

LOGBOOK SUMMERSCHOOL The Future of the Waddencoast Landschapstriennial 2023

Organisation

Annet Kempenaar (Assistant Professor Spatial Design and Water Management, University of Groningen), Els van der Laan (Landscape architect and director Landscape triennial 2023), Erik Luiten (Professor of Landscape Architecture TU Delft), Ilse Zuidinga (Projectmedewerker NVTL en DSL)

Amount of study hours

Total of 48 hours (40 hours at the location; 8 hours making the logbook)

27 augustus - 1 september 2023 in Marrum, The Netherlands



DAY 0

Travelling, positioning and arrival

As the announced reader about the Wadden coast wasn't provided, I went to the library of Amsterdam to find some information myself. It was a pity I had not more time. There was the 'Bosatlas of the Wadden' with information and nice maps/infographics on all sort of topics.

After the Northsea had been dry > ice caps melting > sea water rising, the Waddensea evolved as a 'strandwal in the branding' with openings where the sea come in. 'Wad' *sand bank which dry out on low tide*, 'Slikken' *sand bank with thin layer sediment (mud)*. In a 'Kwelder' *salt marshland / tidal mudflat* small particles sediment stay behind in primary colonizer plants. In the end the tidal marshland doesn't flood anymore because of the sedimentation. Marshland has been reclaimed.

In Zeeland a tidal mudflat is named 'schor' (Verdronken land van Saeftinghe). By dredging the Schelde fluctuation changed. Building dikes and reclaiming land changes the dynamics as well. For example the Afsluitdijk!

By reading about the Wadden I got eager about the Wadden coast as I realized I haven't done many landscape studies at this scale at the Academy. In Project 3a: urban plan for MH4 > I should have focused on an urban landscape, I guess I did in the end, but still more urban than landscape. Project 3b: Willemsplein: eye opener: 'consider a bridge as part of the (urban) landscape'. Project 4: studied the geology and geomorphology of a coal basin in rock formations. O4 (Voorne Putten): I hope to get a second chance to make use of the layer approach which was presented in the O4: substratum, networks, occupation.

In the train I read in '*Plantgemeenschappen in Nederland, deel 3, Kust en binnenlandse pioniersmilieu's*' about the primary colonizer plants in the tidal marshland. The plants were not new to me, but to see their occurrence in succession (Zeekraal klasse; Zeeaster- en Zeevetmuur klasse) and how they are influenced by human activity and maintenance (extensive farming), is something I like to learn more about.



My introduction picture: Holiday picture of the silver birch forest of Bole Hill, Derbyshire, England: a disused quarry, closed 100 years ago. Nature in rehab on red grit stone, some of the structures of the quarry are visible. I enjoyed this magical atmosphere here. Not designed at all; maybe the Wadden is an area which is a not-designed area of the Netherlands.

After putting up tents, a meal, all participants introduced themselves with a landscape. The students were mainly from the field of landscape, architecture and urbanism/planning from TU Delft, WUR, University of Groningen, Van Hal Larenstein and Academy of Architecture Amsterdam. We were located at a nice site directly at the sea dike at Marrum. From the silo-tower at the site we see 'dobbles': circular dikes for fresh water capture for the grazing stock.

Introduction on the programm
27/08/23

Program of the week

Monday Exploring the Wadden Coast (bus excursion)

Tuesday Diagnosing, researching and framing of the issues

Wednesday Ideating, development of ideas for the future

Thursday Proposing, design of the future vision

Friday Presenting, (re)presenting the vision



Location of the Summerschool: hetlagenoord.nl
Kunstwerk, ateliers, schrijvershuisjes, uitkijktoren in Marrum



DAY 1

Excursion along the Waddencoast (Friesland & Groningen)

The first stop was at the Lauwersmeer National Park information centre. Closure of the Lauwersmeer in the 60s was the last project of the Delta works (defending the Dutch coast against the sea after the flood of 1953).

Waddensea is part of Unesco World heritage but not a National parc. Dutch policy on National parcs differ from the German and Danish policy. Dutch policy is reluctant to grace people and recreation. Since the closure of the



Lauwerssea, the area changed from tidal to fresh water river system. Salt water sinks, chalk from the shelves is still present, but declines. The State Forestry Service (SSB) tries to maintain 5 different types of landscapes/stages of succession in the parc. SSB tries to slow down succession by (1) higher the fresh water level and (2) let salt water in, which is quite controversial. The surplus of fresh water from inland is released at the locks. Sea-level rise makes it difficult to control the fresh water level. The inland declines, so they have to pump.



