SURREY OUTDOOR LEARNING & DEVELOPMENT

THAMES YOUNG MARINERS, RIVERSIDE DRIVE, LONDON BOROUGH OF RICHMOND TW10 7RX

AN ARCHAEOLOGICAL DESK-BASED ASSESSMENT

September 2022





ARCHAEOLOGY

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September 2022

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Abstract

In August 2022 Compass Archaeology were commissioned by Pick Everard to undertake a Desk-Based Assessment on the site of Surrey Outdoor Learning & Development (SOLD), Thames Young Mariners, Riverside Drive, London Borough of Richmond TW10 7RX. The assessment will accompany a planning application which proposes the partial rebuilding, alteration and refurbishment of the site buildings and facilities.

The site lies at the northern end of the Ham Lands Nature Reserve, bounded by the River Thames to the west and north and the Ham House Estate to the east. It presently comprises a main cluster of buildings towards the south-west corner and an approximately east-west aligned lake used for outdoor activities and development.

This Desk-Based Assessment has demonstrated that the study site and its environs have seen human activity since at least the prehistoric period, with a relatively large assemblage of Mesolithic to Iron Age finds having been recovered from the underlying Kempton Park Gravel.

Between the Roman and Post-medieval period the study site existed as open fields, lying away from the emerging settlements at Ham and Petersham. By the early-19th century the study site was occupied by a farm, first known as Cross Deep and then later Coldharbour, which comprised a central farmhouse and ancillary buildings (located just north of the present lake) surrounded by a series of large unenclosed fields.

In 1904 the land was leased to the Ham River Grit Company Ltd and was used for industrial gravel extraction until 1952. A purpose-built dock and narrow-gauge railway enabled material to be easily transported from the site by road, river and rail. After the site fell out of use the flooded gravel pit was acquired by Thames Young Mariners and has since remained in use as a water-based activity and development centre.

Records from 1910 to 1947 and results of a recent ground investigation indicate that almost all of the study area has been truncated by gravel extraction, though it is possible that localised strips of original ground survive close to the riverward boundary and below the present building complex. Overall however there is considered to be a low potential for prehistoric finds, which if present at all may be unstratified and residual. The potential for remains of Roman to post-medieval date is considered to be low to negligible, due both to the site's existence as open fields and to the more recent gravel extraction. There is a higher potential for features relating to the 1950s/60s development, but of no archaeological significance.

Because of the site's proximity to known prehistoric assemblages some mitigation may be required. If deemed necessary it is recommended that any archaeological mitigation take the form of a watching brief condition attached to an approved planning application, rather than pre-determination or pre-development fieldwork.

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Fig. 18 adapted from material produced by Google Earth.

Figs.19-20 reproduced and adapted from material held by Surrey History Centre (Refs: CC119/37; K58/12/; CC119/39).

1 Introduction

1.1 The following document details the results of an archaeological Desk-based Assessment (DBA) conducted on the site of Surrey Outdoor Learning & Development (SOLD), Thames Young Mariners, Riverside Drive, London Borough of Richmond TW10 7RX (fig.1).

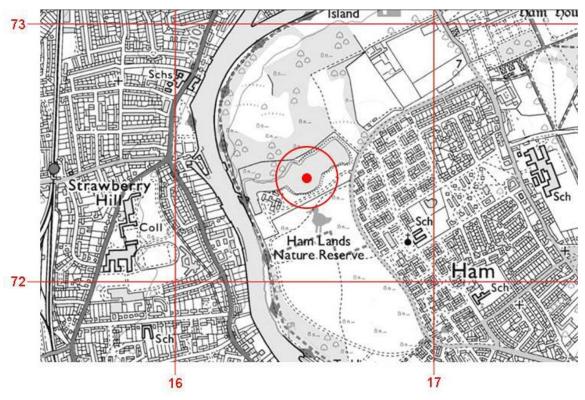


Figure 1: Site location, marked in red.

- 1.2 The assessment has been commissioned by Cameron Stainforth (Pick Everard) on behalf of the Client to accompany a forthcoming planning application to be submitted to the London Borough of Richmond.
- 1.3 The scheme proposes the redesign / alteration / extension of the existing site to maximise its usage on a year-round basis and increase the opportunities and activities available for its users. The aim is to elevate the site to be in line with the other SOLD centres of High Ashurst and Henley Fort.
- 1.4 The site is bounded to the south, west and north by the Tier 2 *Ham Fields* Archaeological Priority Area (APA), as designated by the London Borough of Richmond-upon-Thames Council, with a narrow section of overlap along the northern site boundary (fig.2). The APA predominantly covers the Ham Lands Local Nature Reserve.

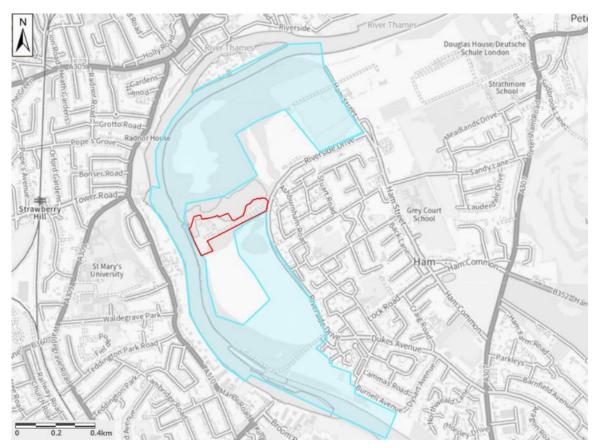


Figure 2: Map of the Ham Fields Tier 2 APA, blue, with site outline marked in red.

2 ACKNOWLEDGEMENTS

2.1 Compass Archaeology would like to thank Lucy Healy (Senior Architect, Pick Everard) for commissioning the DBA and for supplying relevant documents and drawings. Thanks also to Jo Prior, Senior Outdoor Education Worker, Thames Young Mariners, & staff for providing access to the site, and to Luke Wilkinson, Senior Geo-Environmental Engineer, Soils Limited, for providing the results of recent ground investigation. Additional thanks go to the Greater London Historic Environment Record and to the staff at the Surrey History Centre.

3 OBJECTIVES OF THE REPORT

The objective of the assessment is to establish the archaeological potential of the studyarea within the context of the proposed development. This takes into account three principal elements:

- Reference to the known archaeological and documentary background
- Consideration of the impact of previous land use and development on potential archaeology
- Potential impact of the proposed development

4 METHODOLOGY

- **4.1** The assessment has been carried out in accordance with Historic England guidelines (Historic England 2015), and the recommendations of the Chartered Institute for Archaeologists (CIfA 2014, updated 2020).
- 4.2 A visit was made to the site on the 23rd August 2022 and a photographic record was made of the site as is (see Section 9). Entries held by the Greater London Historic Environment Record (GLHER) were examined, in addition to other relevant archaeological data. The Surrey History Centre was consulted and material held by Compass Archaeology was also utilised. References to the various sources were noted, and relevant material photocopied/scanned or photographed as appropriate.
 - A search of the GLHER was made within a 400m radius of the study site, using *TQ 16598 72451*. The results of the search are considered in more detail in Section 7.
- **4.3** The results of these investigations have been collated to produce this document, which forms a summary of the known archaeological potential for the site, the possible impact of any prior land-use upon that potential, and the perceived impact that the current proposal may have on any surviving potential.

5 ARCHAEOLOGY, THE HISTORIC ENVIRONMENT AND PLANNING

- 5.1 This desktop assessment represents one element in the archaeological planning process whereby early consideration of potential archaeological remains can be achieved, and if necessary appropriate further mitigation measures put in place. The report conforms to the requirements of the National Planning Policy Framework (NPPF) adopted in March 2012.
- 5.2 The Government adopted the NPPF in March 2012 and it has since been updated in 2019 (section 16 paragraphs 184-202) and revised in July 2021. The NPPF integrates planning strategy on 'heritage assets' bringing together all aspects of the historic environment, below and above ground, including historic buildings and structures, landscapes, archaeological sites, and wrecks. The significance of heritage assets needs to be considered in the planning process, whether designated or not, and the settings of assets taken into account. The NPPF requires using an integrated approach to establishing the overall significance of the heritage asset using evidential, historical, aesthetic, and communal values, to ensure that planning decisions are based on the nature, extent, and level of significance.

