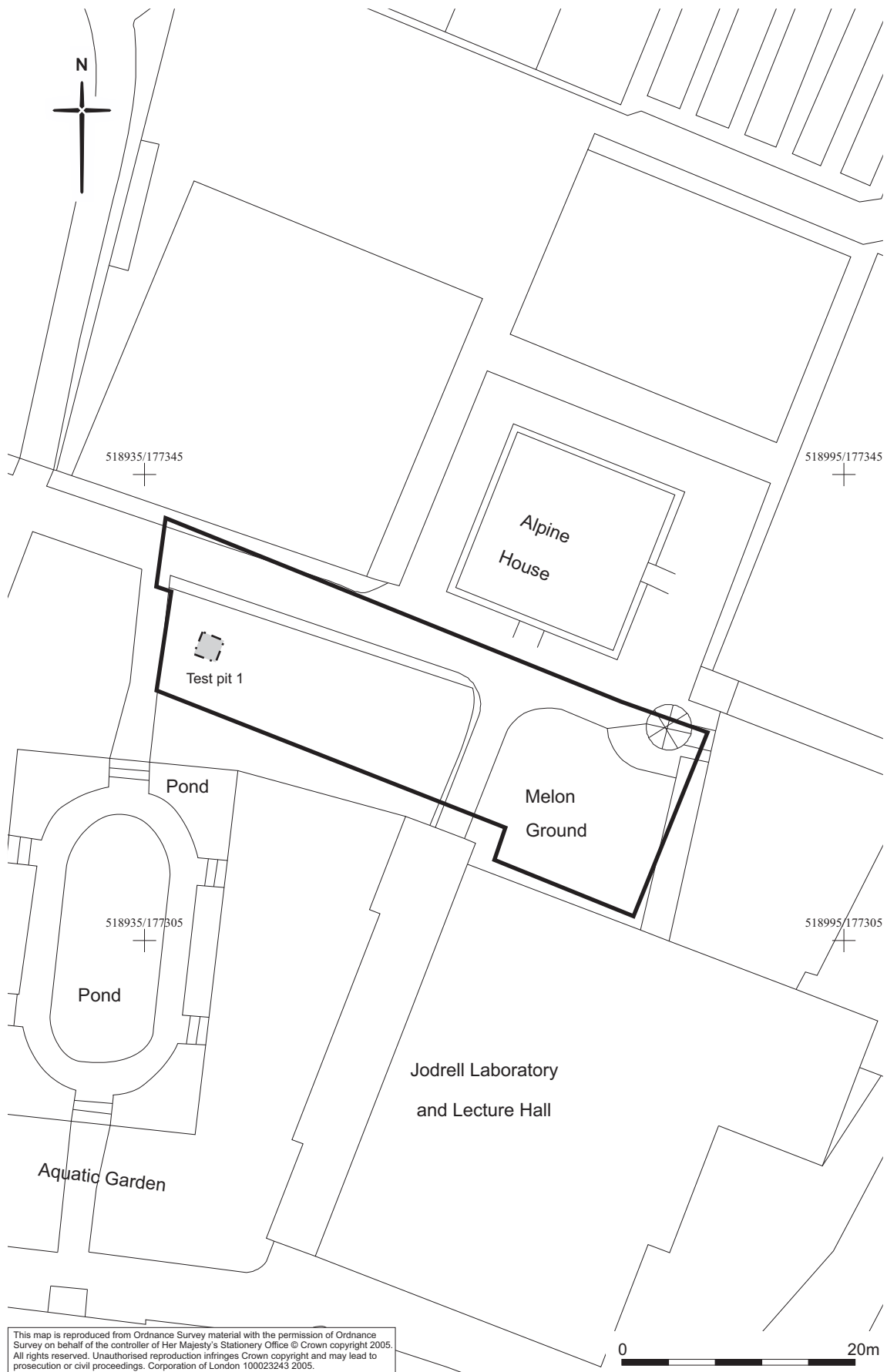
During 2001, Compass Archaeology carried out a watching brief at the Traditional Japanese House (ROG01) that revealed probable planting beds for bamboo, dating to the late 19th century located in the eastern and southern areas of the site.

