

GLA 80: Gunnersbury Park, LIGS

London Borough of Hounslow

Ownership: Gunnersbury Park Trust

Gunnersbury Park is in the London Borough of Hounslow and lies between Acton, Brentford, Chiswick and Ealing. Purchased for the nation from the Rothschild family, the park was opened to the public by then Health Minister Neville Chamberlain in 1926¹. It is jointly managed by Hounslow and Ealing borough councils. The open space includes the park proper, and a western section of open grassland used for sports, events, and other recreation, once part of Brentford Common Field. This was incorporated into the estate in the late 19thC along with a claypit and brick and pottery works in the SW corner – today's Potomac Lake. The park extends across three terraces of the middle Thames, the river being near the southern boundary. There has been a succession of houses on the estate, which was first mentioned in 1347. The first known house was replaced by a large mansion which stood from 1658-1800 in which year the estate was bought for development and divided into 13 plots for fashionable villas. However, the estate was gradually reassembled, and two new villas were built in 1802, Gunnersbury Park House and Gunnersbury House. After successive owners and changes to both the villas and the estate, the Rothschild family bought the estate in 1880 and enlarged it, taking ownership of both mansions in 1889. Following some years of decline and neglect, a major restoration of the park was completed in 2018 and Gunnersbury Park House now houses the Museum for Hounslow and Ealing. However, it originally became a museum in 1929, housing objects from local antiquarians and collectors. The other mansion (Gunnersbury House) is under restoration as of 2024 and has been for several years.

The park consists of grassland, specimen trees, gardens and the Horseshoe and Round Ponds, together with restored outbuildings such as the Temple, Orangery and The Stables. A new Sports Centre building opened in 2021 on the west side of the park.

Geology

The park lies on the Paleogene (Eocene epoch) **London Clay Formation**, a marine unit deposited c. 50 million years ago. Apart from a narrow strip on which the mansions are built, the London Clay is overlain by late Pleistocene superficial deposits. These comprise three post-diversion* Thames gravel deposits forming terraces of various dates²⁻⁷ (approximate median ages given here), with a cover of **Langley Silt** ('Brickearth') along the southern boundary of the park. The **Lynch Hill Gravel Member** (c. 270,000 years, mainly MIS 8**) occurs in the north, creating what may be a modest landscape feature (gentle slope) visible from Gunnersbury Park House towards the main gate. The central part lies on the **Taplow Gravel Member** (c. 160,000 years, mainly MIS 6), and the **Kempton Park Gravel Member** (c. 50,000 years, mainly MIS 4/2) occurs in the south. It is part of the latter that is covered in the park by the **Langley Silt Member**. This occurs in much of west London and has been used for brickmaking. It appears to have a variable origin and age⁸ – in some areas it was deposited as windblown dust during arid tundra conditions during the latter part of the last glacial stage (late Devensian, MIS 2) and in others as flood silts or slope wash during the Holocene. At two sites on the Kempton Park terrace in nearby Isleworth⁸, the Langley Silt has been dated by thermoluminescence to 8,100- and 2,300-years BP (which *may* be an indicator for the park deposit).

The elevation of the terrace surfaces ranges from c. 25 m OD for the Lynch Hill Gravel to 15 m OD for the Kempton Park Gravel. There is no significant exposure, only scattered pebbles here and there in the topsoil. As already mentioned, the London Clay occurs at the surface along a narrow strip – between the Lynch Hill and Taplow Gravels at Gunnersbury Park House and north of the Sports Hub building. The Horseshoe Lake also lies on the London Clay. The 'Brickearth' and London Clay were dug for brickmaking and pottery (Potomac Lake, now a fishing lake, is a former pit) and sand from the terrace gravels was used 'for civil defence purposes' (probably sandbags) during the Second World War.

The **London Clay** is the 'solid' bedrock that underlies most of London. As the top of the London Clay is c. 50 million years old it indicates that there must have been this many years of erosion before the Lynch Hill and younger gravels were deposited. There may also have been rocks intermediate in age between the Clay and the gravels which left no traces. The London Clay was deposited in an arm of a warm tropical sea which perhaps had a maximum depth of >150 m; it occupied an arm of the North Sea Basin and covered most of south-east England.

After deposition great earth movements saw the closure of the precursor to the Mediterranean Sea as Africa collided with Europe and the Alpine Chain was created. In England old faults were reactivated in the process so that the deep basin of the Weald of southeast England was elevated to become an upfold and the London Valley became a downfold, thus protecting the sediments to some extent, as erosion is much more prevalent in high areas. Seasonal rain caused wide rivers to discharge large amounts of clay into the sea from a coastline probably then in the Midlands. Fossils of land plants and animals found within the marine clay have allowed researchers to compare the scene to Malaysia at the present day.

The **gravels** are former flood plain deposits of the Thames, deposited in cold climate conditions when the river was braided (i.e., with multiple channels) with much higher flow rates due to summer melt, distributing the gravels right across the valley floor. Falls in sea level during cold stages and uplift following unloading of the ice and/or tectonic movements, caused the river to cut down leading to new flood plain deposits accumulating at a lower level. Sand, silt and clay instead of gravel would be deposited when river flow rates were lower and occur as lenses within the gravels. The gravels here are mainly of flint, derived from the Chalk, Palaeogene deposits and reworked from older terraces.