5.3 Due to the site's location within an area of archaeological sensitivity the following policy, taken from the current *London Plan* (2021) is deemed relevant:

Chapter 7 – Heritage and Culture

Policy HC1 Heritage conservation and growth

- A Boroughs should, in consultation with Historic England, local communities and other statutory and relevant organisations, develop evidence that demonstrates a clear understanding of London's historic environment. This evidence should be used for identifying, understanding, conserving, and enhancing the historic environment and heritage assets, and improving access to, and interpretation of, the heritage assets, landscapes and archaeology within their area.
- B Development plans and strategies should demonstrate a clear understanding of the historic environment and the heritage values of sites or areas and their relationship with their surroundings. This knowledge should be used to inform the effective integration of London's heritage in regenerative change by:
 - 1) Setting out a clear vision that recognises and embeds the role of heritage in place-making.
 - 2) Utilising the heritage statement of a site or area in the planning and design process.
 - 3) Integrating the conservation and enhancement of heritage assets and their settings with innovative and creative contextual architectural responses that contribute to their significance and sense of place.
 - 4) Delivering positive benefits that conserve and enhance the historic environment, as well as contributing to the economic viability, accessibility and environmental quality of a place, and to social wellbeing.
- C Development proposals affecting heritage assets, and their settings, should conserve their significance, by being sympathetic to the assets' significance and appreciation within their surroundings. The cumulative impacts of incremental change from development on heritage assets and their settings, should also be actively managed. Development proposals should avoid harm and identify enhancement opportunities by integrating heritage considerations early on in the design process.
- Development proposals should identify assets of archaeological significance and use this information to avoid harm or minimise it through design and appropriate mitigation. Where applicable, development should make provision for the protection of significant archaeological assets and landscapes. The protection of

- undesignated heritage assets of archaeological interest equivalent to a scheduled monument should be given equal weight to designated heritage assets.
- E Where heritage assets have been identified as being At Risk, boroughs should identify specific opportunities for them to contribute to regeneration and placemaking, and they should set out strategies for their repair and re-use.
- 5.4 The site lies within the London Borough of Richmond's *Local Plan* (adopted 2018). Specific references should be made to the following relevant policy:

Policy LP 7 Archaeology

The Council will seek to protect, enhance and promote its archaeological heritage (both above and below ground), and will encourage its interpretation and presentation to the public. It will take the necessary measures required to safeguard the archaeological remains found, and refuse planning permission where proposals would adversely affect archaeological remains or their setting.

Desk based assessments and, where necessary, archaeological field evaluation will be required before development proposals are determined, where development is proposed on sites of archaeological significance or potential significance.

5.5 The site is not located within an APA, although it is bound by the Tier 2 *Ham Fields* APA as designated by the London Borough of Richmond (fig.2). This APA covers a large area of undeveloped open land along the Thames riverside to west of Ham and has a history of significant positive archaeological interventions. The site is not located within a Conservation Area nor is it within a Scheduled Ancient monument. There are no Listed Buildings within the site boundary.

6 SITE LOCATION, GEOLOGY AND TOPOGRAPHY

6.1 Location

- **6.1.1** The site is located between Richmond and Kingston and sits along the River Thames. The site is bounded by the Thames on the western side and Riverside Drive on the eastern side. To the north and south the site is bound by 200 acres of public open space, Ham Lands, which has been designated as a local nature reserve.
- **6.1.2** The site is run by Surrey Outdoor Learning & Development and offers water-based activities in a controlled environment. The site covers an area of 25 acres and consists of a drive from Riverside Drive which leads to a group of existing buildings including a Club House and Main Hall. There is a 10-acre lake across the site, with several access points and is surrounded by wooded areas (fig.3).



Figure 3: Site location plan. Supplied by Pick Everard.

6.2 Geology

6.2.1 According to the British Geological Survey (Sheet 270: *South London*) the study site lies within an outcropping of Kempton Park Gravels, bounded by an expanse of London Clay to the east and smaller pockets of Langley Silt to the north and south (fig.4). The area is bordered to the immediate west (and further north) by a band of Alluvium demarcating the extent of the River Thames floodplain. The map also indicates the area between Teddington, Ham and Eel Pie Island as being a mix of 'worked ground' and 'made ground', taken to be the result of disturbance from historic gravel extraction, discussed in section 7 below.

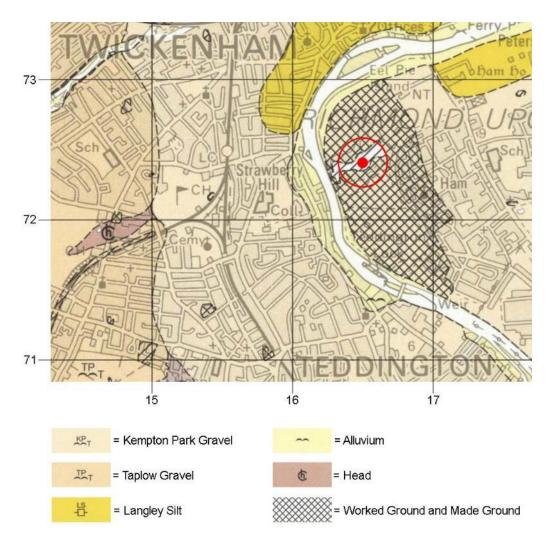


Figure 4: Extract from the BGS Sheet 270: South London (1998) with site location marked in red.

6.3 Topography

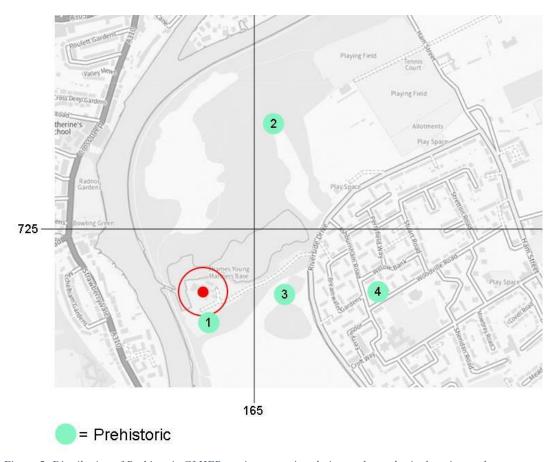
6.3.1 The site is relatively flat, with a slope towards the lake allowing for the current Club House to have boat storage. As to be expected with the site's close proximity to the River Thames the area is low-lying, sitting at approximately 4.8-5.0mOD.

7 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

7.1 The following section is drawn from a survey of the Greater London Historic Environment Record (GLHER) and should be read in conjunction with Figures 5-6 below.

A search of the GLHER was carried out within a 400m radius of the site using *TQ 16598 72451* as a central point, which is situated towards the eastern part of the site to exclude entries on the Strawberry Hill side of the Thames. This search produced a total of 7 relevant Monuments and 1 Event record. These predominantly cover isolated findspots and are discussed in chronological order by period below.

7.2 Prehistoric



 $Figure\ 5:\ Distribution\ of\ Prehistoric\ GLHER\ entries,\ green\ in\ relation\ to\ the\ study\ site\ location,\ red.$

No.	Mon. UID	TQ ref.	Description	Sources
1	MLO19004	1640 7220	Findspot: Celtic (Iron Age) pottery found in 1910, marked on the OS 6-inch map of 1940.	
2	MLO14119	1658 7279	Parent record for Ham Lands: A large number of prehistoric flints and pottery sherds have been recovered from the area. The finds include pottery, discovered on the surface and in gravel pits, and what are possibly burial urns. Flint, at least 27 axes of which four are tranchet axes. Three possible knives, at least one adze, over 72 scrapers, over 65 blades and flakes. Nine flint arrowheads of unspecified type, three barbed and tanged arrowheads, three leaf shaped arrowheads and a transverse arrowhead, 53 flint cores, three pounding stones, over 30 scrapers, two possible sickles, 11 pot boilers, two flint saws, at least 27 microlithics with an additional three micro burins.	Gazetteer of Mesolithic Sites in England and Wales with a Gazetteer of Upper Palaeolithic Sites in England and Wales.
3	MLO23455	1660 7230	Flint implements found in 1905-10, marked on the OS 6-inch map of 1940.	
4	MLO19028	1690 7230	Findspot: Neolithic pointed arrowhead found in market gardens near Ham Church.	

- 7.2.1 The Thames Valley in which the study site sits has been inhabited since the Palaeolithic and archaeological evidence of human activity in the area can be found in abundance. This occupation and utilisation of the river was continuous throughout the entirety of the prehistoric period. Flints of Palaeolithic date have been recovered from White Lodge, Richmond Park, whilst later, Mesolithic flints have been found at Ham dip, Dann's Pond and Pen Ponds also within the park. Neolithic barrows on the ridge overlooking Petersham, Ham and Kingston indicate that later prehistoric communities were also settling in the area.
- 7.2.2 During the prehistoric period activity and occupation was often focused on a series of raised gravel islands, known as eyots, which are situated throughout the River Thames and its floodplain, particularly to the west of the City centre in the Richmond area and eastwards towards East Ham and Barking. These eyots afforded higher and drier ground and easy access to a regular subsistence supply factors exploited by early Palaeolithic and Mesolithic hunter-gatherer communities. One of the closest eyots, Eel Pie Island to the north has produced prehistoric artefacts including Mesolithic red deer hand implements, recovered from the shoreline.