More recently in May of 2002 the Royal Botanic Gardens at Kew invited Channel 4's Time Team to investigate the "White House", formerly known as Kew House that was built in the 1720s. In 1731 it was enlarged and became a palace for the Hanoverian royal family and was used by the famously 'mad' King George III.

The archaeological investigation comprised six trenches and two test-pits. Archaeologists recorded early phases of construction including the brick walls of a Tudor fireplace and the 17th-century cellar walls of a house that had existed on the site prior to the construction of the White House. A number of artefacts were recovered from the deposits within the courtyard which included a fine stem of a Georgian wine glass, a coin dating to the 1720s (thought to be a love token) and a Maundy three pence dating to 1772.

In January of 2005 an archaeological evaluation was undertaken by MoLAS at the site of the Herbarium within the Royal Botanical Gardens. Two trenches were excavated and the results of the fieldwork concluded that the natural topography comprised river terrace gravels that (in trench 1) were overlain by deposits of orange sand. A building dating to the 19th century was recorded within trench 2 that was constructed from both red and yellow (stock) brick.

Closer to the site at Jodrell, an archaeological evaluation (RGB90) was carried out by The Museum of London (DGLA S/W) at the Jodrell Laboratories. The fieldwork produced struck flints that were recorded over natural waterlain deposits. Also located was a 19th-century structure, probably a greenhouse forming part of the earlier laboratory.



This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the controller of Her Majesty's Stationery Office © Crown copyright 2005. All rights reserved. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. Corporation of London 100023243 2005.

Fig 2 The area of investigation

4 The watching brief

4.1 Methodology

All archaeological excavation and recording during the watching brief was done in accordance with the *Method Statement* (Hoad, 2004) and the MoLAS Archaeological Site Manual (MoLAS, 1994).

The current Jodrell Laboratory is located adjacent to Kew High Road within the northeast corner of the Royal Botanical Gardens. The proposed development will extend the current laboratory to the west in an open area of ground situated a little to the north of the existing Aquatic Garden.

Topsoil and subsoil deposits were removed from the site prior to the installation of sheet piling that defined the proposed basement area (Fig 2). To ensure that any surviving archaeological remains could be adequately recorded it was necessary to inspect the subsoil prior to the proposed deep excavation of the basement area. Subsoil deposits were removed in a controlled manner, and the exposed areas were scanned for archaeological remains.

The basement area was subject to a planned programme of deep mechanical excavation. Soil deposits were removed from the area to a depth of approximately 4.0m below the contemporary ground levels (c 2.0m AOD). The excavation was monitored by a senior archaeologist from MoLAS, and where relevant, archaeological remains were recorded.

The areas of excavation were located and recorded by offsetting from adjacent standing walls and appropriate permanent features in the vicinity of the site. Archaeological features were planned at a scale of 1:50 and have been plotted on to a ground floor plan (Drawing number 101, Wilkinson Eyre Architects), this information was then plotted onto the OS grid (Fig 2 and 3).

A written and drawn record of all deposits encountered was made in accordance with the principles set out in the MoLAS site manual (MoLAS 1994).

Where relevant, sections were drawn at a scale of 1:10 or 1:20; numbered contexts were allocated where appropriate, and a daily site daybook was compiled.

The site has produced: 1 trench location plan; 7 context records and 36 digital photographs. No finds were retained from the site.

The site records can be found under the site code JLB 05 in the MoLAS archive.

