

**GLA 58: Coldfall Wood, Potential LIGS**

London Borough of Haringey, TQ 276 903

Ownership: Local Authority. Open access.

**Coldfall Wood**

Coldfall Wood is a small area of ancient woodland still surviving in an area that is mostly built over. It slopes down to the north cutting a gully. It is adjacent to the St Pancras and Islington Cemetery in East Finchley with similar geology where exposures are more easily seen.

**The Anglian glaciation**

During the past 2 million years of the Ice Age there have been repeated cycles of glacial and interglacial periods. In the UK, the most extensive of the glacial periods recorded is the Anglian when the ice sheet reached southern England around 450,000 years ago. The present-day location of Finchley was then in a valley (known as the 'Finchley depression') which allowed a tongue of ice to push its way south as an elongated feature. A similar feature can be seen at Hornchurch (GLA 19). Both Coldfall Wood and Avenue House (GLA 2) are near the southern extremity of glacial till deposits which can be found today, proof of the glacier's earlier presence in an area which is now relatively high ground. It is possible that the ice sheet extended a bit further down the Brent valley but has subsequently been eroded<sup>1</sup>. The valley of the Brent would have been carved out by the large volumes of water coming from the melting glacier. Other deep valleys in the area are probably also the result of melt water escaping both from the Anglian ice sheet and subsequent periods of permafrost in the area. The small stream that now flows through the bottom of Coldfall Wood could never have carved out such a deep valley without extreme conditions. When seen, the till is usually most easily recognised as dark clay with fragments of white chalk plucked by the glacier from exposures in Hertfordshire. These are frequently seen on newly-dug graves at the top of the hill within the cemetery. Jurassic fossils have also been found in the past including the robust bivalve *Gryphaea* (Devil's toenail) and the internal torpedo-shaped skeletons of belemnites, relatives of squids, cuttlefish and octopus.

**Pre-Anglian gravel**

Before the Anglian glaciation the course of the Thames was to the north of London, up the Colne Valley, through the vale of St. Albans and into the North Sea in the Clacton area. The ice sheet overrode it and when it melted, a pro-glacial lake formed in the Colne Valley which eventually burst, pushing the course of the Thames in the opposite direction to its original route and then through what is now central London. In north London gravel is found underlying the glacial till and it is thought this was deposited by former tributaries of the Thames coming from the Weald right across the London area to join the Thames further north on its earlier route. The gravel underlying the till at Coldfall Wood is known as the Dollis Hill Gravel, first described from a temporary exposure on Dollis Hill near Hendon. One of the elements that distinguishes it from other gravels is the comparatively high proportion of Lower Greensand chert (7%) (see BGS Special Memoir, Fig. 31 and pp. 55-57) that can only have come from the Weald.

**London Clay**

Till and gravel can only be found on the highest part of Coldfall Wood on the west side. Elsewhere it has been eroded to the bedrock - the Eocene London Clay that underlies nearly all of London. The London Clay is a little older than 50 million years so there is a time gap of this much separating it from the overlying gravel. It is termed 'blue clay' but when exposed at the surface it oxidizes to the more familiar orange colour. It was laid down in a moderately deep sea at a time when Britain was decidedly warmer than today, comparable to the equatorial climate of Malaysia but also with some temperate elements detected in some of the plant fossils washed into it from rivers, probably as far away as the Midlands.

**Access**

Coldfall Wood is a public park with open access (see [www.coldfallwoods.co.uk](http://www.coldfallwoods.co.uk)). There are three entrances, two from the top in Creighton Avenue and the third from the adjacent Muswell Hill Playing Fields to the north. There are rough footpaths through the wood but actual exposures are difficult to see under the vegetation. The stream at the bottom is liable to flooding.

**Coldfall Wood**

Source: London's foundations, page 246 (Diana Clements)



**Site Map**

Source: London's foundations, page 244

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