

COHABITATION FOR CLIMATE RESILIENCE

LEIBNIZ UNIVERSITY HANOVER



Country / City **GERMANY / HANOVER**

University / School **GOTTFRIED WILHELM LEIBNIZ UNIVERSITY HANOVER**

Academic year **5**

Title of the project **RISING TOGETHER: LANDSCAPE ARCHITECTURAL SCENARIOS FOR SPIEKEROOG FACING SEA LEVEL RISE**

Authors **FREDERIK AST, WOLFHARD FRIEDEL**

TECHNICAL DOSSIER

Title of the project **RISING TOGETHER: LANDSCAPE ARCHITECTURAL SCENARIOS FOR SPIEKEROOG FACING SEA LEVEL RISE**
Authors **FREDERIK AST, WOLFHARD FRIEDEL**
Title of the course **NEWISLAND: LANDSCAPE ARCHITECTURAL SEA LEVEL RISE SCENARIOS FOR SPIEKEROOG, MASTER PROJECT**
Academic year **4**
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The rise in sea level due to climate change can no longer be denied, nor can it be stopped. Extreme forecasts predict that sea levels will rise by one meter by 2100 and by as much as five meters by 2300. In Germany, the North Sea coast of Lower Saxony is particularly affected. The chain of islands off the mainland currently serves as a buffer from the effects of the increased storm surges. The motto of this project is „Rising together“. By observing island processes and needs, adaptation methods were determined. Through sand reclamation, a targeted increase in elevation of Spiekeroog island can be achieved. Through a look at island formation and history, ecosystem-based coastal protection measures were derived. The concept is based on the recognition of process dynamics between and within biotic and abiotic actants on and around Spiekeroog. Ecosystem-based effects are used to revive the dynamics and preserve the core of the island for human use. The goal is to achieve ecosystem resilience with the help of periodic anthropogenic initialization.

