

SGI 39 Ruislip and Eastcote Sarsen Boulders

London Borough of Hillingdon

Ownership: London Borough of Hillingdon, but one on 'Ruislip Almshouses' property.

Grid reference: various, see below

There are four known sarsen boulders (silcrete) that are publicly accessible in Ruislip and Eastcote, Hillingdon. They are:

- A. Two boulders in the Manor Farm Conservation Area, Ruislip (grid ref. TQ 0902 8781).
- B. One boulder outside the 'Ruislip Almshouses'¹. It lies by the footway on the B466 Eastcote Road and nearly opposite the Ruislip War Memorial (grid ref. TQ 0912 8765).
- C. A flat boulder in Eastcote House Gardens, along a driveway from the B466 High Road Eastcote, and near the Gardens' car park (grid ref. TQ 1072 8881).

All the boulders lie in the Pinn valley. The boulders in the **Manor Farm Conservation Area** (Loc. A) lie by a gate and between junctions on the main path through the conservation area. One path leads to the former farmhouse and the other to the main entrance of the Winston Churchill Hall. It is possible that the boulders could have been used as sharpening stones given their position in the former farmyard. Their use as route markers is another possibility² as with the stones at B and C.

The boulder outside the **Ruislip Almshouses** (Loc. B) lies in a shrub border. Unfortunately, it is often hidden in vegetation (which was the case when last visited in May 2024). The Almshouses were not built as true almshouses but are a conversion of 1617 of a single house into 10 units under the then Poor Laws. The dwellings have had various names but have been known by their current name since the 19thC³.

The boulder in **Eastcote House Gardens** (Loc. C) lies beside the driveway against a tree (on the left facing away from the main road).

Formation^{4, 5, 6}

Silcrete is a surface or near-surface deposit of soil, sediment, rock or weathered material that has been cemented by secondary silica to form an indurated mass. A genetic classification of silcretes has been proposed i.e. paedogenic types associated with silicification in the soil profile, and non-paedogenic types encompassing groundwater and evaporitic modes of formation. The latter classification has been proposed for most silcretes in the southern UK based on:

- The absence of complex profile structures
- tabular morphology and
- the simple nature of cementation.

Silcrete formation involves three elements: a silica source, silica transport, and silica deposition. The source of the silica is unclear, but leaching of feldspar, and clay-rich sediment in acidic weathering environments is the most likely mechanism for producing sufficient dissolved silica. It is probable that the silica was derived both internally, within the host sediments, and from adjacent clay-rich sediment, consistent with the composition of the Lambeth Group. Microcrystalline quartz is the most common cement type for the silcrete boulders described here.

It is generally accepted that silicification of sediments to form the silcretes in this area occurred during the deposition of the Lambeth Group c.56-55 Ma. This period saw the event known as the Paleocene-Eocene Temperature Maximum (PETM) when global temperatures were raised by ~6°C above those that were already quite high, warming near-surface groundwaters in turn aiding silicification. This event lasted about 200 ka including the rise in temperature which took about 20,000 years.

Geology

The surface bedrock geology of the immediate area around the **Manor Farm boulders (A)** and that outside the **Ruislip Almshouses (B)** comprises the Paleogene **Reading Formation (Lambeth Group)**, and the **London Clay Formation (Thames Group)**. Both were deposited during the Eocene epoch (Ypresian stage). Beneath the Reading Formation is the basal unit of the Lambeth Group, the Upnor Formation, which rests unconformably on the Chalk. A nearshore marine deposit, it comprises mainly sands with a pebble bed at the base of flints derived from the Chalk. The Upnor and Reading Formations underlie much of Ruislip and Eastcote. In this part of London, the Reading Formation comprises altered, multicoloured (mottled) overbank clay and river infill sands^{8,9}. The Reading Formation represents a coastal plain setting with lagoons and estuaries; the mottling of the clays records soil formation (pedogenesis) under the very warm oxidizing conditions. It is unclear whether the sands within which the sarsen boulders formed were from the Upnor or Reading Formation. The sands that outcrop locally e.g. in Northwood and Pinner, belong to the Reading Formation.