After the introduction we made a walk through the parc. What we saw was a con- troverse between man-made (f.e. planta- tion of productionforest) and natural pro- cesses. Maintenance by the Konic horses isn't enough to slow down succesion. We could see the next stage in succesion.

From the presentation of SSB: The Waddensea isn't a national parc as in Germany and Denmark. Dutch National parks are quite small scale.

On our way to the next stop we could see the differences in landuse (i.c.w. landscape-architectural elements) between Friesland and Groningen. We passed by the Eemshaven (1973) which is transformed as compensation of gasexploitation into an energyhub: large area's of windturbines on land in combination with industry.

At the Dubbele Dijk Peter van Dijken explained the aims, challenges and proces of the project. Dredging the Eems to keep the shipways open to the harbour of Emden (DE) causes disturbance of the sea life/bottom. Dredging makes the water cloudy. They do an experiment with bringing the sludge to the land and build a second dike inland. Because of sea level rise (i.c.w. land inclination/subsidence, salination and oxidation) highering dikes come at an end + dikes disturb the transition between the water and land. Different methods are explored: gulf breakers, double dike system and widen zones outerdike. In the double dike they aim for pairing chances: sludge capture (nature), a new bussiness model (economy) and water safety. With a tidal culvert (duiker) they let two times a day the salt water (and fertile sediment) in and experiment with salinated crops. One farmer who owns a lot of land wanted to participate in the project.

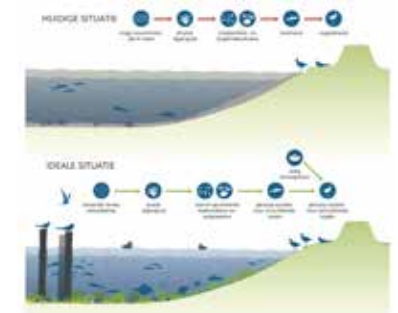
The next stop was the Afsluitdijk information centre. The presentation focused on defending the land from the sea. It was leaving out the question: What can we learn from the closure of the Zuiderzee and Lauwersmeer in a ecolgical and social-economical perspective?

Guest presentations
28/08/23

- Short introduction Dutch National Parks and visit NP Lauwersmeer by Jörgen de Bruin, Elly Boomker de Regt, Jaap Kloosterhuis, Jori Wolf



- Programma Eemsdollard 2050 by Peter van Dijken, waterboard Noorderzijlvest <https://eemsdollard2050.nl/project/dubbele-dijk/>



Excursion photo's day 1



Lauwersmeer



Konic horses at a far distance



succession visible > kruipwilg *Salix repens*



Eemshaven



Google



Wind and coal



Engie, green electricity and CO₂ compensated gas



From the seadike view on the double dike



Experiment (forgot the aim and outcome)



Fishmigration passway at Hallum

DAY 2

Diagnosing, researching and framing of the issues

The students were divided in 8 groups; each group got a part of the Wadden-coastline, from Den Helder to Dollard. I was in a group with Charlotte (Van Hall Larenstein Velp, Landscape Design), Zeyun (Harbin Institute of Technology China, Urban and Rural Planning) and we focused on the Eemsdelta.

To position this area in the Wadden coastline: we saw reclaimed land with sleeperdikes. The reclaimed land lies quite high. The waterways are a network between villages, North South orientated. The Eemsharbour, important energy plants for the region, placed outerdike at the mouth of the EemsDollard delta. The EemsDollard delta is, since the closure of Zuiderzee and Lauwerzee, the last estuary of the Dutch Wadden coast. The westside of the estuary belongs to the Netherlands, the eastside to Germany. Germany wants to keep open the ship ways for the harbour of Emden.

Tialda Haartsen of the RUG reacted to our assignment – *How can we adapt the Waddensea coastal area so it becomes a future proof, resilient and biodiverse rich landscape building on the values that make the wealth of the Wadden sea region?* – by asking *For whom? And how to relate to the identity of the area?* She gave us some insight in the population and socio-economics. She showed that planning has always been done with the back towards the sea; the identity of the region isn't that much related to the sea! Also because of the 'Hollands war with the sea'.