- 7.2.3 As demonstrated by the GLHER data there is a large concentration of Prehistoric findspots recorded from the Ham area, comprising both surface finds and deeper artefacts recovered as a result of gravel extraction. Given the proximity of the study site to Eel Pie Island it is unsurprising that such activity has been recorded. Significantly, a moderately sized artefact assemblage was recovered from within close proximity to the study site. The assemblage, all attributed to be surface finds, included flint tools, awls, adzes, chisels, scrapers and knives as well as arrowheads and hammer stones and were recovered during gravel working (GLHER entry 2). The sheer number of artefacts recovered throughout the 20th century suggests the area saw a heavy amount of traffic and probably some level of occupation. The range of artefacts, particularly the lithic objects and arrowhead typology also indicate that the area was visited over a long period of time, with the leaf-shaped arrowheads representing the Early Neolithic (c4000-2900BC, including the Middle Neolithic), the transverse arrowhead the Late Neolithic (3000-2500BC), whilst the barbed and tanged arrowheads date from the Early Bronze Age (c2500-1500BC).
- **7.2.4** Within the immediate study site environs a small assemblage of artefacts has been recovered comprising an unspecified number of prehistoric flint implements (GLHER entry 3), which probably include some finds noted in paragraph 7.2.3 above and some sherds of Iron Age (or possibly Romano-British) pottery (GLHER entry 1). The timeframe between the production of these two assemblages indicates that the area was revisited over several centuries, likely because of its proximity to the river.
- **7.2.5** In general the archaeological record is indicative of a fairly consistent scale of activity on a continuous basis throughout the prehistoric period. The recovery of awls, adzes, chisels, *etc.* points to some form of activity being undertaken on the site, though there is no evidence as to what form this would take. There is also as yet no evidence of substantial occupation in the immediate vicinity of the site, however given Mesolithic communities were itinerant any campsite would be relatively ephemeral in nature and leave little trace in the archaeological record.

7.3 Roman



Figure 6: Distribution of Roman GLHER entries, purple in relation to the site location, red.

No.	Mon. UID	TQ ref.	Description	Sources
5	MLO19004	1640 7220	Findspot: Roman pottery found in 1910, marked on the OS 6-inch map of 1940 (along with entry 1 above).	
6	MLO18990	1640 7230	Findspot: Roman pottery.	An Archaeology of South- East England.
7	MLO103886	1644 7274	Parent record for Ham Lands:	An Archaeology of South- East England.
			A number of Roman finds have been recovered from the area.	
			The finds include a decorated vase and two urns, querns and the base of part of the body of a Roman bottle.	

- **7.3.1** Following the successful Claudian Invasion of Britain in AD43 a military installation was quickly erected in the area of London Bridge, overtime expanding to a military and civilian settlement. *Londinium* comprised a playing card-shaped fortress centred on the present day London Wall / Wood Street / Silver Street, accompanied by a civilian and administrative town surrounded by a defensive wall and ditch which ran from Ludgate Hill in the west to Tower Hill / Aldgate in the east.
- 7.3.2 Throughout this period the study site lay in the hinterland, on the periphery of *Londinium* proper. Away from the influence of the capital the area of Ham and Twickenham was inhabited by nucleated villas and farmsteads, with an example of the former being uncovered on the site of the late St John's hospital (Amyand Park Road) and the latter near the Chertsey Road. Further evidence of a Roman presence in the general area was recorded during an evaluation at Heathcote Road, Twickenham, undertaken by the Museum of London Archaeology Service (MoLAS [MoLA]) in 1992. The work recorded a series of ditches, post holes likely representing wooden structures, and rubbish pits. The settlement appears to date from the 1st to century 2nd century, established early in the Roman occupation of Britain.
- **7.3.3** Both the GLHER and historic maps record only a small number of findspots attributable to the Roman period, though in some cases certainly more likely to be later Iron Age (see GLHER entry 1). It is suggested by Field (1982, 182) that there are two groups of pottery and a quernstone in Edwards Collection of Roman date from Ham Fields, close to the study site, although these lack a precise provenance (GLHER entry 7). These are two carinated vessels and possible 'porridgy' ware sherds dateable to the mid-1st century, and also ring necked flagon and cordoned groove jars from the late 1st or early 2nd century. An early Roman date is also indicated for the quernstone.
- **7.3.4** Based on the lack of archaeological evidence it is likely that the area of the study site saw little in the way of significant activity or occupation during the Roman period. Whilst it is likely that the river may have been used as a source of food and water and means of travel and communication, its historically wider and flatter profile may have made the area more prone to flooding and thus unfavourable for permanent occupation.

7.4 Saxon

7.4.1 Following the withdrawal of a Roman presence in Britain in the 5th century AD the administrative centre of *Londinium* was shifted slightly further west, with the settlement of *Lundenwic* being developed in the area of modern Covent Garden / Bow Street Magistrates Court. Following a series of Viking raids in the 8th century a programme of fortification was undertaken by King Alfred in the 9th century and occupation shifted back to within the Roman city walls, then becoming known as *Lundenberg*. The former settlement of *Lundenwic* was then largely abandoned, earning the name 'Ealdwic' or 'old settlement', a name retained to the present day as 'Aldwych'.

- 7.4.2 Similarly to the Roman period the study site and its immediate environs lay outside of the main reach of *Lundenwic* and appears to have continued existing as a series of nucleated properties. Across the River Thames a settlement at Twickenham is first recorded in the 8th century, in a Charter to cede the area to Waldhere, Bishop of London, for the 'salvation of our souls' where it appears as *Tuican Ham* and *Tuiccanham*. The suffix *-ham*, meaning settlement implies the area was possibly associated with a person called Twicca, though there is no evidence. The term *hamm* can also refer to 'land in a river bend, or promontory, dry ground in a marsh, river meadow', which may be more applicable in this instance. Certainly the latter explanation is fitting for the study site area and what would later become the settlement of Ham.
- 7.4.3 There is little archaeological evidence of Saxon occupation in the area, though Barber (2011) notes that a sunken-featured building, or *Grubenhaus*, a style of building particular to the Saxon period was excavated at Ham in February 1950. The excavation was undertaken by B. Hope-Taylor and S.S Frere and recovered pottery, unbaked clay loom weights and animal bones (Morris 1953, 143). The 5th century date of the pottery suggests that this area was amongst the first to be colonised by Saxon settlers. The building was thought to be part of village though there is little other evidence to support this. The TQ reference for the find, TQ 1693 7159, puts the 'village' location approximately 900m SSE of the study site, close to the present-day Tideway Close.
- **7.4.4** At present there is no archaeological evidence to suggest a significant level of activity of occupation was occurring on the study site during this period. It is likely the area existed as open land surrounded by the emerging settlements of Twickenham and Petersham.

7.5 Medieval

- 7.5.1 In the medieval period the study site lay within the Kingston Hundred in the County of Surrey. Ham itself does not appear in the Domesday Survey of 1086, with the nearest recorded settlement being Petersham to the east. *Patricesham* as it was known comprised 17 households, 5 ploughlands, 3 acres of meadow, 1 fishery and 1 church, all held by the Abbey of Chertsey (St Peter) (Open Domesday Online 2022). The absence of a Ham in the Domesday records does not necessarily indicate a total absence of activity in the area though it is likely any level of occupation occurring was not enough to warrant inclusion. Its absence also supports the view that there was similarly little significant settlement emerging in the earlier Saxon period.
- 7.5.2 The first written reference to Ham appears in the 12th century when *Hamma* was included in the royal demesne as a member of Kingston, contributing 43s. 4d in 1168 towards the marriage of Matilda, eldest daughter of Henry II (Malden 1911). Between the 12th and 14th century the land passed through various Royal, Church and noble hands, though for the latter part was primarily held by the Burnell family. Much of the income came from acreage, pasture and arable land, rather than industry.

7.5.3 The amount of acreage and arable land in the area surrounding the study site indicates that Ham was largely undeveloped during the medieval period, possibly as a result of the continuing wetter ground conditions, and settlement was probably focused further east in the village of Petersham. This is supported by the lack of archaeological evidence recorded in the GLHER within the study site environs. The place name *Ham* is often used as a suffix meaning 'town' or *Hamme* as 'water meadow', and in this instance it is possibly the latter based on the proximity to the river and lack of a prefix (such as with *Tuiccan Ham*).

