



Country / City	France / Paris
University / School	Ecole Nationale Supérieure de Paysage de Versailles
Academic year	2018-2019
Title of the project	For an agricultural landscape freed from its antropic form
Authors	Emma Morillon

TECHNICAL DOSSIER

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Authors	Emma Morillon
Title of the course	Nature in cities
Academic year	2018-2019
Teaching Staff	Sylvie Salles, Aurélien Ramos, Olivier Marty, Roel van Gerwen
Department/Section/Program of belonging	Landscape architecture graduation project
University/School	Ecole Nationale Supérieure de Paysage de Versailles



Written statement, short description of the project in English, no more than 250 words

This graduation project is an invitation to explore a typical Dutch landscape : the Noordoostpolder. Covering a land of 59 500 ha of great sedimented soil, this polder was built in the 40's for agricultural purposes.

This polder used land reclaimed from the artificial IJsselmeer lake (land reclaimed previously from the northern see) to create a coherent layout that integrates agricultural and urban elements at once within its perfect grid.

Farms and trees composed the horizon in a straight and precise alignment, where all recurring elements are laid out like musical rhythmic loops.

Every aspects of this environment is man-made and designed with regularity in what could be seen as the pinnacle of an anthropic land.

Noordoostpolder's soil however, sedimented for years, the giant grid is crumbling as men struggle to control natural phenomena that occur ; the historical landscape is reclaiming back its rightful place. Floods, subsidence and drought are increasing. This diploma draws from these natural trends to create a new design strategy finding man-made and natural landscapes symbiosis. With its original approach to landscape, this project suggests an innovative and sustainable design for tomorrow's agricultural land.

For further information
Máster d'Arquitectura del Paisatge -DUOT - UPC

T: + 34 93 401 64 11 / +34 93 552 0842
Contact via email at: biennal.paisatge@upc.edu

Máster d'Arquitectura del Paisatge -DUOT - UPC
ETSAB- Escola Tècnica Superior
d'Arquitectura de Barcelona
Avenida Diagonal, 649 piso 5
08028 Barcelona-Spain