Jan-Willem Nieuwenhuizen explained us about the history of watersecurity and building dikes. The reclamation of land from the Waddensea happened by building dams (rijdsdammen) speeding up the sedimentation, the farmers who build the dikes had the first right to become the owner of the reclaimed land. We understood that the Eemshaven is owned by a company (Groninger havenbedrijf), this company is responsible for protecting the industry for sea-level rise. Probably that's why Google lies innerdike, the Province is taking care of its safety.

To wrap up this day of diagnosing we checked the borders of N2000, followed the dike from the north towards the east and southwards (quite hard edges . . .). We dreamt a little about what if or how can we connect with the Germans or how can we use existing systems . . .



Guest Lectures
29/08/23



- Towards a future proof Wadden Sea Region, Tialda Haartsen, t.haartsen@rug.nl
- The Coastal Zone: looking back into the future, Waterschap Noorderzijlvest, Jan-Willem Nieuwenhuis



View on the *dobbes* in the outerdike land: circular dikes for fresh water capture for the grazing stock.

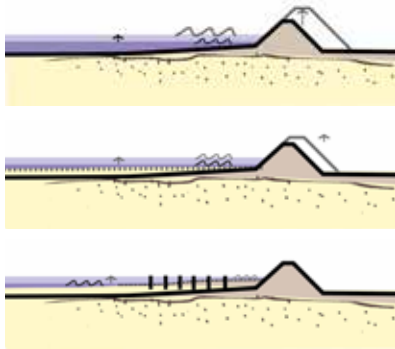


DAY 3

Ideating, development of ideas for the future

In ideating we were heading for a 'transitional zone' from land to sea. Couldn't we put this Eemsharbour and Emdenharbour out on the sea, to stop disturbing the estuary? To keep up exploring we started to draw different scenario's for the transitional zone. What if . . . we focus on protecting the land from the sea? Or if . . . we adapt to the dynamics of the Wadden? Or if . . . we let the water in and give the land back to the sea?

From the lectures of Albert Oost and Chris Bakker we learned that the salty marches and natural sedimentation can protect us from the sea. This proces of sedimentation was disturbed when man started to build dikes around the year 1000. The size of the Waddensea has shrinked dramatically by land reclamation and the Afsluitdijk. The Waddensea is an important stop in the transatlantic bird migration.



From the presentation of Harro de Jonge

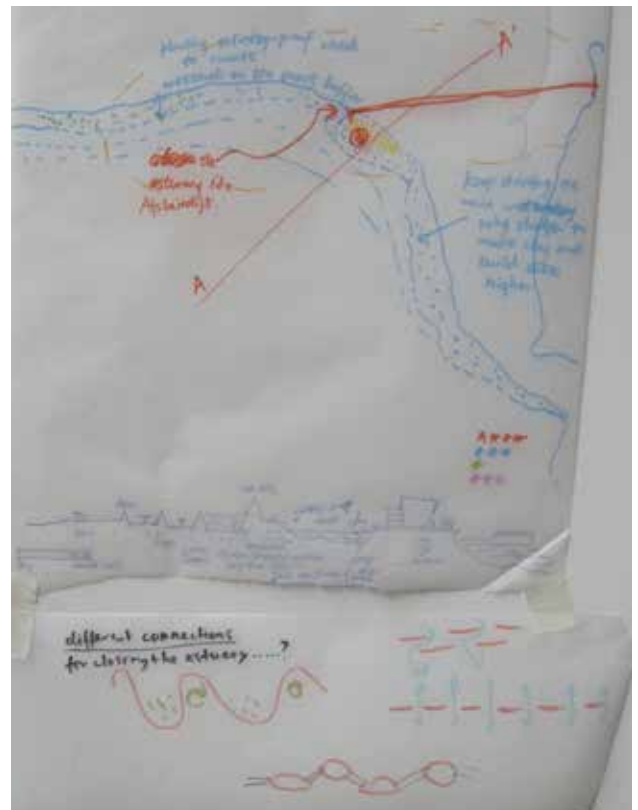
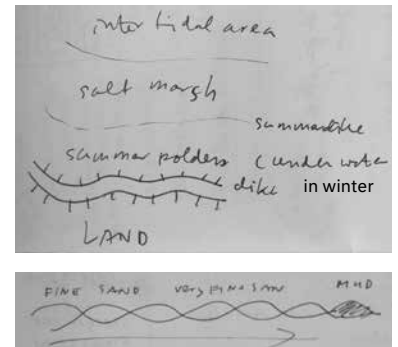
Bodil Blichfeldt showed a co-design project in the Danish Wadden on how people relate to the Wadden as world class nature. She made a plea for 'interpretative science' answering questions like *What is nature?*.