Access

Gunnersbury Park has open public access and is well supplied by public transport to nearby stations such as Acton Town (Piccadilly and District Lines) and Kew Bridge (South Western Railway). From Acton Town it is a 750 m walk via the main gate in Popes Lane to Gunnersbury Park House. From Kew Bridge station it is 1.8 km, i.e., about 800 m to a gate in the SW corner of the park on Lionel Road North, then another kilometre or so through the park to Gunnersbury Park House.

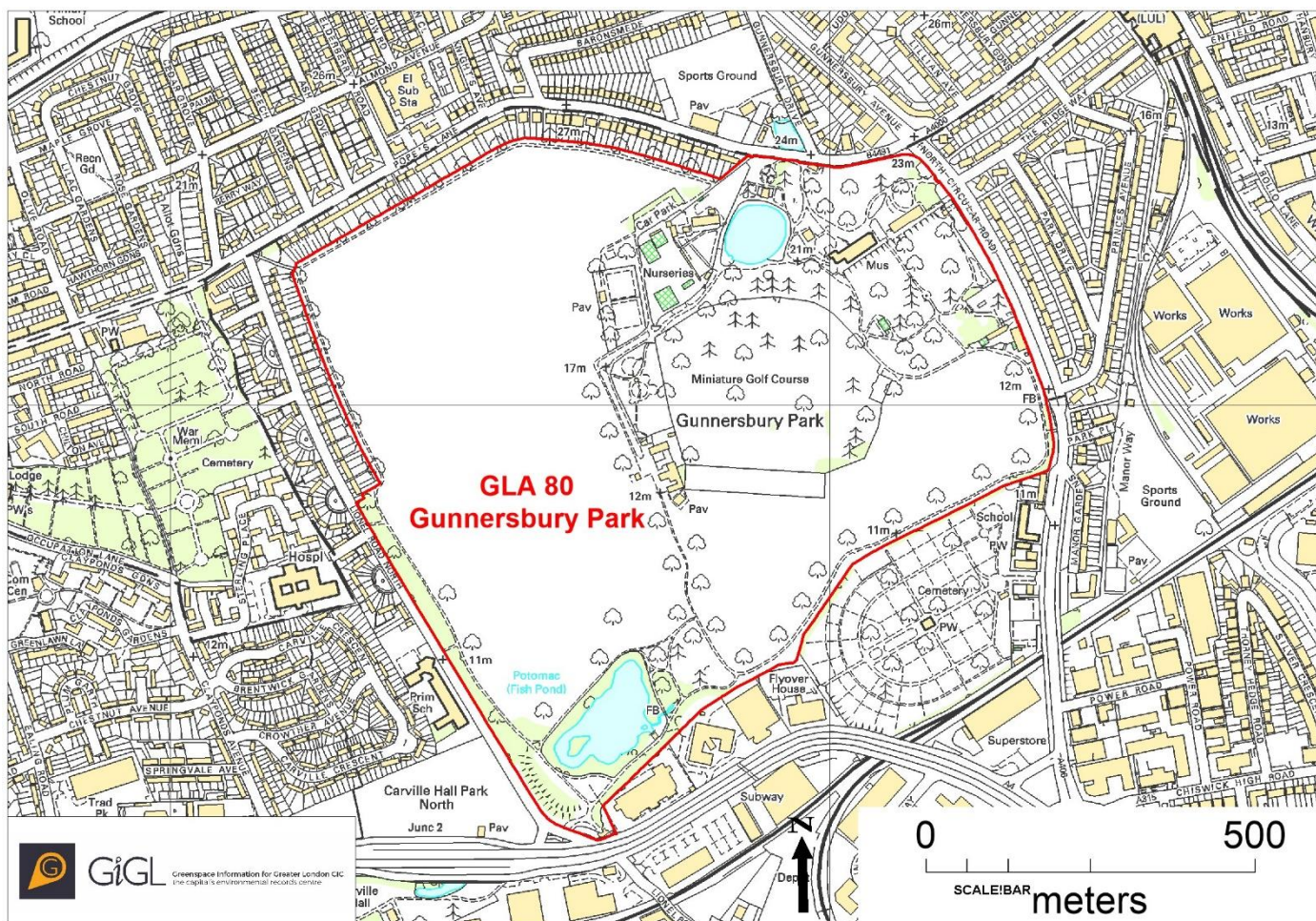
References

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Old 6in and 25in Ordnance Survey maps on the National Library of Scotland website have also been consulted.

*The River Thames originally flowed north of London along what is now the Vale of St Albans, until blocked by ice during the Anglian Glaciation of c. 450 ka, the most extensive known glaciation in the British Isles. The river was diverted to the south, eventually forming its present course through London.

**Marine Isotope Stages (MIS) represent alternating warm and cool periods in the Earth's paleoclimate, deduced from oxygen isotope values indicating temperature changes derived from data from deep sea core samples⁷. Working backwards from the present, which is MIS 1 in the scale, stages with even numbers have high levels of oxygen-18 and represent cold glacial periods (i.e., more oxygen-16 locked up in ice sheets), while the odd-numbered stages are lows in the oxygen-18 figures, representing warm interglacial intervals.



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Gunnersbury House and Museum (The Large Mansion – Small beyond). The slope is artificial and enhanced the view from them, 18.9.2019.



Gothic style tower used as boathouse on Potomac Lake, built on the foundations of a kiln, 11.8.2022.



Potomac Lake (former clay pit) in the SW corner of the park, 11.8.2022.

Photos: Allan Wheeler