CLIMATE CHANGE AGAIN

11th International Biennial Landscape Barcelona

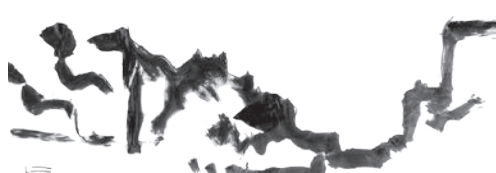
Barcelona September 2020
SCHOOL PRIZE



0'50-1'29 The lake



1'29-1'42 The port



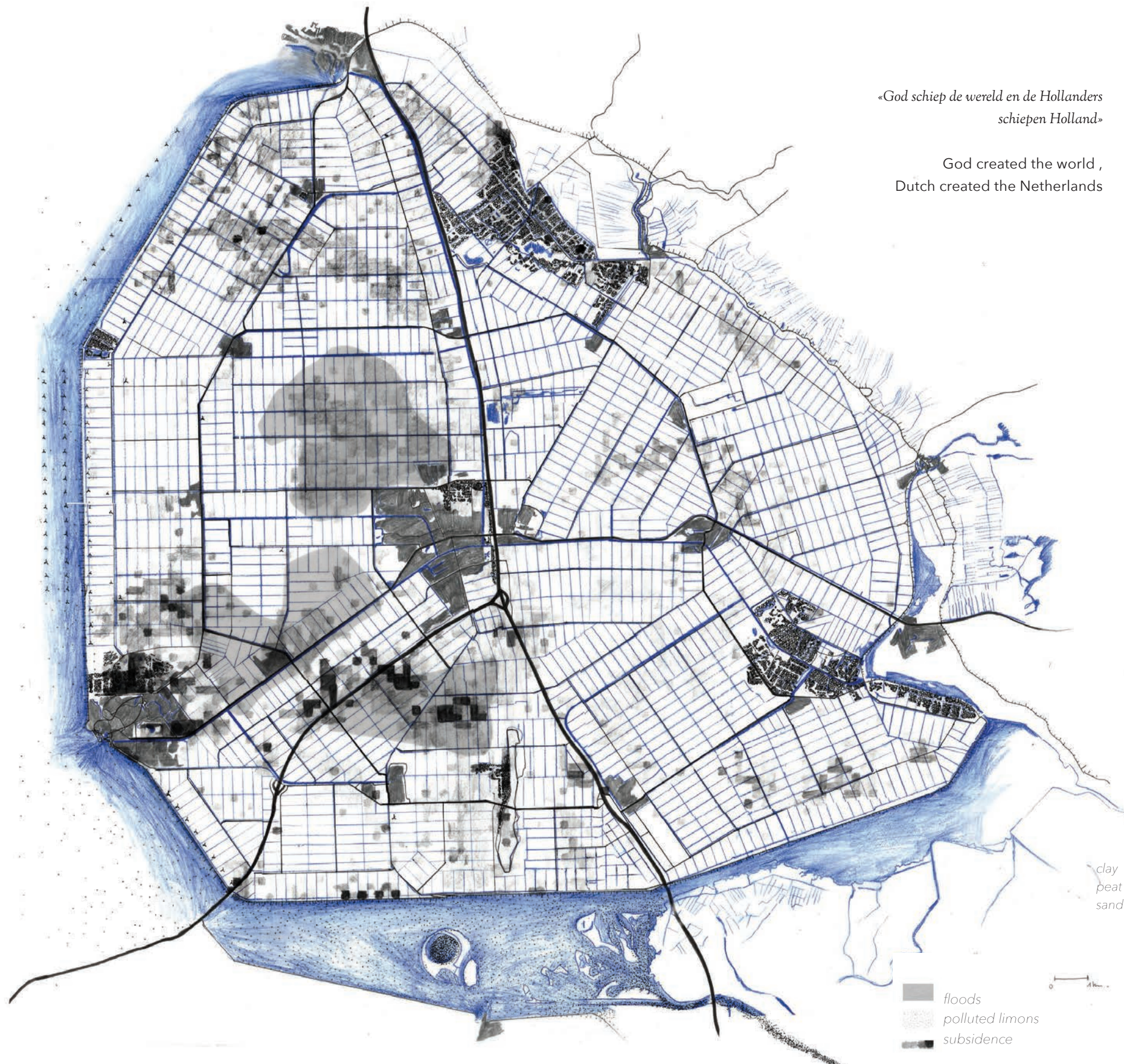
2'13-3'37 The island



4'06-4'29 The dike



5'52-6'09 The fields



NOORDOOSTPOLDER

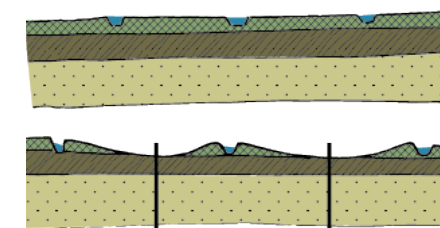
A Landscape under control

This land is a perfect example of an anthropic landscape. It was built in 1940's for agriculture purposes reclaiming land on the IJsselmeer lake. Men have thoroughly transformed the natural environment with identical agricultural blocks in a geometric grid.

However the grid does not maintain and control the land and floods, subsidence or rough are increasing. All due to the intensive draining system, agricultural over-exploitation and climate change.

The musical analysis provides an innovative understanding of the landscape and is based on a personal interpretation of this atypic land.

What is subsidence ?



Gradual sinking of landforms to a lower level as a result of earth movements, mining operations, etc
Subsidence is increasing and causes flooding issues in the polder.



Analysing the Noordoostpolder
through musical composition
Listen the music *Blue to grey* song
by scanning this QR code



The subsidence linked to its past landscape ?