7.6 Post-medieval

- 7.6.1 The landscape was altered and the area developed in the early 17th century with the construction of the sizeable Ham House and Estate. The House was completed in 1610 by Thomas Vavasour, a Knight Marshal to James I. It was then leased, and then later, bought by William Murray, a supporter of Charles 1. The house itself is built from red brick in a traditional Elizabethan H-plan, though the southern aspect was later infilled, with the entirety being surrounded by a series of formal gardens and avenues. The western avenue runs east-west to the north of the study site. William Murray became the 1st Earl of Dysart and the estate was passed through family and associated hands until 1948. Further alterations to the southern gardens were made by Elizabeth, Duchess of Dysart (later Lauderdale) in the 1670s and an avenue created linking the property with Ham Common to the south.
- **7.6.2** Ownership of the Ham House Estate also came with the inheritance of the estates and manors of Ham and Petersham. The main formal grounds extended westwards as far as the present Ham Street, though it is taken the open fields which now form the study site fell within the Manor of Ham and thus the wider Ham House estate.
- 7.6.3 Ham Common emerged as a small hamlet in the 17th century, following its exemption from the enclosure of common land to form Richmond Park under Charles 1st in 1637. A pond was installed in the western part of the common along with many trees and horse tracks, whilst the eastern area remained open. As a result of the enclosure Ham lost 800 acres of land between Robin Hood Gate and Kingston Hill, with almost half of this space being common land. This also resulted in the disruption of the former common land link between the smaller settlements, as prior to enclosure the whole area was known as Ham with Ham, or Ham cum Hatch, but following the separation the two separate locations became clearer. Hatch was a hamlet centred around the north-east area of Ham Common whilst Ham itself lay to the north-west in a ribbon-pattern development along Ham Street.
- **7.6.4** With occupation appearing to be centred further east, closer to Ham Street and Ham House there is little archaeological evidence of activity occurring close to the study site. Along with the prehistoric assemblages in the Edwards Collection (see section 7.2.3) a number of post-medieval objects are also included: five gunflints of different origin; two coins of the late-17th century; seventeen clay tobacco pipes dating from the early-17th to mid-18th century; and five wig curlers from the 18th century (Field 1982, 182). It is likely

that much of this material represents general domestic waste and accidental loss from the people living between the Ham House Estate and Ham Common.

7.7 Modern

- The area remained open farmland until the early-20th century when, in 1904 William 7.7.1 Tollemache, 9th Early of Dysart leased part of the land to the Ham River Grit Company Ltd for the extraction of sand and ballast. The company was owned by George and Wallace Brice, clay and barge operators from Rochester, with particulars of the lease detailed in a series of letters and documents from 1908 (held by Surrey History Centre). The company also had pits at Eastbrook Farm in Dagenham and workshops for their narrow-gauge locomotives in Chertsey (The Industrial Railway Record 1963). The addition of the narrow-gauge 2ft railway enabled material to be efficiently transported away from the site to the main road or Teddington Lock as well as along the river by boat. The ballast was then transferred from the railway to tipper trucks, an example of which was immortalised as a scale model made by Budgie Toys (1962-66 model). From the 1930s the railway was known to be using at least one diesel-powered 'Montannia' class locomotive (which was later sold to the Betchworth Pits and known as Monty), though it is unclear if the engine was used at Ham or at the Chertsey site (Railway Bylines 2001).
- 7.7.2 With gravel extraction being profitable and the land unsuitable for the equally economy-boosting industry of constructing housing developments the site remained in use until 1952. During the Second World War the pits were flooded, supposedly to store sections of Mulberry harbour a temporary, portable harbour which could be rapidly deployed at Normandy in 1944. Following the war some parts of the flooded pits were infilled using imported bomb-damage rubble, creating the present layout.
- **7.7.3** By the 1950s housing developments were encroaching on the site, with the laying out of Riverside Drive. Local resistance to further development led to the area being designated Metropolitan Open Land, preserving the area as a nature reserve. Following the closure of the gravel extraction works in 1952 the site was acquired by Thames Young Mariners who repurposed the former dock as a base. Much of the layout of the site, buildings and general appearance of the pond has remained unchanged.
- 7.7.4 Away from the site, following neglect in the 18th and 19th centuries the Ham House Estate was acquired by the National Trust in 1948 who have systemically restored much of the house and early post-medieval formal garden layout. Other notable additions to the Ham area include the Parkleys Estate (Grade II Listed), the largest of Eric Lyons's SPAN Estates, comprising 169 flat laid out between 1954 and 1956 and James Gowan and James Sterling's 1955 brutalist development at Langham House Close (Grade II* Listed).

8 CARTOGRAPHIC & DOCUMENTARY EVIDENCE FOR POST-MEDIEVAL DEVELOPMENT

- **8.1** The post-medieval development of the study site can best be illustrated with a historic map regression, referencing the cartographic and documentary sources. The following section discusses several of these in chronological order.
- 8.2 John Rocque (1746). An Exact Survey of the Citys of London, Westminster, ye Borough of Southwark, and the Country near Ten Miles round.

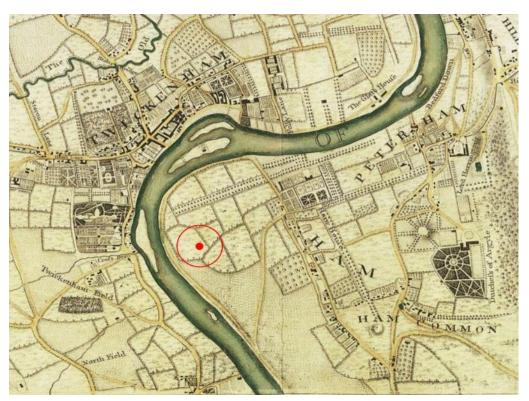


Figure 7: Extract from Rocque's Survey (1746) with approximate site location marked in red.

- **8.2.1** Rocque's Survey shows the Ham House estate in detail, with the three wings of the house shown at the northern end of a tree lined avenue, flanked on all sides by formal gardens, kitchen gardens, orchards and additional east-west avenues. The western avenue is shown as projecting almost as far as the river, to the immediate north of the site.
- **8.2.2** At the time of the map's creation Ham House was bounded by two further large estates. The northernmost, marked 'Lord Harrington's' was rebuilt by William the first Earl of Harrington in 1721 following a fire and remained in his ownership until his death in 1748. The southernmost, Sudbrook House, with its radial gardens was, along with much of Petersham in the 18th century owned by the Argyll Family and was at this time occupied by the estate's co heir Lady Caroline Campbell.
- **8.2.3** By the mid-18th century the study site remained undeveloped, existing as a series of fields bounded by the River Thames to the north and west and considerable Ham estate to the east.

8.3 William Faden (publisher), (1800). A topographical map of the country twenty miles round London.

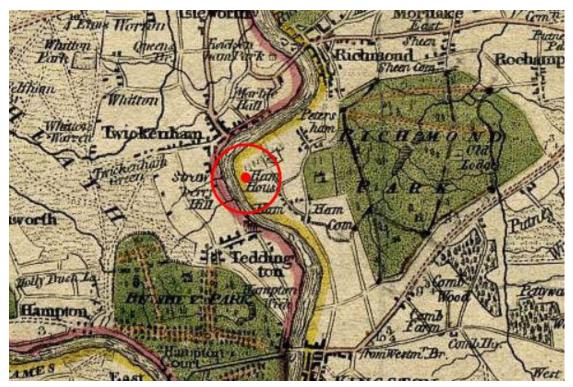


Figure 8: Extract from Faden's Topographical Map (1800) with approximate site location marked in red.

- **8.3.1** Faden's small scale map of 1800 shows the London area as a whole, broadly showing a relatively accurate layout and coloured depiction of land use, rather than specific detail. Richmond and Bushy (then Bushe) Parks are depicted, along with larger estates such as Hampton Court and Ham House.
- **8.3.2** Several recognisable routeways are visible including the north-south running Ham Street to the east of the study site, as well as larger roads leading between Twickenham, Richmond and the City. What is possibly the western avenue of Ham House is also shown, though blurry.
- **8.3.3** The study site itself is open ground and is taken to be unchanged from its depiction on Rocque's 1746 map.

8.4 Ordnance Survey Drawings (1804). *Hampton Court*



Figure 9: Extract from the Ordnance Survey pen-and-ink drawings (1804) with site outlined in red.

- **8.4.1** The Ordnance Survey pen-and-ink drawings were undertaken at the beginning of the 19th century, intended to form an accurate and precise collection of the country created in response to the fear of French invasion along the south coast in particular.
- **8.4.2** For the first time the study site appears in detail, comprising a series of roughly rectangular fields bounded by Ham Field to the south and the west avenue of Ham House to the north. The map also depicts a building or range of buildings towards the site centre. Given the regular fields surrounding the buildings and known presence of a farm on the site in the later 19th century the complex is likely a farmhouse.
- **8.4.3** Away from the study site the area was steadily expanding, with Ham, Twickenham and Teddington shown as well-established settlements. The area held a great deal of wealth and was a popular location, as demonstrated by the number of large country estates in the vicinity such as Broom Hall, Strawberry Hill and Marble Hill.