Harro de Jonge showed us the project *Holwerd at Sea*: he proposed to restore the relationship with the sea and let the water come in. He used designprinciples based on former systems of canal en locks: A lock can be used as a flushing system: open lock, lake behind the lock fills up, at low tide open the lock to keep the connection open.

In the evening we had an amazing excursion with Jonas Papenborg on the salty marshlands. He asked us to keep notice on the vegetation while walking towards the sea. (See next page)

Guest Lectures
30/08/23

- Transcending the nature/culture dichotomy: Cultivated and cultured world class nature
Bodil Blichfeldt & Janne Liburd, University of Southern Denmark
- Frysland at Sea (2009-2023)
Buro Harro (landschape architecteure and urbanism)
- Waddensea vision, with special reference to the mainland and coastal zone, Albert Oost & Chris Bakker (It Fryske Gea)
- Approach: purely ecological 2050>2100
- Excursion with Jonas Papenborg (landschape architect) into the salt marches



Give back? We valued the scenario's with stars on socio economics (red), ecology (green), climate adaptation (blue) and recreation (purple)

Protect (and connect)?

Excursion with Jonas Papenborg / the Salt marches (kwelder) at low tide

Walking from the seadike towards the sea; from fresh till salt water



Summerpolder



testing salination



1 minute of silence with eyes closed to listen to the birds fouraging



LAND



Zeester, pops up close to a salt ditch



Some ditches are connected to the sea, perpendicular ones not (close to the sea but less salt)



Zilverschoon stands brakkish conditions



Dobbe



Rode of late (?) ogentroost*



Zeegerst



Zeekraal



Schorrenkruid



Lamsoor (not blossoming)



Zealum



Engels slijkgras?



zoutmelde



SEA

* Rode of late (?) ogentroost*
> Kwelderzegge-associatie

Naast het voorkomen hoog op de kwelder in het Deltagebied en bij de Waddeneilanden, is ze vooral langs de grote rivieren op wat aangedrukte bodems, in Zuid-Limburg en Twente te vinden.

DAY 4

Proposing, design of the future vision

The day started with a quick round along the different groups. Presenting always helps to narrow scale the story. We decided to focus on relationships: the relation between the sea and the land and across the territorial borders in the EemsDollard estuary towards Germany.

After I put the narrative on the poster I travelled back over the Afsluitdijk with a giant blue moon and red lights of the windturbine park on the IJsselmeer flickering in the dark.

characteristics

NATURAL



The waterways are a network between villages, North-South orientated as the tidal system of the Waddensea

CULTURAL



The Eemsharbour (NL) lies on the pivoting point of the Eemsdollard estuary. Original a port, it has become an important energy hub for the region. The Eemsharbour (DE) lies further inland. To keep the shipping lane accessible it needs to be dredged which causes serious disturbance of sea life.



The Eems Dollard is the last estuary on the Dutch Waddencoast since closure of the Lauwersea. The dike along the estuary forms a hard border between land and water. In the middle of the shipping lane lies the border with Germany.



Man building dikes since ± the year 1000: as protection to the sea and reclamation of fertile land, it influenced the dynamics and scaled down the Waddensea. It also enlarged the distance and relation with the sea.

No lectures, but working
31/08/23



This is Zeyun from China. In the end it turned out he loved drawing and so he surprised us with a wonderful cross section! He drew rocks on the bottom of the Eemsdollard estuary. I told him twice: we don't have rocks here Zeyun! It's all mud and clay!!

borders



In 2017 the Waddensea N2000 area is extended with the Eems Dollard estuary. The same area will also be notified by Germany shortly. The area is in fact located in the part of the estuary that both countries claim.



