



# Kanten

*How to not just live by the Fjord, but with the Fjord*

*Soo Ryu— PhD fellow at AAA*

# Agenda

USS

*Urban Seascaping:  
How to landscape with the  
sea- in the zone where  
land meets the water*

## 1. Brief Intro

On my background and my research focus - to analyse 3 projects.  
Contextual analysis of Vejle.

## 2. Three interesting projects

Certain criterias considered interesting from an urban seascaping p.o.v.

## 3. Two state-of-the-art projects

2 State of the art projects from Denmark and US that are dealing with the issue of rising seas/storm surge and its connection to the marine environment.

# Wicked Problem



## Sea level rise, storm surge & flooding

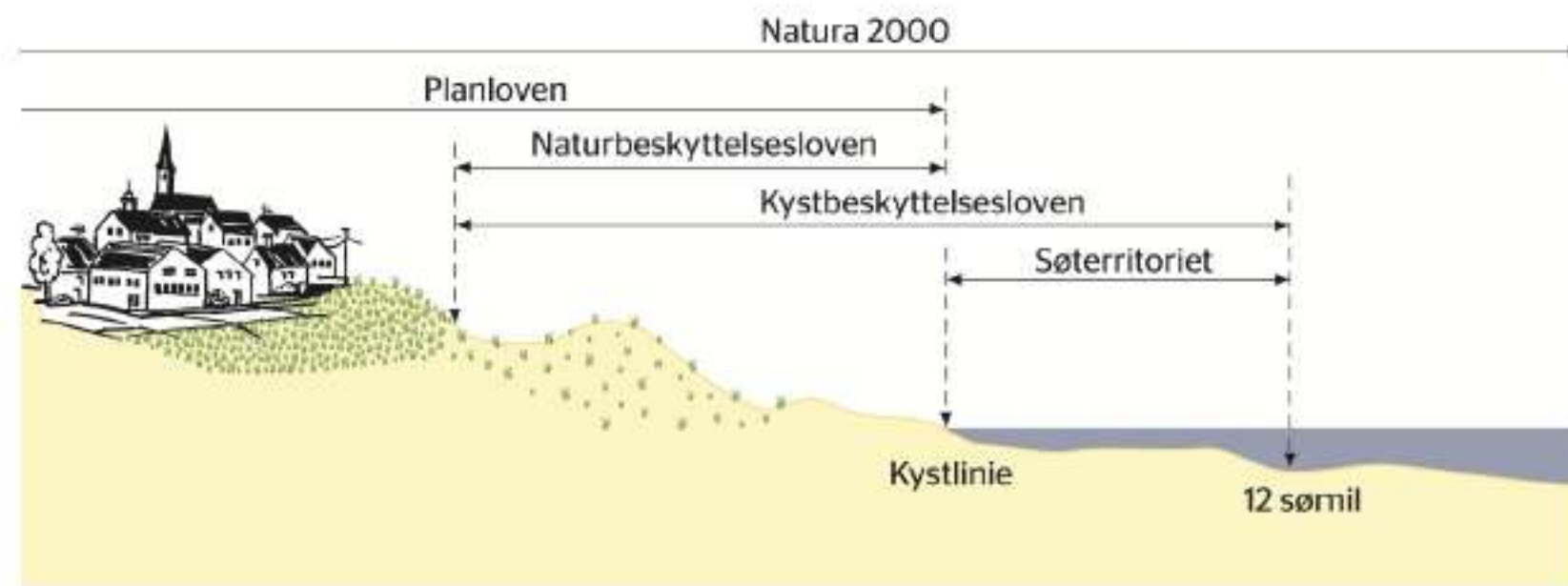
For DK, the predicted range of sea-level rise is between 0.1m to 0.9m within this century. Frequent storms (and flooding) can cause the water level to rise further by 1.5-3m.

## Ocean Sprawl – Urban Pollution

Since the industrial revolution coastal cities have expanded out into the sea, making itself more vulnerable to sea level rise and storms, while causing water pollution and dead marine zone which used to hold ideal conditions for marine lifeforms. Currently BAU development is dominant at the coast, which not only makes these areas vulnerable to sea level rise but expensive and complex to protect.

## Forest of the sea – Impact below the sea

Climate change is wiping out seaweed forests which absorbs more CO<sub>2</sub> than land forests combined. They are used for sustainable food, medicine, raw materials, and are a crucial habitat for the most diverse ecosystem in the world. If we want a chance at tackling climate change the one of the key factor lies in our oceans.