For further information

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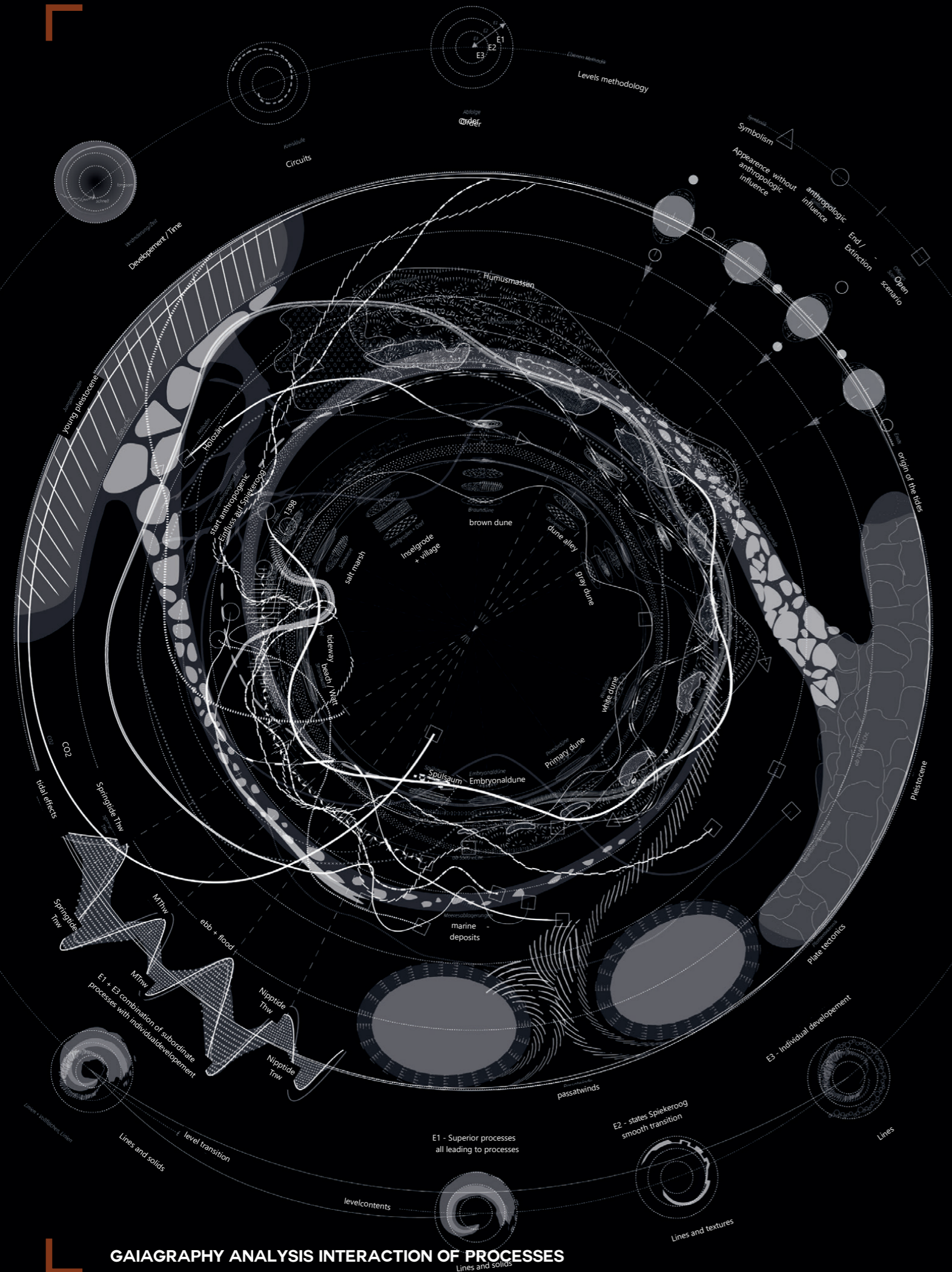
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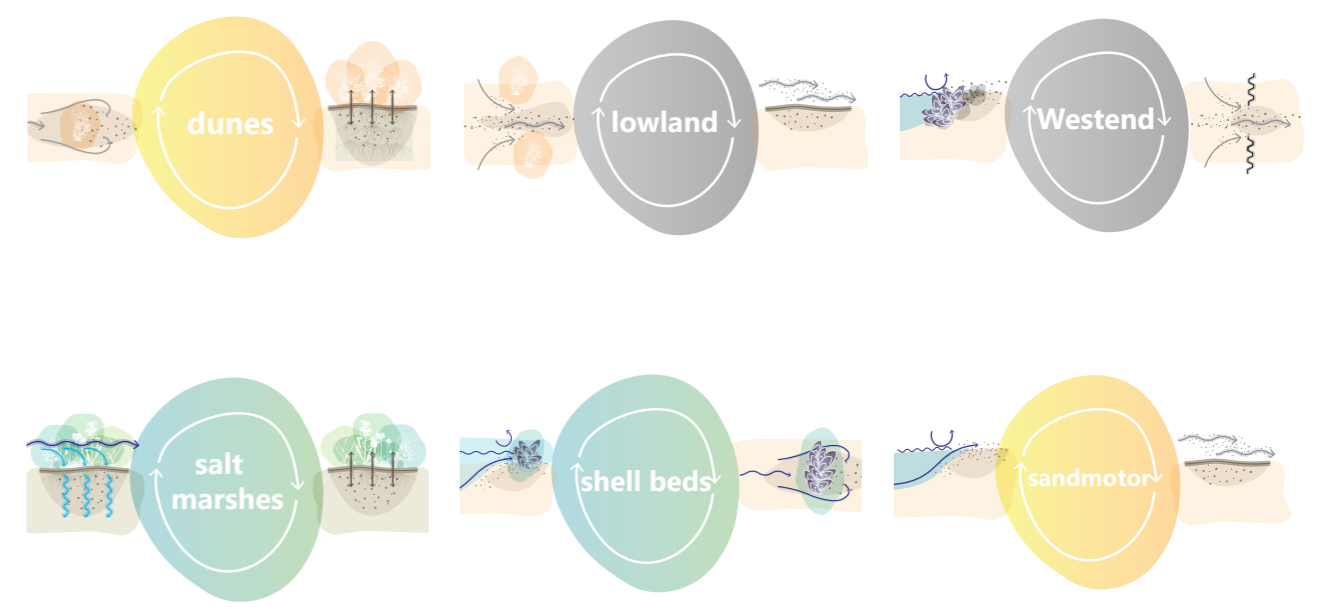
12th International Biennial Landscape Barcelona