8.5 Tithe Map (1841). *Ham*

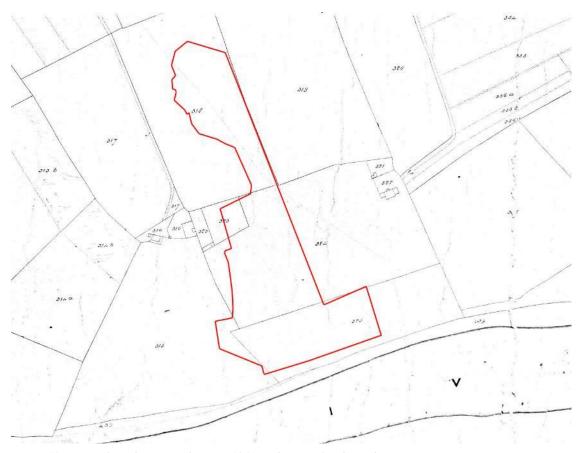


Figure 10: Extract from the Ham Tithe Map (1841) with site outlined in red.

- **8.5.1** The early to mid-19th century Tithe maps and Apportionments provide a detailed breakdown of the land, its use, value and ownership. At the time of the map's creation in 1841 the study site covered plots 315, 318, 323 and 325, belonging to Coldharbour Farm, the buildings of which are recognised as plots 316, 321 and 322.
- **8.5.2** The Apportionments of the study site and adjoining fields are as follows:

No.	Name	Landowner	Occupier
313b	-	-	-
314a	Little Brown Field	Earl of Dysart	
314b	-	-	-
315	Broom Field	Earl of Dysart	William Halch
316	Yard and Building		
317	Upper Mill Hill		
318	Short Hort		
319	Chamberlaynes		Daniel Light
320	Bench Close		William Halch
321	Cottage and Garden		Daniel Light
322	Barn and Yard		
323	Rick Yard		William Halch
324	Upper Broom Field		Daniel Light
325	Lower Broom Field		ιι ιι

8.5.3 The list of occupiers of the area indicates that the Halch family were residents of a farm and the northern fields whilst the Light family owned the southern part. This split demonstrates that the area was in fact two separate farms, although only the northernmost, Cross Deep (later Coldharbour) appears on historic cartographic sources as demonstrated by the figures below.

8.6 B.R. Davies (1847). London and its Environs.



Figure 11: Extract from Davies's Map of London (1847) with approximate site location outlined in red.

- **8.6.1** The range of buildings which appeared on the Ordnance Survey Drawing is shown in more detail on Davies's early-Victorian map, known as Cross Deep. The map appears to show two main buildings in a courtyard with a third smaller building to the north. The origin of the name Cross Deep is unknown though it has been retained to the present day and refers to the stretch of road north-west of the study site, across the river in Twickenham. The second farm occupied by the Halch family also appears.
- **8.6.2** Petersham is depicted as a well-developed linear settlement flanking the main roads. The plots to the south in the area of Ham and the 'New Lion' are longer and narrower and possibly resemble medieval burgage plots, potentially indicating it was an older part of the settlement concentrated around Ham Common.
- **8.6.3** The map also highlights the geography of a growing city. The settlement pattern consists of a large number of smaller villages, each set in its own distinct land, portraying how the area would have looked prior to later post-medieval mass expansion.

8.7 Ordnance Survey (1871). Six-inch Series: Surrey sheet VI.

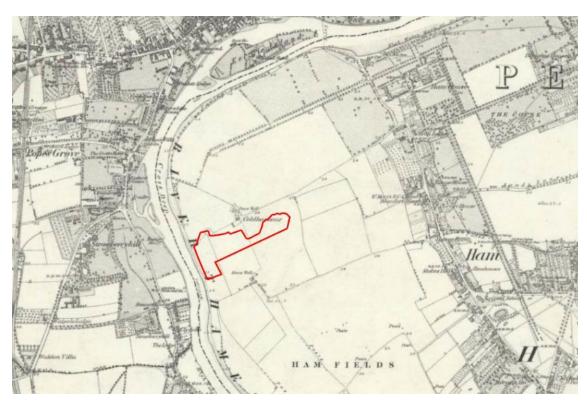


Figure 12: Extract from the OS six-inch series (1871) with site outlined in red.

- **8.7.1** The study site and its immediate environs remained relatively unchanged into the later-19th century, still comprising a series of open fields bounded by the Ham House estate to the east.
- **8.7.2** The farm of Cross Deep has been renamed Coldharbour and is depicted as a large central farmhouse with a single long building to the south-west and separate smaller outbuilding to the north in its own triangular plot, possibly a small grove or orchard. Hachure symbols towards the north-west corner of the red study site outline indicate small area of disturbance or worked ground. The small outbuilding to the south of the study site (below a 'draw well' notation) is taken to be that also shown on Davies's Map of 1800.
- **8.7.3** To the west the landscape of Twickenham was dramatically changed following construction of the London and Windsor Railway in 1848. Twickenham Junction Station was opened in 1848 followed by Teddington in 1863 which was part of the extended London and South Western Railway Kingston Line. Easy access to the city proper would have made the area more attractive for commuters wanting to live away from the busy centre and prompted the beginning of post-medieval suburban expansion.

8.8 Ordnance Survey (1897). 25-inch Series: Sheet London CXXII

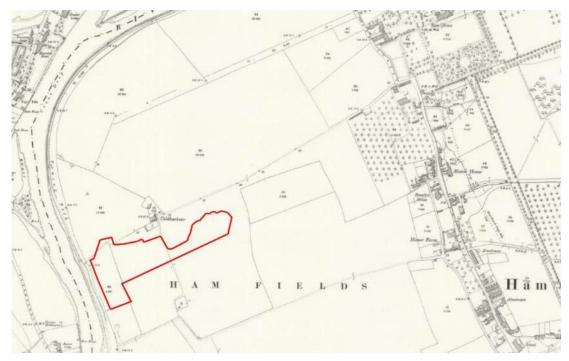


Figure 13: Extract from the OS 25-inch series (1897) with site outlined in red.

- **8.8.1** The overall field system and layout of Coldharbour is still similar to its depiction on the 1870s Ordnance Survey map. The main farmhouse may have lost a small wing on its northern projection but this is unclear if it is merely the cartographer's choice.
- 8.8.2 Notably the western avenue of Ham House has been greatly reduced with the removal of the trees, though the two east-west running parallel lines still mark its location. At the time of the map's creation the estate was occupied by William, 9th Earl of Dysart. In his autobiography Augustus Hare recounted a visit in 1877 where he describes the house as dilapidated and in disrepair, although full of prized collections (Thornton & Tomlin 1980). Some of the disrepair may have been the result of the predecessors who through a series of financial difficulties were ultimately forced to pay a High Court fine of £70,000 to avoid forfeiting some of the estate.

8.9 Ordnance Survey (surveyed 1910-12, published 1920). Six-inch Series: London Sheet M.

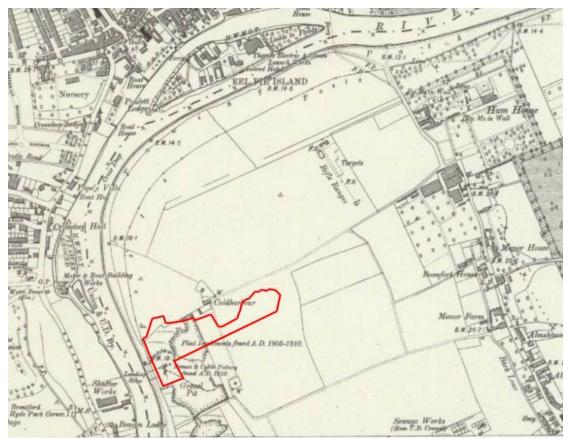


Figure 14: Extract from the OS six-inch series (1920) with site outlined in red.

- **8.9.1** Surveyed in the early-20th century, the OS map shows the beginnings of the gravel extraction works, following the acquisition of the site in 1904. The map shows that the farm buildings still stand though the land to the south-west has been given over for quarrying. The pit is irregular in plan and bears little resemblance to the modern outline.
- **8.9.2** The provenance of the finds noted in the GLHER, discussed in section 7 above is taken to have come from their inclusion on the map, with the finds being recovered during the early phases of gravel extraction. Given the limited description it is unknown whether the finds represent general scatter or loss, or whether they were part of a larger, more well stratified feature which was lost during the excavation.
- **8.9.3** To the north-east the miniature rifle range was installed in 1906 by Charles Hanbury-Tracy, 4th Lord of Sudeley and supported by the Earl of Dysart. Although a predominantly private club it was opened up during the First and Second World Wars to be used for target practice (Living Magazines Online 2022).

8.10 Aerial Photographs (1927). The Ham River Grit Company.



Figure 15: Aerial photograph of the study site from the SW (1927) with site approximately outlined in red. Image adapted from material held by Britain from Above (2022).