FIGUR 7 OVERSIGT OVER DEN LOVGIVNING I KYSTZONEN, DER HAR STØRST BETYDNING FOR REGULERING AF KYSTBESKYTTELSE.

# Paradigm shift

USS

*Urban Seascaping:  
How to landscape with  
the sea in the zone where  
land meets the water*

## 1. Invite the water in – Design with water

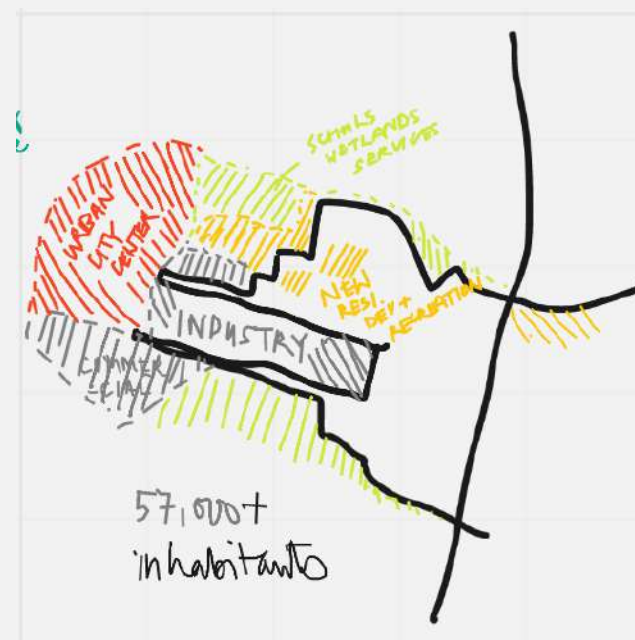
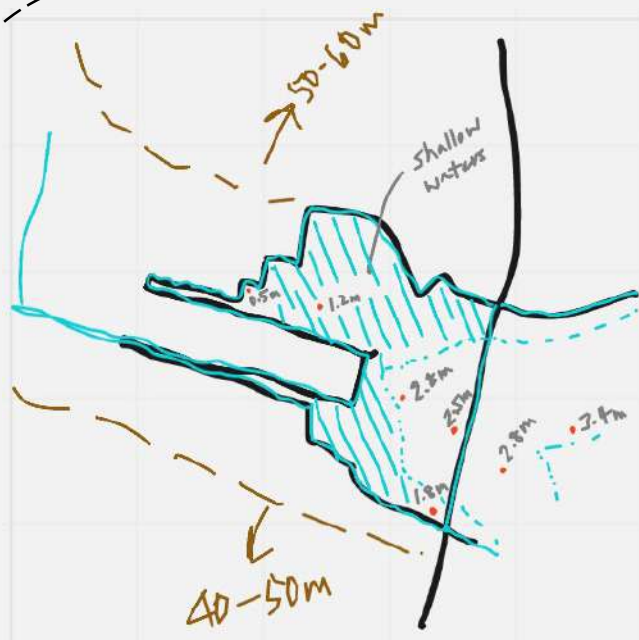
Rather than resist the forces of the sea, design with the water. By bringing in the water closer to land, people have a better opportunity to harbor closer relations.

## 2. Multi-species coexistence

Design cities not only for human benefit. Marine lifeforms such as seaweed as the representational symbols of multispecies coexistence.

## 3. Blue Urbanism: Rethink the boundary zone between land and water

How do we move away from only control and conquer mentality and harbor a healthier and mutually beneficial relationship with the sea? How do we give back?

