

SGI 41 Harmondsworth Great Barn, Harmondsworth UB7 0AQ

London Borough of Hillingdon

Grid reference: TQ 0563 7784; Lat Long: 51.489674 , -0.47999471; What3Words: ports.tune.forces



Harmondsworth Great Barn (above) represents the remarkable survival of a non-secular, Medieval building in Greater London. Built in the 15th Century it remained in continuous use until the 1970s. It was bought by English Heritage in 2011 and is a Grade 1 listed building. The Barn is 58 x 11.4 m and was designed to store grain on the estate of Harmondsworth Manor, which since 1391, was in the possession of Winchester College. Building accounts and dendrochronology on the timber used both provide a date of construction of 1426-7.

The Great Barn is of geological interest because of the large blocks of ferricrete used in the construction of its foundations. Although unprepossessing as a building stone, ferricrete was widely used in medieval building and has been recorded in several churches in NW and N London suburbs (see Potter, 1987 & 2001; Robinson, 1988) and in Medieval structures further afield in southern Britain and NW Europe (see Siddall, 2023 and references therein and Woodcock, 2024). The use of this stone in Harmondsworth Barn is unique because of the particularly large blocks of ferricrete used (c. 50 x 70 cm) and also it is the only known use of this building stone surviving in a secular building in the region.

Ferricretes are defined here after Widdowson (2003) as surface or near-surface forming phenomena wherein sediments are cemented into a hard crust by iron oxide minerals. This process is considered independent of climate. Ferricrete crusts may have formed in a warm or tropical palaeoenvironments but it is not always possible to link a climatic environment to field occurrences of ferricretes within the London Basin. The likely source of ferricrete used for the construction of Harmondsworth Great Barn is local; ultimately derived from Pleistocene river gravels associated with the Thames and its tributaries, these stones would have been found in the Taplow Gravel Member outcropping in the Colne Valley within 1 kilometre of the site of the Great Barn. These and related river-terrace gravels are exploited today as aggregate in the area around Heathrow (see Sipson Lane Quarry Complex, [GLA 62](#)).

Ferricretes would have been soft and friable stones when first quarried but would 'weather' to form hard solid blocks. It is also possible that hardened blocks were found as field stones on or very close to the surface as has been described for the similar '*pierre-des-landes*' of Brittany in France (Chauris, 2010). Blocks are composed of unstratified, coarse grained, very poorly sorted, sub-angular to rounded clasts of flint in a dark red-orange iron oxide cement. Flint pebbles are generally stained yellow or brown.

Ferricrete is the dominant lithology used in the rubble masonry forming the foundations of the Great Barn. However also present are abundant flint nodules and a few blocks of Reigate Stone (Upper Greensand Formation). The latter material represents reused stone from an earlier structure. The walls also contain reused brick and tile waste within their fabric.

This building is currently under threat due to the proposed Heathrow expansion (12 Feb 2025).



Detail of the poorly-sorted iron cemented, flint gravel



Large blocks of ferricrete in the foundation walls of Harmondsworth Great Barn



Reigate Stone and flint nodules used in the rubble masonry of the Harmondsworth Great Barn foundation walls.



Sipson Lane Quarry (TQ 076 779, [GLA 62](#)) in the Taplow Gravels at Harmondsworth (Photo by Peter Collins, June 2012).



Foundation walls of Harmondsworth Great Barn.

References

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