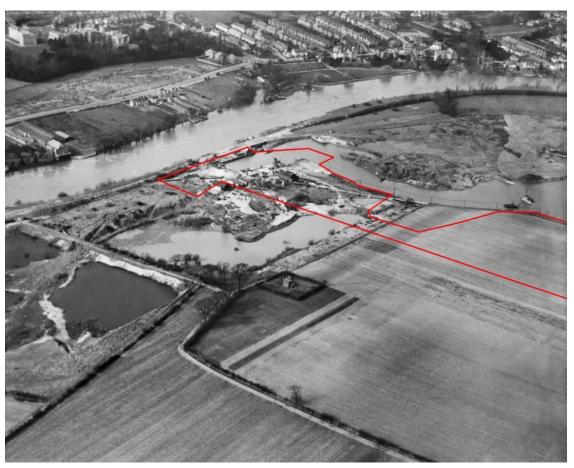


Figure 16: Aerial photograph of the study site from the SE (1927) with site outlined in red. Image adapted from material held by Britain from Above (2022).

- **8.10.1** These early-20th century aerial photographs show the study site as it appeared during the middle of the Ham River Grit Company's tenure. The western side of the site is easily comparable with the present-day appearance, with the main cluster of buildings bounded by the rectangular north-south dock to the west. The narrow channel leading to the main pit is also familiar, though the main pit itself it much wider to the north. Several smaller pits are also visible to the east and south of the buildings. The narrow-gauge railway runs diagonally across the western part of the site, leading to and from the centre of the main yard. Judging by the number of submerged trees the river appears to be in flood and has burst its banks, so it is unclear as to what the normal water level of the gravel pitting complex would be.
- **8.10.2** The majority of Coldharbour farm has also been removed, though the small building surrounded by hedges in the south-east corner of the site appears to have survived. The existing lake also has a noticeably different layout to its 1920s incarnation, particularly along its southern edge, here depicted as having a linear southern bank demarcating a field boundary.

8.11 Ordnance Survey (1939). Six-inch Series: Middlesex Sheet XX.SE

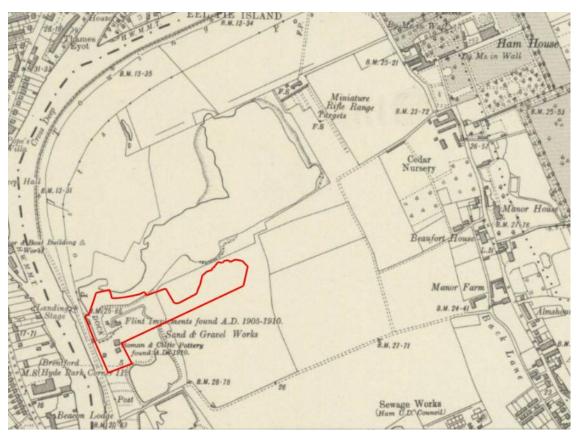


Figure 17: Extract from the OS six-inch series (1939) with site outlined in red.

- **8.11.1** Away from the study site Ham was still relatively unchanged from its early post-medieval expansion, predominantly comprising a series of detached country residences along Ham Street. Some small-scale development was occurring on the western side of Back Lane by the Sewage Works but the area remained mostly open field.
- **8.11.2** The map highlights the sheer size of the gravel extraction pits at their peak, relative to the present-day incarnation, with the larger pit extending as far northwards as the rifle range and former western avenue of Ham House. The single remaining building belonging to the farm adjacent to Coldharbour has also been removed by this stage.

8.12 Aerial Photograph (1945). Ham.

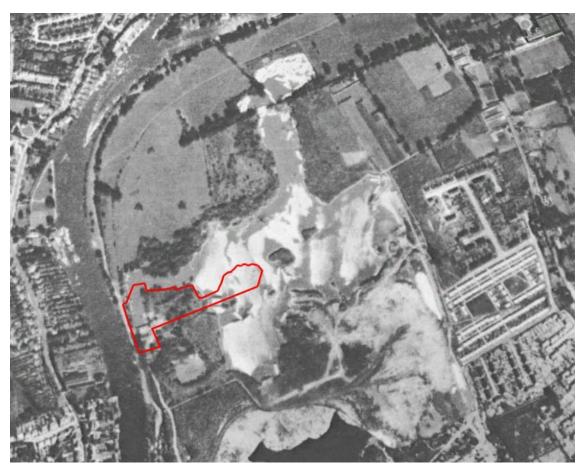


Figure 18: Extract from an aerial photograph of Ham (1945) with site outlined in red. Adapted from material produced for Google Earth (2022).

- **8.12.1** The above aerial photograph shows extent of the gravel extraction which had occurred by the end of the Second World War. Though individual buildings are difficult to make out on the site the rectangular dock and bend into the main pit is easily visible. The edges between the individual pits have become blurred or partially erased, possibly as a result of the mid-war flooding. There also appears to be a large number of ferro-concrete barges stored in an extended pit at the northern end, closer to the river.
- **8.12.2** To the east a fairly significant amount of residential development was occurring, with the land on the western side of Ham Street now occupied by Stretton Road, Murray Road and Mowbray Road, and a terraced complex which has since been replaced by the Ham Close estate.

8.13 Plan of the Ham River Grit Company (1947).

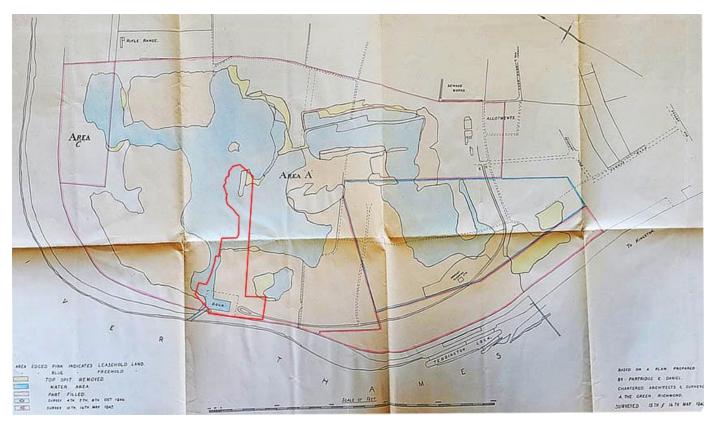


Figure 19: Plan of the Ham River Grit Company Ltd Lands (1947), with site outlined in red. Note plan is not orientated north.

- **8.13.1** This plan of the Ham River Grit Company showing the division of leased and freehold land produced in 1947 highlights the extent of the gravel extraction works and the disturbance to the site. The landscape is similar in appearance to that of the 1945 aerial photograph, in particular showing the norther projecting spit leading towards the former western avenue of the Ham House Estate. The changes to the land are widespread and extensive, not only limited to the blue water filled pits but the shaded yellow areas also indicate where the top spit of land has been removed and orange areas show where areas were filled in prior to October 1946 (map not shown).
- **8.13.2** The present eastern end of the lake in particular bears little resemble to the form of the pit shown on the above plan and extensive land reclamation must have been undertaken to make the construction of Riverside Drive possible. A photograph from 1948 appears to show some of this constant backfilling and tipping process (fig.20).



Figure 20: Photograph of what is possibly bomb-damage rubble being tipped to create made ground (1948). Taken from material held by Surrey History Centre.

9 THE PRESENT SITE & GROUND INVESTIGATION

9.1 A visit was made to the site on the 23rd August 2022, and a photographic record made of the site as is. What follows is a written description of the site accompanied by illustrative photographs. The following section should be read in conjunction with figures 21-22 for locations of photographs and shots A-L, figs.23-34 for views of the current site.

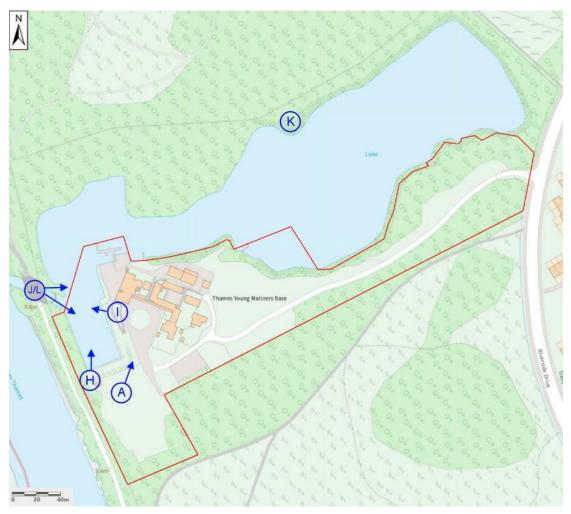


Figure 21: Location and direction of photographs A and H-K.