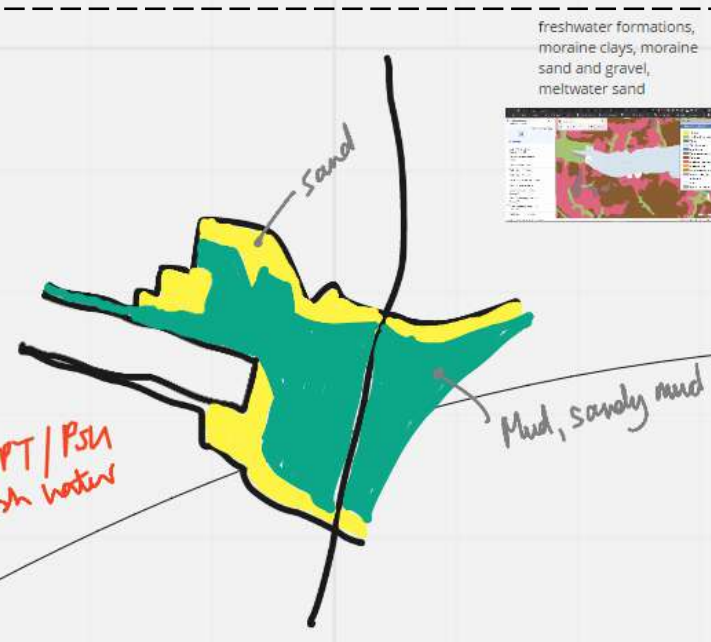


- Need to take into consideration Vejle's 'bathtub' topography (& shallow depth)

- Stormsurge/cloudburst more critical than sea level rise of approx. 1m

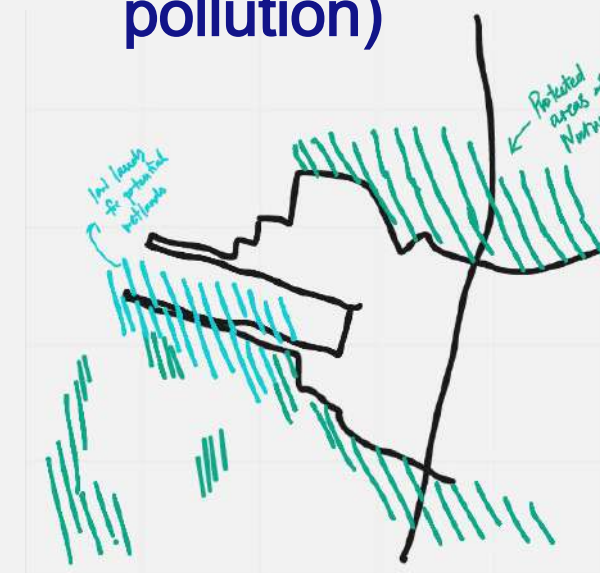
- Heavy impermeable surfaces in the critical area due to industry. Vulnerable and expensive residential area in the risk area.

- Loss of biodiversity that could be rejuvenated in the future (no data on water pollution)



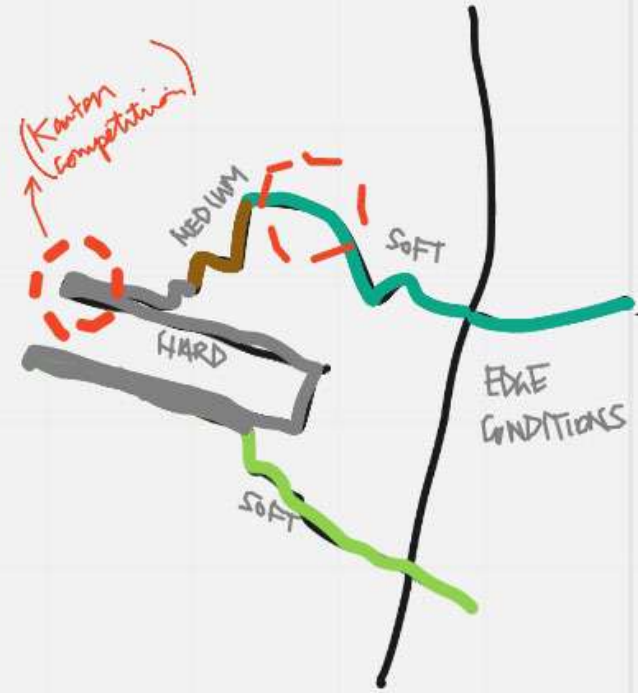
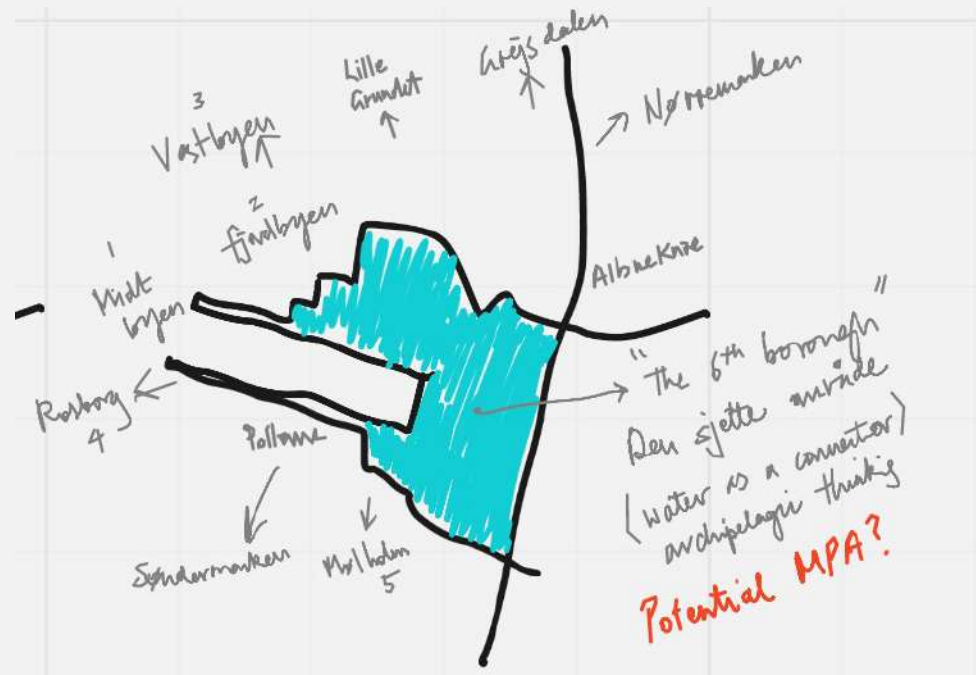
- Relatively still, shallow, brackish water