4.2 Results of the watching brief

General site area

The open ground defining the site to the west of the current Jodrell building measured *c* 55m east–west by *c* 20m north–south. The area was initially stripped of approximately 0.30m of topsoil and overburden. The stripped area exposed a mixed deposit of mid brown sandy subsoil, natural yellow sand and modern building material. At the western end of the site the exposed area comprised a mid brown silty-sand deposit that was 0.50m thick, in the central part of the area, thinning to 0.10m at the north and south edges of the site. The base of the deposit appeared to undulate slightly and in places natural deposits of clean yellow sand were apparent beneath the subsoil. No archaeological features were evident within this material however a number of firecracked flints of unknown date were observed after the exposed deposit had weathered for a number of days.

At the eastern end of the site, the area was covered with a darker silty subsoil deposit that was mixed with modern building rubble comprising fragments of mortar, concrete, clinker and ash. The eastern end of the site lies adjacent to the current Jodrell laboratory and it is likely that the modern building material within the subsoil had derived from the construction of this building.

A 1.20m square geotechnical test pit (Fig 2) was excavated down to natural gravel in the western half of the site. The test pit was excavated to a depth of approximately 4.0m OD and was monitored by a Senior Archaeologist from MoLAS. Beneath the sandy subsoil deposits, a relatively thin band of natural yellow sand was recorded that directly overlaid moderately compact deposits of yellow and orange sandy gravels. No archaeological remains were observed within the sections of the test pit.

Basement Area (Fig 3)

The proposed basement area was defined by a series of sheet piles that were installed directly after the main site area had been stripped of topsoil. The area measured 14.00m wide at the western end by 17.00m wide at the eastern end and was 50.00m long (east–west). Excavation of the basement area was undertaken using two 360° tracked mechanical excavators. Soil deposits from the area were excavated in spits working from the east side of the basement in a westerly direction.

A thick dark brown organic deposit of silt [1] was recorded within the northeast corner of the basement area. The deposit was 0.90m thick and extended out of the northeast corner of the excavated area. The layer was very odorous and hand excavation of this deposit demonstrated that it comprised of well compact decomposed organic material that included leaves and other organic remains. The nature and extent of the remains imply that the deposit was waterlain. It is suggested that the deposit represents the truncated remains of a pond or water feature. Close examination of the 1894 Ordnance Survey map (Fig 4) clearly shows the location of the First Jodrell laboratory, however no such landscape features are indicated.

An east–west aligned ditch [3] was recorded underlying the waterlain deposit [1], the fill of which [2] was virtually identical to the overlying dark silty layer suggesting that it was directly associated with the pond or water feature. The ditch produced substantial fragments of broken 19th century flowerpot that had been discarded or laid into the base of the ditch, presumably to facilitate drainage. The ditch is likely to have functioned as an inlet or drain from the water feature that would have accumulated organic material and silt until its eventual disuse in the 19th or early 20th century.