Figure 22: Location and direction of photographs B-G.

- 9.2 The site covers a total of 25 acres, with 10 acres of that consisting of the lake, connected to the River Thames via a lock. Access to the centre is provided by a sealed road leading to and from Riverside Drive.
- 9.3 The main cluster of existing buildings lies towards the west end of the site, comprising a mix of single and two-storey structures accessed from a circular driveway. The majority of the buildings date from the 1960s, with some more recent additions of sheds and storage spaces to suit the changing needs of the Centre (fig.23).



Figure 23: A: View of the dock (left) and circular driveway, looking towards the clubhouse. Facing NE.

9.4 The main two storey brick-built clubhouse lies in the north-east corner of this complex, facing the lake and dock (fig.24). To accommodate the slope downwards towards the lake / former gravel pit the building has been terraced into the bank. The creation of this lower level may have caused some archaeological truncation.



Figure 24: B: Main building as seen from the lake side. Facing ESE.

9.5 The site in general is a mix of purpose-built blocks for accommodation, changing etc. and temporary structures / hangars which have been added more recently to suit the needs of the facility. The topography of the site is relatively flat, though slopes down towards the lake, and is taken to be a result of the historic gravel extraction (fig.25). The terracing of the main building, noted above, demonstrates that the present topography is reflective of the ground as it was in the 1950s/60s.



Figure 25: View looking towards the lake, with the clubhouse and pre-fab classroom to the left. Facing NW.

9.6 The main building connects to the staff accommodation and changing block which occupy the south-east corner of the complex, linked by a veranda and walkway (figs.26-27). The latter structures are brick-built and single storey, with no significant terracing or basementing.



Figure 26: D: View of the main building from the circular driveway, with the changing blocks off to the right of frame. Facing NNE.



Figure 27: E: View of the existing changing rooms, with the climbing wall behind and wardens' accommodation to the right. Facing approximately E.

9.7 The present accommodation for staff comprises a four-bedroomed and dormitory block and three bungalows, one of which – Cedar, is not currently in use (fig.28). The units are fenced off, separating them from the public areas of the site. These structures are again of single storey and will have had little significant impact on the below ground stratigraphy, most likely being constructed on shallow slab foundations.



Figure 28: F: Wardens' Bungalow, situated to the east of the circular driveway. Facing NE.

9.8 The north-eastern corner of the main complex is dedicated to storage, presently occupied by a large single-story brick-built boat store with additional space provided by two shipping containers (fig.29). The structures sit on a concrete apron, taken to be relatively shallow in depth. The space includes some intrusive installations such as concrete bollards and fence posts, however these are unlikely to have caused significant archaeological disturbance.



Figure 29: G: View from the lake looking towards the Boat Store and beyond to Cedar Bungalow and Bungalow 2. Facing SSW.

9.9 Whilst the building complex and associated structures date from the Thames Young Mariners phase of the site the lake itself retains several features from its former use as a gravel extraction pit, including the dock, lock and partial layout. The following photographs show the dock, which was constructed in 1913 and the lock which controls the water flow to the River Thames, which was built in 1921 (figs.30-32). There are no surviving traces of the former narrow-gauge railway which ran from the site to the main road.



Figure 30: H: View of the early-20th century dock installed by the Ham River Grit Company, with the clubhouse to the right of frame and lock to the left. Facing N.



Figure 31: I: View looking across the lock towards the 1921 lock. Facing NW.



Figure 32: J: View looking from the footbridge across the lock and dock towards the main complex and camping area. Facing SE.

9.10 Away from the rectangular dock and narrow bend into the main body of water the lake has changed layout from its historical gravel pit. The northern part has been narrowed quite considerably, as evident from the 1945 photograph and significantly, the southern bank has also been altered, with a stretch of water being created through the digging out of part of a former field. A slope leading down to a small landing stage now occupies this space (figs.33-34).



Figure 33: K: Activity lake, as viewed from part way along the northern bank. Facing SW.



Figure 34: L: View of the dock and lake, looking towards the clubhouse. Facing ENE.

9.11 Ground Investigation, August 2022

9.11.1 Recent ground investigation by Soils Limited in the area of the Young Mariners buildings and just to the south revealed significant thicknesses of made ground (2.00m to 4.50m), in all areas except that close to the western (riverside) site boundary. A total of seven boreholes, window samplers and trial pits were undertaken, located as shown in Fig 35 below:



Figure 35: Locations of the recent ground (taken from a plan provided by Soils Limited)

9.11.2 The results obtained are further detailed in the table overleaf. Prior to the ground investigation it was assumed that parts of this area might be relatively undisturbed, based on the presence of buildings around the dock at least from the later 1920s through to 1939 (*cf.* figs. 15-17). However, as noted above the only potentially untruncated result is close to the western site boundary (Fig. 35, No. 7). These observations give more credence to the 1947 plan (Fig. 19), which indicates that this whole area had in fact been dug up and by then partially backfilled.

No. on Fig. 35	Type of investigation from Soils log	Description of upper deposits	Depth of natural geology (m)	Description of natural
1	Borehole 1	Made ground: Sand & gravel backfill	3.50	Gravel, continuing to 9.70m and thereafter grey clay
2	Window sampler/DP1	Made ground: Sandy gravelly clay to silty/gravelly or very clayey sand, with brick & clinker inclusions	4.50	Light yellowish-brown gravelly/very sandy clay
3	" " /DP2	Made ground: Very gravelly clay to silty gravelly sand with brick, clinker, concrete, glass & metal inclusions	3.00	Yellowish-brown slightly clayey gravelly sand
4	" " /DP3	Made ground: Sandy/silty gravelly clay to clayey/silty gravelly sand, with brick, concrete & clinker inclusions	2.10	Brownish grey becoming light orange- brown very gravelly sand
5	" " /DP4	Made ground: Slightly clayey gravelly sand or clayey sand to slightly gravelly clay, with brick, clinker, glass & metal inclusions	>4.00 (not bottomed)	Not observed
6	Trial pit 1	Made ground: Gravelly silt to sandy clay with brick, concrete, tarmac, glass & metal inclusions	2.00	Brown slightly gravelly sandy clay
7	Trial pit 2	Made ground: Gravelly silt to silty gravel with brick, concrete & tarmac inclusions	0.50	Brown & grey gravelly sand and silt, becoming brown sand and gravel below 1.10m

Table 1: Summary of the results of the Soils Ground investigation

10 THE PROPOSED DEVELOPMENT

- 10.1 The proposed development entails the alteration and improvement of the existing site so that it can be used on an all-year-round basis, maximising both the activities offered and general / accommodation facilities available. The scheme will look to improve both the central cluster of main buildings and the usability of the site as a whole (fig.36).
- 10.2 The scheme involves the construction of several new two-storey buildings in place of the existing cluster including a main building & staff accommodation, guest residential accommodation, changing block and camping changing block (fig.37).
- **10.3** Further alterations / additions to the existing site which may have an impact on below ground deposits include hard and soft landscaping of access routes, footpaths and tree/woodland planting.
- 10.4 The main building & staff accommodation block will partially reuse the footprint of the existing clubhouse. This building was constructed with a basement level so it is anticipated that any surviving archaeological stratigraphy has been truncated in these areas. Some shallower stratigraphy may survive in the areas not previously excavated which could be exposed during the proposed works (fig.38).
- 10.5 Works associated with the foundations and service runs of the new buildings have some potential to expose (and subsequently remove) archaeological material as historically this area of the site has always remained outside of the gravel pits.



Figure 36: Proposed block plan. Taken from Pick Everard Pre-Application Report 03, supplied by the Client.



Figure 37: Block plan of the proposed main building and accommodation units, with an additional changing block to the south. Taken from Pick Everard Pre-Application Report 03, supplied by the Client.

3.3.1 Main Building

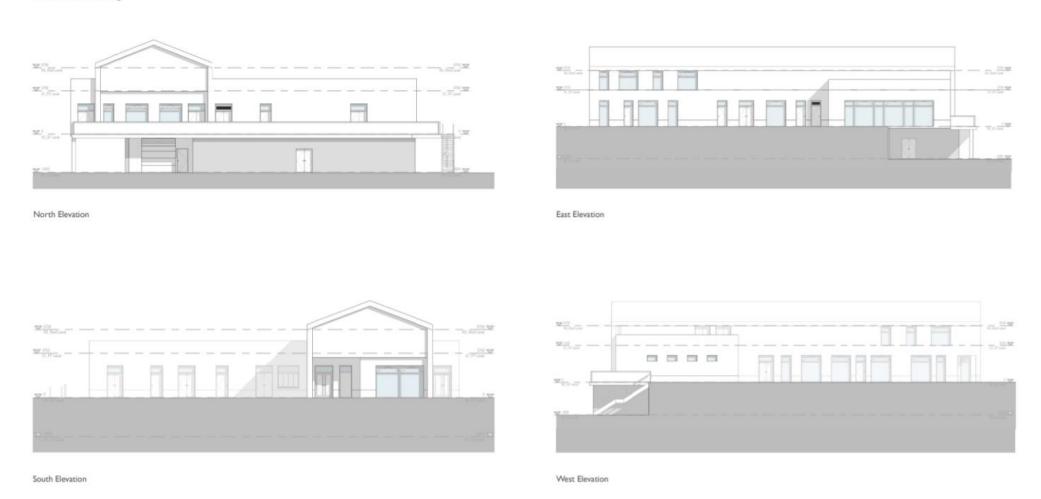


Figure 38: Elevations of main building, showing terracing. Taken from Pick Everard Pre-Application Report 03, supplied by the Client.