Barcelona November 2023

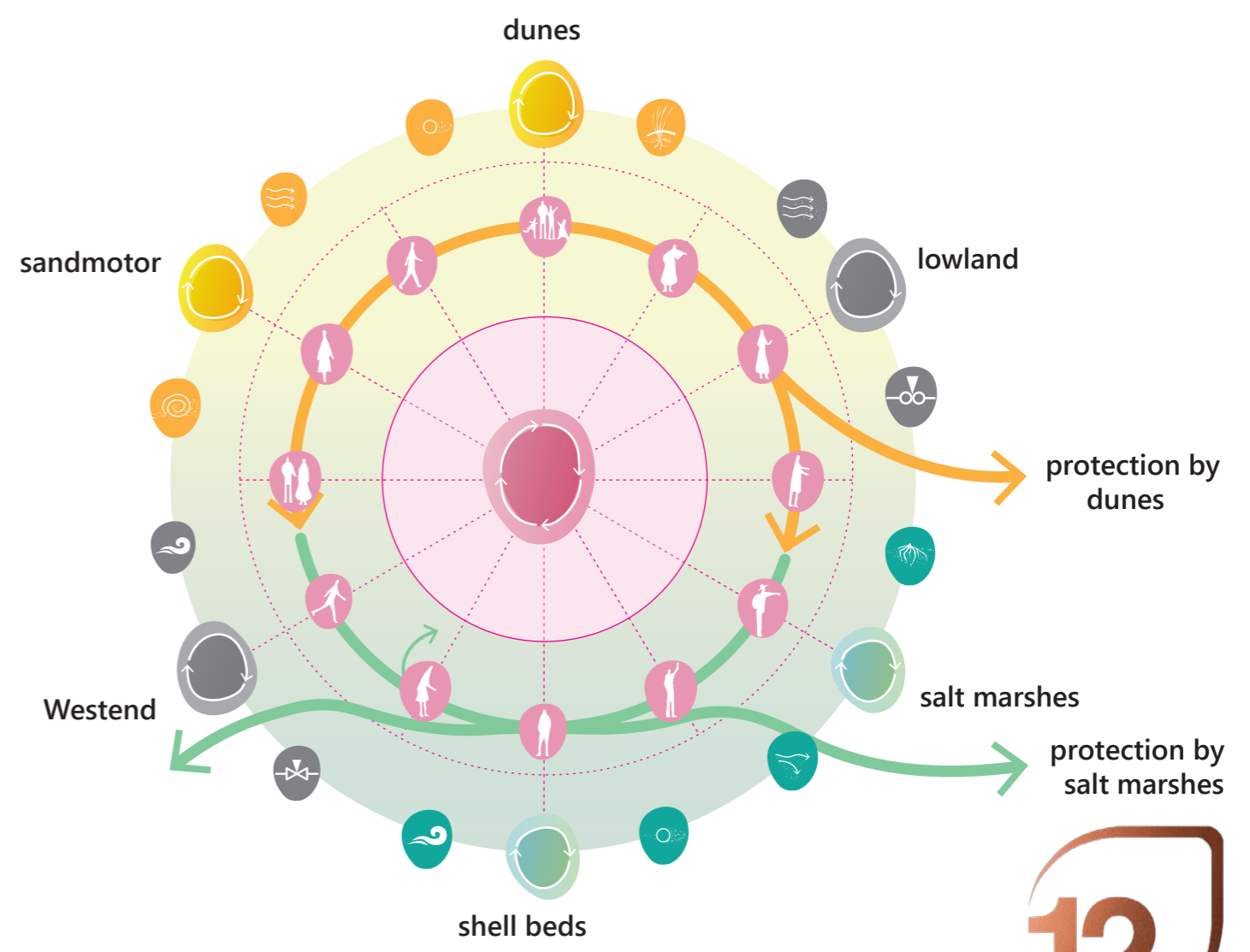
SCHOOL PRIZE



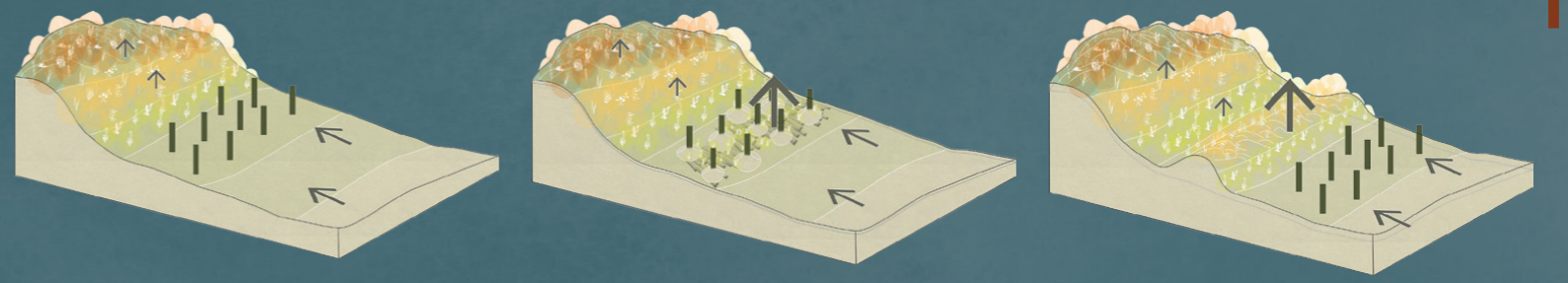
GAIAGRAPHY ANALYSIS INTERACTION OF PROCESSES