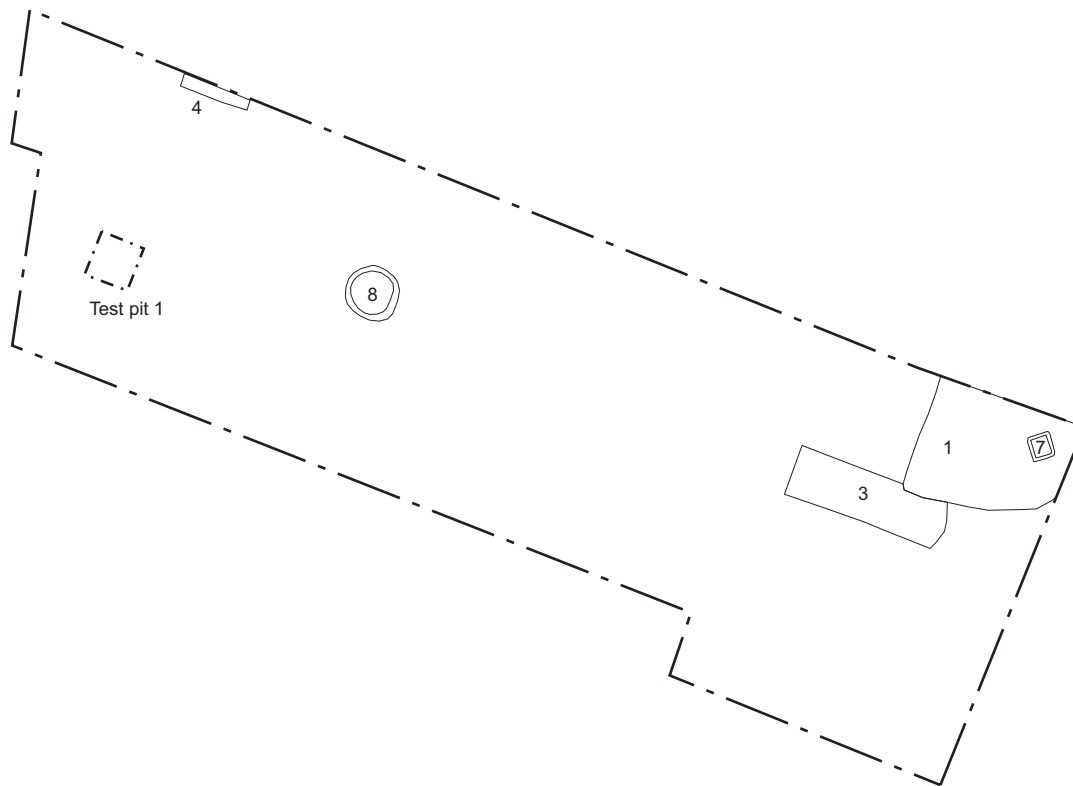
A small square brick inspection chamber or soak-away [7] was also uncovered at the eastern edge of the basement area. The chamber was constructed from un-mortared red brick. The feature was approximately 1.20m deep and had been cut into the natural deposits of sand and gravel. The internal base of the feature was filled with a very wet silty deposit that had clearly been deposited after the stormwater had percolated through the natural gravels. Bricks extracted from the feature during excavation (not retained) indicate that it was constructed in the 19th century. No other drainage features were associated with the chamber. It is suggested that the feature functioned as a stormwater drain installed during the construction of the original 19th century Jodrell building that was demolished in 1963.

In the central part of the site a circular red brick feature was recorded. The brick chamber measured 2.0m in diameter and was initially interpreted as a well, however deeper excavation of the structure revealed that it was in fact a redundant drainage inspection chamber or gully. The brick gully was directly aligned with drainage ditch [3] to the east and it is possible that the two were once part of the same network of stormwater drains.

A brick wall [4] was recorded towards the western end of the excavated area. The wall measured approximately 3.0m long (east–west) and survived to a height of c 0.60m. The wall had been severely truncated along its length by the installation of the sheet piles (Fig 3). Samples taken from the wall at the time of excavation (not retained) measured 220mm x 119mm x 70mm and displayed a shallow frog suggesting that the bricks dated to the 19th century or later. The wall has been interpreted as a 19th century garden wall, possibly associated with the earlier Jodrell laboratory.

Table 1 Approximate level of observed features within basement area

OBSERVATION (highest level)	LEVEL (m OD)
Existing ground level adjacent to site	06.20m AOD
Silt pond deposit [1]	05.60m OD
Drainage ditch [3]	04.90m OD
Garden wall [4]	05.70m OD
Inspection chamber/soak-away [7]	05.50m OD
Soak-away [8]	05.80m OD
Top of natural sand deposit	05.80m OD
Base of trench	c 2.20m AOD



518930/177320
+

518995/177320
+



Fig 3 Plan of the archaeological features within the study area



Fig 4 Detail of the 1894 Ordnance Survey map showing the first Jodrell laboratory



Fig 5 The groundwork in progress

5 Potential of archaeology

5.1 Original research aims

What was the nature and level of natural topography?