The London Clay was deposited during c. 54-48 Ma and records a return to open marine conditions whereby the coastline had receded to roughly where the Midlands are now. Rivers flowing into this marine embayment deposited large amounts of mud on the sea floor, with some silt and fine sand closer to the coastline.

None of the boulders are *in situ* and have probably been moved by human agency. The boulders at A and B lie just *off* the Reading Formation outcrop⁷ on the southern side of the Pinn valley. The **Eastcote House Gardens boulder (C)** lies on the Reading Fm. on the edge of the Pinn floodplain.

Access

All have good public transport access. A & B are 10-15 minutes' walk (respectively 1000m and 800m) from Ruislip station on the Metropolitan and Piccadilly Lines. There are bus stops (The Oaks, stops G and H) on Ruislip High Street closer at hand on each side of the road (routes 331, H13 & U10).

C is about 25 minutes' walk along Field End Road from Eastcote station (c.1500m) on the Metropolitan and Piccadilly Lines – turn right out of the station. Near the end of the road, just past a bus stop C, enter Eastcote Gardens through an opening. Cross grass to a path and bear right towards buildings and café where turn left towards the drive, where the stone can be found on the right. Alternatively take a 282 bus (not the 398) from Stop Q to Eastcote Road Eastcote Village (Stop X). On alighting, walk in the same direction and cross with care Joel Street and High Road Eastcote. After c.100m turn right into the drive into Eastcote House Gardens, and the boulder is on the left.

C is also about 25 minutes' walk from Northwood Hills station (Metropolitan Line) from where turn left along Joel Street. At the end of the road turn left along Eastcote High Road and turn

right into a drive after c.100m. The stone is along the drive on the left. Alternatively take a 282 or H13 bus from Stop A to Eastcote Methodist Church (Stop C). On alighting walk left and enter Eastcote Gardens through a nearby opening. Cross grass to a path and bear right towards buildings and café where turn left towards the drive, where the stone can be found on the right.

Car access: For A and B use the St Martin's Approach car park just north of the B466 (charge 08.30-18.30 Mon-Sat). For A, exit the rear of the car park into the conservation area, follow the path and soon turn right past Manor Farm Library and the Cow Byre to the open gate just beyond which are the boulders. For C, Eastcote House Gardens has a small car park as mentioned above, otherwise if full there is limited on-street parking off the main roads.

References

1. Bowlit, E.M., 1989. The Goodliest Place in Middlesex. Hillingdon Borough Libraries.
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3. *Ibid.* (Ref. 1).
4. Dixon, J.C., 2022, in Treatise on Geomorphology, Second edition (Ed.-in-Chief J.F. Shroder). Elsevier Inc.
5. Gutiérrez-Castorena, M.C., Effland, W.R., 2010, in Interpretation of Micromorphological Features of Soils and Regoliths (Eds: G. Stoops, V. Marcelino and F. Mees). Elsevier B.V.
6. Huggett, J. and Longstaffe, F.J., 2016. A brief account of new petrographic and isotopic insights into the Hertfordshire and Buckinghamshire Puddingstones of SE England. *Proceedings of the Geologists' Association* 127, 327-336.
7. British Geological Survey, [Geology Viewer](#).
8. Entwisle, D.C., Hobbs, P.R.N., Northmore, K.J., Skipper J., Raines, M.R., Self, S.J., Ellison, R.A. and Jones, L.D., 2013. Engineering geology of British rocks and soils – Lambeth Group. British Geological Survey Open Report OR/13/006.
9. Ellison, R.A., Woods, M.A., Allen, D.J., Forster, A., Pharaoh, T.C. and King, C., 2004. Geology of London, *Memoir of the British Geological Survey*, Sheets 256 (North London), 257 (Romford), 270 (South London), and 271 (Dartford) (England and Wales).

SGI 39 Sarsen Boulders, Ruislip & Eastcote.



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2

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4



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6

1-3. Boulders in the Manor Farm Conservation Area (loc. A). River Pinn flood plain off to left in (1). 4. Boulder outside Ruislip Almshouses (loc. B) – 5 shows position. 6. In Eastcote House Gardens (loc. C), River Pinn in trees. Dates: 1, 4: 13.5.2015; 2, 3: 11.6.2018; 5: 2019; 6: 16.9.2020. *All photos: Allan Wheeler except 5 – Google Streetview.*