

4. Lower Birch Walk

There is a small pit near the bottom of Birch Walk. It shows the geological layer found under the gravels which cap the Heath plateau.

You can see a bed of gravel at the base of this exposure, overlain by alternating layers of fine, pale yellow and reddish-brown, clayey sand. The gravel was deposited by a glacial meltwater stream flowing across an outwash plain, while the sandy layers are fine-grained and would have been deposited in quieter water - perhaps a lagoon. The alternating layers may indicate pulses of meltwater from different sources, maybe even seasonal variations. You may be able to spot small pebbles bedded in the sand; these are likely to be 'dropstones', rafted along in floating ice then dropped as it melted.



These deposits are classified by geologists as part of the Happisburgh Formation, laid down by an ice sheet entering east Norfolk from a northerly direction during early Middle Pleistocene times, probably some time between 630,000 and 475,000 years ago. The reddish-brown, clayey sand may have been washed out of the 'Norwich Brickearth', a deposit of glacial till (boulder clay) which was widely dug on Mousehold as a source of clay for making bricks. These beds are evidently too thin to have been worth exploiting here.



2. A crudely flaked late prehistoric flint scraper from the topsoil at Lower Birch Walk.



3. Many different kinds of 'erratic' rocks found their way into the glacial deposits of the Happisburgh Formation. This is a red quartz-rich sandstone from the Midlands, likely to have been brought to Norfolk in the bedload of a pre-glacial river.



4. Glacial lake sediments at Svinafells, Iceland, showing characteristic banding.

The geological exposures at Birch Walk are south facing. Tree clearance will let in sunlight, and help provide wildlife habitat for a range of heathland invertebrate species which rely on open ground and bare soils for nesting and hunting.

Photo credits

1., 2. and 3. © Tim Holt-Wilson, 4. © British Geological Survey P572722.