Data are coming from the Dutch geologist Wouter Gotje



NOORDOOSTPOLDER

Design from the bottom up

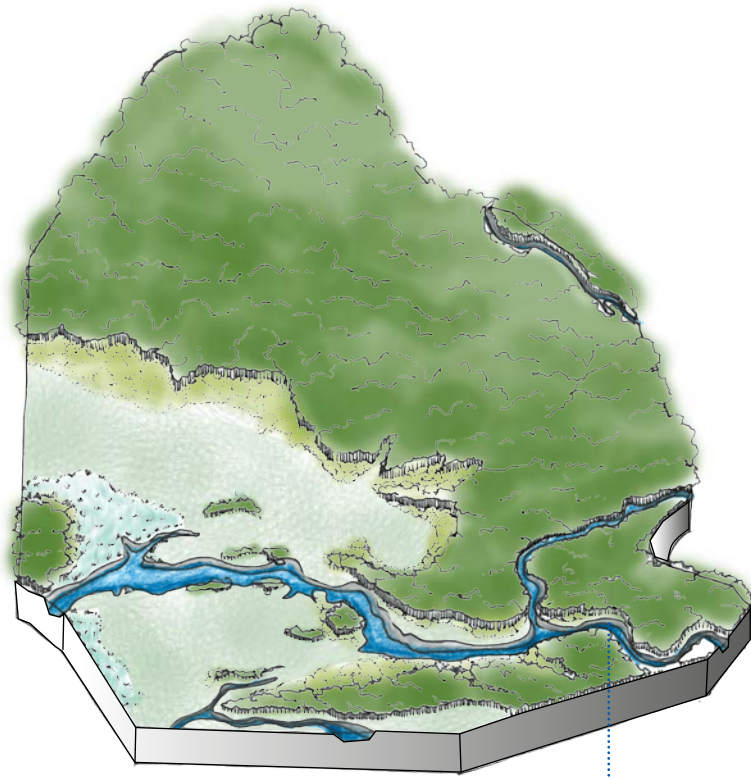
With the historical study of this land, a link can be made between subsidence-related issues and the passage of an old stream the *Overijssel Vecht*.

Indeed, years of sedimentation have weakened the polder's bottom partly causing subsidence.

Could the incorporation of the old Overijssel Vecht be an answer to climate change issues on site ?

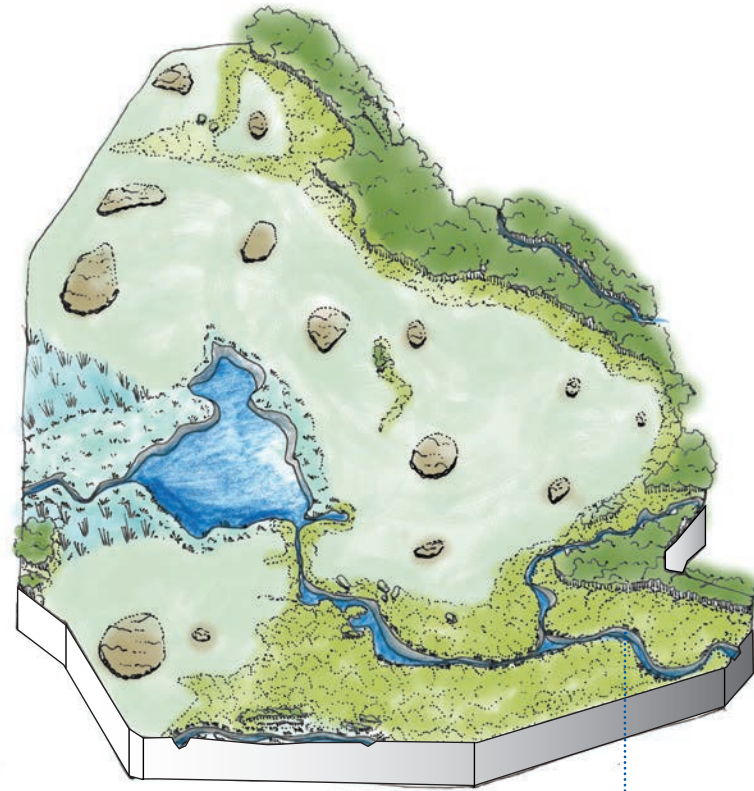
From a topographic design, how could a new natural diversity find shape on the polder ?

