AHN: digital elevation map of the Netherlands

Figure 1. Polder Mijdrecht

Peat has been used as fuel, since approximately 1400 AD. The digging of peat resulted in large lakes. Polder Mijdrecht has been pumped dry in the 19th century. As a result of differential compaction between sandy creeks and clayey swamps, the originally low-lying sandy creeks are now higher ridges in the landscape.

Figure 2. "Wiel van Bassa"

The Wiel van Bassa was formed by a dike breach in 1573 AD. A sandy channel-fill under the dike has been washed away due to the large water pressure. This resulted in a collapse of the dike and the formation of a scour hole of originally 22 meters deep. Later the dike was rebuilt around the scour hole.

Figure 3. Ice-pushed ridge near Arnhem

The ice-pushed ridges were formed during the Saalian glacial period (~150.000 years ago). They are approximately 100 m high. The ice pushed ridge was undercut by the later (Holocene) course of the Rhine. This gave rise to a steep scarp.

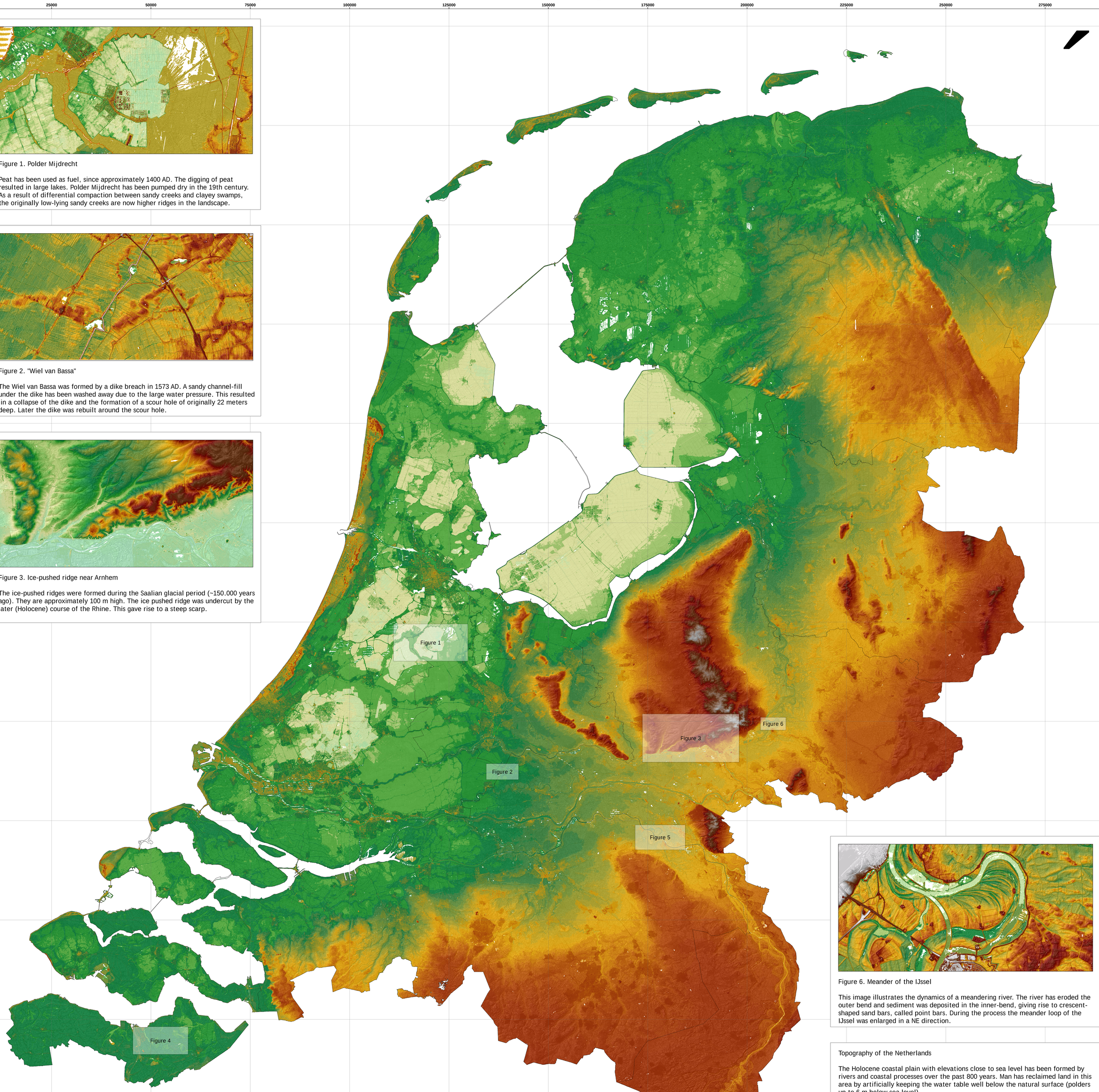

Figure 6. Meander of the IJssel

This image illustrates the dynamics of a meandering river. The river has eroded the outer bend and sediment was deposited in the inner-bend, giving rise to crescent-shaped sand bars, called point bars. During the process the meander loop of the IJssel was enlarged in a NE direction.

Topography of the Netherlands

The Holocene coastal plain with elevations close to sea level has been formed by rivers and coastal processes over the past 800 years. Man has reclaimed land in this area by artificially keeping the water table well below the natural surface (polders up to 6 m below sea level).

In the central Netherlands, ice-pushed ridges were formed during the penultimate glaciation (~150,000 years ago). Large ice lobes have pushed fluvial deposits up to elevations of over 100 m above sea level.

The deposits of the dissected limestone plateau in the extreme south of the Netherlands were formed during the Cretaceous, more than 65 million years ago, but dissection took place mostly during the ice ages.

Elevation in meters (0 = Ordnance Datum)

-8 0 30 320

Figure 4. Tidal creeks in Zeeuws-Vlaanderen

The creeks in Zeeuws-Vlaanderen have been in contact with the sea for a long time. With every flood, water entered the creeks, and deposited sediments. The former creeks are still visible in the topography.

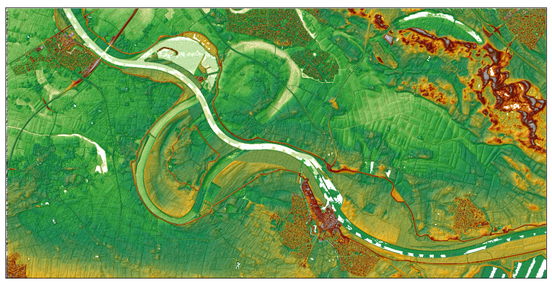

Figure 5. "Land van Maas en Waal"

In the north-east, dunes from the last Ice Age are present. These are approximately 11,000 years old. In the middle of the image, two abandoned meanders of the Meuse can be seen. The northern meander was abandoned in a natural way, whereas the southern one is a result of straightening the Meuse river channel.

0 Scale: 1:200.000 25
kilometers

More information can be found on:
www.ahn.nl
www.rdnap.nl
www.geo.uu.nl/fg
www.geo.uu.nl/fg/palaeogeography

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