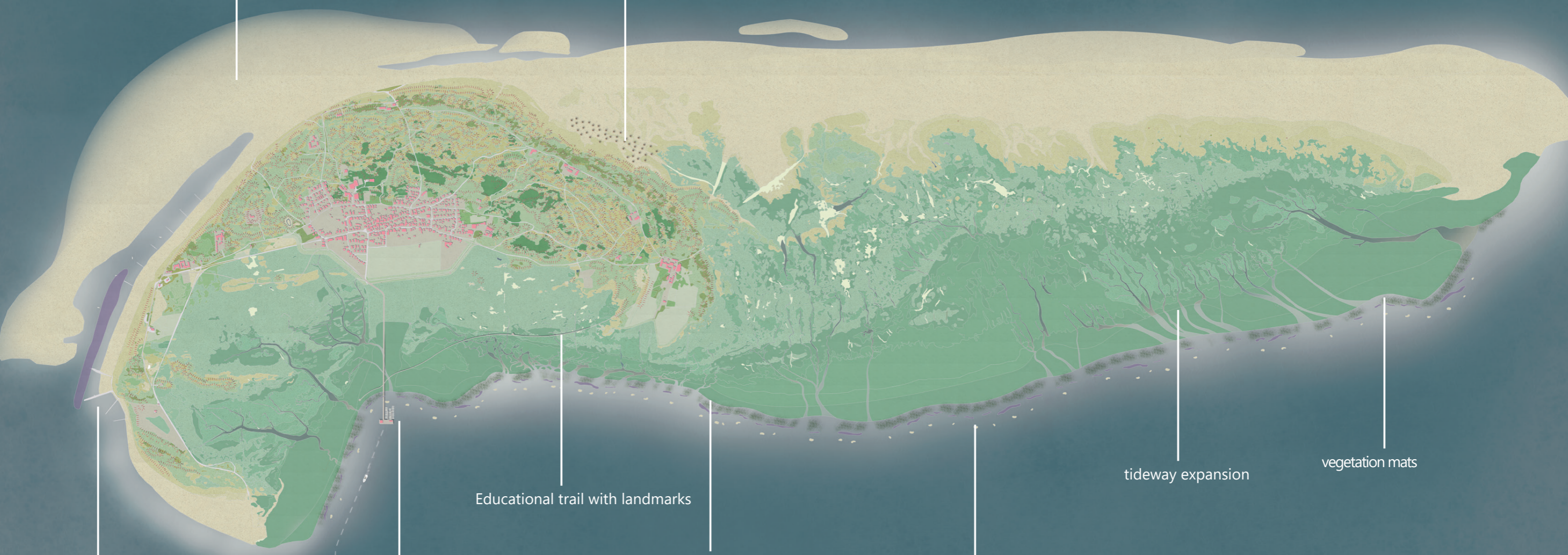
EFFECTS OF DUNES, LOWLAND, WESTEND, SALT MARSHES, SHELL BEDS AND SANDMOTORS



EFFECT PLAN



DEVELOPMENT OF DUNES THROUGH INITIALIZATION



sandmotor

posts for dune development

Educational trail with landmarks

tideway expansion

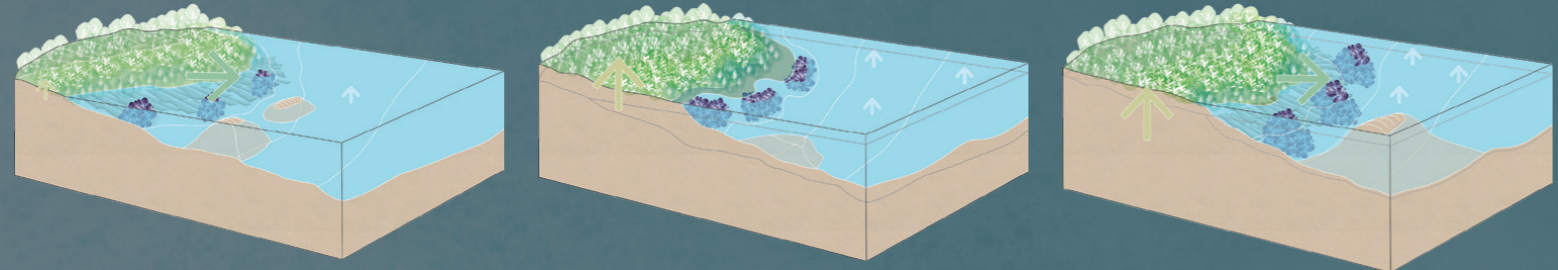
vegetation mats

shell shield

new harbour

shell beds

sand movement



DEVELOPMENT OF SALT MARSHES THROUGH INITIALIZATION

PLAN INITIAL PHASE