This diploma aims to reintroduce the old water stream in order to be a water storage to prevent floods and subsidence. Our work focuses in particular on the different layers of clay, peat and sand soil accumulated over the years where biodiversity can flourish.



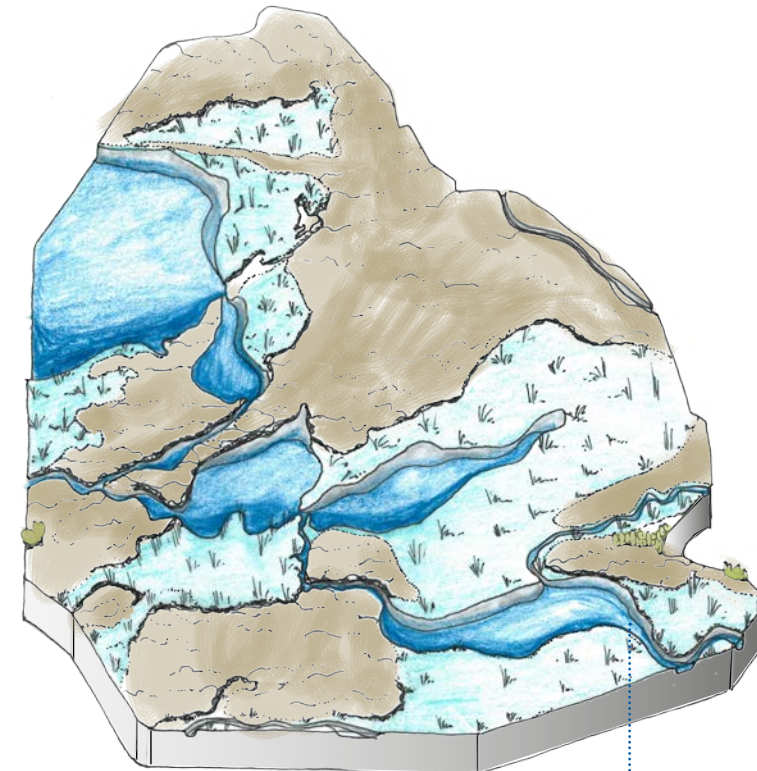
Overijssel Vecht

Noorddoostpolder former land 5000 before J.C



Overijssel Vecht

Noorddoostpolder former land 3000 before J.C



Overijssel Vecht

Noorddoostpolder former land 800 before J.C

Rediscover the peat layer by digging the clay and developing peat waterlands in the polder



REINTRODUCE THE OVERIJSSSEL VECHT AND DEVELOPPING DIVERSITY AND A NEW TYPE OF AGRICULTURE - FIND A SMOOTH SHAPE IN THE GRID

PEAT LANDSCAPE EVOLUTION IN THE POLDER

FIRST STEP
Reintroduce water on excavated agricultural plots following the path of the Overijssel stream where seeds can sprout and grow in peat soil

SECOND STEP
Existing and new draining systems encourage the spread of revitalization
Waterlands are progressively welcoming carex plants

THIRD STEP
Progressive development of riparian forest
Urban extension is incorporated in natural lands

CLAY LANDSCAPE EVOLUTION IN THE POLDER

FIRST STEP
Elevation of agricultural plots as a protection from floods. Farms resettled on those protected lands.
Pastures rotation and reintroduction of reeds around water

SECOND STEP
Progressive development of riparian forest around the river
Expend water stockage on agricultural plots not elevated
New culture of reeds and cattle in the Noordoostpolder