- Sand and mud that can easily turn brown and thus makes it difficult to see underwater (also difficult for seaweeds to latch onto—creating habitat for other life)



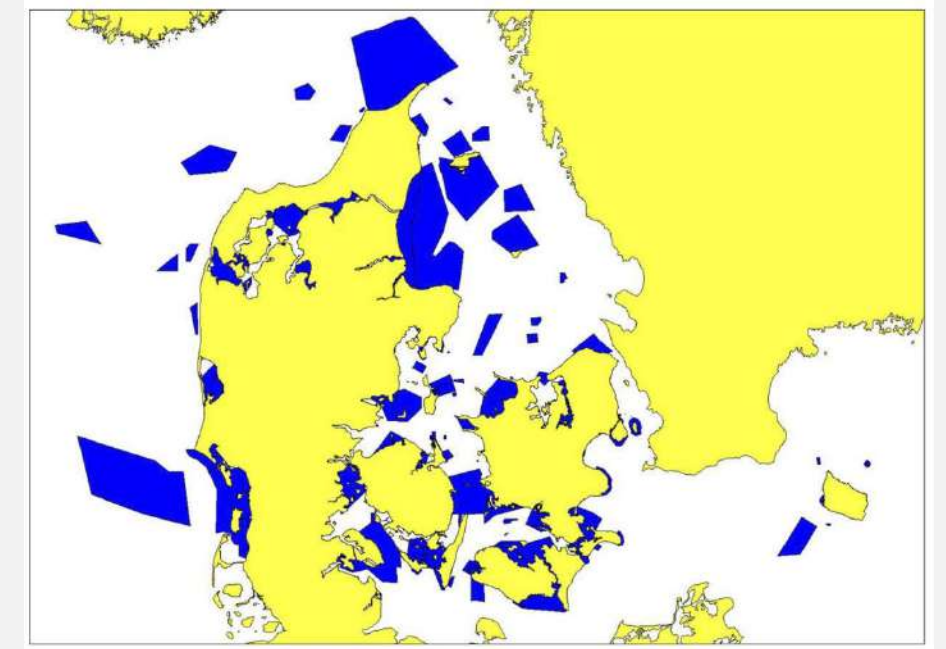
- Protected on-land forests/greenery (i.e. Natur2000 area), potential areas for wetlands

