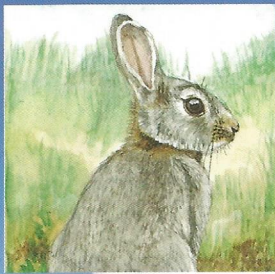


WADDEN

natureguide





THE NETHERLANDS 10.000 YEARS AGO

The origin of a West Frisian island

In the five hundreds of millions of years' development of the earth, the Frisian islands aren't very old. How the islands developed goes back to after the last ice age. The enormous lumps of ice covering large parts of the earth started to melt. All this meltwater formed or enlarged the seas and oceans. The North Sea expanded as well. The Channel came into being and England became a real island. The sand masses, transported by the ice and rivers towards the present North Sea bottom, started to drift. Carried along by currents, enormous sandbanks were formed along what later would be our coast. These sandbanks grew together and at one time came above water at low tide. Sun and wind had free play. Sand accumulated behind deposits, shells, and dead animals. In the beginning these small hills, kept together by plants, grew into mighty dune ridges. Finally along our coast was a long range of sand dunes. This is called a sand wall, i.e. an elongated often hooked strip of sand projecting from the shore deposited by longshore drift and usually above water. This wall was not entirely closed. Rivers drained through openings and also the sea made openings as a result of the changing level throughout the centuries. Sometimes the land behind the sand wall was flooded and on other occasion was dry again. Large peat moors were formed. Throughout the centuries the luxuriant vegetation provided a very thick layer of peat. This way the Dutch coast was formed. From the south there were long ranges of sand dunes interrupted by river mouths. Up to Den Helder a long, almost uninterrupted range of dunes protected the peat and clay area behind the dunes. Above Den Helder the landscape alters. The remnants of the sand wall can still be identified: viz. the ranges of dunes on the Frisian islands. The land behind the dunes disappeared almost entirely. Twice a day, during high tide, the sea inundates the area. In 1296 the land behind the Wadden isles endured the largest alteration in form.



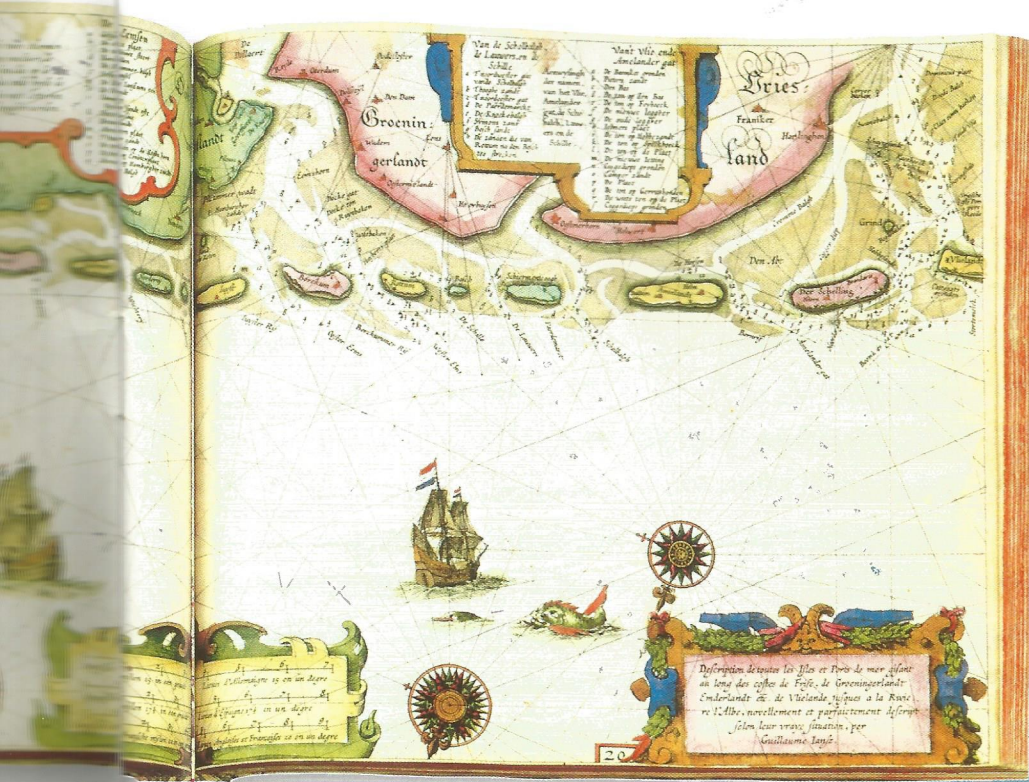
With a devastating force, during what would later be called the Saint Lucia flood, the sea rushed into the tidal inlets of the Wadden area. The isle of Griend practically disappeared altogether and Harlingen became a village by the sea. Not only the Saint Lucia flood determined the final shape of the islands. In the next centuries it was a battle between men and the sea which would give the area its current outward appearance. And still nature will assert its influence. Every year there is always a different sight from the air. Apart from the force of the sea, sun and wind, the plant, animal and human beings are elements in the history of the development of the islands that shaped the islands. As soon as new land was being formed somewhere, nature grabbed its chances. The first inhabitants were the plants. Of course the birds already discovered this new land. They'll only settle when the new land is fit for habitation. Food, hiding-places, material for nesting, determines their chances of survival. No plant can grow just anywhere. A Meadow Buttercup cannot be found on the beach



NORTH OF
and Man
plant sp
be wet
case ma
ter aroun
EARLY HAB



The Europ
Diamant
numerals



NORTH OF THE NETHERLANDS IN THE 16TH CENTURY

and Marram grass does not grow in the polder. Each plant species has its own demands. The ground must be wet or dry. There must be enough sun or, as the case may be, shadow. One plant can endure salt water around its roots; the other plant will die.

EARLY HABITATION IN THE WADDEN AREA