Natural deposits of sand and gravel were observed approximately 0.40m below the contemporary ground levels, underlying a mixed layer of silty topsoil. The natural deposits comprised mid yellow–orange clean fine sand overlying moderately compact, well sorted sandy gravels. The yellow sand was encountered at approximately 05.80m AOD falling through a very gentle slope northwards towards the current course of the River Thames that lies some 400m to the north and 630m to the west.

What are the earliest deposits identified?

All of the archaeological deposits recorded during the watching brief were 19th–20th century in date. A number of large fragments of flowerpot were recovered from drainage ditch [3]. Although these were not retained their presence in the base of the ditch firmly suggests that the feature and its associated contexts were of late post-medieval date, and possibly associated with the former Jodrell laboratory that was built in the late 19th century.

What are the latest deposits identified?

Brick samples examined from the garden wall [4] and soak away features [7] and [8] also dated to the late 19th or early 20th centuries suggesting that the features would have been contemporary with and possibly associated with, the original Jodrell building of 1876.

5.2 Significance of the data

The archaeological remains recorded at the site are all associated with the drainage and landscaping of this part of the Botanical Gardens in the 19th century and are in this way locally significant. The remains also contribute to what is currently known about the development and organisation of the gardens in the late 19th century. Contemporary historic maps (such as the one shown in Fig 4) and other historic sources clearly show how the gardens were organised at this time and help to build a picture of the development of the botanical gardens at Kew.

6 Publication and archiving

Information on the results of the excavation will be made publicly available by means of a database in digital form, to permit inclusion of the site data in any future academic researches into the development of London.

The site archive containing original records and finds will be stored in accordance with the terms of the *Method Statement* (Hoad 2004) with the Museum of London at the London Archaeological Archive and Research Centre (LAARC), within 12 months of the end of the watching brief.

In view of the lack of archaeological information at the site, it is suggested that a short note on the results of the watching brief within the annual round up of the *London Archaeologist* would be considered sufficient in terms of publication.

7 Conclusions

The programme of monitoring and archaeological watching brief demonstrated that a relatively small archaeological resource was evident at the site. The archaeological remains dated to the late post-medieval period and despite the observation of firecracked flints within the subsoil at the western end of the site, no direct evidence to suggest prehistoric, Roman or medieval activity was recorded.

The archaeological remains and local topography suggest that horizontal truncation across the site was minimal. A relatively thin topsoil deposit was recorded directly overlying the mixed subsoil and natural deposits of the Kempton Park gravels.

No further archaeological remains were recorded during the archaeological watching brief.

8 Acknowledgements

MoLAS are grateful to John Hargave of the Royal Botanical Gardens at Kew for commissioning the archaeological work.

The author would like to thank Tom Murphy of Walter Lilly contractors for the use of their welfare facilities and helpful cooperation on site.

Thanks also go to Mark Stevenson of English Heritage. And to David Saxby of MoLAS for his assistance with the fieldwork.

9 Bibliography

Cloake, J, 1996, Palaces and Parks of Richmond and Kew - Volume II Richmond Lodge and the Kew Palaces, Phillimore & Co. Ltd.

Department of the Environment, 1990 *Planning Policy Guidance: Archaeology and Planning* (PPG16)

English Heritage, 1991 *Management of Archaeological Projects (MAP2)*

English Heritage Greater London Archaeology Advisory Service, June 1998 *Archaeological Guidance Papers 1-5*

English Heritage Greater London Archaeology Advisory Service, May 1999 *Archaeological Guidance Papers 6*

Institute of Field Archaeologists (IFA), 2001 *By-Laws, Standards and Policy Statements of the Institute of Field Archaeologists* (rev. 2001), *Standard and guidance: watching brief*

Institute of Field Archaeologists (IFA), supplement 2001, *By-Laws, Standards and Policy Statements of the Institute of Field Archaeologists: Standards and guidance – the collection, documentation conservation and research of archaeological materials*

