INTRODUCTION

The Brecks is one of the great natural areas of Britain. It is shaped by the glacial and periglacial processes of the last ice age, which ended 10,000 years ago. Windblown sand has shaped the landscape we see today. The Brecks Earth Heritage Trail introduces you to 18 sites to visit as part of the Brecks landscape and the story of human settlement set against a geological backdrop of millions of years of landform change.

FIND OUT MORE

• You can get in-depth information at home from our website, or take it with you on your walk with the Earth Heritage Trail Guide. You can download a PDF of this guide from our website, or access information, by visiting the Trail pages at www.breakingnewground.org.uk/earthheritagetrail/

• For more Earth heritage information visit these websites:
  - Norfolk Geodiversity Partnership
  - GeoSuffolk
  - Norfolk Geology

• You can get access details to the sites via these websites:
  - Norfolk Geodiversity Partnership
  - Norfolk Geology

• Additional information can be found on the ESRI and LDNIO websites.

The Brecks Earth Heritage Trail

LANDSCAPE HISTORY

The now-vanished Bytham River flowed through the Brecks, and contains a huge reserve of groundwater. A disused brick pit in a remote part of Thetford Forest. Chalk bedrock comes close to the surface here, along with Ice Age deposits of sandy clay suitable for making bricks. Pitted chalk was used from the 14th century to make bricks for the royal palaces of Scotland. Over 80 Palaeolithic handaxes were found in chalky gravel deposits in the Downham area. They were made during the Chalky Gravel Formation, by a Neanderthal species possibly Homo heidelbergensis (an ancestral species of Homo sapiens).

Also, a layer of wind-blown silt and fine sand deposited over 300 years ago. A glimpse into the Chalk bedrock of Turonian age, about 90 million years old. Miners could access the productive ‘Brandon Flint Series’ here.

A place to explore the story of shifting, wind-blown sands. You can see old dunes in the Park and nearby forest, formed when topsoil was bared and stabilised by sheep and rabbit farming in dry conditions over 300 years ago. Also, a layer of wind-blown silt and fine sand deposited over 300 years ago. A glimpse into the Chalk bedrock of Turonian age, about 90 million years old. Miners could access the productive ‘Brandon Flint Series’ here.

ACKNOWLEDGMENTS

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PICTURE CREDITS

1. TL 801 877
2. Downham–
3. TL 811 852
4. TL 805 890
5. TL 771 849
6. TL 798 848
7. TL 818 899
8. TL 818 899
13. 4. W Whitaker, S Skertchly & A Jukes-Browne: Cranfield University (NSRI) 2016 used with permission.
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17. 11.  Courtesy Beverly Curl / GeoSuffolk.
A former sand and gravel quarry developed in the floodplain of the River Wissey. It is one of the most important Ice Age sites in Britain. Excavation of buried river channel deposits in 2002 yielded rich evidence of a 'mammoth steppe' environment and human activity about 60,000 years ago. Neanderthal 'but co-op' handaxes were associated with remains of at least 11 woolly mammoths.

A natural spring in the setting of an old quarry in the Little Ouse valley. Glacial sand and gravel support acidic grassland flora and also vegetation stripes developed on periglacial patterned ground.

Plants of chalky and sandy soils over patterned ground. From the hummocky terrain. Gravel over many centuries, creating a torrent. This has been dug for sand & gravel over many centuries, creating a torrent. It can be seen ancient river terrace landforms in the valley nearby.

A view over the Little Ouse valley, from the St Helen's Chapel site.

Mammoth Trail panel explains the story.

A disused gravel pit, with a special place in the history of archaeology and geology. In 1060, it was one of the first ever sites in Britain to be investigated for evidence for Palaeolithic human settlement. Articulated mammoths were found. Distinctive quartz-rich pebbles may be found, deposited here by a now-vanished river that flowed through from the Midlands about ½ million years ago.

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A crater-like depression formed by dissolution and collapse of Chalk bedrock into a doline depression over thousands of years. It is one of a local group of 'Breckland meres', including nearby Ringmere and Langmere, with water levels linked to fluctuations in groundwater.

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A view over the Little Ouse valley, from the St Helen's Chapel site.

How chalk solution hollows known as alveoles form in chalk bedrock.

A Classic Brecks heathland, and a good place to seek Ice Age patterned ground, with variations of plant life linked to variations in soil type (best seen in the south-western area). East of the main road is an area of sandy soils; this is a river terrace. A former floodplain of the Little Ouse laid down by meltwater rivers draining and ice sheet and deposited here as part of a lake delta. The site gives fine views over RAF Lakenheath and the western Brecks landscape.

A view over the former Babeham Mere, following recent scrub clearance work by Natural England.

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A Classic site for periglacial ground-ice depressions visible as a cluster of natural ponds dating back over 10,000 years. Some rare water beetle species have been living here since then. The ponds were formed by blisters of ground ice during the last Ice Age. Scientists debate whether they are the remains of pingo or lithalsa landforms.