11 ARCHAEOLOGICAL POTENTIAL

11.1 Prehistoric

- 11.1.2 The Richmond area is known to have been frequented by human traffic since the Palaeolithic era. It is likely, given the study site's close proximity to the River Thames it would have been an advantageous spot for prehistoric communities. Historically the River had a much wider, shallower profile, populated by hundreds of raised gravel islands known as eyots. The closest eyots, Eel Pie Island to the north and Steven's Eyot to the south would have afforded dryer ground for Mesolithic hunter-gatherer communities who operated on a seasonal basis.
- 11.1.3 A quantity of prehistoric finds of various dates have been recovered from the study site itself and its immediate environs, indicating some level of activity was occurring in this region over a significant period of time. There is yet little archaeological evidence of structures or settlement, so it is likely the area was used on a seasonal basis, exploiting the river and its resources.
- 11.1.4 Based on the abundance of archaeological material recovered from within the site's immediate environs and historical working of the gravel deposits the potential for encountering further Prehistoric remains could be considered low to medium. However, it is certain that previous gravel extraction has removed or at least partially truncated the archaeological stratigraphic sequence, over most if not all of the site. So whilst finds may be recovered they are likely to lack context.

11.2 Roman

- **11.2.1** The proximity of the study site to the River Thames resulted in the area being low lying and probably unsuitable for permanent occupation. It is likely that throughout the Roman period the Ham area was open ground, existing outside of the influence of the capital of *Londinium*.
- **11.2.2** Evidence of activity in the archaeological record is scarce, with only a small number of chance or individual findspots being recovered from within the study site's environs. It is likely these finds represent general 'background noise' or accidental loss rather than any specific activity occurring.
- **11.2.3** Based on the lack of archaeological evidence of a Roman presence in the area the potential for encountering finds and features of this date is considered low and is further comprised by the extensive past gravel extraction.

11.3 Saxon

- **11.3.1** During the Saxon period the administrative centre shifted further west, with *Lundenwic* being sited over present day Covent Garden. In spite of this shift the study site still lay well outside of its limits and as such probably saw little in the way of passing traffic or significant activity.
- **11.3.2** To the east and west the settlements of Petersham and Twickenham were emerging from the 8th century onwards, and occupation and industry was most likely focused around these two hamlets.
- 11.3.3 Based on the lack of archaeological or documentary evidence of activity occurring on the study site in the Saxon period the potential for encountering further finds, features or stratigraphic deposits of interest can be considered low to negligible. As for other periods, any potential will have been further compromised by the extent of past gravel extraction.

11.4 Medieval

- **11.4.1** Ham emerged as a settlement in the 12th century according to documentary sources. It is probable this village was situated to the east of the study site, possibly closer to Ham Common.
- **11.4.2** Throughout this period the study site is taken to have existed as open land within the manor of Ham, supported by the lack of archaeological evidence in the GLHER.
- **11.4.3** *The potential for encountering medieval finds and features of archaeological interest can therefore be considered low.*

11.5 Post-medieval

- 11.5.1 During the post-medieval period the study site lay within the wider Ham Estate, owned by the Tollemache family as part of their Ham and Petersham manors. The main Ham House estate lay c900m to the east, though a tree-lined western avenue projected from the formal gardens westwards c400m to the north of the study site.
- **11.5.2** Cartographic sources indicate that from at least 1804 the study site was occupied by a small farm complex surrounded by agricultural lands. The farm first appears on maps as Cross Deep then later, Coldharbour.
- **11.5.3** The farm buildings do not appear on 20th century maps and it is taken that the modern gravel pitting removed much of the post-medieval stratigraphy.
- 11.5.4 The potential for encountering post-medieval finds, features and stratigraphy of archaeological interest can therefore be considered low. The possibility of chance or residual finds associated with the former farmland should be taken into account, in areas where this may have survived past gravel workings. Moreover, the buildings and focus of the former farm lay just to the north of the present lake and outside the redlined study area.

11.6 Modern

- **11.6.1** The study site was extensively altered and developed following the lease of the land by the Ham River Grit Company Ltd in 1904 from landowner William Tollemache, 9th Early of Dysart for the extraction of sand and ballast. A dock constructed in 1913 and lock in 1921 provided water ingress from the Thames and a purpose-built narrow-gauge railway along the western side of the dock allowed easy transportation away from the site.
- **11.6.2** The present pond used for water activities by the Thames Young Mariners was constructed during this period, though the original quarrying pit was larger, extending further to the north. Mid-20th century photographs show that the area was flooded during the Second World War, with the infilling occurring from the late-1940s / 50s using imported bomb damage rubble. The gravel pits fell out of use in 1952.
- **11.6.3** Several of the present standing buildings were constructed by 1960, including the main club house, warden's accommodation, staff accommodation and changing rooms. The site has been on an ad hoc basis since to meet requirements as they arise, though the general layout and appearance is still very much recognisable with its 1950s/60s construction. The pond too is still broadly similar in shape to the original early-20th century gravel pits, though narrower.
- 11.6.4 The potential for encountering finds and features of modern date can be considered high, however they are anticipated to hold little archaeological value, beyond adding to the narrative of the site's more recent history for instance if covered up original 1950/60ss features are exposing during the proposed works etc. Some residual finds may also be present in the made ground due to the large quantities of imported bomb-damage rubble brought on to the site in the 1940s.

12 CONCLUSIONS

- 12.1 Throughout the course of this DBA it has become apparent that the study site has been a point of almost continuous human activity since at least the Mesolithic period, possibly earlier, to the present day.
- 12.2 During the prehistoric period the study site lay within the extents of the River Thames, which at that time had a wider, shallower profile, bounded by islands of raised gravel to the north and south-west. Numerous assemblages of tools recovered during the gravel extraction undertaken on the site in the early-20th century indicates the area was frequented between the Mesolithic and Iron Age periods. Much of the stratigraphy has likely been truncated through the gravel extraction though there is a possibility of encountering further unstratified, residual or chance material.
- 12.3 There is little archaeological evidence of activity or occupation on the study site and its immediate environs until the post-medieval period. It is likely that from the prehistoric period onwards the site existed as open fields, on the periphery of the emerging settlements of Ham and Petersham. From the 17th century the land was owned by the Earls of Dysart, along with the manors of Ham and Petersham and the Ham House Estate the tree-lined western avenue of which ran to the north of the study site.
- 12.4 Historic maps show that by 1804 the site was in use as a farm, comprising a central cluster of buildings surrounded by fields. The farm remained on the site until it was cleared in the early-20th century following the lease of the land by The Ham River Grit Company Ltd. Between 1904 and 1952 the study site was extensively altered as a series of pits were opened, with the gravel being easily transported away from the area by both boat and narrow-gauge railway. The main pit was subsequently flooded and partially backfilled, and has since remained in use as an activity lake by the Thames Young Mariners and SOLD organisations.
- 12.5 Having considered both contemporary records of gravel extraction between *c* 1910 and 1947 (*cf.* figs. 14-19) and also results of the recent ground investigation (Fig. 35 & Table 1) it seems likely that almost all the study area will have been substantially truncated by past gravel extraction. In particular, the ground investigation has revealed depths of between 2.0m and 4.5m of recent backfill/made ground. It is possible that some localised strips of original ground survive, not just close to the western site boundary (Fig. 35, no. 7) but also on the eastern side of the dock and below the north-western part of the present building complex.
- 12.6 There is considered to be a low potential for exposing finds of a prehistoric date, and these may well be unstratified and residual. There is considered to be a low to negligible potential for finds and features of Roman to post-medieval date, due both to the site existing as open fields and farmland for much of its history and given the subsequent history of gravel extraction. There is considered a higher potential for exposing features relating to the 1950s/60s buildings presently occupying the site during the proposed renovation / extension works, but of no real archaeological significance.
- 12.7 Because of the site's proximity to known prehistoric assemblages some further mitigation may be required. If deemed necessary it is recommended that archaeological mitigation take the form of a watching brief condition attached to an approved planning application, rather than any pre-determination or pre-development fieldwork.

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