Museum of London, 1994 *Archaeological Site Manual 3rd edition*

Museum of London, 2002 *A research framework for London archaeology 2002*

Oxford Archaeological Unit, 1998, Investigations at Queen Charlottes Cottage, Kew (Unpub. internal report)

Roycroft, N, 1996, 107 Mortlake High Street, SW14, Richmond upon Thames, A report on the archaeological evaluation, unpub MoLAS report

Thompson, A, Westman A, and Dyson, T (eds), 1998 *Archaeology in Greater London 1965-90: a guide to records of excavations by the Museum of London*, Archaeol Gazetteer Ser Vol 2, London

10 Web based sources

<http://www.rbgkew.org.uk/>

<http://www.york.ac.uk/depts/arch/landscapes/ukpg/database>

11 Cartographic sources

British Geological Survey, sheet 270, South London, England and Wales

The Ordnance Survey map of 1851, Richmond local studies library

The Ordnance Survey map of 1894, Richmond local studies library

12 NMR OASIS archaeological report form

OASIS ID: molas1-7272

Project details

Project name Jodrell laboratory, Royal Botanical Gardens, Kew

This report presents the results of an archaeological watching brief that was carried out by the Museum of London Archaeology Service (MoLAS) at the site of the proposed Jodrell Laboratory, Royal Botanic Gardens, Kew.

Short description of the project The scheme comprised a programme of topsoil and subsoil removal and deep mechanical excavation of a large rectangular area within the site to enable the construction of a basement within the proposed building. The works detailed within this report represent part of a programme of groundwork associated with the proposed Jodrell laboratory extension at The Royal Botanical Gardens, Kew.

A number of features associated with the landscaping and drainage of the land at Kew Gardens in the 19th century were recorded at the site. The remains of a 19th century drainage ditch or soak-away and an organic silty waterlain deposit associated with the ditch were recorded within the northeast corner of the basement area. In addition a fragment of brick wall and two brick soak-aways were also recorded within the proposed basement footprint.

Project dates Start: 23-02-2005 End: 04-03-2005

Previous/future work Yes / Not known

Any associated project reference codes RGB90 - Sitecode

Type of project Research project

Site status English Heritage List of Parks and Gardens of Special Historic Interest

Current Land use Cultivated Land 4 - Character Undetermined

Investigation type 'Watching Brief'

Prompt Research

Project location

Country England

Site location GREATER LONDON RICHMOND UPON THAMES RICHMOND AND KEW
Jodrell laboratory, Royal Botanical Gardens, Kew

Study area 100 Square metres

National reference grid TQ 51895 17732 Point

Height OD Min: 5.8m Max: 2.2m

Project creators

Name of Organisation	MoLAS
Project originator	brief English Heritage/Department of Environment
Project originator	design MoLAS
Project director/manager	Stewart Hoad
Project supervisor	Simon Davis
Sponsor or funding body	Royal Botanic Gardens, Kew

Project archives

Physical recipient	Archive	LAARC
Physical Archive ID		JLB 05
Physical Exists?	Archive	No
Digital recipient	Archive	LAARC
Digital Archive ID		JLB 05
Digital Contents		'Survey'
Digital available	Media	'Survey','Text'
Digital Exists?	Archive	Yes
Paper recipient	Archive	LAARC
Paper Archive ID		JLB 05
Paper Contents		'none'
Paper available	Media	'Context sheet','Correspondence','Drawing','Map','Notebook - Excavation','Research','General Notes','Photograph','Plan','Report','Unpublished Text','Unspecified Archive'
Paper notes	Archive	Digital photographs are available Digital developer drawing is available
Paper Exists?	Archive	Yes

Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	Jodrell laboratory, Royal Botanical Gardens, Kew
Author(s)/Editor(s)	Davis, S.
Date	2005
Issuer or publisher	MoLAS
Place of issue or publication	Unpublished
Description	unpublished grey literature
URL	N/A

Entered by	Simon Davis (molas@molas.org.uk)
Entered on	10 March 2005