Territorial borders differ; whether states include the waddensea within their borders or take responsibility for it: ecological systems are not defined by lines on paper or agreements.

Source top scheme: Annet Kempenaar

DAY 5

Presenting, (re)presenting the vision, reflecting

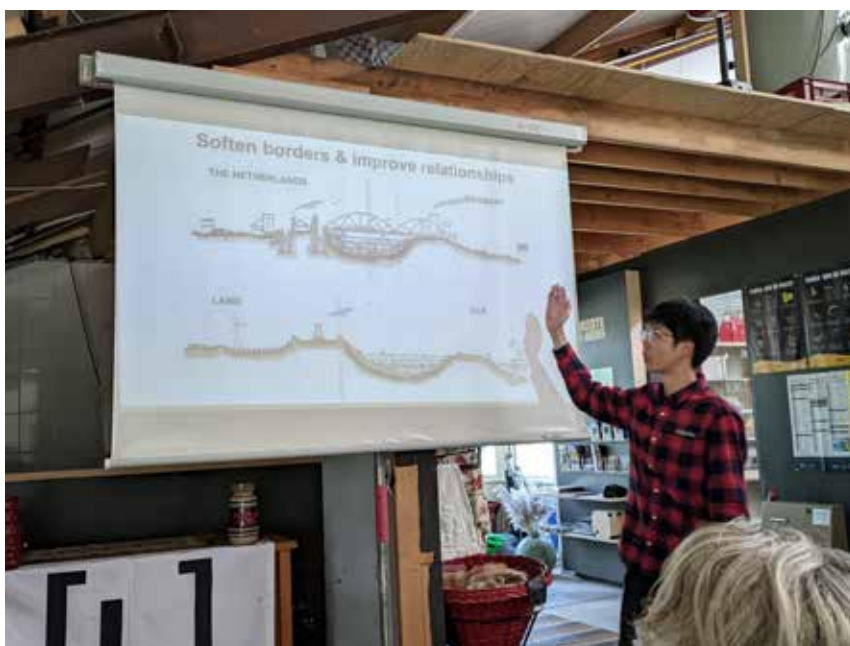
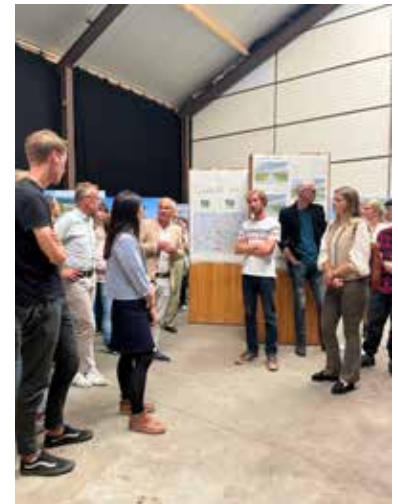
I wasn't present at the final day, because of the first friday lesson of the Project 5 in Amsterdam. It was a pity, as I enjoyed this week very much with students from different institutions and backgrounds. The summerschool was very well organised (content wise and practically), the group dynamic was great!

From my fellow group mates I received pictures and the poster of the presentation day (see next pages). I hope to visit later this month the Landschapstriennial again! Also to see the exhibition of the Summerschool and the presentations of the other groups.

In this Summerschool I learned – in a pressure cooker – about the dynamics of the Waddensea and how we as humans influence – by defending us against the sea – these dynamics! Different perspectives were reached-in: recreational, economical, cultural, political and ecological.

Summerschool in the press!

- <https://www.omropfryslan.nl/nl-nieuws/1221480/studenten-kritisch-over-verhogen-waddenzeedijk-ik-vraag-me-af-of-dat-nog-helpt>
- <https://frieschdagblad.nl/regio/Landschapstri%C3%ABnnaale-in-het-Wadengebiet-moet-de-kustlijn-van-het-vasteland-bekendheid-geven-28593114.html>