## Vejle - Fjordbyen

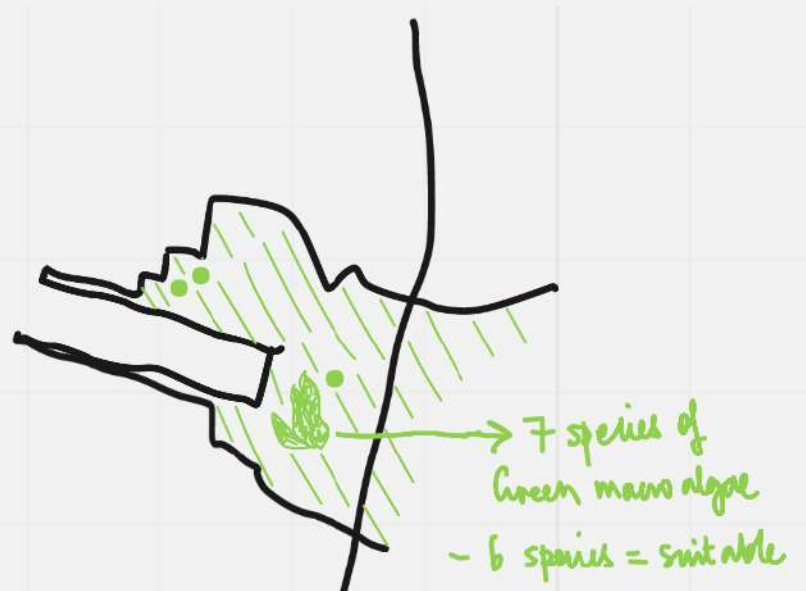
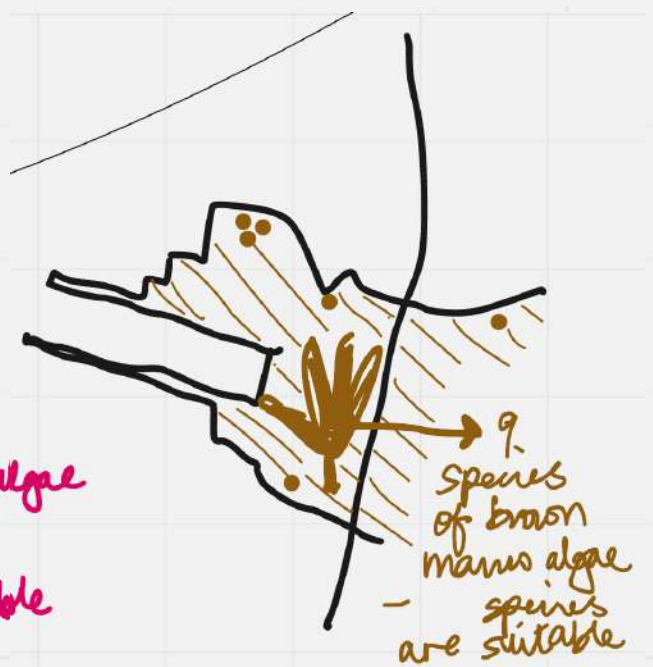


- Fjordbyen can play a critical role as a new “marine protected area” (MPA)

- Looking into the three main types of ‘borders’ in Vejle Fjordbyen



- The 97 Natura2000 areas at sea correspond to approx. 18% of Danish waters, which are protected under the Natura2000 directives.



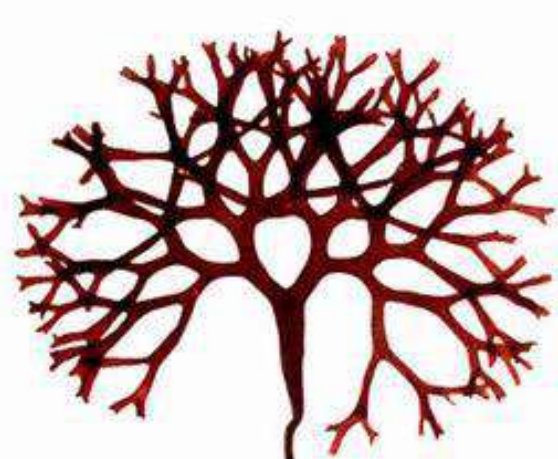
- The possibilities of seascaping in Vejle – Ones that are visible, aesthetically pleasing and of commercial/cultural interest (i.e. food)



# Vejle



Carrageentang



*RED*



Rød purpurhinde



Almindelig søsalat



*GREEN*



Bred rørhinde



Blæretang



*BROWN*



Fingertang



*Seaweeds in  
Vejle*



# In summary...

- 1. MAKE IT VISIBLE & ACCESSIBLE** If we want people to be aware of the issue of water in Vejle, how do we make it engaging, safe and visible?
- 2. POINT OF NO RETURN** We can't afford to just be limiting damage to the health of the fjord as there is a point where it would be incredibly difficult to bring it back. Therefore, proactive approach to rejuvenate the marine life is needed.
- 3. NOT ANOTHER BAU** We have to avoid repeating our previous development models and look for innovative alternatives.