Hidden hunebed

Some 5500 years ago, the farmers of the Funnelbeaker culture used the huge boulders found in the glacial till to build their 'hunebeds' (megalithic tombs). The hunebeds at the foot of Havelterberg illustrate the strong relationship between geological and archaeological heritage.

The famous professor Albert van Giffen made a study of hunebed D53 in 1918. The Luftwaffe demanded that the hunebed be demolished to make room for the airfield, but Van Giffen was able to make a deal with the Germans. The more than 50 boulders were placed in a 6 metre deep pit next to the hunebed and covered over. Hunebed D54 was camouflaged by a layer of sand. In 1949, hunebed D53 was re-excavated and reconstructed using the meticulous drawings Van Giffen made in 1918.

Water colour of hunebed D53 with D54 in the background, Jan Derksen Staats, 1921

Integrated diversity

Havelterberg is characterized by an enormous geological diversity. It boasts glacial till of different origins with different compositions. Some layers of till are thin, if present at all, while others are several metres thick. The glacial till forms the highly varied geological foundation of the landscape. People have played a prominent role in this region since the Palaeolithic Age. The Second World War left more traces in Havelterberg than anywhere else in Drenthe province.

This combination of geological, archaeological and cultural history has resulted in a unique and varied landscape with many rare species of plants such as bitter vetch, zigzag clover and moonwort. Thanks to its outstanding natural value, the entire Holtingerzand area has been designated a Natura 2000 protected area, meaning this area is recognized by the European Union as a unique natural heritage site.

More information

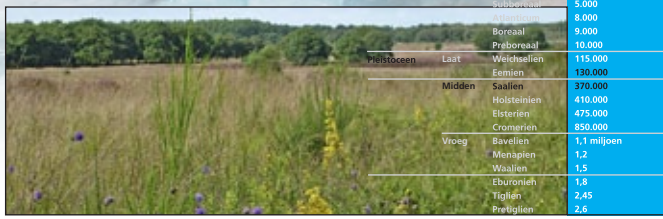
Provincie Drenthe
+ 31 592 365 555
bodem@drenthe.nl
www.drenthe.nl/aardkundigewaarden

Gemeente Westerveld
+31 521 349 349
info@gemeentewesterveld.nl
www.gemeentewesterveld.nl

COLOFON
Tekst, foto's: G.Koopman, H.Dekker
Ontwerp; Buro Kloeg
Grafische verzorging Docucentrum
Kaartmateriaal: Provincie Drenthe
Juni 2013

Recreatieschap Drenthe

Havelterberg



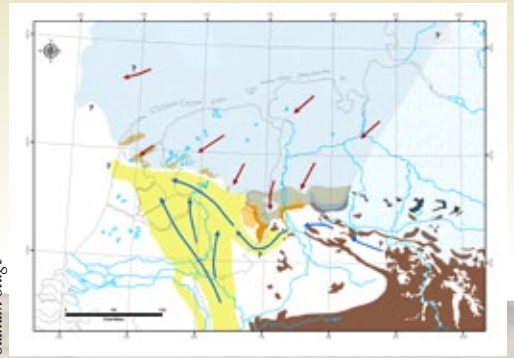
Havelterberg is a prominent push moraine in the south-west of Drenthe province. Its geological and cultural history has resulted in a unique and varied landscape with a profusion of plant and animal species.

On 20 June 2013, Havelterberg, an area of international significance, was officially recognized as a geological heritage site.

A moraine in Drenthe

During the Saalian Stage, the penultimate ice age some 150,000 years ago, three moraines now known as Havelterberg, Bisschopsberg and Woldberg were forced upwards by glacial action. An ice cap, hundreds of metres thick, pushed in a south-westerly direction and created a moraine belt that includes the 'High Mountain' on the island of Texel, the 'Red Cliff' in the Frisian Gaasterland region, and the Damme Hills region in the north of Germany.

In a later phase of expansion, the ice cap pushed across the Havelter 'mountain' again, leaving a trail of glacial till in its wake. This glacial till (also known as boulder clay) is a mixture of stones, sand and loam that was carried by the ice cap all the way from Scandinavia. It has a



A huge ice cap pushed a moraine belt across the northern Netherlands during the Saalian Stage

dense structure caused by a high concentration of clay and loam particles. The glacial till on the Havelterberg lies just below the surface.

Glacial landscape

The ice lobe pushed up the soil to the front and to the side forming a half circle. This created a glacial basin that was eroded to a depth of some 15 metres by the melt water that flowed into it. Later on, periglacial sand dunes were formed in this basin. Over time, the dunes were buried up to their peaks by a layer of peat several metres thick. When the peat was drained and the soil subsided the dunes were revealed again.

The southern edge of Havelterberg has a very sharp transition to the peatlands lying 15 to 18 metres below. This abrupt transition is the result of erosion caused by the ancient bedding of the Vecht river. This melt water river flowed in a westerly direction during a later period in the Saalian stage.

Foto: Frans de Vries, de Doeze

During the last ice age some 15,000 years ago, though it was very cold, the ice cap failed to reach the borders of the Netherlands. This created the right conditions for the formation of frozen ice mounds called pingos. When the ice in these pingos melted, it formed round depressions surrounded by an earthen ring-shaped mound, such as can be found near 'de Doeze' and 'de Kolonie'. The wind covered everything with a layer of periglacial sand.

Fliegerhorst Havelte airfield

In 1942 the German occupiers commenced with the construction of the 'Fliegerhorst Havelte' airfield in order to free up capacity at Schiphol Airport. Havelterberg was the ideal location for a fully functioning airport thanks to its strategic location, its relatively high elevation and the openness of the surrounding area. Some 600 hectares were levelled and drained and the nearby village of Darp was almost entirely swallowed up by the development. On 24 March 1945, the nearly finished airport was completely destroyed during a bombing raid which left behind more than 2000 bomb craters. Another airfield was planned at the foot of Havelterberg, however this one was never completed. Fliegerhorst Havelte has proved to be an unintentional boon to the Havelterberg

Free clearly recognizable open air hangars: open areas for parking aircraft surrounded by a high earthen embankment

landscape. The open air hangars are a remarkable topographical feature and the runways have transformed into unique grasslands where orchids and other rare plants grow. The bomb craters have become important breeding areas for amphibious creatures.