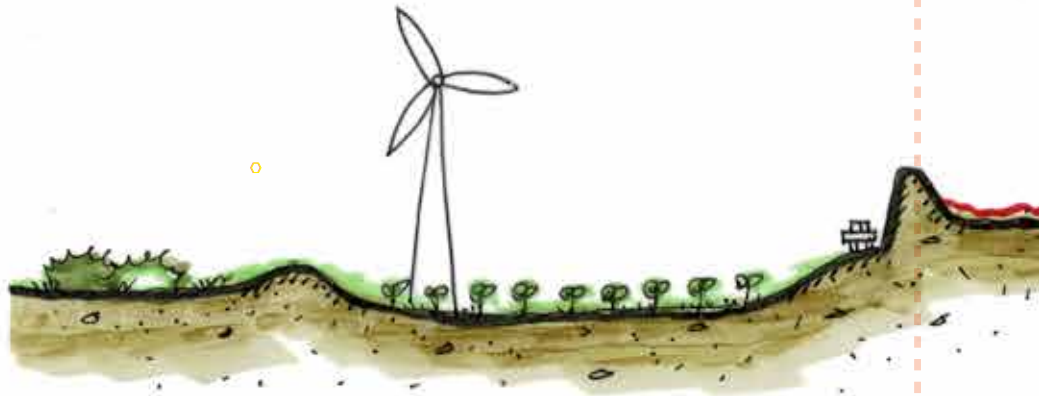


Teammates Zeyung and Charlotte in front of the presentation and Zeyung presenting

THE NETHERLANDS



LAND



scale 1:50000 (horizontal)
scale 1:2000 (vertical)

characteristics

NATURAL



The waterways are a network between villages, North-South orientated as the tidal system of the Waddensea

