



National Trust

# Little Heath Pit

Site of Special Scientific Interest

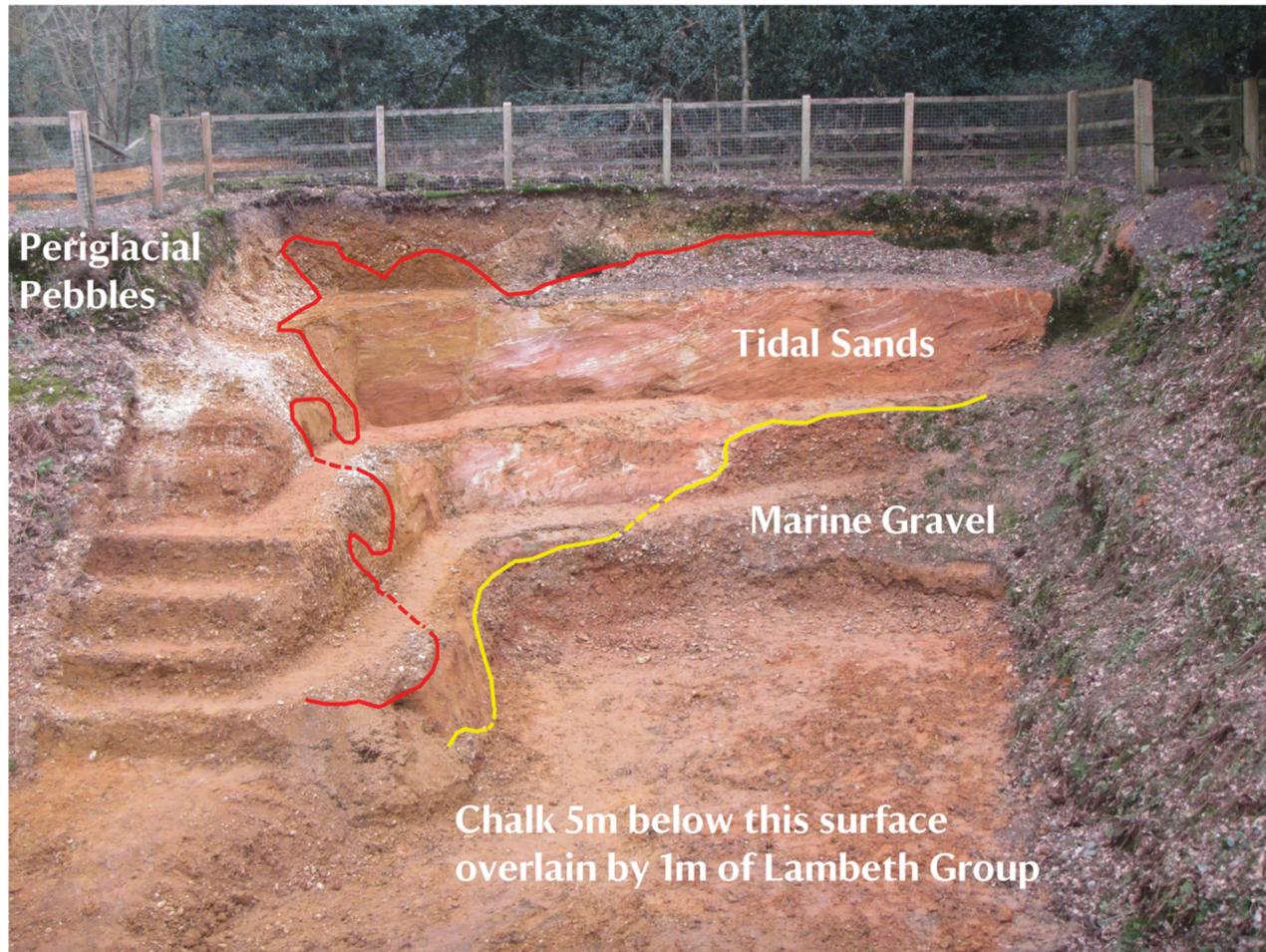


Photo: C R Maton

This site provides a glimpse of the time, 2.8 million years ago, when the North Sea extended westwards and much of Hertfordshire was under water. Gravel and sand was deposited at that time in a shallow marine environment. Subsequently the sea retreated and the Chilterns were uplifted, leaving Little Heath at approximately 170m above sea level. Erosion of the whole of SE England, particularly during the Ice Age, has left only isolated pockets of evidence of this former sea in Hertfordshire.

## History

At the start of the First World War this area was heathland. The Pit, along with others you can see in the surrounding area, were dug during that war to obtain roadstone for use in Hemel Hempstead. The woodland has developed since that time. An amateur geologist, Charles J Gilbert wrote a paper on these deposits in 1919 and in 1954 it was designated a Site of Special Scientific Interest (SSSI). The current exposure was created in 2012, and refreshed in 2025.

## Periglacial Pebbles

The pebbles were the target for roadstone during WWI. They were deposited during the last glacial period about 400,000 years ago. A periglacial environment similar to parts of Antarctica, or some areas of land in the Arctic, today. Freezing and thawing conditions created dips into the sands of up to 3m deep, to deposit the pebbles in a silty-clay matrix, eroded from the plateau surface.



Periglacial Environment, Antarctica Photo: C S Bristow

## Tidal Sands

The sands, 3m thick, are the most striking feature with their bright colour and very fine lines of deposit dipping from right to left. This is typical of a tidal environment where sloping layers of sand, silt and clay gradually form sand bars. The modern-day equivalent might be the environment behind a barrier island such as Scolt Head Island on the north Norfolk coast.



Scolt Head Island, Norfolk Photo: C S Bristow

## Marine Gravel

The gravel is 4 to 6.5m thick, with mostly rounded pebbles plus some larger cobbles and smaller granules in a sandy matrix. It was deposited dipping from right to left, with channels running through parts of it. A contemporary example could be Orford Ness on the Suffolk coast.



Orford Ness, Suffolk Photo: National Trust/John Millar

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