CULTURAL



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borders

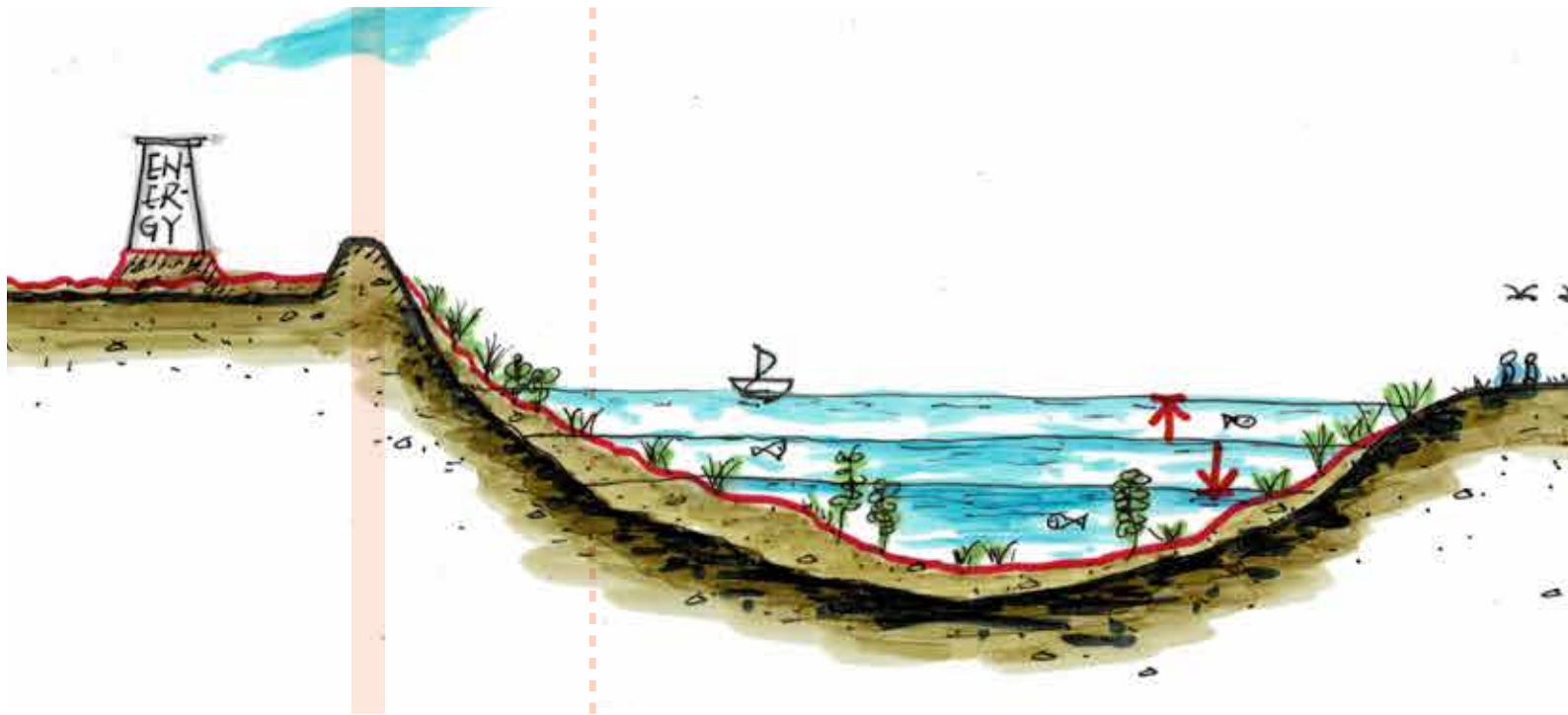
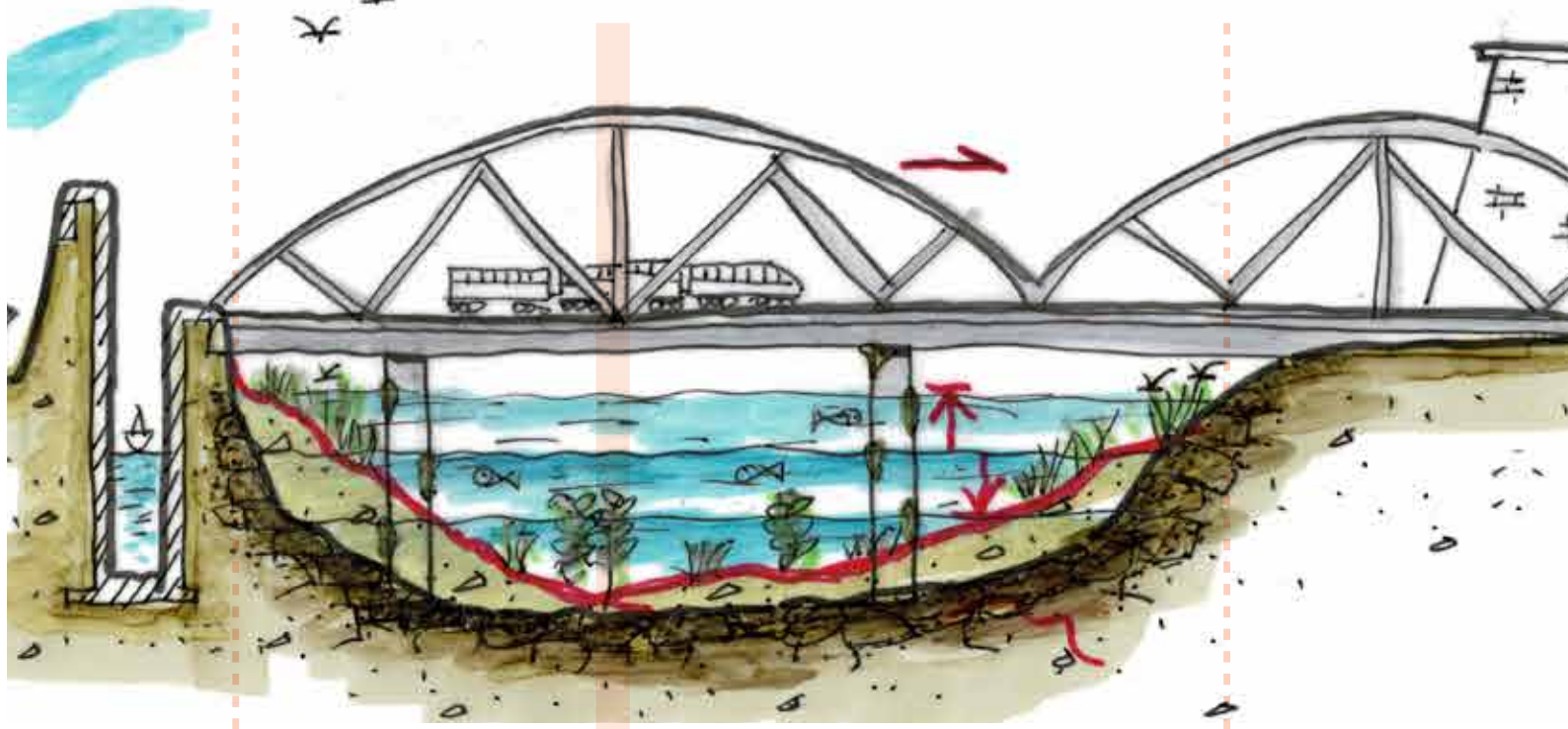


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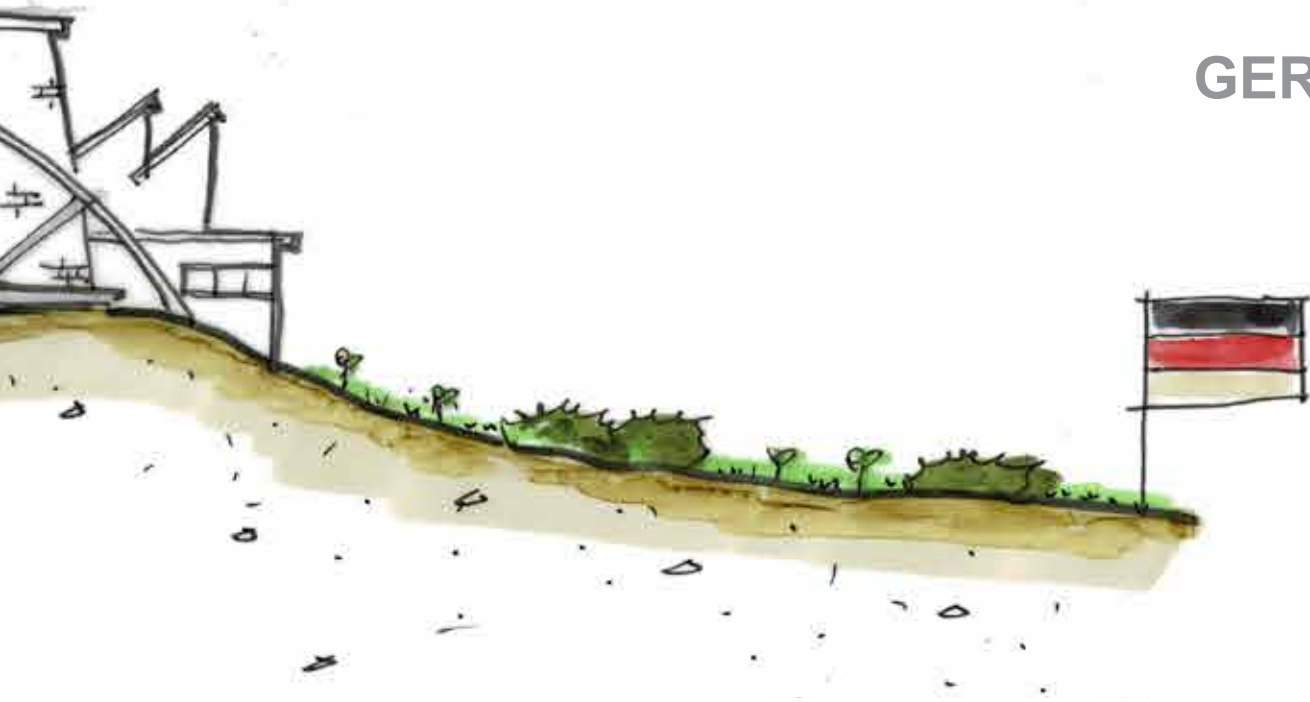
Territorial borders differ; whether states include the waddensea within their borders or take responsibility for it; ecological systems are not defined by lines on paper or agreements.
Source top scheme: Arnel Kempenaar

Soften borders & improve relationships



scale 1:50000 (horizontal)
scale 1:2000 (vertical)

GERMANY



SEA



scale 1:50000 (horizontal)
scale 1:2000 (vertical)

SUMMERSCHOOL Landscape Triennial 2023 –
The Future of the Wadden Coast – Charlotte van der Mark (Van Hall
Larenstein Velp, Landscape Design), Deng Zeyun (Harbin Institute of
Technology China, Urban and Rural Planning), Bregt Balk (Academy of
Architecture Amsterdam, Landscape Architecture)